CHAPTER

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610	Sep 05/2017	

Subject/Page	Date	COC
52-34-02		
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402	May 05/2018	
403	Sep 05/2017	
404	Sep 05/2017	
405	Sep 05/2017	
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52-34-03		
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52-34-03		
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403	Sep 05/2017	
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52-34-04		
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502	Jan 05/2018	
503	Jan 05/2018	
504	Sep 05/2017	

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52-34-04 (cont)		
505	Sep 05/2017	
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52-34-05		
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402	Jan 05/2015	
R 403	Sep 05/2018	
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R 405	Sep 05/2018	
406	Sep 05/2017	
407	Sep 05/2017	
408	Sep 05/2017	
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403	Jan 05/2015	
404	Sep 05/2015	
405	Sep 05/2017	
406	Sep 05/2017	
52-34-06		
501	May 05/2015	
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52-34-08		
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407	Sep 05/2017	
408	Sep 05/2017	

Subject/Page	Date	COC
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502	Sep 05/2017	
503	Sep 05/2017	
504	Jan 05/2015	
52-34-10		
401	May 05/2015	
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403	Sep 05/2016	
404	Sep 05/2016	
405	Sep 05/2017	
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407	Sep 05/2017	
408	Sep 05/2017	
52-34-11		
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402	Sep 05/2016	
403	Sep 05/2016	
404	Sep 05/2017	
405	Sep 05/2017	
406	Sep 05/2017	
52-34-14		
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202	Jan 05/2018	
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52-34-15		
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203	Sep 05/2017	
204	Sep 05/2017	

Subject/Page	Date	COC
52-34-15 (cont)		
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R 206	Sep 05/2018	
R 207	Sep 05/2018	
O 208	Sep 05/2018	
O 209	Sep 05/2018	
R 210	Sep 05/2018	
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204	May 05/2018	
205	May 05/2018	
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207	May 05/2018	
208	May 05/2018	
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219	Sep 05/2017	
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52-34-22		
401	Jan 05/2015	
402	May 05/2018	
403	May 05/2015	
404	Sep 05/2017	

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202	Sep 05/2016	
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52-35-00		
R 201	Sep 05/2018	
O 202	Sep 05/2018	
O 203	Sep 05/2018	
O 204	Sep 05/2018	
205	Jan 05/2016	
R 206	Sep 05/2018	
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504	May 05/2018	
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52-35-00 (cont)		
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534	Sep 05/2015	
535	Jan 05/2016	
536	Sep 05/2015	
537	Sep 05/2015	
538	May 05/2018	
539	Sep 05/2015	
540	May 05/2018	
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542	May 05/2018	

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545	May 05/2018	
546	Sep 05/2015	
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R 401	Sep 05/2018	
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403	May 05/2018	
404	May 05/2018	
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406	May 05/2018	
R 407	Sep 05/2018	
O 408	Sep 05/2018	
409	Jul 25/2018	
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52-35-03		
401	Sep 05/2015	
402	Sep 05/2016	
403	Sep 05/2016	
404	Jan 05/2015	
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406	Jan 05/2015	

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210	Jan 05/2015	
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52-36-02		
501	Jan 05/2015	
502	Sep 05/2017	
52-36-03		
401	Jan 05/2018	
402	Jan 05/2018	

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52-36-06		
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52-48-01		
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410	May 05/2018	
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52-48-04		
401	Sep 05/2017	
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403	Sep 05/2017	
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405	Sep 05/2017	
406	May 05/2018	

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52-48-05		
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52-48-06		
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52-48-06		
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408	Jan 05/2018	
409	Jan 05/2018	

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403	Sep 05/2017	
404	Jul 25/2018	
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401	Sep 05/2017	
402	Sep 05/2017	

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405	Sep 05/2017	
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52-49-06		
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510	Sep 05/2017	

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52-51-03 Config 2		
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404	Sep 05/2017	
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406	Sep 05/2017	
52-51-08		
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406	Jul 25/2018	
52-51-08		
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403	Sep 05/2017	

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408	Sep 05/2017	
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404	Jan 05/2018	
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406	Jan 05/2018	

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208	Jan 05/2018	

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DOORS - DDG MAINTENANCE PROCEDURES	52-00-00		901	ARO ALL
MMEL 52-11-01-01 (DDG) Preparation - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (EASA) TASK 52-00-00-840-837			902	ARO ALL
MMEL 52-11-01-01 (DDG) Restoration - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (EASA) TASK 52-00-00-840-838			903	ARO ALL
MMEL 52-11-01-01A (DDG) Preparation - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (Passengers Carried) (FAA) TASK 52-00-00-840-853			905	ARO ALL
MMEL 52-11-01-01A (DDG) Restoration - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (Passengers Carried) (FAA) TASK 52-00-00-840-854			906	ARO ALL
MMEL 52-11-01-01B (DDG) Preparation - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (No Passengers Carried) (FAA) TASK 52-00-00-840-855			907	ARO ALL
MMEL 52-11-01-01B (DDG) Restoration - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (No Passengers Carried) (FAA) TASK 52-00-00-840-856			908	ARO ALL
MMEL 52-11-2 (DDG) Preparation - Passenger Entry Doors with Pressure Stop Assemblies Missing or Inoperative TASK 52-00-00-840-801			909	ARO ALL
MMEL 52-11-2 (DDG) Restoration - Passenger Entry Doors with Pressure Stop Assemblies Missing or Inoperative TASK 52-00-00-840-802			910	ARO ALL
MMEL 52-11-5 (DDG) Preparation - Passenger Entry Door Flight Lock System Inoperative TASK 52-00-00-840-803			910	ARO ALL

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MMEL 52-11-5 (DDG) Restoration - Passenger Entry Door Flight Lock System Inoperative TASK 52-00-00-840-804			911	ARO ALL
MMEL 52-34-1 (DDG) Preparation - Forward Cargo Door Hook/Latch System Inoperative (Electric Mode) TASK 52-00-00-840-805			911	ARO ALL
MMEL 52-34-1 (DDG) Restoration - Forward Cargo Door Hook/Latch System Inoperative (Electric Mode) TASK 52-00-00-840-806			911	ARO ALL
MMEL 52-34-2 (DDG) Preparation - Forward Cargo Door Lift System Inoperative (Electric Mode) TASK 52-00-00-840-807			912	ARO ALL
MMEL 52-34-2 (DDG) Restoration - Forward Cargo Door Lift System Inoperative (Electric Mode) TASK 52-00-00-840-808			912	ARO ALL
MMEL 52-34-3 (DDG) Preparation - Forward Cargo Door DOOR LATCHED light Inoperative TASK 52-00-00-840-809			913	ARO ALL
MMEL 52-34-3 (DDG) Restoration - Forward Cargo Door DOOR LATCHED light Inoperative TASK 52-00-00-840-810			913	ARO ALL
MMEL 52-35-1 (DDG) Preparation - Small Aft Cargo Door Lift/Latch System Inoperative (Electric Mode) TASK 52-00-00-840-811			914	ARO ALL
MMEL 52-35-1 (DDG) Restoration - Small Aft Cargo Door Lift/Latch System Inoperative (Electric Mode) TASK 52-00-00-840-812			914	ARO ALL
MMEL 52-35-2 (DDG) Preparation - Small Aft Cargo Door Hinge System Inoperative (Electric Mode) TASK 52-00-00-840-813			915	ARO ALL

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MMEL 52-35-2 (DDG) Restoration - Small Aft Cargo Door Hinge System Inoperative (Electric Mode) TASK 52-00-00-840-814			915	ARO ALL
MMEL 52-35-3 (DDG) Preparation - Small Aft Cargo Door DOOR LATCHED Light Inoperative TASK 52-00-00-840-827			915	ARO ALL
MMEL 52-35-3 (DDG) Restoration - Small Aft Cargo Door DOOR LATCHED Light Inoperative TASK 52-00-00-840-828			916	ARO ALL
Aft Small Cargo Door Arming Relay/Control Switch - DDG Preparation TASK 52-00-00-840-857			916	ARO ALL
Aft Small Cargo Door Arming Relay/Control Switch - DDG Restoration TASK 52-00-00-840-858			917	ARO ALL
MMEL 52-36-1 (DDG) Preparation - Bulk Cargo Door Counterbalance Mechanism Inoperative TASK 52-00-00-840-815			918	ARO ALL
MMEL 52-36-1 (DDG) Restoration - Bulk Cargo Door Counterbalance Mechanism Inoperative TASK 52-00-00-840-816			918	ARO ALL
MMEL 52-51-1 (DDG) Preparation - Flight Deck Door Lock System Inoperative (Electric Mode) TASK 52-00-00-840-823			919	ARO ALL
MMEL 52-51-1 (DDG) Restoration - Flight Deck Door Lock System Inoperative (Electric Mode) TASK 52-00-00-840-824			919	ARO ALL
MMEL 52-51-2 (DDG) Preparation - Enhanced Flight Deck Security Door Automatic Locking System Inoperative TASK 52-00-00-840-839			920	ARO ALL
MMEL 52-51-2 (DDG) Restoration - Enhanced Flight Deck Security Door Automatic Locking System Inoperative TASK 52-00-00-840-840			920	ARO ALL

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MMEL 52-51-2-1 (DDG) Preparation - Flight Deck Access System (Keypad, Door Chime) Inoperative TASK 52-00-00-840-841			921	ARO ALL
MMEL 52-51-2-1 (DDG) Restoration - Flight Deck Access System (Keypad, Door Chime) Inoperative TASK 52-00-00-840-842			921	ARO ALL
MMEL 52-51-2-2 (DDG) Preparation - Flight Deck Door LOCK FAIL Light Inoperative TASK 52-00-00-840-852			922	ARO ALL
MMEL 52-51-2-2 (DDG) Restoration - Flight Deck Door LOCK FAIL Light Inoperative TASK 52-00-00-840-851			923	ARO ALL
MMEL 52-51-2-3 (DDG) Preparation - Flight Deck Door AUTO UNLK Light Inoperative TASK 52-00-00-840-845			923	ARO ALL
MMEL 52-51-2-3 (DDG) Restoration - Flight Deck Door AUTO UNLK Light Inoperative TASK 52-00-00-840-846			924	ARO ALL
MMEL 52-51-2-4 (DDG) Preparation - Flight Deck Door Lock Control Selector Inoperative TASK 52-00-00-840-847			924	ARO ALL
MMEL 52-51-2-4 (DDG) Restoration - Flight Deck Door Lock Control Selector Inoperative TASK 52-00-00-840-848			925	ARO ALL
MMEL 52-51-2-5 (DDG) Preparation - Pressure Rate-of-Change Sensing Module Inoperative TASK 52-00-00-840-849			926	ARO ALL
MMEL 52-51-2-5 (DDG) Restoration - Pressure Rate-of-Change Sensing Module Inoperative TASK 52-00-00-840-850			927	ARO ALL
MMEL 52-71-1 (DDG) Preparation - Door Indication System Inoperative TASK 52-00-00-840-825			928	ARO ALL
MMEL 52-71-1 (DDG) Restoration - Door Indication System Inoperative TASK 52-00-00-840-826			931	ARO ALL

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MMEL 52-71-1 (DDG) Restoration - Door Indication System Inoperative (Optional) TASK 52-00-00-440-801			939	ARO ALL
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EXTERNAL - DETAILED: FORWARD LARGE CARGO DOOR TASK 52-05-03-211-801			205	ARO ALL
INTERNAL - DETAILED: FORWARD LARGE CARGO DOOR TASK 52-05-03-211-802			207	ARO ALL
INTERNAL - DETAILED: FORWARD LARGE CARGO DOOR TASK 52-05-03-211-803			209	ARO ALL
INTERNAL - DETAILED: FORWARD LARGE CARGO DOOR TASK 52-05-03-211-804			212	ARO ALL
EXTERNAL - GENERAL VISUAL: AFT SMALL CARGO DOOR TASK 52-05-03-210-802			214	ARO ALL
EXTERNAL - GENERAL VISUAL: BULK CARGO DOOR TASK 52-05-03-210-803			217	ARO ALL
INTERNAL - GENERAL VISUAL: BULK CARGO DOOR TASK 52-05-03-210-804			220	ARO ALL
EXTERNAL - GENERAL VISUAL: LEFT #1 PASSENGER ENTRY DOOR TASK 52-05-03-210-806			224	ARO ALL
EXTERNAL - GENERAL VISUAL: LEFT #2 PASSENGER ENTRY DOOR TASK 52-05-03-210-807			226	ARO ALL

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EXTERNAL - GENERAL VISUAL: LEFT #4 PASSENGER ENTRY DOOR TASK 52-05-03-210-812			230	ARO ALL
EXTERNAL - GENERAL VISUAL: LEFT #5 PASSENGER ENTRY DOOR TASK 52-05-03-210-816			232	ARO ALL
EXTERNAL - DETAILED: LEFT #1 PASSENGER ENTRY DOOR TASK 52-05-03-211-809			234	ARO ALL
EXTERNAL - DETAILED: LEFT #2 PASSENGER ENTRY DOOR TASK 52-05-03-211-810			236	ARO ALL
EXTERNAL - DETAILED: LEFT #3 OVERWING DOOR TASK 52-05-03-211-811			238	ARO ALL
EXTERNAL - DETAILED: LEFT #4 PASSENGER ENTRY DOOR TASK 52-05-03-211-815			240	ARO ALL
EXTERNAL - DETAILED: LEFT #5 PASSENGER ENTRY DOOR TASK 52-05-03-211-819			242	ARO ALL
EXTERNAL - GENERAL VISUAL: RIGHT #1 PASSENGER ENTRY DOOR TASK 52-05-03-210-817			244	ARO ALL
EXTERNAL - GENERAL VISUAL: RIGHT #2 PASSENGER ENTRY DOOR TASK 52-05-03-210-818			246	ARO ALL
EXTERNAL - GENERAL VISUAL: RIGHT #3 OVERWING DOOR TASK 52-05-03-210-819			248	ARO ALL
EXTERNAL - GENERAL VISUAL: RIGHT #4 PASSENGER ENTRY DOOR TASK 52-05-03-210-824			250	ARO ALL

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EXTERNAL - DETAILED: RIGHT #1 PASSENGER ENTRY DOOR TASK 52-05-03-211-820			254	ARO ALL
EXTERNAL - DETAILED: RIGHT #2 PASSENGER ENTRY DOOR TASK 52-05-03-211-821			256	ARO ALL
EXTERNAL - DETAILED: RIGHT #3 OVERWING DOOR TASK 52-05-03-211-822			258	ARO ALL
EXTERNAL - DETAILED: RIGHT #4 PASSENGER ENTRY DOOR TASK 52-05-03-211-826			260	ARO ALL
EXTERNAL - DETAILED: RIGHT #5 PASSENGER ENTRY DOOR TASK 52-05-03-211-830			262	ARO ALL
EXTERNAL - GENERAL VISUAL: FLIGHT DECK SECURITY DOOR TASK 52-05-03-211-831			264	ARO ALL
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Seal Repair Procedures For Specified Types of Seal Damage TASK 52-09-00-390-801			802	ARO ALL
Seal Repair Procedure (Method A) TASK 52-09-00-350-801			811	ARO ALL
Seal Repair Procedure (Method B) TASK 52-09-00-350-802			811	ARO ALL
Seal Repair Procedure (Method C) TASK 52-09-00-350-803			811	ARO ALL
PASSENGER ENTRY DOOR SEALS - MAINTENANCE PRACTICES	52-09-01		201	ARO ALL
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Passenger Entry Door Bottom Seal Removal TASK 52-09-01-000-802			211	ARO ALL
Passenger Entry Door Bottom Seal Installation TASK 52-09-01-400-802			213	ARO ALL
Passenger Entry Door Seals Check TASK 52-09-01-200-801			214	ARO ALL
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SMALL CARGO DOOR SEALS - MAINTENANCE PRACTICES	52-09-03		201	ARO ALL
Small Cargo Door Bottom Seal Removal TASK 52-09-03-000-801			201	ARO ALL
Small Cargo Door Bottom Seal Installation TASK 52-09-03-400-801			204	ARO ALL
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Bulk Cargo Door Seal Removal TASK 52-09-04-000-801			201	ARO ALL
Bulk Cargo Door Seal Installation TASK 52-09-04-400-801			203	ARO ALL
Bulk Cargo Door Seal Check TASK 52-09-04-200-801			204	ARO ALL
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Forward Access Door Seal Installation TASK 52-09-05-400-801			204	ARO ALL
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Main Equipment Center Access Door Seal Installation TASK 52-09-06-400-801			201	ARO ALL
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Passenger Entry Door System Test TASK 52-12-00-730-801			552	ARO ALL
Passenger Entry Door Mechanisms Functional Test TASK 52-12-00-720-801			562	ARO ALL
PASSENGER ENTRY DOOR - INSPECTION/CHECK	52-12-00		601	ARO ALL
Passenger Entry Door Fast Check TASK 52-12-00-200-801			601	ARO ALL
Passenger Entry Door Inspection TASK 52-12-00-220-801			618	ARO ALL
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Exterior Handle Mechanism Removal TASK 52-12-02-000-801			401	ARO ALL
Exterior Handle Mechanism Installation TASK 52-12-02-400-801			407	ARO ALL
LATCH MECHANISM - REMOVAL/INSTALLATION	52-12-03		401	ARO ALL
Latch Mechanism Removal TASK 52-12-03-000-801			401	ARO ALL
Latch Mechanism Installation TASK 52-12-03-400-801			407	ARO ALL
VENT DOOR - REMOVAL/INSTALLATION	52-12-04		401	ARO ALL
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HINGE MECHANISM - REMOVAL/INSTALLATION	52-12-06		401	ARO ALL
Hinge Mechanism Removal TASK 52-12-06-000-801			401	ARO ALL
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HOLD-OPEN MECHANISM - REMOVAL/INSTALLATION	52-12-09		401	ARO ALL
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STOP PIN FITTING - REMOVAL/INSTALLATION	52-12-10		401	ARO ALL
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Girt Bar Mechanism Removal TASK 52-12-17-000-801			401	ARO ALL
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Emergency Power Assist System (EPAS) Battery Pack Installation (PED 1, 2, 4, 5) TASK 52-12-20-400-802-002		2	406	ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY
Emergency Power Assist System (EPAS) 9 Volt Back-Up Battery Removal (PED 1, 2, 4, 5) TASK 52-12-20-000-804-002		2	407	ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY
Emergency Power Assist System (EPAS) 9 Volt Back-Up Battery Installation (PED 1, 2, 4, 5) TASK 52-12-20-400-803-002		2	409	ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY
EMERGENCY POWER ASSIST SYSTEM (EPAS) BATTERY FOR PASSENGER ENTRY DOORS 1, 2, 4 AND 5 - ADJUSTMENT/TEST	52-12-20	2	501	ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY
Emergency Power Assist System (EPAS) - System Test (PED 1, 2, 4, 5) TASK 52-12-20-700-801-002		2	501	ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY
Emergency Power Assist System (EPAS) Battery Operational Test (PED 1, 2, 4, 5) TASK 52-12-20-700-802-002		2	513	ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY

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OFF-WING ESCAPE SYSTEM BACKUP BATTERY - REMOVAL/INSTALLATION	52-12-24		401	ARO ALL
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Over Wing Escape System Backup Battery Pack Installation TASK 52-12-24-400-802			404	ARO ALL
OFF-WING ESCAPE SYSTEM BACKUP BATTERY - ADJUSTMENT/TEST	52-12-24		501	ARO ALL
Over Wing Escape System Backup Battery - Operational Test TASK 52-12-24-710-801			501	ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY
Over Wing Escape System Backup Battery - System Test TASK 52-12-24-720-802			503	ARO ALL
OFF-WING ESCAPE SYSTEM BACKUP BATTERY - INSPECTION/CHECK	52-12-24		601	ARO ALL
Off-Wing Escape System Backup Battery - Electrical Charge Check TASK 52-12-24-000-803			601	ARO ALL
DOOR LINING - REMOVAL/INSTALLATION	52-12-25		201	ARO ALL
Access Panels Removal TASK 52-12-25-000-801			201	ARO ALL
Access Panels Installation TASK 52-12-25-400-801			204	ARO ALL
Hinge Covers Removal TASK 52-12-25-000-802			205	ARO ALL
Hinge Covers Installation TASK 52-12-25-400-802			210	ARO ALL
Upper Liner Removal TASK 52-12-25-000-803			212	ARO ALL

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Outboard Cover and Flap Removal TASK 52-12-25-000-804			219	ARO ALL
Outboard Cover and Flap Installation TASK 52-12-25-400-804			222	ARO ALL
Bustle Closeout Panel Removal TASK 52-12-25-000-805			223	ARO ALL
Bustle Closeout Panel Installation TASK 52-12-25-400-805			225	ARO ALL
FLIGHT LOCK MECHANISM - MAINTENANCE PRACTICES	52-12-26		201	ARO ALL
Flight Lock Actuator Removal TASK 52-12-26-000-801			201	ARO ALL
Flight Lock Actuator Installation TASK 52-12-26-400-801			203	ARO ALL
Flight Lock Mechanism Removal TASK 52-12-26-000-802			209	ARO ALL
Flight Lock Mechanism Installation TASK 52-12-26-400-802			211	ARO ALL
Flight Lock Control Test TASK 52-12-26-740-801			217	ARO ALL
Flight Lock Mechanism Check TASK 52-12-26-200-801			218	ARO ALL
PASSENGER ENTRY DOOR (PED) MODE SELECT SWITCH, DOOR OPEN SWITCH AND ISOLATION RELAY, K52110 - MAINTENANCE PRACTICES	52-12-28		201	ARO ALL
Mode Select Switch Removal, Installation and Adjustment TASK 52-12-28-000-801			201	ARO ALL
Door Open Switch Removal, Installation and Adjustment TASK 52-12-28-000-802			205	ARO ALL
Isolation Relay K52110 Replacement (PED 3) TASK 52-12-28-960-801			212	ARO ALL

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LATCH TORQUE TUBE INTERLOCK MECHANISM - INSPECTION/CHECK	52-12-29		601	ARO ALL
Latch Torque Tube Interlock Mechanism Check (PED 3) TASK 52-12-29-200-801			601	ARO ALL
CARGO DOOR - MAINTENANCE PRACTICES	52-30-00		201	ARO ALL
Open the Aft Cargo Door TASK 52-30-00-860-801			201	ARO ALL
Close the Aft Cargo Door TASK 52-30-00-860-802			201	ARO ALL
FORWARD LARGE CARGO DOOR - MAINTENANCE PRACTICES	52-34-00		201	ARO ALL
Forward Large Cargo Door - Deactivation TASK 52-34-00-040-801			201	ARO ALL
Forward Large Cargo Door - Activation TASK 52-34-00-440-801			204	ARO ALL
Open the Door Electrically with the External Cargo Door Control Switch TASK 52-34-00-860-801			206	ARO ALL
Open the Door Electrically with the Internal Cargo Door Control Switch TASK 52-34-00-860-802			207	ARO ALL
Close the Door Electrically with the External Cargo Door Control Switch TASK 52-34-00-860-803			209	ARO ALL
Close the Door Electrically with the Internal Cargo Door Control Switch TASK 52-34-00-860-804			210	ARO ALL
Open the Door Manually TASK 52-34-00-860-805			212	ARO ALL
Close the Door Manually TASK 52-34-00-860-806			214	ARO ALL
Open the Cargo Door with Failure of the Lift Mechanism, Lift Power Drive Unit, or Rotary Actuator (Jammed) TASK 52-34-00-800-801			215	ARO ALL

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Open the Cargo Door with Failure of the Latch Mechanism or Latch/Hook Power Drive Unit (Jammed) TASK 52-34-00-800-802			217	ARO ALL
Open the Cargo Door with Failure of the Lock Mechanism (Jammed) TASK 52-34-00-800-803			218	ARO ALL
FORWARD LARGE CARGO DOOR - ADJUSTMENT/TEST	52-34-00		501	ARO ALL
Forward Large Cargo Door Operational Test TASK 52-34-00-710-801			501	ARO ALL
Forward Large Cargo Door Adjustment TASK 52-34-00-820-801			503	ARO ALL
Forward Large Cargo Door System Test TASK 52-34-00-720-801			511	ARO ALL
FORWARD LARGE CARGO DOOR - INSPECTION/CHECK	52-34-00		601	ARO ALL
Large Cargo Door Fast Check TASK 52-34-00-200-801			601	ARO ALL
Large Cargo Door Hinge Pin Inspection TASK 52-34-00-200-802			610	ARO ALL
FORWARD LARGE CARGO DOOR - REMOVAL/INSTALLATION	52-34-01		401	ARO ALL
Forward Large Cargo Door Removal TASK 52-34-01-000-801			401	ARO ALL
Forward Large Cargo Door Installation TASK 52-34-01-420-801			403	ARO ALL
FORWARD LARGE CARGO DOOR - INSPECTION/CHECK	52-34-01		601	ARO ALL
Large Cargo Door Inspection TASK 52-34-01-220-801			601	ARO ALL
LIFT POWER DRIVE UNIT (PDU) - REMOVAL/INSTALLATION	52-34-02		401	ARO ALL
Lift Power Drive Unit Removal TASK 52-34-02-000-801			401	ARO ALL

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Lift Power Drive Unit Installation TASK 52-34-02-400-801			402	ARO ALL
ROTARY ACTUATOR - REMOVAL/INSTALLATION	52-34-03		401	ARO ALL
Rotary Actuator Removal TASK 52-34-03-000-801			401	ARO ALL
Rotary Actuator Installation TASK 52-34-03-400-801			407	ARO ALL
ROTARY ACTUATOR - ADJUSTMENT/TEST	52-34-03		501	ARO ALL
Large Cargo Door Rotary Actuator (Irreversible Function) Operational Test TASK 52-34-03-710-801			501	ARO ALL
LIFT MANUAL DRIVE - REMOVAL/INSTALLATION	52-34-04		401	ARO ALL
Lift Manual Drive Gearbox Removal TASK 52-34-04-000-801			401	ARO ALL
Lift Manual Drive Gearbox Installation TASK 52-34-04-400-801			402	ARO ALL
LIFT MANUAL DRIVE - ADJUSTMENT/TEST	52-34-04		501	ARO ALL
Large Cargo Door Lift and Latch/Hook Manual Drives and Lift Power Drive Unit Brake Operational Test TASK 52-34-04-710-801			501	ARO ALL
LIFT MECHANISM - REMOVAL/INSTALLATION	52-34-05		401	ARO ALL
Drive Link Removal TASK 52-34-05-000-801			401	ARO ALL
Drive Link Installation TASK 52-34-05-400-801			402	ARO ALL
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Drive Arm Installation TASK 52-34-05-400-802			405	ARO ALL
LOCK HANDLE - REMOVAL/INSTALLATION	52-34-06		401	ARO ALL
Lock Handle Removal TASK 52-34-06-000-801			401	ARO ALL

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LOCK HANDLE - ADJUSTMENT/TEST	52-34-06		501	ARO ALL
Large Cargo Door Lock Handle Load Limiter Functional Test TASK 52-34-06-720-801			501	ARO ALL
VENT DOOR - REMOVAL/INSTALLATION	52-34-08		401	ARO ALL
Vent Door Removal TASK 52-34-08-000-801			401	ARO ALL
Vent Door Installation TASK 52-34-08-400-801			402	ARO ALL
VENT DOOR - ADJUSTMENT/TEST	52-34-08		501	ARO ALL
Large Cargo Door Vent Door Interlock Mechanism Operational Test TASK 52-34-08-710-801			501	ARO ALL
Large Cargo Door Vent Seal Operational Test TASK 52-34-08-710-802			504	ARO ALL
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Latch/Hook Power Drive Unit Removal TASK 52-34-10-000-801			401	ARO ALL
Latch/Hook Power Drive Unit Installation TASK 52-34-10-400-801			402	ARO ALL
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PULL-IN HOOKS AND PINS - MAINTENANCE PRACTICES	52-34-14		201	ARO ALL
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Pull-In Pin Removal TASK 52-34-14-000-802			205	ARO ALL
Pull-In Pin Installation TASK 52-34-14-400-802			209	ARO ALL
MAIN CAM LATCHES AND PINS - MAINTENANCE PRACTICES	52-34-15		201	ARO ALL
Main Cam Latches Removal TASK 52-34-15-000-801			201	ARO ALL
Main Cam Latches Installation TASK 52-34-15-400-801			202	ARO ALL
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Main Cam Latch Pin Installation TASK 52-34-15-400-802			204	ARO ALL
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DOOR CONTROL SWITCH - REMOVAL/INSTALLATION	52-34-22		401	ARO ALL
External Cargo Door Control Switch Removal TASK 52-34-22-000-801			401	ARO ALL

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FORWARD LARGE CARGO DOOR WIRE BUNDLE - MAINTENANCE PRACTICES	52-34-23		201	ARO ALL
Forward Large Cargo Door Wire Bundle - Removal, Installation and Adjustment TASK 52-34-23-900-801			201	ARO ALL
AFT SMALL CARGO DOOR - MAINTENANCE PRACTICES	52-35-00		201	ARO ALL
Aft Small Cargo Door - Deactivation TASK 52-35-00-040-801			201	ARO ALL
Aft Small Cargo Door - Activation TASK 52-35-00-440-801			206	ARO ALL
Open the Aft Small Cargo Door TASK 52-35-00-860-805			207	ARO ALL
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Open the Aft Small Cargo Door Electrically TASK 52-35-00-860-801			208	ARO ALL
Close the Aft Small Cargo Door Electrically TASK 52-35-00-860-802			209	ARO ALL
Open the Aft Small Cargo Door Manually TASK 52-35-00-860-803			211	ARO ALL
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Open the Aft Small Cargo Door with Failure of the Lift/Latch Power Drive Unit (PDU) TASK 52-35-00-010-801			214	ARO ALL
Open the Aft Small Cargo Door with Failure of the Hinge Power Drive Unit (PDU) or Rotary Actuator (Jammed) TASK 52-35-00-010-802			216	ARO ALL
AFT SMALL CARGO DOOR - ADJUSTMENT/TEST	52-35-00		501	ARO ALL
Aft Small Cargo Door Operational Test TASK 52-35-00-710-801			501	ARO ALL

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AFT SMALL CARGO DOOR - REMOVAL/INSTALLATION	52-35-01		401	ARO ALL
Small Cargo Door Removal TASK 52-35-01-000-801			401	ARO ALL
Small Cargo Door Installation TASK 52-35-01-400-801			403	ARO ALL
HINGE POWER DRIVE UNIT - REMOVAL/INSTALLATION	52-35-02		401	ARO ALL
Hinge Power Drive Unit Removal TASK 52-35-02-000-801			401	ARO ALL
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ROTARY ACTUATOR - REMOVAL/INSTALLATION	52-35-03		401	ARO ALL
Rotary Actuator Removal TASK 52-35-03-000-801			401	ARO ALL
Rotary Actuator Installation TASK 52-35-03-400-801			402	ARO ALL
ROTARY ACTUATOR - ADJUSTMENT/TEST	52-35-03		501	ARO ALL
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HINGE ARM - REMOVAL/INSTALLATION	52-35-04		401	ARO ALL
Hinge Arm Removal TASK 52-35-04-000-801			401	ARO ALL
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VENT DOOR - REMOVAL/INSTALLATION	52-35-06		401	ARO ALL
Vent Door Removal TASK 52-35-06-000-801			401	ARO ALL
Vent Door Installation TASK 52-35-06-400-801			402	ARO ALL
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Hinge Manual Drive Flexible Shaft Removal TASK 52-35-07-000-801			201	ARO ALL
Hinge Manual Drive Flexible Shaft Installation TASK 52-35-07-400-801			202	ARO ALL
Hinge Manual Drive Gearbox Removal TASK 52-35-07-000-802			203	ARO ALL
Hinge Manual Drive Gearbox Installation TASK 52-35-07-400-802			204	ARO ALL
Small Cargo Door Lift/Latch and Hinge Manual Drives and Hinge Power Drive Unit Operational Test TASK 52-35-07-710-801			206	ARO ALL
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Door Lifted Proximity Sensor Removal, Installation and Adjustment TASK 52-35-10-900-802			203	ARO ALL
Door Latched Proximity Sensor Removal, Installation and Adjustment TASK 52-35-10-900-803			206	ARO ALL

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External Cargo Door Control Switch Installation TASK 52-35-22-400-801			404	ARO ALL
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Small Aft Cargo Door Wire Bundle - Removal, Installation, and Adjustment TASK 52-35-23-900-801			201	ARO ALL
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Bulk Cargo Door Removal TASK 52-36-01-000-801			401	ARO ALL
Bulk Cargo Door Installation TASK 52-36-01-410-801			408	ARO ALL
BULK CARGO DOOR - INSPECTION/CHECK	52-36-01		601	ARO ALL
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Snubber Installation TASK 52-36-03-400-801			404	ARO ALL
SNUBBER - ADJUSTMENT/TEST	52-36-03		501	ARO ALL
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Hinge Arm Installation TASK 52-36-04-410-801			402	ARO ALL
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BULK CARGO DOOR HANDLE MECHANISM - REMOVAL/INSTALLATION	52-36-06		401	ARO ALL
Bulk Cargo Door Handle Mechanism Removal TASK 52-36-06-000-801			401	ARO ALL
Bulk Cargo Door Handle Mechanism Installation TASK 52-36-06-400-801			402	ARO ALL
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Main Equipment Center Access Door Installation TASK 52-48-02-400-801			407	ARO ALL
MAIN EQUIPMENT CENTER ACCESS DOOR - INSPECTION/CHECK	52-48-02		601	ARO ALL
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Controls Bay Access Door Removal TASK 52-48-06-000-801			401	ARO ALL
Controls Bay Access Door Installation TASK 52-48-06-400-801			405	ARO ALL
CONTROLS BAY ACCESS DOOR - ADJUSTMENT/TEST	52-48-06		501	ARO ALL
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Auxiliary Power Unit Access Door Installation TASK 52-48-07-400-801			410	ARO ALL
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External Ground Power Supply Door Removal TASK 52-49-01-000-801			401	ARO ALL
External Ground Power Supply Door Installation TASK 52-49-01-400-801			404	ARO ALL
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Aft Potable Water Service Door Removal TASK 52-49-02-000-801			401	ARO ALL
Aft Potable Water Service Door Installation TASK 52-49-02-400-801			404	ARO ALL
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Waste Tank Service Door Installation TASK 52-49-04-400-801			404	ARO ALL
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Aft Cargo Handling Control Door - Installation TASK 52-49-06-400-801			404	ARO ALL
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Forward Cargo Handling Control Door - Installation TASK 52-49-07-400-801			404	ARO ALL
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Access Code Programming TASK 52-51-00-900-801			201	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

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SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
Time Delays and DOOR BELL Enable Programming TASK 52-51-00-900-802			202	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
FLIGHT COMPARTMENT DOOR - ADJUSTMENT/TEST	52-51-00		501	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Flight Compartment Security Door Access System Test TASK 52-51-00-700-801			501	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Functional Check of the DENY Function of the Flight Deck Access System TASK 52-51-00-700-802			505	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Pressure Sensor Decompression Operational Test TASK 52-51-00-710-801			508	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Operational Check of the Flight Compartment Access System TASK 52-51-00-710-802			511	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Flight Compartment Door Opening Force Adjustment TASK 52-51-00-700-803			515	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
FLIGHT COMPARTMENT DOOR - REMOVAL/INSTALLATION	52-51-01	2	401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Flight Compartment Door Removal TASK 52-51-01-000-802-002		2	401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Flight Compartment Door Installation TASK 52-51-01-400-802-002		2	403	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

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DOORS

SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
FLIGHT COMPARTMENT DOOR - INSPECTION/CHECK	52-51-01		601	ARO ALL
Breakaway Panel Release Pins Inspection TASK 52-51-01-210-801			601	ARO ALL
Flight Compartment Door Seal Check TASK 52-51-01-210-802			601	ARO ALL
Flight Compartment Door Breakaway Panel Seal Check TASK 52-51-01-210-803			602	ARO ALL
ELECTRIC STRIKE - REMOVAL/INSTALLATION	52-51-02	2	401	ARO ALL
Electric Strike Removal TASK 52-51-02-000-802-002		2	401	ARO ALL
Electric Strike Installation TASK 52-51-02-400-802-002		2	407	ARO ALL
FLIGHT COMPARTMENT DOOR LOCK - REMOVAL/INSTALLATION	52-51-03	2	401	ARO ALL
Flight Compartment Door lock Removal TASK 52-51-03-000-802-002		2	401	ARO ALL
Flight Compartment Door Lock Installation TASK 52-51-03-400-802-002		2	405	ARO ALL
FLIGHT COMPARTMENT DOOR DEADBOLT - REMOVAL/INSTALLATION	52-51-08		401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Flight Compartment Door Deadbolt Removal TASK 52-51-08-000-801			401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Flight Compartment Door Deadbolt Installation TASK 52-51-08-400-801			405	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

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CHAPTER 52
DOORS

SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
FLIGHT COMPARTMENT DOOR DEADBOLT - ADJUSTMENT/TEST	52-51-08		501	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Flight Compartment Door Deadbolt Test TASK 52-51-08-710-801			501	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
KEYPAD - REMOVAL/INSTALLATION	52-51-09		401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Keypad Removal TASK 52-51-09-000-801			401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Keypad Installation TASK 52-51-09-400-801			404	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
CHIME MODULE - REMOVAL/INSTALLATION	52-51-10		401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Chime Module Removal TASK 52-51-10-000-801			401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Chime Module Installation TASK 52-51-10-400-801			403	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
CHIME MODULE - CLEANING	52-51-10		701	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Chime Module Cleaning TASK 52-51-10-000-802			701	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

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DOORS

SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
PRESSURE SENSOR - REMOVAL/INSTALLATION	52-51-11		401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Pressure Sensor Removal TASK 52-51-11-000-801			401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Pressure Sensor Installation TASK 52-51-11-400-801			403	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
FLIGHT DECK DOOR MODULE - REMOVAL/INSTALLATION	52-51-13		401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Flight Deck Door Module Removal TASK 52-51-13-020-801			401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Flight Deck Door Module Installation TASK 52-51-13-420-801			403	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
BLOWOUT PANEL - REMOVAL/INSTALLATION	52-51-14		401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Blowout Panel Removal TASK 52-51-14-000-801			401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Blowout Panel Installation TASK 52-51-14-400-801			403	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
FLIGHT COMPARTMENT DOOR BLOWOUT PANEL - INSPECTION/CHECK	52-51-14		601	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Decompression Panel Hinges and Latches Inspection TASK 52-51-14-210-801			601	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

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SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
Decompression Panel Trim Ring Inspection TASK 52-51-14-210-802			602	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
FLIGHT COMPARTMENT DOOR ARMOR - REMOVAL/INSTALLATION	52-51-20		401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Flight Compartment Door Armor Removal TASK 52-51-20-020-801			401	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
Flight Compartment Door Armor Installation TASK 52-51-20-420-801			404	ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR
MAIN EQUIPMENT CENTER ACCESS HATCH - REMOVAL/INSTALLATION	52-53-01		401	ARO ALL
Main Equipment Center Access Hatch Removal TASK 52-53-01-000-801			401	ARO ALL
Main Equipment Center Access Hatch Installation TASK 52-53-01-400-801			406	ARO ALL
VERTICAL STABILIZER ACCESS DOOR - REMOVAL/INSTALLATION	52-53-02		401	ARO ALL
Vertical Stabilizer Access Door With Cables Removal TASK 52-53-02-000-801			401	ARO ALL
Vertical Stabilizer Access Door With Cables Installation TASK 52-53-02-400-801			405	ARO ALL
DOOR WARNING SYSTEM - ADJUSTMENT/TEST	52-71-00		501	ARO ALL
Door Warning System Test TASK 52-71-00-730-801			501	ARO ALL
Door and Landing Gear Proximity Sensor Test Using Breakout Box TASK 52-71-00-720-802			506	ARO ALL

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DOORS

SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
PASSENGER ENTRY DOOR WARNING SYSTEM - MAINTENANCE PRACTICES	52-71-01		201	ARO ALL
Vent Door Locked Proximity Sensor Removal, Installation, and Adjustment TASK 52-71-01-900-801			201	ARO ALL
Passenger Entry Door Closed and Latched Proximity Sensor Removal, Installation, and Adjustment TASK 52-71-01-900-802			210	ARO ALL
—Flight Lock Engaged/Disengaged Proximity Sensor Removal, Installation, and Adjustment TASK 52-71-01-000-801			212	ARO ALL
Passenger Entry Door Indication Functional Test TASK 52-71-01-730-801			214	ARO ALL
Vent Door Locked and Door Closed and Latched Proximity Sensors Operational Test TASK 52-71-01-710-801			218	ARO ALL
LARGE CARGO DOOR WARNING SYSTEM - MAINTENANCE PRACTICES	52-71-02		201	ARO ALL
Closed Proximity Sensor Removal, Installation and Adjustment TASK 52-71-02-900-801			201	ARO ALL
Latched Proximity Sensor Removal, Installation and Adjustment TASK 52-71-02-900-802			203	ARO ALL
Locked Proximity Sensor Removal, Installation and Adjustment TASK 52-71-02-900-803			206	ARO ALL
Large Cargo Door Indication Proximity Sensor Test TASK 52-71-02-730-801			209	ARO ALL
SMALL CARGO DOOR WARNING SYSTEM - MAINTENANCE PRACTICES	52-71-03		201	ARO ALL
Closed Proximity Sensor Removal, Installation and Adjustment TASK 52-71-03-900-801			201	ARO ALL

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SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
Latched and Locked Proximity Sensor Removal, Installation and Adjustment TASK 52-71-03-900-802			203	ARO ALL
Small Cargo Door Indication Proximity Sensor Test TASK 52-71-03-700-801			206	ARO ALL
BULK CARGO DOOR WARNING SYSTEM - MAINTENANCE PRACTICES	52-71-04		201	ARO ALL
Bulk Cargo Door Closed, Latched and Locked Switch Removal, Installation and Adjustment TASK 52-71-04-900-801			201	ARO ALL
Bulk Cargo Door Latch Probe Over-Travel - Inspection/Check TASK 52-71-04-200-801			207	ARO ALL
Bulk Cargo Door Closed, Latched and Locked Switch Operational Test TASK 52-71-04-710-801			208	ARO ALL
FORWARD ACCESS DOOR WARNING SYSTEM - MAINTENANCE PRACTICES	52-71-05		201	ARO ALL
Closed, Latched and Locked Proximity Sensor Removal, Installation and Adjustment TASK 52-71-05-900-801			201	ARO ALL
Forward Access Door Closed, Latched and Locked Proximity Sensor Operational Test TASK 52-71-05-710-801			207	ARO ALL
MAIN EQUIPMENT CENTER ACCESS DOOR WARNING SYSTEM - MAINTENANCE PRACTICES	52-71-06		201	ARO ALL
Closed, Latched and Locked Proximity Sensor Removal, Installation and Adjustment TASK 52-71-06-900-801			201	ARO ALL
Main Equipment Center Access Door Closed, Latched and Locked Proximity Sensor Operational Test TASK 52-71-06-710-801			206	ARO ALL

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CHAPTER 52
DOORS

SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
OFF-WING ESCAPE SLIDE COMPARTMENT DOOR WARNING SYSTEM - MAINTENANCE PRACTICES	52-71-07		201	ARO ALL
Off-Wing Escape Slide Compartment Door Closed Proximity Sensor Removal, Installation and Adjustment TASK 52-71-07-820-801			201	ARO ALL
Off-Wing Escape Slide Compartment Door - Indication Functional Test TASK 52-71-07-710-801			202	ARO ALL

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DOORS - DDG MAINTENANCE PROCEDURES

1. General

A. This procedure has the maintenance tasks for the Master Minimum Equipment List (MMEL) maintenance requirements as shown in the Dispatch Deviations Guide (DDG). These tasks prepare the airplane for flight with certain systems/components inoperative.

B. This procedure also has the tasks that put the airplane back to its usual condition.

C. These are the tasks for the door systems/components:

(1) MMEL 52-11-1 (DDG) Preparation - Passenger Entry Doors or Escape Slide/Rafts Inoperative.

(2) MMEL 52-11-1 (DDG) Restoration - Passenger Entry Doors or Escape Slide/Rafts Inoperative.

(3) MMEL 52-11-01-01A (DDG) Preparation - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (Passengers Carried).

(4) MMEL 52-11-01-01A (DDG) Restoration - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (Passengers Carried).

(5) MMEL 52-11-01-01B (DDG) Preparation - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (No Passengers Carried).

(6) MMEL 52-11-01-01B (DDG) Restoration - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (No Passengers Carried).

(7) MMEL 52-11-2 (DDG) Preparation - Passenger Entry Doors with Pressure Stop Assemblies Missing or Inoperative.

(8) MMEL 52-11-2 (DDG) Restoration - Passenger Entry Doors with Pressure Stop Assemblies Missing or Inoperative.

(9) MMEL 52-11-5 (DDG) Preparation - Passenger Entry Door Flight Lock System Inoperative.

(10) MMEL 52-11-5 (DDG) Restoration - Passenger Entry Door Flight Lock System Inoperative.

(11) MMEL 52-34-1 (DDG) Preparation - Forward Cargo Door Hook/Latch System Inoperative (Electric Mode).

(12) MMEL 52-34-1 (DDG) Restoration - Forward Cargo Door Hook/Latch System Inoperative (Electric Mode).

(13) MMEL 52-34-2 (DDG) Preparation - Forward Cargo Door Lift System Inoperative (Electric Mode).

(14) MMEL 52-34-2 (DDG) Restoration - Forward Cargo Door Lift System Inoperative (Electric Mode).

(15) MMEL 52-34-3 (DDG) Preparation - Forward Cargo Door DOOR LATCHED light Inoperative.

(16) MMEL 52-34-3 (DDG) Restoration - Forward Cargo Door DOOR LATCHED light Inoperative.

(17) MMEL 52-35-1 (DDG) Preparation - Small Aft Cargo Door Lift/Latch System Inoperative (Electric Mode).

(18) MMEL 52-35-1 (DDG) Restoration - Small Aft Cargo Door Lift/Latch System Inoperative (Electric Mode).

(19) MMEL 52-35-2 (DDG) Preparation - Small Aft Cargo Door Hinge System Inoperative (Electric Mode).

(20) MMEL 52-35-2 (DDG) Restoration - Small Aft Cargo Door Hinge System Inoperative (Electric Mode).

(21) MMEL 52-36-1 (DDG) Preparation - Bulk Cargo Door Counterbalance Mechanism Inoperative.

(22) MMEL 52-36-1 (DDG) Restoration - Bulk Cargo Door Counterbalance Mechanism Inoperative.

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(23) MMEL 52-51-1 (DDG) Preparation - Flight Deck Door Lock System Inoperative (Electric Mode).

(24) MMEL 52-51-1 (DDG) Restoration - Flight Deck Door Lock System Inoperative (Electric Mode).

(25) MMEL 52-51-2 (DDG) Preparation - Enhanced Flight Deck Security Door Automatic Locking System Inoperative.

(26) MMEL 52-51-2 (DDG) Restoration - Enhanced Flight Deck Security Door Automatic Locking System Inoperative.

(27) MMEL 52-51-2-1 (DDG) Preparation - Flight Deck Access System (Keypad, Door Chime) Inoperative.

(28) MMEL 52-51-2-1 (DDG) Restoration - Flight Deck Access System (Keypad, Door Chime) Inoperative.

(29) MMEL 52-51-2-2 (DDG) Preparation - Flight Deck Door LOCK FAIL Light Inoperative.

(30) MMEL 52-51-2-2 (DDG) Restoration - Flight Deck Door LOCK FAIL Light Inoperative.

(31) MMEL 52-51-2-3 (DDG) Preparation - Flight Deck Door AUTO UNLK Light Inoperative.

(32) MMEL 52-51-2-3 (DDG) Restoration - Flight Deck Door AUTO UNLK Light Inoperative.

(33) MMEL 52-51-2-4 (DDG) Preparation - Flight Deck Door Lock Control Selector Inoperative.

(34) MMEL 52-51-2-4 (DDG) Restoration - Flight Deck Door Lock Control Selector Inoperative.

(35) MMEL 52-51-2-5 (DDG) Preparation - Pressure Rate-of-Change Sensing Module Inoperative.

(36) MMEL 52-51-2-5 (DDG) Restoration - Pressure Rate-of-Change Sensing Module Inoperative.

(37) MMEL 52-71-1 (DDG) Preparation - Door Indication System Inoperative.

(38) MMEL 52-71-1 (DDG) Restoration - Door Indication System Inoperative.

TASK 52-00-00-840-837

2. MMEL 52-11-01-01 (DDG) Preparation - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (EASA)

A. General

(1) This procedure has a maintenance task for the Master Minimum Equipment List (MMEL) maintenance requirements as shown in the Dispatch Deviations Guide (DDG). This task prepares the airplane for flight with a passenger entry door inoperative or an escape slide missing.

NOTE: If a passenger entry door's Emergency Power Assist System (EPAS) is inoperative, the associated entry door is considered inoperative.

(a) This procedure is only for aircraft using the EASA MMEL.

B. References

Reference	Title
52-12-00-860-802	Close the Door Externally with the Exterior Handle (P/B 201)
52-12-00-860-803	Open the Door Internally with the Interior Handle (P/B 201)

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47

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(Continued)

Zone	Area
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Prepare for Deactivation

SUBTASK 52-00-00-860-017

(1) Close and latch the inoperative door.

(a) Do this task to close the door from inside the airplane: Open the Door Internally with the Interior Handle, TASK 52-12-00-860-803

(b) Do this task to close the door from outside the airplane: Close the Door Externally with the Exterior Handle, TASK 52-12-00-860-802

E. Passenger Entry Doors or Escape Slide/Rafts Deactivation

SUBTASK 52-00-00-480-007

(1) Put a cover on the emergency exit sign for the inoperative door to remove it from view.

SUBTASK 52-00-00-480-008

(2) Put a cover on the floor proximity escape path marking system lights for the inoperative door to remove them from view.

SUBTASK 52-00-00-480-009

(3) Install a barrier strap or rope to prevent access to the inoperative door. Install an “INOPERATIVE” placard on the door.

NOTE: Signs, placards, and ropes are a different color from the interior of the airplane.

SUBTASK 52-00-00-480-010

(4) Install tape or ropes to prevent access to the passenger seats that cannot be used. Install a “DO NOT OCCUPY” placard.

NOTE: Signs, placards, and ropes are a different color from the interior of the airplane.

NOTE: Passenger seats that cannot be used are half the distance forward and aft between the inoperative door or slide and the subsequent exit. And across the full width of the airplane. The main passenger aisles, cross aisles, and exit areas must be free of tape or rope with placards. For a forward door or slide, the seats that are half the distance aft of the door to the exit door. For an aft door or slide, the seats that are half the distance forward to the subsequent door.

——— END OF TASK ———

TASK 52-00-00-840-838

3. MMEL 52-11-01-01 (DDG) Restoration - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (EASA)

A. General

(1) This procedure has a maintenance task for the Master Minimum Equipment List (MMEL) maintenance requirements as shown in the Dispatch Deviations Guide (DDG). This task puts the airplane back to its usual condition after flight operations with a passenger entry door inoperative or an escape slide missing.

(a) This procedure is only for aircraft using the EASA MMEL.

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B. References

Reference	Title
25-65-01-400-801	Escape Slide Pack Installation (P/B 401)
25-66-01-400-801	Door-Mounted Escape Slide Pack Installation (P/B 401)

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Passenger Entry Door or Escape Slide/Raft Activation

SUBTASK 52-00-00-080-008

(1) Remove tape or ropes and from the passenger seats.

SUBTASK 52-00-00-080-009

(2) Remove the barrier strap or rope and placard from the door.

SUBTASK 52-00-00-080-010

(3) Remove the cover from the floor proximity escape path marking system lights.

SUBTASK 52-00-00-080-011

(4) Remove the cover from the emergency exit sign.

E. Repair the Passenger Entry Door or Escape Slide/Raft

SUBTASK 52-00-00-810-039

(1) For an inoperative passenger entry door, do these steps to correct the fault:

(a) Find the fault code, or description of the fault that occurred.

(b) If you find a fault code, then do these steps:

1) Go to the fault code index in the applicable chapter of the FIM, and find the fault code.

NOTE: The first two digits of the fault code are the FIM chapter.

2) Find the task number on the same Line as the fault code.

3) Go to the task in the FIM and do the steps in the task.

(c) If you find a description of the fault, then do these steps:

1) Go to the observed Fault List at the start of the FIM, and find the best description for the fault.

2) Find the task number on the same Line as the fault description.

3) Go to the task in the FIM, and do the steps in the task.

(2) For a missing escape slide, do this task: Escape Slide Pack Installation, TASK 25-65-01-400-801 or Door-Mounted Escape Slide Pack Installation, TASK 25-66-01-400-801.

END OF TASK

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TASK 52-00-00-840-853

4. MMEL 52-11-01-01A (DDG) Preparation - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (Passengers Carried) (FAA)

A. General

(1) This procedure has a maintenance task for the Master Minimum Equipment List (MMEL) maintenance requirements as shown in the Dispatch Deviations Guide (DDG). This task prepares the airplane for flight with a passenger entry door inoperative or an escape slide missing.

NOTE: If a passenger entry door's Emergency Power Assist System (EPAS) is inoperative, the associated entry door is considered inoperative.

(a) This procedure is only for aircraft using the FAA MMEL.

B. References

Reference	Title
52-12-00-860-802	Close the Door Externally with the Exterior Handle (P/B 201)
52-12-00-860-803	Open the Door Internally with the Interior Handle (P/B 201)

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Prepare for Deactivation

SUBTASK 52-00-00-410-011

(1) Close and latch the inoperative door.

(a) Do this task to close the door from inside the airplane: Open the Door Internally with the Interior Handle, TASK 52-12-00-860-803

(b) Do this task to close the door from outside the airplane: Close the Door Externally with the Exterior Handle, TASK 52-12-00-860-802

E. Passenger Entry Doors or Escape Slide/Rafts Deactivation

SUBTASK 52-00-00-860-015

(1) Put a cover on the emergency exit sign for the inoperative door to remove it from view.

SUBTASK 52-00-00-480-001

(2) Put a cover on the floor proximity escape path marking system lights for the inoperative door to remove them from view.

SUBTASK 52-00-00-480-002

(3) Install a barrier strap or rope to prevent access to the inoperative door. Install an "INOPERATIVE" placard on the door.

NOTE: Signs, placards, and ropes are a different color from the interior of the airplane.

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SUBTASK 52-00-00-480-003

(4) Install tape or ropes to prevent access to the passenger seats that cannot be used. Install a "DO NOT OCCUPY" placard.

NOTE: Signs, placards, and ropes are a different color from the interior of the airplane.

NOTE: Passenger seats that cannot be used are half the distance forward and aft between the inoperative door or slide and the subsequent exit. And across the full width of the airplane. The main passenger aisles, cross aisles, and exit areas must be free of tape or rope with placards. For a forward door or slide, the seats that are half the distance aft of the door to the exit door. For an aft door or slide, the seats that are half the distance forward to the subsequent door.

——— END OF TASK ———

TASK 52-00-00-840-854

5. MMEL 52-11-01-01A (DDG) Restoration - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (Passengers Carried) (FAA)

A. General

(1) This procedure has a maintenance task for the Master Minimum Equipment List (MMEL) maintenance requirements as shown in the Dispatch Deviations Guide (DDG). This task puts the airplane back to its usual condition after flight operations with a passenger entry door inoperative or an escape slide missing.

(a) This procedure is only for aircraft using the FAA MMEL.

B. References

Reference	Title
25-65-01-400-801	Escape Slide Pack Installation (P/B 401)
25-66-01-400-801	Door-Mounted Escape Slide Pack Installation (P/B 401)

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Passenger Entry Door or Escape Slide/Raft Activation

SUBTASK 52-00-00-080-001

(1) Remove tape or ropes and from the passenger seats.

SUBTASK 52-00-00-080-002

(2) Remove the barrier strap or rope and placard from the door.

SUBTASK 52-00-00-080-003

(3) Remove the cover from the floor proximity escape path marking system lights.

SUBTASK 52-00-00-080-004

(4) Remove the cover from the emergency exit sign.

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E. Repair the Passenger Entry Door or Escape Slide/Raft

SUBTASK 52-00-00-810-037

(1) For an inoperative passenger entry door, do these steps to correct the fault:

(a) Find the fault code, or description of the fault that occurred.

(b) If you find a fault code, then do these steps:

1) Go to the fault code index in the applicable chapter of the FIM, and find the fault code.

NOTE: The first two digits of the fault code are the FIM chapter.

2) Find the task number on the same line as the fault code.

3) Go to the task in the FIM and do the steps in the task.

(c) If you find a description of the fault, then do these steps:

1) Go to the observed Fault List at the start of the FIM, and find the best description for the fault.

2) Find the task number on the same line as the fault description.

3) Go to the task in the FIM, and do the steps in the task.

(2) For a missing escape slide, do this task: Escape Slide Pack Installation, TASK 25-65-01-400-801 or Door-Mounted Escape Slide Pack Installation, TASK 25-66-01-400-801.

——— END OF TASK ———

TASK 52-00-00-840-855

6. MMEL 52-11-01-01B (DDG) Preparation - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (No Passengers Carried) (FAA)

A. General

(1) This procedure has a maintenance task for the Master Minimum Equipment List (MMEL) maintenance requirements as shown in the Dispatch Deviations Guide (DDG). This task prepares the airplane for flight with a passenger entry door inoperative or an escape slide missing.

(a) This procedure is only for aircraft using the FAA MMEL.

B. References

Reference	Title
52-12-00-860-802	Close the Door Externally with the Exterior Handle (P/B 201)
52-12-00-860-803	Open the Door Internally with the Interior Handle (P/B 201)

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

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D. Prepare for Deactivation

SUBTASK 52-00-00-860-016

(1) Close and latch the inoperative door.

(a) Do this task to close the door from inside the airplane: Open the Door Internally with the Interior Handle, TASK 52-12-00-860-803

(b) Do this task to close the door from outside the airplane: Close the Door Externally with the Exterior Handle, TASK 52-12-00-860-802

E. Passenger Entry Doors or Escape Slide/Raft Deactivation

SUBTASK 52-00-00-480-004

(1) Install a barrier strap or rope to prevent access to the inoperative door. Install an "INOPERATIVE" placard on the door.

NOTE: Signs, placards, and ropes are a different color from the interior of the airplane.

SUBTASK 52-00-00-480-005

(2) Put a cover on the emergency exit sign for the inoperative door to remove it from view.

SUBTASK 52-00-00-480-006

(3) Put a cover on the floor proximity escape path marking system lights for the inoperative door to remove them from view.

——— END OF TASK ———

TASK 52-00-00-840-856

7. MMEL 52-11-01-01B (DDG) Restoration - Passenger Entry Doors Inoperative or Escape Slide/Rafts Missing (No Passengers Carried) (FAA)

A. General

(1) This procedure has a maintenance task for the Master Minimum Equipment List (MMEL) maintenance requirements as shown in the Dispatch Deviations Guide (DDG). This task puts the airplane back to its usual condition after flight operations with a passenger entry door inoperative or an escape slide missing.

(a) This procedure is only for aircraft using the FAA MMEL.

B. References

Reference	Title
25-65-01-400-801	Escape Slide Pack Installation (P/B 401)
25-66-01-400-801	Door-Mounted Escape Slide Pack Installation (P/B 401)

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

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D. Passenger Entry Door or Escape Slide/Raft Activation

SUBTASK 52-00-00-080-005

(1) Remove the barrier strap or rope and placard from the door.

SUBTASK 52-00-00-080-006

(2) Remove the cover from the floor proximity escape path marking system lights.

SUBTASK 52-00-00-080-007

(3) Remove the cover from the emergency exit sign.

E. Repair the Passenger Entry Door or Escape Slide/Raft

SUBTASK 52-00-00-810-038

(1) For an inoperative passenger entry door, do these steps to correct the fault:

(a) Find the fault code, or description of the fault that occurred.

(b) If you find a fault code, then do these steps:

1) Go to the fault code index in the applicable chapter of the FIM, and find the fault code.

NOTE: The first two digits of the fault code are the FIM chapter.

2) Find the task number on the same line as the fault code.

3) Go to the task in the FIM and do the steps in the task.

(c) If you find a description of the fault, then do these steps:

1) Go to the observed Fault List at the start of the FIM, and find the best description for the fault.

2) Find the task number on the same line as the fault description.

3) Go to the task in the FIM, and do the steps in the task.

(2) For a missing escape slide, do this task: Escape Slide Pack Installation, TASK 25-65-01-400-801 or Door-Mounted Escape Slide Pack Installation, TASK 25-66-01-400-801.

——— END OF TASK ———

TASK 52-00-00-840-801

8. MMEL 52-11-2 (DDG) Preparation - Passenger Entry Doors with Pressure Stop Assemblies Missing or Inoperative

A. Procedure:

SUBTASK 52-00-00-200-001

(1) Examine the remaining stop pins and stop fittings as follows:

(a) Examine the stop pins and stop pin fittings for cracks and corrosion.

(b) Make sure the stop pin retainers are installed correctly.

——— END OF TASK ———

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TASK 52-00-00-840-802

9. MMEL 52-11-2 (DDG) Restoration - Passenger Entry Doors with Pressure Stop Assemblies Missing or Inoperative

A. References

Reference	Title
52-12-10-000-801	Stop Pin Fitting Removal (P/B 401)
52-12-10-400-801	Stop Pin Fitting Installation (P/B 401)

B. Procedure

SUBTASK 52-00-00-900-001

(1) Replace missing or damaged stop pin fittings.

These are the tasks:

Stop Pin Fitting Removal, TASK 52-12-10-000-801,

Stop Pin Fitting Installation, TASK 52-12-10-400-801.

——— END OF TASK ———

TASK 52-00-00-840-803

10. MMEL 52-11-5 (DDG) Preparation - Passenger Entry Door Flight Lock System Inoperative

A. General

(1) These are the possible EICAS messages:

(a) DOOR FLIGHT LOCK 1L

(b) DOOR FLIGHT LOCK 1R

(c) DOOR FLIGHT LOCK 2L

(d) DOOR FLIGHT LOCK 2R

(e) DOOR FLIGHT LOCK 3L

(f) DOOR FLIGHT LOCK 3R

(g) DOOR FLIGHT LOCK 4L

(h) DOOR FLIGHT LOCK 4R

(i) DOOR FLIGHT LOCK 5L

(j) DOOR FLIGHT LOCK 5R

B. Procedure:

SUBTASK 52-00-00-710-001

(1) Make sure the door opens and closes correctly.

SUBTASK 52-00-00-710-009

(2) If desired, gain access to the inoperative flight lock actuator and disconnect, cap and stow the actuator's electrical connector.

——— END OF TASK ———

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TASK 52-00-00-840-804

11. MMEL 52-11-5 (DDG) Restoration - Passenger Entry Door Flight Lock System Inoperative

A. Procedure:

SUBTASK 52-00-00-840-005

(1) If the inoperative flight lock actuator is disconnected, remove protective cap and connect the actuator's electrical connector.

SUBTASK 52-00-00-810-001

(2) Go to the FAULT CODE INDEX in the FIM and find the fault code.

NOTE: The first two digits of the fault code are the FIM chapter.

(a) For each correlated maintenance message, find the maintenance message number to the right of the fault code.

(b) Find the task number on the same line as the maintenance message number.

SUBTASK 52-00-00-810-002

(3) Do the steps in the FIM task.

——— END OF TASK ———

TASK 52-00-00-840-805

12. MMEL 52-34-1 (DDG) Preparation - Forward Cargo Door Hook/Latch System Inoperative (Electric Mode)

A. References

Reference	Title
52-34-00-860-805	Open the Door Manually (P/B 201)
52-34-00-860-806	Close the Door Manually (P/B 201)

B. Location Zones

Zone	Area
821	Forward Large Cargo Door

C. Procedure:

SUBTASK 52-00-00-010-001

(1) Do this task: Open the Door Manually, TASK 52-34-00-860-805.

SUBTASK 52-00-00-210-001

(2) Examine the latch and lock mechanisms for damage.

SUBTASK 52-00-00-410-001

(3) Do this task: Close the Door Manually, TASK 52-34-00-860-806.

——— END OF TASK ———

TASK 52-00-00-840-806

13. MMEL 52-34-1 (DDG) Restoration - Forward Cargo Door Hook/Latch System Inoperative (Electric Mode)

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

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B. Procedure:

SUBTASK 52-00-00-810-003

(1) Go to the OBSERVED FAULT LIST in the FIM and find the fault description that describes the problem, and the task number.

NOTE: The first two digits of the fault code are the FIM chapter.

SUBTASK 52-00-00-810-004

(2) Do the steps in the FIM task.

——— END OF TASK ———

TASK 52-00-00-840-807

14. MMEL 52-34-2 (DDG) Preparation - Forward Cargo Door Lift System Inoperative (Electric Mode)

A. References

Reference	Title
52-34-00-860-805	Open the Door Manually (P/B 201)
52-34-00-860-806	Close the Door Manually (P/B 201)

B. Location Zones

Zone	Area
821	Forward Large Cargo Door

C. Procedure:

SUBTASK 52-00-00-010-002

(1) Do this task: Open the Door Manually, TASK 52-34-00-860-805.

SUBTASK 52-00-00-210-002

(2) Examine the lift mechanism for damage.

SUBTASK 52-00-00-410-002

(3) Do this task: Close the Door Manually, TASK 52-34-00-860-806.

——— END OF TASK ———

TASK 52-00-00-840-808

15. MMEL 52-34-2 (DDG) Restoration - Forward Cargo Door Lift System Inoperative (Electric Mode)

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Procedure:

SUBTASK 52-00-00-810-005

(1) Go to the OBSERVED FAULT LIST in the FIM and find the fault description that describes the problem, and the task number.

NOTE: The first two digits of the fault code are the FIM chapter.

SUBTASK 52-00-00-810-006

(2) Do the steps in the FIM task.

——— END OF TASK ———

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TASK 52-00-00-840-809

16. MMEL 52-34-3 (DDG) Preparation - Forward Cargo Door DOOR LATCHED light Inoperative

A. References

Reference	Title
52-34-00-860-803	Close the Door Electrically with the External Cargo Door Control Switch (P/B 201)
52-34-00-860-806	Close the Door Manually (P/B 201)

B. Location Zones

Zone	Area
821	Forward Large Cargo Door

C. Procedure:

SUBTASK 52-00-00-210-003

(1) Make sure the forward cargo door is closed correctly as follows:

(a) Do this task: Close the Door Electrically with the External Cargo Door Control Switch, TASK 52-34-00-860-803.

(b) Make sure the door skin is faired correctly with the fuselage skin.

(c) Turn the lock handle to the open position and do this check:

1) Make sure the vent door is open.

(d) Turn the lock handle to the closed position and do these checks:

1) Make sure the lock handle is faired correctly with the door skin.

2) Make sure the catch release lever is faired correctly with the lock handle and the door skin.

(e) Make sure the vent door is fully closed.

NOTE: The vent door is fully closed when the top of the vent door is faired with the door skin within 1.0 inch.

(f) Do these checks at each witness port on the door (Close the Door Manually, TASK 52-34-00-860-806):

1) Make sure you can see all of the yellow target on the main cam latch pin fitting.

2) Make sure the yellow arrow on the main cam latch points to the yellow target on the latch pin fitting.

3) Make sure you can see all of the yellow lock circle on the lock pawl.

——— END OF TASK ———

TASK 52-00-00-840-810

17. MMEL 52-34-3 (DDG) Restoration - Forward Cargo Door DOOR LATCHED light Inoperative

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Procedure:

SUBTASK 52-00-00-810-007

(1) Go to the FAULT CODE INDEX in the FIM and find the fault code.

NOTE: The first two digits of the fault code are the FIM chapter.

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(a) For each correlated maintenance message, find the maintenance message number to the right of the fault code.

(b) Find the task number on the same line as the maintenance message number.

SUBTASK 52-00-00-810-008

(2) Do the steps in the FIM task.

——— END OF TASK ———

TASK 52-00-00-840-811

18. MMEL 52-35-1 (DDG) Preparation - Small Aft Cargo Door Lift/Latch System Inoperative (Electric Mode)

A. References

Reference	Title
52-35-00-860-803	Open the Aft Small Cargo Door Manually (P/B 201)
52-35-00-860-804	Close the Aft Small Cargo Door Manually (P/B 201)

B. Location Zones

Zone	Area
823	Aft Small Cargo Door

C. Procedure:

SUBTASK 52-00-00-010-003

(1) Do this task: Open the Aft Small Cargo Door Manually, TASK 52-35-00-860-803.

SUBTASK 52-00-00-210-004

(2) Examine the lift/latch mechanism for damage.

SUBTASK 52-00-00-410-003

(3) Do this task: Close the Aft Small Cargo Door Manually, TASK 52-35-00-860-804.

SUBTASK 52-00-00-200-002

(4) Make sure the vent door is closed.

——— END OF TASK ———

TASK 52-00-00-840-812

19. MMEL 52-35-1 (DDG) Restoration - Small Aft Cargo Door Lift/Latch System Inoperative (Electric Mode)

A. Location Zones

Zone	Area
823	Aft Small Cargo Door

B. Procedure:

SUBTASK 52-00-00-810-009

(1) Go to the OBSERVED FAULT LIST in the FIM and find the fault description that describes the problem, and the task number.

NOTE: The first two digits of the fault code are the FIM chapter.

SUBTASK 52-00-00-810-010

(2) Do the steps in the FIM task.

——— END OF TASK ———

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TASK 52-00-00-840-813

20. MMEL 52-35-2 (DDG) Preparation - Small Aft Cargo Door Hinge System Inoperative (Electric Mode)

A. References

Reference	Title
52-35-00-860-803	Open the Aft Small Cargo Door Manually (P/B 201)
52-35-00-860-804	Close the Aft Small Cargo Door Manually (P/B 201)

B. Location Zones

Zone	Area
823	Aft Small Cargo Door

C. Procedure:

SUBTASK 52-00-00-010-004

(1) Do this task: Open the Aft Small Cargo Door Manually, TASK 52-35-00-860-803.

SUBTASK 52-00-00-210-005

(2) Examine the hinge mechanism for damage.

SUBTASK 52-00-00-410-004

(3) Do this task: Close the Aft Small Cargo Door Manually, TASK 52-35-00-860-804.

SUBTASK 52-00-00-200-003

(4) Make sure the vent door is closed.

——— END OF TASK ———

TASK 52-00-00-840-814

21. MMEL 52-35-2 (DDG) Restoration - Small Aft Cargo Door Hinge System Inoperative (Electric Mode)

A. Location Zones

Zone	Area
823	Aft Small Cargo Door

B. Procedure:

SUBTASK 52-00-00-810-011

(1) Go to the OBSERVED FAULT LIST in the FIM and find the fault description that describes the problem, and the task number.

NOTE: The first two digits of the fault code are the FIM chapter.

SUBTASK 52-00-00-810-012

(2) Do the steps in the FIM task.

——— END OF TASK ———

TASK 52-00-00-840-827

22. MMEL 52-35-3 (DDG) Preparation - Small Aft Cargo Door DOOR LATCHED Light Inoperative

A. References

Reference	Title
31-61-00-800-814	Showing Alert Messages (P/B 201)
52-35-00-860-802	Close the Aft Small Cargo Door Electrically (P/B 201)

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B. Location Zones

Zone	Area
823	Aft Small Cargo Door

C. Procedure:

SUBTASK 52-00-00-010-009

(1) Do this task: Close the Aft Small Cargo Door Electrically, TASK 52-35-00-860-802.

SUBTASK 52-00-00-710-003

(2) Make sure the vent door is closed.

SUBTASK 52-00-00-010-010

(3) CLose all other passenger entry, cargo, and access doors.

SUBTASK 52-00-00-710-004

(4) In the flight compartment, make sure the EICAS alert message DOOR AFT CARGO does not show. To show the message, do this task: Showing Alert Messages, TASK 31-61-00-800-814.

NOTE: If two or more doors of any kind are not closed, latched and locked, the EICAS alert message DOORS will show and the individual message for the small cargo door will not show. All doors must be closed for the alert message for the small cargo door to show.

——— END OF TASK ———

TASK 52-00-00-840-828

23. MMEL 52-35-3 (DDG) Restoration - Small Aft Cargo Door DOOR LATCHED Light Inoperative

A. Location Zones

Zone	Area
823	Aft Small Cargo Door

B. Procedure:

SUBTASK 52-00-00-810-021

(1) Go to the FAULT CODE INDEX in the FIM and find the fault code.

NOTE: The first two digits of the fault code are the FIM chapter.

(a) For each correlated maintenance message, find the maintenance message number to the right of the fault code.

(b) Find the task number on the same line as the maintenance message number.

SUBTASK 52-00-00-810-022

(2) Do the steps in the FIM task.

——— END OF TASK ———

TASK 52-00-00-840-857

24. Aft Small Cargo Door Arming Relay/Control Switch - DDG Preparation

A. General

(1) This task gives the maintenance steps which prepare the airplane for flight with the Aft Small Cargo Door Arming Relay/Control Switch inoperative.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

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(Continued)

Reference	Title
52-35-00-860-806	Close the Aft Small Cargo Door (P/B 201)

C. Location Zones

Zone	Area
823	Aft Small Cargo Door

D. Arming Control Circuit Deactivation

SUBTASK 52-00-00-840-003

(1) Open this circuit breaker and install safety tag:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

E. Procedure

SUBTASK 52-00-00-800-002

(1) Before each departure, make sure that the aft small cargo door is closed, latched and locked.

(a) Close and latch the aft small cargo door (Close the Aft Small Cargo Door, TASK 52-35-00-860-806).

(b) Examine the external skin of the door to make sure that it is aligned and faired with the adjacent body skin.

(c) Make sure that the vent door is fully closed.

(d) Make sure that the aft small cargo door alerting message is not displayed by one of the following procedures:

1) After the small aft cargo door is closed latched and locked:

a) Supply electrical power on the airplane (Supply Electrical Power, TASK 24-22-00-860-805).

b) Close all doors, to prevent the display of the DOORS advisory message.

c) Make sure that the DOOR AFT CARGO advisory message is not displayed. On the Display Select Panel push CANC/RCL if necessary to recall messages and view more pages.

2) After all airplane doors are closed, the flight crew must make sure that the DOOR AFT CARGO advisory message is not displayed.

——— END OF TASK ———

TASK 52-00-00-840-858

25. Aft Small Cargo Door Arming Relay/Control Switch - DDG Restoration

A. Location Zones

Zone	Area
823	Aft Small Cargo Door

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B. Procedure:

SUBTASK 52-00-00-840-004

(1) Remove the safety tag and close this circuit breaker:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

SUBTASK 52-00-00-810-040

(2) Go to the OBSERVED FAULT LIST in the FIM and find the fault description that describes the problem, and the task number.

NOTE: The first two digits of the fault code are the FIM chapter.

SUBTASK 52-00-00-810-041

(3) Do the steps in the FIM task.

——— END OF TASK ———

TASK 52-00-00-840-815

26. MMEL 52-36-1 (DDG) Preparation - Bulk Cargo Door Counterbalance Mechanism Inoperative

A. Location Zones

Zone	Area
825	Bulk Cargo Door

B. Procedure:

SUBTASK 52-00-00-010-005

(1) When you open the door, use the strap on the cargo compartment ceiling to hold the door open.

——— END OF TASK ———

TASK 52-00-00-840-816

27. MMEL 52-36-1 (DDG) Restoration - Bulk Cargo Door Counterbalance Mechanism Inoperative

A. References

Reference	Title
52-36-02-000-801	Counterbalance Mechanism Removal (P/B 401)
52-36-02-400-801	Counterbalance Mechanism Installation (P/B 401)

B. Location Zones

Zone	Area
825	Bulk Cargo Door

C. Procedure:

SUBTASK 52-00-00-900-002

(1) Replace the counterbalance mechanism.

These are the tasks:

Counterbalance Mechanism Removal, TASK 52-36-02-000-801,

Counterbalance Mechanism Installation, TASK 52-36-02-400-801.

——— END OF TASK ———

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TASK 52-00-00-840-823

28. MMEL 52-51-1 (DDG) Preparation - Flight Deck Door Lock System Inoperative (Electric Mode)

A. References

Reference	Title
52-51-02-000-802-002	Electric Strike Removal (P/B 401)
52-51-02-400-802-002	Electric Strike Installation (P/B 401)

B. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

C. Procedure:

SUBTASK 52-00-00-860-001

(1) Open this circuit breaker and install safety lock:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

SUBTASK 52-00-00-010-008

(2) Do this task:

NOTE: Electric Strike Removal, TASK 52-51-02-000-802-002.

NOTE: Do not disconnect the strike assembly from the cover.

SUBTASK 52-00-00-350-001

(3) Use lockwire to hold the solenoid pin in the fully extended position.

NOTE: This will hold the door catch in the locked position.

SUBTASK 52-00-00-410-007

(4) Do this task:

NOTE: Electric Strike Installation, TASK 52-51-02-400-802-002.

SUBTASK 52-00-00-210-009

CAUTION

MAKE SURE YOU HAVE THE KEY TO THE DOOR, AND THAT A PERSON IS IN THE FLIGHT COMPARTMENT BEFORE YOU CLOSE THE DOOR.

(5) Close the door and make sure it is locked.

SUBTASK 52-00-00-210-010

(6) Make sure you can unlock the door with the key and also with the handle on the flight deck side of the door.

——— END OF TASK ———

TASK 52-00-00-840-824

29. MMEL 52-51-1 (DDG) Restoration - Flight Deck Door Lock System Inoperative (Electric Mode)

A. References

Reference	Title
52-51-02-000-802-002	Electric Strike Removal (P/B 401)

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(Continued)

Reference	Title
52-51-02-400-802-002	Electric Strike Installation (P/B 401)

B. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

C. Procedure:

SUBTASK 52-00-00-900-003

(1) Replace the electric strike. These are the tasks:

NOTE: Electric Strike Removal, TASK 52-51-02-000-802-002

NOTE: Electric Strike Installation, TASK 52-51-02-400-802-002

SUBTASK 52-00-00-860-002

(2) Remove the safety lock and close this circuit breaker:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

——— END OF TASK ———

TASK 52-00-00-840-839

30. MMEL 52-51-2 (DDG) Preparation - Enhanced Flight Deck Security Door Automatic Locking System Inoperative

A. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

B. Procedure

SUBTASK 52-00-00-040-002

(1) Deactivate the automatic locking system.

(a) Put the flight deck access system switch in the OFF position (guard extended).

NOTE: The LOCK FAIL light can stay on when the flight deck access system switch is in the OFF position (guard extended).

——— END OF TASK ———

TASK 52-00-00-840-840

31. MMEL 52-51-2 (DDG) Restoration - Enhanced Flight Deck Security Door Automatic Locking System Inoperative

A. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

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B. Procedure

SUBTASK 52-00-00-440-001

(1) Activate the automatic locking system.

(a) Put the flight deck access system switch in the ON position.

——— END OF TASK ———

TASK 52-00-00-840-841

32. MMEL 52-51-2-1 (DDG) Preparation - Flight Deck Access System (Keypad, Door Chime) Inoperative

A. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

B. Procedure

SUBTASK 52-00-00-860-003

(1) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

SUBTASK 52-00-00-010-018

(2) Access the chime module.

SUBTASK 52-00-00-020-002

(3) Disconnect, cap, and stow the electrical connector for the keypad at the chime module.

SUBTASK 52-00-00-860-018

(4) Remove the safety tag and close this circuit breaker:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

SUBTASK 52-00-00-860-019

(5) Make sure that the Flight Deck Access System switch is in the OFF position (guard extended) when the flight deck door is to be closed and not occupied.

——— END OF TASK ———

TASK 52-00-00-840-842

33. MMEL 52-51-2-1 (DDG) Restoration - Flight Deck Access System (Keypad, Door Chime) Inoperative

A. References

Reference	Title
52-51-09-000-801	Keypad Removal (P/B 401)
52-51-09-400-801	Keypad Installation (P/B 401)

B. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

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C. Procedure

SUBTASK 52-00-00-960-001

(1) Replace the flight deck security door keypad:

(a) Remove the old flight deck security door keypad (Keypad Removal, TASK 52-51-09-000-801).

(b) Install a new flight deck security door keypad (Keypad Installation, TASK 52-51-09-400-801).

SUBTASK 52-00-00-860-020

(2) Make sure that the flight deck access system switch is the OFF position (guard extended) when the flight deck door is to be closed and not occupied.

——— END OF TASK ———

TASK 52-00-00-840-852

34. MMEL 52-51-2-2 (DDG) Preparation - Flight Deck Door LOCK FAIL Light Inoperative

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

B. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

C. Procedure

SUBTASK 52-00-00-860-006

(1) Supply electrical power.

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-00-00-010-014

(2) Open the flight deck door.

SUBTASK 52-00-00-710-005

(3) Make sure that the automatic lock controls operate normally.

(a) Put the flight deck access system switch to the NORM (guard closed) position.

(b) Put the flight deck door lock selector to the AUTO position.

(c) Make sure that the electric strike is in the locked position.

NOTE: The solenoid pin in the electric strike extends up and the strike cannot turn.

(d) Enter the keypad access code.

(e) Make sure that the door chime sounds.

(f) Put the flight deck door lock selector in the DENY position.

(g) Before the DENY time delay expires, enter the keypad access code.

(h) Make sure that the door chime does not sound.

(i) Put and hold the flight deck door lock selector in the UNLKD position.

(j) Make sure that the electric strike is in the unlocked position.

NOTE: The solenoid pin in the electric strike retracts down and the strike can turn.

(k) Put the flight deck door lock selector in the AUTO position.

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(l) Make sure that the electric strike is in the locked position.

NOTE: The solenoid pin in the electric strike extends up and the strike cannot turn.

——— END OF TASK ———

TASK 52-00-00-840-851

35. MMEL 52-51-2-2 (DDG) Restoration - Flight Deck Door LOCK FAIL Light Inoperative

A. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

B. Procedure

SUBTASK 52-00-00-810-033

(1) Go to the FAULT CODE INDEX in the FIM and find the fault code.

NOTE: The first two digits of the fault code are the FIM chapter.

(a) For each correlated maintenance message, find the maintenance message number to the right of the fault code.

(b) Find the task number on the same line as the maintenance message number.

SUBTASK 52-00-00-810-034

(2) Do the steps in the FIM task.

——— END OF TASK ———

TASK 52-00-00-840-845

36. MMEL 52-51-2-3 (DDG) Preparation - Flight Deck Door AUTO UNLK Light Inoperative

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

B. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

C. Procedure

SUBTASK 52-00-00-860-007

(1) Supply electrical power.

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-00-00-010-015

(2) Open the flight deck door.

SUBTASK 52-00-00-710-006

(3) Make sure that the automatic lock controls operate normally.

(a) Put the flight deck access system switch to the NORM (guard closed) position.

(b) Put the flight deck door lock selector to the AUTO position.

(c) Make sure that the electric strike is in the locked position.

NOTE: The solenoid pin in the electric strike extends up and the strike cannot turn.

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(d) Enter the keypad access code.

(e) Make sure that the door chime sounds.

(f) Put the flight deck door lock selector in the DENY position.

(g) Before the DENY time delay expires, enter the keypad access code.

(h) Make sure that the door chime does not sound.

(i) Put and hold the flight deck door lock selector in the UNLKD position.

(j) Make sure that the electric strike is in the unlocked position.

NOTE: The solenoid pin in the electric strike retracts down and the strike can turn.

(k) Put the flight deck door lock selector in the AUTO position.

(l) Make sure that the electric strike is in the locked position.

NOTE: The solenoid pin in the electric strike extends up and the strike cannot turn.

——— END OF TASK ———

TASK 52-00-00-840-846

37. MMEL 52-51-2-3 (DDG) Restoration - Flight Deck Door AUTO UNLK Light Inoperative

A. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

B. Procedure

SUBTASK 52-00-00-810-035

(1) Go to the FAULT CODE INDEX in the FIM and find the fault code.

NOTE: The first two digits of the fault code are the FIM chapter.

(a) For each correlated maintenance message, find the maintenance message number to the right of the fault code.

(b) Find the task number on the same line as the maintenance message number.

SUBTASK 52-00-00-810-036

(2) Do the steps in the FIM task.

——— END OF TASK ———

TASK 52-00-00-840-847

38. MMEL 52-51-2-4 (DDG) Preparation - Flight Deck Door Lock Control Selector Inoperative

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
24-22-00-860-806	Remove Electrical Power (P/B 201)

B. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

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C. Procedure

SUBTASK 52-00-00-040-001

(1) Deactivate the keypad:

(a) Open this circuit breaker:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

(b) Access the chime module.

(c) Disconnect the electrical connector for the keypad at the chime module.

(d) Close this circuit breaker:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

SUBTASK 52-00-00-010-017

(2) Open the flight deck door.

SUBTASK 52-00-00-710-007

(3) Make sure that the automatic lock operates correctly.

(a) Supply electrical power on the airplane: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Put the flight deck access system switch to the NORM (guard closed) position.

(c) Make sure that the electric strike is in the locked position.

NOTE: The solenoid pin in the electric strike extends up so that the strike cannot turn.

(d) Put the flight deck access system switch in the OFF (guard extended) position.

(e) Make sure that the electric strike is in the unlocked position.

NOTE: The solenoid pin in the electric strike retracts down so that the strike can turn.

(f) Put the flight deck access system switch to the NORM (guard closed) position.

(g) Make sure that the electric strike is in the locked position.

NOTE: The solenoid pin in the electric strike extends up so that the strike cannot turn.

(h) Remove electrical power on the airplane: Remove Electrical Power, TASK 24-22-00-860-806.

SUBTASK 52-00-00-410-012

(4) Close the flight deck door.

END OF TASK

TASK 52-00-00-840-848

39. MMEL 52-51-2-4 (DDG) Restoration - Flight Deck Door Lock Control Selector Inoperative

A. References

Reference	Title
52-51-00-700-801	Flight Compartment Security Door Access System Test (P/B 501)

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B. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

C. Procedure

SUBTASK 52-00-00-860-010

(1) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

SUBTASK 52-00-00-960-002

(2) Reconnect the electrical connector for the keypad at the chime module.

(a) Do this task: Flight Compartment Security Door Access System Test, TASK 52-51-00-700-801.

NOTE: Make sure that the flight deck access system switch is in the OFF position (guard extended) when the flight deck door is to be closed and not occupied.

SUBTASK 52-00-00-860-011

(3) Remove the safety tag and close this circuit breaker:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

——— END OF TASK ———

TASK 52-00-00-840-849

40. MMEL 52-51-2-5 (DDG) Preparation - Pressure Rate-of-Change Sensing Module Inoperative

A. References

Reference	Title
52-51-11-000-801	Pressure Sensor Removal (P/B 401)

B. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

C. Procedure

SUBTASK 52-00-00-860-012

(1) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

SUBTASK 52-00-00-020-001

(2) Remove the pressure sensor.

(a) Do this task: Pressure Sensor Removal, TASK 52-51-11-000-801.

1) Disconnect the electrical connector from the pressure sensor.

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SUBTASK 52-00-00-710-008

(3) Automatic locking system operation.

NOTE: A closed circuit from the pressure sensor is necessary to keep the automatic locking system operating.

(a) Fabricate a shorting plug.

1) Use a connector part number that is equivalent to the Government Designation M83513/04-A01N (detail specification MIL-DTL-83513).

2) Trim the excess wire to a 2 in. (51 mm) to 3 in. (76 mm) length.

3) Splice wires 4 and 6 together.

4) Insulate the splice and the wire pigtails.

5) Connect the shorting plug to the electrical connector and stow.

——— END OF TASK ———

TASK 52-00-00-840-850

41. MMEL 52-51-2-5 (DDG) Restoration - Pressure Rate-of-Change Sensing Module Inoperative

A. References

Reference	Title
52-51-11-400-801	Pressure Sensor Installation (P/B 401)

B. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

C. Procedure

SUBTASK 52-00-00-860-013

(1) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

SUBTASK 52-00-00-420-002

(2) Install the pressure sensor.

(a) Do this task: Pressure Sensor Installation, TASK 52-51-11-400-801.

SUBTASK 52-00-00-860-014

(3) Close this circuit breaker:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

——— END OF TASK ———

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TASK 52-00-00-840-825

42. MMEL 52-71-1 (DDG) Preparation - Door Indication System Inoperative

A. General

(1) These are the possible EICAS messages:

(a) DOOR ENTRY IND 1L
(b) DOOR ENTRY IND 1R
(c) DOOR ENTRY IND 2L
(d) DOOR ENTRY IND 2R
(e) DOOR ENTRY IND 3L
(f) DOOR ENTRY IND 3R
(g) DOOR ENTRY IND 4L
(h) DOOR ENTRY IND 4R
(i) DOOR ENTRY IND 5L
(j) DOOR ENTRY IND 5R
(k) DOOR AFT CARGO IND
(l) DOOR FWD CARGO IND
(m) DOOR BULK CARGO
(n) DOOR E/E ACCESS
(o) DOOR FWD ACCESS
(p) DOOR WING SLIDE L
(q) DOOR WING SLIDE R
(r) DOOR WING SLIDE LK L
(s) DOOR WING SLIDE LK R

B. References

Reference	Title
25-65-10-010-801	Open the Escape Slide Compartment Door (P/B 201)
25-65-10-400-801	Close the Escape Slide Compartment Door (P/B 201)
52-34-00-860-803	Close the Door Electrically with the External Cargo Door Control Switch (P/B 201)
52-34-00-860-806	Close the Door Manually (P/B 201)
52-35-00-860-802	Close the Aft Small Cargo Door Electrically (P/B 201)
52-36-00-860-802	Close the Door (P/B 201)

C. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well
117	Main Equipment Center, Left
197	Aft Wing-to-Body Fairings, Left
198	Aft Wing-to-Body Fairings, Right
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door

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D. Access Panels

Number	Name/Location
152AR	Aft Cargo Door Control Door

E. Passenger Entry Doors

SUBTASK 52-00-00-200-004

(1) Make sure the passenger entry door is closed correctly as follows:

(a) Open and close the door.

(b) Make sure the door liner is faired correctly with the doorway liner.

(c) Make sure the OPEN arrow across the hinge covers is aligned correctly.

(d) For doors 1, 2, 4, and 5, move the mode select handle to the AUTOMATIC/ARM position.

(e) For doors 1, 2, 4, and 5, make sure the yellow flags show in the view ports at the bottom of the doorway lining

(f) Make sure that the external door skin is faired correctly with the fuselage skin.

(g) Make sure the vent door is fully closed.

F. Forward Cargo Door

SUBTASK 52-00-00-210-011

(1) Make sure the forward cargo door is closed correctly as follows:

(a) Do this task: Close the Door Electrically with the External Cargo Door Control Switch, TASK 52-34-00-860-803.

(b) Make sure the door skin is faired correctly with the fuselage skin.

(c) Turn the lock handle to the open position and do this check:

1) Make sure the vent door is open.

(d) Turn the lock handle to the closed position and do these checks:

1) Make sure the lock handle is faired correctly with the door skin.

2) Make sure the catch release lever is faired correctly with the lock handle and the door skin.

(e) Make sure the vent door is fully closed.

NOTE: The vent door is fully closed when the top of the vent door is faired with the door skin within 1.0 inch.

(f) Do these checks at each witness port on the door (TASK 52-34-00-860-806):

1) Make sure you can see all of the yellow target on the main cam latch pin fitting.

2) Make sure the yellow arrow on the main cam latch points to the yellow target on the latch pin fitting.

3) Make sure you can see all of the yellow lock circle on the lock pawl.

G. Small Aft Cargo Door

SUBTASK 52-00-00-210-013

(1) Make sure the small aft cargo door is closed correctly as follows:

(a) Do this task: Close the Aft Small Cargo Door Electrically, TASK 52-35-00-860-802.

(b) Make sure the exterior door skin is faired correctly with the fuselage skin.

(c) Make sure the vent door is fully closed.

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(d) Open this access panel:

Number	Name/Location
152AR	Aft Cargo Door Control Door

(e) Push the CARGO DOOR CONTROL ARMING switch down, and make sure the DOOR LATCHED light comes on (green).

(f) Release the CARGO DOOR CONTROL ARMING switch, and make sure the DOOR LATCHED light goes off.

(g) Close this access panel:

Number	Name/Location
152AR	Aft Cargo Door Control Door

H. Bulk Cargo Door

SUBTASK 52-00-00-210-014

(1) Make sure the bulk cargo door is closed correctly as follows:

(a) Do this task: Close the Door, TASK 52-36-00-860-802.

(b) Make sure the exterior door skin is faired correctly with the fuselage skin.

(c) Make sure the latch handle is fully closed and faired correctly with the door skin.

(d) Push on the door to make sure it is latched.

I. Forward Access Door

SUBTASK 52-00-00-210-015

(1) Make sure the forward access door is closed correctly as follows:

(a) Close the door.

(b) Make sure the exterior door skin is faired correctly with the fuselage skin.

(c) Make sure the latch handle is fully closed and faired correctly with the door skin.

(d) Push on the door to make sure it is latched.

J. Main Equipment Center (E/E Bay) Access Door

SUBTASK 52-00-00-210-016

(1) Make sure the main equipment center (E/E bay) access door is closed correctly as follows:

(a) Close and latch the door.

(b) Make sure the exterior door skin is faired correctly with the fuselage skin.

(c) Make sure the latch handle is fully closed and faired correctly with the door skin.

(d) Push on the door to make sure it is latched.

K. Off-Wing Escape Slide Compartment Door

SUBTASK 52-00-00-210-017

(1) Make sure the off-wing escape slide compartment door is closed correctly as follows:

(a) Open and close the door.

These are the tasks:

Open the Escape Slide Compartment Door, TASK 25-65-10-010-801,

Close the Escape Slide Compartment Door, TASK 25-65-10-400-801.

(b) Make sure the door skin is faired correctly with the fuselage skin.

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(c) Push on the door to make sure it is latched.

——— END OF TASK ———

TASK 52-00-00-840-826

43. MMEL 52-71-1 (DDG) Restoration - Door Indication System Inoperative

A. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well
117	Main Equipment Center, Left
197	Aft Wing-to-Body Fairings, Left
198	Aft Wing-to-Body Fairings, Right
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door

B. Procedure:

SUBTASK 52-00-00-810-019

(1) Go to the FAULT CODE INDEX in the FIM and find the fault code.

NOTE: The first two digits of the fault code are the FIM chapter.

(a) For each correlated maintenance message, find the maintenance message number to the right of the fault code.

(b) Find the task number on the same line as the maintenance message number.

SUBTASK 52-00-00-810-020

(2) Do the steps in the FIM task.

——— END OF TASK ———

TASK 52-00-00-040-801

44. MMEL 52-71-1 (DDG) Preparation - Door Indication System Inoperative (Optional)

A. General

(1) These are the possible EICAS messages:

(a) DOOR ENTRY IND 1L

(b) DOOR ENTRY IND 1R

(c) DOOR ENTRY IND 2L

(d) DOOR ENTRY IND 2R

(e) DOOR ENTRY IND 3L

(f) DOOR ENTRY IND 3R

(g) DOOR ENTRY IND 4L

(h) DOOR ENTRY IND 4R

(i) DOOR ENTRY IND 5L

(j) DOOR ENTRY IND 5R

(k) DOOR AFT CARGO IND

(l) DOOR FWD CARGO IND

(m) DOOR BULK CARGO

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(n) DOOR E/E ACCESS

(o) DOOR FWD ACCESS

(p) DOOR WING SLIDE L

(q) DOOR WING SLIDE R

(r) DOOR WING SLIDE LK L

(s) DOOR WING SLIDE LK R

B. References

Reference	Title
25-65-10-010-801	Open the Escape Slide Compartment Door (P/B 201)
25-65-10-400-801	Close the Escape Slide Compartment Door (P/B 201)
52-34-00-860-803	Close the Door Electrically with the External Cargo Door Control Switch (P/B 201)
52-34-00-860-806	Close the Door Manually (P/B 201)
52-35-00-860-802	Close the Aft Small Cargo Door Electrically (P/B 201)
52-36-00-860-802	Close the Door (P/B 201)

C. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well
117	Main Equipment Center, Left
197	Aft Wing-to-Body Fairings, Left
198	Aft Wing-to-Body Fairings, Right
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door

D. Access Panels

Number	Name/Location
152AR	Aft Cargo Door Control Door

E. Passenger Entry Doors

SUBTASK 52-00-00-000-001

(1) Entry Door 1 Left

(a) Open the door.

(b) Remove the electrical connector DS52109 from sensor S52109 (CLOSED & LATCHED DR 1L).

(c) Remove the electrical connector DS52110 from sensor S52110 (LOCKED DR 1L).

(d) Cap and stow the connectors.

(e) Before each flight, make sure that the passenger entry door is closed correctly as follows:

1) Open and close the door.

2) Make sure the door liner is faired correctly with the doorway liner.

3) Make sure the OPEN arrow across the hinge covers is aligned correctly.

4) Move the mode select handle to the AUTOMATIC/ARM position.

5) Make sure the yellow flags show in the view ports at the bottom of the doorway lining.

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6) Make sure that the external door skin is faired correctly with the fuselage skin.

7) Make sure the vent door is fully closed.

SUBTASK 52-00-00-000-008

(2) Entry Door 1 Right

(a) Open the door.

(b) Remove the electrical connector DS52209 from sensor S52209 (CLOSED & LATCHED DR 1R).

(c) Remove the electrical connector DS52110 from sensor S52110 (LOCKED DR 1R).

(d) Cap and stow the connectors.

(e) Before each flight, make sure that the passenger entry door is closed correctly as follows:

1) Open and close the door.

2) Make sure the door liner is faired correctly with the doorway liner.

3) Make sure the OPEN arrow across the hinge covers is aligned correctly.

4) Move the mode select handle to the AUTOMATIC/ARM position.

5) Make sure the yellow flags show in the view ports at the bottom of the doorway lining.

6) Make sure that the external door skin is faired correctly with the fuselage skin.

7) Make sure the vent door is fully closed.

SUBTASK 52-00-00-000-009

(3) Entry Door 2 Left

(a) Open the door.

(b) Remove the electrical connector DS52111 from sensor S52111 (CLOSED & LATCHED DR 2L).

(c) Remove the electrical connector DS52110 from sensor S52110 (LOCKED DR 2L).

(d) Cap and stow the connectors.

(e) Before each flight, make sure that the passenger entry door is closed correctly as follows:

1) Open and close the door.

2) Make sure the door liner is faired correctly with the doorway liner.

3) Make sure the OPEN arrow across the hinge covers is aligned correctly.

4) Move the mode select handle to the AUTOMATIC/ARM position.

5) Make sure the yellow flags show in the view ports at the bottom of the doorway lining.

6) Make sure that the external door skin is faired correctly with the fuselage skin.

7) Make sure the vent door is fully closed.

SUBTASK 52-00-00-000-010

(4) Entry Door 2 Right

(a) Open the door.

(b) Remove the electrical connector DS52211 from sensor S52211 (CLOSED & LATCHED DR 2R).

(c) Remove the electrical connector DS52110 from sensor S52110 (LOCKED DR 2R).

(d) Cap and stow the connectors.

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(e) Before each flight, make sure that the passenger entry door is closed correctly as follows:

1) Open and close the door.
2) Make sure the door liner is faired correctly with the doorway liner.
3) Make sure the OPEN arrow across the hinge covers is aligned correctly.
4) Move the mode select handle to the AUTOMATIC/ARM position.
5) Make sure the yellow flags show in the view ports at the bottom of the doorway lining.
6) Make sure that the external door skin is faired correctly with the fuselage skin.
7) Make sure the vent door is fully closed.

SUBTASK 52-00-00-000-017

(5) Entry Door 3 Left

(a) Open the door.

(b) Remove the electrical connector DS52113 from sensor S52113 (CLOSED & LATCHED DR 3L).

(c) Remove the electrical connector DS52026 from sensor S52026 (LOCKED DR 3L).

(d) Cap and stow the connectors.

(e) Before each flight, make sure that the passenger entry door is closed correctly as follows:

1) Open and close the door.
2) Make sure the door liner is faired correctly with the doorway liner.
3) Make sure the OPEN arrow across the hinge covers is aligned correctly.
4) Make sure that the external door skin is faired correctly with the fuselage skin.
5) Make sure the vent door is fully closed.

SUBTASK 52-00-00-000-018

(6) Entry Door 3 Right

(a) Open the door.

(b) Remove the electrical connector DS52213 from sensor S52213 (CLOSED & LATCHED DR 3R).

(c) Remove the electrical connector DS52026 from sensor S52026 (LOCKED DR 3R).

(d) Cap and stow the connectors.

(e) Before each flight, make sure that the passenger entry door is closed correctly as follows:

1) Open and close the door.
2) Make sure the door liner is faired correctly with the doorway liner.
3) Make sure the OPEN arrow across the hinge covers is aligned correctly.
4) Make sure that the external door skin is faired correctly with the fuselage skin.
5) Make sure the vent door is fully closed.

SUBTASK 52-00-00-000-013

(7) Entry Door 4 Left

(a) Open the door.

(b) Remove the electrical connector DS52115 from sensor S52115 (CLOSED & LATCHED DR 4L).

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(c) Remove the electrical connector DS52110 from sensor S52110 (LOCKED DR 4L).

(d) Cap and stow the connectors.

(e) Before each flight, make sure that the passenger entry door is closed correctly as follows:

1) Open and close the door.

2) Make sure the door liner is faired correctly with the doorway liner.

3) Make sure the OPEN arrow across the hinge covers is aligned correctly.

4) Move the mode select handle to the AUTOMATIC/ARM position.

5) Make sure the yellow flags show in the view ports at the bottom of the doorway lining.

6) Make sure that the external door skin is faired correctly with the fuselage skin.

7) Make sure the vent door is fully closed.

SUBTASK 52-00-00-000-014

(8) Entry Door 4 Right

(a) Open the door.

(b) Remove the electrical connector DS52215 from sensor S52215 (CLOSED & LATCHED DR 4R).

(c) Remove the electrical connector DS52110 from sensor S52110 (LOCKED DR 4R).

(d) Cap and stow the connectors.

(e) Before each flight, make sure that the passenger entry door is closed correctly as follows:

1) Open and close the door.

2) Make sure the door liner is faired correctly with the doorway liner.

3) Make sure the OPEN arrow across the hinge covers is aligned correctly.

4) Move the mode select handle to the AUTOMATIC/ARM position.

5) Make sure the yellow flags show in the view ports at the bottom of the doorway lining.

6) Make sure that the external door skin is faired correctly with the fuselage skin.

7) Make sure the vent door is fully closed.

SUBTASK 52-00-00-000-015

(9) Entry Door 5 Left

(a) Open the door.

(b) Remove the electrical connector DS52117 from sensor S52117 (CLOSED & LATCHED DR 5L).

(c) Remove the electrical connector DS52110 from sensor S52110 (LOCKED DR 5L).

(d) Cap and stow the connectors.

(e) Before each flight, make sure that the passenger entry door is closed correctly as follows:

1) Open and close the door.

2) Make sure the door liner is faired correctly with the doorway liner.

3) Make sure the OPEN arrow across the hinge covers is aligned correctly.

4) Move the mode select handle to the AUTOMATIC/ARM position.

5) Make sure the yellow flags show in the view ports at the bottom of the doorway lining.

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6) Make sure that the external door skin is faired correctly with the fuselage skin.

7) Make sure the vent door is fully closed.

SUBTASK 52-00-00-000-016

(10) Entry Door 5 Right

(a) Open the door.

(b) Remove the electrical connector DS52217 from sensor S52217 (CLOSED & LATCHED DR 5R).

(c) Remove the electrical connector DS52110 from sensor S52110 (LOCKED DR 5R).

(d) Cap and stow the connectors.

(e) Before each flight, make sure that the passenger entry door is closed correctly as follows:

1) Open and close the door.

2) Make sure the door liner is faired correctly with the doorway liner.

3) Make sure the OPEN arrow across the hinge covers is aligned correctly.

4) Move the mode select handle to the AUTOMATIC/ARM position.

5) Make sure the yellow flags show in the view ports at the bottom of the doorway lining.

6) Make sure that the external door skin is faired correctly with the fuselage skin.

7) Make sure the vent door is fully closed.

F. Forward Cargo Door

SUBTASK 52-00-00-000-002

(1) Do the steps that follow:

(a) Open the door.

(b) Remove the electrical connector DS52021 from sensor S52021 (CLOSED).

(c) Remove the electrical connector DS52042 from sensor S52042 (LATCHED).

(d) Remove the electrical connector DS52022 from sensor S52022 (LOCKED).

(e) Cap and stow the connectors.

(f) Before each flight, make sure that the forward cargo door is closed correctly as follows:

1) Do this task: Close the Door Electrically with the External Cargo Door Control Switch, TASK 52-34-00-860-803.

2) Make sure the door skin is faired correctly with the fuselage skin.

3) Turn the lock handle to the open position and do this check:

a) Make sure the vent door is open.

4) Turn the lock handle to the closed position and do these checks:

a) Make sure the lock handle is faired correctly with the door skin.

b) Make sure the catch release lever is faired correctly with the lock handle and the door skin.

5) Make sure the vent door is fully closed.

NOTE: The vent door is fully closed when the top of the vent door is faired with the door skin within 1.0 inch.

6) Do these checks at each witness port on the door (TASK 52-34-00-860-806):

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a) Make sure you can see all of the yellow target on the main cam latch pin fitting.

b) Make sure the yellow arrow on the main cam latch points to the yellow target on the latch pin fitting.

c) Make sure you can see all of the yellow lock circle on the lock pawl.

G. Small Aft Cargo Door

SUBTASK 52-00-00-000-004

(1) Do the steps that follow:

(a) Open the door.

(b) Remove the electrical connector DS52023 from sensor S52023 (CLOSED).

(c) Remove the electrical connector DS52024 from sensor S52024 (LATCHED/LOCKED).

(d) Cap and stow the connectors.

(e) Before each flight, make sure that the small aft cargo door is closed correctly as follows:

1) Do this task: Close the Aft Small Cargo Door Electrically, TASK 52-35-00-860-802.

2) Make sure the exterior door skin is faired correctly with the fuselage skin.

3) Make sure the vent door is fully closed.

4) Open this access panel:

Number	Name/Location
152AR	Aft Cargo Door Control Door

5) Push the CARGO DOOR CONTROL ARMING switch down, and make sure the DOOR LATCHED light comes on (green).

6) Release the CARGO DOOR CONTROL ARMING switch, and make sure the DOOR LATCHED light goes off.

7) Close this access panel:

Number	Name/Location
152AR	Aft Cargo Door Control Door

H. Bulk Cargo Door

SUBTASK 52-00-00-000-005

(1) Do the steps that follow:

(a) Open the door.

(b) Locate, remove and secure switch, S52020 (CLOSED/LATCHED/LOCKED) (SWPM 20-10-11).

1) Do not cut the wires to switch, S52020.

2) Remove and keep the clamp.

3) Coil and stow the excess wire using wire harness tie.

4) Use wire harness tie to secure the switch, S52020, to the frame STA 1874.

a) Make sure the switch, S52020, is secured.

(c) Before each flight, make sure that the bulk cargo door is closed correctly as follows:

1) Do this task: Close the Door, TASK 52-36-00-860-802.

2) Make sure the exterior door skin is faired correctly with the fuselage skin.

3) Make sure the latch handle is fully closed and faired correctly with the door skin.

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4) Push on the door to make sure it is latched.

I. Forward Access Door

SUBTASK 52-00-00-000-006

(1) Do the steps that follow:

(a) Open the door.

(b) Remove the electrical connector DS52018 from sensor S52018 (CLOSED/LATCHED/LOCKED).

(c) Cap and stow the connector.

(d) Before each flight, make sure that the forward access door is closed correctly as follows:

1) Close the door.

2) Make sure the exterior door skin is faired correctly with the fuselage skin.

3) Make sure the latch handle is fully closed and faired correctly with the door skin.

4) Push on the door to make sure it is latched.

J. Main Equipment Center (E/E Bay) Access Door

SUBTASK 52-00-00-000-007

(1) Do the steps that follow:

(a) Open the door.

(b) Remove the electrical connector DS52019 from sensor S52019 (CLOSED/LATCHED/LOCKED).

(c) Cap and stow the connector.

(d) Before each flight, make sure that the main equipment center (E/E bay) access door is closed correctly as follows:

1) Close and latch the door.

2) Make sure the exterior door skin is faired correctly with the fuselage skin.

3) Make sure the latch handle is fully closed and faired correctly with the door skin.

4) Push on the door to make sure it is latched.

K. Off-Wing Escape Slide Compartment Door

SUBTASK 52-00-00-800-003

(1) Do the steps that follow:

(a) No applicable steps.

(b) Before each flight, make sure that the off-wing escape slide compartment door is closed correctly as follows:

1) Open and close the door.

2) These are the tasks:

Open the Escape Slide Compartment Door, TASK 25-65-10-010-801,

Close the Escape Slide Compartment Door, TASK 25-65-10-400-801.

3) Make sure the door skin is faired correctly with the fuselage skin.

4) Push on the door to make sure it is latched.

——— END OF TASK ———

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TASK 52-00-00-440-801

45. MMEL 52-71-1 (DDG) Restoration - Door Indication System Inoperative (Optional)

A. References

Reference	Title
52-71-01-730-801	Passenger Entry Door Indication Functional Test (P/B 201)
52-71-02-730-801	Large Cargo Door Indication Proximity Sensor Test (P/B 201)
52-71-03-700-801	Small Cargo Door Indication Proximity Sensor Test (P/B 201)
52-71-04-710-801	Bulk Cargo Door Closed, Latched and Locked Switch Operational Test (P/B 201)
52-71-05-710-801	Forward Access Door Closed, Latched and Locked Proximity Sensor Operational Test (P/B 201)
52-71-06-710-801	Main Equipment Center Access Door Closed, Latched and Locked Proximity Sensor Operational Test (P/B 201)

B. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well
117	Main Equipment Center, Left
197	Aft Wing-to-Body Fairings, Left
198	Aft Wing-to-Body Fairings, Right
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door

C. Passenger Entry Doors

SUBTASK 52-00-00-420-003

(1) Entry Door 1 Left

(a) Open the door.

(b) Connect the electrical connector DS52109 to sensor S52109 (CLOSED & LATCHED DR 1L).

(c) Connect the electrical connector DS52110 to sensor S52110 (LOCKED DR 1L).

(d) Close the door.

SUBTASK 52-00-00-420-011

(2) Entry Door 1 Right

(a) Open the door.

(b) Connect the electrical connector DS52209 to sensor S52209 (CLOSED & LATCHED DR 1R).

(c) Connect the electrical connector DS52110 to sensor S52110 (LOCKED DR 1R).

(d) Close the door.

SUBTASK 52-00-00-420-012

(3) Entry Door 2 Left

(a) Open the door.

(b) Connect the electrical connector DS52111 to sensor S52111 (CLOSED & LATCHED DR 2L).

(c) Connect the electrical connector DS52110 to sensor S52110 (LOCKED DR 2L).

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(d) Close the door.

SUBTASK 52-00-00-420-013

(4) Entry Door 2 Right

(a) Open the door.

(b) Connect the electrical connector DS52211 to sensor S52211 (CLOSED & LATCHED DR 2R).

(c) Connect the electrical connector DS52110 to sensor S52110 (LOCKED DR 2R).

(d) Close the door.

SUBTASK 52-00-00-420-014

(5) Entry Door 3 Left

(a) Open the door.

(b) Connect the electrical connector DS52113 to sensor S52113 (CLOSED & LATCHED DR 3L).

(c) Connect the electrical connector DS52026 from sensor S52026 (LOCKED DR 3L).

(d) Close the door.

SUBTASK 52-00-00-420-015

(6) Entry Door 3 Right

(a) Open the door.

(b) Connect the electrical connector DS52213 to sensor S52213 (CLOSED & LATCHED DR 3R).

(c) Connect the electrical connector DS52026 from sensor S52026 (LOCKED DR 3R).

(d) Close the door.

SUBTASK 52-00-00-420-016

(7) Entry Door 4 Left

(a) Open the door.

(b) Connect the electrical connector DS52115 to sensor S52115 (CLOSED & LATCHED DR 4L).

(c) Connect the electrical connector DS52110 to sensor S52110 (LOCKED DR 4L).

(d) Close the door.

SUBTASK 52-00-00-420-017

(8) Entry Door 4 Right

(a) Open the door.

(b) Connect the electrical connector DS52215 to sensor S52215 (CLOSED & LATCHED DR 4R).

(c) Connect the electrical connector DS52110 to sensor S52110 (LOCKED DR 4R).

(d) Close the door.

SUBTASK 52-00-00-420-018

(9) Entry Door 5 Left

(a) Open the door.

(b) Connect the electrical connector DS52117 to sensor S52117 (CLOSED & LATCHED DR 5L).

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(c) Connect the electrical connector DS52110 to sensor S52110 (LOCKED DR 5L).

(d) Close the door.

SUBTASK 52-00-00-420-019

(10) Entry Door 5 Right

(a) Open the door.

(b) Connect the electrical connector DS52217 to sensor S52217 (CLOSED & LATCHED DR 5R).

(c) Connect the electrical connector DS52110 to sensor S52110 (LOCKED DR 5R).

(d) Close the door.

SUBTASK 52-00-00-420-020

(11) Do this task Passenger Entry Door Indication Functional Test, TASK 52-71-01-730-801.

D. Forward Cargo Door

SUBTASK 52-00-00-420-004

(1) Do the steps that follow:

(a) Open the door.

(b) Connect the electrical connector DS52021 to sensor S52021 (CLOSED).

(c) Connect the electrical connector DS52042 to sensor S52042 (LATCHED).

(d) Connect the electrical connector DS52022 to sensor S52022 (LOCKED).

(e) Close the door.

(f) Do this task: Large Cargo Door Indication Proximity Sensor Test, TASK 52-71-02-730-801.

E. Small Aft Cargo Door

SUBTASK 52-00-00-420-006

(1) Do the steps that follow:

(a) Open the door.

(b) Connect the electrical connector DS52023 to sensor S52023 (CLOSED).

(c) Connect the electrical connector DS52024 to sensor S52024 (LATCHED/LOCKED).

(d) Close the door.

(e) Do this task: Small Cargo Door Indication Proximity Sensor Test, TASK 52-71-03-700-801.

F. Bulk Cargo Door

SUBTASK 52-00-00-420-007

(1) Do the steps that follow:

(a) Open the door.

(b) Install and secure switch S52020 (CLOSED/LATCHED/LOCKED).

(c) Close the door.

(d) Do this task: Bulk Cargo Door Closed, Latched and Locked Switch Operational Test, TASK 52-71-04-710-801.

G. Forward Access Door

SUBTASK 52-00-00-420-008

(1) Do the steps that follow:

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(a) Open the door.

(b) Connect the electrical connector DS52018 to sensor S52018 (CLOSED/LATCHED/LOCKED).

(c) Close the door.

(d) Do this task: Forward Access Door Closed, Latched and Locked Proximity Sensor Operational Test, TASK 52-71-05-710-801.

H. Main Equipment Center (E/E Bay) Access Door

SUBTASK 52-00-00-420-009

(1) Do the steps that follow:

(a) Open the door.

(b) Connect the electrical connector DS52019 to sensor S52019 (CLOSED/LATCHED/LOCKED).

(c) Close the door.

(d) Do this task: Main Equipment Center Access Door Closed, Latched and Locked Proximity Sensor Operational Test, TASK 52-71-06-710-801.

I. Off-Wing Escape Slide Compartment Door

SUBTASK 52-00-00-800-004

(1) No applicable steps.

——— END OF TASK ———

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DOORS - STRUCTURAL INSPECTIONS - MAINTENANCE PRACTICES

1. General

A. This procedure contains MSG-3 task card data.

TASK 52-05-03-210-801

2. EXTERNAL - GENERAL VISUAL: FORWARD LARGE CARGO DOOR

(Figure 201)

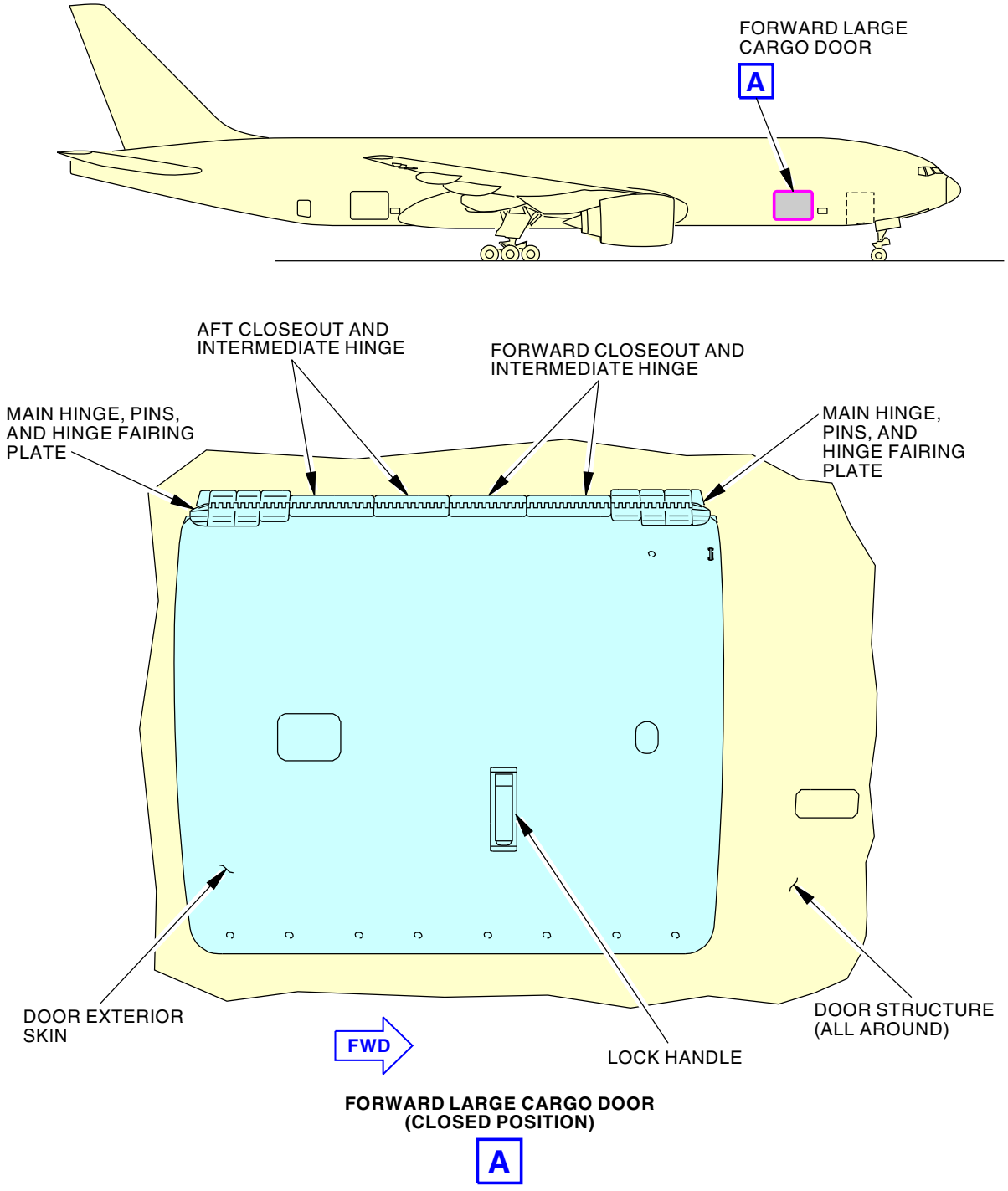
A. Inspection

SUBTASK 52-05-03-210-001

(1) Do the inspection.

——— END OF TASK ———

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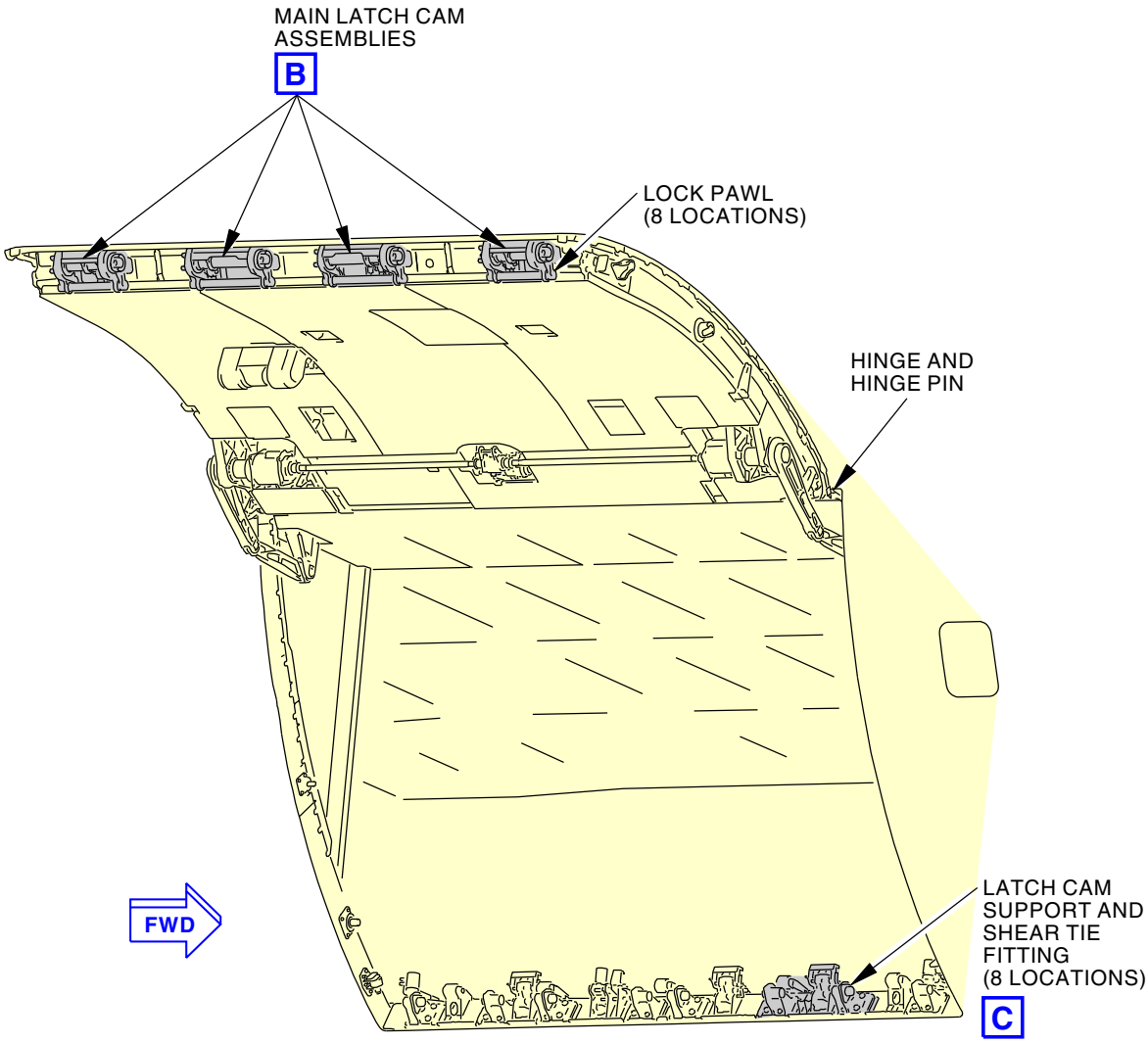
FORWARD LARGE CARGO DOOR (CLOSED POSITION)

A

G65454 S0006424469_V2

Forward Large Cargo Door General Visual (External)
Figure 201/52-05-03-990-801 (Sheet 1 of 3)

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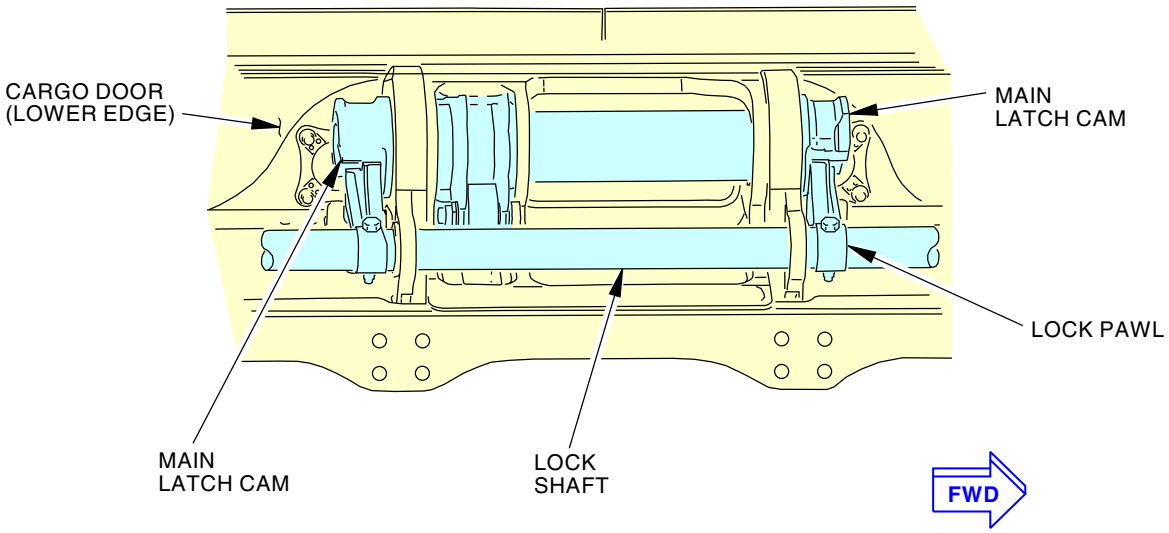
FORWARD LARGE CARGO DOOR (OPEN POSITION)

A

G65473 S0006424470_V2

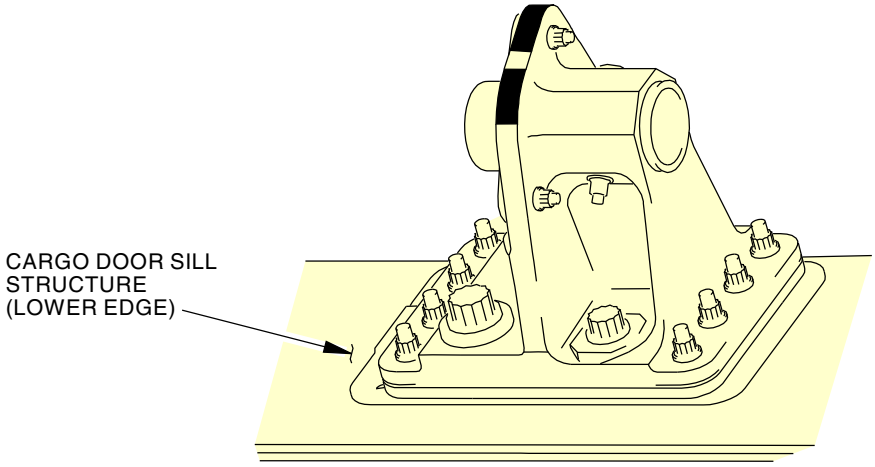
Forward Large Cargo Door General Visual (External)
Figure 201/52-05-03-990-801 (Sheet 2 of 3)

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MAIN LATCH CAM ASSEMBLY
(EXAMPLE, 4 LOCATIONS)

B



LATCH CAM SUPPORT AND SHEAR TIE FITTING
(EXAMPLE, 8 LOCATIONS)

C

G65463 S0000173830_V2

Forward Large Cargo Door General Visual (External)
Figure 201/52-05-03-990-801 (Sheet 3 of 3)

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TASK 52-05-03-211-801

3. EXTERNAL - DETAILED: FORWARD LARGE CARGO DOOR

(Figure 202)

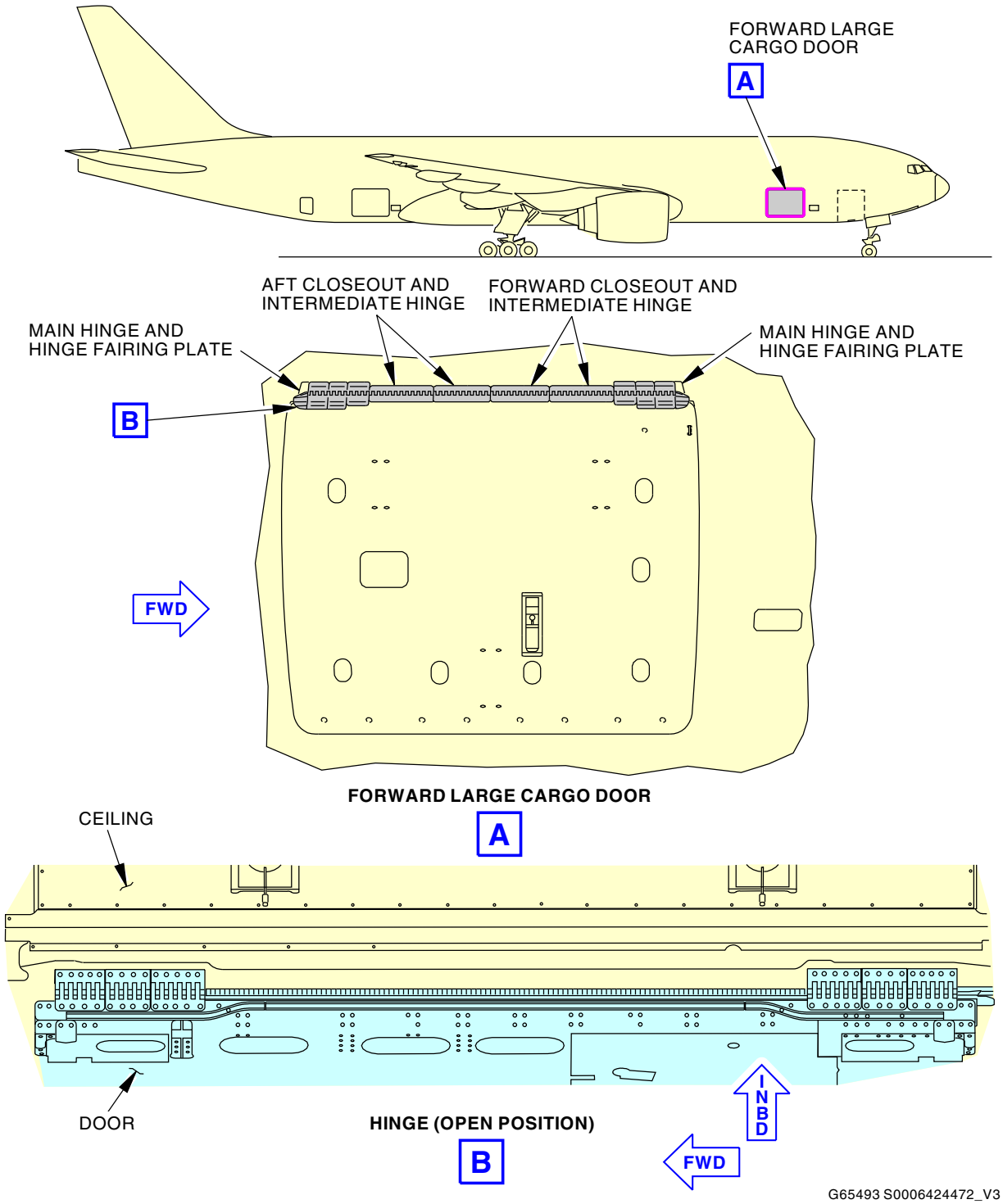
A. Inspection

SUBTASK 52-05-03-211-001

(1) Do the inspection.

END OF TASK

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Hinge and Hinge Pins (Forward Large Cargo Door) (External)
Figure 202/52-05-03-990-802

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TASK 52-05-03-211-802

4. INTERNAL - DETAILED: FORWARD LARGE CARGO DOOR

(Figure 203)

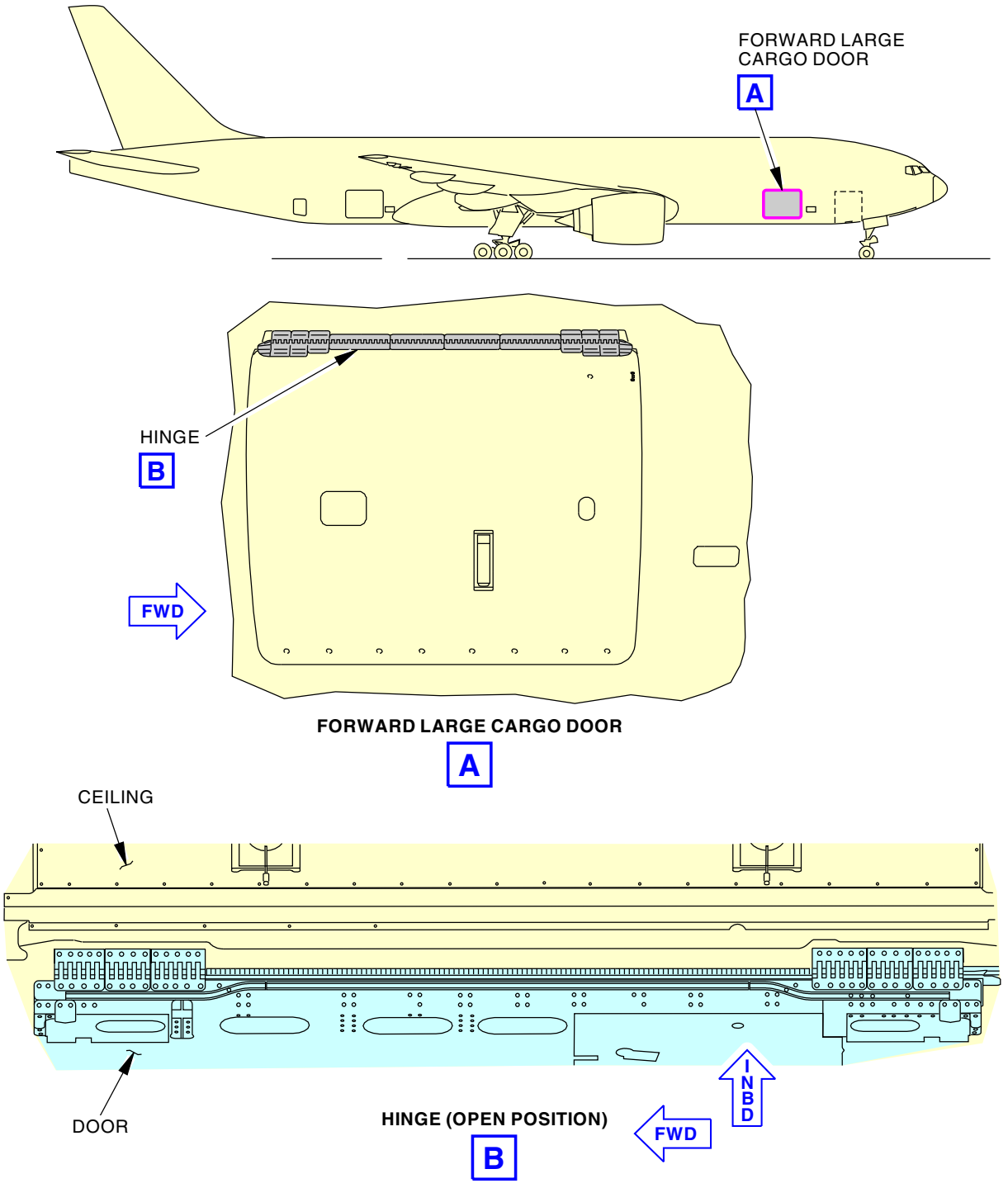
A. Inspection

SUBTASK 52-05-03-211-002

(1) Do the inspection.

END OF TASK

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Forward Large Cargo Door Hinge and Hinge Pin
Figure 203/52-05-03-990-860

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TASK 52-05-03-211-803

5. INTERNAL - DETAILED: FORWARD LARGE CARGO DOOR

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
52-34-15-000-801	Main Cam Latches Removal (P/B 201)
52-34-15-400-801	Main Cam Latches Installation (P/B 201)

B. Removal of Two Center Main Cam Latches

Main Cam Latches Removal, TASK 52-34-15-000-801

C. Inspection

SUBTASK 52-05-03-211-037

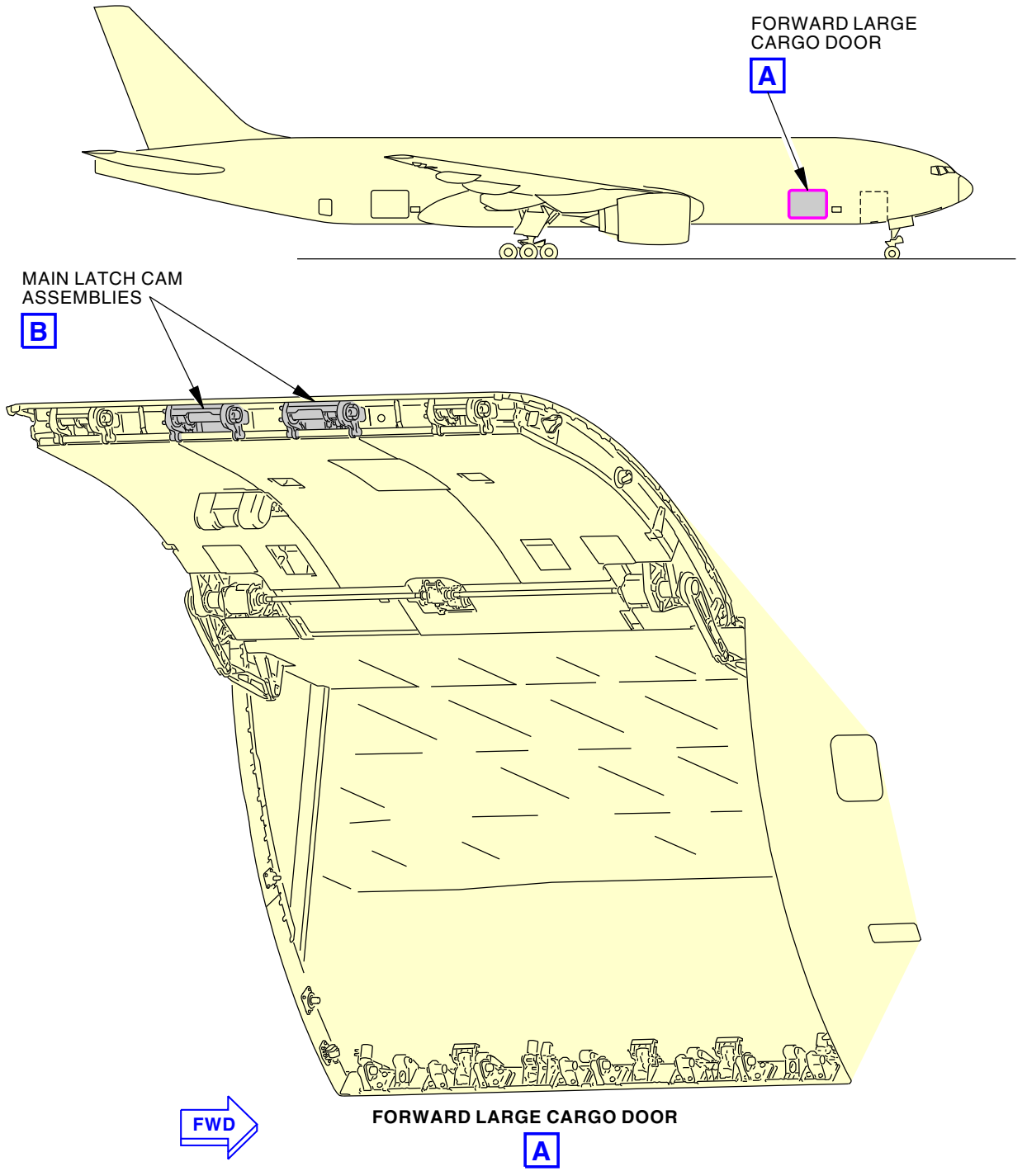
(1) (1) Do the Detailed Internal Inspection of Two Center Main Latch Cam Assemblies.Figure 204

D. Installation of Two Center Main Cam Latches

Main Cam Latches Installation, TASK 52-34-15-400-801

——— END OF TASK ———

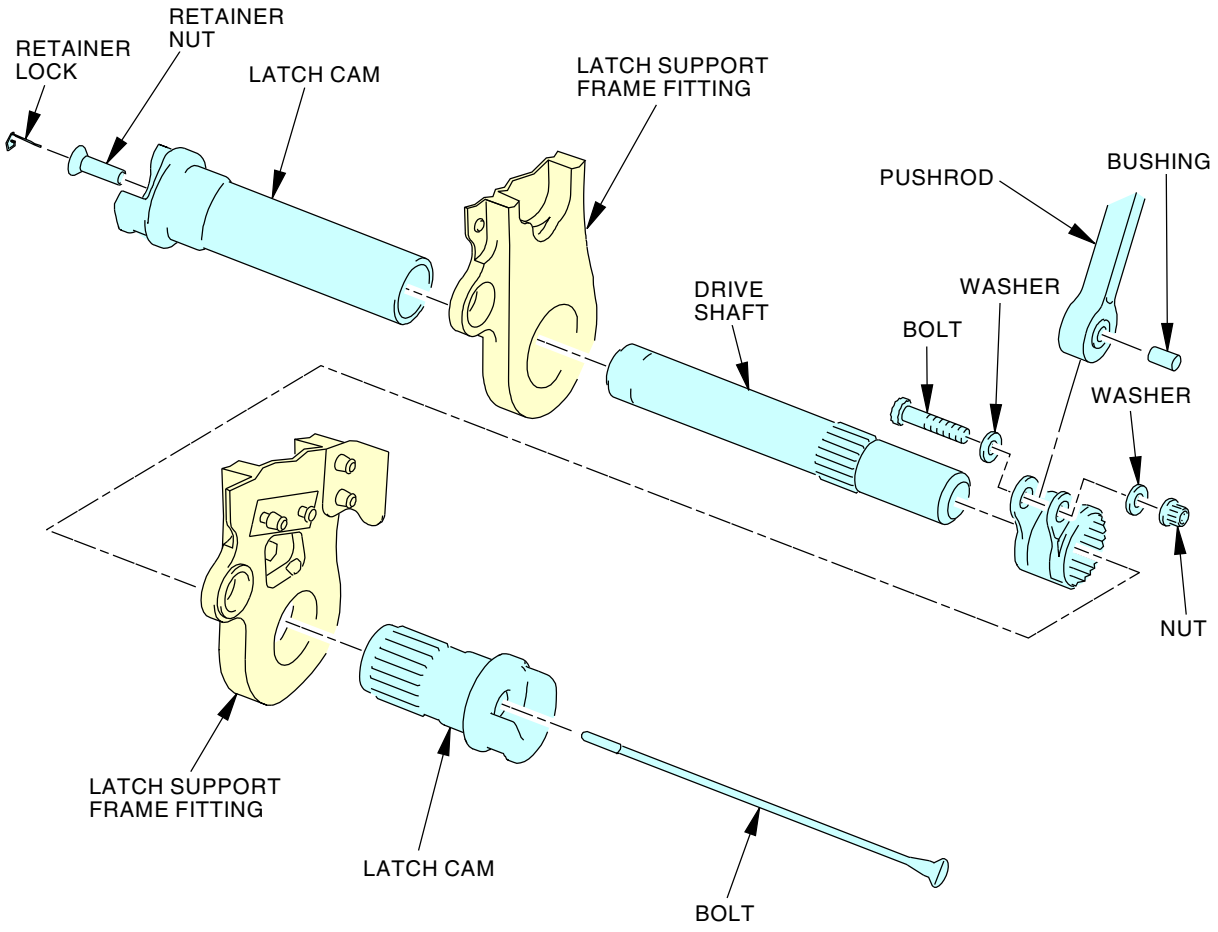
ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



G65484 S0000134722_V3

Main Latch Cam Assemblies (Forward Large Cargo Door)
Figure 204/52-05-03-990-851 (Sheet 1 of 2)

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MAIN LATCH CAM ASSEMBLY (EXAMPLE)

B

G70776 S0000134725_V2

Main Latch Cam Assemblies (Forward Large Cargo Door)
Figure 204/52-05-03-990-851 (Sheet 2 of 2)

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TASK 52-05-03-211-804

6. INTERNAL - DETAILED: FORWARD LARGE CARGO DOOR

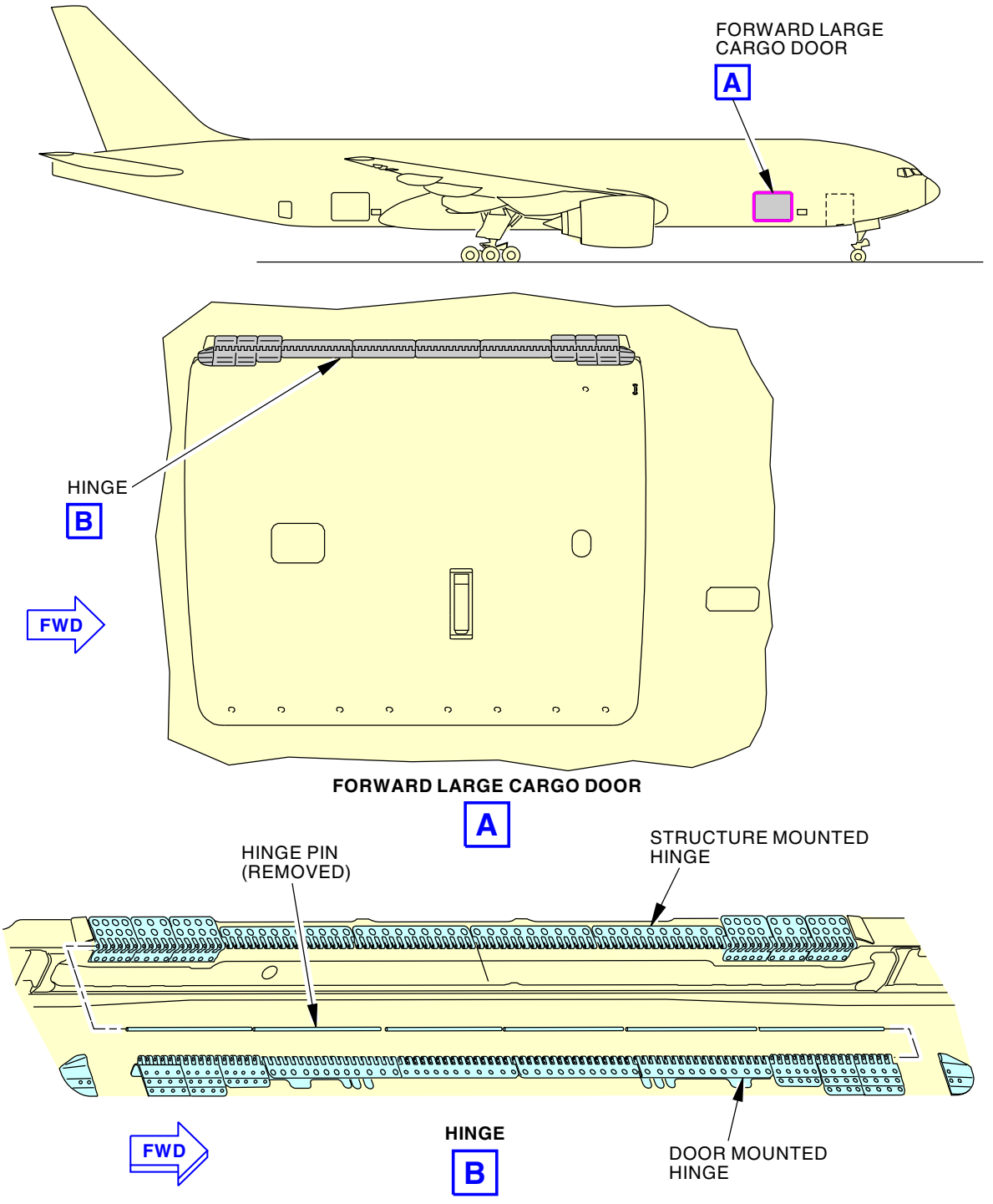
A. Inspection

SUBTASK 52-05-03-211-004

(1) Do the inspection.

——— END OF TASK ———

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Hinge and Hinge Pins (Forward Large Cargo Door) (Internal)
Figure 205/52-05-03-990-852

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TASK 52-05-03-210-802

7. EXTERNAL - GENERAL VISUAL: AFT SMALL CARGO DOOR

(Figure 206)

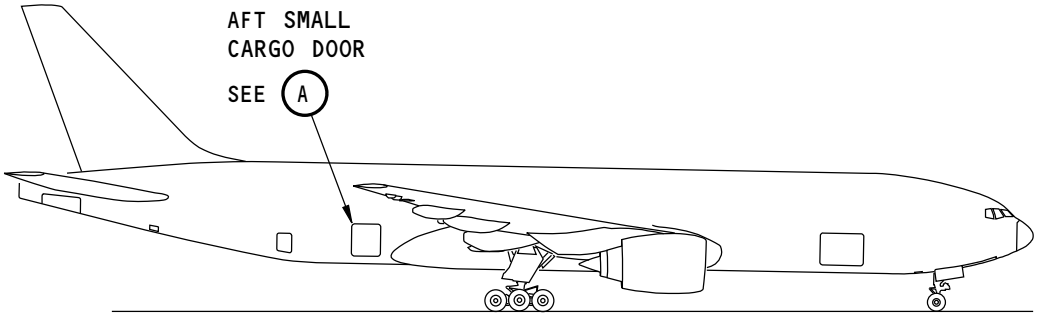
A. Inspection

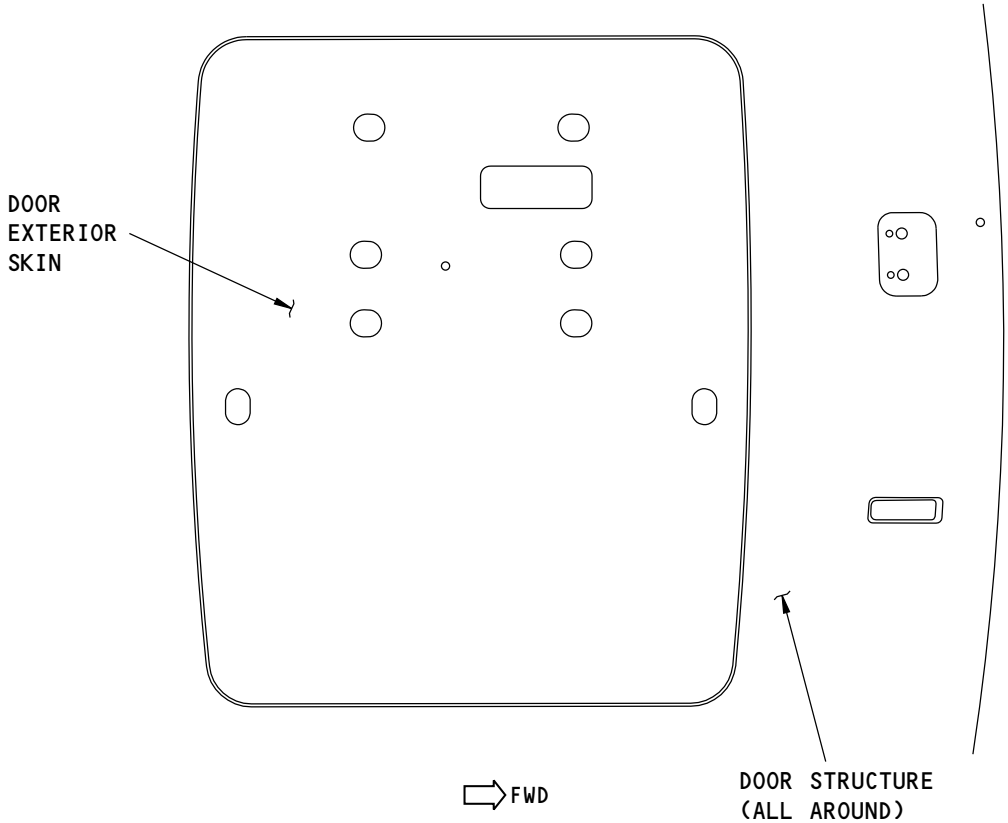
SUBTASK 52-05-03-210-002

(1) Do the inspection.

END OF TASK

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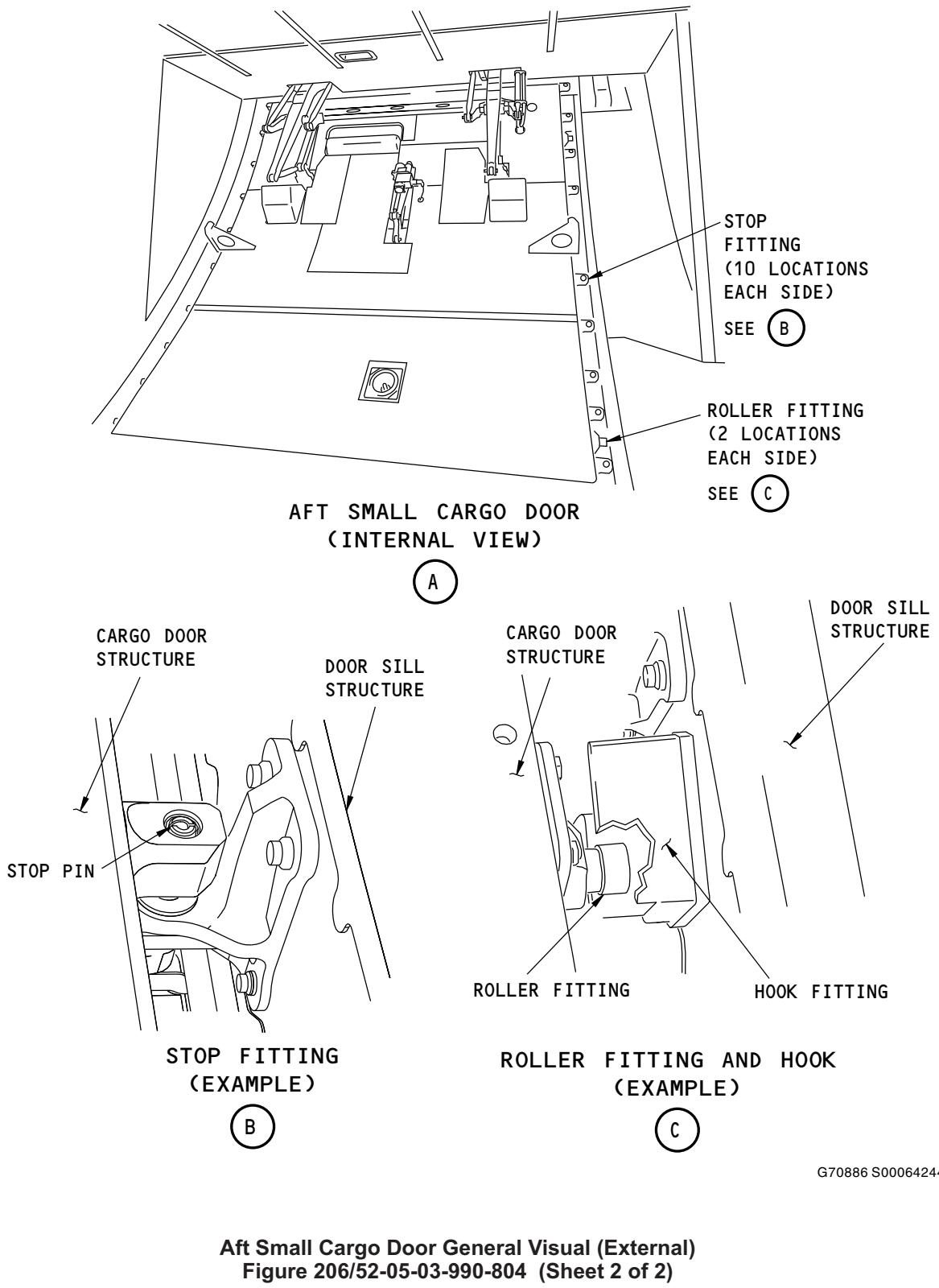


AFT SMALL CARGO DOOR
(EXTERNAL VIEW)
A

G66203 S0006424478_V1

Aft Small Cargo Door General Visual (External)
Figure 206/52-05-03-990-804 (Sheet 1 of 2)

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Aft Small Cargo Door General Visual (External)
Figure 206/52-05-03-990-804 (Sheet 2 of 2)

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TASK 52-05-03-210-803

8. EXTERNAL - GENERAL VISUAL: BULK CARGO DOOR

(Figure 207)

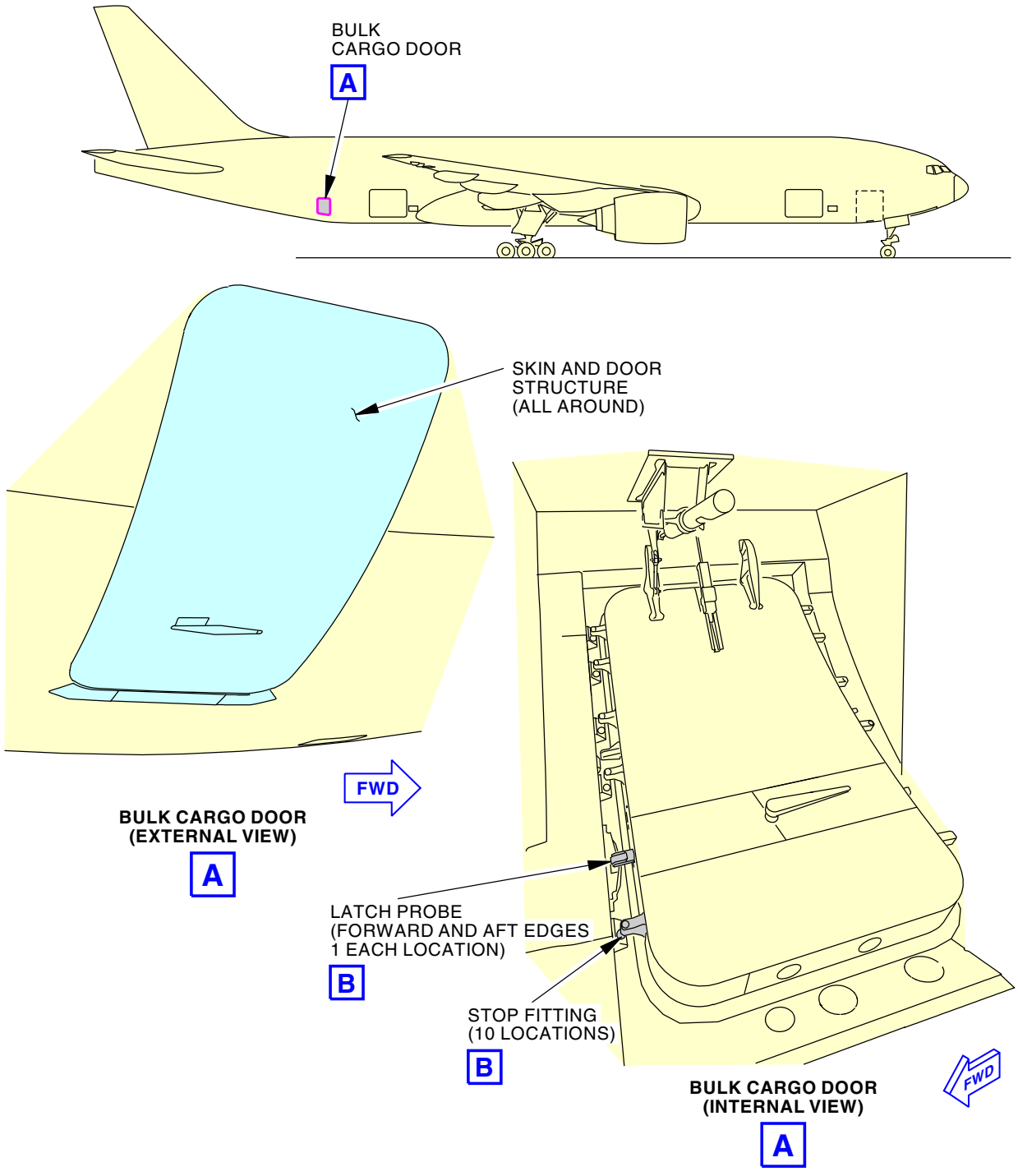
A. Inspection

SUBTASK 52-05-03-210-003

(1) Do the inspection.

END OF TASK

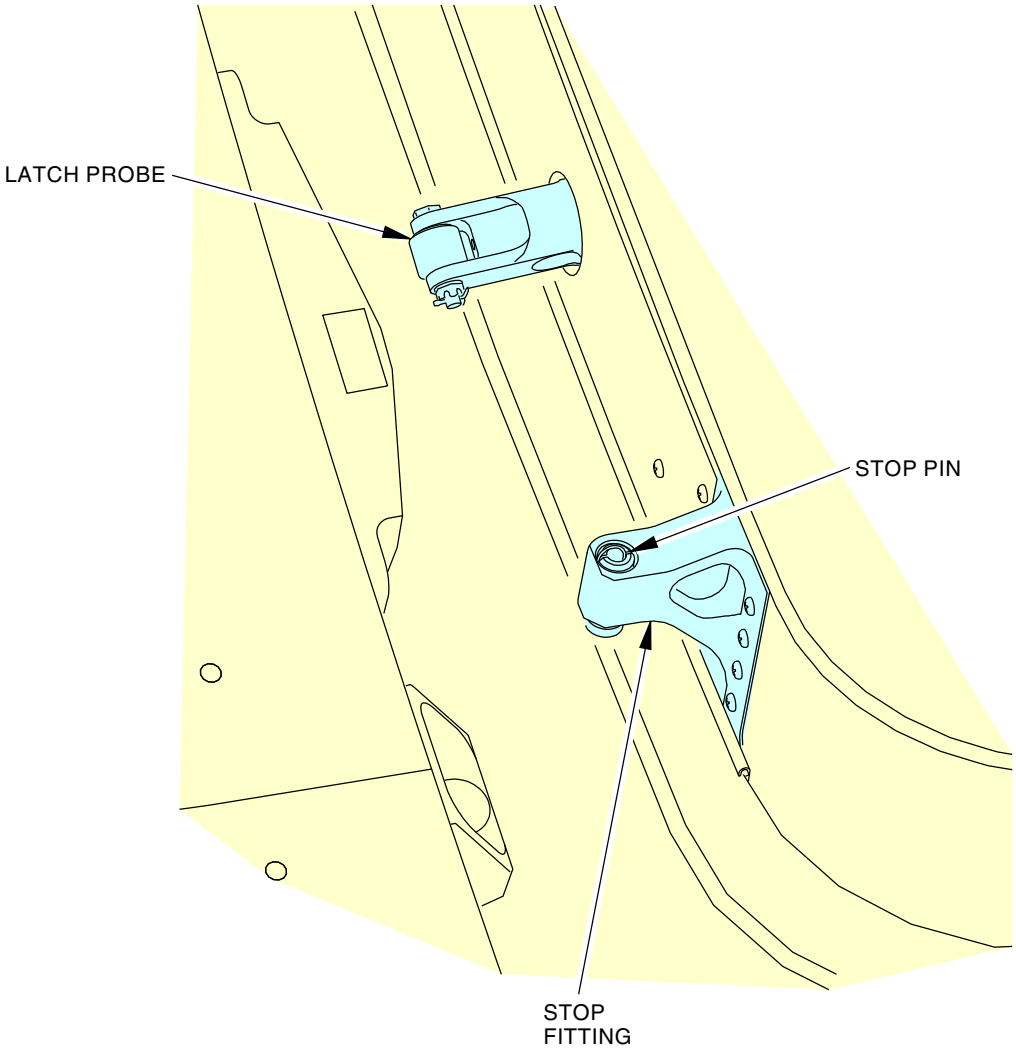
ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



G66428 S0006424481_V2

Bulk Cargo Door General Visual (External)
Figure 207/52-05-03-990-805 (Sheet 1 of 2)

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**LATCH PROBE AND STOP FITTING
(EXAMPLE)**

B

G66443 S0006424482_V2

**Bulk Cargo Door General Visual (External)
Figure 207/52-05-03-990-805 (Sheet 2 of 2)**

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TASK 52-05-03-210-804

9. INTERNAL - GENERAL VISUAL: BULK CARGO DOOR

(Figure 208, Figure 209)

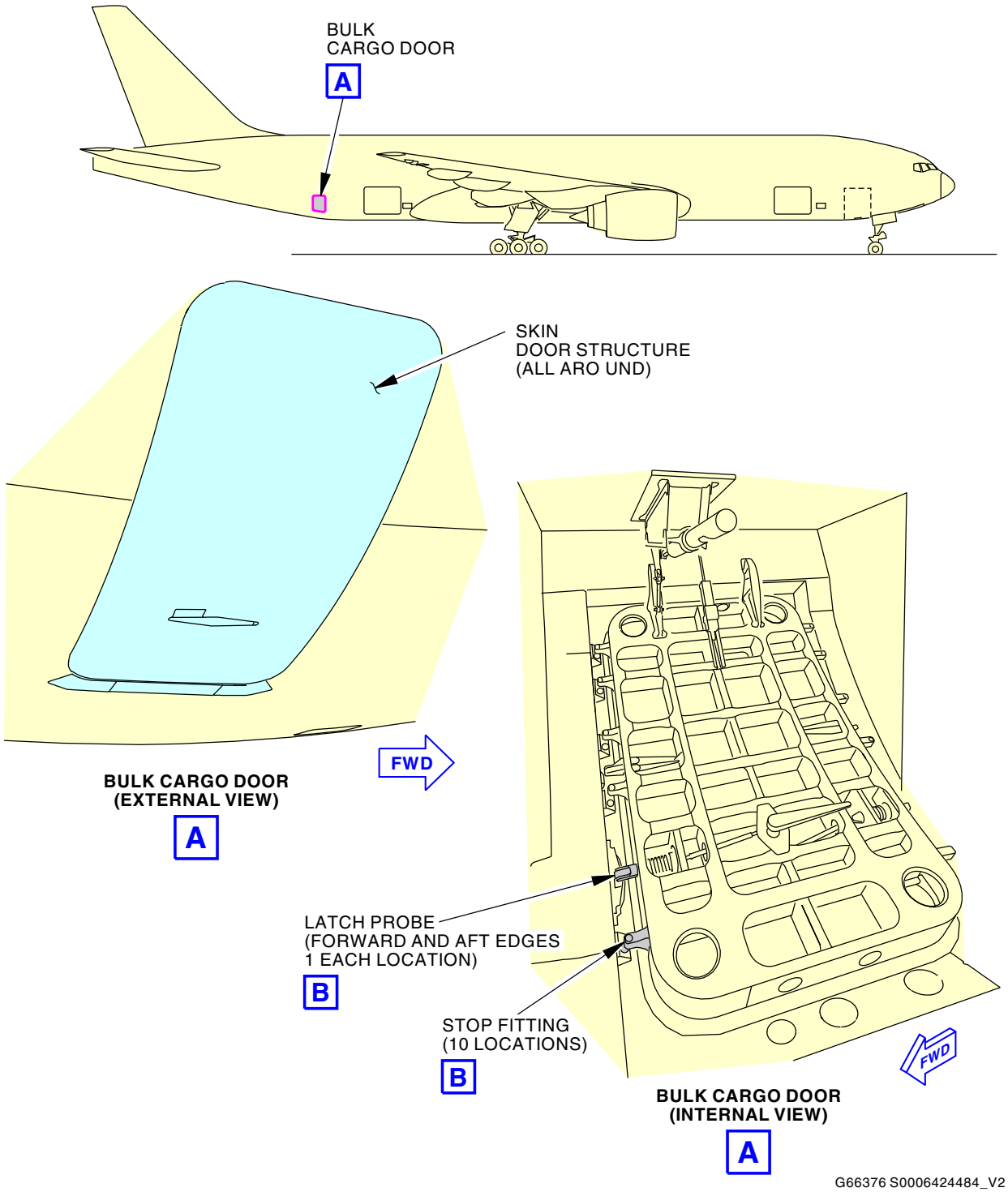
A. Inspection

SUBTASK 52-05-03-210-004

(1) Do the inspection.

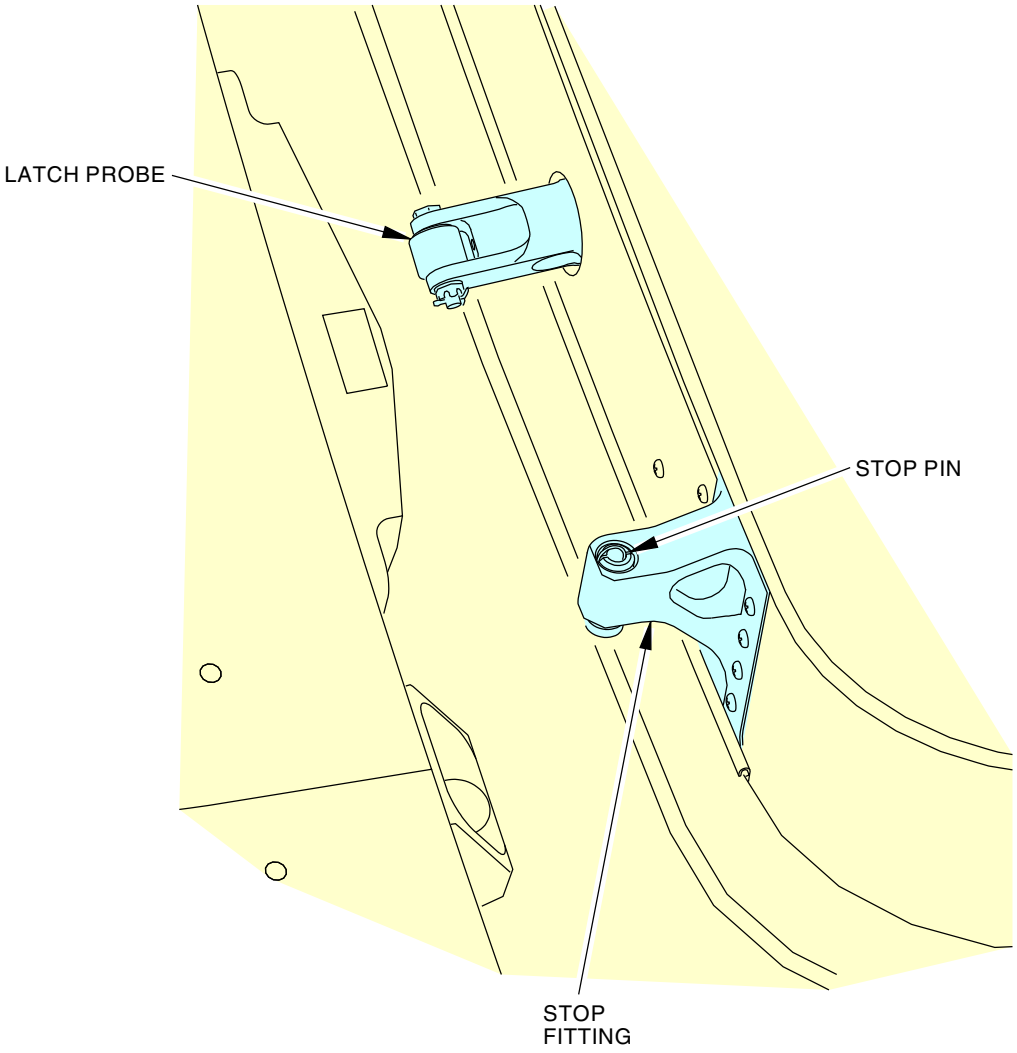
END OF TASK

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Bulk Cargo Door General Visual (Internal)
Figure 208/52-05-03-990-806 (Sheet 1 of 2)

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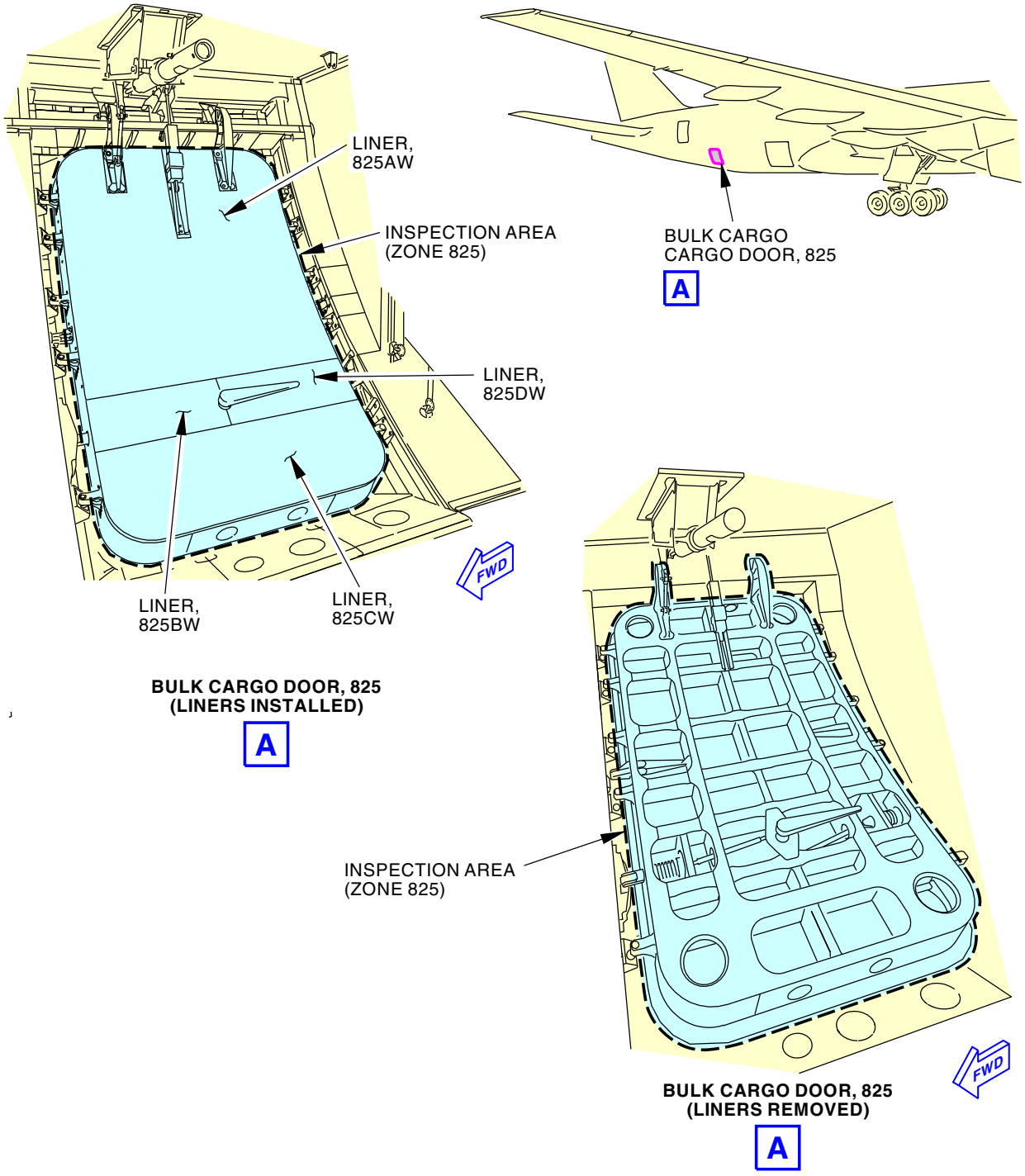
LATCH PROBE AND STOP FITTING (EXAMPLE)

B

G66398 S0006424485_V2

Bulk Cargo Door General Visual (Internal)
Figure 208/52-05-03-990-806 (Sheet 2 of 2)

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W68035 S0000128696_V2

Bulk Cargo Door
Figure 209/52-05-03-990-867

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TASK 52-05-03-210-806

10. EXTERNAL - GENERAL VISUAL: LEFT #1 PASSENGER ENTRY DOOR

(Figure 210)

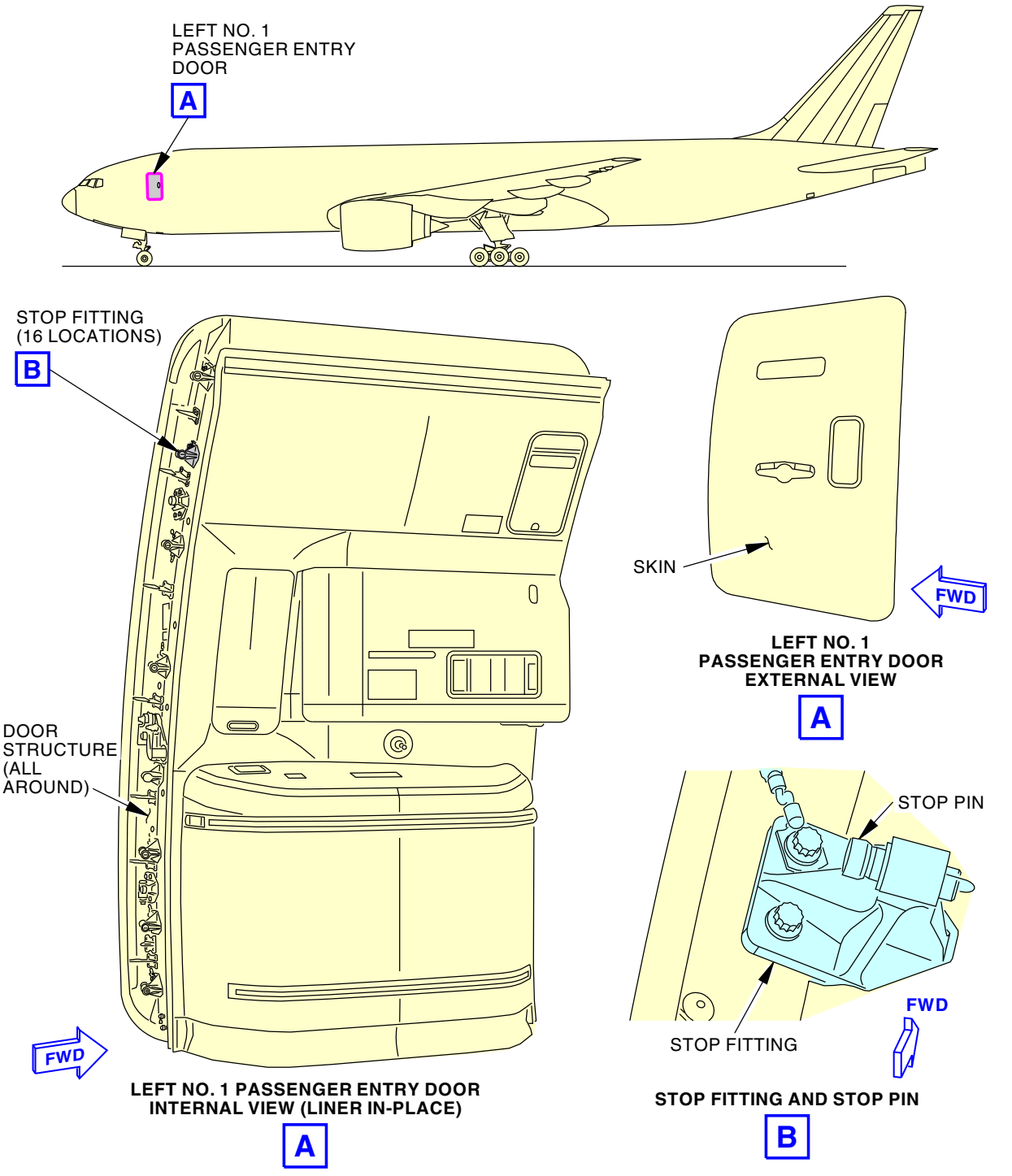
A. Inspection

SUBTASK 52-05-03-210-006

(1) Do the inspection.

END OF TASK

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Left No. 1 Passenger Entry Door
Figure 210/52-05-03-990-812

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TASK 52-05-03-210-807

11. EXTERNAL - GENERAL VISUAL: LEFT #2 PASSENGER ENTRY DOOR

(Figure 211)

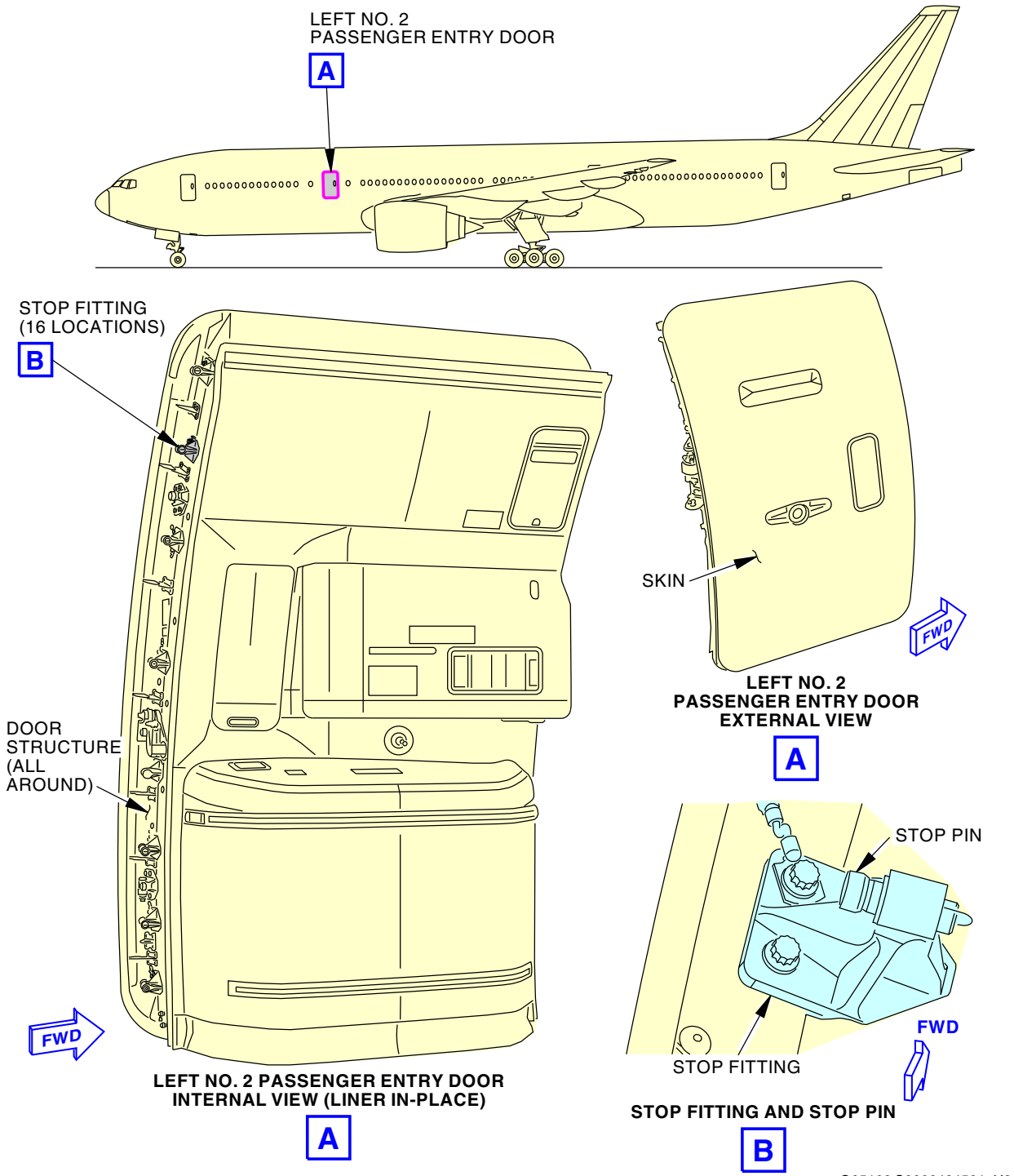
A. Inspection

SUBTASK 52-05-03-210-007

(1) Do the inspection.

END OF TASK

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Left No. 2 Passenger Entry Door
Figure 211/52-05-03-990-813

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TASK 52-05-03-210-808

12. EXTERNAL - GENERAL VISUAL: LEFT #3 OVERWING DOOR

(Figure 212)

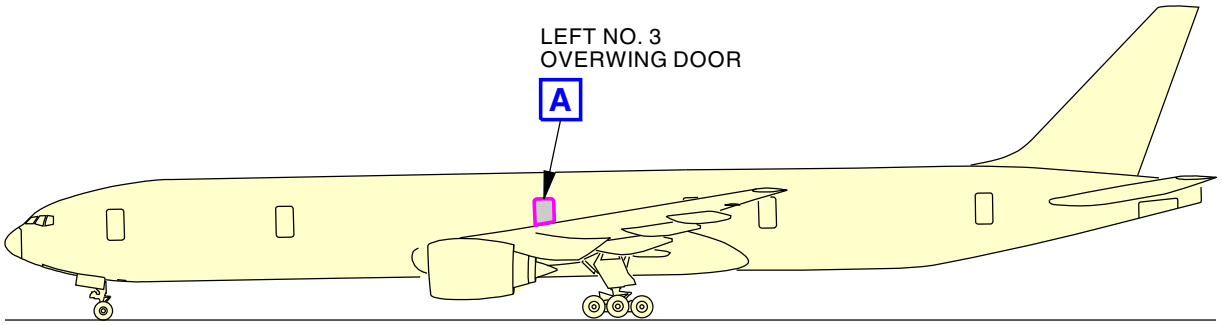
A. Inspection

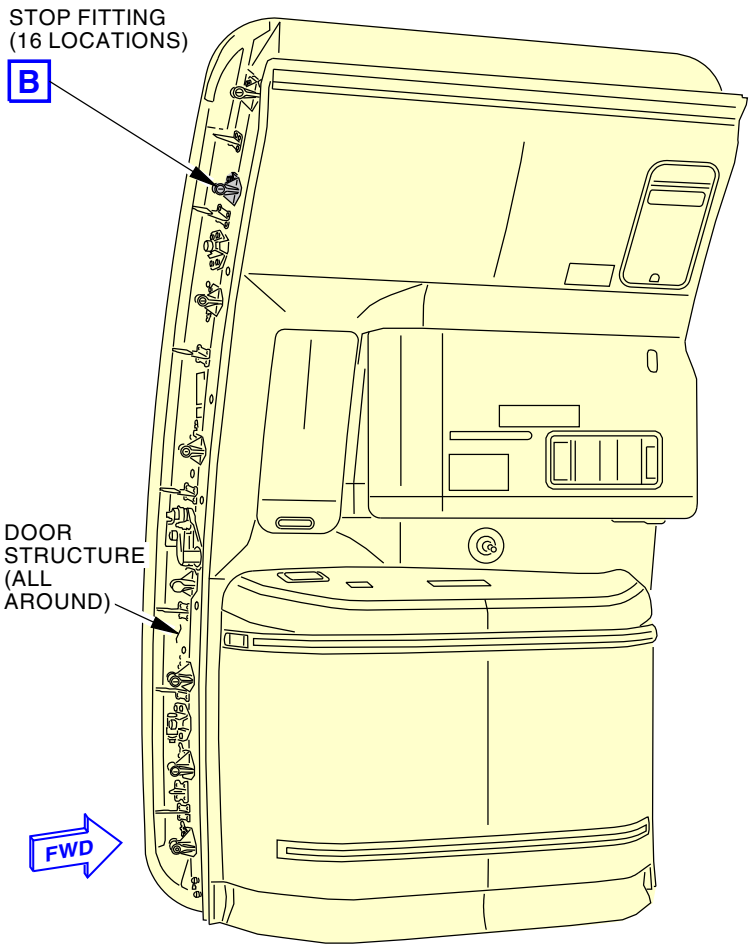
SUBTASK 52-05-03-210-008

(1) Do the inspection.

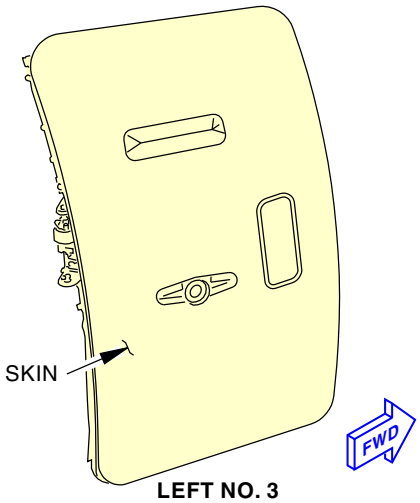
END OF TASK

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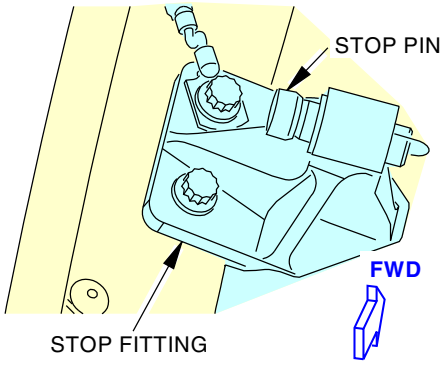




LEFT NO. 3 OVERWING DOOR
INTERNAL VIEW (LINER IN-PLACE)
A



LEFT NO. 3
OVERWING DOOR
(EXTERNAL VIEW)
A



STOP FITTING AND STOP PIN
B

H86474 S0006424503_V2

Left No. 3 Overwing Door
Figure 212/52-05-03-990-814

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TASK 52-05-03-210-812

13. EXTERNAL - GENERAL VISUAL: LEFT #4 PASSENGER ENTRY DOOR

(Figure 213)

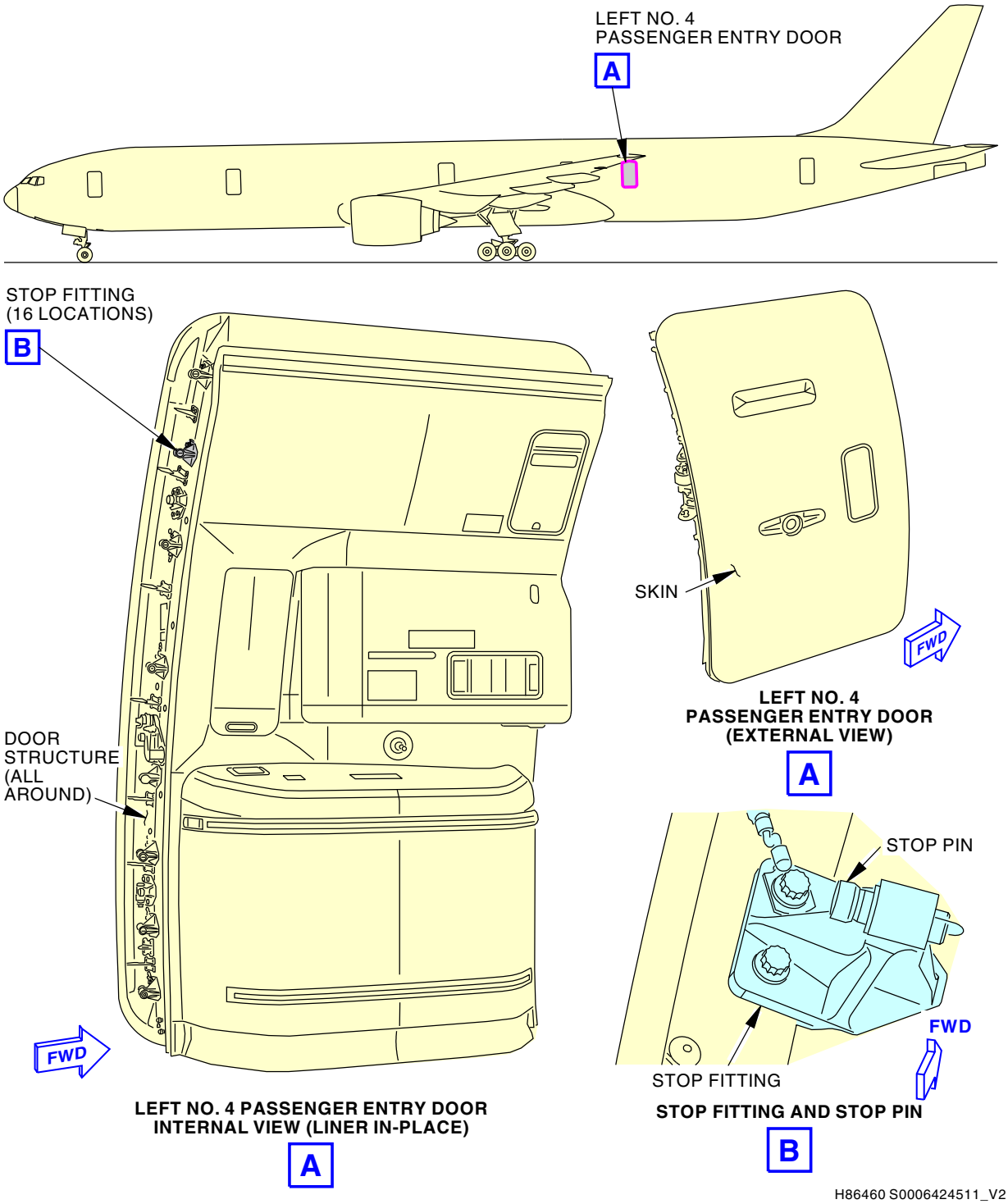
A. Inspection

SUBTASK 52-05-03-210-012

(1) Do the inspection.

END OF TASK

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Left No. 4 Passenger Entry Door
Figure 213/52-05-03-990-818

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TASK 52-05-03-210-816

14. EXTERNAL - GENERAL VISUAL: LEFT #5 PASSENGER ENTRY DOOR

(Figure 214)

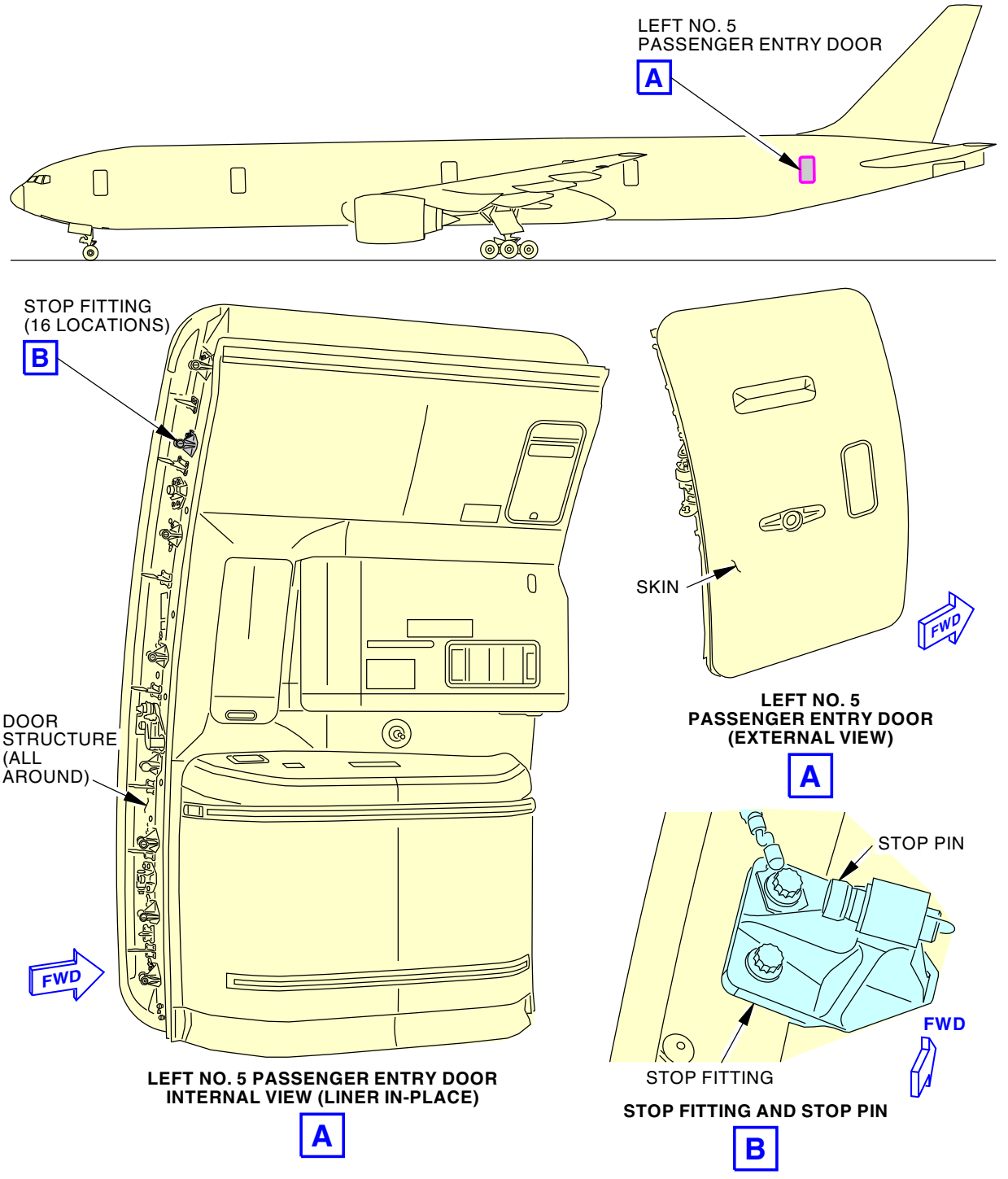
A. Inspection

SUBTASK 52-05-03-210-016

(1) Do the inspection.

END OF TASK

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Left No. 5 Passenger Entry Door
Figure 214/52-05-03-990-822

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TASK 52-05-03-211-809

15. EXTERNAL - DETAILED: LEFT #1 PASSENGER ENTRY DOOR

(Figure 215)

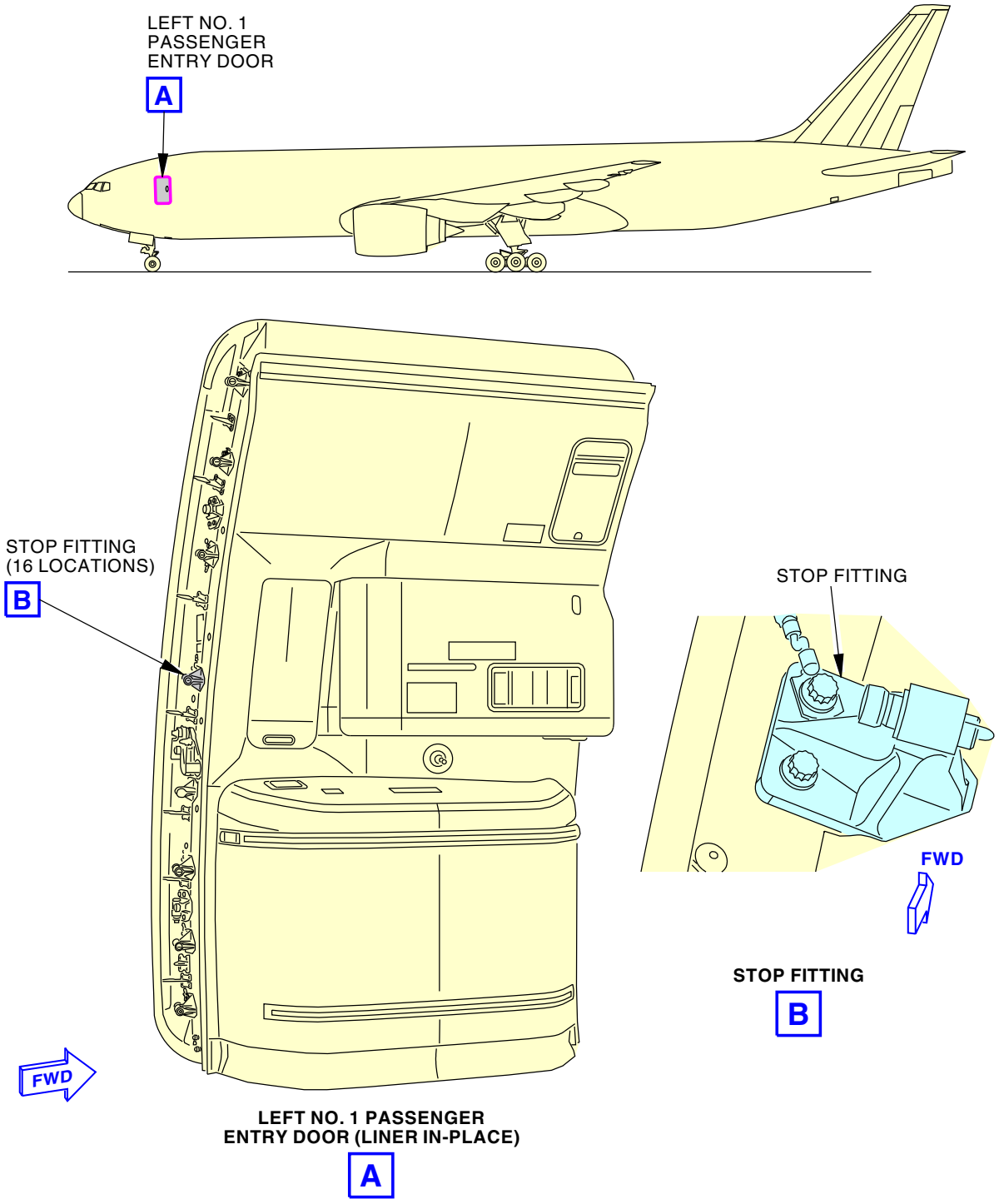
A. Inspection

SUBTASK 52-05-03-211-009

(1) Do the inspection.

END OF TASK

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G65098 S0006424521_V3

Left No. 1 Passenger Entry Door
Figure 215/52-05-03-990-823

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TASK 52-05-03-211-810

16. EXTERNAL - DETAILED: LEFT #2 PASSENGER ENTRY DOOR

(Figure 216)

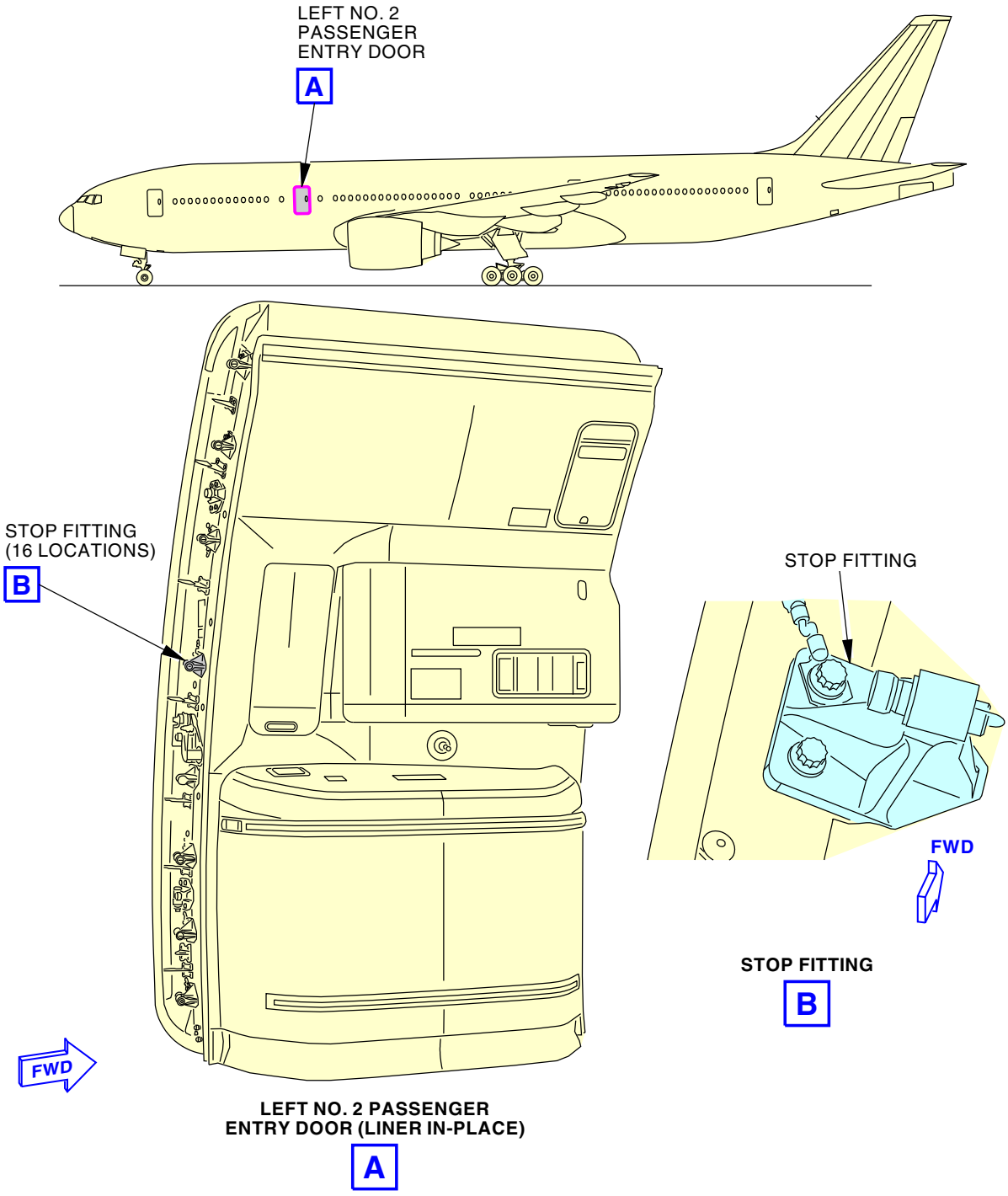
A. Inspection

SUBTASK 52-05-03-211-010

(1) Do the inspection.

END OF TASK

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Left No. 2 Passenger Entry Door
Figure 216/52-05-03-990-824

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TASK 52-05-03-211-811

17. EXTERNAL - DETAILED: LEFT #3 OVERWING DOOR

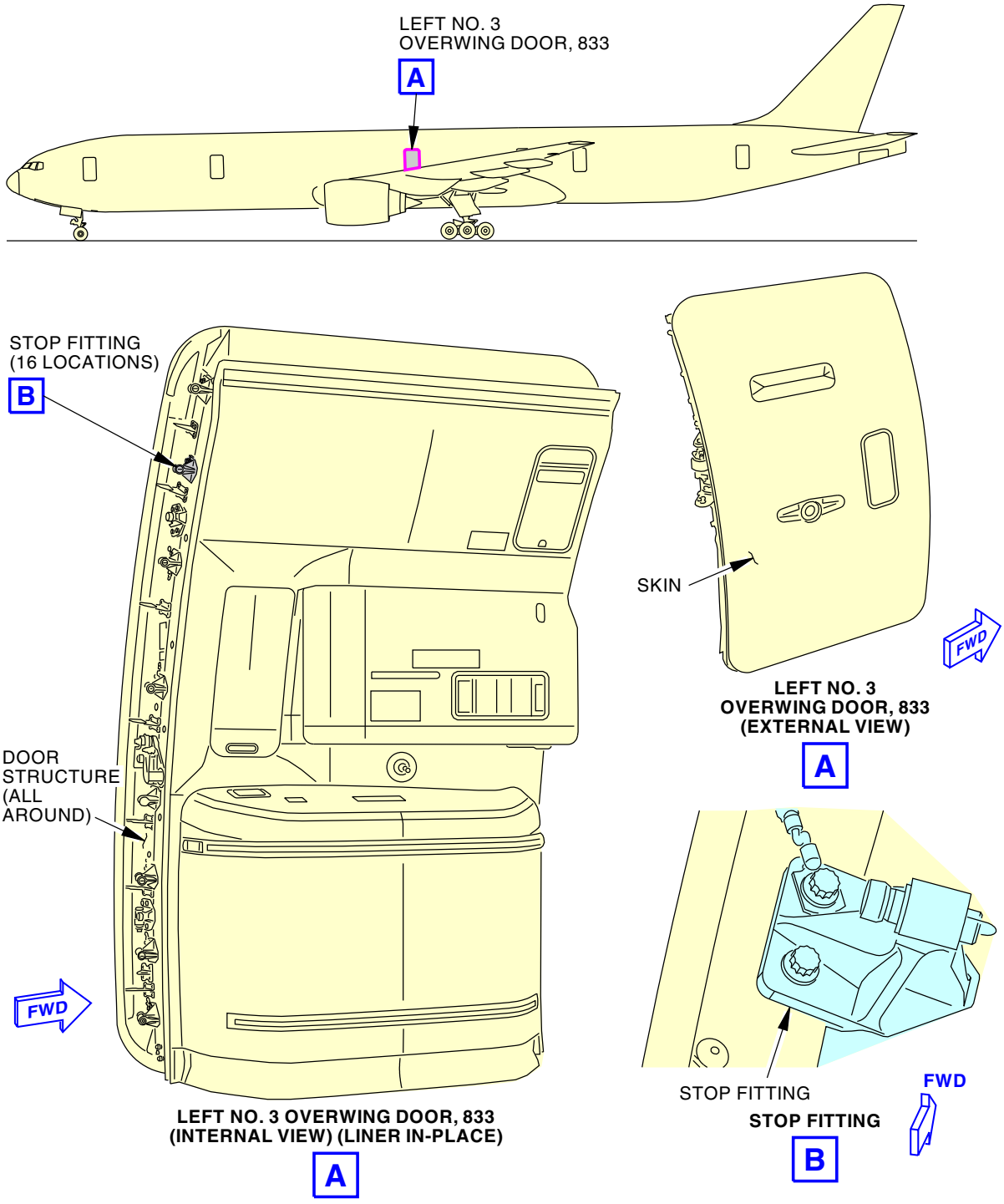
A. Inspection

SUBTASK 52-05-03-211-011

(1) Do the inspection.

——— END OF TASK ———

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Left #3 Overwing Door
Figure 217/52-05-03-990-853

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TASK 52-05-03-211-815

18. EXTERNAL - DETAILED: LEFT #4 PASSENGER ENTRY DOOR

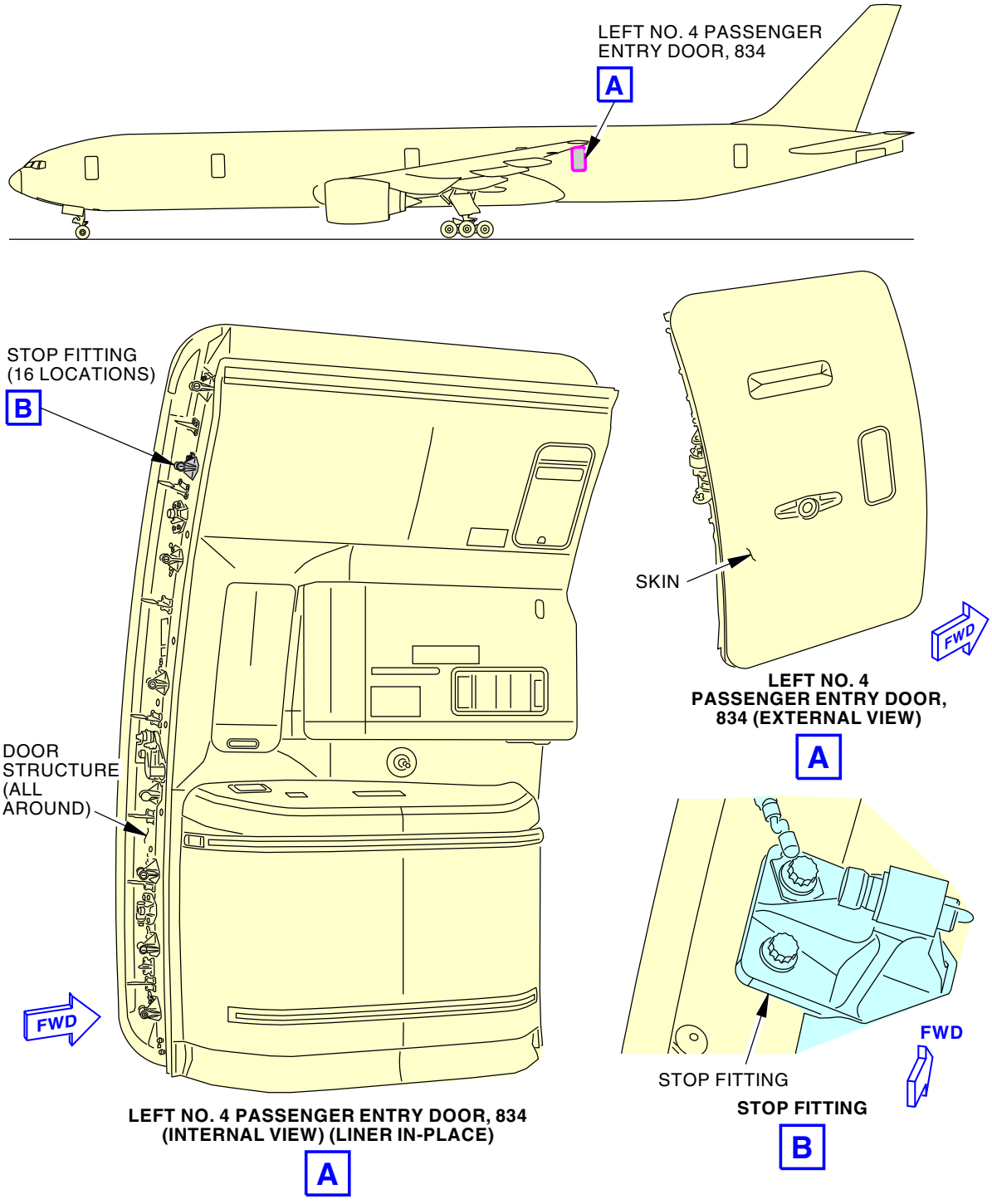
A. Inspection

SUBTASK 52-05-03-211-015

(1) Do the inspection.

——— END OF TASK ———

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Left #4 Passenger Entry Door
Figure 218/52-05-03-990-854

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TASK 52-05-03-211-819

19. EXTERNAL - DETAILED: LEFT #5 PASSENGER ENTRY DOOR

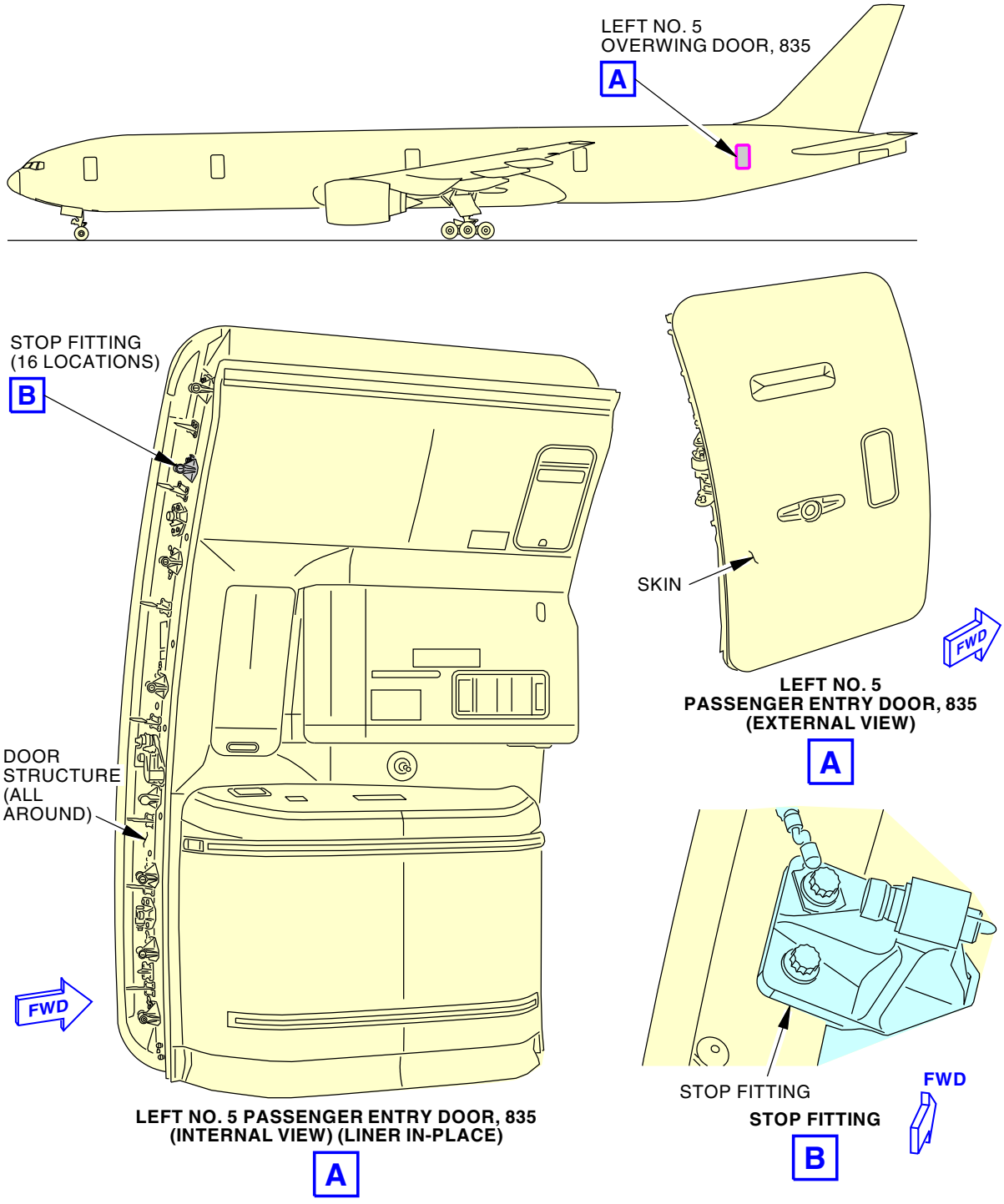
A. Inspection

SUBTASK 52-05-03-211-019

(1) Do the inspection.

——— END OF TASK ———

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Left #5 Passenger Entry Door
Figure 219/52-05-03-990-855

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TASK 52-05-03-210-817

20. EXTERNAL - GENERAL VISUAL: RIGHT #1 PASSENGER ENTRY DOOR

(Figure 220)

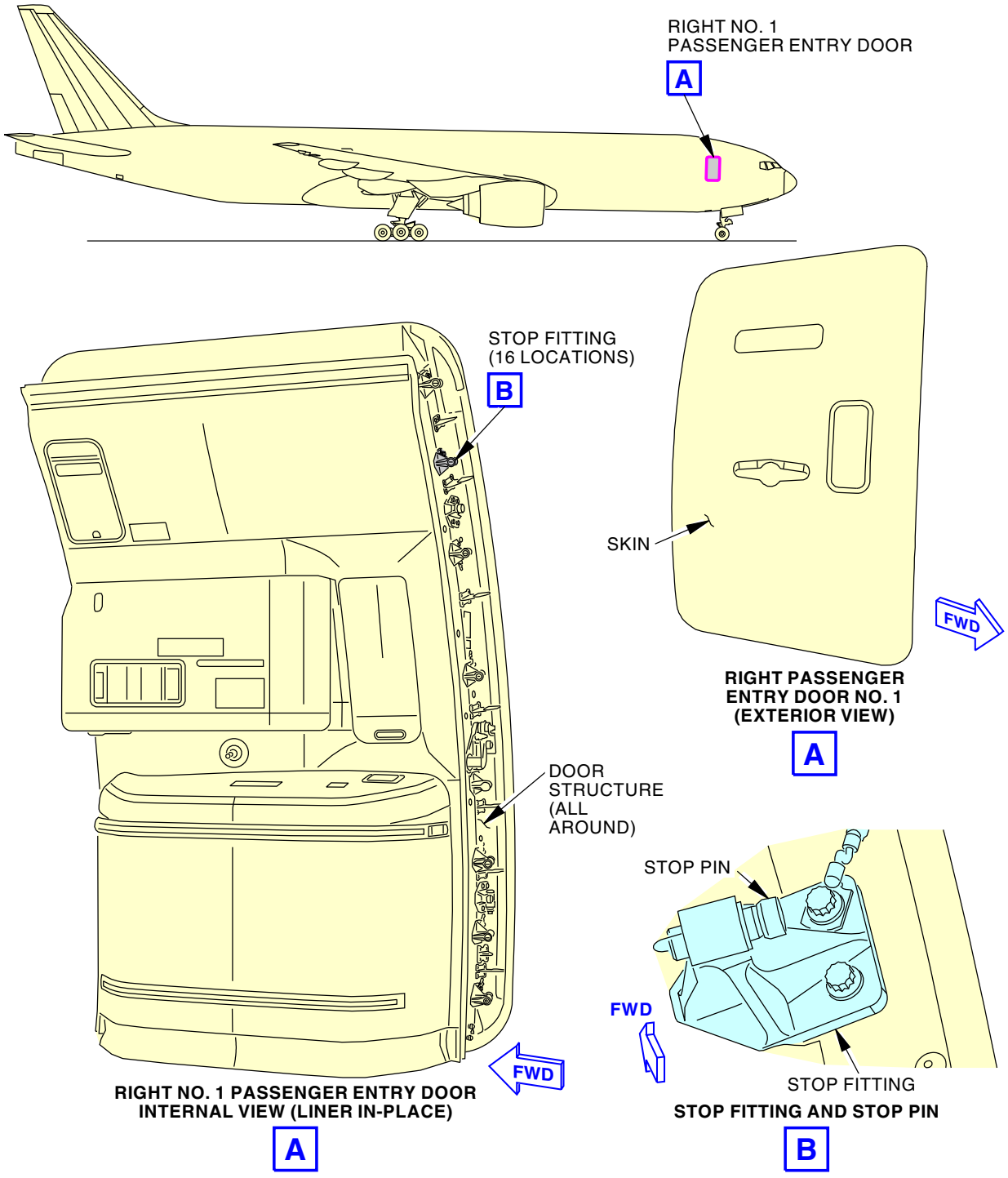
A. Inspection

SUBTASK 52-05-03-210-017

(1) Do the inspection.

END OF TASK

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Right No. 1 Passenger Entry Door
Figure 220/52-05-03-990-831

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TASK 52-05-03-210-818

21. EXTERNAL - GENERAL VISUAL: RIGHT #2 PASSENGER ENTRY DOOR

(Figure 221)

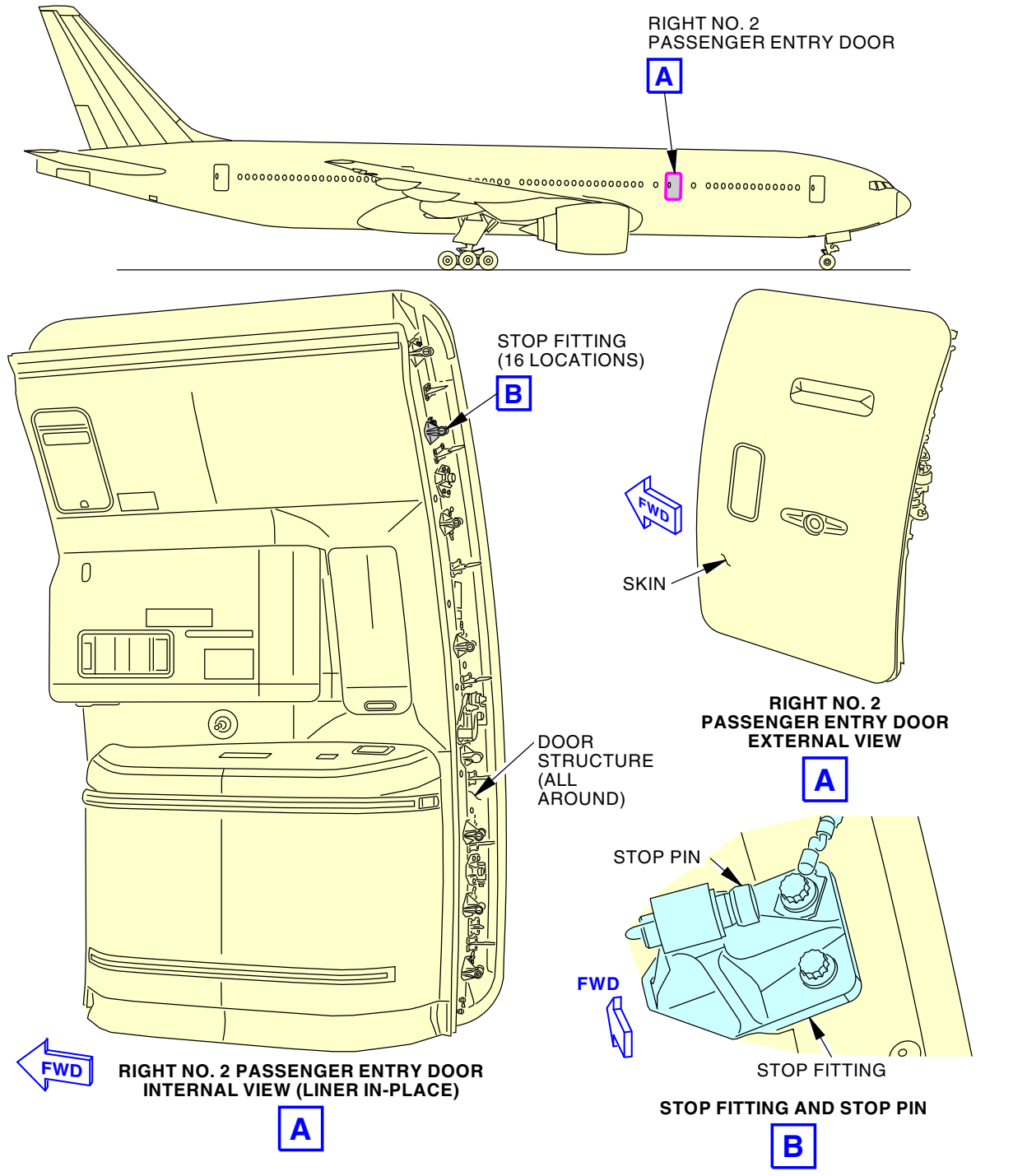
A. Inspection

SUBTASK 52-05-03-210-018

(1) Do the inspection.

END OF TASK

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Right No. 2 Passenger Entry Door
Figure 221/52-05-03-990-832

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TASK 52-05-03-210-819

22. EXTERNAL - GENERAL VISUAL: RIGHT #3 OVERWING DOOR

(Figure 222)

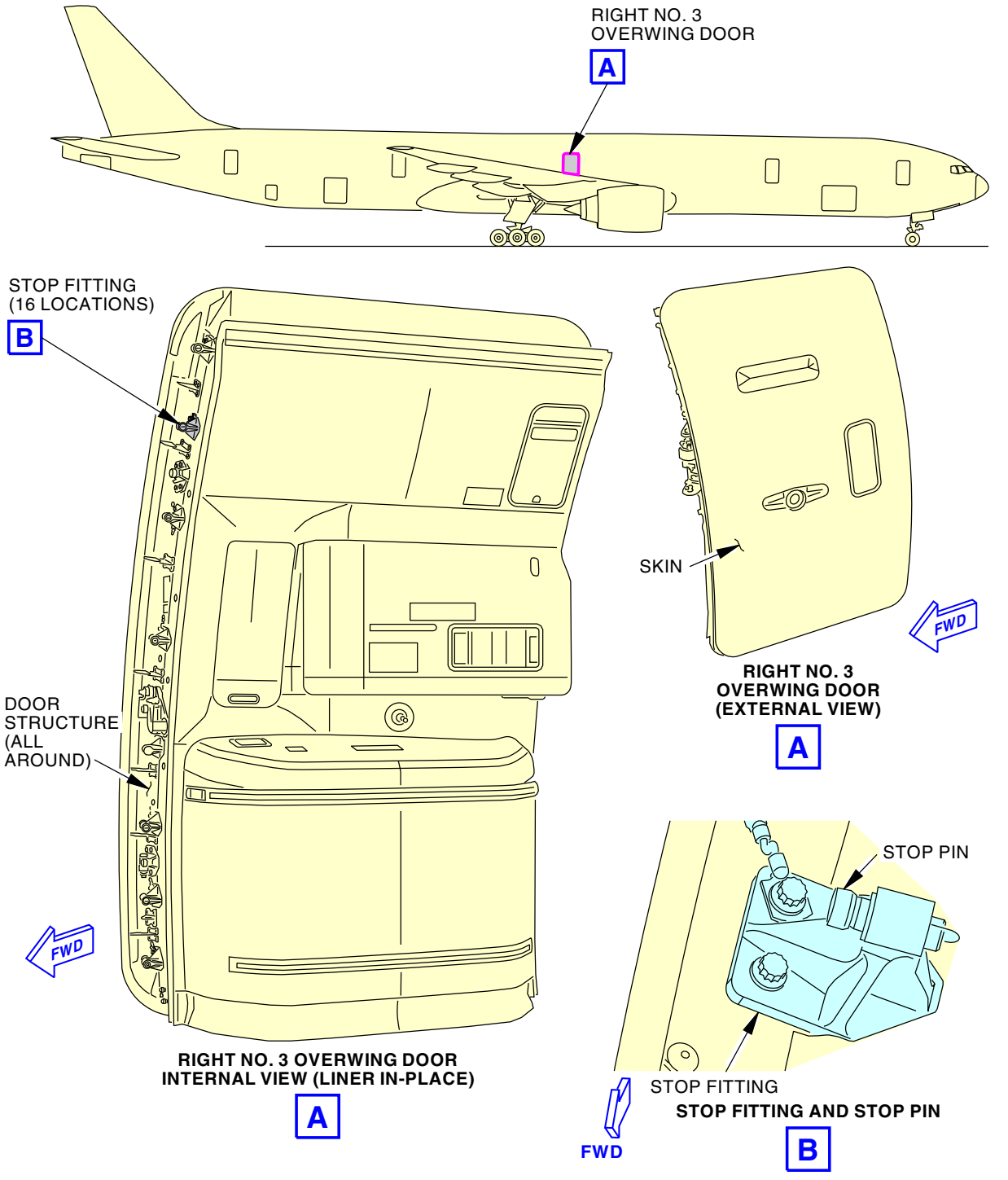
A. Inspection

SUBTASK 52-05-03-210-019

(1) Do the inspection.

END OF TASK

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Right No. 3 Overwing Door
Figure 222/52-05-03-990-833

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TASK 52-05-03-210-824

23. EXTERNAL - GENERAL VISUAL: RIGHT #4 PASSENGER ENTRY DOOR

(Figure 223)

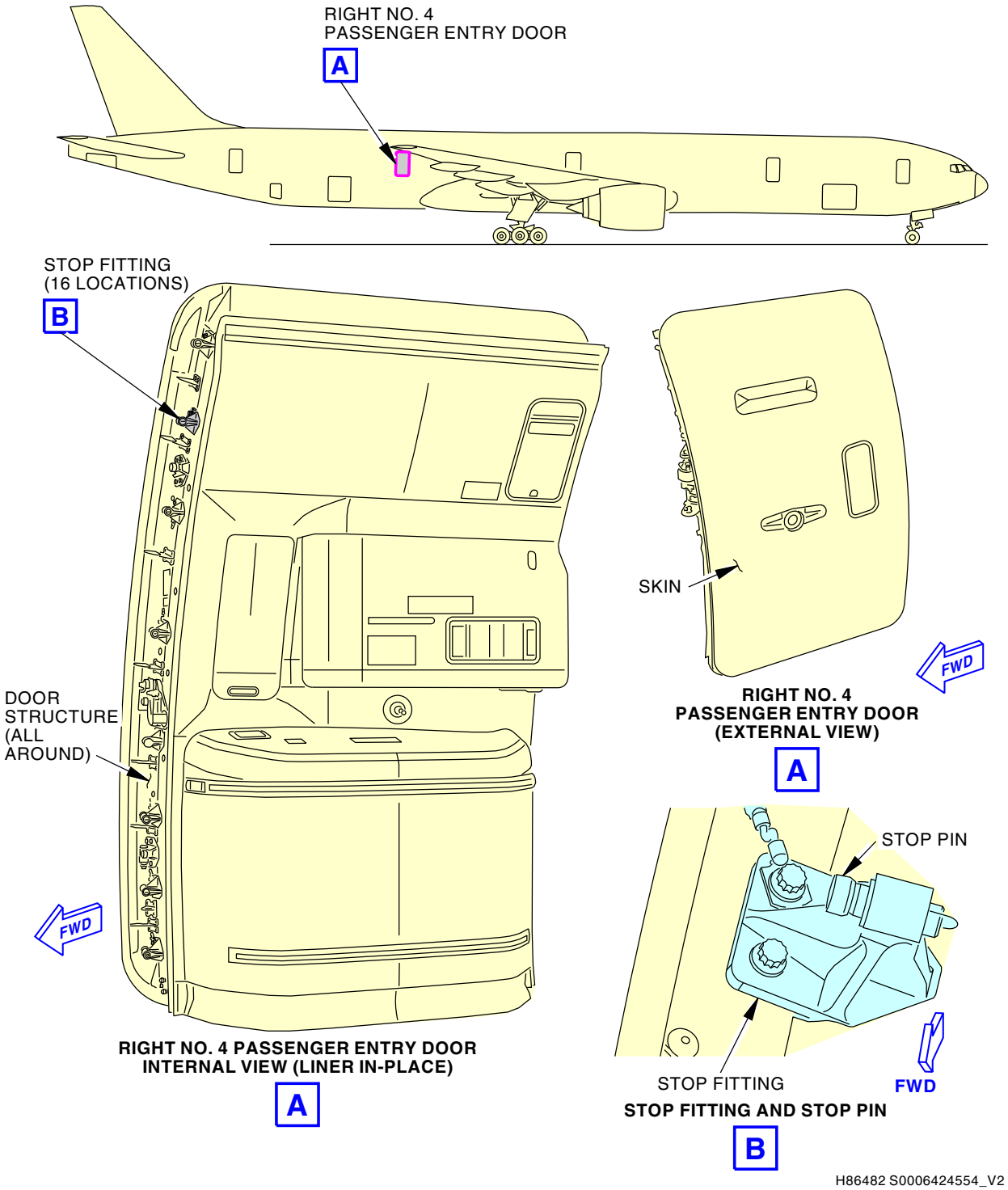
A. Inspection

SUBTASK 52-05-03-210-024

(1) Do the inspection.

END OF TASK

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Right No. 4 Passenger Entry Door
Figure 223/52-05-03-990-838

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TASK 52-05-03-210-828

24. EXTERNAL - GENERAL VISUAL: RIGHT #5 PASSENGER ENTRY DOOR

(Figure 224)

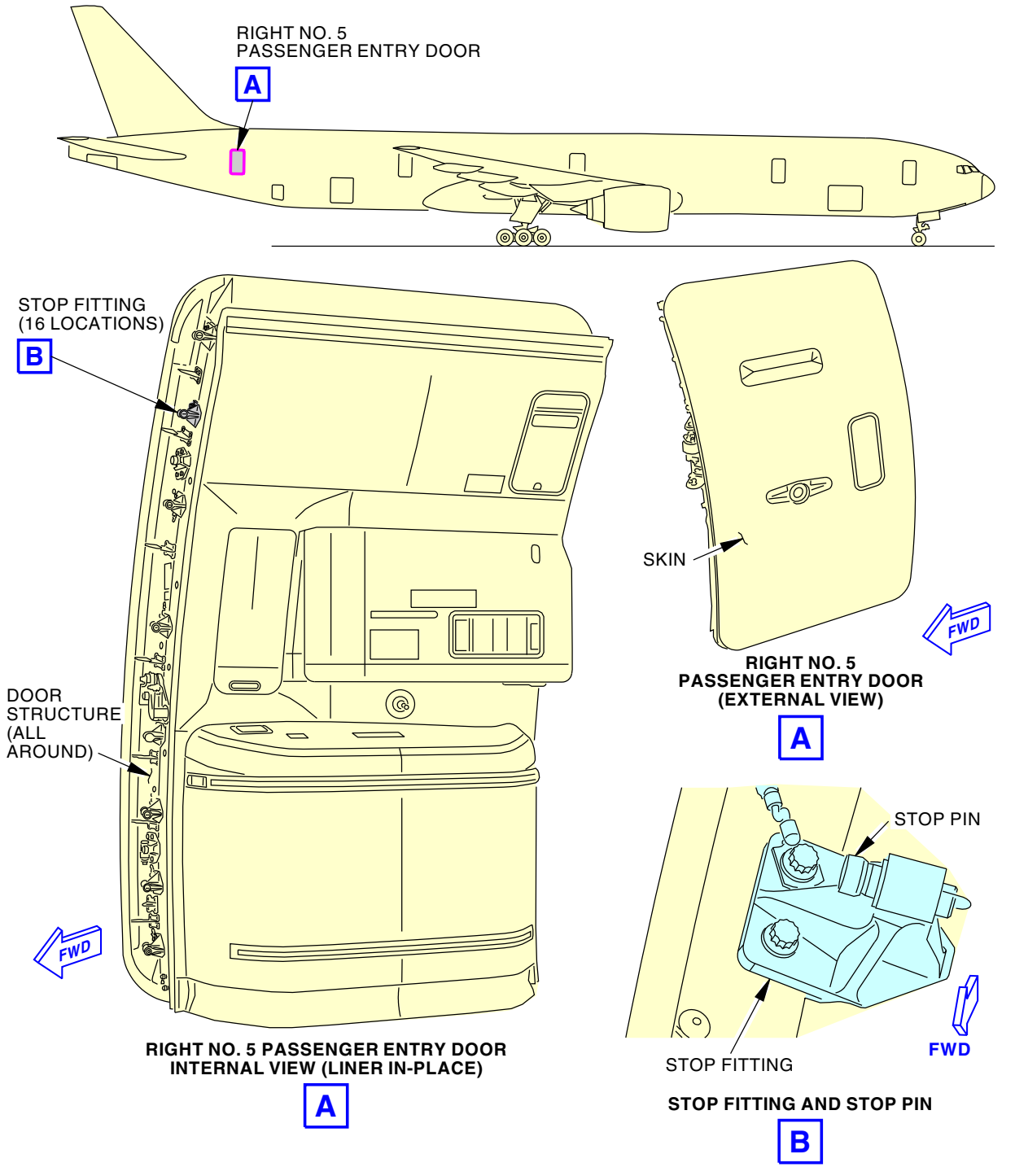
A. Inspection

SUBTASK 52-05-03-210-028

(1) Do the inspection.

END OF TASK

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Right No. 5 Passenger Entry Door
Figure 224/52-05-03-990-842

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TASK 52-05-03-211-820

25. EXTERNAL - DETAILED: RIGHT #1 PASSENGER ENTRY DOOR

(Figure 225)

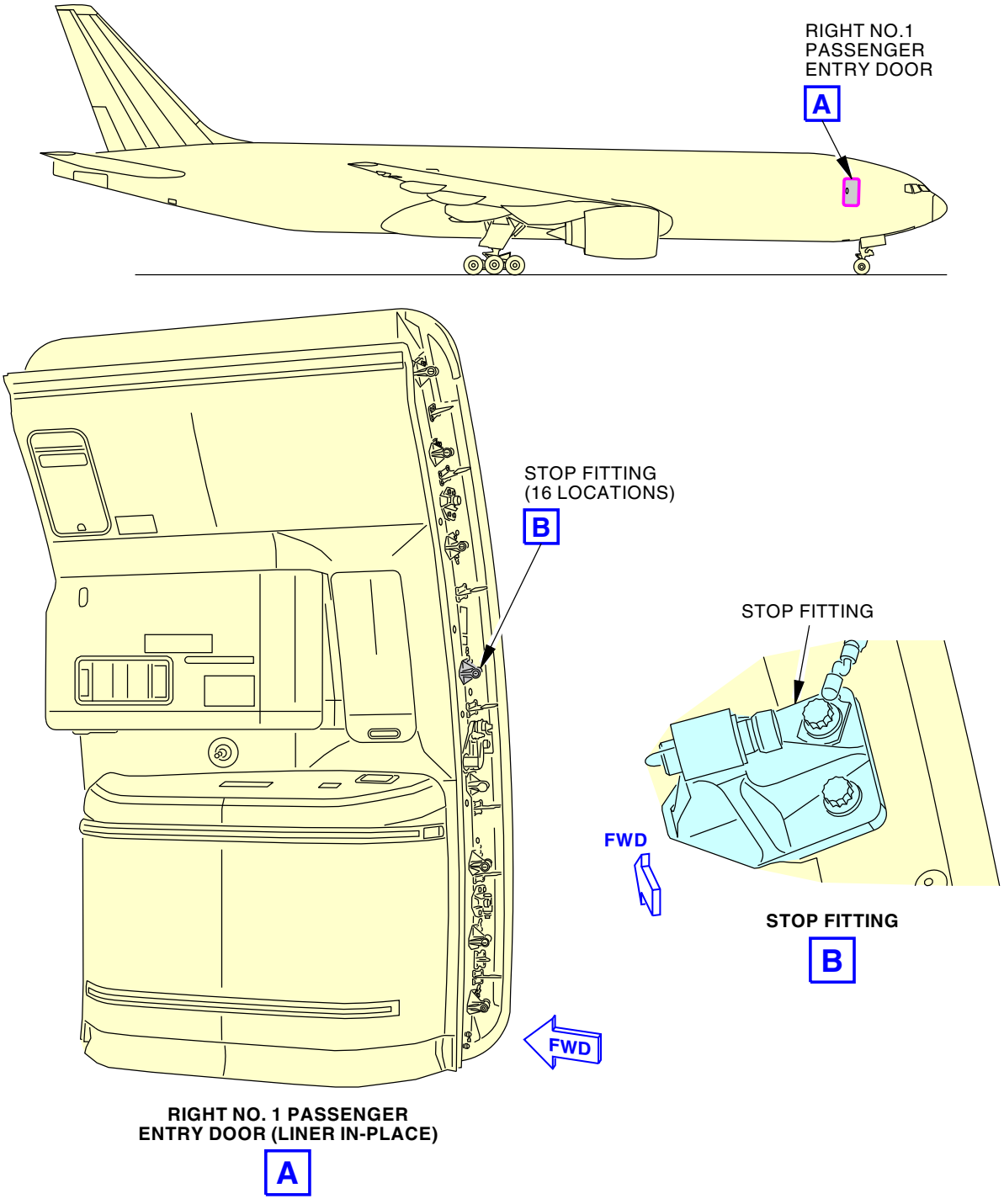
A. Inspection

SUBTASK 52-05-03-211-020

(1) Do the inspection.

END OF TASK

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G66222 S0006424564_V3

Right No. 1 Passenger Entry Door
Figure 225/52-05-03-990-843

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TASK 52-05-03-211-821

26. EXTERNAL - DETAILED: RIGHT #2 PASSENGER ENTRY DOOR

(Figure 226)

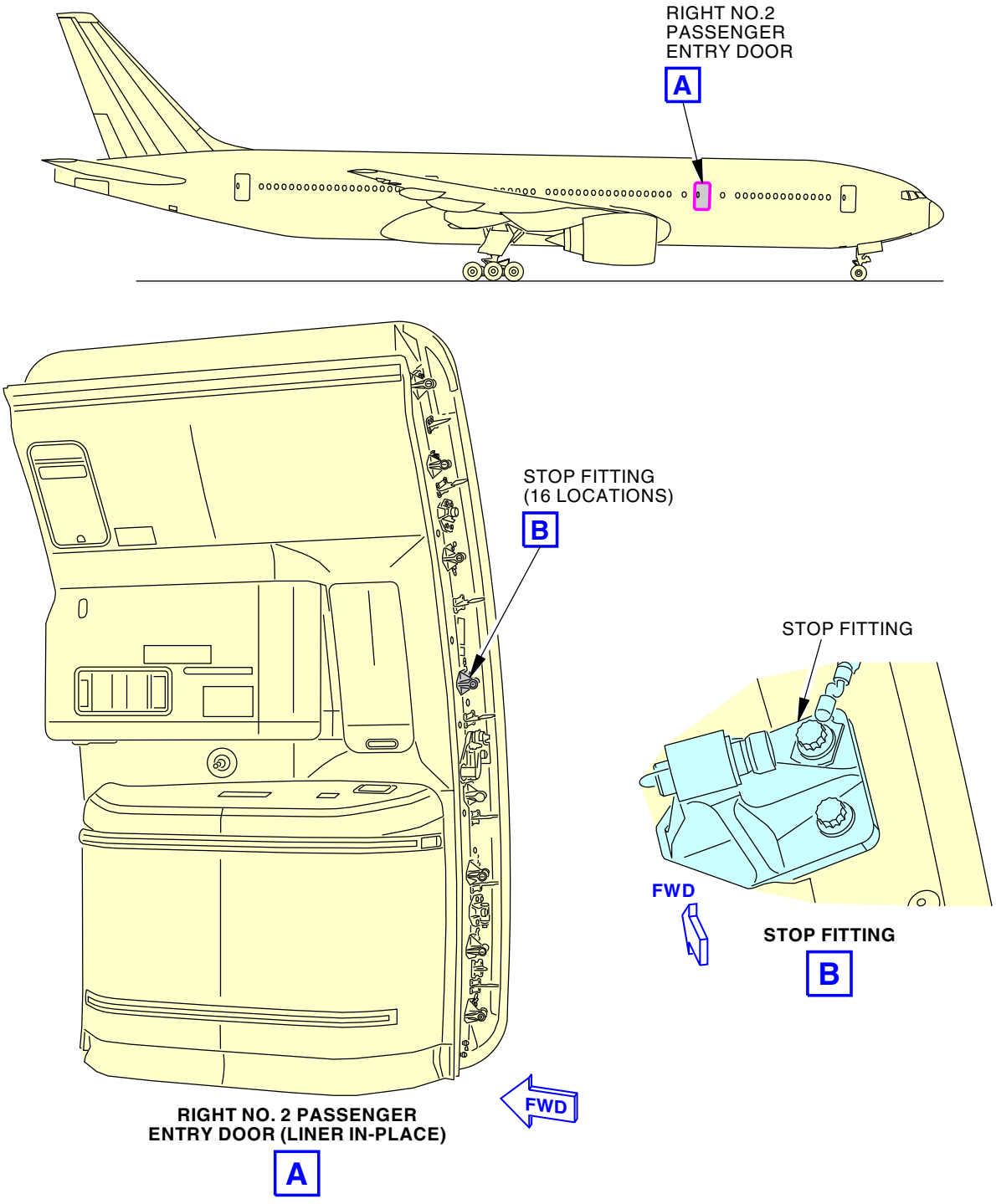
A. Inspection

SUBTASK 52-05-03-211-021

(1) Do the inspection.

END OF TASK

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Right No. 2 Passenger Entry Door
Figure 226/52-05-03-990-844

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TASK 52-05-03-211-822

27. EXTERNAL - DETAILED: RIGHT #3 OVERWING DOOR

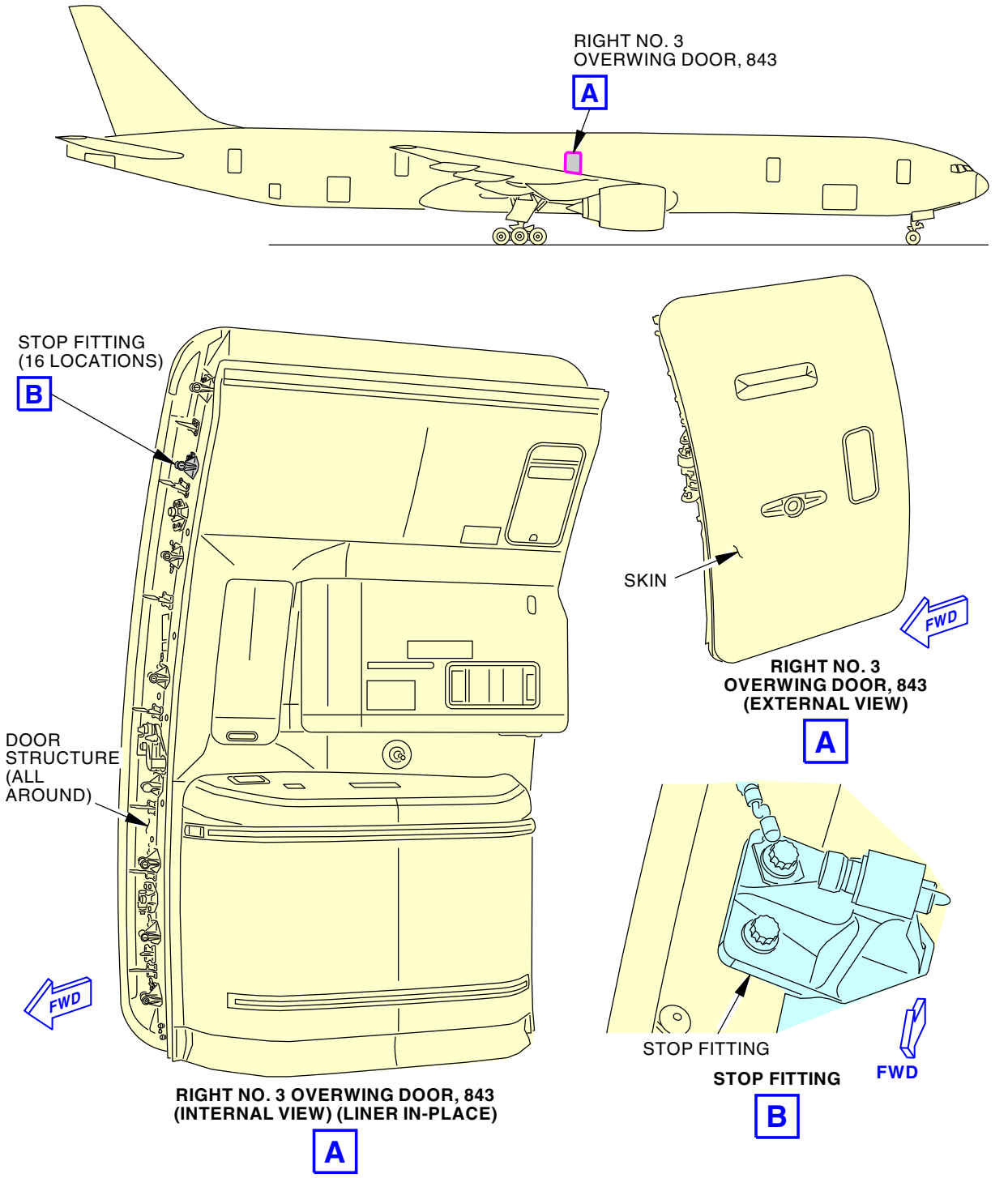
A. Inspection

SUBTASK 52-05-03-211-022

(1) Do the inspection.

——— END OF TASK ———

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Right #3 Overwing Door
Figure 227/52-05-03-990-856

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

TASK 52-05-03-211-826

28. EXTERNAL - DETAILED: RIGHT #4 PASSENGER ENTRY DOOR

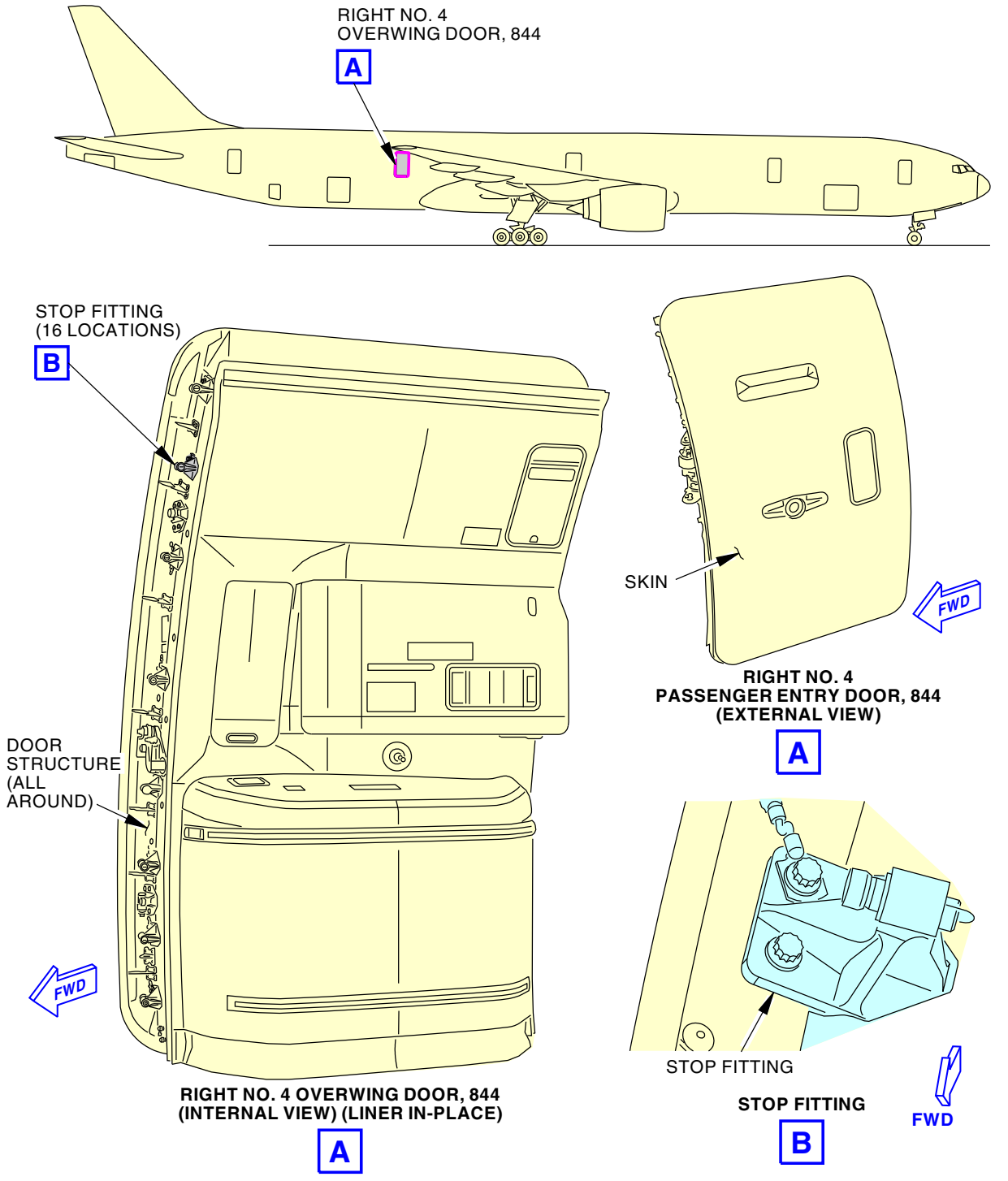
A. Inspection

SUBTASK 52-05-03-211-026

(1) Do the inspection.

——— END OF TASK ———

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Right #4 Passenger Entry Door
Figure 228/52-05-03-990-857

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TASK 52-05-03-211-830

29. EXTERNAL - DETAILED: RIGHT #5 PASSENGER ENTRY DOOR

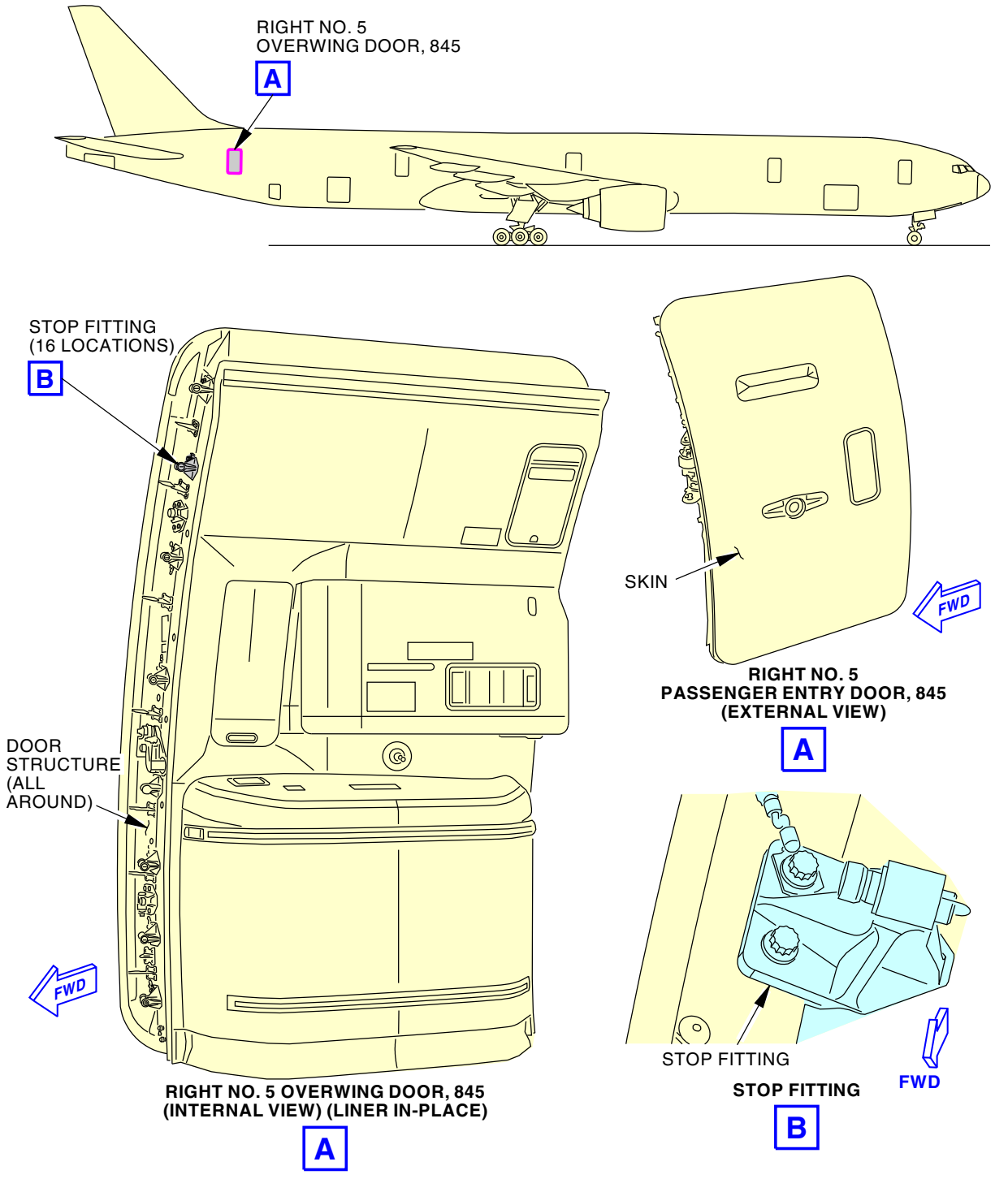
A. Inspection

SUBTASK 52-05-03-211-030

(1) Do the inspection.

——— END OF TASK ———

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497200 S0000148520_V2

Right #5 Passenger Entry Door
Figure 229/52-05-03-990-858

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TASK 52-05-03-211-831

30. EXTERNAL - GENERAL VISUAL: FLIGHT DECK SECURITY DOOR

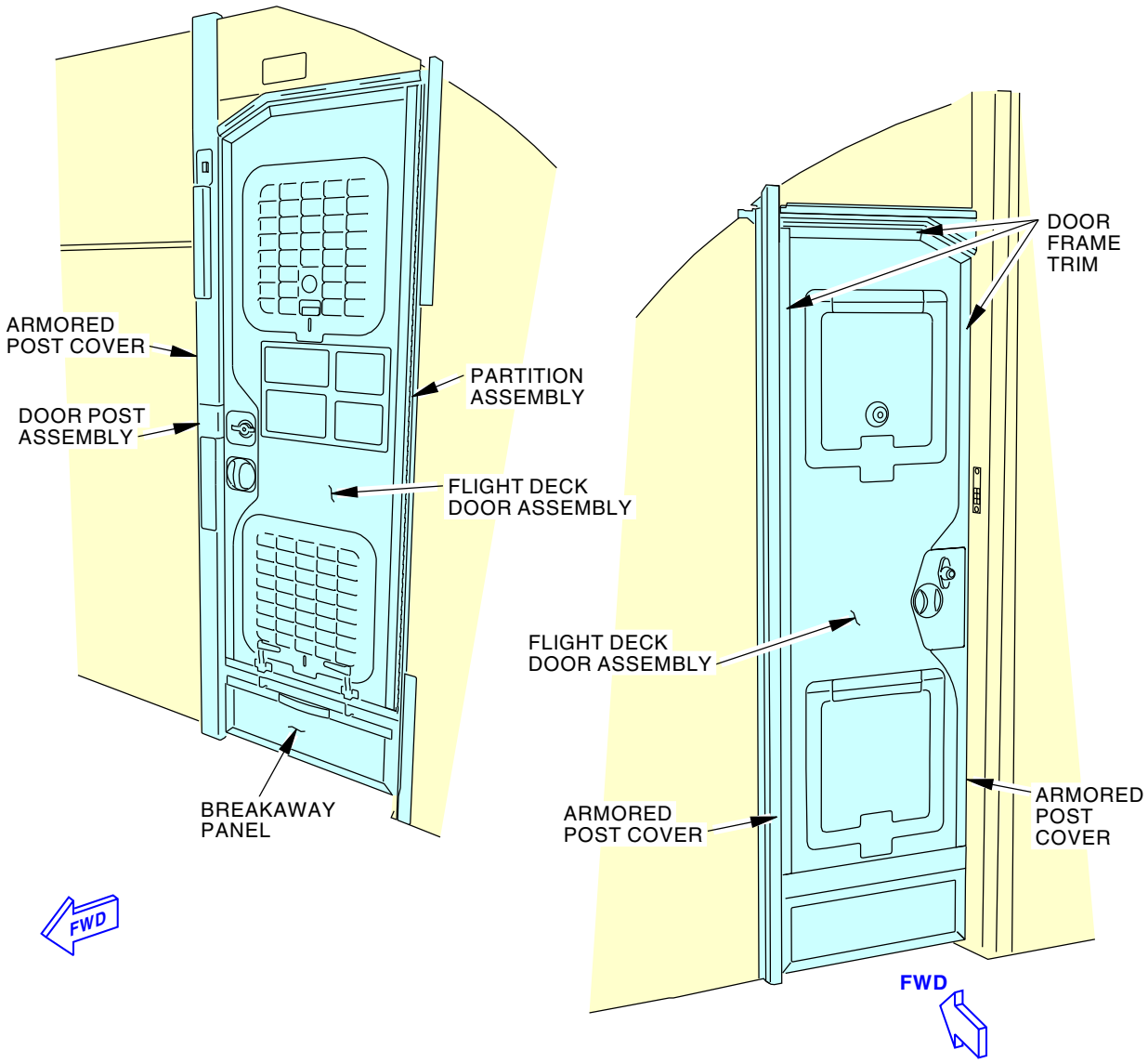
A. Inspection

SUBTASK 52-05-03-211-031

(1) Do the inspection.

——— END OF TASK ———

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FLIGHT COMPARTMENT DOOR

J66400 S0000175214_V3

Flight Deck Security Door
Figure 230/52-05-03-990-859

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DOOR SEALS - REPAIRS

1. General

A. This procedure has the repairs of the Entry, Cargo, and Access door seals.

B. Seals prevent loss of cabin pressure at entry doors, galley service doors, cargo doors, the forward access door, electronic equipment access door, and emergency exit doors. Seals also keep water from entering the airplane at these door locations. Types of seals include:

(1) Blade seals

(2) Bulb seals

(3) Diaphragm seals

C. The pressure seals used in these areas are subject three different types of failure or damage as follows:

(1) Separation of the mechanical blade seal from the diaphragm seal at the joint. The fabric-reinforced rubber which makes the joint can pull loose from the mechanical blade seal or the diaphragm seal.

(2) Cuts, nicks, splits or tears can occur in the pressure seal.

(3) Splice failure occurs on those continuous seals formed by splicing the ends of the extruded bulb section. Flexing of the seal causes separation of the bond between this material and the ends of the extruded section.

D. Seal repair procedures for the silicone rubber door and hatch seals may be divided into three general methods:

(1) Method A is a procedure for repairs in which the cut, delaminated, or otherwise separated surfaces are rejoined by adhesive only.

(2) Method B consists of repairs with an adhesive reinforced with open mesh fabric. The fabric is embedded in the adhesive on the seal surface.

(3) Method C repair procedure comprises the replacement of a section of seal using adhesive, and when required, fabric cemented into place.

E. Adhesives used for repairs are in three category types as follows:

(1) Type I is a two-part, air-cured adhesive.

(a) Use type I adhesives only on those parts of the blade seal where it is not necessary to have a flexible bond. Do not use on the diaphragm seals or on the seal lip of the blade seals.

(2) Type II is a clear, one-part, air-cured adhesive. It is flexible at low temperatures.

(a) Use type II adhesives for repairs to the seal lip on the blade seals where it is necessary that the adhesive is flexible to make an air-tight seal.

(3) Type III is a quick repair air-cured adhesive (two-part kit) . It is very flexible.

(a) Use type III adhesives for fast repairs. You can use it in all locations on the seal.

F. Make all of the repairs to the pressure seals with the seal in a position for easy access and when the load on the seal is as small as possible. For seals that are installed, it can be necessary to remove parts of the seal retainer to do work on the damaged area.

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TASK 52-09-00-100-801

2. Seal Repair Procedure Surface Preparation

A. General

(1) Make all of the seal repairs with the seal in a position for easy access and when the load on the seal is as small as possible. For seals that are installed, it may be necessary to remove parts of the seal retainer to do work on the damaged area.

(2) Replace the seal if the damage is extensive.

B. Consumable Materials

Reference	Description	Specification
B00068	Alcohol - Denatured, Ethyl (Ethanol)	AMS 3002, MIL-E-51454 Type II
B00130	Alcohol - Isopropyl	TT-I-735
B00137	Abrasive - Garnet Coated Paper	
B00148	Solvent - Methyl Ethyl Ketone (MEK)	ASTM D740
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5 Class A

C. Procedure

SUBTASK 52-09-00-010-001

(1) Make sure there is access to the seal.

(a) If it is necessary, remove one or more sections of seal retainer to get access to a damaged section of seal.

SUBTASK 52-09-00-100-001

(2) Clean the area of the pressure seals with the seal in a position for easy access, do the steps that follow:

(a) Rub the area and approximately 2 in. (51 mm) or more on all sides of the area with a clean cotton wiper, G00034 that is wet with one of the solvents that follow:

1) solvent, B00148

2) alcohol, B00068

3) alcohol, B00130

(b) Lightly rub the surface to be repaired with the abrasive, B00137 (180 grit minimum).

(c) Wipe dry with a cotton wiper, G00034 before solvent evaporates.

1) If necessary repeat steps to completely remove dirt, oil, paint, and other soils.

NOTE: Clean surfaces are necessary to make a good bond.

——— END OF TASK ———

TASK 52-09-00-390-801

3. Seal Repair Procedures For Specified Types of Seal Damage

(Figure 801)

A. General

(1) Make all of the seal repairs with the seal in a position for easy access and when the load on the seal is as small as possible. For seals that are installed, it may be necessary to remove parts of the seal retainer to do work on the damaged area.

(2) Determine the type of repair that is necessary and the procedure to be used.

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(a) Use fabric when a stronger bond is necessary.

(b) Replace the seal if the damage is extensive.

(3) Adhesives used in this procedure as follows:

Table 801/52-09-00-993-801 Table Of Type I Adhesives

Bulk code	Description	Catalyst	Cure Time *[1]	BAC Process	Specification
Silgrip PSA529 adhesive base, A00336*[2]	Light yellow, low viscosity, high temperature, silicone pressure sensitive adhesive	SRC-18 catalyst, A50112	3-7 Days at 74 ±3°F (23 ±2°C)	BAC 5010 Type 77	MIL-A-25457B
RTV430 rubber base, A50025	Condensation Cure, Mouldmaking Rubber	Beta 5 catalyst, A50234*[3] Beta 11 catalyst, A50235*[4]	24 Hours for both catalysts	BAC 5010 Type 68	---

*[1] Refer to manufacturer's instructions for specific cure times based on local conditions of where the product is used.

*[2] Mixing ratio is 100 parts PSA529 base to 3.3 parts SRC-18 catalyst

*[3] Mixing ratio is 10 parts RTV430 base to 1 part Beta 5 catalyst

*[4] Mixing ratio is 10 parts RTV430 base to 1 part Beta 11 catalyst

Table 802/52-09-00-993-802 Table Of Type II Adhesives

Bulk code	Description	Tack Free Time	Cure Time*[1]	BAC Process	Specification
FRV1106 adhesive, A50026	One-component, Fluorosilicone, adhesive sealant	20 Minutes	18–24 Hours	BAC 5010 Type 84	---
Dow Corning 732 multi-purpose sealant, A50031	General purpose silicone adhesive/sealant	20 Minutes	24 Hours	BAC 5010 Type 60	MIL-A-46106
Dow Corning 3145 RTV adhesive, A00281	1-part non-flowing adhesive, high tensile strength and elongation, enhanced thermal stability,	78 Minutes	48 Hours	BAC 5010 Type 79	MIL-A-46146
RTV 102 adhesive, A50067	One-Component Acetoxy Adhesive Sealants	20 Minutes	3 days at 77°F (25°C) and 50% relative humidity	BAC 5010 Type 60	MIL-A-46106
RTV 108 adhesive, A00635	One-Component Acetoxy Adhesive Sealants	20 Minutes	3 days at 77°F (25°C) and 50% relative humidity	BAC 5010 Type 60	MIL-A-46106

*[1] Refer to manufacturer's instructions for specific cure times based on local conditions of where the product is used.

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Table 803/52-09-00-993-803 Table Of Type III Adhesives

Bulk code	Description	Primer*[1]	Cure Time*[2]	BAC Process	Specification
Dow Corning 93-076-1/2 RF sealant and catalyst kit, A50094	Two part, thixotropic silicone elastomer	Dow Corning PR-1204 prime coat, C50242 or PR 1204 primer, A50126	4 Hours at 185°F (85°C) or 2 Hours at 203°F (95°C)	BAC 5010 Type 68	---
Dow Corning 93-076-2 RF sealant and catalyst kit, A50233	Two part, thixotropic silicone elastomer	Dow Corning PR-1204 prime coat, C50242 or PR 1204 primer, A50126	4 Hours at 185°F (85°C) or 2 Hours at 203°F (95°C)	BAC 5010 Type 68	---

*[1] This product enhances bonding but is not mandatory for the sealant to fully cure

*[2] Refer to manufacturer's instructions for specific cure times based on local conditions of where the product is used.

B. Tools/Equipment

Reference	Description
STD-123	Brush - Soft Bristle
STD-1415	Knife - Utility

C. Consumable Materials

Reference	Description	Specification
A00281	Adhesive - Dow Corning 3145 RTV	MIL-A-46146 (BAC5010 Type 79)
A00336	Adhesive - Silicone Pressure Sensitive, Momentive Performance Materials Silgrip PSA529 Base (Formerly GE Silicones)	BAC5010 Type 77
A00635	Adhesive - RTV 108 Translucent Silicone Rubber RTV Paste, One-part	BAC5010 Type 60 Class A Grade 2 / MIL-A-46106 Type 1
A50025	Adhesive - Condensation Cure, Mouldmaking Rubber, Momentive Performance Materials RTV430 Base (Formerly GE Silicones)	
A50026	Adhesive - One-Component, Fluorosilicone, Momentive Performance Materials FRV1106 (Formally GE Silicones)	BAC5010 Type 84
A50031	Sealant - Dow Corning 732 Multi-Purpose Sealant	MIL-A-46106
A50067	Adhesive - Silicone Rubber - RTV 102 (White)	MIL-A-46106, BAC5010 Type 60, Grade 1
A50094	Sealant - Kit (Sealant & Catalyst), Dow Corning 93-076-1/2 RF (Formerly 93-076-1/2. Use until Stock depleted)	
A50112	Catalyst - Silgrip Silicone Pressure Sensitive Adhesive Catalyst, Momentive Performance Materials SRC-18 Catalyst	BAC5010 Type 77

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(Continued)

Reference	Description	Specification
A50126	Primer - Adhesive Bonding (Formerly Dow Corning 1204 Clear)	
A50233	Sealant - Kit (Sealant & Catalyst), Dow Corning 93-076-2 RF (Formerly 93-076-2. Use until Stock depleted)	
A50234	Catalyst - Momentive Performance Materials Beta 5 Catalyst	
A50235	Catalyst - Momentive Performance Materials Beta 11 Catalyst	
C50242	Primer - Dow Corning PR-1204 RTV Prime Coat	

D. Location Zones

Zone	Area
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Repair Procedures for Specified Types of Seal Damage

SUBTASK 52-09-00-390-031

(1) Repair a delaminated seal as follows:

NOTE: If the delaminated area is not repaired, leaks can occur when the area increases in size.

(a) If the delamination is on the seal edge, do these steps:

1) Do Seal Repair Procedure (Method A), TASK 52-09-00-350-801 or Seal Repair Procedure (Method B), TASK 52-09-00-350-802 to bond the delaminated seal with one of the adhesives in the tables that follow:

a) Table Of Type II Adhesives/Table 802

b) Table Of Type III Adhesives/Table 803

2) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.

3) Make sure the adhesive cures the minimum time necessary.

(b) If the delamination is away from the seal edge, do these steps:

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1) Do Seal Repair Procedure (Method A), TASK 52-09-00-350-801 or Seal Repair Procedure (Method B), TASK 52-09-00-350-802to bond the delaminated seal with one of the adhesives in the tables that follow:
   a) Table Of Type I Adhesives/Table 801
   b) Table Of Type II Adhesives/Table 802
   c) Table Of Type III Adhesives/Table 803
2) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.
3) Make sure the adhesive cures the minimum time necessary.

SUBTASK 52-09-00-390-005

(2) Repair a delaminated seal joint as follows:

NOTE: If the delaminated area is not repaired, leaks can occur when the area increases in size.

(a) If the delamination is small (0.50 in^2 (322.58 mm^2) maximum), do these steps:
   1) Do Seal Repair Procedure (Method A), TASK 52-09-00-350-801 to bond the delaminated seal with one of the adhesives in the table that follows:
      a) Table Of Type I Adhesives/Table 801
   2) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.
   3) Make sure the adhesive cures the minimum time necessary.

(b) If the delamination is at the edge of the splice and the seal does not seal satisfactorily, do these steps:
   1) Cut and remove the delaminated piece with a sharp knife, STD-1415.
   2) Apply a light layer of one of the adhesives in the tables that follows:
      a) Table Of Type II Adhesives/Table 802
      b) Table Of Type III Adhesives/Table 803

SUBTASK 52-09-00-390-006

(3) Repair a cut or split in the rubber in the joint area of a seal as follows:

(a) Do Seal Repair Procedure (Method B), TASK 52-09-00-350-802 to bond the damaged seal with fabric and one of the adhesives in the tables that follow:
   1) Table Of Type II Adhesives/Table 802
   2) Table Of Type III Adhesives/Table 803

(b) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.

(c) Make sure the adhesive cures the minimum time necessary.

SUBTASK 52-09-00-390-026

(4) Repair a cut or split in the blade or bulb section of a seal as follows:

(a) If the damage is a small cut or split (0.20 in. (5.08 mm) maximum length), do these steps:
   1) Do Seal Repair Procedure (Method A), TASK 52-09-00-350-801 to bond the damaged seal with one of the adhesives in the tables that follow:
      a) Table Of Type I Adhesives/Table 801
      b) Table Of Type II Adhesives/Table 802

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c) Table Of Type III Adhesives/Table 803

2) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.

3) Make sure the adhesive cures the minimum time necessary.

(b) If the damage is a large cut or split (1.00 in. (25.40 mm) maximum length), do these steps:

1) Push on the seal to open the cut.

2) Carefully drill a hole in each end of the cut.

NOTE: A sharpened metal tube can be used as a drill bit to cut the holes.

3) Make the holes smooth and miter the edges.

4) Do Seal Repair Procedure (Method A), TASK 52-09-00-350-801 to bond the damaged seal with one of the adhesives in the tables that follow:

a) Table Of Type II Adhesives/Table 802

b) Table Of Type III Adhesives/Table 803

5) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.

6) Make sure the adhesive cures the minimum time necessary.

(c) If the damage to the seal is a large split (2.00 in. (50.80 mm) maximum length), do these steps:

1) Push on the seal to open the cut.

2) Carefully drill a hole in each end of the cut.

NOTE: A sharpened metal tube can be used as a drill bit to cut the holes.

3) Make the holes smooth and miter the edges.

4) Do Seal Repair Procedure (Method B), TASK 52-09-00-350-802 to bond the damaged seal with one of the adhesives in the tables that follow:

a) Table Of Type I Adhesives/Table 801

b) Table Of Type II Adhesives/Table 802

c) Table Of Type III Adhesives/Table 803

5) Cut the fabric to make an overlap of 0.50 in. (12.70 mm) on the sides and ends of the split.

6) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.

7) Make sure the adhesive cures the minimum time necessary.

SUBTASK 52-09-00-390-027

(5) Repair a damaged seal flange (3.00 in. (76.20 mm) maximum patch length) as follows:

(a) If it is not necessary to replace the flange, do these steps:

1) Do Seal Repair Procedure (Method B), TASK 52-09-00-350-802 to bond the damaged seal with one of the adhesives in the tables that follow:

a) Table Of Type II Adhesives/Table 802

b) Table Of Type III Adhesives/Table 803

2) Cut the fabric to make an overlap of 0.50 in. (12.70 mm) on the sides and ends of the split.

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3) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.

4) Make sure the adhesive cures the minimum time necessary.

(b) If a part of the flange is missing, do these steps:

1) Trim the seal edge adjacent to the missing part of the flange.

2) Cut a piece of replacement flange that is a correct fit for the missing part.

3) Do Seal Repair Procedure (Method C), TASK 52-09-00-350-803 to bond the replacement seal patch to the seal with one of the adhesives in the tables that follow:

a) Table Of Type II Adhesives/Table 802

b) Table Of Type III Adhesives/Table 803

4) Cut the fabric to make an overlap of 0.50 in. (12.70 mm) on the sides and ends of the split.

5) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.

6) Make sure the adhesive cures the minimum time necessary.

SUBTASK 52-09-00-390-028

(6) Repair splice damage on entry door and galley service door seals as follows:

(a) Do Seal Repair Procedure (Method A), TASK 52-09-00-350-801 or Seal Repair Procedure (Method B), TASK 52-09-00-350-802 with one of the adhesives in the tables that follow:

1) Table Of Type II Adhesives/Table 802

2) Table Of Type III Adhesives/Table 803

(b) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.

(c) Make sure the adhesive cures the minimum time necessary.

SUBTASK 52-09-00-390-029

(7) Repair separation of splice bonds on cargo door and escape exit seals as follows:

(a) Do Seal Repair Procedure (Method B), TASK 52-09-00-350-802.

(b) Use a soft bristle brush, STD-123 to apply the adhesive on the clean surfaces of the seal. Use one of the adhesives in the tables that follow:

1) Table Of Type II Adhesives/Table 802

2) Table Of Type III Adhesives/Table 803

(c) Cut the fabric 2.00 in. (50.80 mm) in width, and sufficiently long to put fully around the seal.

(d) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.

(e) Make sure the adhesive cures the minimum time necessary.

(f) Apply more light layers of adhesive with the brush.

(g) Make the edges of the patch smooth to make sure the seal lip is flat.

(h) To prevent a rigid area on the seal lip, do not apply too much adhesive.

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SUBTASK 52-09-00-390-030

(8) Repair large damage to seal parts as follows:

(a) Find the seal splices in the straight parts of the seal.

(b) Remove the full damaged area.

(c) Replace the damaged area with a piece of replacement seal that has the same dimensions.

(d) Make mitered cuts on the seal surfaces that touch.

(e) Fill them with adhesive from the tables that follow:

1) Table Of Type II Adhesives/Table 802

2) Table Of Type III Adhesives/Table 803

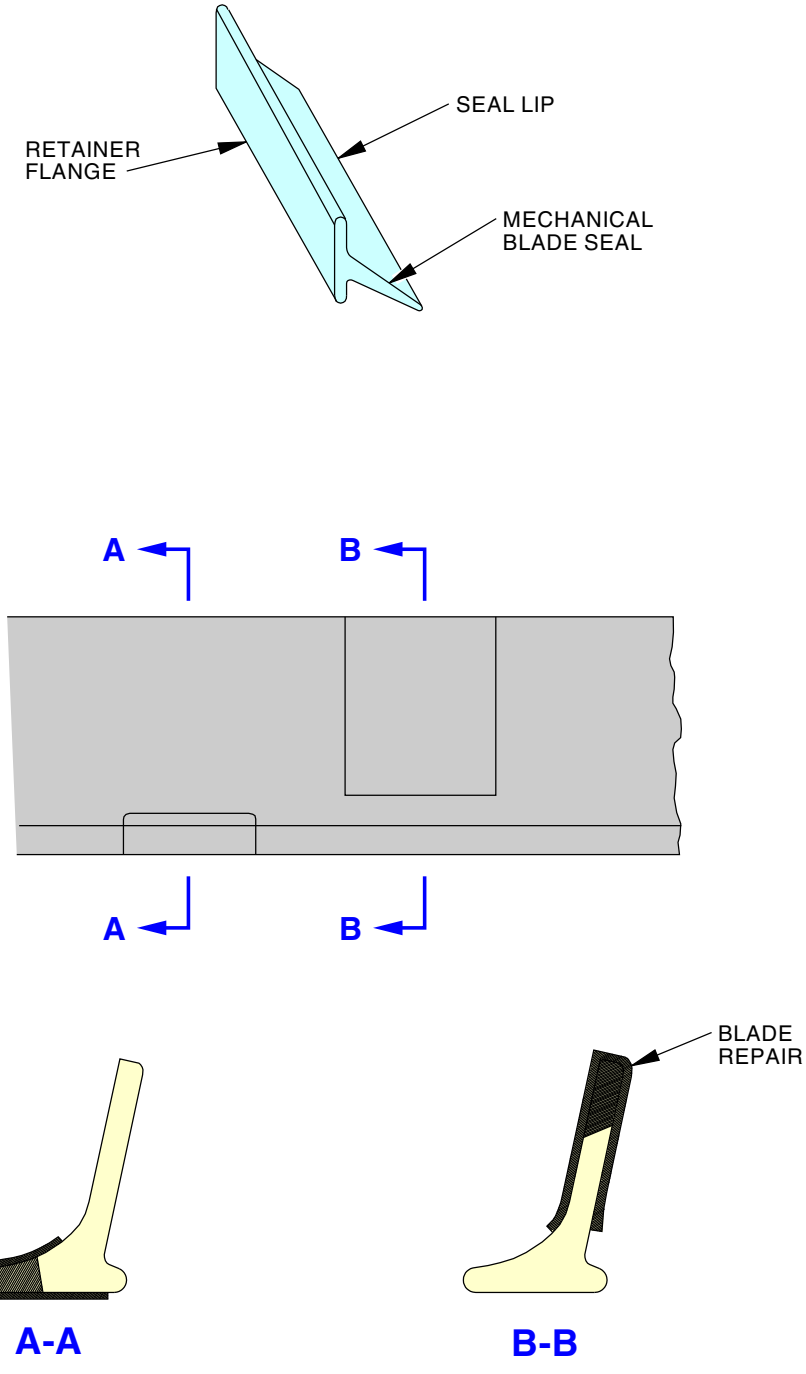
(f) Do Seal Repair Procedure (Method B), TASK 52-09-00-350-802 and Seal Repair Procedure (Method C), TASK 52-09-00-350-803 to bond the seal splices.

(g) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.

(h) Make sure the adhesive cures the minimum time necessary.

——— END OF TASK ———

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Seal Repairs (Example)
Figure 801/52-09-00-990-801

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TASK 52-09-00-350-801

4. Seal Repair Procedure (Method A)

A. General

(1) This procedure is for repairs that only use adhesive.

B. Procedure

SUBTASK 52-09-00-300-001

(1) Do the steps that follow to repair the seal with adhesive only:

(a) Apply the adhesive to all of the areas to be bonded.

(b) Put a load on the seal to make sure the seal fully touches the adhesive.

(c) Let the adhesive cure the minimum time necessary before you put a load on it.

——— END OF TASK ———

TASK 52-09-00-350-802

5. Seal Repair Procedure (Method B)

A. General

(1) This procedure is for repairs with an adhesive reinforced with open mesh fabric. The fabric is embedded in the adhesive on the seal surface.

B. Consumable Materials

Reference	Description	Specification
G00028	Fabric - Dacron, 70/34 Mesh (Mohawk Dacron Fabrics - D117 Fabric)	
G00029	Fabric - Polyester, 30/17 Mesh (Mohawk Polyester Fabrics - P118 Fabric, Formerly Mohawk Dacron D118 Fabric)	

C. Procedure

SUBTASK 52-09-00-300-002

(1) Do the steps that follow to repair the seal with adhesive and open-meshed fabric:

(a) Cut the fabric to have the correct fit for the patch area. Use one of the fabrics that follow:

1) D117 Dacron Fabric, G00028

2) P118 polyester fabric, G00029

(b) Apply the adhesive to the repair area on the seal.

(c) Push the fabric patch into the wet adhesive and apply more adhesive on top of the patch.

(d) Make the surface smooth of unwanted adhesive and put a load on to make sure the seal fully touches the adhesive.

(e) Apply pressure to make sure the parts are fully bonded.

(f) Let the adhesive cure the minimum time necessary before you put a load on it.

——— END OF TASK ———

TASK 52-09-00-350-803

6. Seal Repair Procedure (Method C)

A. General

(1) This procedure replaces the damaged seal part with an equivalent piece of replacement seal.

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B. Consumable Materials

Reference	Description	Specification
G00028	Fabric - Dacron, 70/34 Mesh (Mohawk Dacron Fabrics - D117 Fabric)	
G00029	Fabric - Polyester, 30/17 Mesh (Mohawk Polyester Fabrics - P118 Fabric, Formerly Mohawk Dacron D118 Fabric)	

C. Procedure

SUBTASK 52-09-00-300-003

(1) Do the steps that follow to repair the seal with equivalent piece of replacement seal:

(a) Cut a piece of replacement seal that will have the correct fit for the repair area.

(b) Miter the seal and the replacement piece of seal to the correct fit.

(c) Do one of the procedures that follow:

1) To repair the seal with adhesive only:

a) Apply the adhesive to all of the areas to be bonded.

b) Put a load on the seal to make sure the seal fully touches the adhesive.

c) Let the adhesive cure the minimum time necessary before you put a load on it.

2) To repair the seal with adhesive and open-meshed fabric:

a) Cut the fabric to have the correct fit for the patch area. Use one of the fabrics that follow:

<1> D117 Dacron Fabric, G00028.

<2> P118 polyester fabric, G00029.

b) Apply the adhesive to the repair area on the seal.

c) Push the fabric patch into the wet adhesive and apply more adhesive on top of the patch.

d) Make the surface smooth of unwanted adhesive and put a load on to make sure the seal fully touches the adhesive.

e) Apply pressure to make sure the parts are fully bonded.

f) Let the adhesive cure the minimum time necessary before you put a load on it.

——— END OF TASK ———

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PASSENGER ENTRY DOOR SEALS - MAINTENANCE PRACTICES

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal of the passenger entry door cutout seal.

(2) An installation of the passenger entry door cutout seal.

(3) A removal of the passenger entry door bottom seal.

(4) An installation of the bottom passenger entry door bottom seal.

(5) A check of the passenger entry door seals.

(6) An adjustment of the passenger entry door seal.

TASK 52-09-01-000-801

2. Passenger Entry Door Cutout Seal Removal

(Figure 201)

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Prepare for the Removal

SUBTASK 52-09-01-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) Turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

(d) Make sure the adjustable height cabin and general access stand, STD-1160 is installed outboard of the door.

SUBTASK 52-09-01-010-001

(2) Open the door.

D. Removal

SUBTASK 52-09-01-020-001

(1) Remove the seal [1] as follows:

(a) Remove the screws [2], washers [3], and filler [12] at the top of the seal [1].

(b) Remove the screws [4], washers [5], and fillers [11] at the top corners of the seal [1].

(c) Remove the screws [8], washers [9], and plates [7] at the bottom corners of the seal [1].

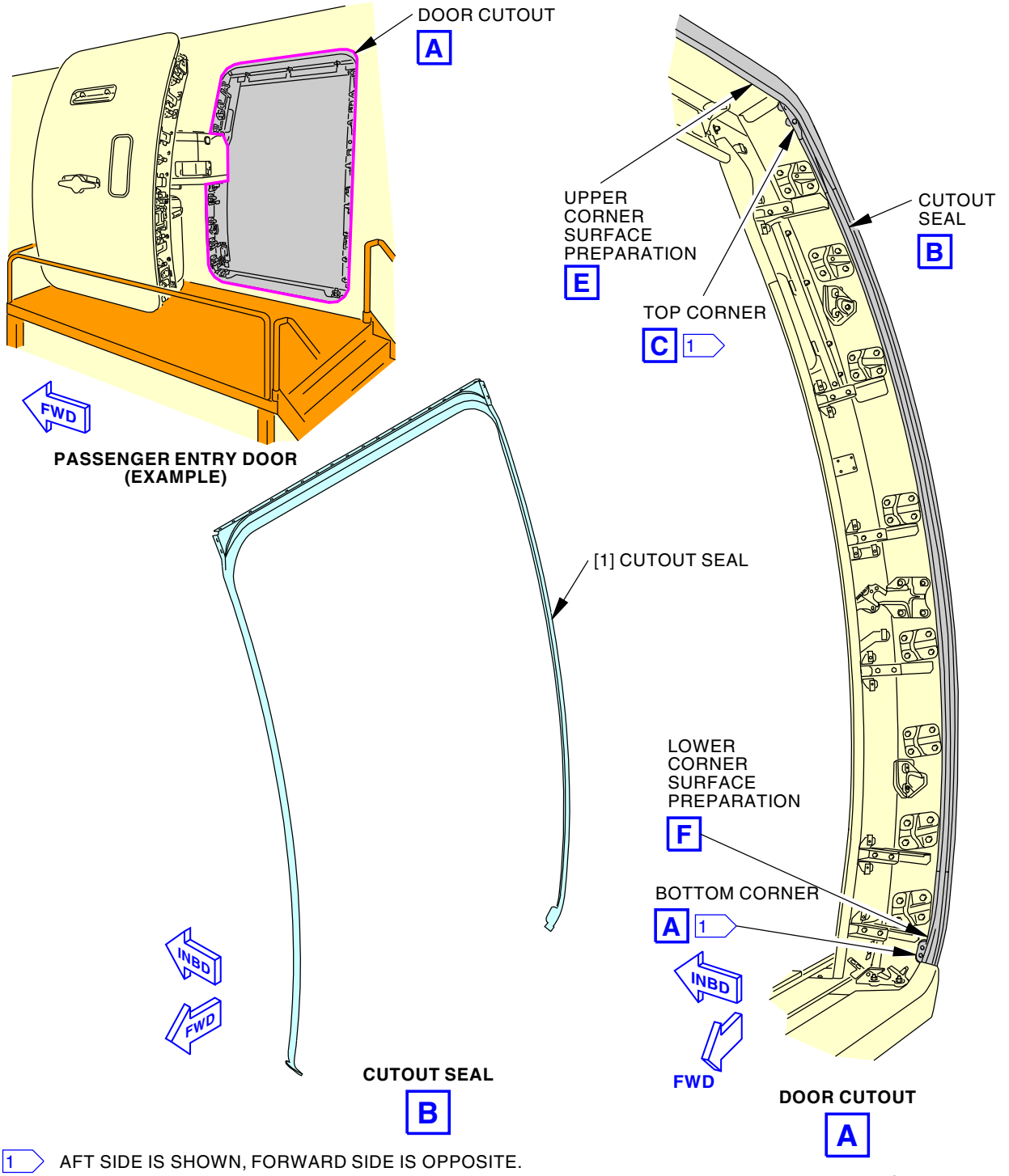
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(d) Pull and push the seal [1] to disengage it from the seal retainer [6].

(e) Remove the seal [1] from the cutout structure.

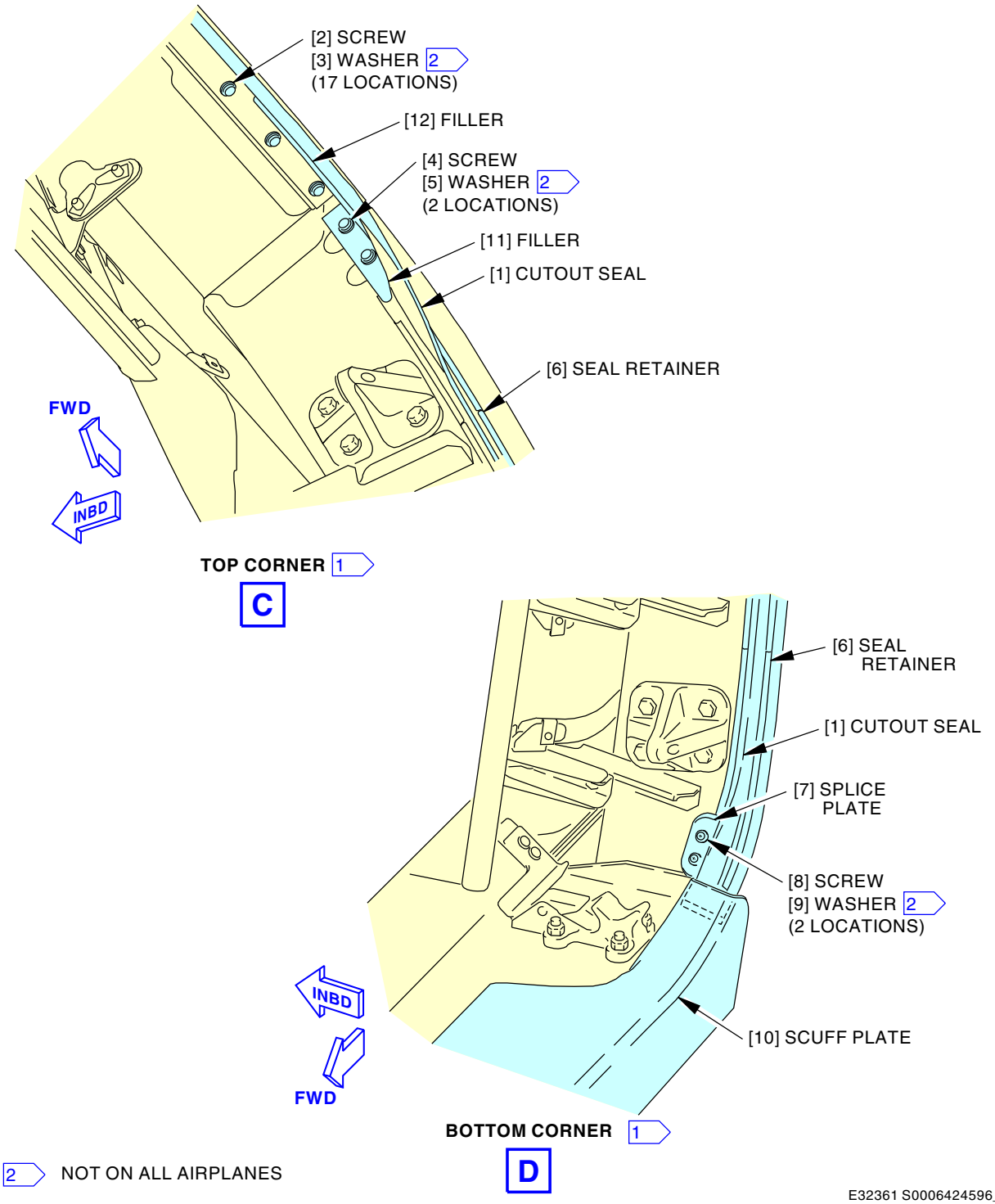
——— END OF TASK ———

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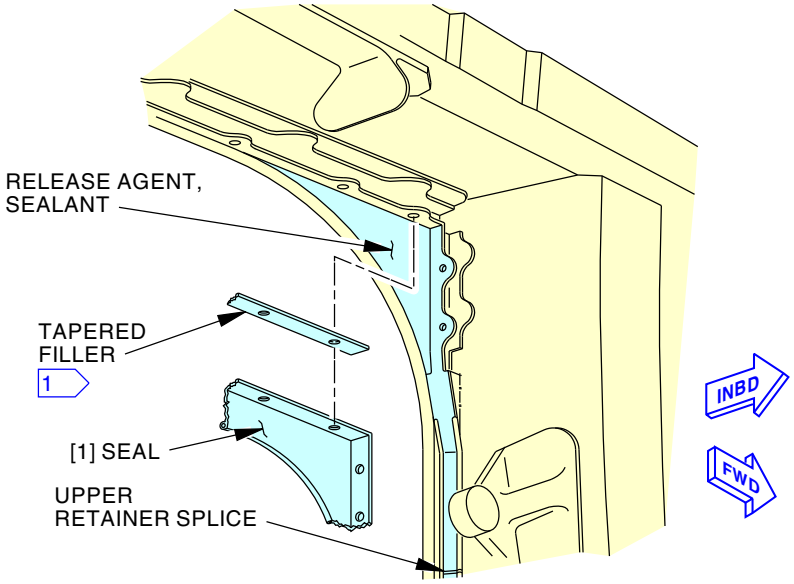
Passenger Entry Door Cutout Seal Installation
Figure 201/52-09-01-990-804 (Sheet 1 of 3)

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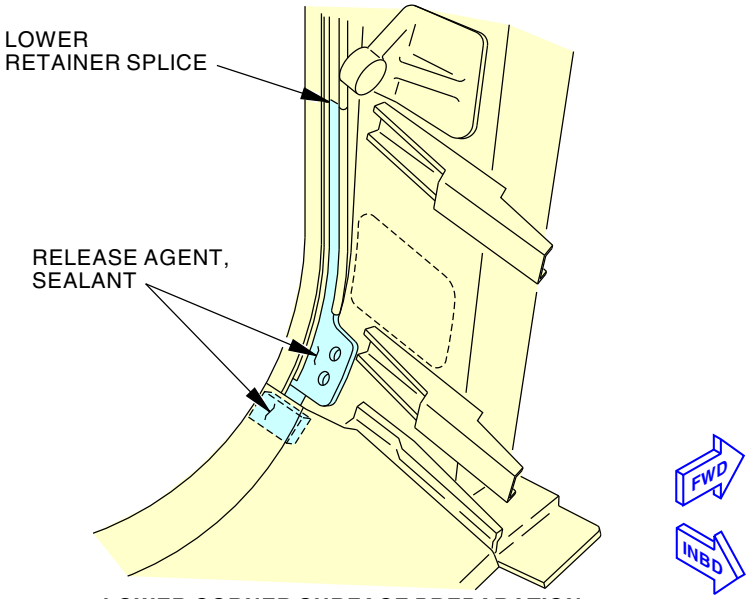
Passenger Entry Door Cutout Seal Installation
Figure 201/52-09-01-990-804 (Sheet 2 of 3)

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UPPER CORNER SURFACE PREPARATION
(FORWARD CORNER IS SHOWN, AFT CORNER IS OPPOSITE)

E



LOWER CORNER SURFACE PREPARATION
(FORWARD CORNER IS SHOWN, AFT CORNER IS OPPOSITE)

F

1 NOT ON ALL AIRPLANES.

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Passenger Entry Door Cutout Seal Installation
Figure 201/52-09-01-990-804 (Sheet 3 of 3)

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TASK 52-09-01-400-801

3. Passenger Entry Door Cutout Seal Installation

(Figure 201)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1981	Tool - Installation, Door Seal Part #: B52004-1 Supplier: 81205

C. Consumable Materials

Reference	Description	Specification
A00027	Adhesive - Silicone Rubber, 1 Part, RTV	BAC5010 Type 60
A50057	Adhesive - Silicone Rubber, RTV157	BAC5010 Type 60
B00003	Cleaner - Emulsion Alkaline - GMC 528B	
B00052	Soap - Liquid - Turco 1526	BAC5507
B50093	Soap - Liquid - Kelite Spraywhite	BAC5507
G50313	Agent - Non-Peelable Parting (Henkel Loctite - Frekote 710-NC Mold Release)	BAC5000
G51241	Release Agent - Aerosol Spay (Frekote 1711)	

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Seal	52-09-01-06-040	ARO ALL
		52-09-01-07A-050	ARO ALL
		52-09-01-07A-055	ARO ALL
		52-09-01-08A-085	ARO ALL
		52-09-01-08A-090	ARO ALL
		52-09-01-10A-085	ARO ALL
		52-09-01-10A-090	ARO ALL
		52-09-01-11A-075	ARO ALL
		52-09-01-11A-080	ARO ALL

E. Installation

SUBTASK 52-09-01-390-001

(1) Prepare the door structure and seal for installation.

(a) Make sure the door surround structure is clean.

(b) Apply the release agent, G51241 or Frekote 710-NC non-peelable parting agent, G50313 (alternative) to the cutout surface at the top and bottom corners where the seal [1] will be installed (Figure 201).

1) Allow 20 minutes to dry.

(c) Prepare the seal [1] for installation.

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CAUTION

BE CAREFUL WHEN YOU INSTALL THE SEAL. DO NOT CUT OR MAKE TEARS OR HOLES IN THE SEAL. DAMAGE TO THE SEAL CAN EASILY OCCUR.

1) Trim ridges on the seal [1] to make a smooth surface.

SUBTASK 52-09-01-420-004

(2) Install the top section of the seal [1] as follows:

(a) Put the seal [1] in its correct position on the top of the cutout.

NOTE: The flap of the seal [1] goes in the outboard direction.

CAUTION

BE CAREFUL WHEN YOU INSTALL THE SEAL. DO NOT CUT OR MAKE TEARS OR HOLES IN THE SEAL. DAMAGE TO THE SEAL CAN EASILY OCCUR.

(b) At the top corners, put 12 inches of the inboard edge of the forward and aft section of the seal [1] into the seal retainer [6].

(c) Use the door seal installation tool, SPL-1981 to push the outboard edge of the seal [1] into the seal retainer [6].

(d) To make installation easier, you can lubricate the seal [1] using one of the following liquid soap lubricants, if necessary:

- Turco 1526 soap, B00052, or
- GMC 528B cleaner, B00003, or
- Kelite Spraywhite, B50093

(e) Move the seal [1] to align the index marks on the seal [1] within ±0.5 inch of the seal retainer [6] gaps.

(f) Let the top section of the seal [1] hang away from the cutout surface temporarily.

(g) Prepare the cutout surface where the top section of the seal [1] will be installed.

1) Apply the adhesive, A00027 to the top corners of the cutout surface where the top section of the seal [1] will be installed(Figure 201).

(h) Align the center of the seal [1] with the center of the cutout and install clamps to hold the seal [1] in this position. Do not change the shape of the seal [1].

(i) Loosely install the screws [2], washers [3], and filler [12] at the top of the seal [1].

(j) Loosely install the screws [4], washers [5], and fillers [11] at the top corners of the seal [1].

(k) Make sure the seal [1] is still seated in the seal retainers at the forward and aft door frame.

(l) Make sure the index mark on the seal still aligns with the seal retainer gaps.

(m) Make sure the corner radius of the seal [1] is smooth.

(n) Make the excess adhesive, A00027 smooth on the cutout surface.

(o) Put a straight edge against the fuselage skin.

(p) Make sure that there is no clearance between the top section of the seal [1] and the straight edge (Figure 202, Section A-A).

(q) Tighten the screws [2], at the top of the seal [1] to 17.5 ±2.5 in-lb (2.0 ±0.3 N·m).

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(r) Tighten the screws [4], at the top corners of the seal [1] to 17.5 ±2.5 in-lb (2.0 ±0.3 N·m).

(s) If there are clearances shown between the seal and the skin cutout, fill the area with adhesive, A50057.

1) Apply adhesive, A50057 to fill the area between the seal and the cutout skin as shown in Figure 202, Sections B-B and C-C.

2) Make the adhesive, A50057 smooth on the cutout surface.

3) Make sure that the adhesive, A50057 dimensions are correct as shown in Figure 202, Sections B-B and C-C.

(t) Do light check at the top section of the seal.

1) From the external door side, move a flashlight along the seal cutout.

2) Make sure that you can not see light at the internal side of the seal.

SUBTASK 52-09-01-420-001

(3) Install the lower section of the seal [1] as follows:

(a) Put the seal [1] in its correct position on the cutout.

NOTE: The flap of the seal [1] goes in the outboard direction.

CAUTION

BE CAREFUL WHEN YOU INSTALL THE SEAL. DO NOT CUT OR MAKE TEARS OR HOLES IN THE SEAL. DAMAGE TO THE SEAL CAN EASILY OCCUR.

(b) Install the rectangular ends of the seal [1] between the scuff plate [10] and the bottom corners.

(c) Push the end of the seal [1] under the scuff plate [10] and make sure the clearance between the seal [1] and scuff plate [10] is 0.00-0.04 inch.

1) If necessary, trim the lower surface of the seal to get the clearance.

(d) Remove seal from the scuff plate.

(e) Apply the adhesive, A00027 to the cutout surface, seal retainer [6], and area below the scuff plate where the seal will be installed (Figure 201).

(f) Apply the adhesive, A00027 to the lower part of the seal [1].

(g) Install the rectangular ends of the seal [1] between the scuff plate [10] and the bottom corners.

(h) Push the end of the seal [1] under the scuff plate [10] and make sure the clearance between the seal [1] and scuff plate [10] is 0.00-0.04 inch.

(i) Install the screws [8], washers [9], and plates [7] at the bottom corners of the seal [1].

(j) Put a shim or washer in between the seal and the scuff plate [10] temporarily.

NOTE: This step keeps the clearance while the adhesive becomes dry.

(k) Remove the shim or washer after the adhesive is dry.

(l) Prepare the surfaces of the scuff plate [10] and seal [1] for adhesive.

(m) Apply the adhesive, A00027 between the scuff plate [10] and seal [1].

1) Fill the inboard and outboard gap between the scuff plate [10] and seal [1].

2) Make sure that the adhesive is smooth between the scuff plate [10] and seal [1].

(n) Do light check at the lower section of the seal.

1) From the external door side, move a flashlight along the seal cutout.

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2) Make sure that you can not see light at the internal side of the seal.

(4) Install the middle section of the seal.

(a) Move the seal [1] onto the cutout over the seal retainer [6].

CAUTION BE CAREFUL WHEN YOU INSTALL THE SEAL. DO NOT CUT OR MAKE TEARS OR HOLES IN THE SEAL. DAMAGE TO THE SEAL CAN EASILY OCCUR.

(b) At the bottom corners, put the inboard edge of the forward and aft section of the seal [1] into the seal retainer [6].

(c) Use the door seal installation tool, SPL-1981 to push the outboard edge of the seal [1] into the seal retainer [6].

(d) To make installation easier, you can lubricate the seal [1] using one of the following liquid soap lubricants, if necessary:

- Turco 1526 soap, B00052, or
- GMC 528B cleaner, B00003, or
- Kelite Spraywhite, B50093

(e) Move the seal [1] to align the index marks on the seal [1] within ±0.5 inch of the seal retainer [6] gaps.

(f) At the center of the forward and aft sides, install 2-3 inches of the seal [1] into the seal retainer [6].

(g) From the center of each side to the corners, install the remaining part of the seal [1].

(h) Pull and push the seal [1] in the seal retainer [6] to make it equal from the top to bottom of the door.

NOTE: Wrinkles in the seal [1] are not permitted.

SUBTASK 52-09-01-212-001

(5) Do this task: Passenger Entry Door Seals Check, TASK 52-09-01-200-801.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-01-860-004

(1) Arm the door as follows:

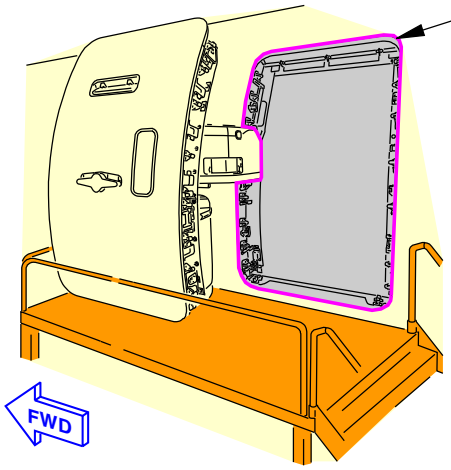
(a) Turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

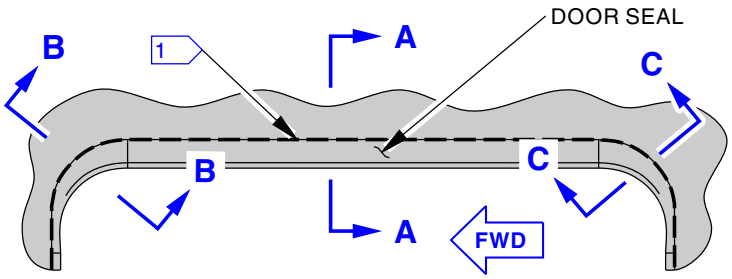
(c) Put the mode select handle in the AUTOMATIC/ARM position.

——— END OF TASK ———

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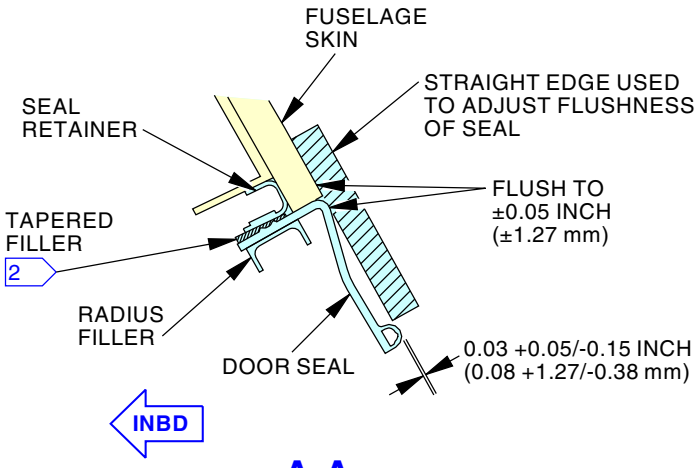


PASSENGER ENTRY DOOR
(EXAMPLE)

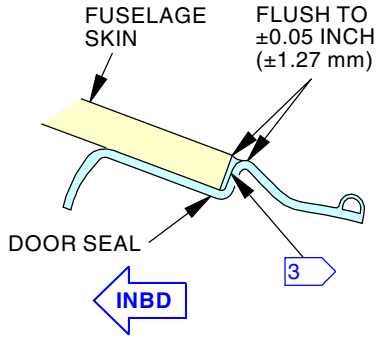


DOOR CUTOUT AND DOOR SEAL
(LEFT DOOR, RIGHT DOOR)
(VIEW IN THE INBOARD DIRECTION)

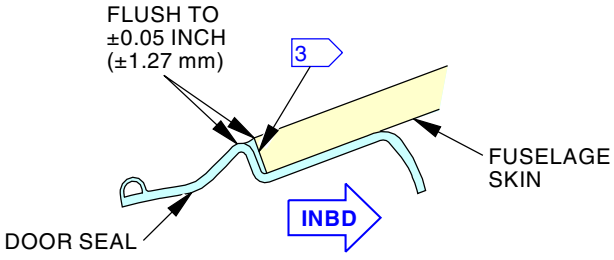
A



A-A



B-B



C-C

1. FILL THE GAP BETWEEN THE SEAL AND THE DOOR CUTOUT WITH SEALANT (RTV157).
2. NOT ON ALL AIRPLANES.
3. FILL THE GAP SEAL WITH RTV157 SEALANT.

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Passenger Entry Door Seal and Door Cutout Clearance
Figure 202/52-09-01-990-807

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TASK 52-09-01-000-802

4. Passenger Entry Door Bottom Seal Removal

(Figure 203)

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Prepare for the Removal

SUBTASK 52-09-01-860-002

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) Turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

(d) Make sure the adjustable height cabin and general access stand, STD-1160 is installed outboard of the door.

SUBTASK 52-09-01-010-002

(2) Open the door.

D. Removal

SUBTASK 52-09-01-020-002

(1) Remove the seal [35] as follows:

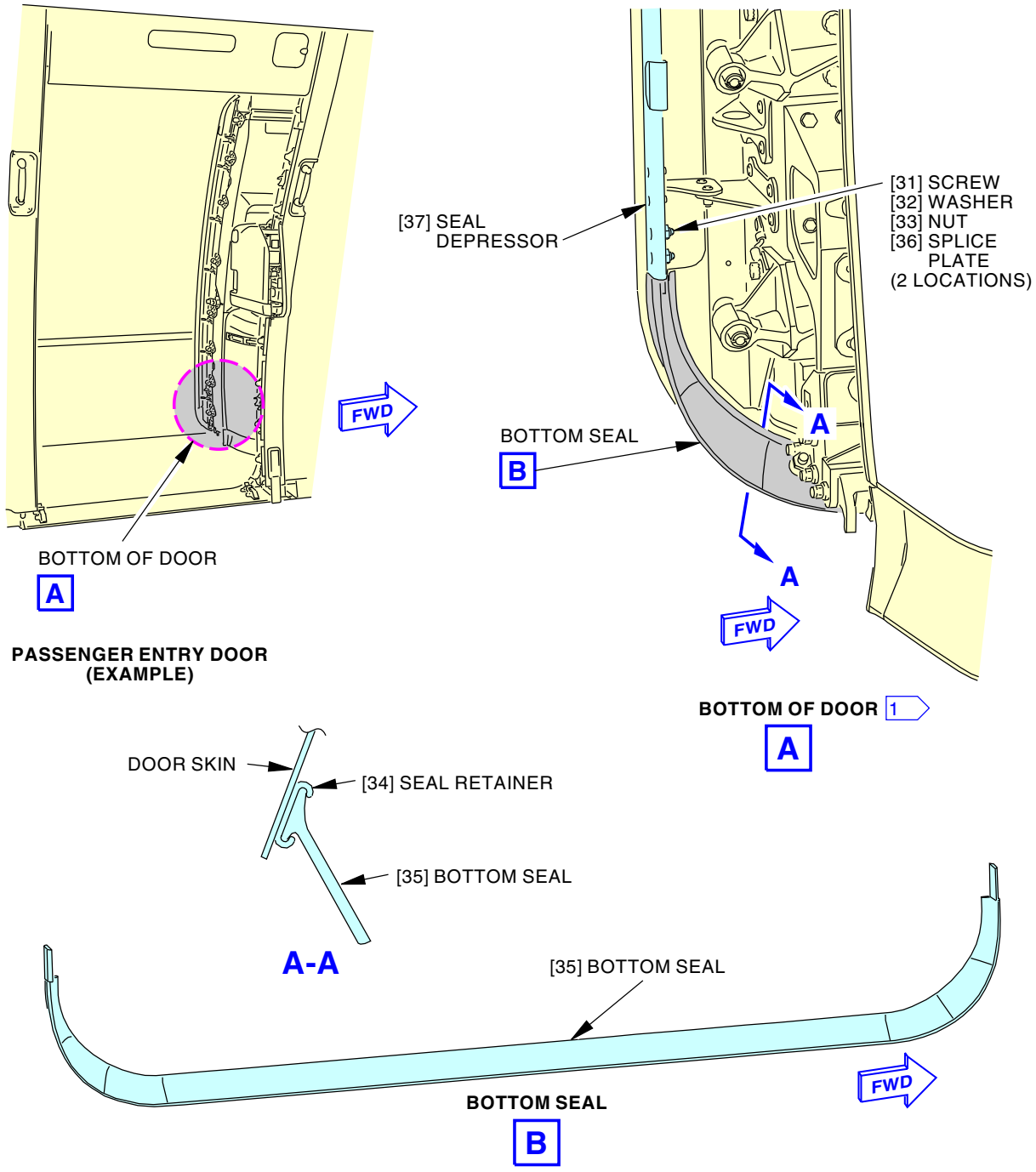
(a) Remove the screws [31], washers [32], nutplates [33], and plates [36] at the bottom corners of the seal [35].

(b) Pull and push the seal [35] to disengage it from the seal retainer [34].

(c) Remove the seal [35].

——— END OF TASK ———

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1 AFT SIDE IS SHOWN, FORWARD SIDE IS OPPOSITE.

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Passenger Entry Door Bottom Seal Installation
Figure 203/52-09-01-990-805

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TASK 52-09-01-400-802

5. Passenger Entry Door Bottom Seal Installation

(Figure 203)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1981	Tool - Installation, Door Seal Part #: B52004-1 Supplier: 81205

C. Consumable Materials

Reference	Description	Specification
A00027	Adhesive - Silicone Rubber, 1 Part, RTV	BAC5010 Type 60
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
B00052	Soap - Liquid - Turco 1526	BAC5507

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
35	Seal	52-09-01-01A-080	ARO ALL
		52-09-01-01A-085	ARO ALL
		52-09-01-01A-090	ARO ALL
		52-09-01-01A-095	ARO ALL
		52-09-01-01A-100	ARO ALL
		52-09-01-01A-105	ARO ALL
		52-09-01-01A-110	ARO ALL
		52-09-01-01C-070	ARO ALL

E. Installation

SUBTASK 52-09-01-420-003

(1) Install the seal [35] as follows:

(a) Put the seal [35] in its correct position on the door.

NOTE: The flap of the seal [35] goes in the inboard direction.

(b) Move the seal [35] onto the door over the seal retainer [34].

(c) Move the seal [35] to align the index marks on the seal [35] within ±0.5 inch of the seal retainer [34] gaps.

CAUTION BE CAREFUL WHEN YOU INSTALL THE SEAL. DO NOT CUT OR MAKE TEARS OR HOLES IN THE SEAL. DAMAGE TO THE SEAL CAN EASILY OCCUR.

(d) At each corner, put 1-2 inches of the outboard edge of the seal [35] into the seal retainer [34].

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(e) Use the door seal installation tool, SPL-1981 to push the inboard edge of the seal [35] into the seal retainer [34].

(f) You can use Turco 1526 soap, B00052 to lubricate the seal [35] and make it easier to install.

(g) At the center of the seal [35], install 2-3 inches into the seal retainer [34].

(h) From the center to the corner, install the remaining parts of the seal [35].

(i) Re-install the seal [35] at the corners if it is necessary.

(j) Pull and push the seal [35] in the seal retainer [34] to make it equal along the bottom of the door.

NOTE: Wrinkles in the seal [35] are not permitted.

(k) Apply the sealant, A00247 to the screws [31].

(l) Install the screws [31], washers [32], nutplates [33], and plates [36] at the bottom corners of the seal [35].

(m) Make sure the maximum clearance between the seal [35] and seal depressor [37] is 0.05 inch.

(n) Make sure the seal [35] and seal depressor [37] are flush ±0.02 inch. If it is necessary, adjust as follows:

1) Apply the adhesive, A00027 to the seal [35] or seal depressor [37] to get the correct flushness.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-01-860-005

(1) Arm the door as follows:

(a) Turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

(c) Put the mode select handle in the AUTOMATIC/ARM position.

——— END OF TASK ———

TASK 52-09-01-200-801

6. Passenger Entry Door Seals Check

(Figure 204)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an inspection of the passenger entry door cutout seal, bottom seal, and vent door seal.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-09-01-700-801	Vacuum Tool Leak Check of the Door Seal (P/B 601)
52-09-01-700-802	Water Leak Check of the Door Seal (P/B 601)
52-09-01-700-803	Flashlight Check of the Door Seal (P/B 601)

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C. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Prepare for the Procedure

SUBTASK 52-09-01-860-003

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) Make sure the EPAS battery safety switch is in the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-09-01-480-001

(2) Make sure the adjustable height cabin and general access stand, STD-1160 is installed outboard of the door.

E. Procedure

SUBTASK 52-09-01-210-001

(1) Do a check of the passenger entry door cutout seal and bottom seal as follows:

(a) Open and close the door and do these checks:

1) Make sure the seals are clear of the edge of all surrounding structure when the door opens and closes.

2) Make sure the blades of the seals touch the seal depressors around the edge of the door when the door closes.

3) Make sure the seal does not flip outboard at the corners when the door closes.

4) Make sure there are no cuts, delamination, or damage to the seal.

5) Make sure the waviness in the straight sections of the seals is as shown (Figure 204).

6) Make sure that the door seal is correct. To do this, you can do one of the following tasks:

- Flashlight Check of the Door Seal, TASK 52-09-01-700-803, or,
- Water Leak Check of the Door Seal, TASK 52-09-01-700-802, or,
- Vacuum Tool Leak Check of the Door Seal, TASK 52-09-01-700-801.

SUBTASK 52-09-01-210-002

(2) Do a check of the vent door seal as follows:

(a) Open and close the door and do these checks:

1) Make sure the seal is clear of the edge of all surrounding structure when the vent door opens and closed.

2) Make sure the seal touches the structure around the edge of the vent door when the vent door is closed.

3) Make sure there are no cuts, delamination, or damage to the seal.

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F. Put the Airplane Back to its Usual Condition

SUBTASK 52-09-01-840-002

(1) Arm the door as follows:

(a) Turn the EPAS battery safety switch to the ARM position.

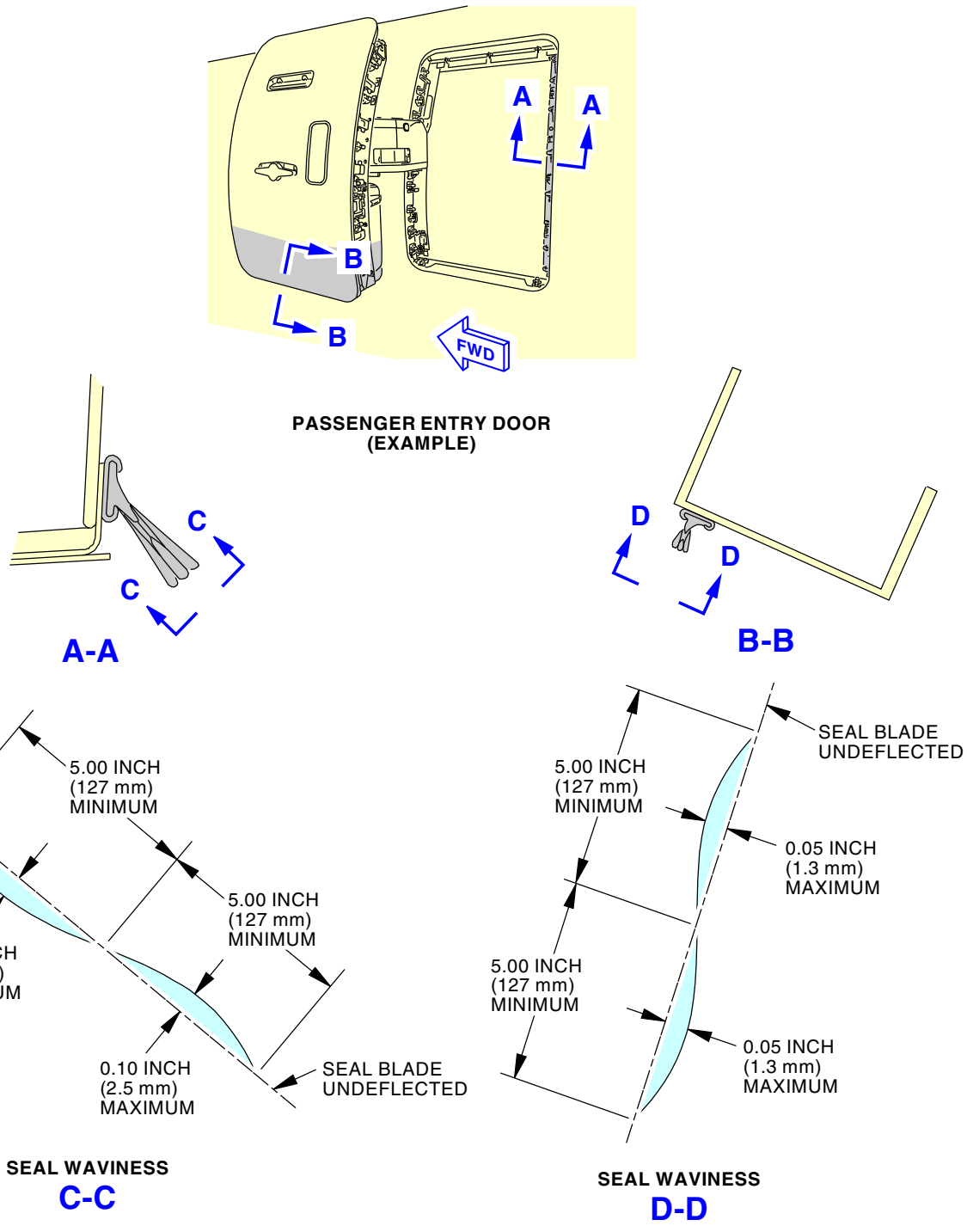
(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

(c) Put the mode select handle in the AUTOMATIC/ARM position.

(2) Remove the access stand.

——— END OF TASK ———

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Passenger Entry Door Seals Check
Figure 204/52-09-01-990-803

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TASK 52-09-01-820-801

7. Passenger Entry Door Seal Adjustment

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)

B. Consumable Materials

Reference	Description	Specification
A01024	Compound - Fairing - 3M EC-3587B	BAC5530

C. Procedure

SUBTASK 52-09-01-860-012

(1) Make sure the door is safe.

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) Make sure the EPAS battery safety switch is in the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-09-01-820-001

(2) Adjust the seal as follows:

(a) Pull and push the seal [1] in the seal retainer [6] to get a good seal around the edge of the door.

NOTE: Wrinkles in the seal [1] are not permitted.

(b) Make sure there are no leaks between the seal [1] and seal depressor on the door. If it is necessary, adjust as follows:

1) Apply the 3M EC-3587B compound, A01024 to the seal depressor and make smooth. Make sure the thickness of the 3M EC-3587B compound, A01024 is not more than 0.4 inch (10.16 mm).

END OF TASK

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PASSENGER ENTRY DOOR SEALS - INSPECTION/CHECK

1. General

A. This procedure has these tasks:

(1) Pressure seal leak check with vacuum leak test tool.

(2) Water leak check.

(3) Pressure seal light check.

TASK 52-09-01-700-801

2. Vacuum Tool Leak Check of the Door Seal

(Figure 601)

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-09-00 P/B 801	DOOR SEALS - REPAIRS
52-09-01 P/B 201	PASSENGER ENTRY DOOR SEALS - MAINTENANCE PRACTICES
52-09-01-820-801	Passenger Entry Door Seal Adjustment (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1797	Stethoscope - Mechanics, 12 Inch Probe Part #: GA111D Supplier: 55719 Opt Part #: GA111C Supplier: 55719
SPL-1473	Probe - Kit, Ultrasonic Leak Part #: ST6760A-1 Supplier: 81205
SPL-1474	Generator - Vacuum Part #: ST9999-VBA-201 Supplier: 81205
SPL-1475	Bag - Assembly, Door Vacuum Part #: J51004-1 Supplier: 81205 Opt Part #: ST6760 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46

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(Continued)

Zone	Area
845	Right No. 5 Passenger Entry Door - Section 47

D. Prepare for the Leak Check

SUBTASK 52-09-01-860-011

(1) Do the steps that follow to prepare for the leak check:

(a) Make sure the door is safe as follows:

1) Make sure the door mode select handle is in the MANUAL/DISARM position.

2) Turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

3) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(b) Open and close the door a minimum of three times.

(c) Close and lock the door.

(d) Put the adjustable height cabin and general access stand, STD-1160 outboard of the door.

(e) Calibrate the ultrasonic leak probe, SPL-1473.

(f) Connect the vacuum generator, SPL-1474 to the door vacuum assembly bag, SPL-1475.

(g) Connect the vacuum generator, SPL-1474 to a compressed air source.

(h) Install the door vacuum assembly bag, SPL-1475 over the passenger entry door (Figure 601).

1) Make sure the door vacuum assembly bag, SPL-1475 covers the entire door and the gap between the door and the fuselage.

2) Remove all bubbles and creases from the door vacuum assembly bag, SPL-1475.

E. Leak Check

SUBTASK 52-09-01-200-002

(1) Do a check of the noise levels around the interior of the door as follows:

(a) Use the vacuum generator, SPL-1474 to apply approximately 8 to 12 inch (Hg).

NOTE: Apply the vacuum gradually until you get to the 8 to 12 inch Hg range.

(b) Hold the ultrasonic leak probe, SPL-1473 approximately 1-2 inches (25.40 - 50.80 mm) from the door surface.

(c) Move the ultrasonic leak probe, SPL-1473 around the edge of the door.

NOTE: The tip of the leak probe should not touch the door surface.

(d) Use the headphones and watch the noise meter on the ultrasonic leak probe, SPL-1473.

F. Repair the Leak

SUBTASK 52-09-01-360-003

(1) If the noise levels go above the red line on the ultrasonic leak probe, SPL-1473 meter, do the steps that follow:

(a) Determine the exact location of the noise with a stethoscope, COM-1797.

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(b) Remove the door vacuum assembly bag, SPL-1475 from the door.

(c) Make sure that the PED door seal is clean and in a good condition.

(d) Adjust the door seal, do this task: Passenger Entry Door Seal Adjustment, TASK 52-09-01-820-801.

(e) If necessary, repair or replace the door seal, do this: DOOR SEALS - REPAIRS, PAGEBLOCK 52-09-00/801 or PASSENGER ENTRY DOOR SEALS - MAINTENANCE PRACTICES, PAGEBLOCK 52-09-01/201.

(f) Install the door vacuum assembly bag, SPL-1475 again and check for noise leaks.

NOTE: You will have to repeat the installation of the vacuum bag and do a check for leaks to make sure that all the noise leaks have been repaired.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-01-440-002

(1) Put the airplane back to its usual condition, do these steps:

(a) Make sure the door vacuum assembly bag, SPL-1475 is removed from the door.

(b) Remove the adjustable height cabin and general access stand, STD-1160.

(c) Arm the door as follows:

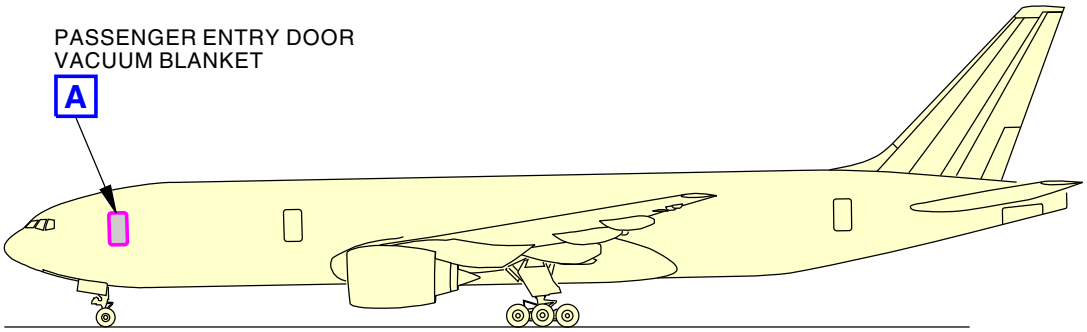
1) Turn the EPAS battery safety switch to the ARM position.

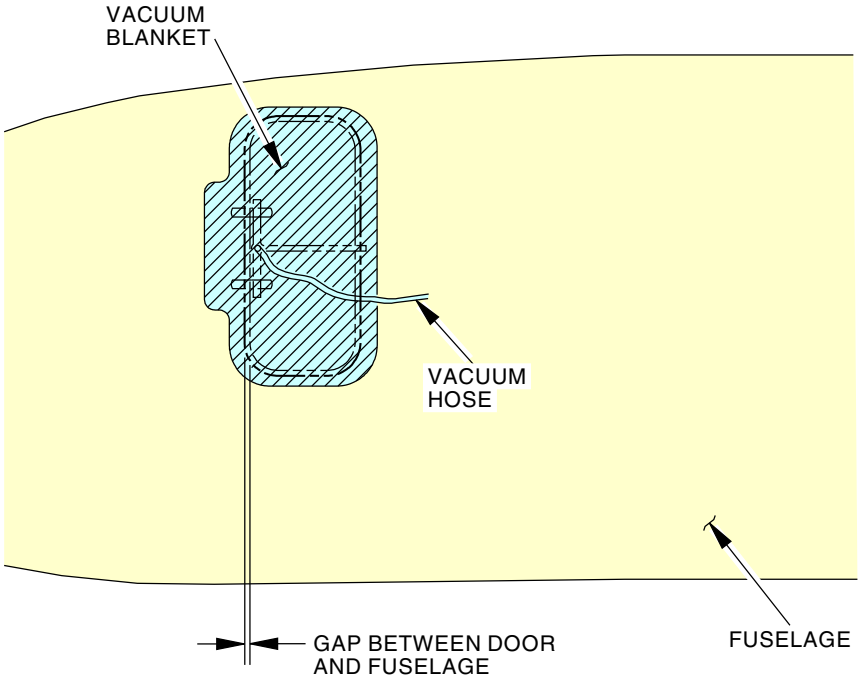
2) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

3) Put the mode select handle in the AUTOMATIC/ARM position.

——— END OF TASK ———

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PASSENGER ENTRY DOOR VACUUM BLANKET

A

NOTE:

THE VACUUM BLANKET COVERS THE ENTIRE DOOR AND THE GAP BETWEEN THE DOOR AND THE FUSELAGE.

F51089 S0006424223_V3

Passenger Entry Door Pressure Seal Leak Check
Figure 601/52-09-01-990-806

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TASK 52-09-01-700-802

3. Water Leak Check of the Door Seal

A. General

(1) This task does a check to make sure that door pressure seals do not leak. The task simulates a heavy rain on the airplane body skin in an unpressurized condition.

B. References

Reference	Title
25-21-02-000-801	Doorway Lining Removal (P/B 401)
25-21-02-400-801	Doorway Lining Installation (P/B 401)
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-09-00 P/B 801	DOOR SEALS - REPAIRS
52-09-01 P/B 201	PASSENGER ENTRY DOOR SEALS - MAINTENANCE PRACTICES
52-09-01-820-801	Passenger Entry Door Seal Adjustment (P/B 201)

C. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Water Leak Check of the Door Seals

SUBTASK 52-09-01-860-006

(1) Make sure the door is safe as follows:

(a) Make sure the door mode select handle is in the MANUAL/DISARM position.

(b) Turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

(c) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

SUBTASK 52-09-01-400-001

(2) Put a protective cover on the door area carpet, as necessary.

NOTE: The cover will keep the carpet dry if there is a water leak.

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SUBTASK 52-09-01-860-007

(3) Make sure the door is closed and latched.

SUBTASK 52-09-01-010-003

(4) Remove the doorway upper liner at these locations:

- At the Overwing Emergency Exit door (PED 3), do this task: Doorway Lining Removal, TASK 25-21-02-000-801.
-
- At PED 4, do this task: Doorway Lining Removal, TASK 25-21-02-000-801.
-

F. Water Leak Check of the Door Seals

SUBTASK 52-09-01-790-004

(1) Use a 3 gallon (11.36 liter) water canister with hose and spray nozzle to apply water to the entry door as follows:

(a) Keep the water nozzle more than 5 feet (1.52 meters) from the airplane.

(b) Apply water spray above and around the door for a minimum of 5 minutes.

NOTE: Apply the water spray to the airplane at angles between 30 and 90 degrees to the airplane surface.

NOTE: Do not apply the water stream directly at the door skin gap.

NOTE: If necessary, use an adjustable height cabin and general access stand, STD-1160 to apply the spray above the door.

(c) Have a person in the airplane check for door water leaks at the same time that water is applied.

1) Do a check for water leaks along the upper seal area on these doors:

- Overwing Emergency Exit Door (PED 3), Left (833) and Right (843).
- PED 4, Left (834) and Right (844).

(d) Do a check for water leaks in the door area for 10 minutes after the end of the water spray.

G. Repair the Water Leak

SUBTASK 52-09-01-360-002

(1) If a water leak is found, do these steps:

(a) Make sure that the PED door seal is clean and in good condition.

(b) Adjust the door seal, do this task: Passenger Entry Door Seal Adjustment, TASK 52-09-01-820-801.

(c) If necessary, repair or replace the door seal, do this: DOOR SEALS - REPAIRS, PAGEBLOCK 52-09-00/801 or PASSENGER ENTRY DOOR SEALS - MAINTENANCE PRACTICES, PAGEBLOCK 52-09-01/201.

(d) Check for water leaks again.

NOTE: You will have to repeat the water spray test and check for leaks to make sure that the water leaks have been repaired.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-01-860-008

(1) Do the steps that follow to put the airplane back to its usual condition:

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(a) Install the doorway upper liner at these locations:

- At the Overwing Emergency Exit door (PED 3), do this task: Doorway Lining Installation, TASK 25-21-02-400-801.
- At PED 4, do this task: Doorway Lining Installation, TASK 25-21-02-400-801.

(b) Remove the protective cover from the door area carpet.

(c) Arm the door as follows:

1) Turn the EPAS battery safety switch to the ARM position.

2) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

3) Put the mode select handle in the AUTOMATIC/ARM position.

(d) Make sure the adjustable height cabin and general access stand, STD-1160 is removed.

——— END OF TASK ———

TASK 52-09-01-700-803

4. Flashlight Check of the Door Seal

A. General

(1) This task uses a flashlight to do a visual check of the door seals. The task checks the condition of the door seal to make sure that the door pressure seals do not leak.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-09-00 P/B 801	DOOR SEALS - REPAIRS
52-09-01 P/B 201	PASSENGER ENTRY DOOR SEALS - MAINTENANCE PRACTICES
52-09-01-820-801	Passenger Entry Door Seal Adjustment (P/B 201)

C. Tools/Equipment

Reference	Description
STD-600	Mirror - Inspection
STD-1081	Flashlight - Explosion Proof
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

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E. Prepare for the Light Check

SUBTASK 52-09-01-860-010

(1) Prepare for the light check, do these steps:

(a) Make sure the door is safe as follows:

1) Make sure the mode select handle is in the MANUAL/DISARM position.

2) Turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

3) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide comparment door latch actuator.

(b) Remove the applicable linings for the door and doorway to get visual access to the door seal.

(c) Open and close the door three times.

(d) Make sure the door is closed and locked.

(e) Put the adjustable height cabin and general access stand, STD-1160 outboard of the door.

F. Light Leak Check

SUBTASK 52-09-01-200-001

(1) Check for a light leak.

(a) Point a flashlight beam around the door frame from the outer airplane.

(b) Have a person in the airplane check if the flashlight beam comes into the airplane.

NOTE: If necessary, use an inspection mirror, STD-600.

1) Make sure there are no light leaks between the door seal and seal depressor.

G. Repair the Leak

SUBTASK 52-09-01-350-001

(1) Repair the light leak if the flashlight beam is detected in the airplane.

(a) Make sure that the PED door seal is clean and in good condition.

(b) Adjust the door seal, do this task: Passenger Entry Door Seal Adjustment, TASK 52-09-01-820-801.

(c) If necessary, repair or replace the door seal, do this: DOOR SEALS - REPAIRS, PAGEBLOCK 52-09-00/801 or PASSENGER ENTRY DOOR SEALS - MAINTENANCE PRACTICES, PAGEBLOCK 52-09-01/201.

(d) Use the explosion proof flashlight, STD-1081 again to check for light leaks.

NOTE: You will have to repeat the light leak check to make sure that the light leaks have been repaired.

H. Put the Airplane Back to its Usual Condition

SUBTASK 52-09-01-440-001

(1) Put the airplane back to its usual condition.

(a) Remove the adjustable height cabin and general access stand, STD-1160.

(b) Install the linings for the door and doorway.

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(c) Arm the door as follows:

1) Turn the EPAS battery safety switch to the ARM position.

2) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801

3) Put the mode select handle in the AUTOMATIC/ARM position.

——— END OF TASK ———

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LARGE CARGO DOOR SEAL - MAINTENANCE PRACTICES

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal of the large cargo door seal.

(2) An installation of the large cargo door seal.

(3) A check of the forward large cargo door seals.

TASK 52-09-02-000-801

2. Large Cargo Door Seal Removal

(Figure 201)

A. General

(1) If there is not too much damage to the seal, you can repair it. To repair it, do this task: Seal Repair Procedures For Specified Types of Seal Damage, TASK 52-09-00-390-801.

B. References

Reference	Title
52-09-00-390-801	Seal Repair Procedures For Specified Types of Seal Damage (P/B 801)

C. Location Zones

Zone	Area
821	Forward Large Cargo Door

D. Prepare for the Removal

SUBTASK 52-09-02-480-001

(1) Open the door sufficiently to get access to the seal [1].

E. Removal

SUBTASK 52-09-02-020-001

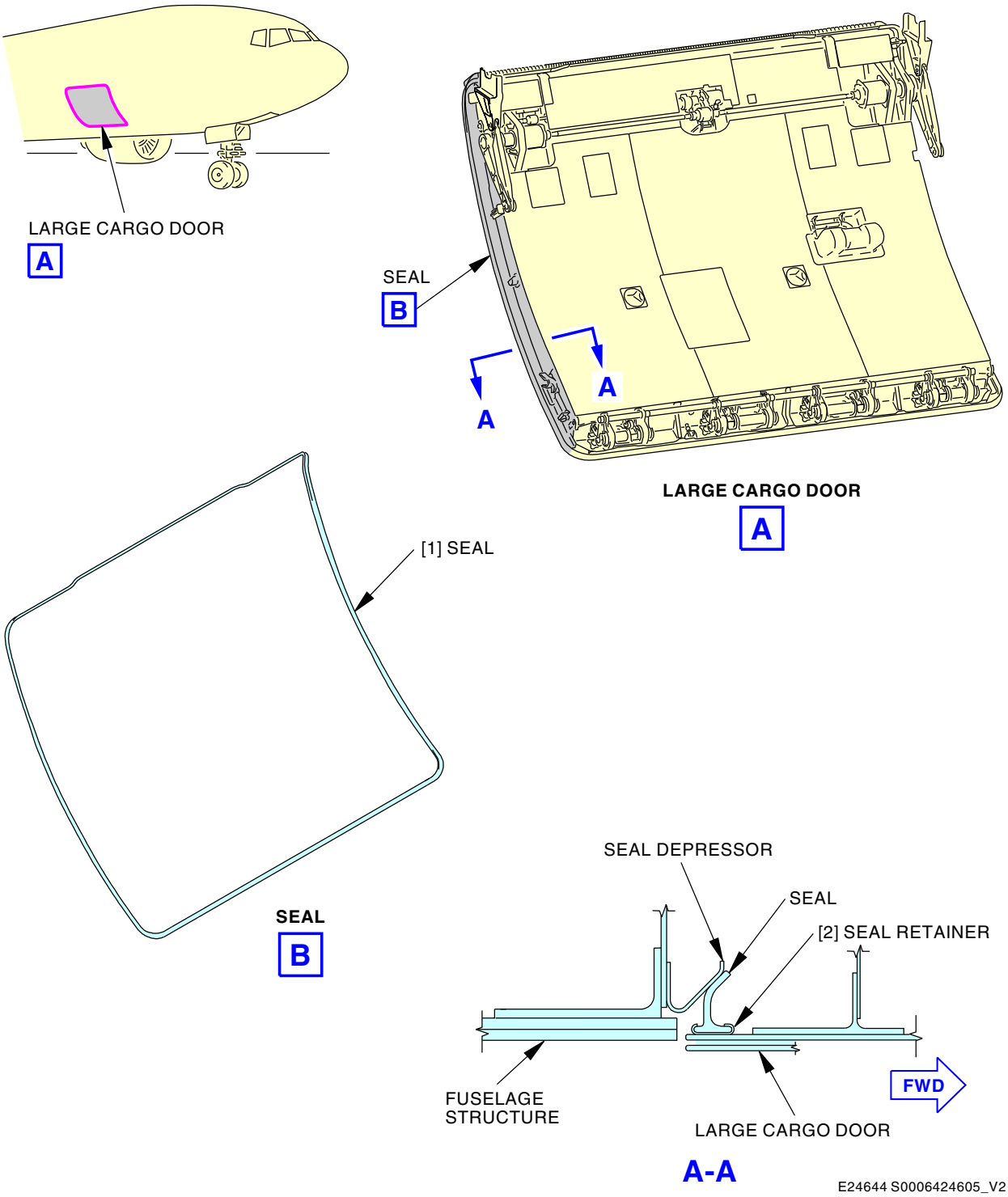
(1) Remove the seal [1] as follows:

(a) Pull and push the seal [1] to disengage it from the seal retainer [2].

(b) Remove the seal [1].

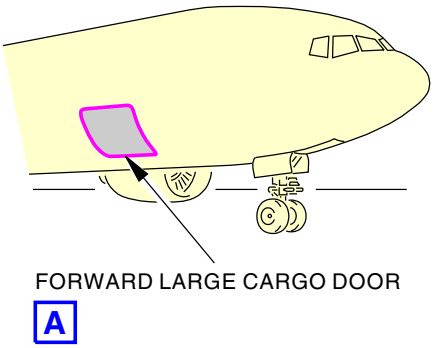
——— END OF TASK ———

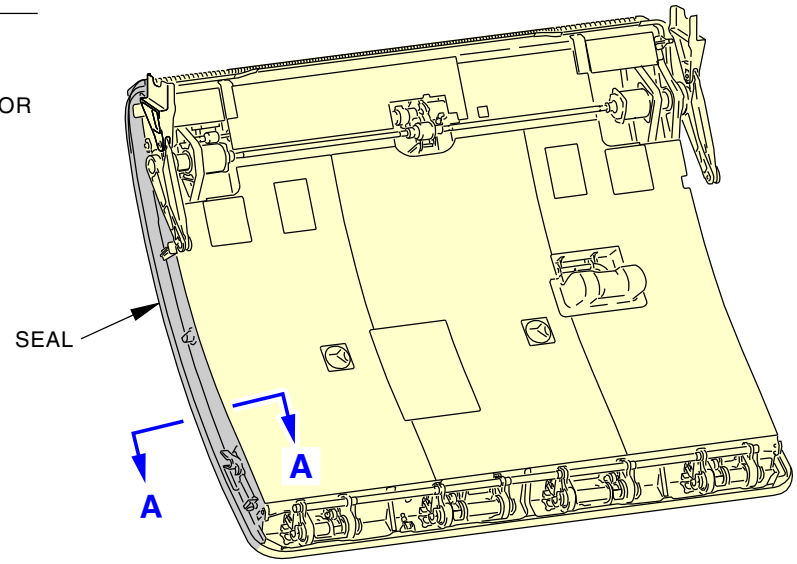
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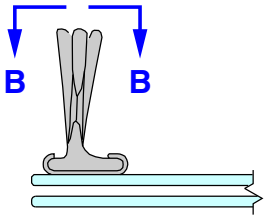
Large Cargo Door Seal Installation
Figure 201/52-09-02-990-804

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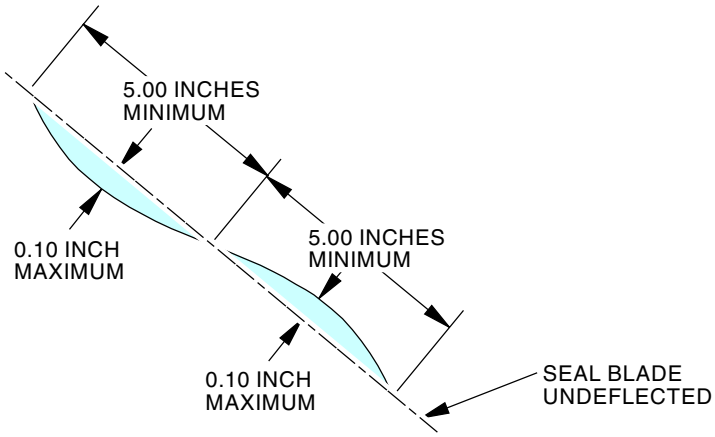




FORWARD LARGE CARGO DOOR
A



A-A



SEAL WAVINESS
B-B

E82721 S0006424606_V2

Forward Large Cargo Door Seal Check
Figure 202/52-09-02-990-805

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TASK 52-09-02-400-801

3. Large Cargo Door Seal Installation

(Figure 201)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1981	Tool - Installation, Door Seal Part #: B52004-1 Supplier: 81205

B. Consumable Materials

Reference	Description	Specification
B00052	Soap - Liquid - Turco 1526	BAC5507

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Seal	52-09-02-01B-020	ARO ALL

D. Location Zones

Zone	Area
821	Forward Large Cargo Door

E. Installation

SUBTASK 52-09-02-420-001

(1) Install the seal [1] as follows:

(a) Put the seal [1] in its correct position on the door.

NOTE: The flap of the seal [1] goes in the inboard direction.

(b) Align the index marks on the seal [1] with the notches in the seal retainer [2].

(c) Move the seal [1] onto the door over the seal retainer [2] and keep it aligned correctly.

CAUTION BE CAREFUL WHEN YOU INSTALL THE SEAL. DO NOT CUT OR MAKE TEARS OR HOLES IN THE SEAL. DAMAGE TO THE SEAL CAN EASILY OCCUR.

(d) At each corner, put 1-2 inches of the inside edge of the seal [1] into the seal retainer [2].

(e) Use the door seal installation tool, SPL-1981 to push the outside edge of the seal [1] into the seal retainer [2].

(f) You can use Turco 1526 soap, B00052, to lubricate the seal [1] and make it easier to install.

(g) At the center of each side, install 2-3 inches of the seal [1] into the seal retainer [2].

(h) From the center of each side to the corner, install the remaining parts of the seal [1].

(i) Re-install the seal [1] at the corners if it is necessary.

(j) Pull and push the seal [1] in the seal retainer [2] to make it equal around the door.

NOTE: Wrinkles in the seal [1] are not permitted.

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F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-02-410-001

(1) Close the door.

——— END OF TASK ———

TASK 52-09-02-200-801

4. Forward Large Cargo Door Seals Check

(Figure 202)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an inspection of the large cargo door seal and vent door seal.

B. References

Reference	Title
05-51-24-720-801	EXCESSIVE CABIN PRESSURE LEAKAGE TEST (P/B 201)

C. Location Zones

Zone	Area
821	Forward Large Cargo Door

D. Procedure

SUBTASK 52-09-02-210-001

(1) Do a check of the large cargo door seal as follows:

(a) Open partially and close the door and do these checks:

1) Make sure the seal is clear of the edge of all surrounding structure when the door opens and closes.

2) Make sure the blade of the seal touches the seal depressor around the edge of the door when the door is closed.

NOTE: To do this check you can close the door and look for light around the edge of the door.

a) If the blade seal does not touch the seal depressor around the edge of the door, then do the EXCESSIVE CABIN PRESSURE LEAKAGE TEST, TASK 05-51-24-720-801.

<1> If the fuselage pressure test is in the limits, then the blade seal is serviceable.

<2> If the fuselage pressure test is not in the limits, then replace the blade seal.

3) Make sure the seal does not twist when the door opens and closes.

4) Make sure there are no cuts, delamination, or damage to the seal.

5) Make sure the waviness in the straight sections of the seal is as shown (Figure 202).

SUBTASK 52-09-02-210-002

(2) Do a check of the vent door seal as follows:

(a) Unlock, open partially, close and lock the door and do these checks:

1) Make sure the seal is clear of the edge of all surrounding structure when the vent door opens and closes.

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2) Make sure the seal touches the structure around the edge of the vent door when the vent door is closed.

NOTE: To do this check you can lock the door to close the vent door and look for light around the edge of the vent door.

3) Make sure there is no damage to the seal.

END OF TASK

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SMALL CARGO DOOR SEALS - MAINTENANCE PRACTICES

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal of the small cargo door bottom seal.

(2) An installation of the small cargo door bottom seal.

(3) A removal of the small cargo door cutout seal.

(4) An installation of the small cargo door cutout seal.

(5) A check of the small cargo door seals.

TASK 52-09-03-000-801

2. Small Cargo Door Bottom Seal Removal

(Figure 201)

A. Location Zones

Zone	Area
823	Aft Small Cargo Door

B. Prepare for the Removal

SUBTASK 52-09-03-480-001

(1) Open the door sufficiently to get access to the seal [1].

C. Removal

SUBTASK 52-09-03-020-001

(1) Remove the bottom seal [1] as follows:

(a) Remove the bolts [3], washers [4], and nuts [5] that attach the bottom seal [1] and splice plates [6].

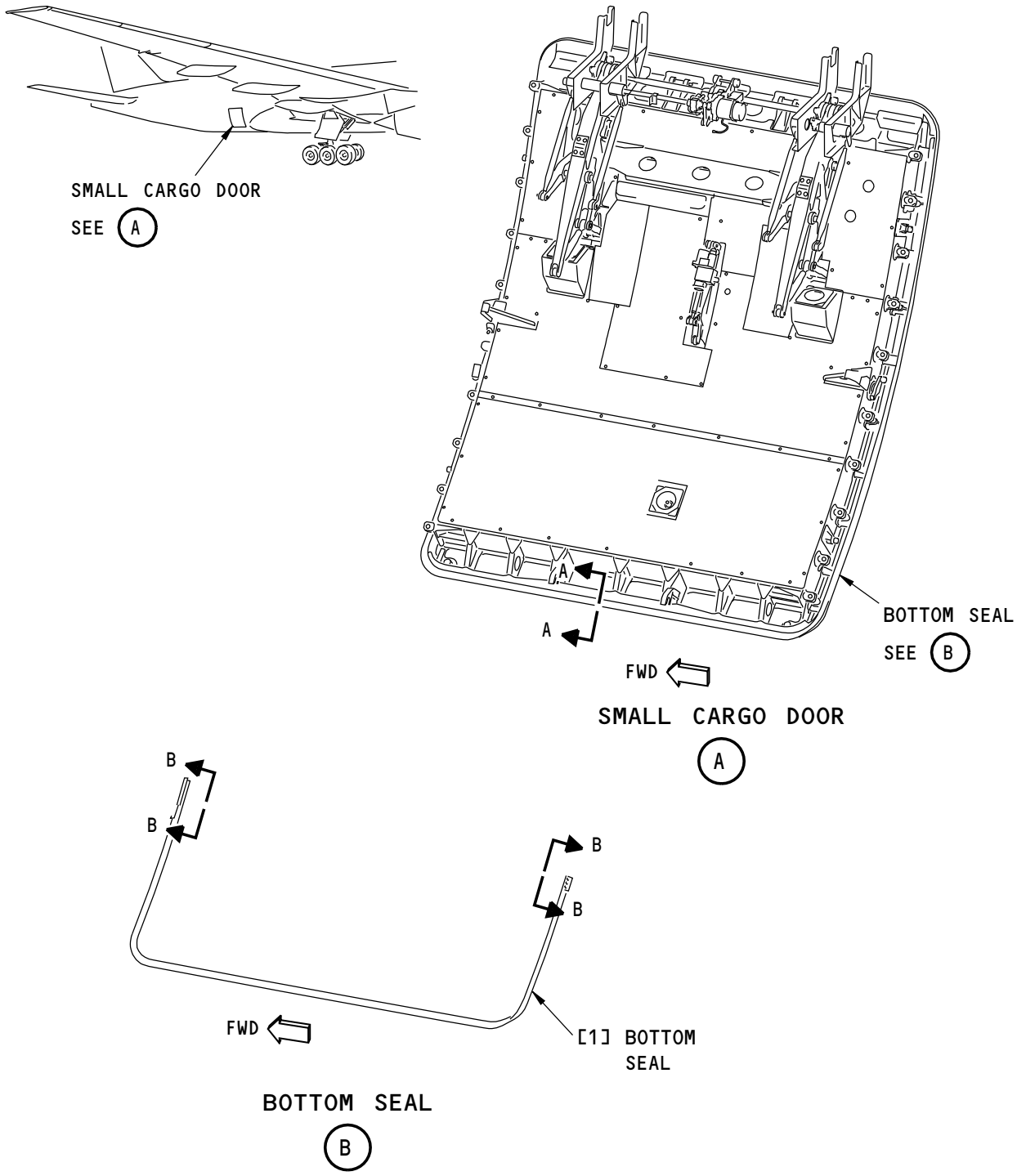
(b) Remove the splice plates [6].

(c) Pull and push the bottom seal [1] to disengage it from the seal retainer [2].

(d) Remove the bottom seal [1].

——— END OF TASK ———

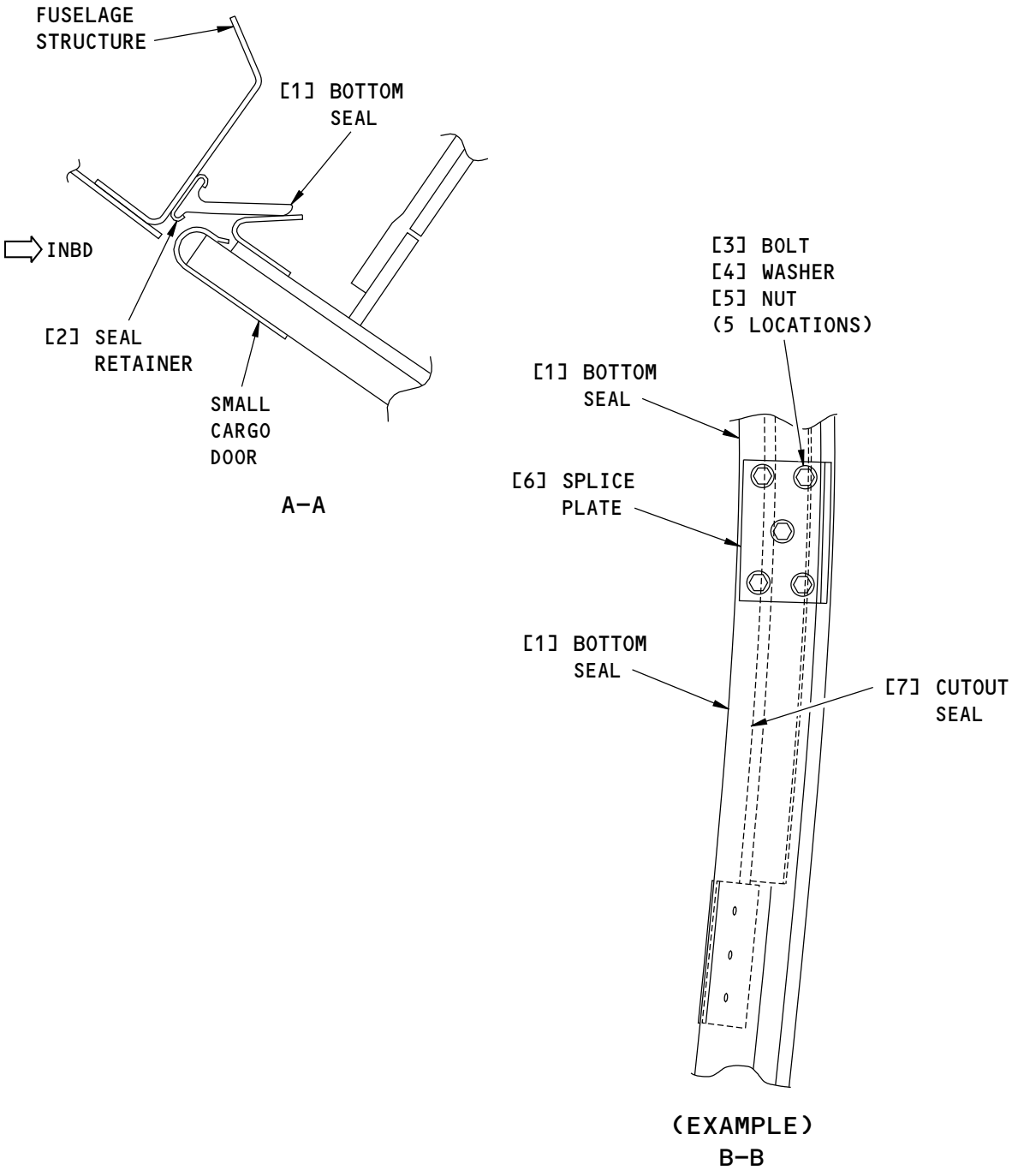
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Small Cargo Door Bottom Seal Installation
Figure 201/52-09-03-990-806 (Sheet 1 of 2)

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Small Cargo Door Bottom Seal Installation
Figure 201/52-09-03-990-806 (Sheet 2 of 2)

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TASK 52-09-03-400-801

3. Small Cargo Door Bottom Seal Installation

(Figure 201)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1981	Tool - Installation, Door Seal Part #: B52004-1 Supplier: 81205

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
B00052	Soap - Liquid - Turco 1526	BAC5507

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Seal	52-09-03-01-035	ARO ALL

D. Location Zones

Zone	Area
823	Aft Small Cargo Door

E. Installation

SUBTASK 52-09-03-420-001

(1) Install the bottom seal [1] as follows:

(a) Put the bottom seal [1] in its correct position on the door.

NOTE: The flap of the bottom seal goes in the inboard direction.

(b) Move the bottom seal [1] onto the door over the seal retainer [2] and keep it aligned correctly.

CAUTION BE CAREFUL WHEN YOU INSTALL THE SEAL. DO NOT CUT OR MAKE TEARS OR HOLES IN THE SEAL. DAMAGE TO THE SEAL CAN EASILY OCCUR.

(c) At each corner, put 1-2 inches of the inside edge of the bottom seal [1] onto the seal retainer [2].

(d) Use the door seal installation tool, SPL-1981, to push the outside edge of the seal [1] into the seal retainer [2].

(e) You can use Turco 1526 soap, B00052, to lubricate the bottom seal [1] and make it easier to install.

(f) At the center of each side, install 2-3 inches of the bottom seal [1] into seal retainer [2].

(g) From the center of each side to the corner, install the remaining parts of the bottom seal [1].

(h) Reinstall the bottom seal [1] at the corners if it is necessary.

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(i) Pull and push the bottom seal [1] in the seal retainer [2] to make it equal around the door.

NOTE: Wrinkles in the bottom seal are not permitted.

(j) Apply the sealant, A00247, to the mating surfaces of the bolts [3], washers [4], and nuts [5] that attach the seal [1] and splice plates [6].

(k) Hold the splice plates [6] in its correct position and install the bolts [3], washers [4], and nuts [5] to attach the seal [1] and splice plates [6].

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-03-410-001

(1) Close the door.

——— END OF TASK ———

TASK 52-09-03-000-802

4. Small Cargo Door Cutout Seal Removal

(Figure 202)

A. Location Zones

Zone	Area
823	Aft Small Cargo Door

B. Prepare for the Removal

SUBTASK 52-09-03-480-002

(1) Open the door sufficiently to get access to the seal [7].

C. Removal

SUBTASK 52-09-03-020-002

(1) Remove the cutout seal [7] as follows:

(a) Remove the bolts [3], washers [4], and nuts [5] that attach the cutout seal [7] and splice plates [8].

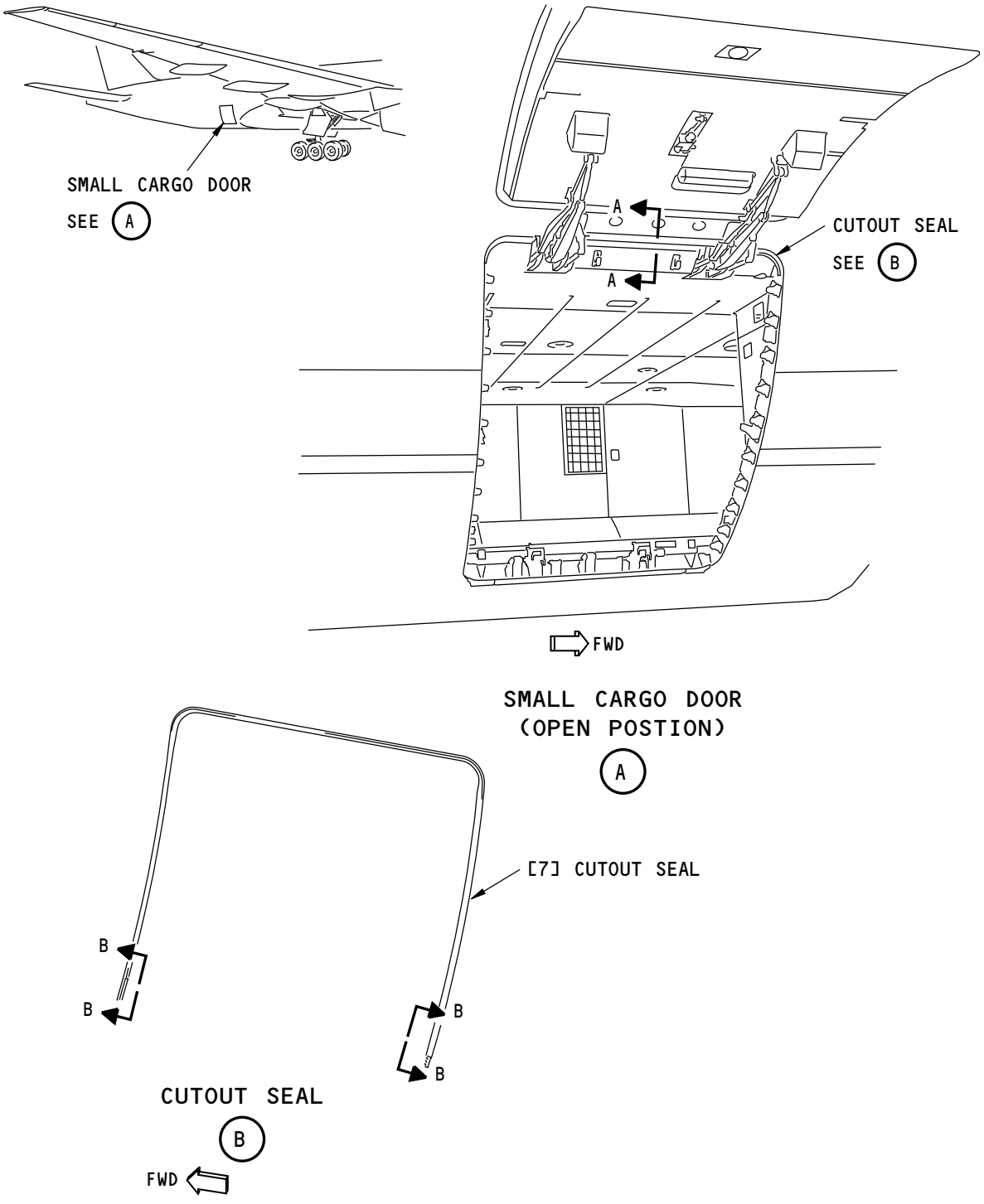
(b) Remove the splice plates [8].

(c) Pull and push the cutout seal [7] to disengage it from the seal retainer [9].

(d) Remove the cutout seal [7].

——— END OF TASK ———

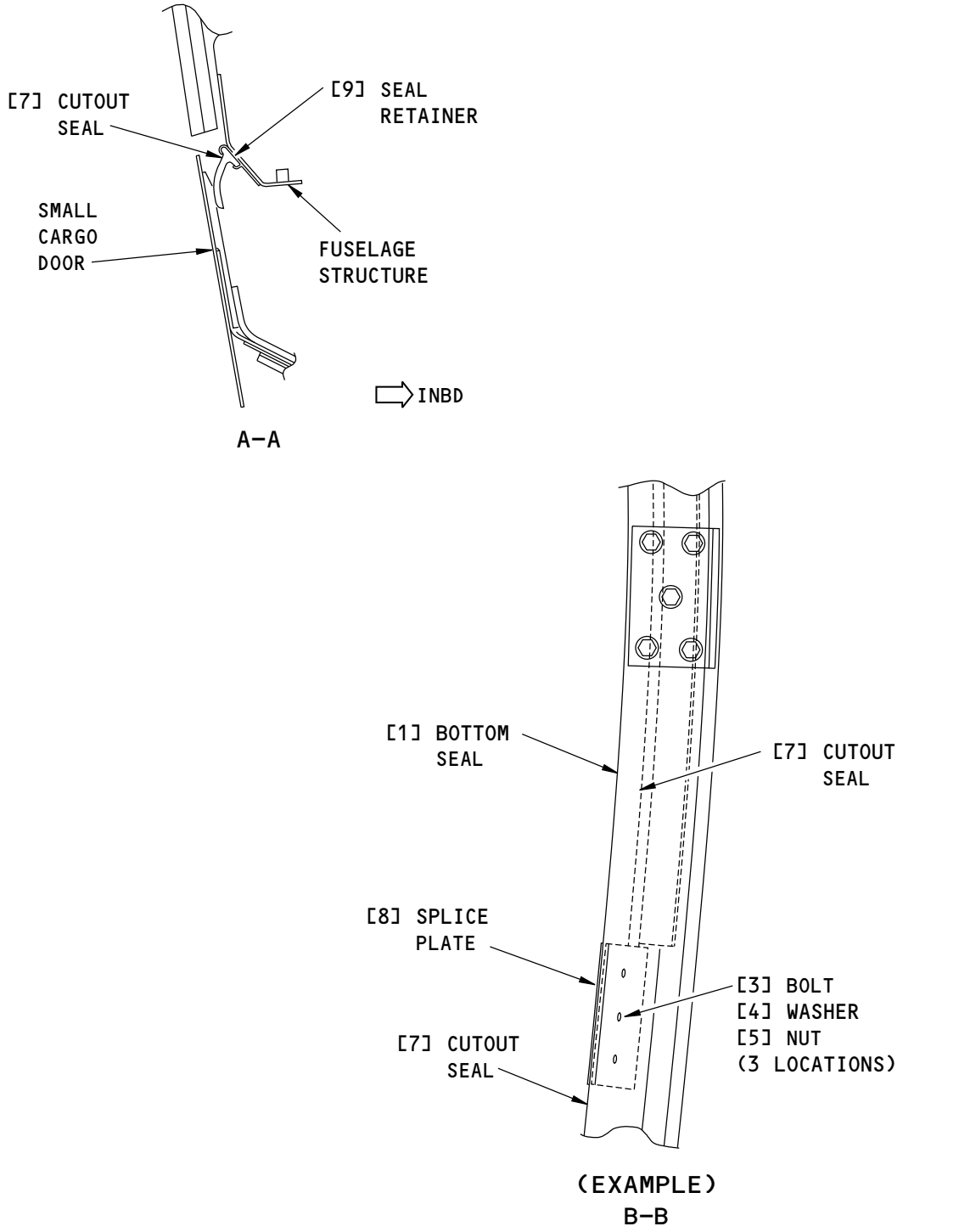
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Small Cargo Door Cutout Seal Installation
Figure 202/52-09-03-990-807 (Sheet 1 of 2)

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Small Cargo Door Cutout Seal Installation
Figure 202/52-09-03-990-807 (Sheet 2 of 2)

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TASK 52-09-03-400-802

5. Small Cargo Door Cutout Seal Installation

(Figure 202)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1981	Tool - Installation, Door Seal Part #: B52004-1 Supplier: 81205

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
B00052	Soap - Liquid - Turco 1526	BAC5507

C. Location Zones

Zone	Area
823	Aft Small Cargo Door

D. Installation

SUBTASK 52-09-03-420-002

(1) Install the cutout seal [7] as follows:

(a) Put the cutout seal [7] in its correct position on the door.

NOTE: The flap of the cutout seal goes in the inboard direction.

(b) Move the cutout seal [7] onto the door over the seal retainer [9] and keep it aligned correctly.

CAUTION BE CAREFUL WHEN YOU INSTALL THE SEAL. DO NOT CUT OR MAKE TEARS OR HOLES IN THE SEAL. DAMAGE TO THE SEAL CAN EASILY OCCUR.

(c) At each corner, put 1-2 inches of the inside edge of the cutout seal [7] into the seal retainer [9].

(d) Use the door seal installation tool, SPL-1981, to push the outside edge of the cutout seal [7] into the seal retainer [9].

(e) You can use Turco 1526 soap, B00052, to lubricate the cutout seal [7] and make it easier to install.

(f) At the center of each side, install 2-3 inches of the cutout seal [7] into the seal retainer [9].

(g) From the center of each side to the corner, install the remaining parts of the cutout seal [7].

(h) Reinstall the cutout seal [7] at the corners if it is necessary.

(i) Pull and push the cutout seal [7] in the seal retainer [9] to make it equal around the door.

NOTE: Wrinkles in the cutout are not permitted.

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(j) Apply the sealant, A00247, to the mating surfaces of the bolts [3], washers [4], and nuts [5] that attach the cutout seal [7] and the splice plates [8].

(k) Hold the splice plates [8] in its correct position and install the bolts [3], washers [4], and nuts [5] to attach the cutout seal [7] and the splice plates [8].

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-03-410-002

(1) Close the door.

——— END OF TASK ———

TASK 52-09-03-200-801

6. Small Cargo Door Seals Check

(Figure 203)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an inspection of the small cargo door bottom seal, cutout seal, and vent door seal.

B. Location Zones

Zone	Area
823	Aft Small Cargo Door

C. Procedure

SUBTASK 52-09-03-210-001

(1) Do a check of the small cargo door bottom seal and cutout seal as follows:

(a) Open partially and close the door and do these checks:

1) Make sure the seals are clear of the edge of all surrounding structure when the door opens and closes.

2) Make sure the blades of the seals touch the seal depressors around the edge of the door when the door is closed.

NOTE: To do this check you can close the door and look for light around the edge of the door.

3) Make sure the seals do not twist when the door opens and closes.

4) Make sure there are no cuts, delamination, or damage to the seals.

5) Make sure the waviness in the straight sections of the seals is as shown (Figure 203).

SUBTASK 52-09-03-210-002

(2) Do a check of the vent door seal as follows:

(a) Unlock, open partially, close and lock the door and do these checks:

1) Make sure the seal is clear of the edge of all surrounding structure when the vent door opens and closes.

2) Make sure the seal touches the structure around the edge of the vent door when the vent door is closed.

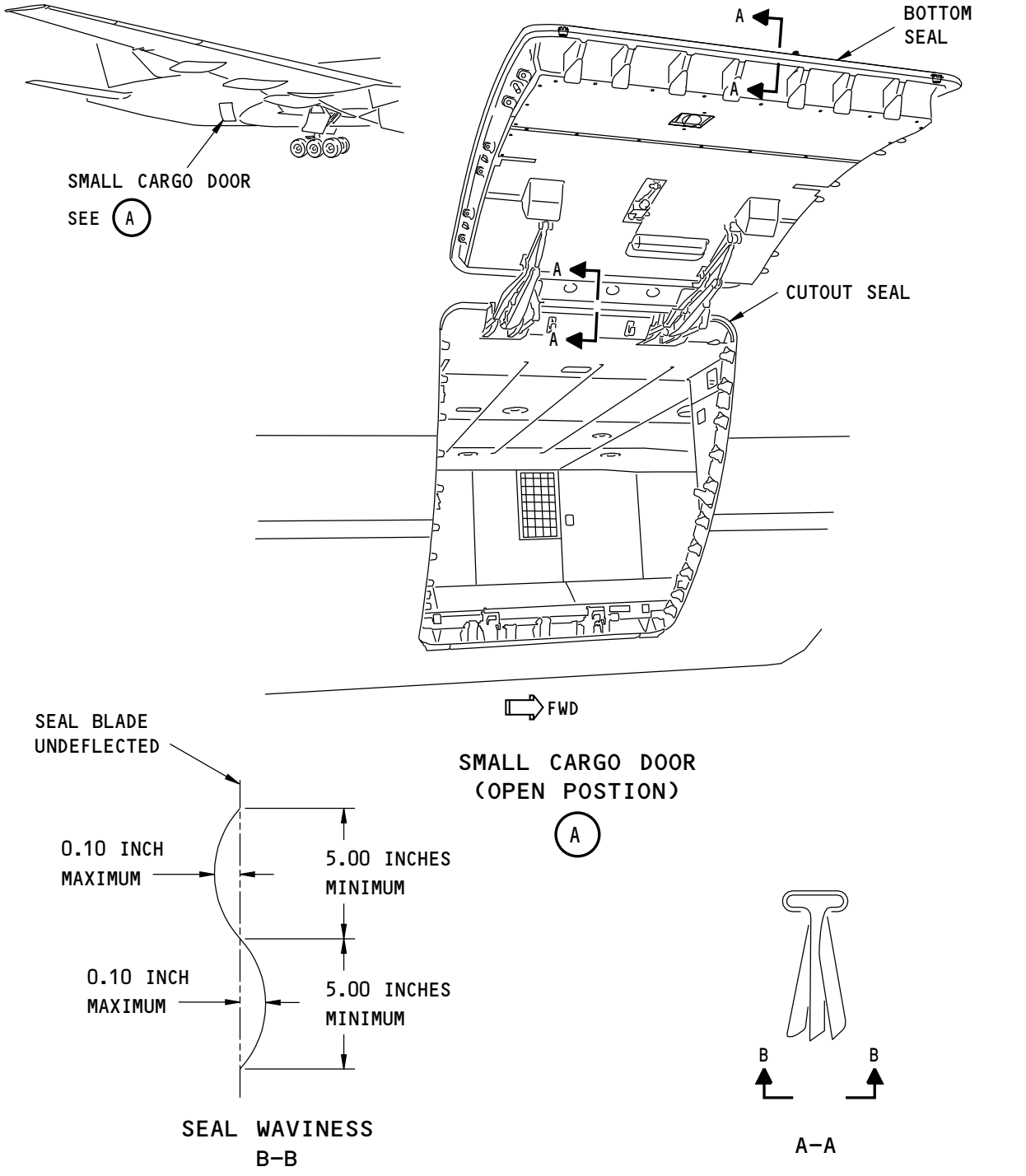
NOTE: To do this check you can lock the door to close the vent door and look for light around the edge of the vent door.

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3) Make sure there is no damage to the seal.

——— END OF TASK ———

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Small Cargo Door Seals Check
Figure 203/52-09-03-990-803

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BULK CARGO DOOR SEAL - MAINTENANCE PRACTICES

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal of the bulk cargo door seal.

(2) An installation of the bulk cargo door seal.

(3) A check of the bulk cargo door seal.

(4) An adjustment of the bulk cargo door seal.

TASK 52-09-04-000-801

2. Bulk Cargo Door Seal Removal

(Figure 201)

A. Location Zones

Zone	Area
825	Bulk Cargo Door

B. Prepare for the Removal

SUBTASK 52-09-04-010-001

(1) Open the door.

C. Removal

SUBTASK 52-09-04-020-001

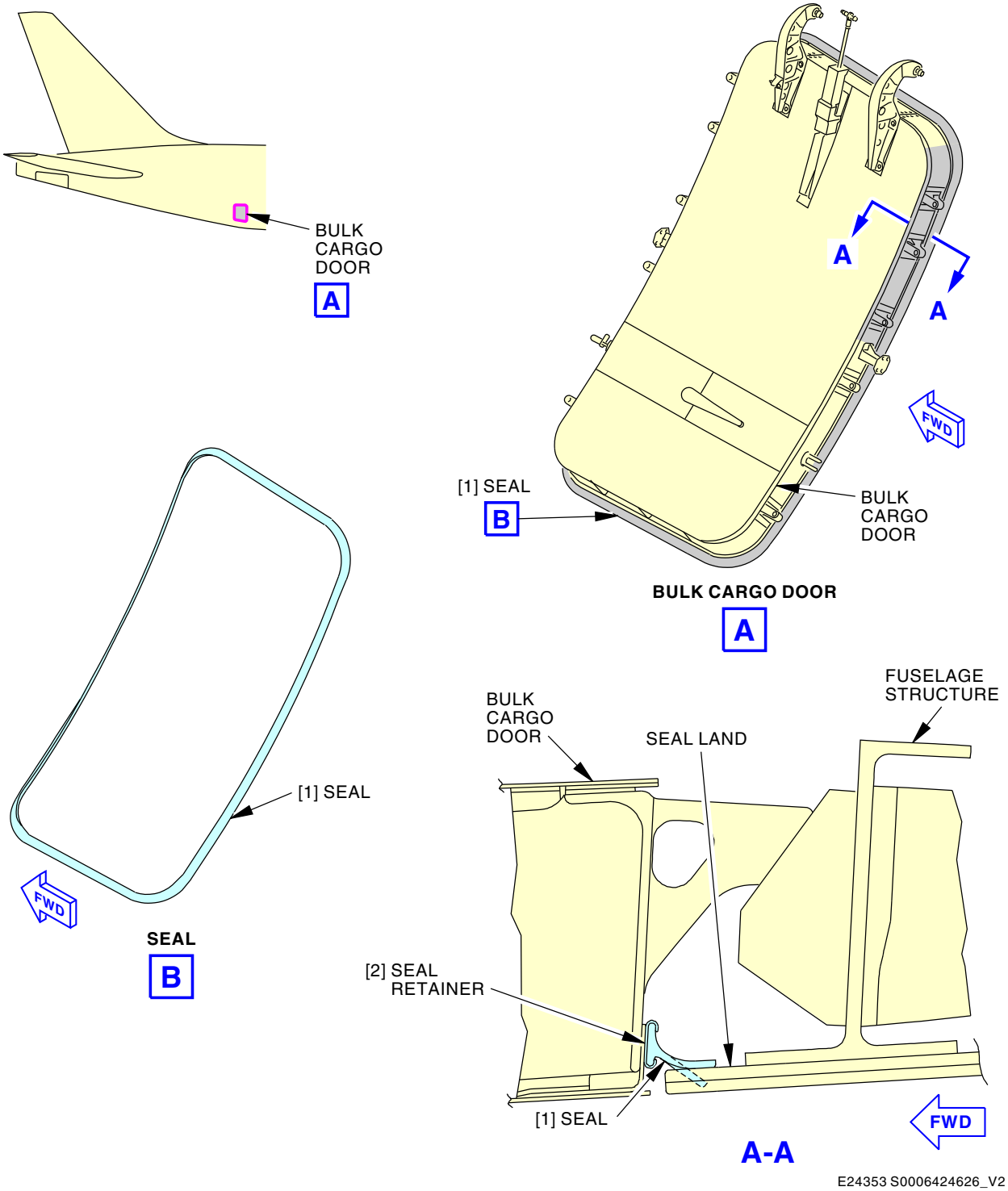
(1) Remove the seal [1] as follows:

(a) Pull and push the seal [1] to disengage it from the seal retainer [2].

(b) Remove the seal [1].

END OF TASK

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Bulk Cargo Door Seal Installation
Figure 201/52-09-04-990-803

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TASK 52-09-04-400-801

3. Bulk Cargo Door Seal Installation

(Figure 201)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1981	Tool - Installation, Door Seal Part #: B52004-1 Supplier: 81205

B. Consumable Materials

Reference	Description	Specification
B00052	Soap - Liquid - Turco 1526	BAC5507

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Seal	52-36-01-01-435	ARO 001-017

D. Location Zones

Zone	Area
825	Bulk Cargo Door

E. Installation

SUBTASK 52-09-04-420-001

(1) Install the seal [1] as follows:

(a) Put the seal [1] in its correct position on the door.

NOTE: The flap of the seal goes in the outboard direction.

(b) Move the seal [1] onto the door over the seal retainer [2] and keep it aligned correctly.

CAUTION BE CAREFUL WHEN YOU INSTALL THE SEAL. DO NOT CUT OR MAKE TEARS OR HOLES IN THE SEAL. DAMAGE TO THE SEAL CAN EASILY OCCUR.

(c) At each corner, put 1-2 inches of the inboard edge of the seal [1] into the seal retainer [2].

(d) Use the door seal installation tool, SPL-1981, to push the outboard edge of the seal [1] into the seal retainer [2].

(e) You can use Turco 1526 soap, B00052, to lubricate the seal [1] and make it easier to install.

(f) At the center of each side, install 2-3 inches of the seal [1] into the seal retainer [2].

(g) From the center of each side to the corner, install the remaining parts of the seal [1].

(h) Re-install the seal [1] at the corners if it is necessary.

(i) Pull and push the seal [1] in the seal retainer [2] to make it equal around the door.

NOTE: Wrinkles in the seal are not permitted.

SUBTASK 52-09-04-220-001

(2) Do this task: Bulk Cargo Door Seal Check, TASK 52-09-04-200-801.

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SUBTASK 52-09-04-820-002

(3) Adjust the seal [1] if it is necessary as follows:

(a) Do this task: Bulk Cargo Door Seal Adjustment, TASK 52-09-04-820-801.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-04-410-001

(1) Close the door.

——— END OF TASK ———

TASK 52-09-04-200-801

4. Bulk Cargo Door Seal Check

(Figure 202)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an inspection of the bulk cargo door seal.

B. Location Zones

Zone	Area
825	Bulk Cargo Door

C. Procedure

SUBTASK 52-09-04-210-001

(1) Do a check of the seal as follows:

(a) Open and close the door and do these checks:

1) Make sure the seal is clear of the edge of all surrounding structure when the door opens and closes.

2) Make sure the blade of the seal touches the seal land around the edge of the door when the door is closed.

NOTE: To do this check you can close the door and look for light around the edge of the door.

3) Make sure the seal does not twist when the door opens and closes.

4) Make sure there are no cuts, delamination, or damage to the seal.

5) Make sure the waviness in the straight sections of the seal is as shown (Figure 202).

——— END OF TASK ———

TASK 52-09-04-820-801

5. Bulk Cargo Door Seal Adjustment

(Figure 202)

A. Consumable Materials

Reference	Description	Specification
A01024	Compound - Fairing - 3M EC-3587B	BAC5530

B. Location Zones

Zone	Area
825	Bulk Cargo Door

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C. Procedure

SUBTASK 52-09-04-820-001

(1) Adjust the seal [1] as follows:

(a) Pull and push the seal [1] in the seal retainer [2] to get a good seal around the edge of the door (Figure 201).

NOTE: Wrinkles in the seal are not permitted.

(b) If seal [1] does not touch the seal land around the edge of the door, do a check on the seal [1] for irregular bumps, depressions, or waviness (Figure 202).

(c) If it is necessary, adjust as follows:

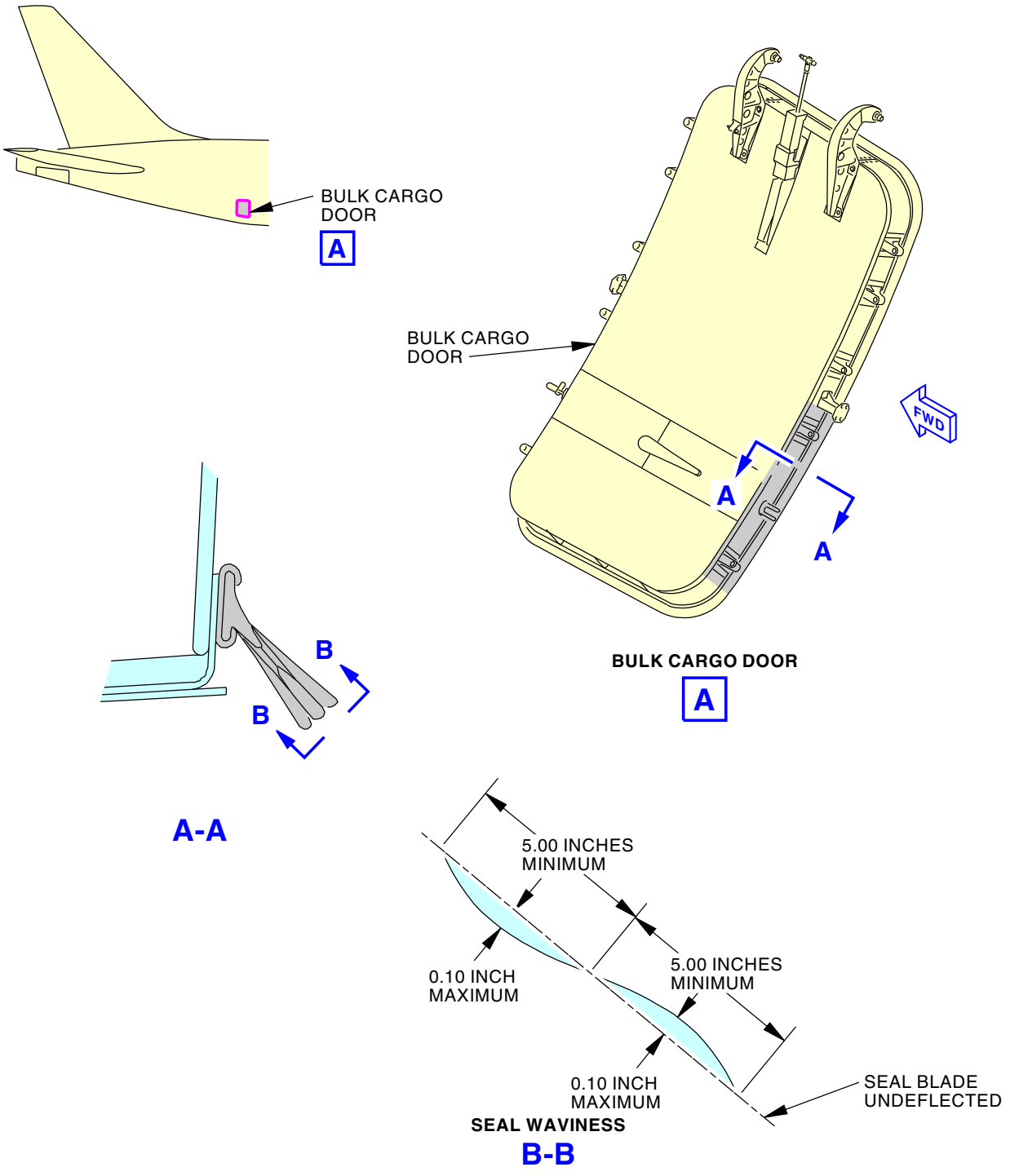
1) If bumps or waviness are found, remove the bumps and straighten the waviness.

2) If depressions or clearances are found, fill the depressions with the 3M EC-3587B compound, A01024.

3) If the clearances stay, apply the 3M EC-3587B compound, A01024 to increase the seal land and get the seal [1] to touch the seal land.

——— END OF TASK ———

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Bulk Cargo Door Seal Check
Figure 202/52-09-04-990-802

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FORWARD ACCESS DOOR SEAL - MAINTENANCE PRACTICES

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal of the forward access door seal.

(2) An installation of the forward access door seal.

(3) A check of the forward access door seal.

(4) An adjustment of the forward access door seal.

TASK 52-09-05-000-801

2. Forward Access Door Seal Removal

(Figure 201)

A. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

B. Access Panels

Number	Name/Location
112AL	Forward Access Door

C. Prepare for the Removal

SUBTASK 52-09-05-010-001

(1) Open this access panel:

Number	Name/Location
112AL	Forward Access Door

D. Removal

SUBTASK 52-09-05-020-001

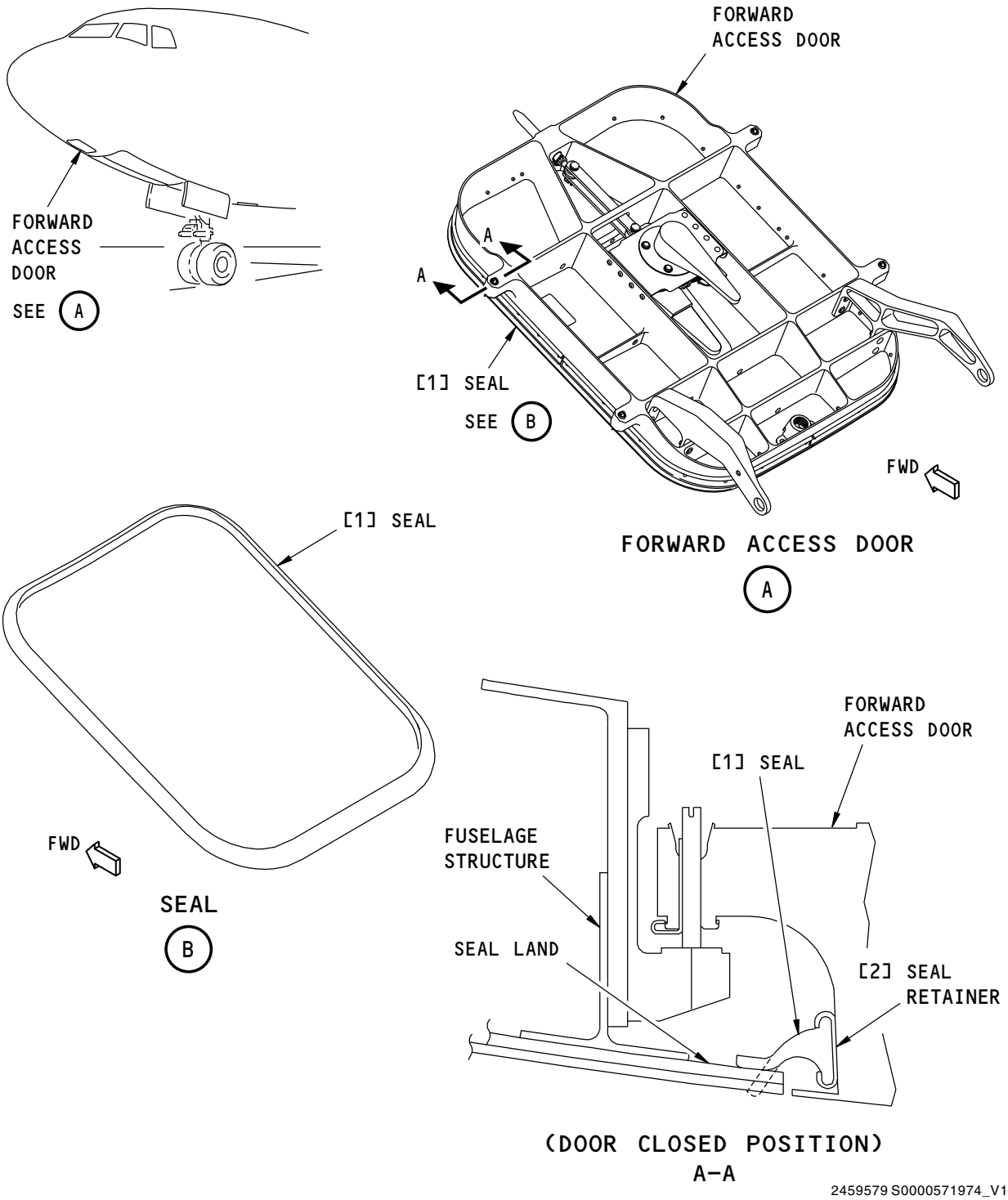
(1) Remove the seal [1] as follows:

(a) Pull and push the seal [1] to disengage it from the seal retainer [2].

(b) Remove the seal [1].

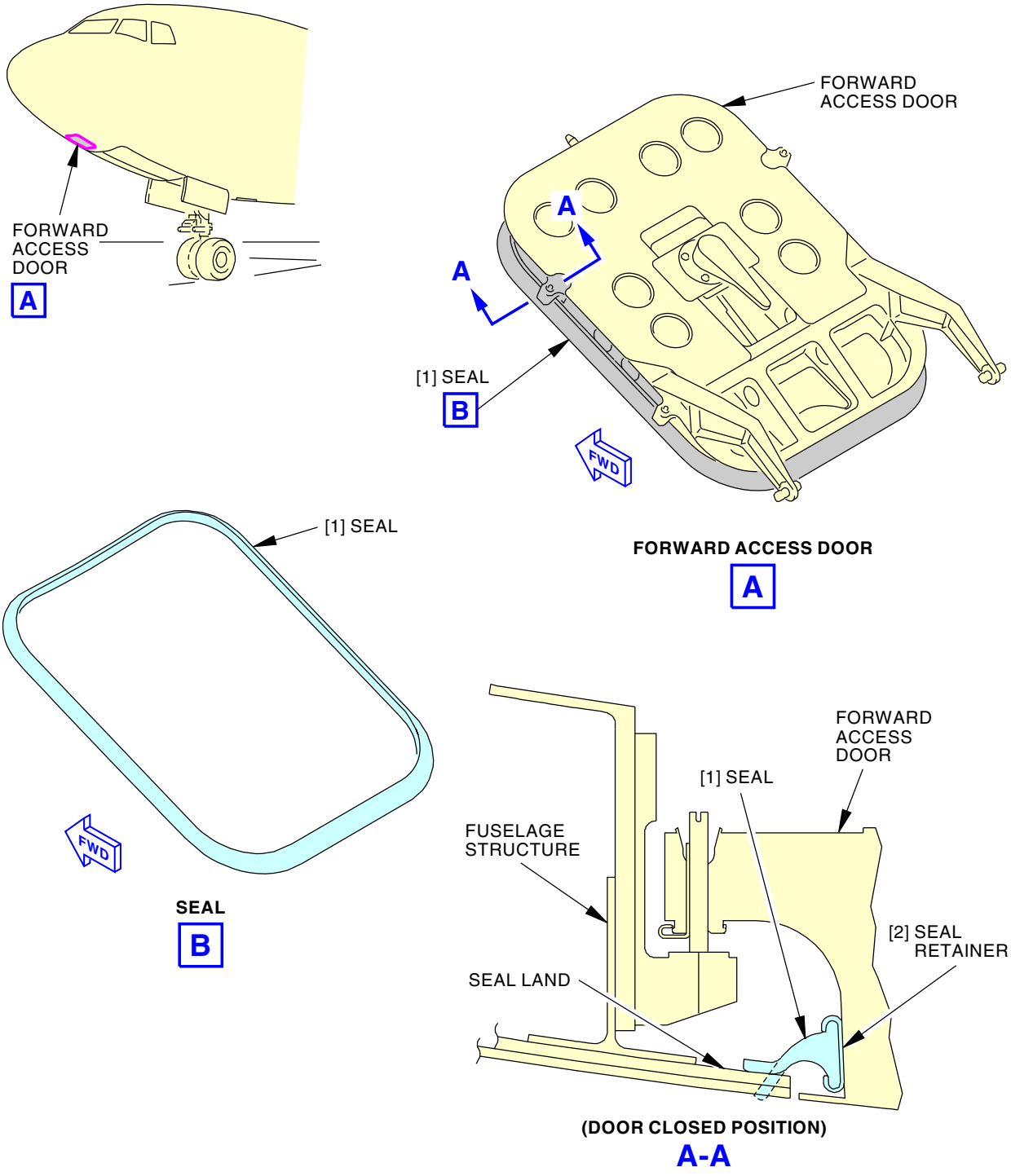
——— END OF TASK ———

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Forward Access Door Seal
Figure 201/52-09-05-990-825 (Sheet 1 of 2)

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Forward Access Door Seal
Figure 201/52-09-05-990-825 (Sheet 2 of 2)

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TASK 52-09-05-400-801

3. Forward Access Door Seal Installation

(Figure 201)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1981	Tool - Installation, Door Seal Part #: B52004-1 Supplier: 81205

B. Consumable Materials

Reference	Description	Specification
B00052	Soap - Liquid - Turco 1526	BAC5507

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Seal	52-48-01-01-080	ARO 001-015
		52-48-01-01-305	ARO ALL

D. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

E. Access Panels

Number	Name/Location
112AL	Forward Access Door

F. Installation

SUBTASK 52-09-05-420-001

(1) Install the seal [1] as follows:

(a) Put the seal [1] in its correct position on the door.

NOTE: The flap of the seal goes in the outboard direction.

(b) Move the seal [1] onto the door over the seal retainer [2] and keep it aligned correctly.

CAUTION

BE CAREFUL WHEN YOU INSTALL THE SEAL. DO NOT CUT OR MAKE TEARS OR HOLES IN THE SEAL. DAMAGE TO THE SEAL CAN EASILY OCCUR.

(c) At each corner, put 1-2 inches of the inboard edge of the seal [1] into the seal retainer [2].

(d) Use the door seal installation tool, SPL-1981, to push the outboard edge of the seal [1] into the seal retainer [2].

(e) You can use Turco 1526 soap, B00052, to lubricate the seal [1] and make it easier to install.

(f) At the center of each side, install 2-3 inches of the seal [1] into the seal retainer [2].

(g) From the center of each side to the corner, install the remaining parts of the seal [1].

(h) Re-install the seal [1] at the corners if it is necessary.

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(i) Pull and push the seal [1] in the seal retainer [2] to make it equal around the door.

NOTE: Wrinkles in the seal are not permitted.

SUBTASK 52-09-05-220-001

(2) Do this task: Forward Access Door Seal Check, TASK 52-09-05-200-801.

SUBTASK 52-09-05-820-002

(3) Adjust the seal [1] if it is necessary as follows:

(a) Do this task: Forward Access Door Seal Adjustment, TASK 52-09-05-820-801.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-05-410-001

(1) Close this access panel:

Number	Name/Location
112AL	Forward Access Door

——— END OF TASK ———

TASK 52-09-05-200-801

4. Forward Access Door Seal Check

(Figure 201)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an inspection of the forward access door seal.

B. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

C. Access Panels

Number	Name/Location
112AL	Forward Access Door

D. Procedure

SUBTASK 52-09-05-210-001

(1) Do a check of the seal [1] as follows:

(a) Open and close this access panel:

Number	Name/Location
112AL	Forward Access Door

(b) Do these checks:

1) Make sure the blade of the seal [1] touches the seal land around the edge of the door when the door is closed.

NOTE: To do this check you can close the door and look for light around the edge of the door.

2) Make sure the seal [1] does not twist when the door opens and closes.

3) Make sure there are no cuts or damage to the seal [1].

——— END OF TASK ———

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TASK 52-09-05-820-801

5. Forward Access Door Seal Adjustment

(Figure 201)

A. Consumable Materials

Reference	Description	Specification
A01024	Compound - Fairing - 3M EC-3587B	BAC5530

B. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

C. Procedure

SUBTASK 52-09-05-820-001

(1) Adjust the seal [1] as follows:

(a) Pull and push the seal [1] in the seal retainer [2] to get a good seal around the edge of the door.

NOTE: Wrinkles in the seal are not permitted.

(b) If seal [1] does not touch the seal land around the edge of the door, do a check on the seal [1] for irregular bumps, depressions, or waviness.

(c) If it is necessary, adjust as follows:

1) If bumps or waviness are found, remove the bumps and straighten the waviness.

2) If depressions or clearances are found, fill the depressions with the 3M EC-3587B compound, A01024.

3) If the clearances stay, apply the 3M EC-3587B compound, A01024, to increase the seal land and get the seal [1] to touch the seal land.

——— END OF TASK ———

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MAIN EQUIPMENT CENTER ACCESS DOOR SEAL - MAINTENANCE PRACTICES

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal of the main equipment access door seal.

(2) An installation of the main equipment access door seal.

(3) A check of the main equipment access door seal.

(4) An adjustment of the main equipment access door seal.

TASK 52-09-06-000-801

2. Main Equipment Center Access Door Seal Removal

(Figure 201)

A. Location Zones

Zone	Area
117	Main Equipment Center, Left

B. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

C. Prepare for the Removal

SUBTASK 52-09-06-010-001

(1) Open this access panel:

Number	Name/Location
117AL	Main Equipment Center Access Door

D. Removal

SUBTASK 52-09-06-020-001

(1) Remove the seal [1] as follows:

(a) Pull and push the seal [1] to disengage it from the seal retainer [2].

(b) Remove the seal [1].

——— END OF TASK ———

TASK 52-09-06-400-801

3. Main Equipment Center Access Door Seal Installation

(Figure 201)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1981	Tool - Installation, Door Seal Part #: B52004-1 Supplier: 81205

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B. Consumable Materials

Reference	Description	Specification
B00052	Soap - Liquid - Turco 1526	BAC5507

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Seal	52-48-02-01-310	ARO ALL

D. Location Zones

Zone	Area
117	Main Equipment Center, Left

E. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

F. Installation

SUBTASK 52-09-06-420-001

(1) Install the seal [1] as follows:

(a) Put the seal [1] in its correct position on the door.

NOTE: The flap of the seal [1] goes in the outboard direction.

(b) Move the seal [1] onto the door over the seal retainer [2] and keep it aligned correctly.

CAUTION BE CAREFUL WHEN YOU INSTALL THE SEAL. DO NOT CUT OR MAKE TEARS OR HOLES IN THE SEAL. DAMAGE TO THE SEAL CAN EASILY OCCUR.

(c) At each corner, put 1-2 inches of the inboard edge of the seal [1] into the seal retainer [2].

(d) Use the door seal installation tool, SPL-1981 to push the outboard edge of the seal [1] into the seal retainer [2].

(e) You can use Turco 1526 soap, B00052 to lubricate the seal [1] and make it easier to install.

(f) At the center of each side, install 2 in. (51 mm) - 3 in. (76 mm) of the seal [1] into the seal retainer [2].

(g) From the center of each side to the corner, install the remaining parts of the seal [1].

(h) Re-install the seal [1] at the corners if it is necessary.

(i) Pull and push the seal [1] in the seal retainer [2] to make it equal around the door.

NOTE: Wrinkles in the seal [1] are not permitted.

G. Installation Test

SUBTASK 52-09-06-220-001

(1) Do this task: Main Equipment Center Access Door Seal Check, TASK 52-09-06-200-801.

SUBTASK 52-09-06-820-002

(2) Adjust the seal [1] if it is necessary as follows:

(a) Do this task: Main Equipment Center Access Door Seal Adjustment, TASK 52-09-06-820-801.

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H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-06-410-001

(1) Close this access panel:

Number	Name/Location
117AL	Main Equipment Center Access Door

——— END OF TASK ———

TASK 52-09-06-200-801

4. Main Equipment Center Access Door Seal Check

(Figure 201)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an inspection of the main equipment center access door seal.

B. Location Zones

Zone	Area
117	Main Equipment Center, Left

C. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

D. Procedure

SUBTASK 52-09-06-210-001

(1) Do a check of the seal as follows:

(a) Open and close this access panel:

Number	Name/Location
117AL	Main Equipment Center Access Door

(b) Make sure the seal is clear of the edge of all surrounding structure when the door opens and closes.

(c) Make sure the blade of the seal touches the seal land around the edge of the door when the door is closed.

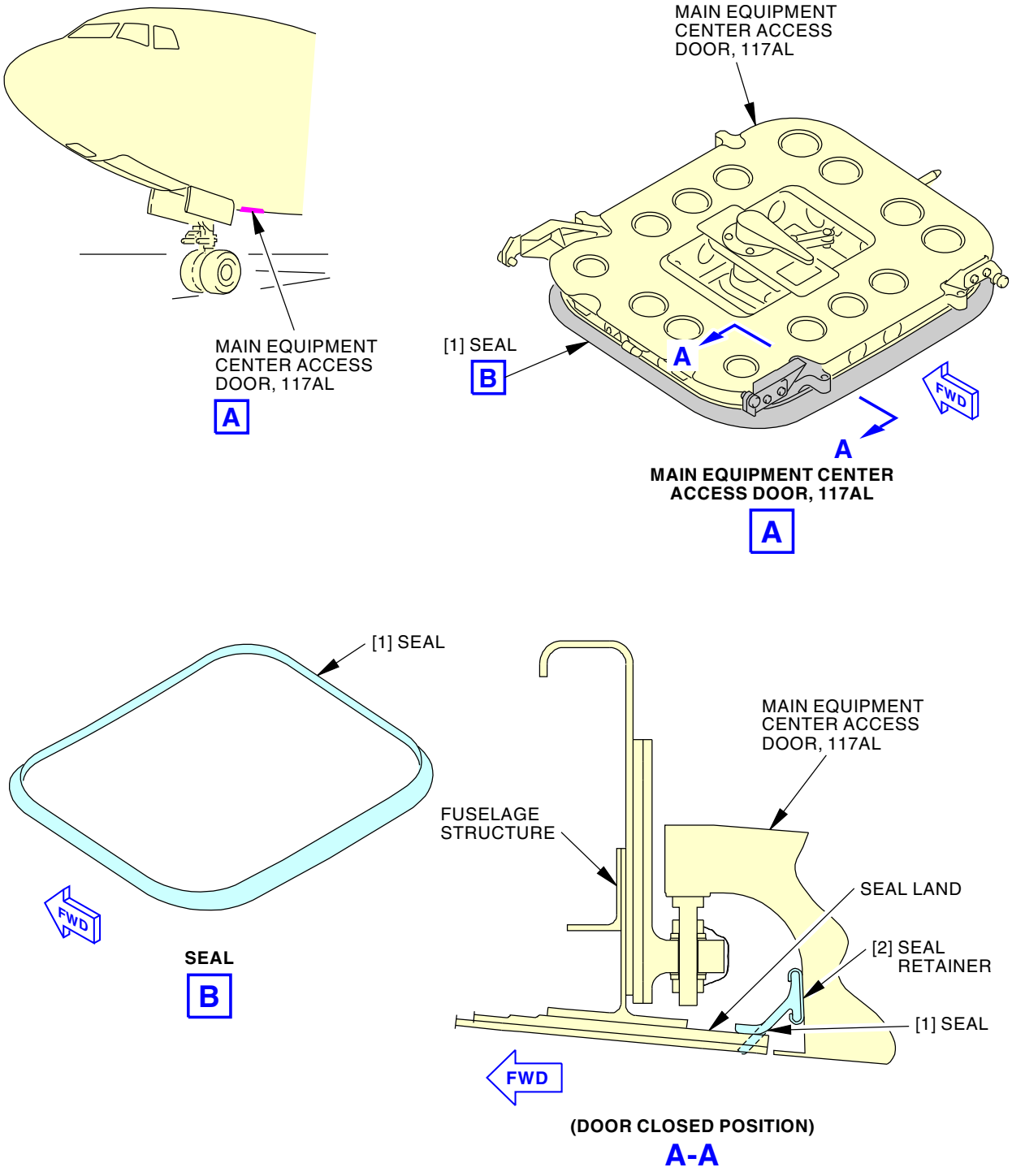
NOTE: To do this check you can close the door and look for light around the edge of the door.

(d) Make sure the seal does not twist when the door opens and closes.

(e) Make sure there are no cuts or damage to the seal.

——— END OF TASK ———

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Main Equipment Center Access Door Seal Check
Figure 201/52-09-06-990-802

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TASK 52-09-06-820-801

5. Main Equipment Center Access Door Seal Adjustment

(Figure 201)

A. Consumable Materials

Reference	Description	Specification
A01024	Compound - Fairing - 3M EC-3587B	BAC5530

B. Location Zones

Zone	Area
117	Main Equipment Center, Left

C. Procedure

SUBTASK 52-09-06-820-001

(1) Adjust the seal as follows:

(a) Pull and push the seal in the seal retainer to get a good seal around the edge of the door.

NOTE: Wrinkles in the seal are not permitted.

(b) If seal does not touch the seal land around the edge of the door, do a check on the seal for irregular bumps, depressions, or waviness. If it is necessary, adjust as follows:

1) If bumps or waviness are found, remove the bumps and straighten the waviness.

2) If depressions or clearances are found, fill the depressions with the 3M EC-3587B compound, A01024.

3) If the clearances stay, apply the 3M EC-3587B compound, A01024 to increase the seal land and get the seal to touch the seal land.

——— END OF TASK ———

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PASSENGER ENTRY DOOR - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) Open the door externally with the exterior handle.

(2) Close the door externally with the exterior handle.

(3) Open the door internally with the interior handle.

(4) Close the door internally with the interior handle.

(5) Arm the escape system.

TASK 52-12-00-860-801

2. Open the Door Externally with the Exterior Handle

(Figure 201)

A. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

B. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

C. Procedure

SUBTASK 52-12-00-860-001

CAUTION DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. STRONG WINDS CAN CAUSE DAMAGE TO THE STRUCTURE OF THE AIRPLANE.

(1) Put the adjustable height cabin and general access stand, STD-1160 in front of the door.

NOTE: Make sure the personnel opening the door have enough room on the stand to step back away from the door if the EPAS system accidentally opens the door.

NOTE: Make sure personnel are not standing in the area forward of the door near the fuselage.

SUBTASK 52-12-00-860-002

(2) Pull the exterior handle outboard from the recess in the door.

NOTE: When you pull the handle, a pull cable automatically disarms the escape system and the mode select handle turns.

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SUBTASK 52-12-00-860-003

(3) Turn the exterior handle to unlatch and lift the door.

NOTE: When you turn the exterior handle, the interior handle turns.

SUBTASK 52-12-00-860-004

(4) Pull the door outboard and forward until the hold-open hook engages and the door is held in the fully open position.

NOTE: When you pull the door with the external handle, a slow and firm pull is sufficient. Too much force is not necessary.

SUBTASK 52-12-00-860-005

(5) Put the warning strap across the door opening.

END OF TASK

TASK 52-12-00-860-802

3. Close the Door Externally with the Exterior Handle

(Figure 201)

A. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

B. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

C. Procedure

SUBTASK 52-12-00-860-006

CAUTION

DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. STRONG WINDS CAN CAUSE DAMAGE TO THE STRUCTURE OF THE AIRPLANE.

(1) Make sure the adjustable height cabin and general access stand, STD-1160 is installed in front of the door.

SUBTASK 52-12-00-860-007

(2) Remove the warning strap from across the door if it is installed.

SUBTASK 52-12-00-860-008

(3) Pull the hold-open handle to disengage the hold-open hook.

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SUBTASK 52-12-00-860-009

(4) Use the exterior handle to move the door into the door cutout.

SUBTASK 52-12-00-860-010

CAUTION

WHEN YOU CLOSE THE DOOR, MAKE SURE THAT THE DOOR IS FULLY INBOARD BEFORE YOU LOCK IT. DO NOT PUSH ON THE HANDLE WITH A FORCE OF MORE THAN APPROXIMATELY 40 POUNDS (18 KG.). IF THE FORCE IS TOO LARGE, LIFT THE DOOR, AND PUSH THE DOOR OUT BEFORE YOU TRY TO CLOSE THE DOOR AGAIN. DAMAGE TO THE DOOR CAN OCCUR IF YOU USE TOO MUCH FORCE.

(5) Turn the exterior handle to lower and latch the door.

NOTE: When you turn the handle 180 degrees in the close direction the door is lowered behind the door stops and latched.

NOTE: When you push the door with the external handle, a slow and firm push is sufficient. Too much force is not necessary.

SUBTASK 52-12-00-860-011

(6) Release the exterior handle to let it go into the recess in the door.

——— END OF TASK ———

TASK 52-12-00-860-803

4. Open the Door Internally with the Interior Handle

(Figure 202)

A. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

B. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

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C. Procedure

SUBTASK 52-12-00-860-012

CAUTION: DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. STRONG WINDS CAN CAUSE DAMAGE TO THE STRUCTURE OF THE AIRPLANE.

(1) Put the adjustable height cabin and general access stand, STD-1160 in front of the door.

NOTE: Make sure that any personnel standing outside the door have enough room on the stand to step back away from the door if the EPAS system accidentally opens the door.

NOTE: Make sure personnel are not standing in the area forward of the door near the fuselage.

SUBTASK 52-12-00-860-013

(2) Move the mode select handle to the MANUAL/DISARM position to disarm the escape system.

SUBTASK 52-12-00-200-001

(3) Do a check of the tow witness ports in the sidewall near the bottom of the door.

SUBTASK 52-12-00-860-014

(4) Turn the interior handle to unlatch and lift the door.

NOTE: When you turn the handle 180 degrees in the open direction, the door is unlatched and lifted clear from the door stops.

SUBTASK 52-12-00-860-015

(5) Push the door outboard and forward with the interior handle until the hold-open hook engages and the door is held in the fully open position.

NOTE: When you push the door, a slow and firm push is sufficient. Too much force is not necessary.

SUBTASK 52-12-00-860-016

(6) Put the warning strap across the door opening.

——— END OF TASK ———

TASK 52-12-00-860-804

5. Close the Door Internally with the Interior Handle

(Figure 202)

A. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

B. Procedure

SUBTASK 52-12-00-860-017

CAUTION: DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. STRONG WINDS CAN CAUSE DAMAGE TO THE STRUCTURE OF THE AIRPLANE.

(1) Make sure the adjustable height cabin and general access stand, STD-1160 is installed in front of the door.

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SUBTASK 52-12-00-860-018

(2) Remove the warning strap from across the door opening if it is installed.

SUBTASK 52-12-00-860-019

(3) Pull the hold-open handle to disengage the hold-open hook.

SUBTASK 52-12-00-860-020

(4) Use the hold-open handle as an assist handle to pull the door into the cutout.

NOTE: When you pull the door, a slow and firm pull is sufficient. Too much force is not necessary.

SUBTASK 52-12-00-860-021

CAUTION

WHEN YOU CLOSE THE DOOR, MAKE SURE THAT THE DOOR IS FULLY INBOARD BEFORE YOU LOCK IT. DO NOT PUSH ON THE HANDLE WITH A FORCE OF MORE THAN APPROXIMATELY 40 POUNDS (18 KG.). IF THE FORCE IS TOO LARGE, LIFT THE DOOR, AND PUSH THE DOOR OUT BEFORE YOU TRY TO CLOSE THE DOOR AGAIN. DAMAGE TO THE DOOR CAN OCCUR IF YOU USE TOO MUCH FORCE.

(5) Turn the interior handle to lower and latch the door.

NOTE: When you turn the handle 180 degrees in the close direction, the door is lowered behind the door stops and latched.

END OF TASK

TASK 52-12-00-860-805

6. Arm the Escape System

(Figure 203)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)

B. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

C. Procedure

SUBTASK 52-12-00-860-022

(1) Make sure the door is closed and latched.

SUBTASK 52-12-00-860-045

(2) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

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SUBTASK 52-12-00-860-023

(3) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-00-860-024

(4) Move the mode select handle to the AUTOMATIC/ARM position.

SUBTASK 52-12-00-860-025

(5) Make sure the mode select handle is fully aft at an angle of 45 degrees from vertical.

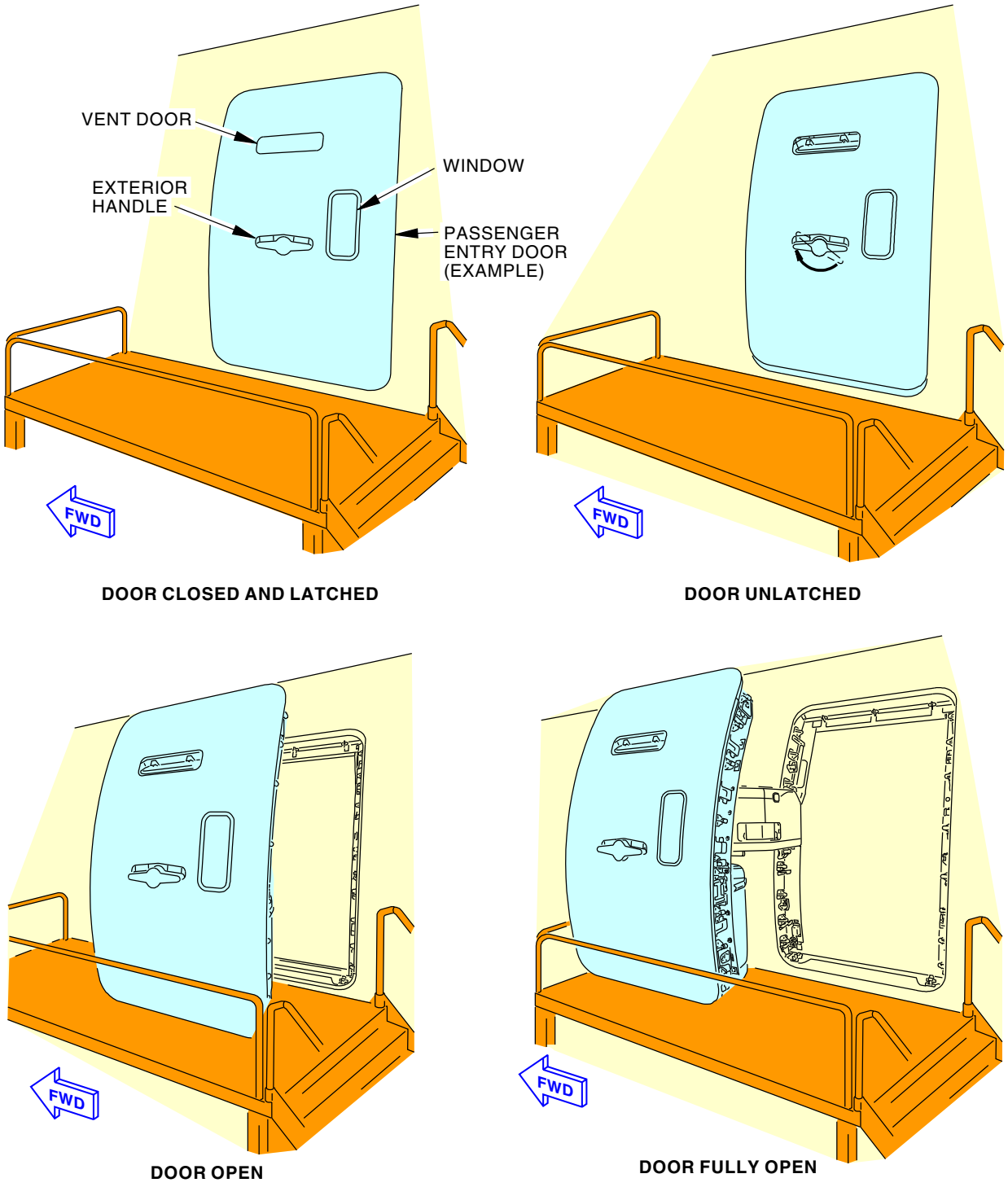
SUBTASK 52-12-00-860-026

(6) For doors 1, 2, 4, and 5 make sure the yellow flags show in the view ports at the bottom of the doorway lining.

NOTE: The yellow flags are on the floor fittings and show that the girt bar is engaged. Door 3 does not have yellow flags, floor fittings or a girt bar.

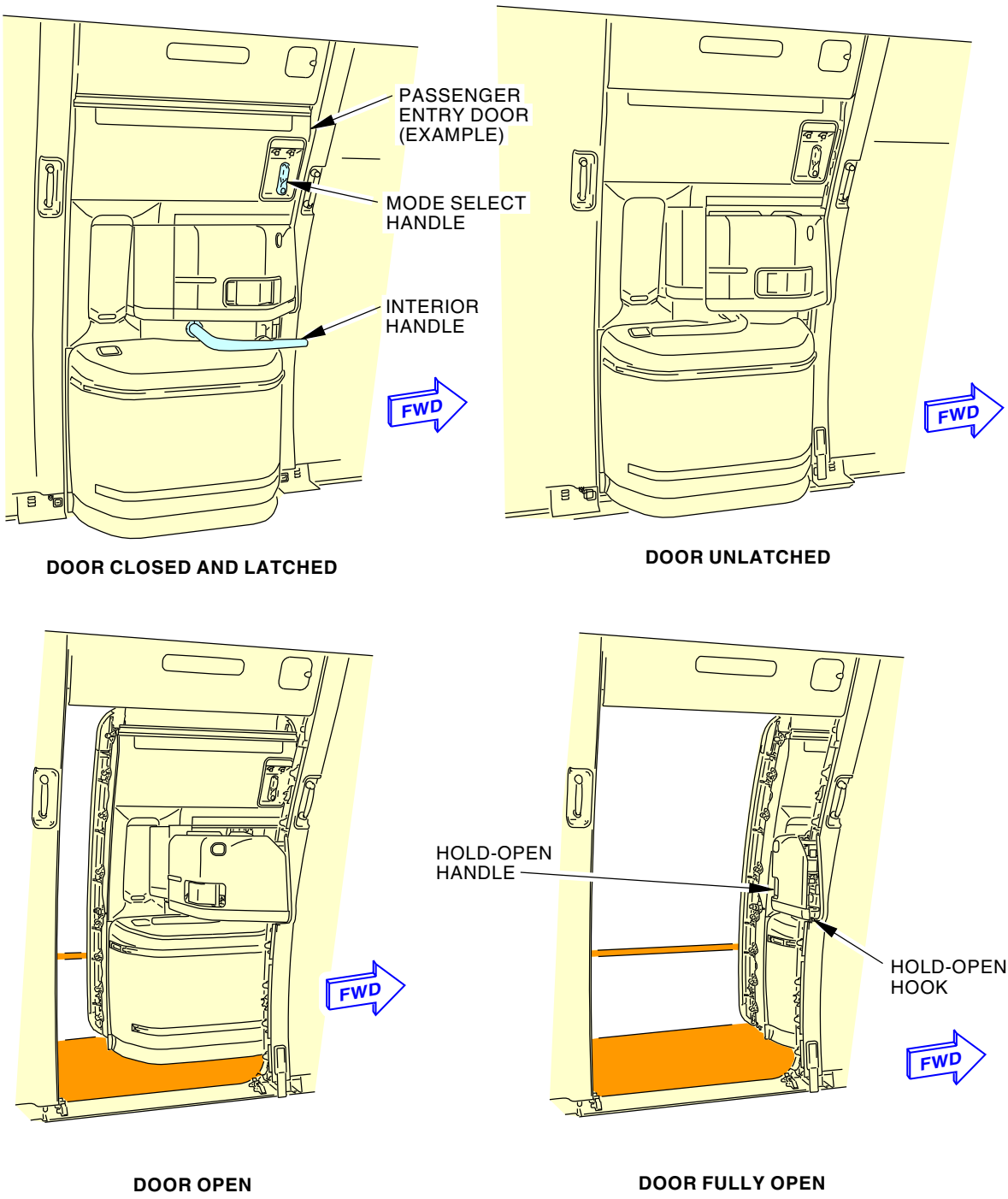
——— END OF TASK ———

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External Operation
Figure 201/52-12-00-990-801

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DOOR CLOSED AND LATCHED

DOOR UNLATCHED

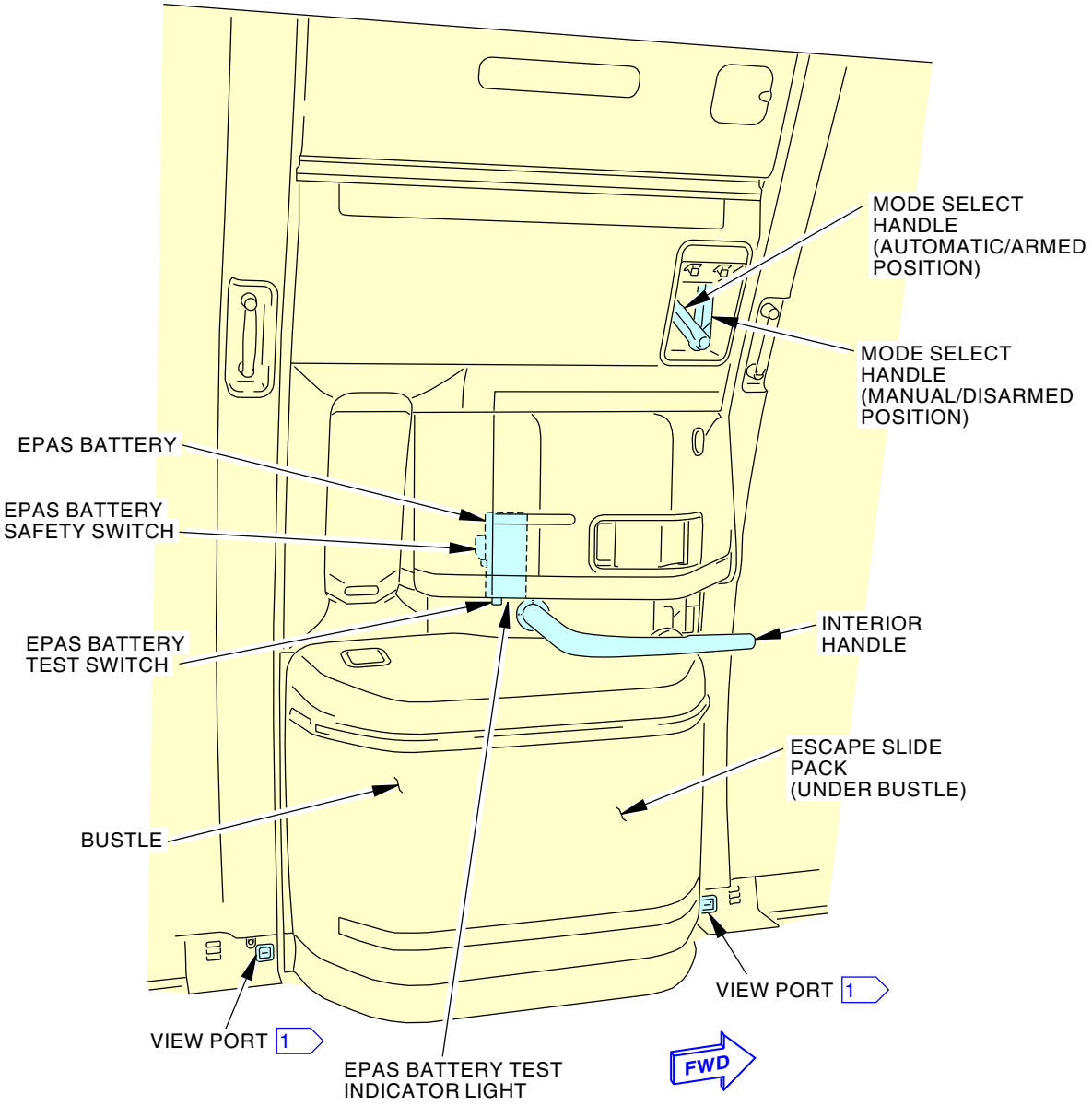
DOOR OPEN

DOOR FULLY OPEN

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Internal Operation
Figure 202/52-12-00-990-802

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PASSENGER ENTRY DOOR (EXAMPLE)

1 DOORS 1, 2, 4, AND 5 ONLY.

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Escape System Arming
Figure 203/52-12-00-990-803

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PASSENGER ENTRY DOOR - ADJUSTMENT/TEST

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) An operational test of the passenger entry door.

(2) An adjustment of the passenger entry door.

(3) A system test of the passenger entry door.

(4) A functional test of the passenger entry door mechanisms.

TASK 52-12-00-710-801

2. Passenger Entry Door Operational Test

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
31-61-00-800-814	Showing Alert Messages (P/B 201)
31-61-00-800-816	Showing a System Synoptic Page (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Prepare for the Operational Test

SUBTASK 52-12-00-860-032

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-12-00-860-033

(2) Make sure the door is safe as follows:

(a) Make sure the door is in the closed and latched position.

(b) Make sure the mode select handle is in the MANUAL/DISARM position.

(c) Make sure the adjustable height cabin and general access stand, STD-1160 is outboard of the door.

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E. Operational Test

SUBTASK 52-12-00-710-002

(1) Open the door as follows:

(a) Turn the interior handle to the open position.

(b) Make sure the door unlatches and lifts smoothly.

(c) Make sure the applicable EICAS alert message shows (Table 501). To show the message, do this task: Showing Alert Messages, TASK 31-61-00-800-814.

NOTE: If two or more doors of any kind are not closed, latched and locked, the EICAS alert message DOORS will show and the individual message for the door will not show.

Table 501/52-12-00-993-817 Passenger Entry Door EICAS Alert Messages

PED	EICAS ALERT MESSAGE
1L	DOOR ENTRY 1L
1R	DOOR ENTRY 1R
2L	DOOR ENTRY 2L
2R	DOOR ENTRY 2R
3L	DOOR ENTRY 3L
3R	DOOR ENTRY 3R
4L	DOOR ENTRY 4L
4R	DOOR ENTRY 4R
5L	DOOR ENTRY 5L
5R	DOOR ENTRY 5R

(d) Make sure the door shows on the DOOR system synoptic page. To show the page, do this task: Showing a System Synoptic Page, TASK 31-61-00-800-816.

(e) Open the door.

(f) Make sure the latch rollers smoothly disengage from the latch tracks.

(g) Make sure the guide rollers smoothly disengage from the guide tracks.

(h) Make sure the door structure does not touch the cutout as it opens.

(i) Make sure there is not too much free play of the door (wobble) as it opens.

(j) Make sure the hold-open engages and holds the door in the fully open position.

SUBTASK 52-12-00-710-003

(2) Close the door as follows:

(a) Pull the hold-open handle to disengage the door and pull it into the cutout.

(b) Turn the interior handle to the closed position.

(c) Make sure the door structure does not touch the cutout as it lowers and latches.

(d) Make sure the door lowers and latches smoothly.

(e) Make sure the latch rollers smoothly engage the latch tracks.

(f) Make sure the guide rollers smoothly engage the guide tracks.

(g) Make sure the applicable EICAS alert message does not show (Table 501).

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(h) Make sure the door does not show on the DOOR system synoptic page.

SUBTASK 52-12-00-710-004

(3) Arm and disarm the escape system as follows:

(a) Put one person on the exterior side of the door and one person on the interior side of the door to do these checks or use another door to get to the exterior side of the door when the escape system is armed.

(b) Make sure the door is in the closed and latched position.

(c) Move the mode select handle to the AUTOMATIC/ARM position.

(d) Make sure the yellow flags show in the windows at the bottom of the door.

NOTE: The flags show that the girt bar mechanism is engaged. Door 3 does not have a girt bar.

WARNING DO NOT OPEN THE DOOR FROM THE INTERIOR SIDE OF THE AIRPLANE WHEN THE ESCAPE SYSTEM IS ARMED. THE ESCAPE SYSTEM WILL DEPLOY AND INJURIES OR DAMAGE CAN OCCUR.

(e) Pull the exterior handle from its recess to disarm the escape system.

(f) Make sure the mode select handle moved to the MANUAL/DISARM position when you pulled the exterior handle from its recess.

——— END OF TASK ———

TASK 52-12-00-820-801

3. Passenger Entry Door Adjustment

(Figure 501, Figure 502, Figure 503, Figure 504, Figure 505, Figure 506, Figure 507, Figure 508, Figure 509, Figure 510, Figure 511, Figure 512, Figure 513)

A. General

(1) Make sure that the fuselage is on its landing gear or in a stable jig position. The fuselage must not be on jacks.

(2) These are the parts of the rigging procedure:

(a) The assembly rigging, which is done before the door is installed on the airplane or when it is necessary to adjust the door mechanisms.

(b) The installation rigging, which is done after installation of the door on the airplane and when it is necessary to adjust the door mechanisms.

(c) The sensor rigging, which is done after installation of the door on the airplane.

(3) During these adjustments, it may be necessary to remove the escape slide pack for access to mechanisms to get measurements. With the escape slide removed it will be difficult to close the door after it is opened because the door will be too high to enter the cutout.

ARO ALL; AIRPLANES WITH LATCH INTERLOCKS

(4) You must disengage the latch interlock to let the latch shaft and interior handle turn when the door is open, View A (Figure 501).

NOTE: This lets you lower the door outside of the cutout.

ARO ALL

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(5) During these adjustments, it may be necessary to deflect the girt bar mechanism interlocks to move the mode select handle to the AUTOMATIC/ARM position (Figure 504).

NOTE: This lets you arm the escape system when the door is not closed and latched.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
25-66-01-000-801	Door-Mounted Escape Slide Pack Removal (P/B 401)
25-66-01-400-801	Door-Mounted Escape Slide Pack Installation (P/B 401)
52-12-16-400-801	Push/Pull Cable Installation (P/B 201)
52-12-25-000-802	Hinge Covers Removal (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)
52-12-25-400-802	Hinge Covers Installation (P/B 201)
52-12-25-400-803	Upper Liner Installation (P/B 201)
52-12-28-000-801	Mode Select Switch Removal, Installation and Adjustment (P/B 201)
52-12-28-000-802	Door Open Switch Removal, Installation and Adjustment (P/B 201)
52-71-01-000-801	—Flight Lock Engaged/Disengaged Proximity Sensor Removal, Installation, and Adjustment (P/B 201)
52-71-01-900-801	Vent Door Locked Proximity Sensor Removal, Installation, and Adjustment (P/B 201)
52-71-01-900-802	Passenger Entry Door Closed and Latched Proximity Sensor Removal, Installation, and Adjustment (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1557	Gauge - Force Part #: DG-200 Supplier: 92456 Part #: FDIX 100 Supplier: 0BFD9 Part #: FDIX 50 Supplier: 0BFD9 Part #: LG-010 Supplier: 92456 Part #: LG-050 Supplier: 92456 Part #: LG-100 Supplier: 92456 Opt Part #: DPP-500G Supplier: 92456 Opt Part #: DPPH-150 Supplier: 92456 Opt Part #: DPPH-200 Supplier: 92456 Opt Part #: DPPH-50 Supplier: 92456 Opt Part #: FDI 100 Supplier: 0BFD9 Opt Part #: FDI 50 Supplier: 0BFD9 Opt Part #: FDV 100 Supplier: 0BFD9 Opt Part #: FDV 50 Supplier: 0BFD9
SPL-1989	Screw Equipment - Safety, Passenger Door Counter-Balance Spring Part #: J52021-1 Supplier: 81205
SPL-2537	Pin - Rig (J20003-6 Assembly Included in Kit J20003-34) Part #: J20003-34 Supplier: 81205

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(Continued)

Reference	Description
SPL-3988	Pin - Rig (J20003-11 Assembly Included in Kit J20003-34) Part #: J20003-34 Supplier: 81205
STD-1073	Wire - Standard, 18-22 Gauge, Insulation Removed
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Consumable Materials

Reference	Description	Specification
A00159	Compound - Sealing, Thread-Locking, Anaerobic, Single-Component (100-200 In-lbs)	ASTM D5363 Grp 3 Cl 2 Grd 1 (SUPERSEDES MIL-S-46163)
G02438	Wrap - Tie - TY24M (TY-RAP)	

E. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

F. Prepare for the Adjustment

SUBTASK 52-12-00-860-034

(1) Make sure that the door is safe as follows:

(a) Make sure that the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-00-010-001

(2) Get access to the door mechanisms as follows:

(a) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

(b) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

(c) Make sure that the adjustable height cabin and general access stand, STD-1160 is outboard of the door.

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G. Assembly Rigging

SUBTASK 52-12-00-820-001

(1) Lift/Latch Adjustment (Figure 501)

NOTE: This adjustment aligns the latch shaft to the handle cam.

(a) Make sure that the interior handle is in the closed position.

(b) Install a rig pin (J20003-11 assembly), SPL-3988 through the holes in the flight lock mechanism and the vent door interlock hook.

(c) Make sure that the rig pin (J20003-11 assembly), SPL-3988 moves freely. If it is necessary, adjust as follows:

NOTE: You can turn the latch shaft to help the rig pin (J20003-11 assembly), SPL-3988 move freely.

1) Adjust the length of the latch pushrod that connects the idler crank to the latch crank.

2) Make sure that the rig pin (J20003-11 assembly), SPL-3988 moves freely after the latch pushrod fasteners are installed.

NOTE: You can turn the latch shaft to help the rig pin (J20003-11 assembly), SPL-3988 move freely.

(d) Remove the rig pin (J20003-11 assembly), SPL-3988.

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(e) Turn the interior handle to the open position.

(f) Make sure that the latch interlock freely moves to a position where it does not let the latch shaft turn. If it is necessary, adjust as follows:

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(g) Turn the interior handle to the open position.

(h) Make sure that the latch interlock freely moves to a position where it does not let the latch shaft turn. If it is necessary, adjust as follows:

1) Adjust the length of the latch pushrod to make it shorter.

2) Turn the interior handle to the closed position.

3) Install a rig pin (J20003-11 assembly), SPL-3988 through the holes in the flight lock mechanism and the vent door interlock hook.

4) Make sure that the rig pin (J20003-11 assembly), SPL-3988 moves freely after the latch pushrod fasteners are installed.

NOTE: You can turn the latch shaft to help the rig pin (J20003-11 assembly), SPL-3988 move freely.

5) Remove the rig pin (J20003-11 assembly), SPL-3988.

(i) Push the 18-22 gauge insulation removed wire, STD-1073 through the inspection hole in the latch pushrod, and make sure that it is blocked by the threads of the rod end.

(j) Tighten the jamnut to hold the latch pushrod to the rod end.

SUBTASK 52-12-00-820-002

(2) Vent Door Adjustment (Figure 502)

NOTE: This adjustment sets the flushness of the vent door in the unpressurized condition.

(a) Make sure that the interior handle is in the open position.

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(b) Disconnect the bottom end of the vent door pushrod and the interlock rod.

(c) Turn the interior handle to the closed position.

(d) Manually turn the vent door outboard until the forward and aft pressure stops touch the stop fittings (Passenger Entry Doors 1-4) or the beam outer chord (PED 5).

NOTE: Hold the vent door in this position for the steps that follow.

1) Turn the vent door shaft until the aft crank touches its drive pin on the aft hinge.

2) Adjust the length of the vent door pushrod to install the fasteners that connect the end of the vent door pushrod.

(e) Release the vent door.

(f) Turn the interior handle to open and close the vent door.

(g) Make sure that the clearances between the forward and aft pressure stops and the stop fittings (PED 1-4) or beam outer chord (PED 5) are as shown, View A-A (Figure 502). If it is necessary, adjust as follows:

1) If the clearance is too large, adjust the length of the vent door pushrod to make it longer.

(h) Do a check for hard contact between these parts:

1) The forward pressure stop and stop fitting (PED 1-4) or the beam outer chord (PED 5).

2) The forward crank and its drive pin on the forward hinge.

(i) If there is hard contact, do these steps:

1) Temporarily make the vent door pushrod shorter by 1/2 turn.

2) Make sure that this opens a clearance at the forward pressure stop or the forward crank.

NOTE: If a clearance is opened, this condition is satisfactory.

3) Put the vent door pushrod back to its correct length.

(j) Push the 18-22 gauge insulation removed wire, STD-1073 through the inspection holes in the vent door pushrod and make sure that it is blocked by the threads of the rod ends.

NOTE: If you turn the pushrod it will move up or down, but not change the length or adjustment of the pushrod.

(k) Tighten the jamnuts to hold the vent door pushrod to the rod ends.

(l) Manually turn the vent door outboard while you turn the interior or exterior handle to the open position.

NOTE: If the interlock rod was connected the handle would stop at approximately 30 degrees.

(m) Look at the vent door from the exterior side of the door.

(n) Make sure that the clearance between the bottom of the vent door and the door skin is as shown, View A-A (Figure 502), during the movement of the vent door.

SUBTASK 52-12-00-820-003

(3) Vent Door Interlock Adjustment (Figure 503)

NOTE: This adjustment indexes the interlocks in the flight lock housing to the vent door rotation.

(a) Make sure that the interior handle is in the closed position.

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(b) Hold the vent door against the stop fittings (PED 1-4) or beam outer chord (PED 5).

NOTE: Hold the vent door in this position for the steps that follow.

1) Pull up on the interlock roller arm until the interlock roller touches the interlock hook.
2) Adjust the length of the interlock rod to install the fasteners that connect the end of the interlock rod to the interlock roller arm.
3) Make sure that the clearance between the interlock roller and the interlock hook is as shown, View A-A (Interior Handle Closed Position) (Figure 503).
4) If there is no clearance, do these steps:
   a) Temporarily make the interlock rod longer by 1/2 turn.
   b) Make sure that this opens a clearance between the interlock roller and interlock hook.

      NOTE: If a clearance is opened, this condition is satisfactory.

   c) Put the vent door pushrod back to its correct length.

(c) Release the vent door.

(d) Push the 18-22 gauge insulation removed wire, STD-1073 through the inspection holes in the rod ends and make sure that they are blocked by the threads of the interlock rod.

NOTE: If you turn the rod it will move up or down, but not change the length or adjustment of the rod.

(e) Tighten the jamnuts to hold the interlock rod to the rod ends.

(f) Turn the interior handle and measure the minimum clearance between the interlock roller arm and the interlock pin.

(g) Make sure that the clearance is as shown, View A-A (Interior Handle Open Position) (Figure 503). If it is necessary, adjust as follows:

1) Add or remove washers under the interlock pin and nut to get the correct clearance.

(h) Make sure that the interior handle is in the open position.

(i) Disconnect one end of the vent door pushrod and let the vent door move freely.

(j) Try to move the interior handle to the closed position, but do not use too much force.

(k) Make sure that the interlock roller arm does not let the interior handle move from the open position to the closed position.

(l) Connect the end of the vent door pushrod that you disconnected.

SUBTASK 52-12-00-820-004

CAUTION

IF THE UPPER LINER IS INSTALLED, MAKE SURE THE MODE SELECT HANDLE DOES NOT HIT THE MODE SELECT BOX IN THE UPPER LINER. IF THE HANDLE OVERTRAVELS DURING THE ADJUSTMENT, IT COULD HIT THE UPPER LINER AND CAUSE DAMAGE.

(4) Girt Bar Mechanism Adjustment (Figure 504)

NOTE: This adjustment is for doors 1, 2, 4, and 5 only. This adjustment sets the limits of travel for the girt bar and mode select mechanism. Refer to Girt Bar Floor Fitting Adjustment for the final girt bar floor fitting adjustments.

(a) Make sure that the door is closed and latched.

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(b) Do this task: Door-Mounted Escape Slide Pack Removal, TASK 25-66-01-000-801.

NOTE: Removal of the escape slide pack permits easier access to the girt bar mechanism.

(c) Move the mode select handle to the AUTOMATIC/ARM position and back to the MANUAL/DISARM position.

(d) Make sure that the motion of the end crank does not stop before it touches the stop bolt. If it is necessary, adjust as follows:

1) Do a check on the push/pull cable rod ends and adjust the travel of the cable if it is necessary.

2) Do a check on the travel of the pull cable and adjust if it is necessary.

3) Do a check of the gap at the overtravel bumpers at the mode select handle and adjust if it is necessary.

(e) Measure the clearances between the end crank and interlock at the forward and aft sides of the door (Figure 504) as follows:

NOTE: These steps will help reduce backlash or play in the girt bar mechanism.

1) On the forward side of the door, make sure that the end crank is against the stop bolt.

2) On the aft side of the door, manually turn the end crank to reduce the clearance between the interlock and the end crank.

(f) Adjust the stop bolt at the forward end crank until the smaller of the two clearances you measured is as shown, View A-A (Manual/Disarm Position) (Figure 504).

(g) Tighten the jamnut on the stop bolt.

(h) Move the mode select handle to the AUTOMATIC/ARM position.

(i) Measure the clearances between the end crank and interlock at the forward and aft sides of the door (Figure 504) as follows:

NOTE: These steps will help reduce backlash or play in the girt bar mechanism.

1) On the forward side of the door, make sure that the end crank is against the stop bolt.

2) On the aft side of the door, manually turn the end crank to reduce the clearance between the interlock and the end crank.

(j) Adjust the stop bolt at the forward end crank until the smaller of the two clearances you measured is as shown, View A-A (Automatic/Arm Position) (Figure 504).

(k) Tighten the jamnut on the stop bolt.

(l) Move the mode select handle to the MANUAL/DISARM position.

(m) Do this task: Door-Mounted Escape Slide Pack Installation, TASK 25-66-01-400-801.

SUBTASK 52-12-00-820-005

(5) Push/Pull Cable Adjustment (Figure 505)

NOTE: This adjustment is for PED 1, 2, 4, and 5.

NOTE: Refer to (TASK 52-12-16-400-801) for the steps to adjust the tension of the push/pull cable sheath.

NOTE: Do the Girt Bar Mechanism Adjustment before you do these steps.

NOTE: Do the Mode Select Handle Overtravel Stop (Bumper) Adjustment for PED 1, 2, 4, and 5 after you do these steps.

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(a) Do this task: Door-Mounted Escape Slide Pack Removal, TASK 25-66-01-000-801.

(b) Adjust the travel of the push/pull cable as follows:

1) Make sure that the mode select handle is fully in the MANUAL/DISARMED position.

2) Make sure that the aft edge of the mode select handle aligns with the placard on the handle box at the split between the two pieces of the placard.

NOTE: You can only check the alignment of the handle with the placard when the upper liner is installed.

3) If it is necessary, adjust the length of the push/pull cable as follows:

a) Temporarily remove the bolt, washers, bushing and nut that attach the lower rod end bearing to the crank.

b) Adjust the lower rod end bearing.

c) Install the bolt, washers, bushing and nut to attach the lower rod end bearing to the crank.

d) Push the 18-22 gauge insulation removed wire, STD-1073 through the inspection hole in the rod end bearings and make sure that it is blocked by the threads of the cable.

e) Tighten the jamnut for the lower rod end bearing.

f) Bend one tab of the tab washer up to safety the jamnut.

g) Bend the remaining tabs of the tab washer against the lower rod end bearing.

(c) Do this task: Door-Mounted Escape Slide Pack Installation, TASK 25-66-01-400-801.

SUBTASK 52-12-00-820-006

CAUTION MAKE SURE YOU ADJUST THE OVERTRAVEL STOPS (BUMPERS) CORRECTLY. IF THE OVERTRAVEL STOPS LIMIT THE TRAVEL OF THE MODE SELECT HANDLE, DAMAGE TO THE GIRT BAR MECHANISM CAN OCCUR.

(6) Mode Select Handle Overtravel Stop (Bumper) Adjustment for PED 1, 2, 4, and 5 (Figure 505)

NOTE: Do the Girt Bar Mechanism Adjustment and the Push/Pull Cable Adjustment before you do these steps.

NOTE: For PED 1, 2, 4, and 5, the purpose of the overtravel stops is to protect the door lining. They are not used to adjust the position of the mode select handle.

(a) Move the mode select handle to the MANUAL/DISARM position.

1) Make sure that the clearance between the bumper and the switch cam is as shown, View B (Figure 505).

2) If necessary, add or remove washers under the bumper to get the clearance.

3) Make sure that the stop bolt on the girt bar mechanism touches the end crank, View A-A (Manual/Disarm Position) (Figure 504).

(b) Move the mode select handle to the AUTOMATIC/ARM position.

1) Make sure that the clearance between the bumper and the switch cam is as shown, View B (Figure 505).

2) If necessary, add or remove washers under the bumper to get the clearance.

3) Make sure that the stop bolt on the girt bar mechanism touches the end crank, View A-A (Automatic/Arm Position) (Figure 504).

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SUBTASK 52-12-00-820-007

(7) Mode Select Handle Overtravel Stop (Bumper) Adjustment for the overwing emergency exit door (PED 3).

NOTE: Because there is not a push/pull cable for PED 3, the overtravel stops (bumpers) are used to adjust the travel of the mode select handle.

(a) Move the mode select handle to the MANUAL/DISARM position.

(b) Make sure that the position of the mode select handle in the MANUAL/DISARM position is ± 2 degrees from vertical.

NOTE: If the upper liner is installed, you can measure the angle from the side of the mode select handle box.

1) If necessary, add or remove washers under the bumper to get the correct angle.

(c) Move the mode select handle to the AUTOMATIC/ARM position.

(d) Make sure that the position of the mode select handle in the AUTOMATIC/ARM position is ± 2 degrees from 45 degrees.

NOTE: If the upper liner is installed, you can measure the angle from the side of the mode select handle box.

1) If necessary, add or remove washers under the bumper to get the correct angle.

SUBTASK 52-12-00-820-008

(8) Pull Cable Adjustment (Figure 506)

NOTE: This adjustment makes sure the exterior handle, pull cable, and mode select mechanism operate correctly.

(a) Move the mode select handle to the AUTOMATIC/ARM position.

(b) Pull the exterior handle from its recess.

(c) Make sure that the exterior handle does not start to move the mode select handle until the exterior handle is pulled 0.25 in. (6.4 mm) to 0.35 in. (8.9 mm) from its stowed position.

(d) Turn the exterior handle to the open position.

(e) Make sure that the exterior handle moves 2.21 in. (56.1 mm) to 2.33 in. (59.2 mm) to fully open. If it is necessary, adjust as follows:

1) Move the mode select handle to the AUTOMATIC/ARM position.

2) Make sure that the exterior handle is in its stowed position.

3) Turn the adjuster fitting out of the crank until the mode select handle starts to move, then turn the adjuster fitting back into the crank 5-6 turns.

(f) Operate the exterior handle four times.

1) Make sure that the handle pulls out, turns and goes back to the stowed position smoothly.

(g) For PED 1, 2, 4, and 5 make sure that the exterior handle does not stop the travel of the girt bar mechanism as follows:

NOTE: Refer to the Girt Bar Mechanism Adjustment.

1) Move the mode select handle to the AUTOMATIC/ARM position.

2) Make sure that the exterior handle is in its stowed position.

3) Make sure that the stop bolts touch the end cranks as shown, View A-A (Automatic/Arm Position) (Figure 504).

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(h) Tighten the jamnut and install the lockwire at the crank.

(i) Move the mode select handle to the MANUAL/DISARM position.

SUBTASK 52-12-00-820-009

(9) Programming Mechanism Chain Pre-Tension Adjustment

NOTE: This adjustment puts 400-600 pounds of tension on the programming mechanism chain to stop backlash and reduce door wobble.

(a) Get access to the upper door hinge bolt nut, View B-B (Figure 508).

(b) Make sure that the nut is torqued to 270 ±10 in-lb (31 ±2 N·m).

NOTE: A loose hinge bolt will allow too much free play, causing the door to contact the guide and latch tracks on the fuselage door frame.

(c) Tighten the inboard and outboard adjuster bushings the same number of turns until there is tension in the chain.

NOTE: The programming mechanism chain has two chains: one short chain (approximately one foot long) and one long chain (approximately three feet long).

(d) Open and close the door to make the tension on the chain constant.

(e) Use the force gauge, COM-1557 to apply a 26-28 pound load to the inboard, forward part of the long chain ± 0.5 inch from the middle of the straight part of the chain as shown, View A-A (Figure 507).

(f) Measure the chain deflection at the top and bottom of the chain.

(g) Make sure that the average chain deflection is as shown, View A-A (Figure 507). If it is necessary, adjust as follows:

1) Tighten or loosen the inboard and outboard adjuster bushings the same number of turns.

(h) Make sure that the thread engagement of the adjuster bushings is as shown, Views A and B (Figure 507). If it is necessary, adjust as follows:

1) Loosen one adjuster bushing and tighten the other an equal number of turns to get the correct thread engagement.

2) Do the check of the chain deflection again, and adjust it if it is necessary.

(i) Safety the adjuster bushings to their chain end fittings.

H. Installation Rigging

SUBTASK 52-12-00-820-010

(1) Programming System Adjustment (Figure 508)

NOTE: This adjustment changes the position of the forward and aft edges of the door inboard or outboard.

(a) Pull and push the door in the open and close directions outside of the cutout.

NOTE: This makes the tension on the programming mechanism chain constant.

(b) Push the door near to the cutout and stop when the door skin is one inch from the fuselage skin.

(c) Make sure that the distances from the forward and aft door skin to the fuselage skin (measured at the latch tracks) are as shown (Table 502). If it is necessary, adjust as follows:

1) Loosen the outboard jamnut and washer.

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2) Turn the adjuster bolt to get the correct distance.

NOTE: One turn of the adjuster bolt will move the forward edge of the door inboard or outboard 1.5 inches.

3) Open and close the door.

4) Tighten the washer and jamnut.

5) Do these steps again until the distances are correct.

6) For PED 5, apply thread lock compound, A00159 to the outboard jamnut.

Table 502/52-12-00-993-818 Programming System Adjustment - Forward and Aft Door Skin to Fuselage Skin - Allowed Differences

PED	DISTANCE TO FUSELAGE SKIN FROM FORWARD EDGE OF DOOR COMPARED TO AFT EDGE	
	OUTBOARD (inch)	INBOARD (inch)
1	+0.21	-0.09
2	+0.30	-0.30
3	+0.30	-0.30
4	+0.30	-0.30
5	+0.05	-0.25

SUBTASK 52-12-00-820-011

(2) Hold-Open Mechanism Adjustment (Figure 509)

NOTE: This adjustment makes sure the hold-open mechanism operates correctly.

(a) Move the hinge arm to the door open position until the hold-open hook touches the catch.

(b) Make sure that the hook is pushed outboard by the surface of the catch. If it is necessary, adjust as follows:

1) Adjust the turnbuckle on the rod.

(c) Pull the hold-open handle to release the hook from the catch.

(d) Attach a force gauge, COM-1557 to the hold-open handle perpendicular to the handle and measure the force to pull the handle when it is not engaged.

(e) Move the hinge arm to the fully open position and let the hook engage the catch.

1) Make sure that the maximum clearance between the outboard edge of the catch and the inboard side of the hook is as shown, View A-A (Hold-Open Engaged) (Figure 509).

(f) Attach the force gauge, COM-1557 to the hold-open handle and pull to release the catch. Do not apply force to the hinge arm.

(g) Make sure that the force to release the catch is less than 10.0 pounds more than the force to turn the hold-open handle when the catch is not engaged. If it is necessary, adjust as follows:

1) Add or remove the laminations of shim between the bumpers and the hinge arm to get the correct force.

2) Alternatively, add or remove the shim under the catch to get the correct force.

NOTE: The maximum shim thickness is 0.063 in. (1.60 mm).

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3) Make sure that the minimum clearance between the bumpers and the cutout is as shown, View B (Figure 509), when the hook releases.

SUBTASK 52-12-00-820-012

(3) Fit Check Adjustment (Figure 510, Figure 511)

NOTE: This adjustment makes sure the clearances during door rigging are kept to prevent damage before final installation adjustments.

(a) Make sure that the door weight is on the counterbalance spring as follows:

(b) Move the door to the fully open position.

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(c) Disengage the latch interlock.

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(d) Lower the door outside of the cutout.

(e) Turn the interior handle 60 degrees from the fully closed position and measure the maximum force to turn the handle with the force gauge, COM-1557.

(f) If the force to turn the handle is less than 25 pounds, the force is correct, and you can close the door.

NOTE: When the force is less than 25 pounds, the counterbalance spring holds the correct amount of the weight of the door.

(g) If the force to turn the handle is more than 25 pounds, then continue.

NOTE: When the force is more than 25 pounds, the secondary lift system holds too much of the weight of the door, because the safety screw for the counterbalance is installed.

(h) Remove the safety screw equipment, SPL-1989 as follows:

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1) Disengage the latch interlock.

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2) Turn the interior handle to the closed position to lower the door outside the cutout.

3) Remove the plug.

4) Remove the safety screw equipment, SPL-1989.

5) Install the plug.

(i) Close and lower the door.

(j) Make sure that there is a minimum clearance of 0.03 in. (0.76 mm) between all of the door components and the cutout components. Refer to (Figure 512, Table 503) for the final skin clearances. If it is necessary, adjust as follows:

Table 503/52-12-00-993-825 Skin Clearances

DOOR	F (FORWARD)*[1]	A (AFT)*[1]	T (TOP)	B (BOTTOM)	MAXIMUM SUM OF F AND A*[2]
PED 1	0.11 +0.06 / -0.00 in. (2.79 +1.53 / -0.00 mm)	0.12 +0.06 / -0.00 in. (3.05 +1.53 / -0.00 mm)	1.59 +0.06 / -0.25 in. (40.39 +1.53 / -6.35 mm)	0.09 +0.09 / -0.05 in. (2.29 +2.29 / -1.27 mm)	0.35 in. (8.89 mm)
PED 2	0.13 +0.06 / -0.00 in. (3.30 +1.53 / -0.00 mm)	0.14 +0.06 / -0.00 in. (3.56 +1.53 / -0.00 mm)	1.80 +0.06 / -0.25 in. (45.72 +1.52 / -6.35 mm)	0.09 +0.09 / -0.05 in. (2.29 +2.29 / -1.27 mm)	0.39 in. (9.91 mm)

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Table 503/52-12-00-993-825 Skin Clearances (Continued)

DOOR	F (FORWARD)*[1]	A (AFT)*[1]	T (TOP)	B (BOTTOM)	MAXIMUM SUM OF F AND A*[2]
PED 3	0.13 +0.06 / -0.00 in. (3.30 +1.53 / -0.00 mm)	0.14 +0.06 / -0.00 in. (3.56 +1.53 / -0.00 mm)	1.80 +0.06 / -0.25 in. (45.72 +1.52 / -6.35 mm)	0.09 +0.09 / -0.05 in. (2.29 +2.29 / -1.27 mm)	0.39 in. (9.91 mm)
PED 4	0.13 +0.06 / -0.00 in. (3.30 +1.53 / -0.00 mm)	0.14 +0.06 / -0.00 in. (3.56 +1.53 / -0.00 mm)	1.80 +0.06 / -0.25 in. (45.72 +1.52 / -6.35 mm)	0.09 +0.09 / -0.05 in. (2.29 +2.29 / -1.27 mm)	0.39 in. (9.91 mm)
PED 5	0.16 +0.06 / -0.00 in. (4.06 +1.53 / -0.00 mm)	0.23 +0.06 / -0.00 in. (5.84 +1.53 / -0.00 mm)	1.99 +0.06 / -0.25 in. (50.55 +1.53 / -6.35 mm)	0.09 +0.09 / -0.05 in. (2.29 +2.29 / -1.27 mm)	0.51 in. (12.95 mm)

*[1] Before painting, these values may be exceeded by 0.015 in. (0.381 mm)

*[2] Before painting, these values may be exceeded by 0.030 in. (0.762 mm)

CAUTION

DO NOT TRIM THE FUSELAGE SKIN. ONLY TRIM THE DOOR SKIN OR DAMAGE CAN OCCUR.

1) Trim the door skin to get the 0.03 in. (0.76 mm) clearance between the door skin and fuselage skin.

2) If the door lower skin touches the scuff plate, do these checks:

   a) Do a check on the stop pin to stop pad alignment and the height of the latch tracks to make sure that the door is not too low.

   b) Do a check on the lower guide roller fittings to make sure that the door is not too far inboard and that it doesn't touch the upward sloping part of the scuff plate.

(k) Make sure that the clearance between the guide rollers and their guide tracks is as shown, View B-B (Door Lifted Position) (Figure 510), as the door moves into the cutout. If it is necessary, adjust as follows:

NOTE: The guide rollers are permitted to touch the inboard or outboard surfaces of the guide tracks when the door lowers.

1) Adjust the secondary lift pushrod to get the correct clearance.

NOTE: If you adjust the secondary lift pushrod you must also adjust the counterbalance spring tension.

(l) For the initial forward and aft adjustment of the guide rollers and guide tracks, make sure that the clearance is as shown, View E-E (Door Closed and Latched Position) (Figure 510), between the guide roller fittings and their guide tracks.

NOTE: For the aft lower guide track, measure the clearance as shown, View C-C (Door Closed and Latched Position) (Figure 510).

(m) For the final adjustment, make sure that the forward and aft clearance between the guide roller fittings and guide tracks is as shown, (Figure 510). If it is necessary, adjust as follows:

1) Add or remove the laminations of shim under the guide roller fittings to get the correct clearances.

2) If it is necessary and all the shim has been removed under the guide roller fittings, add or remove the laminations of shim under the guide track to get the correct clearances.

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(n) Make sure that the clearance between the aft lower guide track and guide roller fitting is as shown, View C-C (Door Closed and Latched Position) (Figure 510).

(o) For the initial forward and aft adjustment of the latch rollers and latch tracks, make sure that the clearance is as shown, View D-D (Figure 510), between the latch cranks and their latch tracks.

(p) For the final adjustment, make sure that the forward and aft clearance between the latch cranks and latch track is as shown, View C-C (Figure 511). If it is necessary, adjust as follows:

1) Add or remove the laminations of shim under the latch tracks to get the correct clearances.

(q) For PED 1, 2, 4, and 5 make sure that there is clearance between the girt bar floor fittings and the carrier fittings. If it is necessary, remove the shim under the girt bar floor fittings.

(r) Make sure that the door is not jammed between the stop pins and their nearest guide tracks. If it is necessary, turn the stop pins inboard.

SUBTASK 52-12-00-820-013

(4) Door Alignment Adjustment (Figure 511, Figure 512)

NOTE: This adjusts the door so that the stop pins are centered on the stop pads, the door is offset 0.06 inch nominally inboard from the cutout, and the door lifts 2.0 inches nominally.

(a) Install 0.25 inch diameter rig pin (Included in Kit J20003-34), SPL-2537 between each latch track and its latch crank. If the rig pin (Included in Kit J20003-34), SPL-2537 will not fit, adjust as follows:

NOTE: This will set an initial relationship between the latch cranks and latch tracks so the vertical and horizontal adjustments of the latch tracks start from a known position.

1) Move the latch track or guide roller fittings on their serrated plates to install the rig pin (Included in Kit J20003-34), SPL-2537.

(b) Make sure that the distances from the forward and aft door skin to the fuselage skin are equal within 0.018 in. (0.457 mm) measured at the latch tracks. If it is necessary, adjust as follows:

NOTE: This is an initial adjustment to put the closed door parallel to the cutout and is not part of the final adjustments.

1) Move the latch track with the larger misfair in the horizontal direction on its serrated plate to reduce the misfair.

(c) Remove the rig pin (Included in Kit J20003-34), SPL-2537.

(d) Make sure that all of the stop pins are fully installed in the stop fittings.

(e) Close and latch the door.

(f) Make sure that the stop pin to stop pad alignment is as shown, View A-A (Figure 511). If it is necessary, adjust as follows:

1) Move one or the two latch tracks in the vertical direction on their serrated plates to get the correct alignment. Do not change the inboard/outboard location of the latch track.

NOTE: If the door is too high or too low overall, move both latch tracks up or down equally. If the door is cocked relative to the cutout, move one latch track. This may require removal of shim under the guide roller fittings.

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2) Make sure that the clearance between the guide roller fittings and guide tracks is as shown (Figure 510).

(g) Close and latch the door.

(h) Make sure that the vertical distance between the top of each guide roller and the horizontal part of its guide track is as shown, View B-B (Door Closed and Latched) (Figure 511). If it is necessary, adjust as follows:

NOTE: These are initial settings only.

1) Move the guide track in the vertical direction on its serrated plates to get the correct distance.

(i) Put 0.012-0.014 inch steel or aluminum spacers on the inboard faces of the upper guide tracks as shown, View B-B (Door Closed, Latched, and Wedged Inboard with Spacers Installed), (Figure 511).

(j) Put a plastic tie- TY24M (TY-RAP) tie wrap, G02438 around the outboard part of all the guide tracks.

NOTE: The plastic tie-wraps will push the upper guide rollers against the spacers, and push the lower guide rollers against their guide tracks when you close the door.

NOTE: Use thicker tie-wraps on the lower guide tracks, because there are no spacers there.

(k) Make sure that the plastic tie-wraps push the guide rollers inboard sufficiently as follows:

1) Put pieces of 0.002 inch shim on the spacers on the upper guide tracks.

2) Put pieces of 0.002 inch shim on the inboard faces of the lower guide tracks.

3) Close and latch the door.

4) Try to pull out the shims.

5) If you can easily remove a shim, the guide roller is not sufficiently pushed inboard, and the plastic tie-wrap is not thick enough.

(l) Make sure that the door is closed and latched.

(m) Make sure that the distances from the forward and aft door skin to the fuselage skin are 0.052 in. (1.32 mm) to 0.088 in. (2.24 mm) inboard measured at the guide tracks. If it is necessary, adjust as follows:

1) Move the guide roller fitting on its serrated plate to get the correct distance.

(n) Make sure that the door is closed and latched.

(o) Make sure that the stop pin retainer is installed.

(p) Make sure that the clearance between the stop pin and stop pad is 0.00 in. (0.00 mm) to 0.014 in. (0.36 mm) with the stop pin retainer installed.

NOTE: This clearance is correct only when the airplane is on the landing gear.

1) If it is necessary, remove the retainer and turn the stop pin to get the correct clearance.

(q) Make sure that you can turn the stop pin with your fingers.

(r) Open the door.

(s) Remove the spacers and plastic tie-wraps from the guide tracks.

(t) Put a plastic tie-wrap around the inboard part of the two lower guide track.

(u) Close and latch the door.

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(v) Make sure that the clearance between the guide roller and its guide track is as shown, View B-B (Door Closed, Latched and Wedged Outboard) (Figure 511) when any one of the stop pins touches its mating stop pad.

NOTE: If the stop pins do not touch the stop pads, the plastic tie-wraps are not thick enough to push the guide rollers sufficiently outboard.

(w) Remove the tie-wraps.

(x) Make sure that the clearance between the guide roller fittings and their guide tracks and the centering rollers and their lower guide tracks are as shown, View C-C and the Guide Roller Fitting and Guide Track Clearances Table (Figure 510).

(y) Lift the door and turn the door to keep the centering roller touching the guide track.

(z) Push the door outboard and make sure that the clearance between the aft door skin and the fuselage skin along the aft edge of the door is as shown, View D-D (Door Open) (Figure 511).

(aa) Keep the centering roller touching the guide track and pull the interior handle inboard until one of the aft guide rollers touches the inboard surface of its guide track.

(ab) Make sure that the seal depressor is clear of the guide track as shown, View D-D (Door Lifted and Pulled Inboard Position) (Figure 511).

(ac) Turn the door to keep the centering roller touching the guide track.

(ad) Make sure that the clearance between the seal depressor and the fuselage skin throughout the door opening motion is as shown, View D-D (Door Lifted and Pushed Outboard Position) (Figure 511), until the centering roller travels around the outboard end of the guide track.

(ae) Make sure that the clearance between the latch cranks and their latch tracks is as shown, View D-D (Door Lifted Position) (Figure 510).

(af) If it is necessary, adjust as follows:

1) Adjust the door flushness at the guide tracks.

2) Adjust the stop pins and stop pads.

3) Add or remove the laminations of shim under the guide roller fittings and guide tracks to get the correct clearances.

(ag) Carefully close and latch the door.

(ah) Make sure that the clearance between the latch crank and the face of the latch sensor target and the clearance between the latch crank and the latch track are as shown, View C-C (Figure 511). If it is necessary, adjust as follows:

1) Do not change the vertical or horizontal position of the latch tracks.

2) Add or remove the laminations of shim under the latch tracks to get the correct clearances.

(ai) Put plastic tie-wraps around the inboard part of each guide track.

(aj) Install a rig pin (J20003-11 assembly), SPL-3988 at the flight lock mechanism to make sure the latch shaft does not turn.

(ak) Install the rig pin (Included in Kit J20003-34), SPL-2537 at the latch tracks. If it is necessary, adjust as follows:

1) Move the latch track inboard or outboard on its serrated plate.

(al) Remove the rig pin (J20003-11 assembly), SPL-3988 and rig pin (Included in Kit J20003-34), SPL-2537.

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(am) Remove the plastic tie-wraps.

(an) Make sure that the door is in the lifted position.

(ao) Push the door sufficiently outboard to determine which guide roller is closest to the horizontal surface of its guide track.

(ap) Make sure that the vertical clearance of the guide roller that is closest to the horizontal surface of its guide track is as shown, View B-B (Door Lifted Position) (Figure 511). If it is necessary, adjust as follows:

1) Close and latch the door.

CAUTION MAKE SURE THE HEAD OF THE BOLT THAT ATTACHES THE LOWER END OF THE SECONDARY LIFT PUSHROD IS ON THE AFT SIDE OF THE ROD END BEARING. IF THE BOLT IS INSTALLED INCORRECTLY, IT COULD CAUSE DAMAGE TO THE DOOR STRUCTURE.

2) Adjust the secondary lift pushrod.

NOTE: If you shorten the pushrod, it will lift the door and increase the clearance. If you adjust the secondary lift pushrod you must also adjust the counterbalance spring tension.

3) Turn the interior handle to lift the door.

4) Make sure that the latch rollers do not interfere with the latch tracks as the door is pulled into the cutout. If it is necessary, adjust as follows:

a) Put the secondary lift pushrod back to its original length and move the guide tracks on their serrated plates.

NOTE: If you adjust the secondary lift pushrod you must also adjust the counterbalance spring tension.

b) If additional guide track adjustment is not possible, add or remove the shims under the hinge support fittings on the cutout.

NOTE: This adjustment may be used to reorient the door to clear the guide tracks or latch tracks in the lifted position. The maximum shim thickness is 0.094 inch.

c) Do a check of the clearances and alignment of the stop pins and stop pads, door flushness, guide roller and centering roller clearances, and skin clearances.

d) If it is necessary, adjust the secondary lift pushrod length and guide track height.

NOTE: If you adjust the secondary lift pushrod you must also adjust the counterbalance spring tension.

(aq) Trim the door skin to get the skin clearances shown (Figure 512, Table 503). Also, do these checks:

1) Make sure that there is a minimum clearance of 0.06 in. (1.52 mm) between the door skin and fuselage skin as the door lifts and opens.

2) Make sure that the clearance between the upper fuselage skin and the top of the door is as shown, View A-A (Door Lifted Position) (Figure 512, Table 503), as the door lifts.

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3) Make sure that the skin clearance on the upper aft edge of PED 5 is as shown, View B (Figure 512, Table 503).

NOTE: You can make a plastic template with the correct radii to help get the correct skin clearance.

4) Make sure that the skin edge waviness is not more than 0.02 in. (0.51 mm) within 12.00 in. (304.8 mm).

(ar) Counterbalance Spring Tension Adjustment (Figure 510, Figure 513)

NOTE: This adjusts the tension of the counterbalance spring in the door hinge assembly.

1) Open the door to the lifted position.

2) Make sure that the safety screw equipment, SPL-1989 has been removed (Figure 510).

3) Remove the rubber shock mount from the base of the lift sleeve.

4) Use a 5/16 inch hexagonal wrench to adjust the spring shaft (Figure 510).

a) For PED 1, 2, 4 and 5, make sure that the distance between the bottom end of the spring shaft and the base of the spring lock assembly is 0.60 in. (15.2 mm), View B (Figure 510).

NOTE: This is an initial adjustment.

b) For the overwing emergency exit door (PED 3), make sure the distance between the lower end of the spring shaft and the base of the spring lock assembly is 0.00 inch (touching), View B (Figure 510).

NOTE: PED 3 does not have the weight of the escape slide, so the necessary force from the counterbalance spring (when the door lifts) is lower.

5) Do these steps for PED 1, 2, 4, and 5:

a) Quickly lift then lower the door so the lift system moves freely.

b) Measure the length of the piston that extends from the hinge arm assembly, View A (Figure 510).

c) Turn the spring shaft with the hexagonal wrench and push the piston with your hand until it starts to move into the lift sleeve.

d) Measure the length of the piston that extends from the hinge arm assembly to make sure the piston has lowered, View A (Figure 510).

e) Use the hexagonal wrench to turn the spring shaft up 1 to 2 turns (Figure 510).

NOTE: This will make sure that the weight of the door is on the counterbalance spring, so that the door will not move up too much when the slide pack is removed.

f) Make sure that the distance between the bottom end of the spring shaft and the base of the spring lock assembly is 0.80 in. (20.3 mm) maximum, View B (Figure 510).

6) Install the rubber shock mount into the base of the lift sleeve.

SUBTASK 52-12-00-820-014

(5) Girt Bar Floor Fitting Adjustment (Figure 513)

NOTE: This adjustment is for doors 1, 2, 4, and 5.

(a) Make sure that the door is closed and latched.

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1) Do this task: Door-Mounted Escape Slide Pack Removal, TASK 25-66-01-000-801.

NOTE: Removal of the escape slide pack permits easier access to the girt bar mechanism.

(b) Make sure that the vertical clearance between the carrier fitting and the girt bar floor fitting is as shown in View A-A (Fixed Hook and Floor Fitting Clearance) (Figure 513). If it is necessary, adjust as follows:

NOTE: This makes sure the girt bar floor fittings are set to the correct height.

1) Add or remove the shims under the girt bar floor fittings to get the correct clearance.

(c) Open the door.

(d) Wedge the door outboard at the lower guide rollers as follows:

1) Put plastic tie-wraps around the inboard part of the two lower guide tracks.

CAUTION

BE CAREFUL WHEN YOU CLOSE THE DOOR WITHOUT THE WEIGHT OF THE ESCAPE SLIDE PACK ON THE DOOR. DAMAGE TO THE DOOR AND CUTOUT COULD OCCUR.

(e) Push down on the door and move it towards the cutout. Make sure the latch rollers engage with the latch tracks.

(f) Turn the interior handle to the closed position.

CAUTION

MAKE SURE THE SUPPORT FITTING DOES NOT TOUCH THE PAWL OR THE FLAG. IF THERE IS INTERFERENCE, THE DOOR COULD NOT MOVE FREELY (JAM) AND DAMAGE TO THE DOOR COULD OCCUR.

(g) Make sure that the support fitting does not touch the pawl or the flag on the forward and aft sides of the door. If it is necessary, adjust as follows:

1) Add or remove the shims under the girt bar floor fitting to the correct clearance.

2) Move the girt bar floor fitting inboard or outboard on its serrated plate to get the correct clearance.

(h) Pull up on the inboard end of each floor fitting pawl and push down on the mating end of the girt bar moving hook as shown, View A-A (Manual/Disarm Position) (Figure 513).

(i) Make sure that the inboard end of the hook assembly does not touch the flag.

(j) Make sure that the clearance between each floor fitting pawl and the mating roller in the hook assembly is as shown, View A-A (Manual/Disarm Position) (Figure 513). If it is necessary, adjust as follows:

1) Move the girt bar floor fitting inboard or outboard on its serrated plate to get the correct clearance.

(k) Move the mode select handle to the AUTOMATIC/ARM position.

(l) Push down on the inboard end of each floor fitting pawl and pull up on the mating end of the hook assembly as shown, View A-A (Automatic/Arm Position) (Figure 513).

(m) Make sure that the clearance between each floor fitting pawl and the mating end of the hook assembly is as shown, View A-A (Automatic/Arm Position) (Figure 513). If it is necessary, adjust as follows:

NOTE: This is the final adjustment of the inboard/outboard position of the girt bar floor fittings.

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1) Add or remove the shims under the girt bar floor fitting.

2) Move the girt bar floor fitting inboard or outboard on its serrated plate to get the correct clearance.

(n) Make sure that the inboard/outboard clearance between each fixed hook of the carrier fitting and the mating outboard recess of its floor fitting is as shown, View A-A (Fixed Hook and Floor Fitting Clearance) (Figure 513).

(o) If you cannot get the correct clearances as shown, View A-A (Fixed Hook and Floor Fitting Clearance), View A-A (Manual/Disarm Position), and View A-A (Automatic/Arm Position) (Figure 513), adjust as follows:

1) Do the Girt Bar Mechanism Adjustment, except increase the distance between the end crank and interlock up to the maximum shown, View A-A (Manual/Disarm Position) (Figure 504).

(p) Open the door.

(q) Remove the tie-wraps from the inboard parts of the two lower guide tracks.

(r) Wedge the door inboard at the lower guide rollers as follows:

1) Put plastic tie-wraps around the outboard parts of the two lower guide tracks.

(s) Close the door.

(t) Make sure that the mode select handle moves freely between the MANUAL/DISARMED and the AUTOMATIC/ARMED position as follows:

1) Pull the girt bar inboard and upward as you move the mode select handle between the positions.

NOTE: If you removed the escape slide you can use a temporary girt bar made from aluminum or steel. Make this temporary girt bar 42.11-42.19 inches long, with a diameter of 1.25 inches maximum, and the last 2.0 inches of each end measuring 0.65-0.66 inch in diameter.

(u) Open the door.

(v) Remove the tie-wraps from the outboard parts of the two lower guide tracks.

(w) Wedge the door outboard at the lower guide rollers as follows:

1) Put plastic tie-wraps around the inboard parts of the two lower guide tracks.

(x) Close the door.

(y) Move the mode select handle to a position between the AUTOMATIC/ARM and MANUAL/DISARM position.

(z) Make sure that the clearance between the interlock crank and the mechanism crank is as shown, View A (Figure 513). If it is necessary, adjust as follows:

1) Adjust the interlock stop bolt to get the correct clearance.

2) Use a hexagonal wrench to hold the interlock stop bolt and tighten the jamnut on the stop bolt to 25 in-lb (3 N·m) to 35 in-lb (4 N·m).

(aa) Move the mode select handle to the MANUAL/DISARM position.

(ab) Do this task: Door-Mounted Escape Slide Pack Installation, TASK 25-66-01-400-801.

(ac) Open the door.

(ad) Remove the tie-wraps from the inboard parts of the two lower guide tracks.

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I. Proximity Sensor and Mechanical Switch Rigging

SUBTASK 52-12-00-820-015

(1) Proximity Sensor and Mechanical Switch Adjustment

(a) Do this task: —Flight Lock Engaged/Disengaged Proximity Sensor Removal, Installation, and Adjustment, TASK 52-71-01-000-801.

Only do the Adjustment.

(b) Do this task: Mode Select Switch Removal, Installation and Adjustment, TASK 52-12-28-000-801.

Only do the Adjustment.

(c) Do this task: Door Open Switch Removal, Installation and Adjustment, TASK 52-12-28-000-802.

Only do the Adjustment.

(d) Do this task: Vent Door Locked Proximity Sensor Removal, Installation, and Adjustment, TASK 52-71-01-900-801.

Only do the Adjustment.

(e) Do this task: Passenger Entry Door Closed and Latched Proximity Sensor Removal, Installation, and Adjustment, TASK 52-71-01-900-802.

Only do the Adjustment.

J. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-00-410-001

(1) Close access as follows:

(a) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

(b) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

SUBTASK 52-12-00-860-035

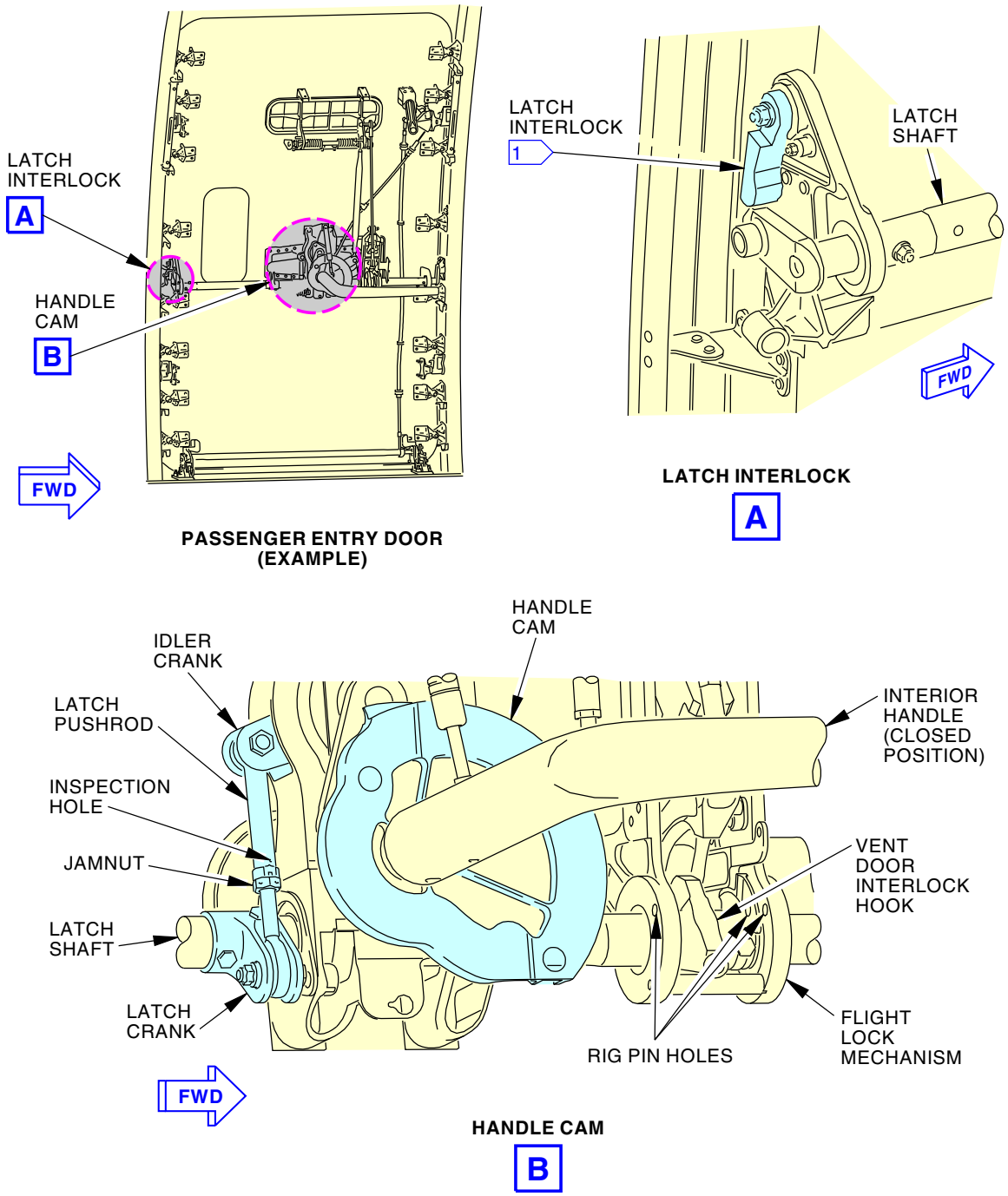
(2) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

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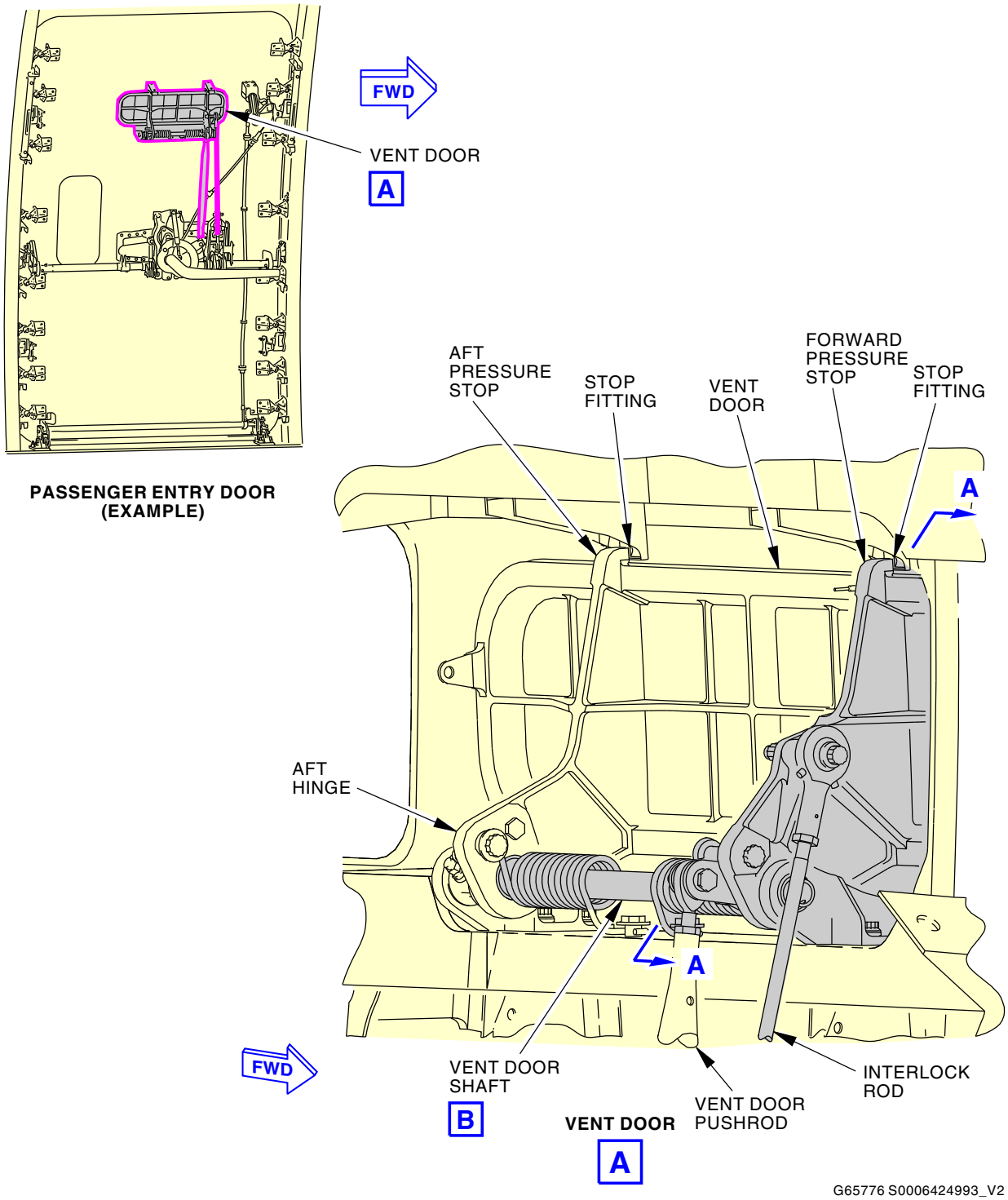


1 AIRPLANES WITH LATCH INTERLOCKS

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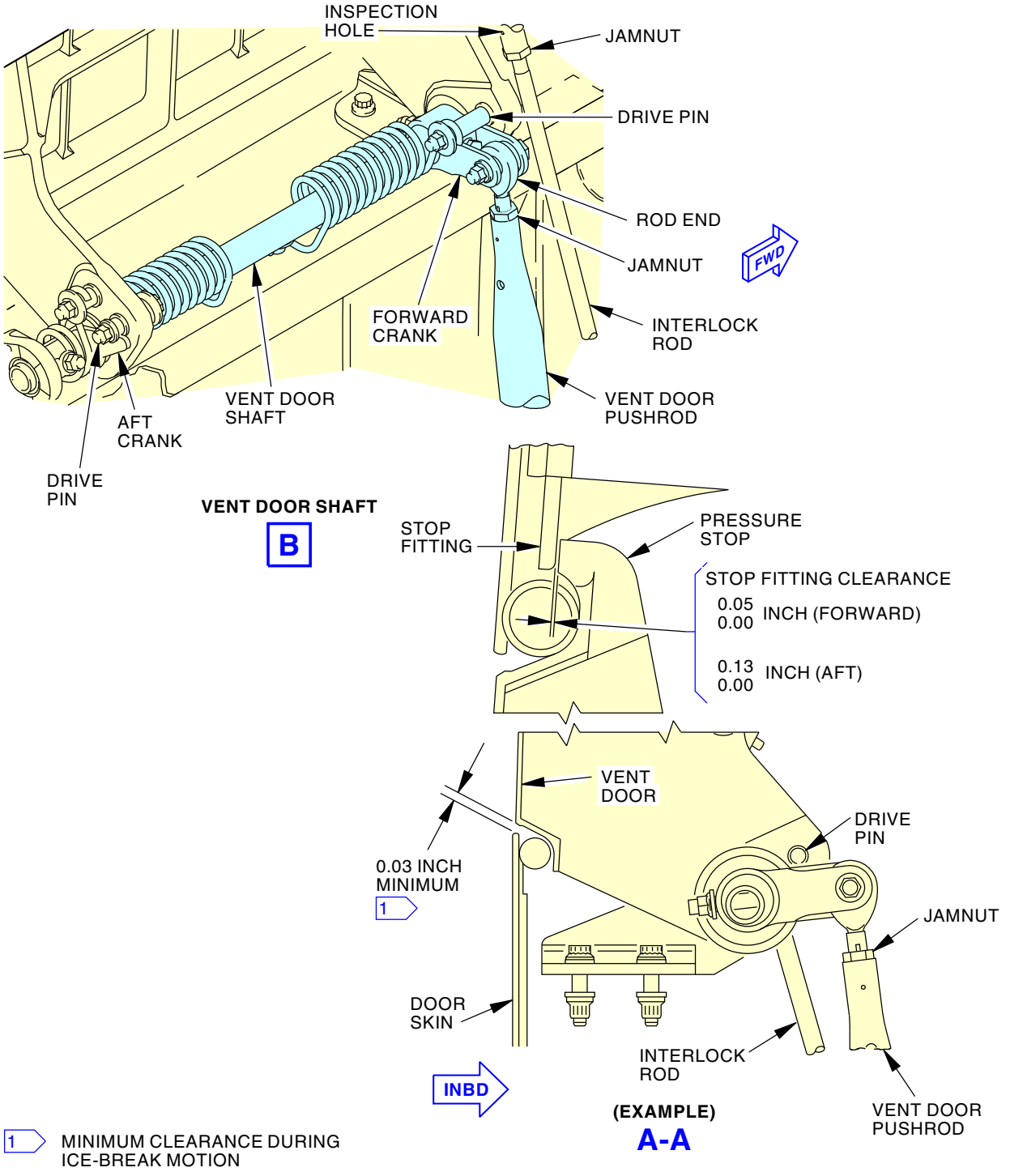
Lift/Latch Adjustment
Figure 501/52-12-00-990-824

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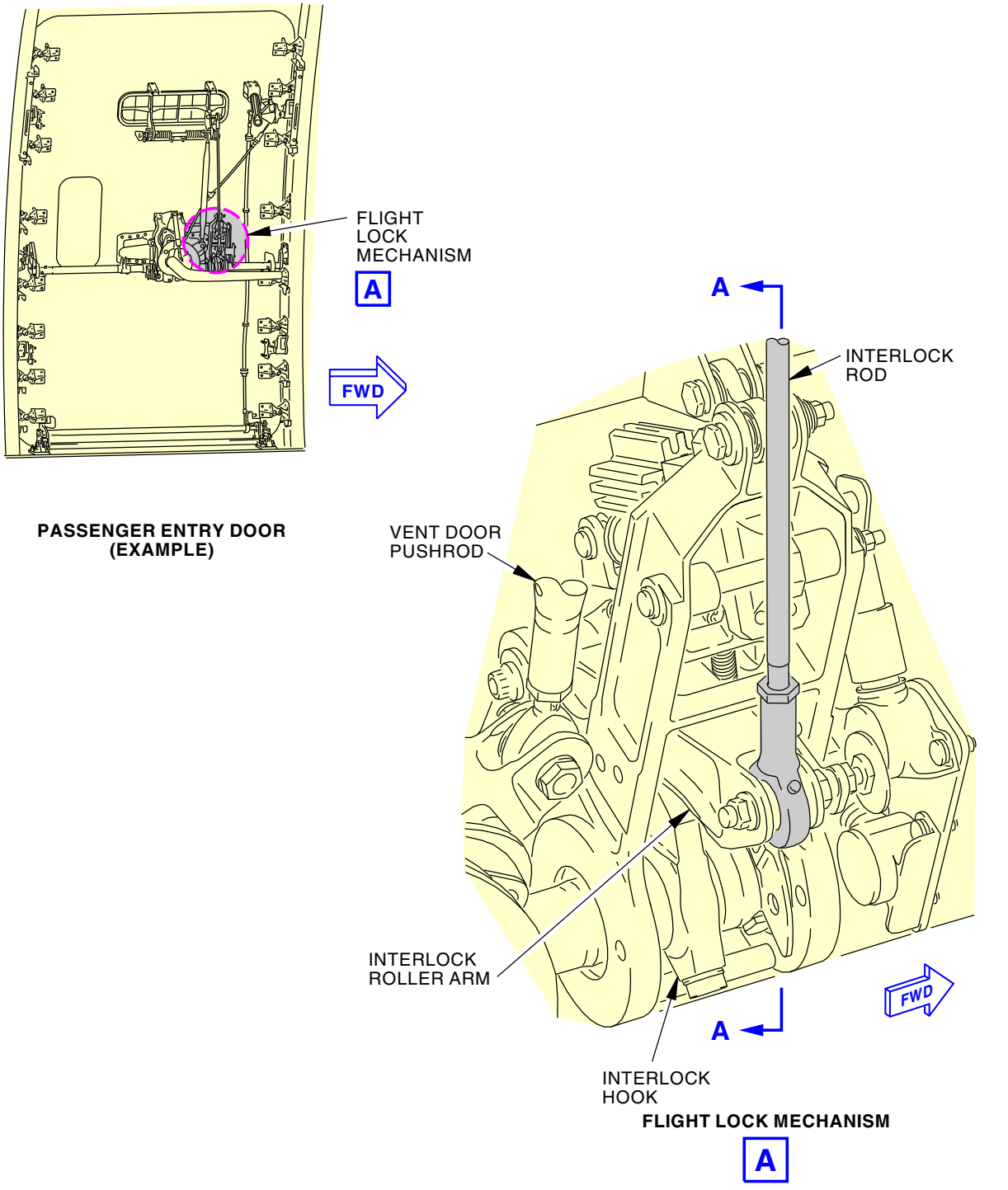
Vent Door Adjustment
Figure 502/52-12-00-990-825 (Sheet 1 of 2)

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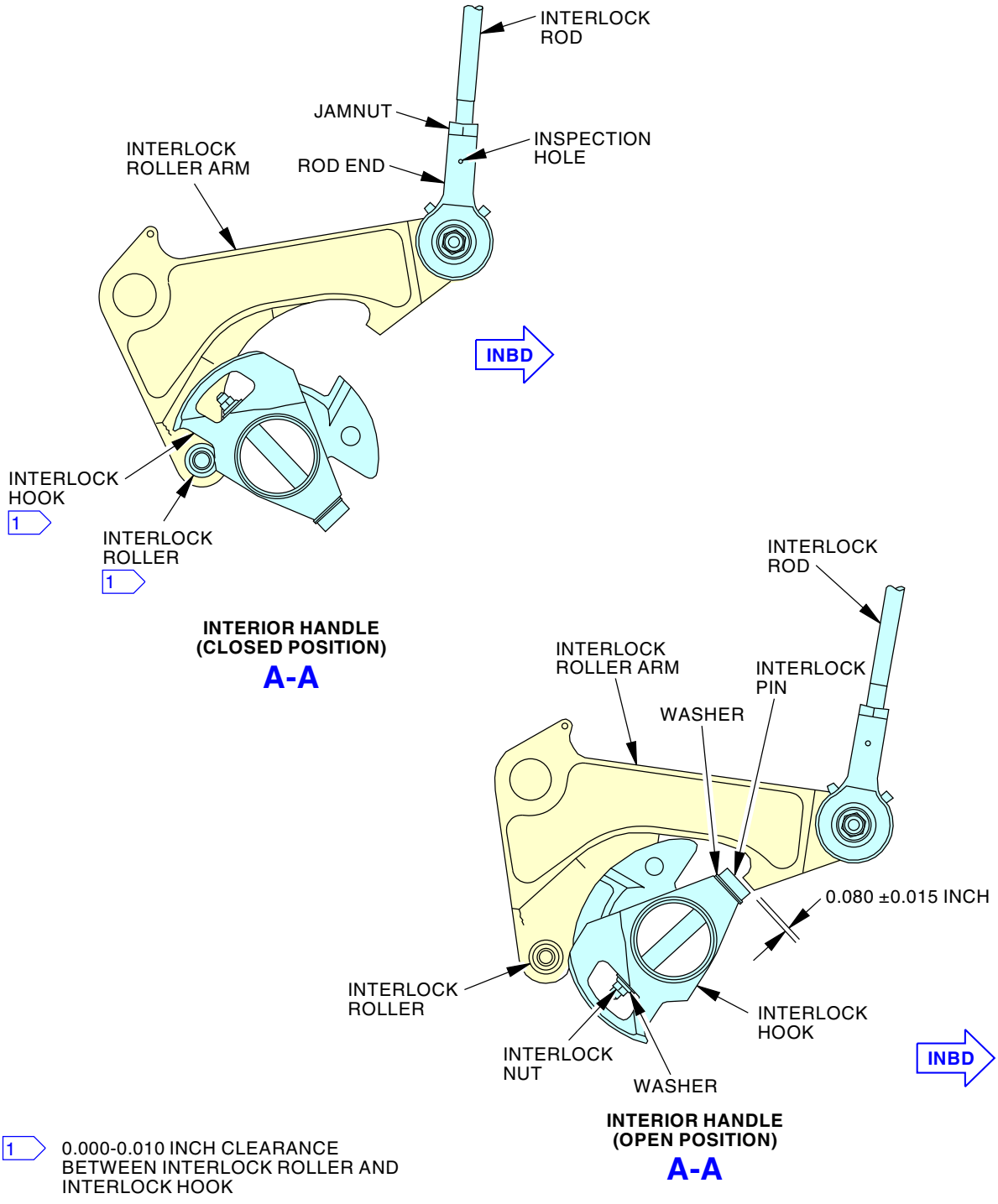
Vent Door Adjustment
Figure 502/52-12-00-990-825 (Sheet 2 of 2)

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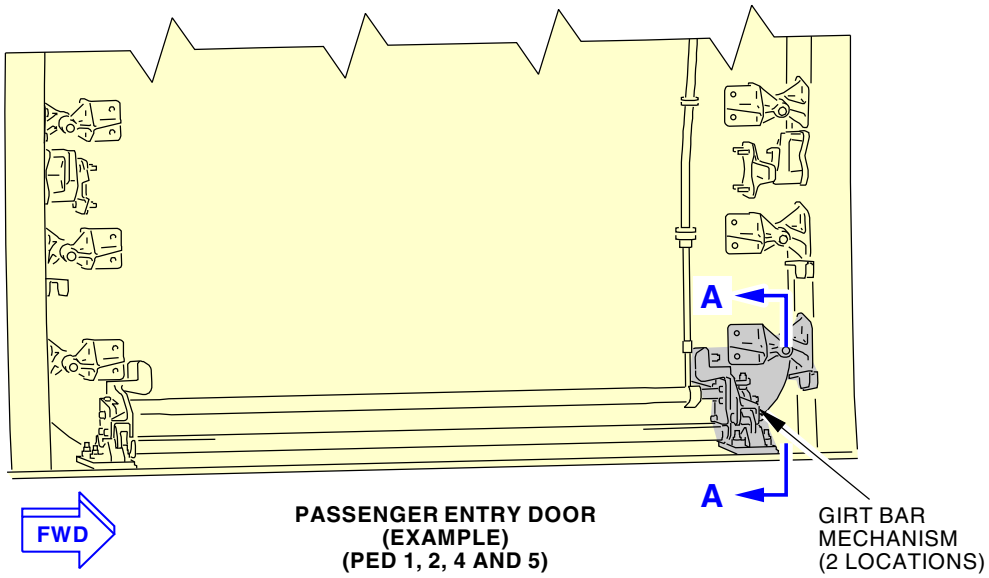
Vent Door Interlock Adjustment
Figure 503/52-12-00-990-826 (Sheet 1 of 2)

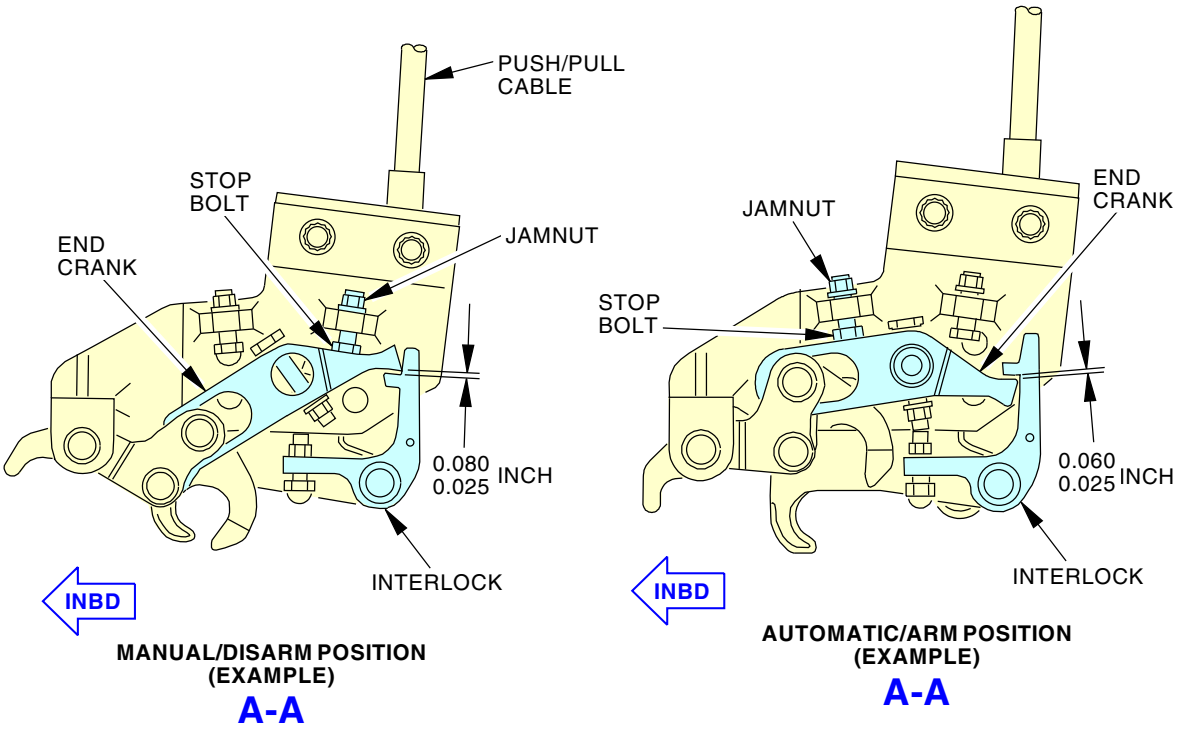
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Vent Door Interlock Adjustment
Figure 503/52-12-00-990-826 (Sheet 2 of 2)

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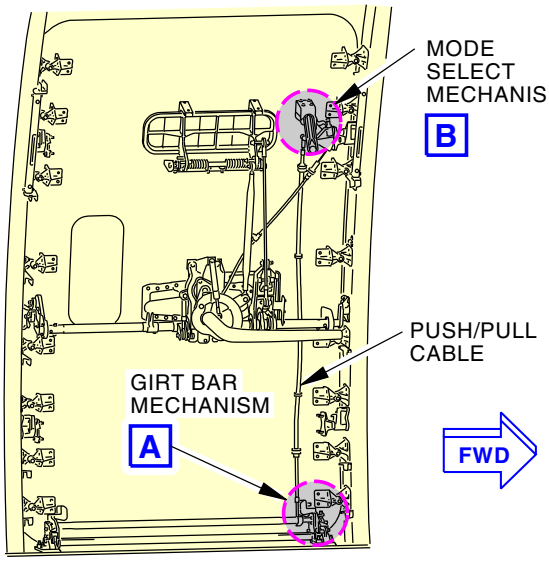




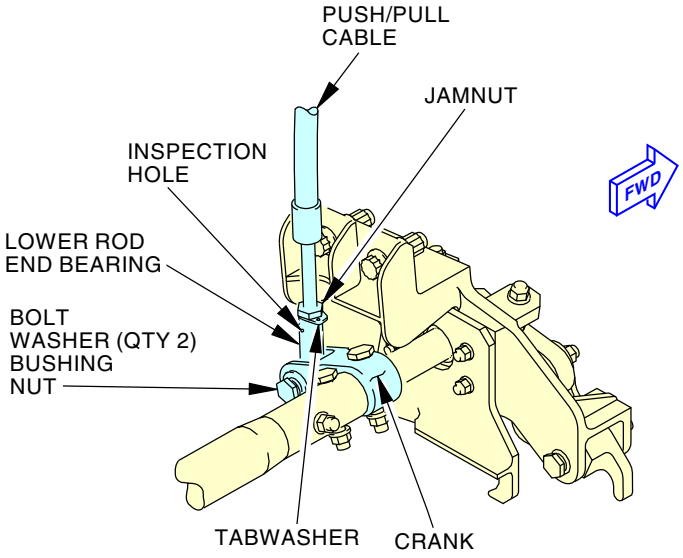
G65789 S0006424997_V2

Girt Bar Mechanism Adjustment
Figure 504/52-12-00-990-827

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**PASSENGER ENTRY DOOR
(PED 1, 2, 4 AND 5)
(EXAMPLE)**



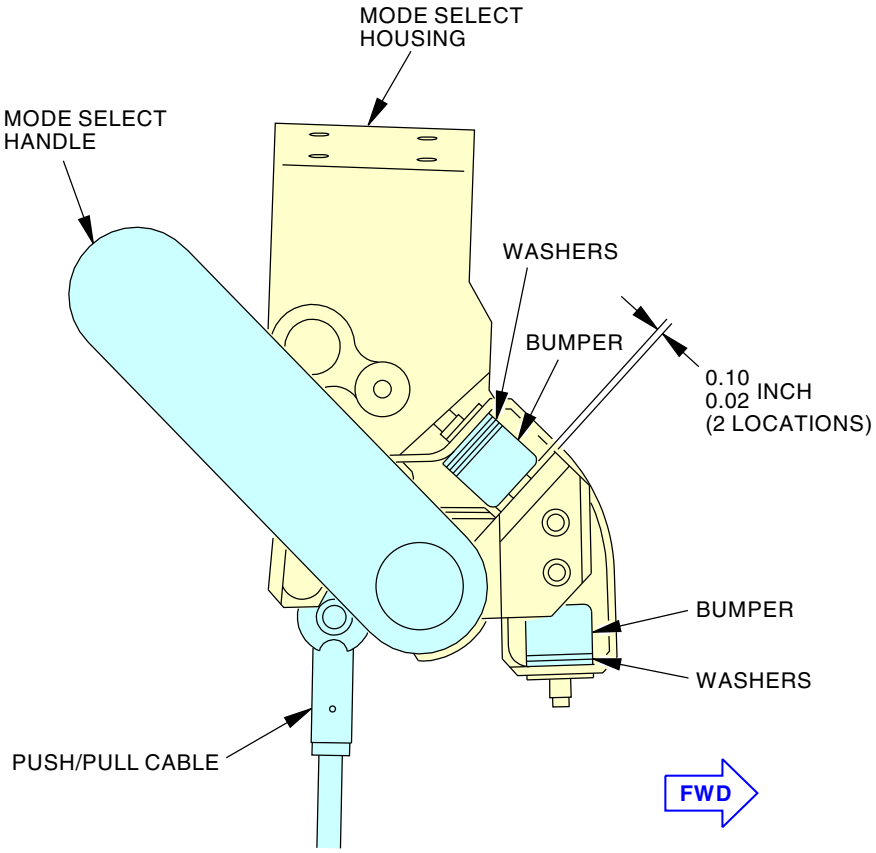
**GIRT BAR MECHANISM
(PED 1, 2, 4 AND 5)**

A

G65855 S0006424998_V2

**Push/Pull Cable Adjustment
Figure 505/52-12-00-990-828 (Sheet 1 of 2)**

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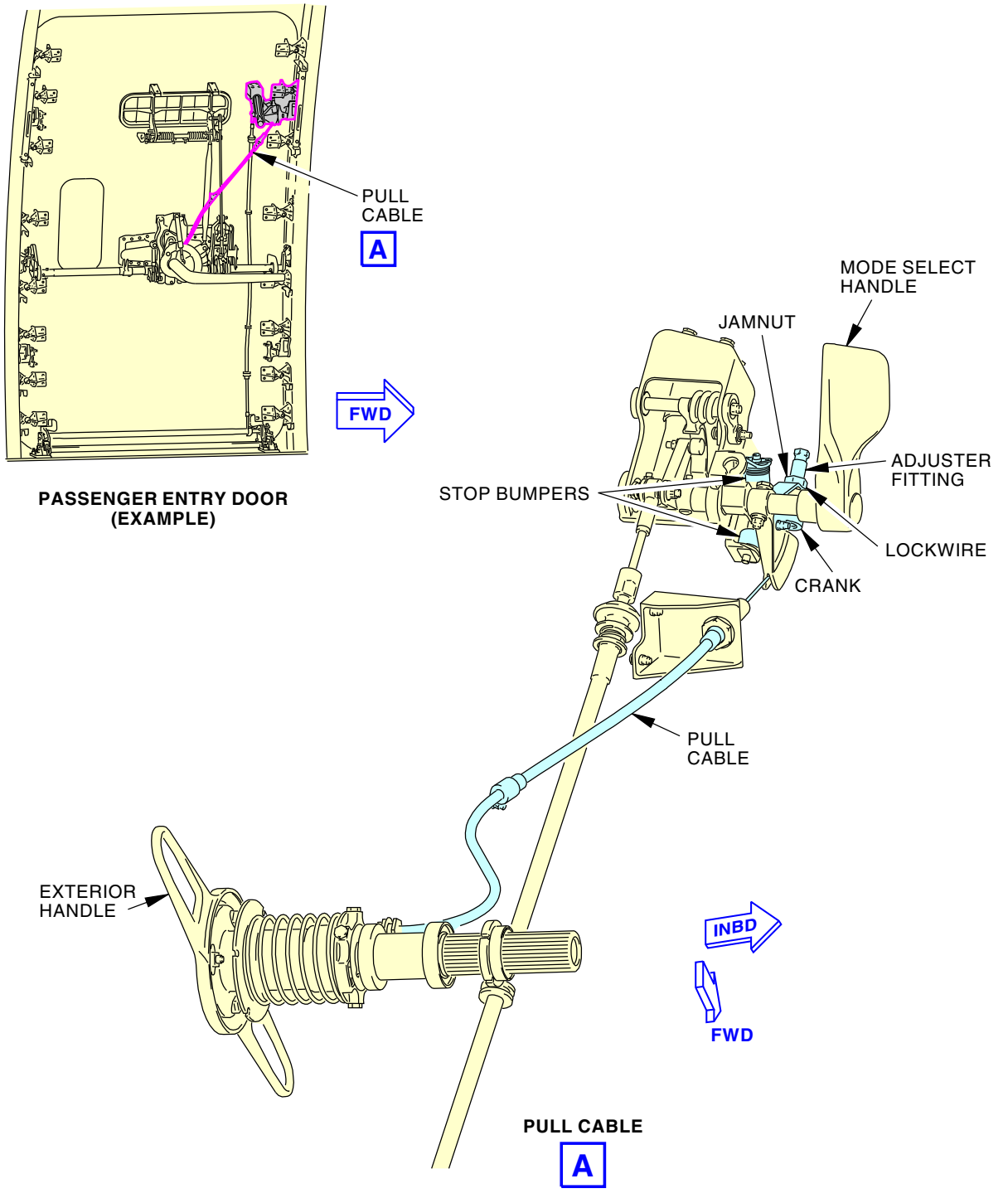
MODE SELECT MECHANISM
(PED 1, 2, 4 AND 5)

B

G67096 S0006424999_V2

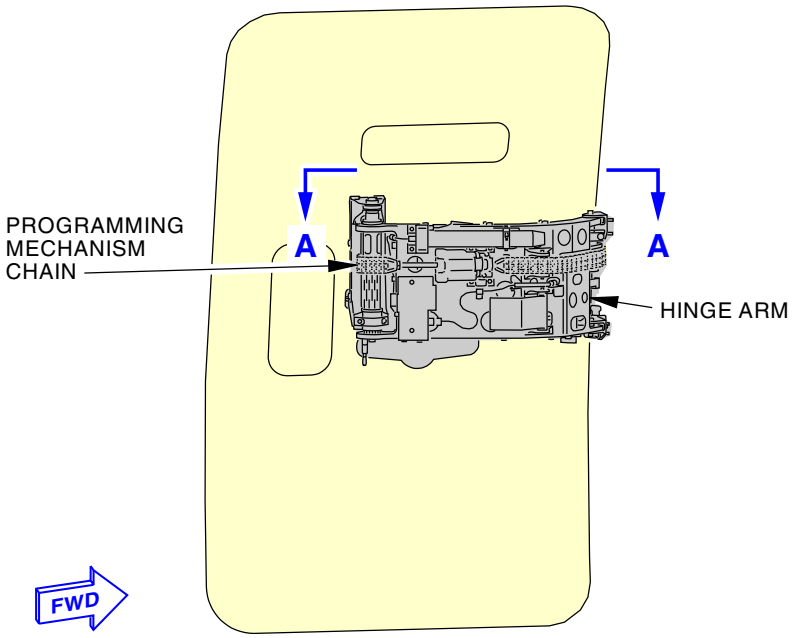
Push/Pull Cable Adjustment
Figure 505/52-12-00-990-828 (Sheet 2 of 2)

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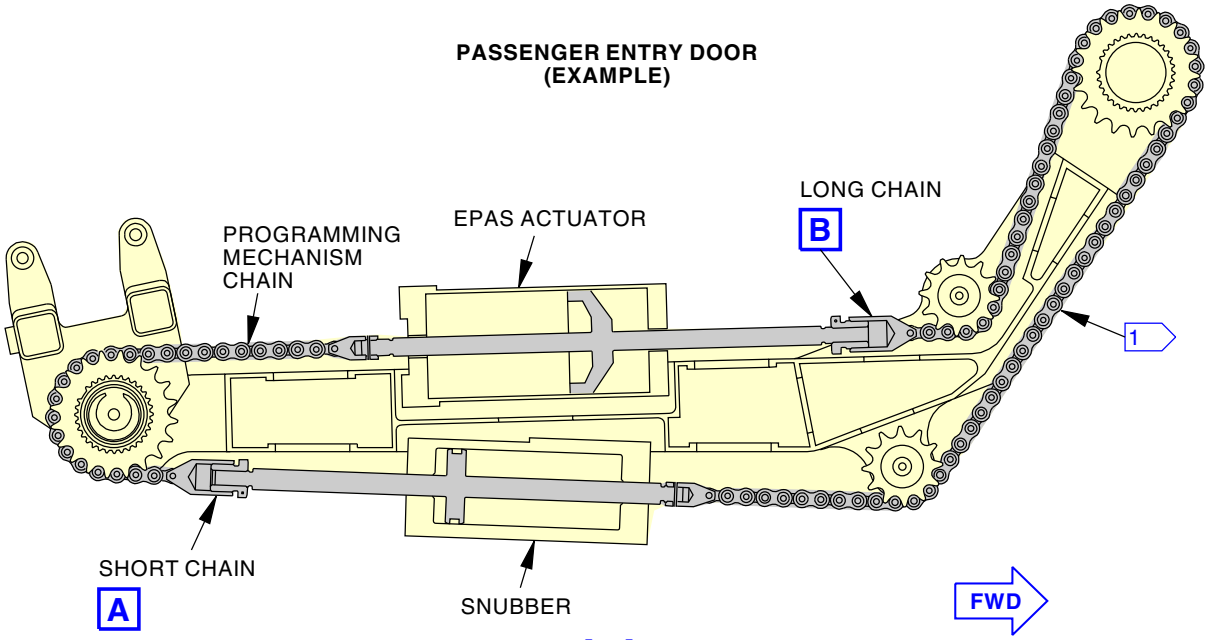


Pull Cable Adjustment
Figure 506/52-12-00-990-829

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**PASSENGER ENTRY DOOR
(EXAMPLE)**



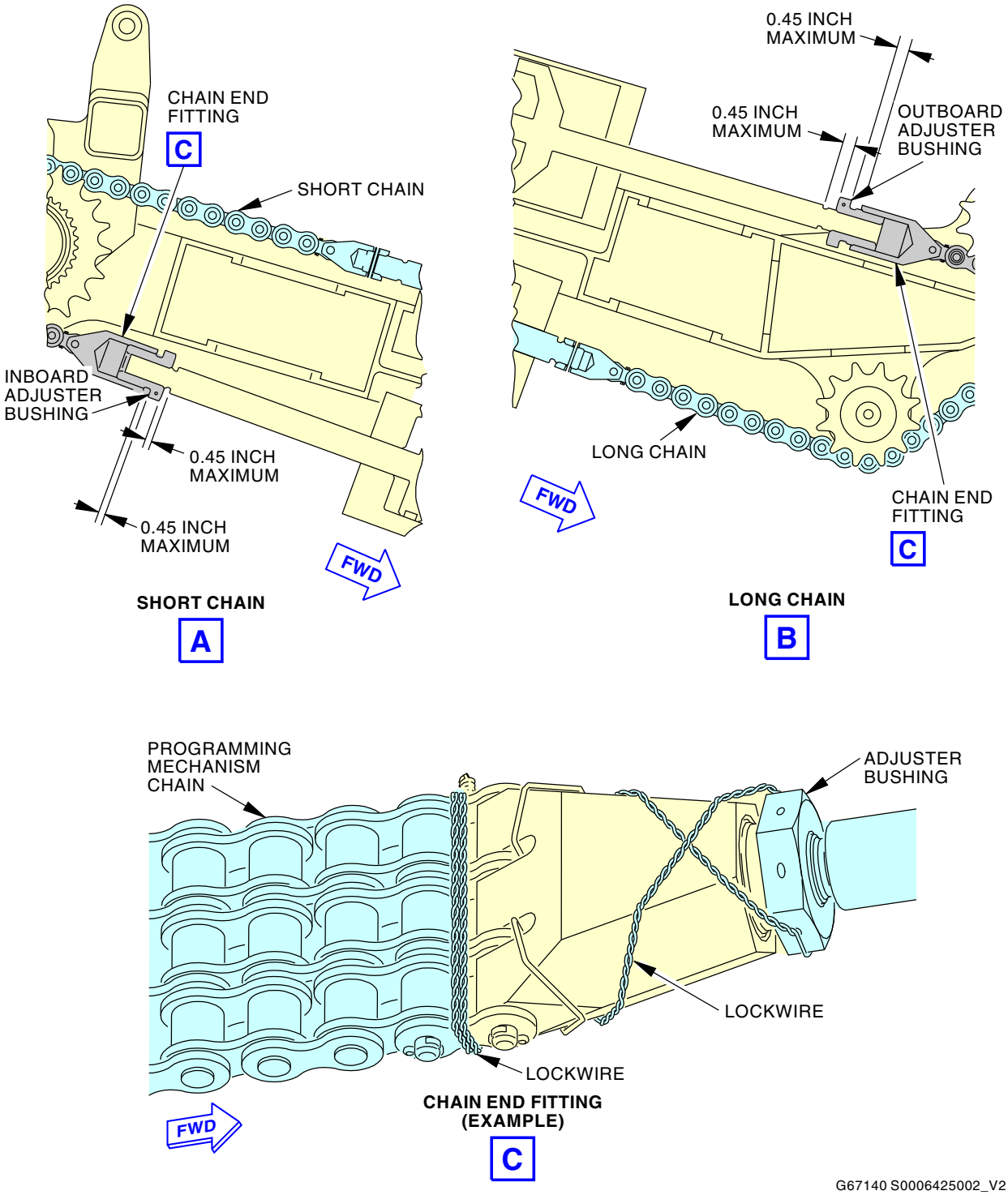
A-A

1 APPLY 26-28 POUND FORCE HERE IN THE CENTER OF THE CHAIN AND MAKE SURE THE AVERAGE DEFLECTION AT THE TOP AND BOTTOM OF THE CHAIN IS 0.14-0.18 INCH.

G67135 S0006425001_V2

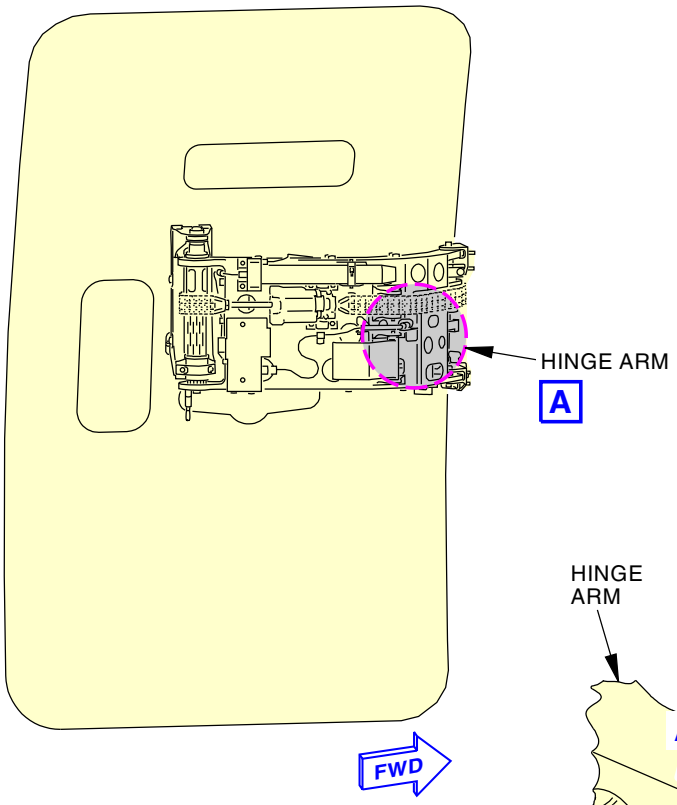
**Programming Mechanism Chain Pretension Adjustment
Figure 507/52-12-00-990-830 (Sheet 1 of 2)**

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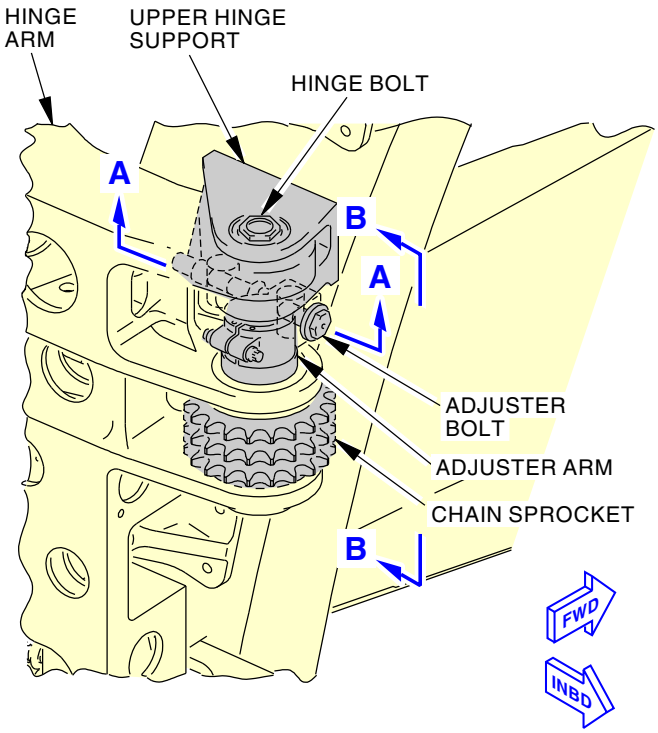


Programming Mechanism Chain Pretension Adjustment
Figure 507/52-12-00-990-830 (Sheet 2 of 2)

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PASSENGER ENTRY DOOR
(EXAMPLE)

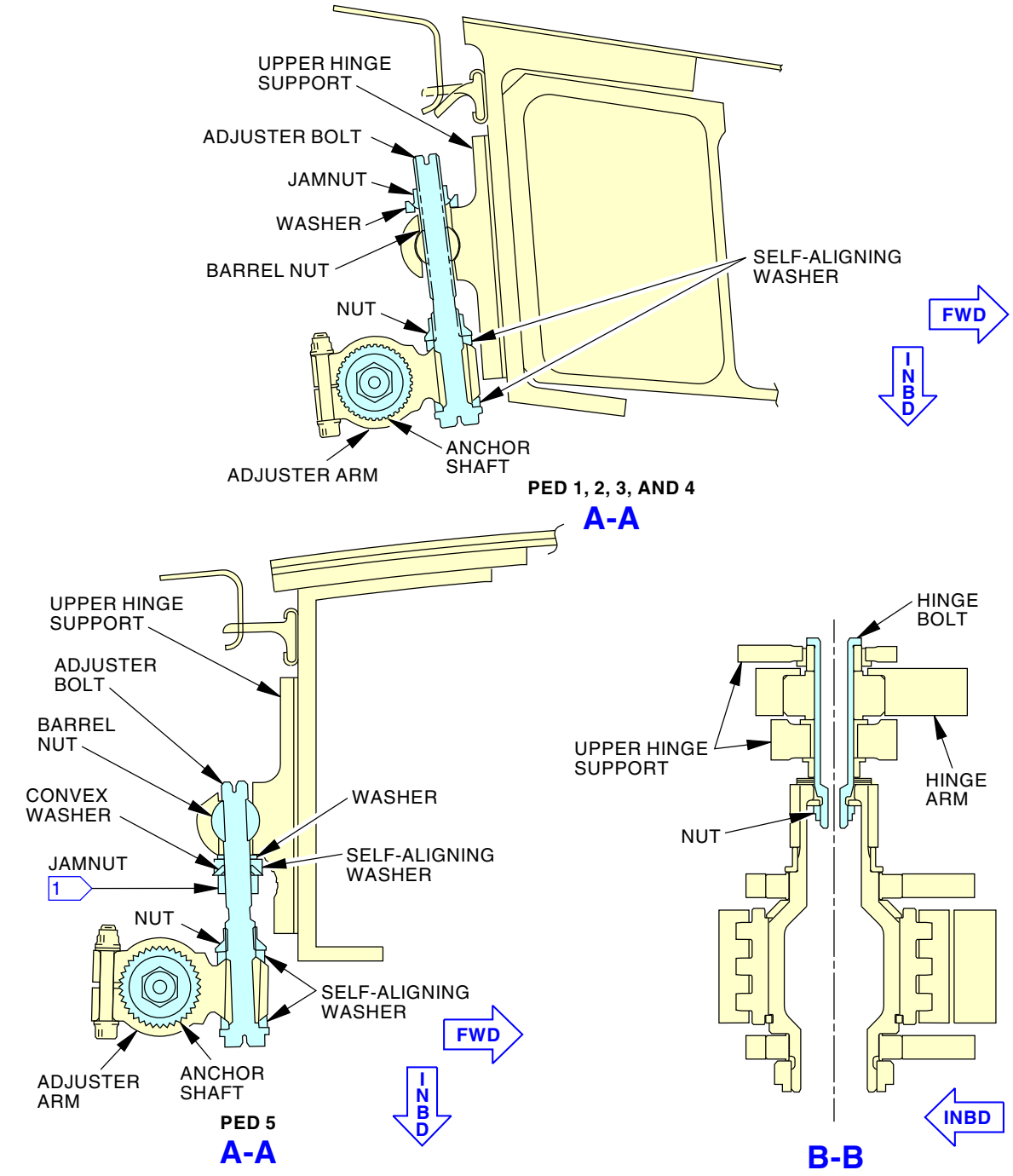


HINGE ARM
(PROGRAMMING MECHANISM
CHAIN NOT SHOWN)
A

G67141 S0006425003_V2

Programming System Adjustment
Figure 508/52-12-00-990-831 (Sheet 1 of 2)

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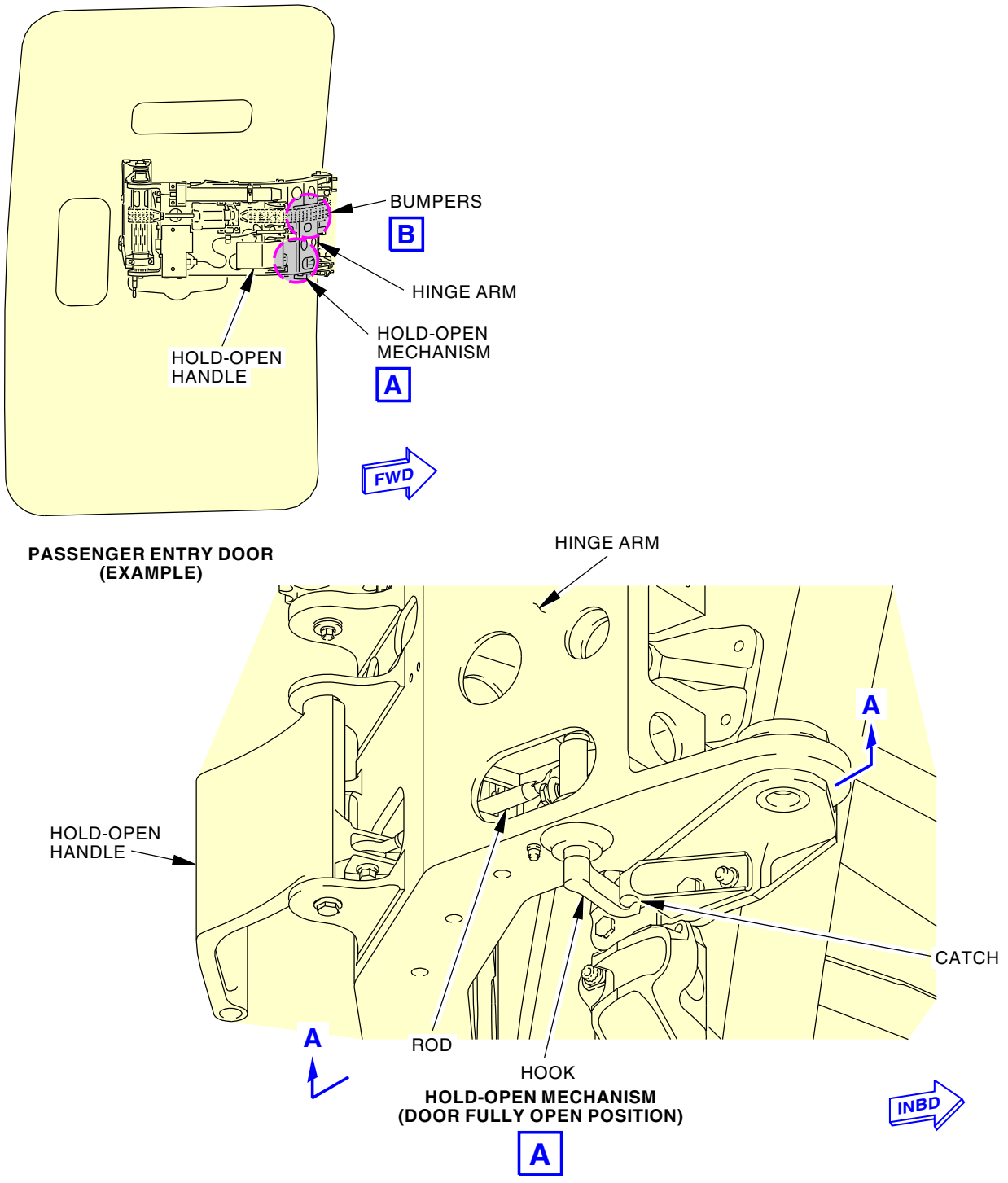


1 APPLY THREAD LOCK COMPOUND TO OUTBOARD JAMNUT ON PED 5 ONLY

F04734 S0006424677_V3

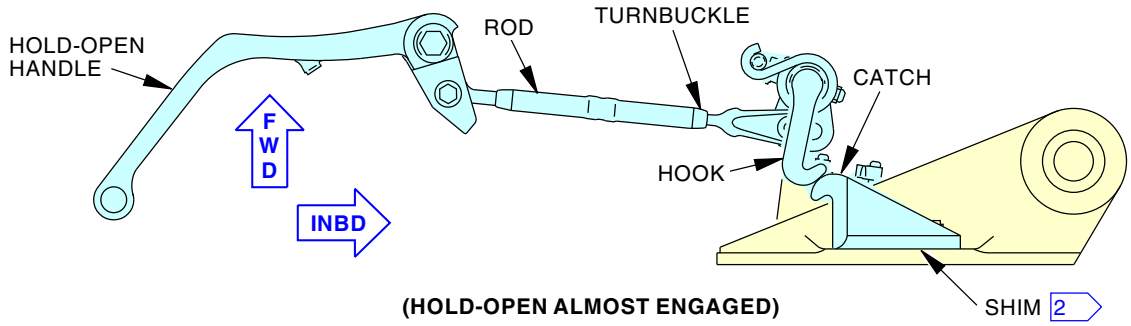
Programming System Adjustment
Figure 508/52-12-00-990-831 (Sheet 2 of 2)

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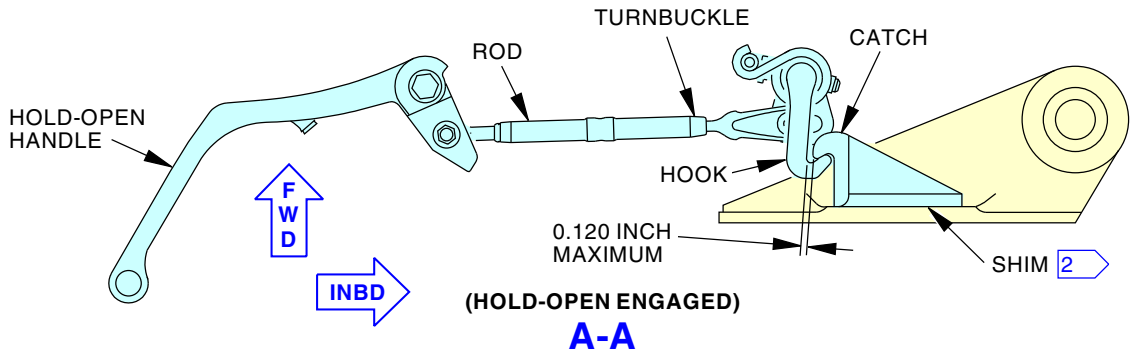
Hold-Open Mechanism Adjustment
Figure 509/52-12-00-990-832 (Sheet 1 of 2)

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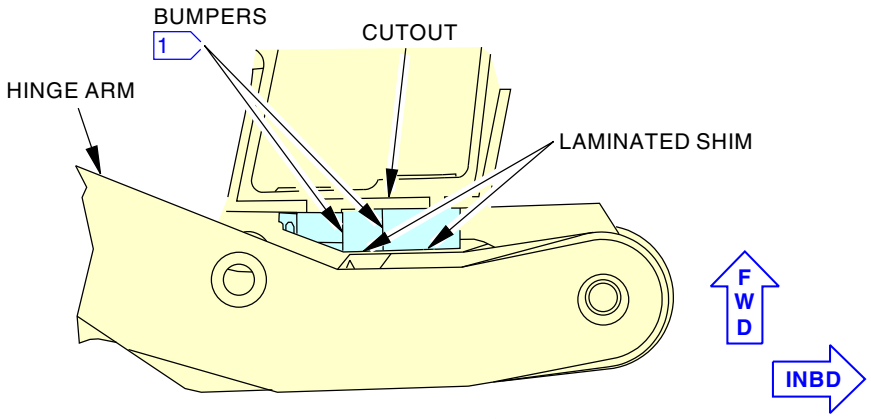
(HOLD-OPEN ALMOST ENGAGED)

A-A



(HOLD-OPEN ENGAGED)

A-A



BUMPERS
(DOOR FULLY OPEN POSITION)

B

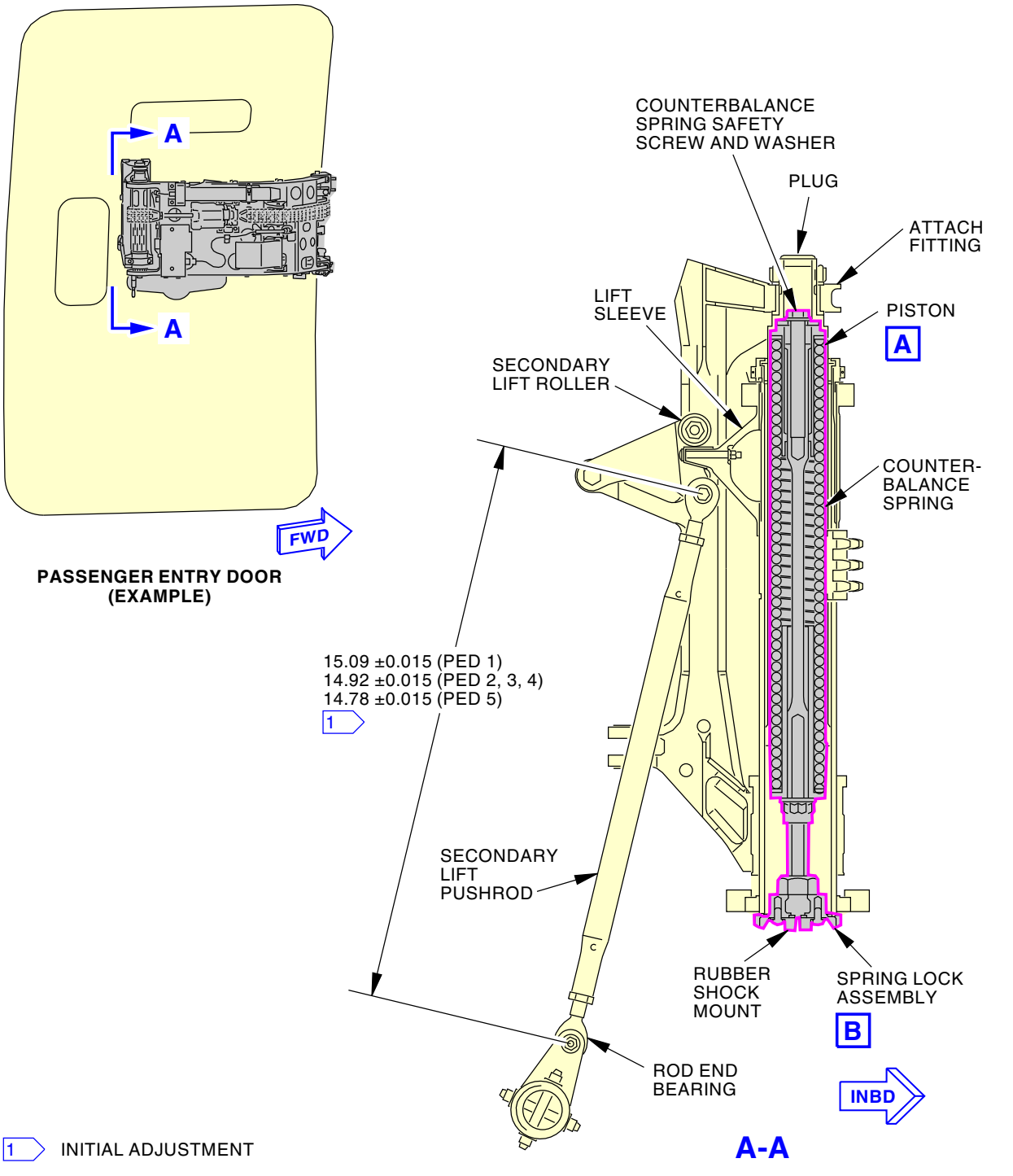
1 THE NEAREST PART OF THE BUMPER MUST BE 0.00-0.02 INCH FROM THE CUTOUT WHEN THE HOOK RELEASES.

2 MAXIMUM THICKNESS OF SHIM IS 0.063 INCH.

G67151 S0006425006_V2

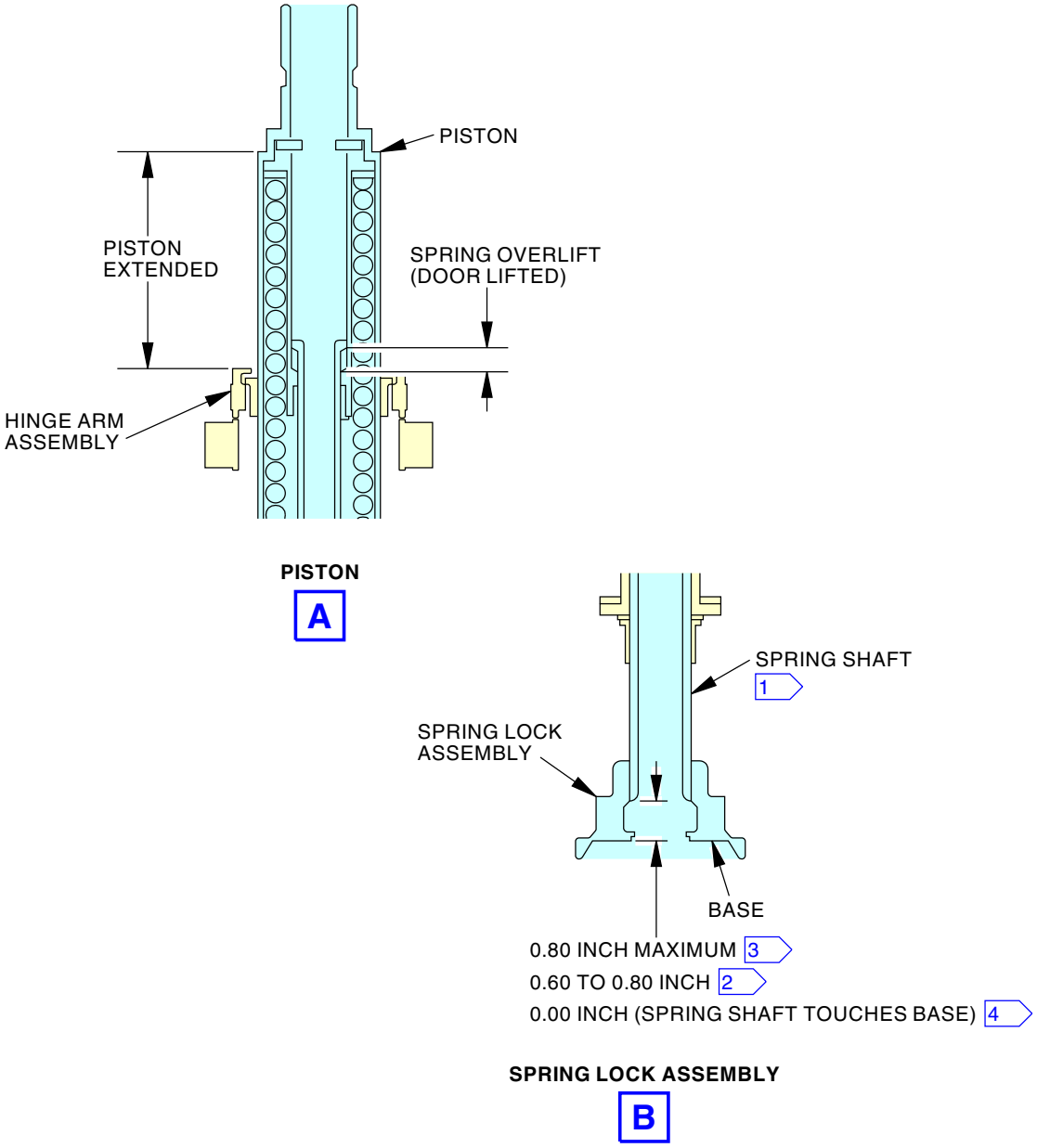
Hold-Open Mechanism Adjustment
Figure 509/52-12-00-990-832 (Sheet 2 of 2)

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Fit Check Adjustment
Figure 510/52-12-00-990-833 (Sheet 1 of 4)

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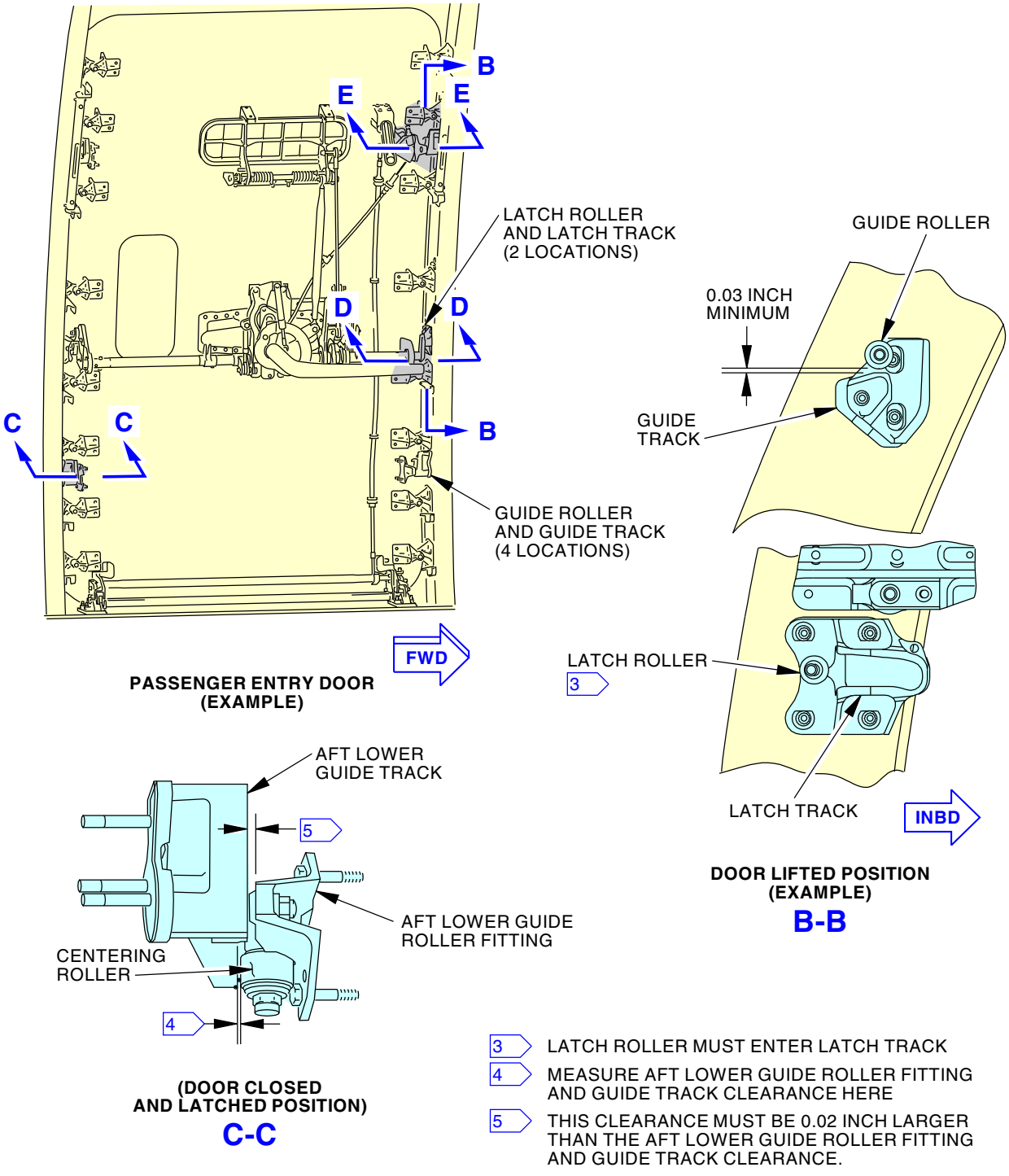


1. ADJUST SPRING SHAFT DOWN TO DECREASE SPRING STROKE.
2. PED 1, 2, 4, 5 INITIAL ADJUSTMENT
3. PED 1, 2, 4, 5 FINAL ADJUSTMENT
4. PED 3

G67157 S0006425008_V2

Fit Check Adjustment
Figure 510/52-12-00-990-833 (Sheet 2 of 4)

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3 LATCH ROLLER MUST ENTER LATCH TRACK

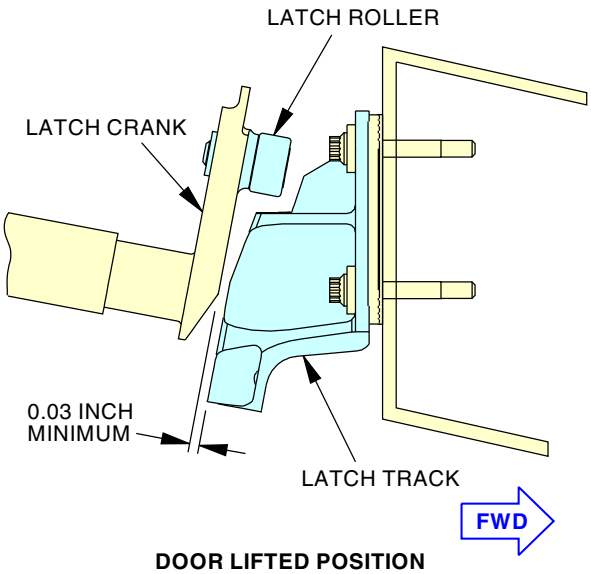
4 MEASURE AFT LOWER GUIDE ROLLER FITTING AND GUIDE TRACK CLEARANCE HERE

5 THIS CLEARANCE MUST BE 0.02 INCH LARGER THAN THE AFT LOWER GUIDE ROLLER FITTING AND GUIDE TRACK CLEARANCE.

G67158 S0006425009_V2

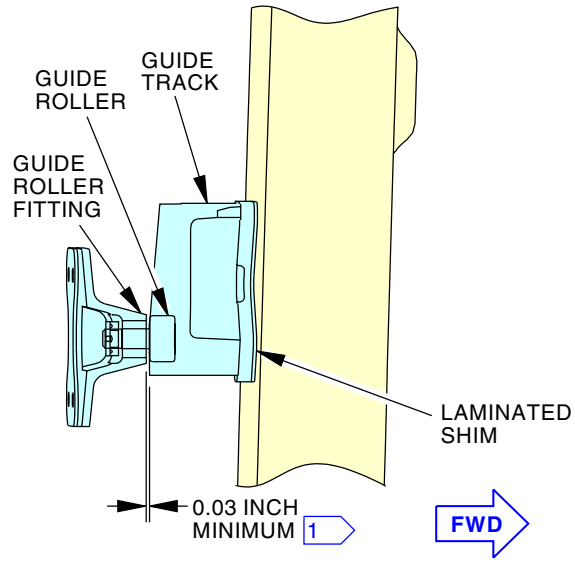
Fit Check Adjustment
Figure 510/52-12-00-990-833 (Sheet 3 of 4)

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DOOR LIFTED POSITION (EXAMPLE)

D-D



DOOR CLOSED AND LATCHED POSITION (EXAMPLE)

E-E

GUIDE ROLLER FITTING AND GUIDE TRACK	PED 1	PED 2	PED 3	PED 4	PED 5	
					UPPER	LOWER
FORWARD	7 0.07	0.11 0.08	0.11 0.08	0.11 0.08	0.13 0.09	0.13 0.19
AFT	0.10 0.08	0.12 0.09	0.12 0.09	0.12 0.09	0.20 0.16	0.13 0.09

GUIDE ROLLER FITTING AND GUIDE TRACK CLEARANCES 6 (INCH)

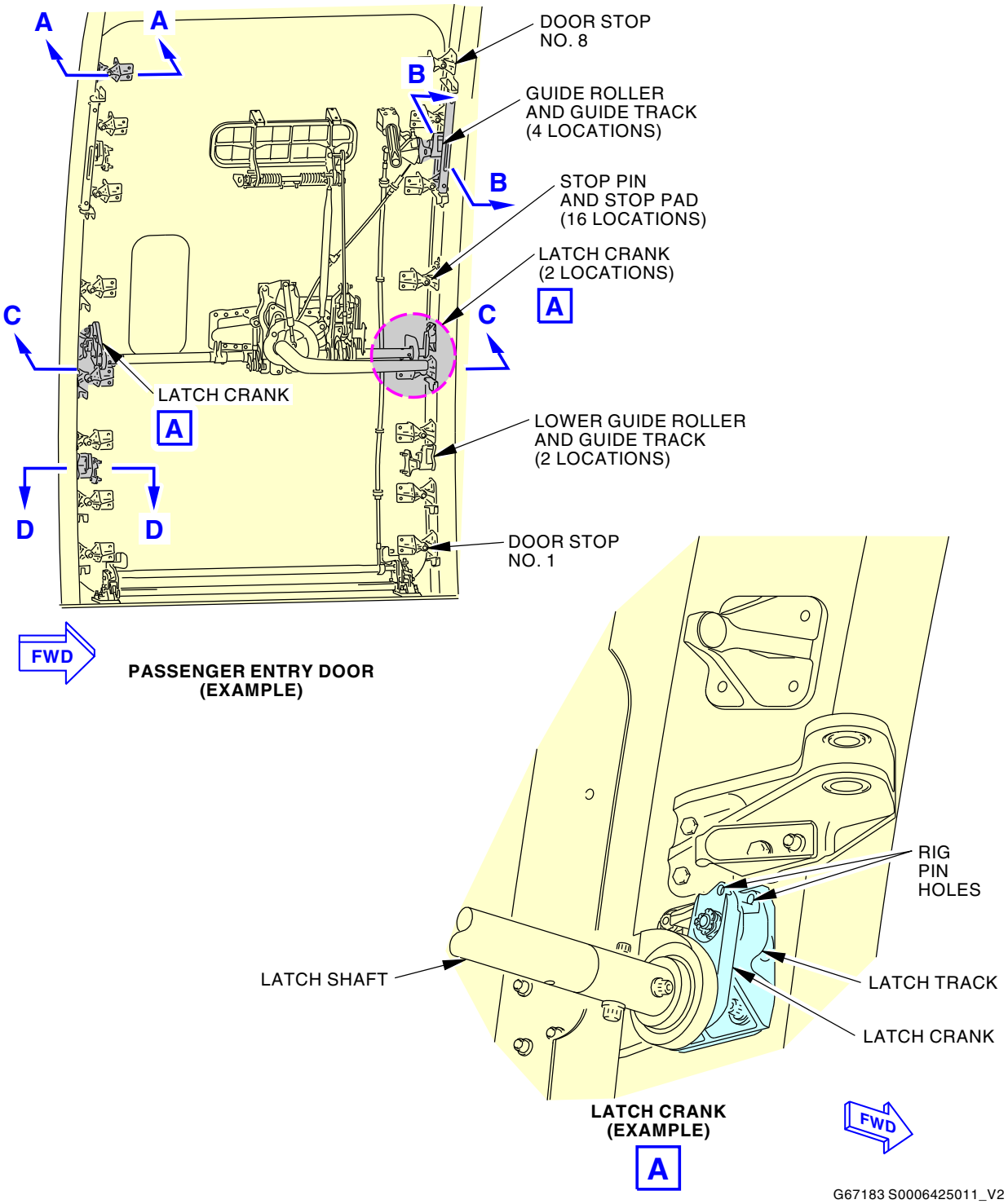
6 FINAL ADJUSTMENT

7 THE MAXIMUM PERMITTED CLEARANCE IS 0.14 INCH IF THE FORWARD SKIN CLEARANCE (MEASURED ADJACENT TO THE GUIDE ROLLER) IS A MINUMUM OF 0.02 INCH LARGER THAN THE GUIDE ROLLER FITTING AND GUIDE TRACK CLEARANCE.

G67179 S0006425010_V2

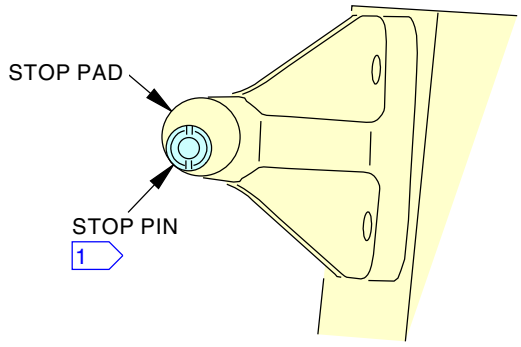
Fit Check Adjustment
Figure 510/52-12-00-990-833 (Sheet 4 of 4)

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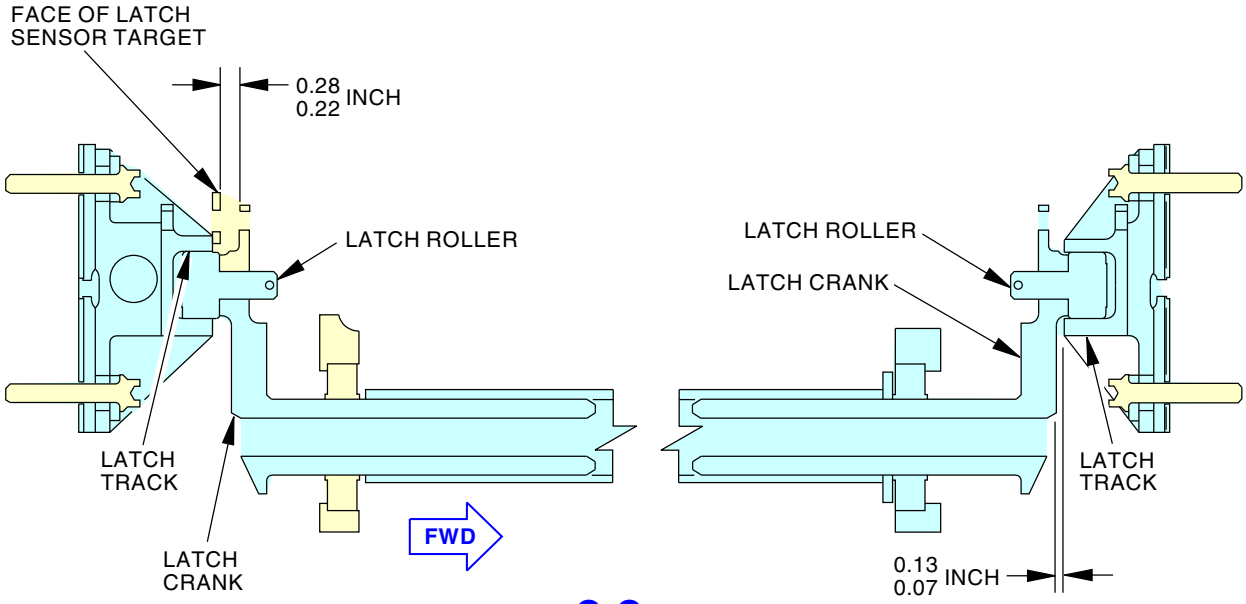
Door Alignment Adjustment
Figure 511/52-12-00-990-834 (Sheet 1 of 4)

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MAXIMUM MISALIGNMENT (EXAMPLE)

A-A



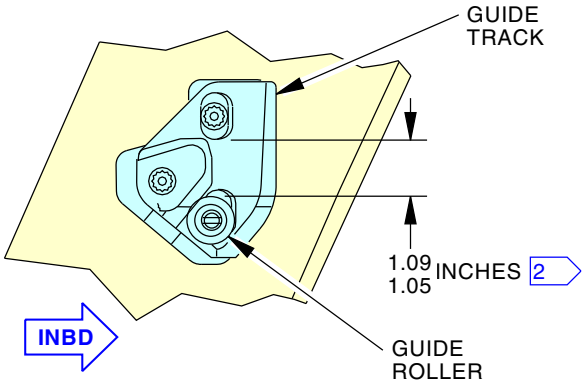
C-C

1. ALL OF THE FACE OF THE STOP PIN MUST TOUCH THE FACE OF THE STOP PAD.
2. INITIAL ADJUSTMENT
3. FINAL ADJUSTMENT

G67186 S0006425012_V2

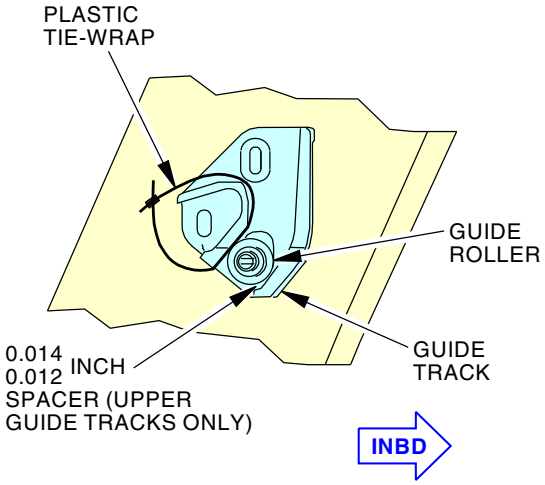
Door Alignment Adjustment
Figure 511/52-12-00-990-834 (Sheet 2 of 4)

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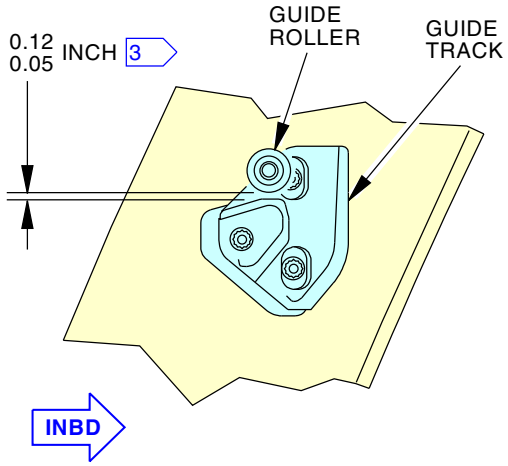
DOOR CLOSED AND LATCHED (EXAMPLE)

B-B



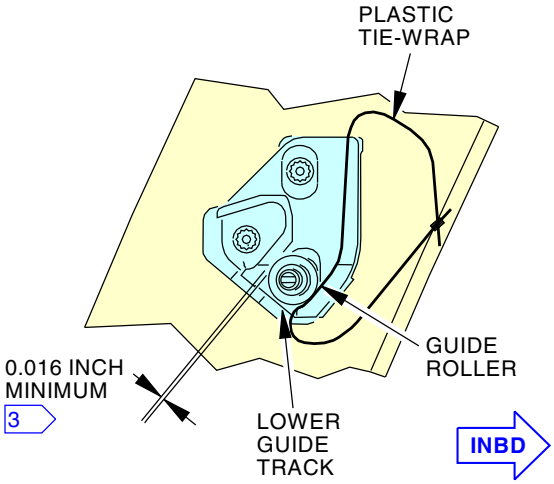
DOOR CLOSED, LATCHED, AND WEDGED INBOARD WITH SPACERS INSTALLED (EXAMPLE)

B-B



DOOR LIFTED POSITION (EXAMPLE)

B-B



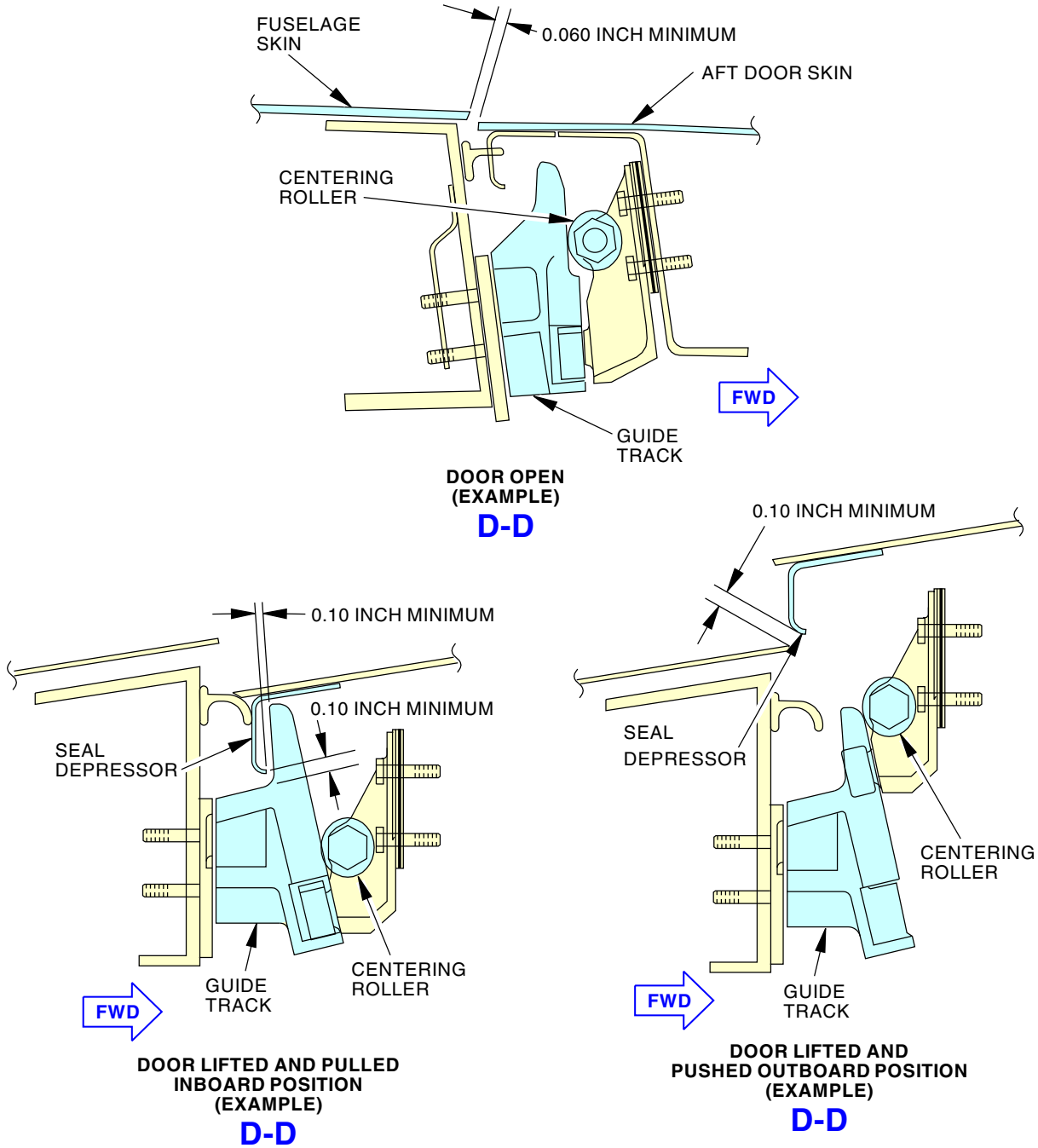
DOOR CLOSED, LATCHED AND WEDGED OUTBOARD (EXAMPLE)

B-B

G67187 S0006425013_V2

Door Alignment Adjustment
Figure 511/52-12-00-990-834 (Sheet 3 of 4)

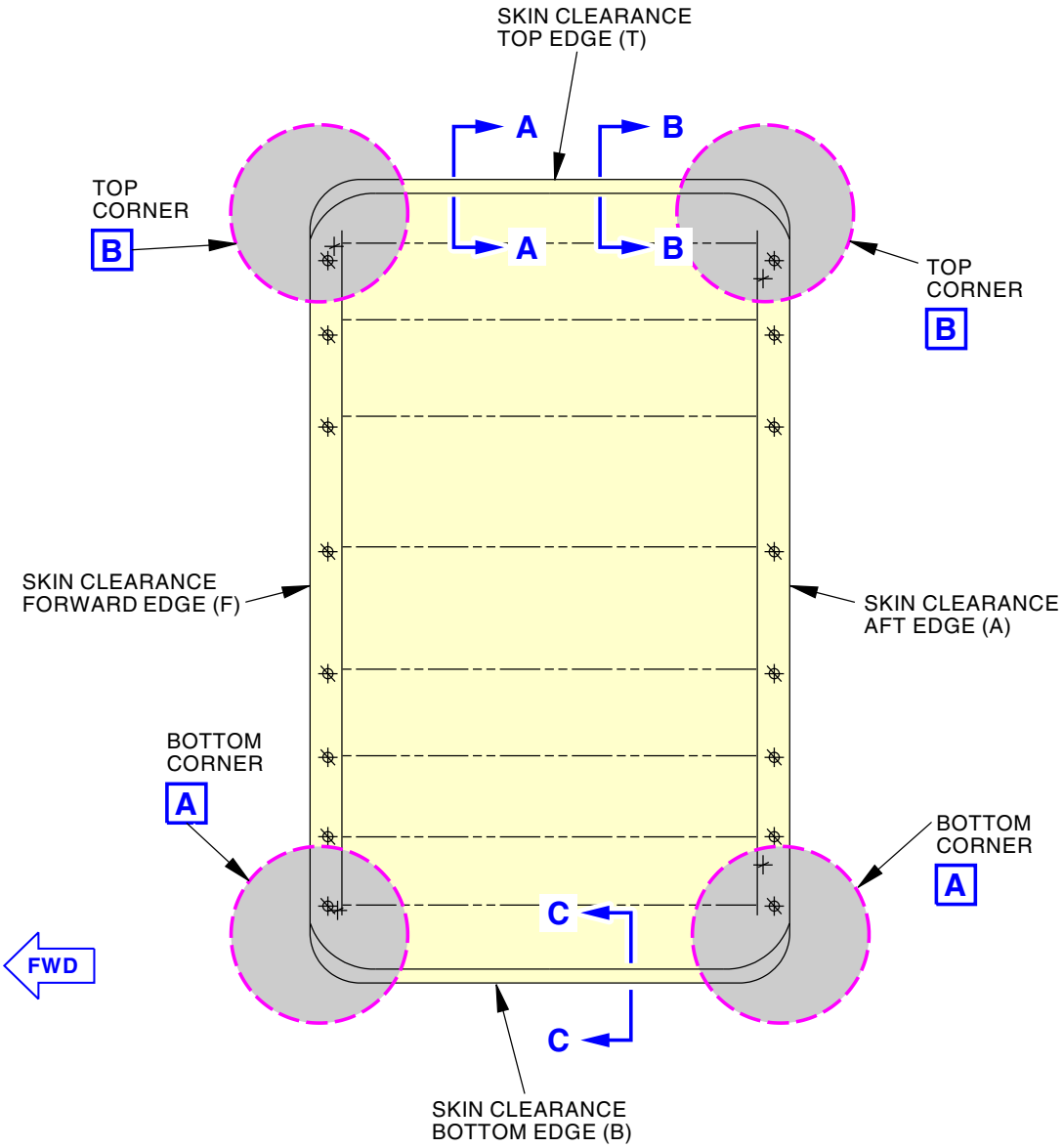
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G67190 S0006425014_V2

Door Alignment Adjustment
Figure 511/52-12-00-990-834 (Sheet 4 of 4)

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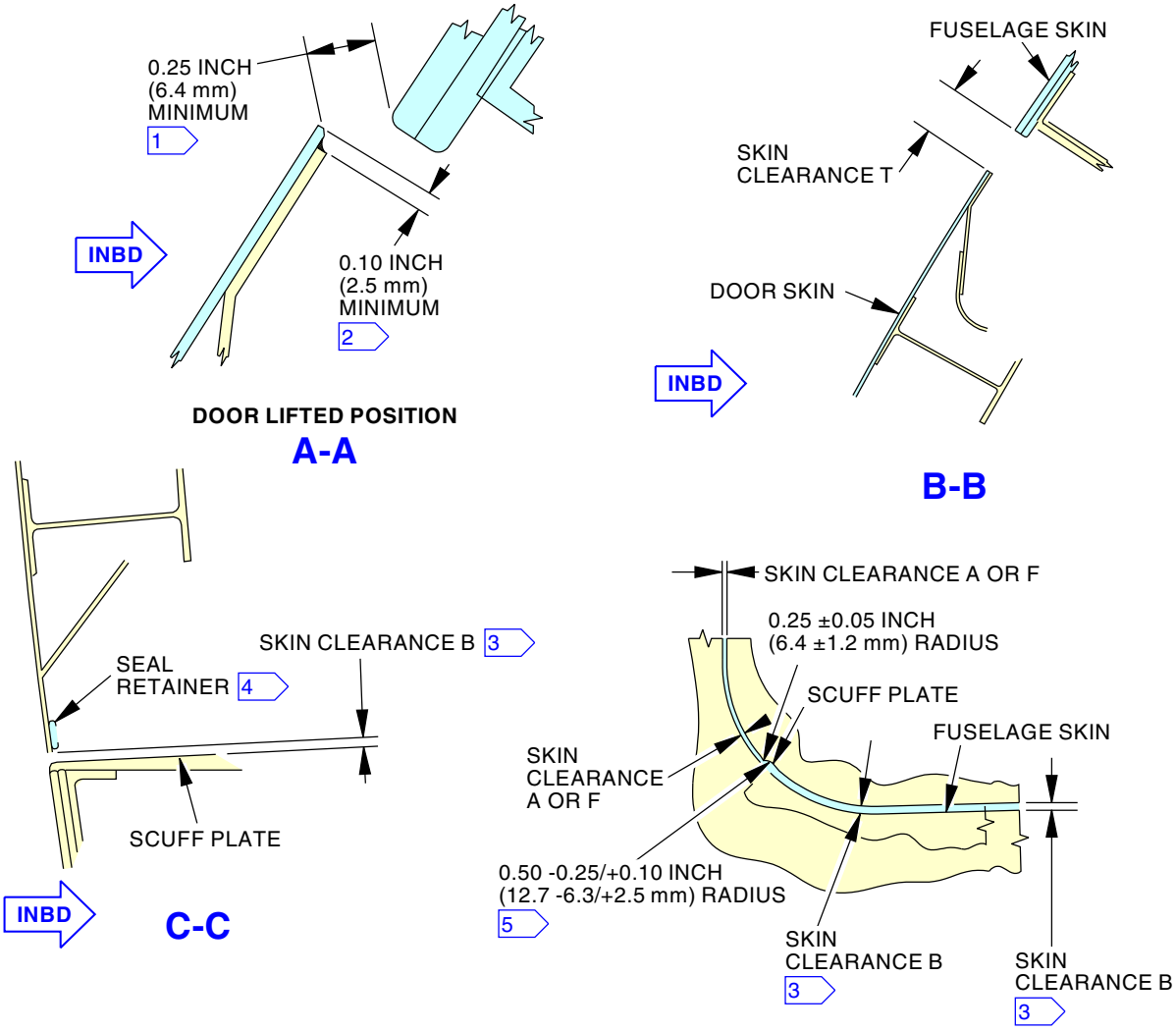


PASSENGER ENTRY DOOR SKIN CLEARANCES (EXAMPLE)

G67192 S0006425015_V2

Skin Clearances
Figure 512/52-12-00-990-835 (Sheet 1 of 3)

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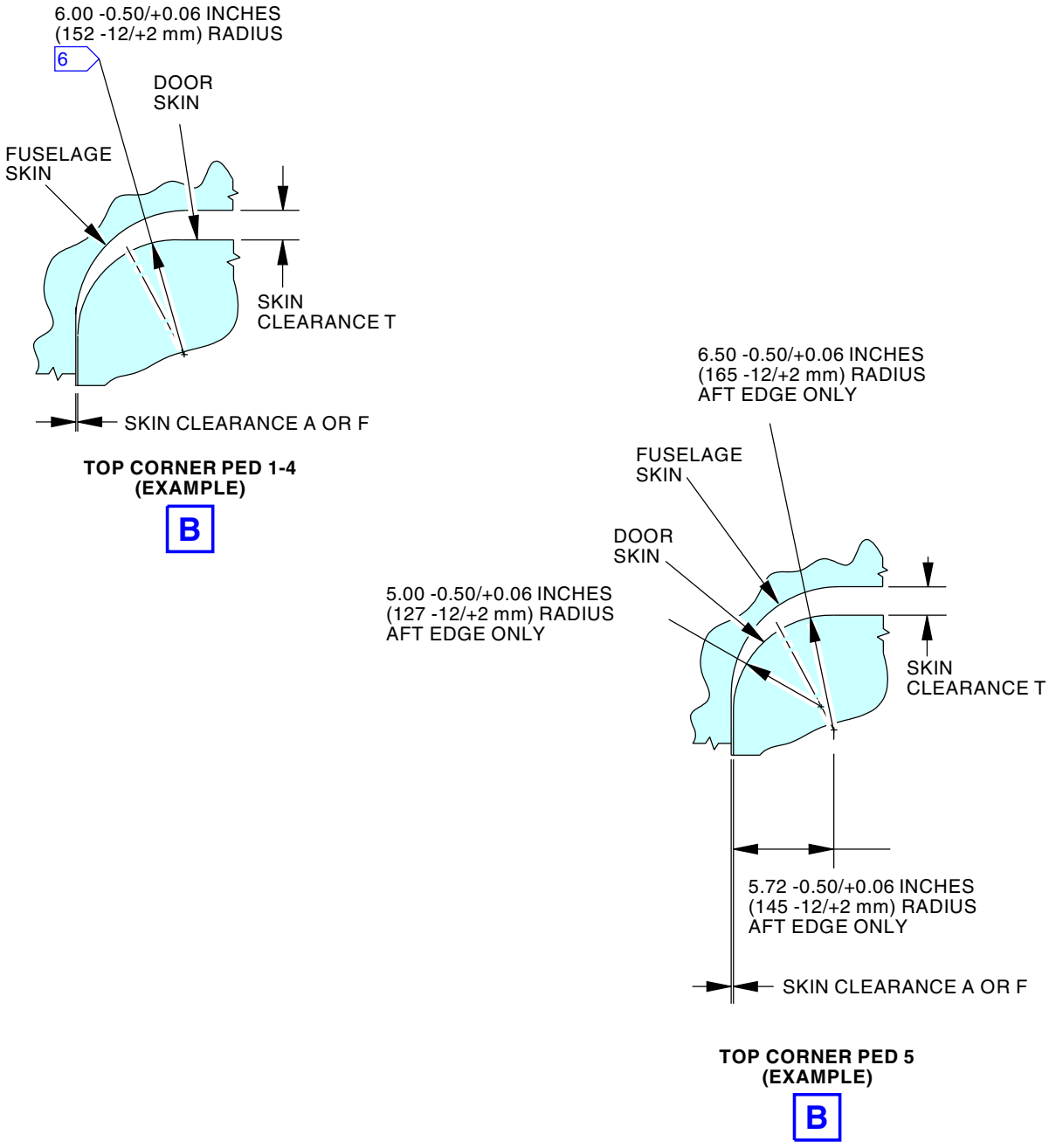


1. MINIMUM MOVING CLEARANCE AS DOOR LIFTS
2. DO NOT TRIM PAST FILLET SEAL
3. MEASURE CLEARANCE NORMAL TO SCUFF PLATE
4. DO NOT TRIM THE DOOR SKIN PAST THE SEAL RETAINER. DO NOT TRIM THE SEAL RETAINER TO GET THE CLEARANCE.
5. IT IS PERMITTED TO TRIM A SMOOTH CURVE ACROSS THE SCUFF PLATE EDGE INSTEAD OF THE STEPPED CURVES SHOWN IF ALL CLEARANCES ARE WITHIN THE TOLERANCES SHOWN.

G67194 S0006425016_V3

Skin Clearances
Figure 512/52-12-00-990-835 (Sheet 2 of 3)

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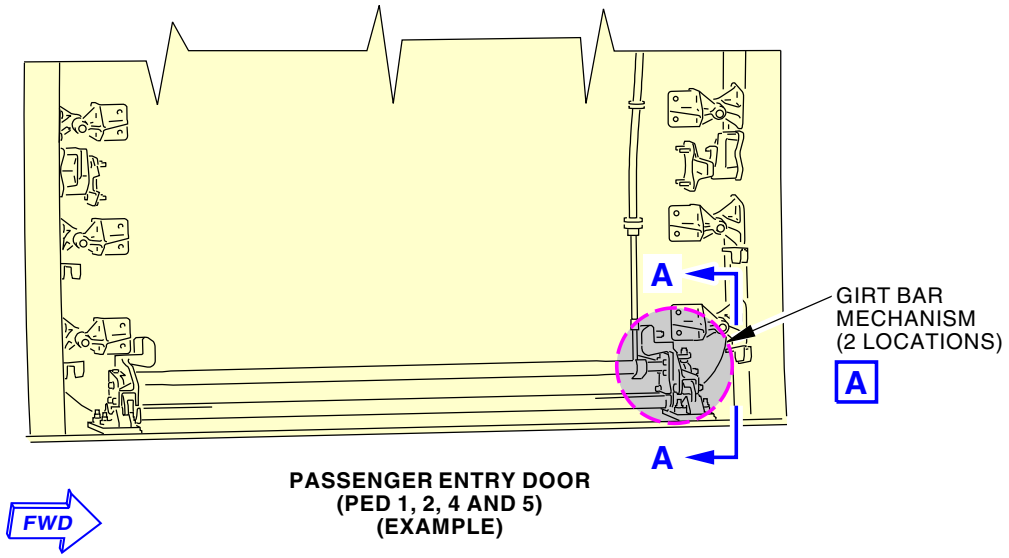


6 PED 3 AND 4 HAVE ELLIPTICAL CORNERS (SMOOTH CURVE). BLEND TOP FORWARD AND AFT CORNERS TO GET A SMOOTH TRANSITION AROUND CORNERS.

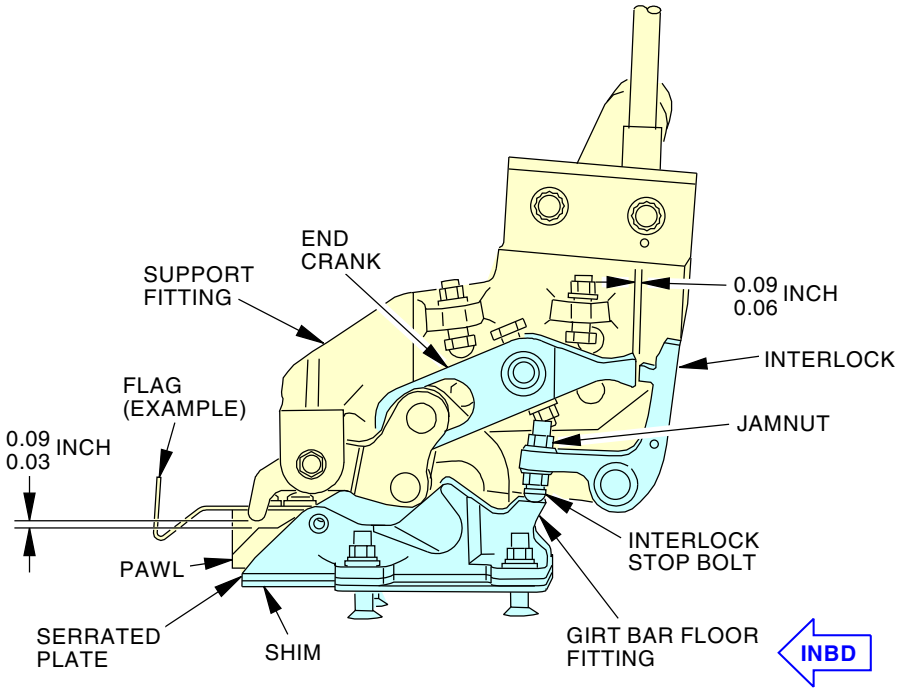
G67203 S0006425017_V3

Skin Clearances
Figure 512/52-12-00-990-835 (Sheet 3 of 3)

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**PASSENGER ENTRY DOOR
(PED 1, 2, 4 AND 5)
(EXAMPLE)**



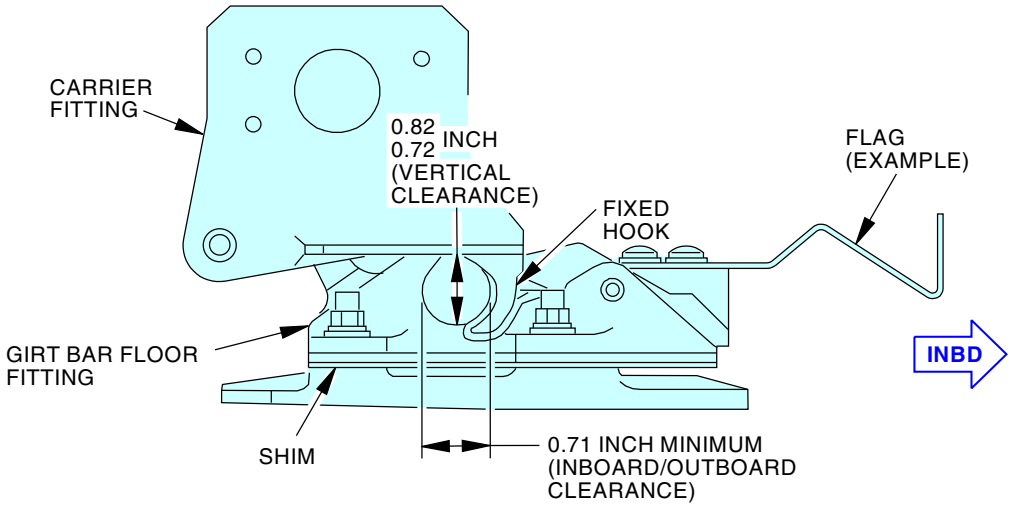
**GIRT BAR MECHANISM
(PED 1, 2, 4 AND 5)
(EXAMPLE)**

A

G67403 S0006425020_V2

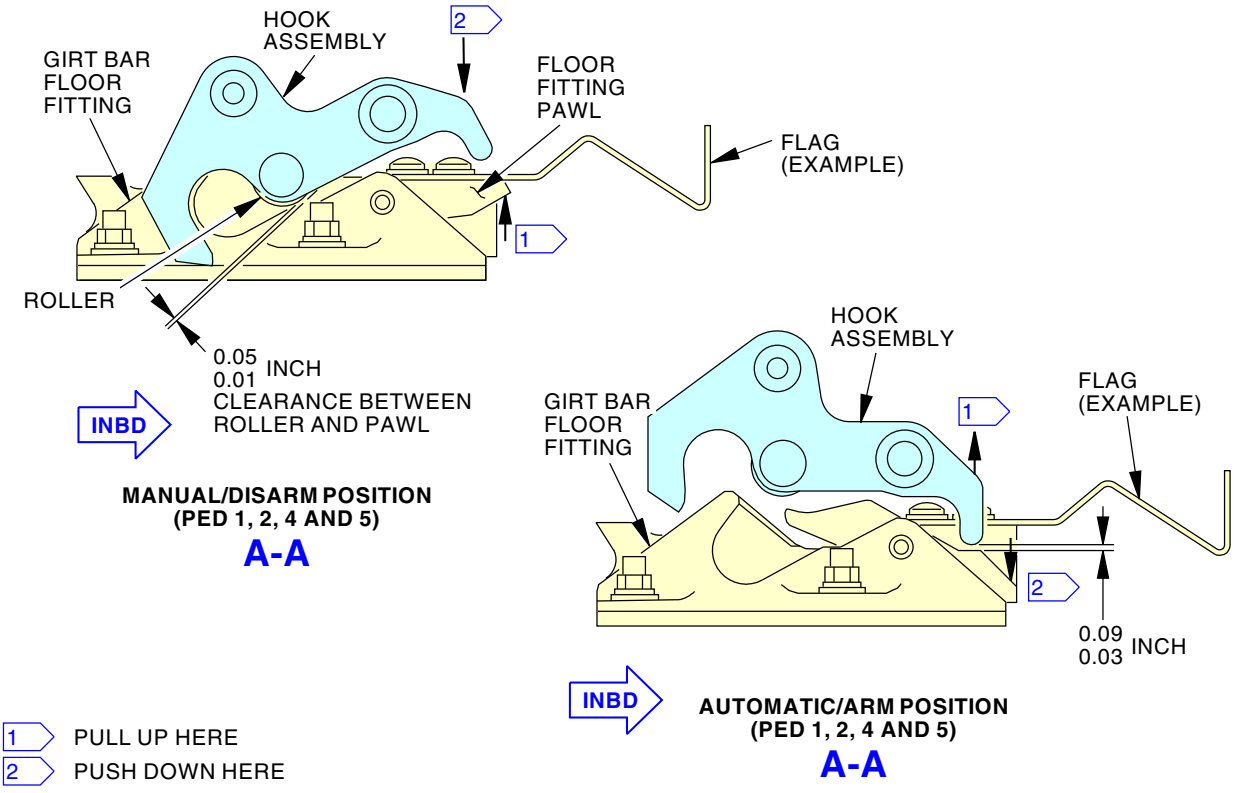
**Girt Bar Floor Fitting Adjustment
Figure 513/52-12-00-990-836 (Sheet 1 of 2)**

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FIXED HOOK AND FLOOR FITTING CLEARANCE
(PED 1, 2, 4 AND 5)

A-A



MANUAL/DISARM POSITION
(PED 1, 2, 4 AND 5)

A-A

AUTOMATIC/ARM POSITION
(PED 1, 2, 4 AND 5)

A-A

G68283 S0006425021_V2

Girt Bar Floor Fitting Adjustment
Figure 513/52-12-00-990-836 (Sheet 2 of 2)

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TASK 52-12-00-730-801

4. Passenger Entry Door System Test

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
25-66-01-820-801	Escape Slide Pack - Girt Material Stowage (P/B 401)
25-66-06-000-801	Bustle Removal (P/B 401)
52-12-19-720-802	Emergency Power Assist System (EPAS) Battery - System Test (PED 3) (P/B 501)
52-12-20-700-801-002	Emergency Power Assist System (EPAS) - System Test (PED 1, 2, 4, 5) (P/B 501)
52-12-25-000-802	Hinge Covers Removal (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)
52-12-25-400-802	Hinge Covers Installation (P/B 201)
52-12-25-400-803	Upper Liner Installation (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1557	Gauge - Force Part #: DG-200 Supplier: 92456 Part #: FDIX 100 Supplier: 0BFD9 Part #: FDIX 50 Supplier: 0BFD9 Part #: LG-010 Supplier: 92456 Part #: LG-050 Supplier: 92456 Part #: LG-100 Supplier: 92456 Opt Part #: DPP-500G Supplier: 92456 Opt Part #: DPPH-150 Supplier: 92456 Opt Part #: DPPH-200 Supplier: 92456 Opt Part #: DPPH-50 Supplier: 92456 Opt Part #: FDI 100 Supplier: 0BFD9 Opt Part #: FDI 50 Supplier: 0BFD9 Opt Part #: FDV 100 Supplier: 0BFD9 Opt Part #: FDV 50 Supplier: 0BFD9
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet
STD-1232	Protractor - Digital
STD-1248	Cord - 2 Foot, 50 lb Working Load

C. Consumable Materials

Reference	Description	Specification
G02438	Wrap - Tie - TY24M (TY-RAP)	

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41

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(Continued)

Zone	Area
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Test

SUBTASK 52-12-00-860-036

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-12-00-860-037

(2) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

(d) Make sure the adjustable height cabin and general access stand, STD-1160 is outboard of the door.

F. Normal Operation Tests

SUBTASK 52-12-00-010-002

(1) Get access to the door mechanisms as follows:

(a) Do this task: Bustle Removal, TASK 25-66-06-000-801.

(b) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

(c) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

SUBTASK 52-12-00-730-001

(2) Clearance Check Test

(a) Make sure the door is closed and latched.

(b) Turn the interior handle slowly to the limits of travel in the open and close directions. Do these checks:

1) Make sure there is clearance between the door to door components and door to cutout components along the forward, aft and bottom edges of the door except for seals to depressors, rollers to tracks, and girt bar floor fittings to girt bar mechanism.

NOTE: Door 3 does not have a girt bar or girt bar floor fittings.

2) Make sure the clearance between the upper edge of the door and the cutout is not less than 0.25 inch.

(c) Push the door slowly in and out of its cutout.

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1) Make sure there is no metal to metal contact.

2) Make sure there is 0.15 inch between rubber and metal and 0.25 inch between metal and metal except for door skin to fuselage skin, seals to depressors, rollers to tracks, girt bar floor fittings to girt bar mechanism, and stop pins to stop pads.

SUBTASK 52-12-00-730-002

(3) Flushness and Skin Clearance Check Test

(a) Make sure the door is open.

(b) Put 0.012-0.014 inch steel or aluminum spacers on the inboard faces of the upper guide tracks as shown, View B-B (Door Closed, Latched, and Wedged Inboard with Spacers Installed), (Figure 501).

(c) Put a plastic tie- TY24M (TY-RAP) tie wrap, G02438 around the outboard part of all the guide tracks.

NOTE: The plastic tie-wraps will push the upper guide rollers against the spacers, and push the lower guide rollers against their guide tracks when you close the door.

NOTE: Use thicker tie-wraps on the lower guide tracks, because there are no spacers there.

(d) Make sure the plastic tie-wraps push the guide rollers inboard sufficiently as follows:

1) Put pieces of 0.002 inch shim on the spacers on the upper guide tracks.

2) Put pieces of 0.002 inch shim on the inboard faces of the lower guide tracks.

3) Close and latch the door.

4) Try to pull out the shims.

5) If you can easily remove a shim, the guide roller is not sufficiently pushed inboard, and the plastic tie-wrap is not thick enough.

(e) Make sure the door is closed and latched.

(f) Make sure the flushness of the door measured at the guide rollers is as shown (Table 504).

NOTE: The door should be inboard of the fuselage.

(g) Make sure the skin clearance between the door skin and fuselage skin measured at the guide rollers is as shown (Table 504).

Table 504/52-12-00-993-819 Passenger Entry Door Flushness and Skin Clearances Measured at Guide Rollers

GUIDE ROLLER	FLUSHNESS (inch)	SKIN CLEARANCES (inch)			
		PED 1	PED 2	PED 3 & 4	PED 5
Forward	0.03-0.09	0.11-0.21	0.13-0.23	0.13-0.23	0.16-0.27
Aft	0.03-0.09	0.12-0.22	0.14-0.24	0.14-0.24	0.23-0.34
ARO 007					
Aft (PED 1)	0.030-0.098				
ARO ALL					

(h) Make sure the clearance between the forward and aft bottom edge of the door skin and the scuff plate (measured within 1.0 inch of the lower tangent point of the corner radius) is 0.06-0.15 inch.

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(i) Open the door.

(j) Remove the spacers and plastic tie-wraps.

SUBTASK 52-12-00-730-003

(4) Interior Handle Mechanism Test

(a) Make sure the door is closed and latched.

(b) Install the digital protractor, STD-1232 on the interior handle.

(c) Turn the interior handle to the 160-170 degree position.

NOTE: The 0 degree position of the interior handle is in the closed and latched position.

(d) Release the interior handle.

(e) Make sure the interior handle turns to the 177-183 degree position.

(f) Turn the interior handle to the 4-5 degree position.

(g) Release the interior handle.

(h) Make sure the interior handle turns less than 2 degrees from the initial position.

(i) Attach the force gauge, COM-1557 one inch from the end of the interior handle.

(j) Make sure the peak operating forces required to raise and lower the door are balanced as follows:

1) Turn the interior handle slowly from the closed position to the open position and do this check:

a) Make sure the highest torque to turn the interior handle is less than 595 pound-inches.

NOTE: The length of the interior handle is 17.0 inches. The maximum force one inch from the end of the handle is 37 pounds. Measure this force when the interior handle is between 30-180 degrees from the closed position.

2) Turn the interior handle slowly from the open position to the closed position and make sure that the highest torque to turn the interior handle and maximum force are as listed:

NOTE: The maximum force is measured one inch from the end of the handle. Measure this force when the interior handle is between 150-30 degrees from the closed position.

Table 505/52-12-00-993-826 Passenger Entry Door Interior Handle Maximum Turning Torque and Force

Door	Turning Torque	Force
1	595 in-lb (67 N·m)	37 lbf (165 N)
2	595 in-lb (67 N·m)	37 lbf (165 N)
ARO 001-007, 009-999		
3	750 in-lb (85 N·m)	47 lbf (209 N)
ARO 008		
3R	750 in-lb (85 N·m)	47 lbf (209 N)
3L	780 in-lb (88 N·m)	49 lbf (218 N)

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ARO 008 (Continued)

Table 505/52-12-00-993-826 Passenger Entry Door Interior Handle Maximum Turning Torque and Force (Continued)

Door	Turning Torque	Force
ARO ALL		
4	595 in-lb (67 N·m)	37 lbf (165 N)
5	595 in-lb (67 N·m)	37 lbf (165 N)

3) Make sure the maximum force to move the interior handle from the open position to the closed position and to move the interior handle from the closed position to the open position are within 50 percent of each other.

NOTE: This requirement is for PED 1, 2, 4, and 5.

NOTE: For example, if one measures 24 pounds the other must measure between 12-36 pounds.

(k) Remove the force gauge, COM-1557.

(l) Remove the digital protractor, STD-1232 on the interior handle.

SUBTASK 52-12-00-730-004

(5) Exterior Handle Mechanism Test

(a) Make sure the door is open.

(b) Push the lower edge of the forward exterior handle pan cover and do this check:

1) Make sure the force to start to turn the exterior handle is 0.90-1.40 pounds.

(c) Push the lower edge of the aft exterior handle pan cover and do this check:

1) Make sure the force to start to turn the exterior handle is 0.90-1.40 pounds.

(d) Put a single loop of 2 foot cord, STD-1248 around each wing of the exterior handle.

(e) Attach the force gauge, COM-1557 to the loop of 2 foot cord, STD-1248 aligned with the center of the exterior handle.

(f) Pull the exterior handle outboard and do this check:

1) Make sure the force to pull the exterior handle fully outboard is 15-35 pounds.

(g) Release the exterior handle from the fully outboard position and let it retract.

(h) Pull the exterior handle outboard 0.75-1.25 inches.

(i) Turn the exterior handle in the open and close directions with a torque of 50-150 pound-inches. The length of the exterior handle is 14.9 inches. The force one inch from the end of one side of the exterior handle is 8-23 pounds. The force one inch from each end of the handle is 4-12 pounds.

(j) Make sure the maximum total range of rotation is less than 4 degrees.

(k) Pull the exterior handle to its fully outboard position and turn until the clutches engage.

(l) Push the door into its cutout.

(m) Turn the exterior handle slowly from the open position to the closed position and make sure that the maximum torque to turn the interior handle, and force, are as listed:

NOTE: The maximum forces is measured one inch from the end of the handle, and one inch from each end. Measure this force when the interior handle is between 150-30 degrees from the closed position.

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Table 506/52-12-00-993-827 Passenger Entry Door Exterior Handle Maximum Turning Torque and Force

Door	Turning Torque	Force From One End	Force From Two Ends
1	595 in-lb (67 N·m)	92 lbf (409 N)	46 lbf (205 N)
2	595 in-lb (67 N·m)	92 lbf (409 N)	46 lbf (205 N)
ARO 001-007, 009-999			
3	830 in-lb (94 N·m)	124 lbf (552 N)	62 lbf (276 N)
ARO 008			
3R	830 in-lb (94 N·m)	124 lbf (552 N)	62 lbf (276 N)
3L	830 in-lb (94 N·m)	128 lbf (569 N)	64 lbf (285 N)
ARO ALL			
4	595 in-lb (67 N·m)	92 lbf (409 N)	46 lbf (205 N)
5	595 in-lb (67 N·m)	92 lbf (409 N)	46 lbf (205 N)

(n) Turn the exterior handle slowly from the closed position to the open position and do this check:

1) Make sure the highest torque to turn the exterior handle is less than 595 pound-inches. The maximum force one inch from the end of one side of the exterior handle is 92 pounds. The maximum force one inch from each end of the handle is 46 pounds.

(o) Remove the 2 foot cord, STD-1248 and force gauge, COM-1557.

(p) Close and latch the door.

SUBTASK 52-12-00-730-005

(6) Door Lift Test

(a) Make sure the door is closed and latched.

(b) Turn the interior handle from the closed position to the open position and do these checks for vertical lift at the increments that follow:

1) When the interior handle is at 30 ±3 degrees, make sure the vertical lift is less than 0.10 inch.

2) When the interior handle is at 70 ±3 degrees, make sure the vertical lift is 0.15-0.30 inch.

(c) Turn the interior handle to the open position.

(d) Make sure the latch rollers are clear of the latch tracks when turned.

(e) Turn the interior handle from the closed position to the open position and back to the closed position three times.

(f) Make sure the door moves smoothly with no binding.

(g) Open the door.

(h) Make sure there is no galling on the slider to splined shaft interface on the hinge arm.

(i) Close and latch the door.

SUBTASK 52-12-00-730-006

(7) Hinge and Snubber Test

(a) Make sure the door is closed and latched.

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(b) Turn the interior handle to the open position.

(c) Push the door out of its cutout to the fully open position with a force of 15-25 pounds on the interior handle grip and do these checks:

1) Make sure the time to push the door to the fully open position is 3-7 seconds.

2) Make sure the hold-open hook and catch have engaged.

(d) Pull the door in the closed direction with a force of 60-90 pounds at the interior handle grip and do this check:

1) Make sure the hold-open catch does not let the door move.

(e) Pull the hold-open handle to release the hook.

1) Make sure the hold-open hook and catch release smoothly.

2) Make sure the force to release the hold-open hook is 6-25 pounds measured at the end of the hold-open handle.

(f) Pull the door into its cutout to the fully closed position with a force of 15-25 pounds on the interior handle grip and do this check:

1) Make sure the time to pull the door into its cutout is 3-7 seconds.

(g) Push the door out of its cutout to its fully open position with a force of 50-70 pounds on the interior handle grip and do this check:

1) Make sure the time to push the door to the fully open position is 3-7 seconds.

(h) Pull the hold-open handle to release the hook.

(i) Pull the door into its cutout to the fully closed position with a force of 50-70 pounds on the interior handle grip and do this check:

1) Make sure the time to pull the door into its cutout is 3-7 seconds.

(j) Open the door to the fully open position.

(k) Apply a 26-28 pound force to the inboard, forward part of the long chain ± 0.5 inch of the middle of the straight length of chain.

(l) Make sure the average chain deflection is 0.14-0.18 inch.

(m) Close and latch the door.

SUBTASK 52-12-00-730-007

(8) Vent Door Test

(a) Make sure the door is closed and latched.

(b) Turn the interior handle from the closed position to the open position and do this check:

1) Make sure the angular position of the vent door relative to its closed position is 43-49 degrees.

(c) Turn the interior handle slowly from the open position to the closed position and do this check:

1) Make sure the angular position of the interior handle when the vent door starts to close is 24-30 degrees.

(d) Close and latch the door.

(e) Put an outboard force of 22-26 pounds at the top center of the vent door.

(f) Turn the interior handle from the closed position to the open position with a torque of 375-525 pound-inches and do this check:

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1) Make sure the interlock roller engages when the interior handle turns 29-35 degrees.

(g) Close and latch the door.

(h) Apply an inboard force of 70-80 pounds at the top center of the vent door and do this check:

1) Make sure the vent door does not turn more than 3 degrees.

(i) Close and latch the door.

SUBTASK 52-12-00-410-002

(9) Close access as follows:

(a) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

(b) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

G. Mechanical Systems Tests

SUBTASK 52-12-00-730-008

(1) Mode Select Handle Test

NOTE: Two persons are necessary to do part of this procedure: one person on the internal side of the door and one person on the external side of the door.

(a) Make sure the door is closed and latched.

(b) For the overwing emergency exit door (PED 3), make sure the off-wing escape system is disarmed (TASK 25-65-00-040-801).

(c) For PED 1, 2, 4, and 5, make sure the EPAS battery safety switch is in the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

(d) Slowly move the mode select handle to the AUTOMATIC/ARM position and back to the MANUAL/DISARM position three times.

(e) Make sure the mode select handle is in the MANUAL/DISARM position.

(f) Attach the force gauge, COM-1557 one inch from the end of the mode select handle.

(g) Move the mode select handle to the AUTOMATIC/ARM position and do these checks:

1) Make sure the highest torque to move the mode select handle is less than 55 pound-inches. The length of the mode select handle is 5.25 inches. The maximum force one inch from the end of the handle is 13 pounds.

2) Make sure the mode select handle turns 42-48 degrees.

(h) Move the mode select handle to the MANUAL/DISARM position and do this check:

1) Make sure the highest torque to move the mode select handle to the MANUAL/DISARM position is 55 pound-inches. The maximum force one inch from the end of the handle is 13 pounds.

(i) Remove the force gauge, COM-1557.

(j) Move the mode select handle to the AUTOMATIC/ARM position.

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WARNING DO NOT OPEN THE DOOR WITH THE INTERIOR HANDLE WHEN THE ESCAPE SYSTEM ARMED. IF ALL OF THE SAFETY STEPS ABOVE HAVE NOT BEEN DONE AND THE DOOR IS OPENED WITH THE INTERIOR HANDLE WHEN THE ESCAPE SYSTEM ARMED, THE ESCAPE SYSTEM CAN DEPLOY AND INJURIES OR DAMAGE CAN OCCUR.

(k) Put one person on the exterior side of the door and one person on the interior side of the door to do these checks or use another door to get to the exterior side of the door when the escape system is armed.

(l) Put a single loop of 2 foot cord, STD-1248 around each wing of the exterior handle.

(m) Attach the force gauge, COM-1557 to the loop of 2 foot cord, STD-1248 aligned with the center of the exterior handle.

(n) Pull the exterior handle slowly outboard and do these checks:

1) Make sure the distance the exterior handle travels from the stowed position to when the mode select handle starts to turn toward the MANUAL/DISARM position is 0.25-0.35 inch.

2) Make sure the force to pull out the exterior handle is 27-50 pounds.

3) Make sure the mode select handle moves to the MANUAL/DISARM position.

(o) Turn the exterior handle to the open position and open the door.

(p) Remove the 2 foot cord, STD-1248 and the force gauge, COM-1557.

(q) For PED 1, 2, 4, and 5 make sure the girt bar is lifted and held on the bottom of the door.

(r) Close and latch the door.

SUBTASK 52-12-00-730-009

(2) Girt Bar Mechanism Test

NOTE: This test is for PED 1, 2, 4, and 5.

(a) Make sure the door is closed and latched.

(b) Make sure the EPAS battery safety switch is in the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

(c) Install the for the inflation cylinder of the escape slide pack.

(d) Open the door.

(e) Install the for the girt release of the escape slide pack.

(f) Close and latch the door.

(g) Make sure the girt bar is in the girt bar floor fittings.

(h) Make sure the outboard end of the forward and aft girt bar floor fitting pawls are turned down sufficiently to allow the girt bar to be removed.

(i) Turn the interior handle to the open position and do this check:

1) Make sure the girt bar is lifted as the door is lifted.

(j) Make sure the minimum clearance between the ends of the fixed hook and the moving hook is less than 0.40 inch measured perpendicular to the girt bar centerline on the forward and aft sides of the door.

(k) Move the mode select handle toward the AUTOMATIC/ARM position and do this check:

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1) Make sure the girt bar does not drop and the mode select handle cannot be moved to the AUTOMATIC/ARM position.

(l) Close and latch the door.

(m) Move the mode select handle to the AUTOMATIC/ARM position.

(n) Make sure the outboard end of the forward and aft girt bar floor fitting pawls are in position to hold the girt bar in the floor fittings.

WARNING HOLD THE DOOR AND DO NOT LET THE DOOR MOVE FROM THE CUTOUT. IF ALL OF THE SAFETY STEPS ABOVE HAVE NOT BEEN DONE AND THE DOOR MOVES OUT OF THE CUTOUT, THE ESCAPE SYSTEM CAN DEPLOY AND INJURIES OR DAMAGE CAN OCCUR.

(o) Turn the interior handle to the open position, but do not let the door move out of the cutout. Do this check:

1) Make sure the girt bar is held in the girt bar floor fittings as the door lifts.

(p) Make sure the mode select handle cannot be moved to the MANUAL/DISARM position.

(q) Turn the interior handle to the closed position.

(r) Move the mode select handle to the MANUAL/DISARM position.

(s) Do this task: Escape Slide Pack - Girt Material Stowage, TASK 25-66-01-820-801.

SUBTASK 52-12-00-730-010

(3) Girt Bar and Mode Select Handle Indication Test

NOTE: This test is for PED 1, 2, 4, and 5.

(a) Make sure the door is closed and latched.

(b) Move the mode select handle to the AUTOMATIC/ARM position.

(c) Make sure the minimum clearance between the upper liner and the handle finger grip is 0.75 inch.

(d) Make sure the yellow flags show in the view ports at the bottom of the doorway lining.

(e) Move the mode select handle to the MANUAL/DISARM position.

(f) Make sure the minimum clearance between the upper liner and the handle finger grip is 0.75 inch.

(g) Make sure the yellow flags do not show in the view ports at the bottom of the doorway lining.

H. Electrical Systems Tests

SUBTASK 52-12-00-730-018

(1) For PED 1, 2, 4, and 5, do this task: Emergency Power Assist System (EPAS) - System Test (PED 1, 2, 4, 5), TASK 52-12-20-700-801-002.

SUBTASK 52-12-00-730-017

(2) For the over-wing emergency exit door (PED 3), do this task: Emergency Power Assist System (EPAS) Battery - System Test (PED 3), TASK 52-12-19-720-802.

SUBTASK 52-12-00-730-016

(3) EPAS Battery Safety Switch Hinge Cover Interference Test

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

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(b) Make sure the EPAS battery safety switch is in the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

(c) Make sure the safety switch lever holds the hinge cover open a minimum of 0.60 inches.

(d) Turn the interior handle to the open position.

(e) Push the door out of its cutout to the fully open position and do this check:

1) Make sure the hinge cover operates smoothly and that there is no interference or binding.

(f) Pull the hold-open handle to release the hook and pull the door into its cutout.

(g) Turn the interior handle to the closed position and do this check:

1) Make sure the hinge cover operates smoothly and there is no interference or binding.

(h) Turn the EPAS battery safety switch to the ARM position.

(i) Turn the interior handle to the open position.

(j) Push the door out of its cutout to the fully open position and do this check:

1) Make sure the hinge cover operates smoothly and that there is no interference or binding.

(k) Pull the hold-open handle to release the hook and pull the door into its cutout.

(l) Turn the interior handle to the closed position and do this check:

1) Make sure the hinge cover operates smoothly and there is no interference or binding.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-00-860-044

(1) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

TASK 52-12-00-720-801

5. Passenger Entry Door Mechanisms Functional Test

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is a functional/operational test of the latch mechanism, hinge mechanism, handle mechanism, vent door mechanism, mode select mechanism, girt bar mechanism, hold-open mechanism, snubber, and EPAS actuator.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

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Reference	Description
COM-1557	Gauge - Force Part #: DG-200 Supplier: 92456 Part #: FDIX 100 Supplier: 0BFD9 Part #: FDIX 50 Supplier: 0BFD9 Part #: LG-010 Supplier: 92456 Part #: LG-050 Supplier: 92456 Part #: LG-100 Supplier: 92456 Opt Part #: DPP-500G Supplier: 92456 Opt Part #: DPPH-150 Supplier: 92456 Opt Part #: DPPH-200 Supplier: 92456 Opt Part #: DPPH-50 Supplier: 92456 Opt Part #: FDI 100 Supplier: 0BFD9 Opt Part #: FDI 50 Supplier: 0BFD9 Opt Part #: FDV 100 Supplier: 0BFD9 Opt Part #: FDV 50 Supplier: 0BFD9
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet
STD-1248	Cord - 2 Foot, 50 lb Working Load

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Prepare for the Test

SUBTASK 52-12-00-860-039

(1) Make sure the door is safe as follows:

(a) Make sure the door is in the closed position.

(b) Make sure the mode select handle is in the MANUAL/DISARM position.

(c) Make sure the adjustable height cabin and general access stand, STD-1160 is outboard of the door.

E. Test

SUBTASK 52-12-00-710-005

(1) Open the door as follows:

(a) Turn the interior handle to the open position.

(b) Make sure the vent door opens.

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(c) Make sure the highest torque to turn the interior handle is less than 595 pound-inches.

NOTE: The maximum force one inch from the end of the handle is 37 pounds. Measure this force when the interior handle is between 150-30 degrees from the closed position.

(d) Make sure the door unlatches and lifts smoothly.

(e) Make sure the vertical lift of the door is 1.95-2.15 inches.

(f) Move the door open.

(g) Make sure the latch rollers smoothly disengage from the latch tracks.

(h) Make sure the guide rollers smoothly disengage from the guide tracks.

(i) Push the door out of its cutout to its fully open position with a force of 50-70 pounds on the interior handle.

(j) Make sure the time to push the door to the fully open position is 3-7 seconds.

(k) Make sure the door structure does not touch the cutout as it opens.

(l) Make sure the hold-open engages and holds the door in the open position.

SUBTASK 52-12-00-710-006

(2) Close the door as follows:

(a) Pull the hold-open handle to disengage the hold-open.

(b) Pull the door into the cutout slowly.

(c) Make sure the programming mechanism chain and EPAS Actuator operate smoothly and correctly with no binding or chattering.

(d) Put a single loop of 2 foot cord, STD-1248 around each wing of the exterior handle.

(e) Attach the force gauge, COM-1557 to the loop of 2 foot cord, STD-1248 aligned with the center of the exterior handle.

(f) From the external side of the door, make sure the force to pull the exterior handle outboard is 15-35 pounds.

(g) Release the exterior handle.

(h) Remove the 2 foot cord, STD-1248 and the force gauge, COM-1557.

(i) From the internal side of the door, turn the interior handle to the closed position.

(j) Make sure the door structure does not touch the cutout as it lowers and latches.

(k) Make sure the door lowers and latches smoothly.

(l) Make sure the latch rollers smoothly engage the latch tracks.

(m) Make sure the guide rollers smoothly engage the guide tracks.

(n) Make sure the vent door closes.

SUBTASK 52-12-00-710-007

(3) Arm and disarm the escape system as follows:

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WARNING DO NOT OPEN THE DOOR WITH THE INTERIOR HANDLE WHEN THE ESCAPE SYSTEM ARMED. IF THE DOOR IS OPENED WITH THE INTERIOR HANDLE WHEN THE ESCAPE SYSTEM ARMED, THE ESCAPE SYSTEM CAN DEPLOY AND INJURIES OR DAMAGE CAN OCCUR.

(a) Put one person on the exterior side of the door and one person on the interior side of the door to do these checks or use another door to get to the exterior side of the door when the escape system is armed.

(b) Make sure the door is in the closed position.

(c) Move the mode select handle to the AUTOMATIC/ARM position.

(d) For PED 1, 2, 4, and 5 make sure the yellow flags show in the view ports at the bottom of the doorway lining.

NOTE: The flags show that the girt bar mechanism is engaged.

(e) Pull the exterior handle from its recess to disarm the escape system.

(f) Make sure the mode select handle moved to the MANUAL/DISARM position when you pulled the exterior handle from its recess.

END OF TASK

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PASSENGER ENTRY DOOR - INSPECTION/CHECK

1. General

A. This procedure has these tasks:

(1) A fast check of the passenger entry door.

(2) An inspection of the passenger entry door.

TASK 52-12-00-200-801

2. Passenger Entry Door Fast Check

(Figure 601)

A. General

(1) This procedure is a fast check of the operation and rigging of the passenger entry doors and the over-wing emergency exit door (PED 3). This procedure is not a full system test. For a full system test, do this task: Passenger Entry Door System Test, TASK 52-12-00-730-801.

(2) If the door does not operate correctly or if it is not rigged correctly, do this task: Passenger Entry Door Adjustment, TASK 52-12-00-820-801.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
25-66-06-000-801	Bustle Removal (P/B 401)
25-66-06-400-801	Bustle Installation (P/B 401)
31-61-00-800-814	Showing Alert Messages (P/B 201)
31-61-00-800-816	Showing a System Synoptic Page (P/B 201)
52-12-00-730-801	Passenger Entry Door System Test (P/B 501)
52-12-00-820-801	Passenger Entry Door Adjustment (P/B 501)
52-12-25-000-802	Hinge Covers Removal (P/B 201)
52-12-25-400-802	Hinge Covers Installation (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-754	Scale - Spring, 0-150 Pounds, With Hook and Pad Adapter Kit Part #: DG-200 Supplier: 92456 Opt Part #: DPPH-150 Supplier: 92456

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(Continued)

Reference	Description
COM-1557	Gauge - Force Part #: DG-200 Supplier: 92456 Part #: FDIX 100 Supplier: 0BFD9 Part #: FDIX 50 Supplier: 0BFD9 Part #: LG-010 Supplier: 92456 Part #: LG-050 Supplier: 92456 Part #: LG-100 Supplier: 92456 Opt Part #: DPP-500G Supplier: 92456 Opt Part #: DPPH-150 Supplier: 92456 Opt Part #: DPPH-200 Supplier: 92456 Opt Part #: DPPH-50 Supplier: 92456 Opt Part #: FDI 100 Supplier: 0BFD9 Opt Part #: FDI 50 Supplier: 0BFD9 Opt Part #: FDV 100 Supplier: 0BFD9 Opt Part #: FDV 50 Supplier: 0BFD9
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet
STD-1248	Cord - 2 Foot, 50 lb Working Load

D. Consumable Materials

Reference	Description	Specification
G00165	Wire - Electrical, Fluoropolymer Insulated, Copper	MIL-W-22759
G02020	Clay, Modeling	
G02329	Tape - Aluminum Foil, Pressure Sensitive - Vibration Damping Tape 434	

E. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

F. Prepare for the Fast Check

SUBTASK 52-12-00-860-040

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-12-00-860-041

(2) Make sure the door is safe as follows:

(a) Make sure the door is in the closed and latched position.

(b) Make sure the mode select handle is in the MANUAL/DISARM position.

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(c) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the off-wing escape slide compartment door latch actuator.

(d) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

(e) Make sure the adjustable height cabin and general access stand, STD-1160 is outboard of the door.

SUBTASK 52-12-00-010-004

(3) Get access to the door mechanisms as follows:

(a) Do this task: Bustle Removal, TASK 25-66-06-000-801.

(b) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

G. Fast Check

SUBTASK 52-12-00-710-008

(1) Door Open Operation Check

NOTE: This is a check of normal door open operation.

(a) Turn the interior handle to the open position.

(b) Make sure the vent door opens.

(c) Make sure the door unlatches and lifts smoothly.

(d) Make sure the applicable EICAS alert message shows (Table 601). To show the message, do this task: Showing Alert Messages, TASK 31-61-00-800-814.

NOTE: If two or more doors of any kind are not closed, latched and locked, the EICAS alert message DOORS will show and the individual message for the door will not show.

Table 601/52-12-00-993-821 Passenger Entry Door EICAS Alert Messages

PED	EICAS ALERT MESSAGE
1L	DOOR ENTRY 1L
1R	DOOR ENTRY 1R
2L	DOOR ENTRY 2L
2R	DOOR ENTRY 2R
3L	DOOR ENTRY 3L
3R	DOOR ENTRY 3R
4L	DOOR ENTRY 4L
4R	DOOR ENTRY 4R
5L	DOOR ENTRY 5L
5R	DOOR ENTRY 5R

(e) Make sure the door shows on the DOOR system synoptic page. To show the page, do this task: Showing a System Synoptic Page, TASK 31-61-00-800-816.

(f) Open the door.

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(g) Make sure the latch rollers smoothly disengage from the latch tracks.

(h) Make sure the guide rollers smoothly disengage from the guide tracks.

(i) Make sure the door structure does not touch the cutout as it opens.

(j) Make sure there is not too much free play of the door (wobble) as it opens.

NOTE: This is a check of the programming mechanism chain pre-tension.

(k) Make sure the hold-open engages and holds the door in the fully open position.

SUBTASK 52-12-00-710-009

(2) Door Close Operation Check

NOTE: This is a check of the normal door close operation.

(a) Attach a force gauge, COM-1557 to the end of the hold-open handle.

(b) Pull the hold-open handle to disengage the hold-open hook.

(c) Make sure the force to release the hold-open hook is 6-25 pounds measured at the end of the hold-open handle.

(d) Release the hold-open handle and remove the force gauge, COM-1557.

(e) Apply clay, G02020 to the horizontal surfaces of the guide tracks and upper horizontal surface of the latch tracks.

(f) Pull the door into the cutout.

(g) Turn the interior handle to the closed position.

(h) Make sure the door structure does not touch the cutout as it lowers and latches.

(i) Make sure the door lowers and latches smoothly.

(j) Make sure the latch rollers smoothly engage the latch tracks.

(k) Make sure the guide rollers smoothly engage the guide tracks.

(l) Make sure the vent door closes.

(m) Make sure the interior handle stays in the closed position.

NOTE: This is a check of the gas spring. If the gas spring has failed, the interior handle will not stay in the closed position.

(n) Make sure the applicable EICAS alert message does not show (Table 601).

(o) Make sure the door does not show on the DOOR system synoptic page.

(p) Open the door with the exterior handle.

(q) Examine the clay, G02020 on the guide tracks and latch tracks as follows:

1) Make sure the guide rollers did not touch the horizontal surfaces of the guide tracks.

2) Make sure the latch rollers did not touch the upper horizontal surfaces of the latch tracks.

(r) Remove the clay, G02020.

(s) Close and latch the door with the interior handle.

(t) Make sure the exterior handle goes into its recess and is smooth against the door skin.

SUBTASK 52-12-00-710-010

(3) PED 1, 2, 4, and 5 Arming Operation Check

NOTE: Use two persons to do this procedure. It is easier to hold the door in the cutout with two persons.

(a) Make sure the door is closed and latched.

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(b) Make sure the mode select handle is in the MANUAL/DISARM position.

(c) Remove the safety pins for the inflation cylinder and the pack release from the storage pouch on the escape slide pack.

(d) Install the safety pin for the inflation cylinder of the escape slide pack.

(e) Open the door.

(f) Install the safety pin for the pack release of the escape slide pack.

(g) Close and latch the door.

(h) Make sure the EPAS battery safety switch is in the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

(i) Move the mode select handle to the AUTOMATIC/ARM position.

(j) Make sure the yellow flags show in the view ports at the bottom of the doorway lining.

WARNING

HOLD THE DOOR AND DO NOT LET IT MOVE FROM THE CUTOUT. IF ALL OF THE SAFETY STEPS ABOVE HAVE NOT BEEN DONE AND THE DOOR MOVES OUT OF THE CUTOUT, THE ESCAPE SLIDE CAN DEPLOY AND INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(k) Turn the interior handle to the open position, but do not let the door move out of the cutout. Do these checks:

1) Make sure the girt bar is held in the girt bar floor fittings as the door lifts.

2) Make sure the mode select handle cannot be moved to the MANUAL/DISARM position.

NOTE: This is a check of the girt bar mechanism interlock.

(l) Turn the interior handle to the close position.

(m) Move the mode select handle to the MANUAL/DISARM position.

(n) Open the door.

(o) Make sure the girt bar is lifted and held on the bottom of the door.

(p) Make sure the mode select handle cannot be moved to the AUTOMATIC/ARM position.

(q) Make sure the clearance between the end crank and interlock on each side of the girt bar mechanism is as shown, View F and C-C (Figure 601). Do these steps:

1) Deflect the interlocks on each side of the girt bar mechanism and move the mode select handle to the AUTOMATIC/ARM position.

NOTE: This will release the girt bar from the girt bar mechanism.

2) Use wire, G00165 to attach the girt bar to the inboard side of the escape slide pack so that it cannot engage the girt bar mechanism.

3) Move the mode select handle to a position between the AUTOMATIC/ARM and MANUAL/DISARM position and install blocks to hold the handle in this position.

NOTE: You can use balls of tape as blocks to hold the handle in the position.

4) Install a 0.06 inch spacer between the end crank and interlock on each side of the girt bar mechanism.

NOTE: Install the top edge of the spacer between the end crank and interlock so that the spacer is ready to fall.

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5) Close and latch the door.

6) Make sure the spacer falls from between the end crank and interlock.

7) Open the door.

8) Install a 0.09 inch spacer between the end crank and interlock on each side of the girt bar mechanism.

9) Close and latch the door.

10) Make sure the spacer does not fall from between the end crank and interlock.

11) Open the door and remove the spacer.

12) Close and latch the door.

(r) Install the girt bar in the floor fittings as follows:

1) Move the mode select handle to the AUTOMATIC/ARM position.

WARNING HOLD THE DOOR AND DO NOT LET IT MOVE FROM THE CUTOUT. IF THE DOOR MOVES FROM THE CUTOUT WITH THE GIRT BAR LOCKED IN THE FLOOR FITTINGS, THE ESCAPE SLIDE CAN DEPLOY, AND INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

2) Turn the interior handle approximately 135 degrees to unlatch and lift the door, but do not let the door lift past the door stops.

NOTE: This will make sure the door is held behind the door stops and cannot move from the cutout while you remove the safety pin for the pack release.

3) Remove the wire, G00165 from the girt bar and escape slide pack.

4) Push the ends of the girt bar into the floor fittings until they lock in the correct position.

5) Make sure the girt material does not hang below the door bottom seal.

NOTE: If there is interference between the girt material and the door bottom seal, air leaks and noise can occur when the airplane is in flight.

a) If the escape slide pack has a girt storage tray, push the girt material back into the tray if it has pulled out.

b) If the escape slide pack does not have a girt storage tray, make sure the hook-and-loop material holds the girt material correctly.

6) Remove the safety pin from the pack release of the escape slide pack.

7) Turn the interior handle to the close position to latch the door.

(s) Move the mode select handle to the MANUAL/DISARM position.

(t) Remove the safety pin from the inflation cylinder of the escape slide pack.

(u) Put the safety pins in the storage pouch on the escape slide pack.

SUBTASK 52-12-00-710-011

(4) Over-Wing Emergency Exit Door (PED 3) Arming Operation Check

(a) Make sure the door is closed and latched.

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WARNING MAKE SURE THE OFF-WING ESCAPE SYSTEM IS DISARMED. IF YOU DO NOT OBEY THIS INSTRUCTION, THE OFF-WING ESCAPE SLIDE WILL DEPLOY WHEN YOU OPEN THE DOOR, AND DAMAGE TO EQUIPMENT OR INJURY TO PERSONS CAN OCCUR.

(b) Make sure the off-wing escape system is disarmed (TASK 25-65-00-040-801).

(c) Move the mode select handle to the AUTOMATIC/ARM position.

(d) Open the door.

(e) Make sure the mode select handle cannot be moved to the MANUAL/DISARM position.

(f) CLose and latch the door.

(g) Move the mode select handle to the MANUAL/DISARM position.

(h) Open the door.

(i) Make sure the mode select handle cannot be moved to the AUTOMATIC/ARM position.

(j) CLose and latch the door.

SUBTASK 52-12-00-720-001

(5) Handle Forces Check

NOTE: This is a check of the interior handle, exterior handle and mode select handle forces. Two persons are recommended to do part of this procedure: one person on the interior side of the door and one person on the exterior side of the door.

(a) Make sure the door is closed and latched.

(b) Attach the force gauge, COM-1557 one inch from the end of the interior handle.

(c) Turn the interior handle slowly from the closed position to the open position and do this check:

1) Make sure the highest torque to turn the interior handle is less than 595 pound-inches. The length of the interior handle is 17.0 inches. The maximum force one inch from the end of the handle is 37 pounds.

(d) Remove the force gauge, COM-1557.

(e) Close and latch the door.

WARNING DO NOT OPEN THE DOOR FROM THE INTERIOR SIDE OF THE AIRPLANE WHEN THE ESCAPE SYSTEM IS ARMED. THE ESCAPE SYSTEM WILL DEPLOY AND INJURIES OR DAMAGE CAN OCCUR.

(f) Put one person on the exterior side of the door and one person on the interior side of the door to do these checks or use another door to get to the exterior side of the door when the escape system is armed.

(g) Move the mode select handle to the AUTOMATIC/ARM position.

(h) Put a single loop of 2 foot cord, STD-1248 around each wing of the exterior handle.

(i) Attach the force gauge, COM-1557 to the loop of 2 foot cord, STD-1248 aligned with the center of the exterior handle.

(j) Pull the exterior handle slowly outboard and do these checks:

1) Make sure the distance the exterior handle travels from the stowed position to when the mode select handle starts to turn toward the MANUAL/DISARM position is 0.25-0.35 inch.

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2) Make sure the force to pull out the exterior handle is 27-50 pounds.

3) Make sure the mode select handle moves to the MANUAL/DISARM position.

(k) Release exterior handle and let it retract.

(l) Pull the exterior handle outboard and do this check:

1) Make sure the force to pull the exterior handle fully outboard is 15-35 pounds.

(m) Remove the 2 foot cord, STD-1248 and force gauge, COM-1557.

(n) Attach the spring scale, COM-754 one inch from the end of the exterior handle.

(o) Turn the exterior handle slowly from the closed position to the open position and do this check:

1) Make sure the highest torque to turn the exterior handle is less than 595 pound-inches. The length of the exterior handle is 14.9 inches. The maximum force one inch from the end of one side of the exterior handle is 92 pounds. The maximum force one inch from each end of the handle is 46 pounds.

(p) Remove the spring scale, COM-754.

(q) Close and latch the door.

(r) Attach the force gauge, COM-1557 one inch from the end of the mode select handle.

(s) Move the mode select handle from the MANUAL/DISARM position to the AUTOMATIC/ARM position and back to the MANUAL/DISARM position and do this check:

1) Make sure the highest torque to move the mode select handle is less than 55 pound-inches. The length of the mode select handle is 5.25 inches. The maximum force one inch from the end of the handle is 13 pounds.

(t) Remove the force gauge, COM-1557.

SUBTASK 52-12-00-720-002

(6) Flushness and Skin Clearance Check

NOTE: This is a check of the door flushness and skin clearance at the guide rollers.

(a) Open the door.

(b) Make spacers for the adjustments that follow, View A and A-A (Figure 601). Do these steps:

NOTE: The spacers push the door inboard when the door is closed and latched.

1) Use one 0.026-0.028 inch steel or aluminum strip for the outboard surface of each lower guide track.

2) Use one 0.012-0.014 inch steel or aluminum strip for the inboard and outboard surfaces of each upper guide track.

3) Apply 0.09-0.13 inch compression foam tape to the parts of the metal strips that touch the outboard surfaces of the guide tracks.

4) Bend the 0.026-0.028 inch metal strips to wrap around the outboard surface of each lower guide track.

5) Bend the 0.012-0.014 inch metal strips to wrap around the inboard and outboard surfaces of each upper guide track in a U-shape.

6) Make marks on the spacers to show at which guide track they are to be installed.

(c) Install the spacers.

(d) Close and latch the door.

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(e) Make sure the flushness of the door measured at the guide rollers is as shown (Table 602).

NOTE: The door should be inboard of the fuselage.

(f) Make sure the skin clearance between the door skin and fuselage skin measured at the guide rollers is as shown (Table 602).

Table 602/52-12-00-993-822 Passenger Entry Door Flushness and Skin Clearances Measured at Guide Rollers

GUIDE ROLLER	FLUSHNESS (inch)	SKIN CLEARANCES (inch)			
		PED 1	PED 2 & 3	PED 4	PED 5
Forward	0.03-0.09	0.11-0.21	0.13-0.23	0.13-0.23	0.16-0.27
Aft	0.03-0.09	0.12-0.22	0.14-0.24	0.14-0.23	0.23-0.34
ARO 007					
Aft (PED 1)	0.030-0.098				

ARO ALL

(g) Make sure the clearance between the forward and aft bottom edge of the door skin and the scuff plate (measured within 1.0 inch of the lower tangent point of the corner radius) is 0.06-0.15 inch.

(h) Open the door.

(i) Remove the spacers.

SUBTASK 52-12-00-720-003

(7) Programming Mechanism Chain Pre-Tension Check

NOTE: This is a check of the programming mechanism chain which controls door free play (wobble).

(a) Get access to the upper door hinge bolt nut.

(b) Make sure the nut is torqued to 270 ±10 pound inches.

NOTE: A loose hinge bolt will allow too much free play, causing the door to contact the guide and latch tracks on the fuselage door frame.

(c) Open and close the door to even out the programming mechanism chain pre-tension.

NOTE: The programming mechanism chain has two chains: one short chain (approximately one foot long) and one long chain (approximately three feet long).

(d) Apply a 26-28 pound load to the inboard, forward part of the long chain ± 0.5 inch of the middle of the straight length of chain as shown, View A-A (Figure 601) with the force gauge, COM-1557.

(e) Measure the chain deflection at the top and bottom of the chain.

(f) Make sure the average chain deflection is as shown, View A-A (Figure 601).

SUBTASK 52-12-00-720-004

(8) Programming System Check

NOTE: This is a check of the position of the forward and aft edges of the door inboard and outboard.

(a) Pull and push the door in the open and close directions outside of the cutout.

NOTE: This evens out the loads in the programming mechanism chain.

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(b) Push the door near to the cutout and stop when the door skin is within one inch of the fuselage skin.

(c) Make sure the distances from the forward and aft door skin to the fuselage skin measured at the latch tracks are as shown (Table 603).

Table 603/52-12-00-993-823 Programming System Adjustment Forward and Aft Door Skin to Fuselage Skin Allowed Distance Differences

PED	DISTANCE TO FUSELAGE SKIN FROM FORWARD EDGE OF DOOR COMPARED TO AFT EDGE	
	OUTBOARD (inch)	INBOARD (inch)
1	+0.21	-0.09
2	+0.30	-0.30
3	+0.30	-0.30
4	+0.30	-0.30
5	+0.05	-0.25

SUBTASK 52-12-00-710-012

(9) Vent Door and Flight Lock Mechanism Interlock Check

NOTE: This is a check of the vent door and flight lock mechanism interlock. Two persons are recommended to do part of this procedure: one person on the interior side of the door and one person on the exterior side of the door.

(a) Make sure the door is closed and latched.

(b) On the exterior side of the door, apply Vibration Damping Tape 434 tape, G02329 to the perimeter of the vent door to keep it closed.

(c) On the interior side of the door, try to move the interior handle to the open position and do this check:

1) Make sure the vent door does not open.

(d) Remove the Vibration Damping Tape 434 tape, G02329.

(e) Open the door.

(f) Push the inboard end of the flight lock lever down and release. Do this check:

1) Make sure the flight lock lever moves back to its initial position, View D (Figure 601).

SUBTASK 52-12-00-710-013

(10) Lift Mechanism Check

NOTE: This is a check of the lift mechanism.

(a) Open the door.

(b) Make sure the slider and lift shaft are in good condition, View B (Figure 601).

(c) Hold the door on the forward and aft edges and try to turn the door up and down. Do these checks:

1) Make sure there is not too much free play (wobble) of the door.

2) Make sure there is not too much movement between the slider and the lift shaft splines.

(d) Close and latch the door.

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(e) Make sure the secondary lift roller turns freely.

SUBTASK 52-12-00-710-014

(11) Latch Mechanism Check

NOTE: This is a check of the latch mechanism.

(a) Open the door.

(b) Try to turn the latch shaft and do this check, View C (Figure 601):

1) Make sure the latch shaft does not turn more than 3 degrees.

2) Make sure the latch crank does not move more than 0.070 inch.

NOTE: One degree turn of the latch shaft equals 0.035 inch latch crank movement.

(c) Turn the interior handle to the closed position to lower the door outside of the cutout.

(d) Manually turn the latch crank and do this check:

1) Make sure the latch crank does not move more than ±0.075 inch (±2 degrees).

(e) Turn the interior handle to the open position to lift the door.

SUBTASK 52-12-00-710-015

(12) Roller and Door Stop Check

NOTE: This is a check of the guide rollers and latch rollers and door stop pins.

(a) Make sure the door is open.

(b) Make sure you can turn each guide roller by hand.

(c) Make sure you can turn the centering roller on the lower aft guide roller fitting by hand.

(d) Make sure you can turn each latch roller by hand.

(e) Make sure that mating surfaces between each stop pin and stop pad are in good condition.

(f) Make sure the lock wire is installed in each stop pin.

SUBTASK 52-12-00-710-016

(13) Door Seals and Skin Check

NOTE: This is a check of the door cutout seal and bottom seal and door skin.

(a) Open and close the door and do these checks:

1) Make sure the door cutout seal and bottom seal are clear of the edge of all surrounding structure when the door opens and closes.

2) Make sure the seals are in their correct position when the door closes.

3) Make sure there are no wrinkles, cuts, delamination, or damage to the seals.

4) Make sure there is no damage to the seal retainers.

(b) Make sure there is no damage to the door skin especially on the lower part of the door.

H. Put the Airplane Back to its Usual Condition

SUBTASK 52-12-00-010-005

(1) Close access to the door mechanisms as follows:

(a) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

(b) Do this task: Bustle Installation, TASK 25-66-06-400-801.

SUBTASK 52-12-00-860-043

(2) Arm the door as follows:

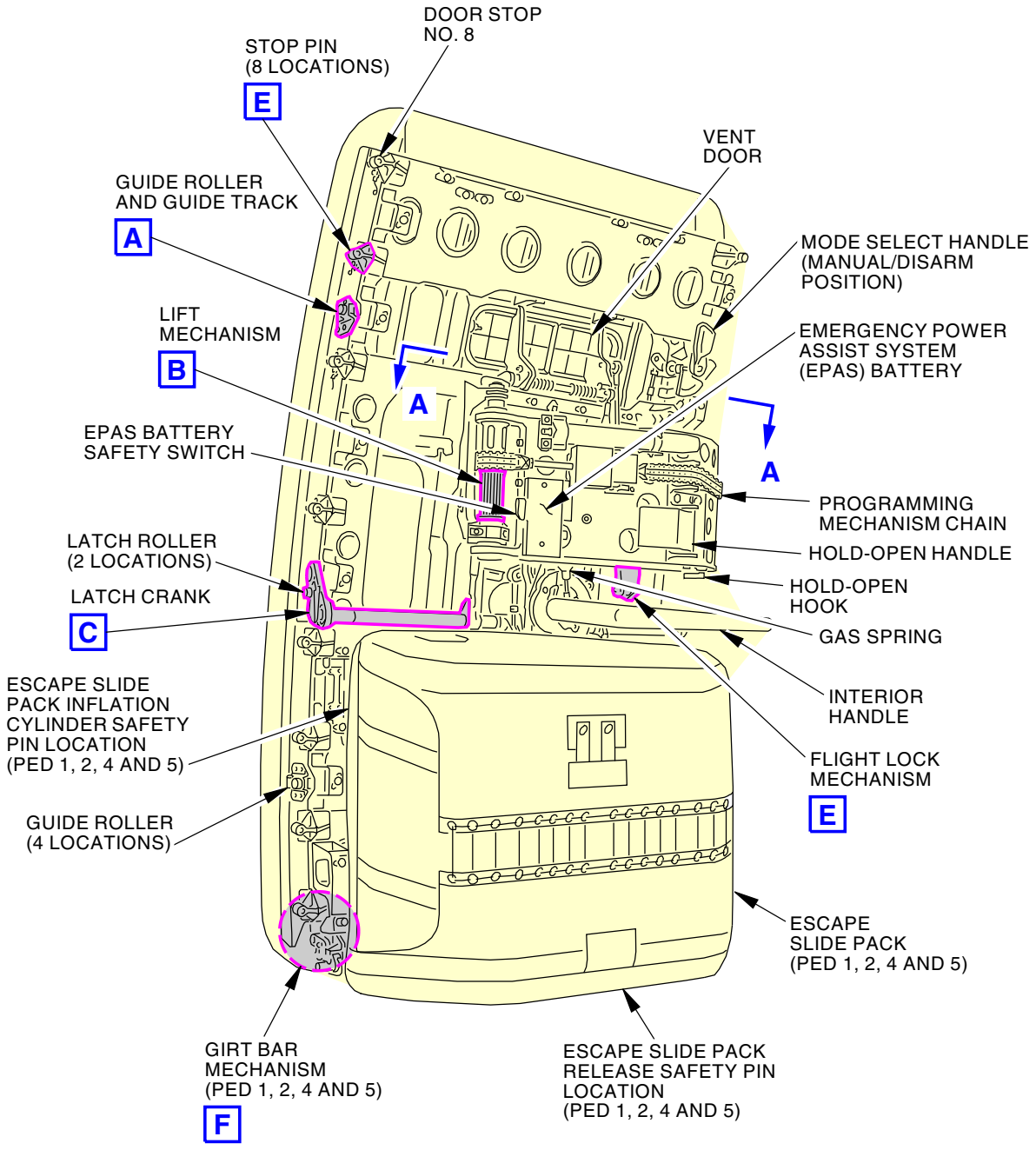
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(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

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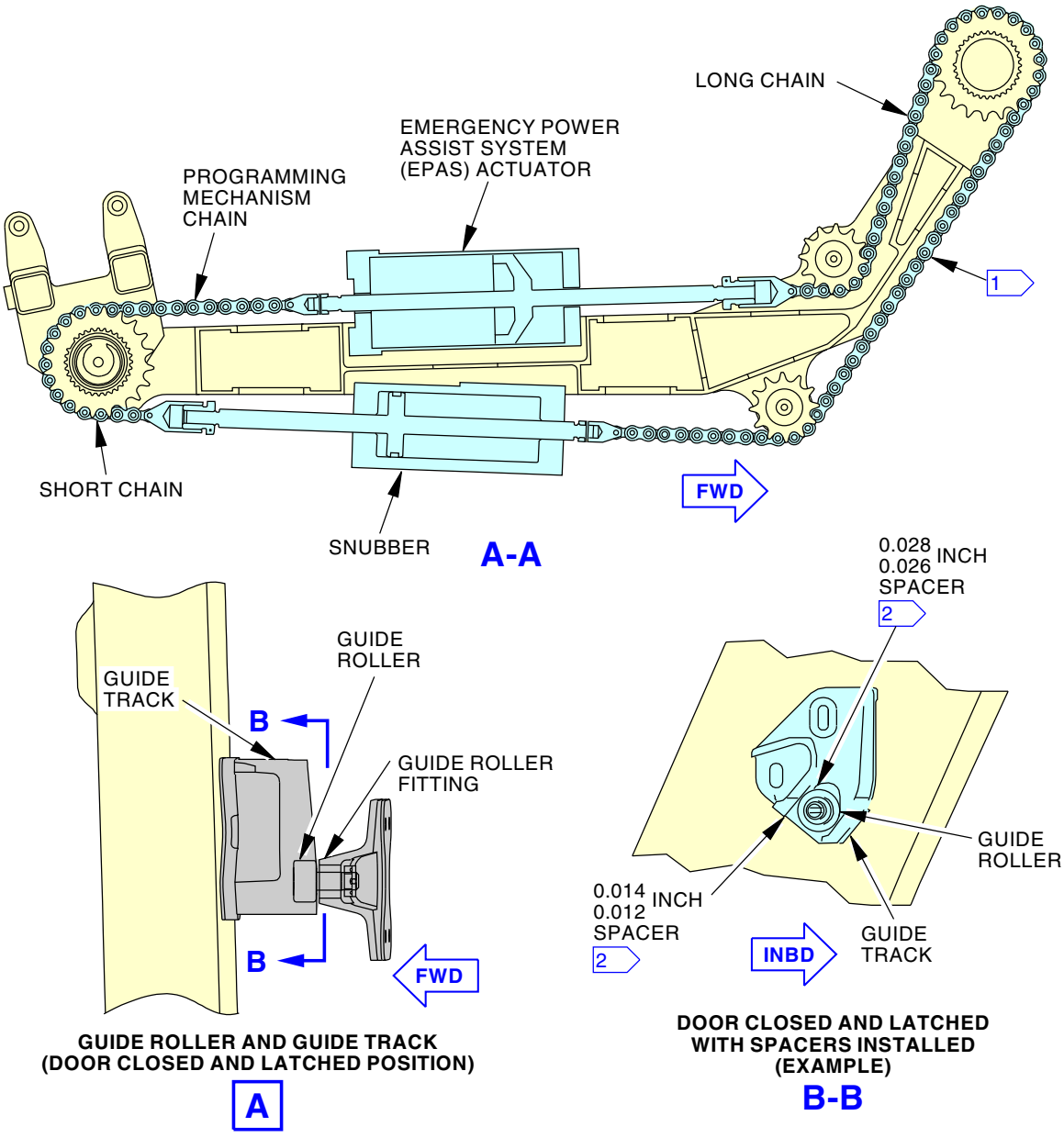


**PASSENGER ENTRY DOOR
(DOOR LINING REMOVED)
(EXAMPLE)**

H09965 S0006425027_V2

**Passenger Entry Door Fast Check
Figure 601/52-12-00-990-820 (Sheet 1 of 5)**

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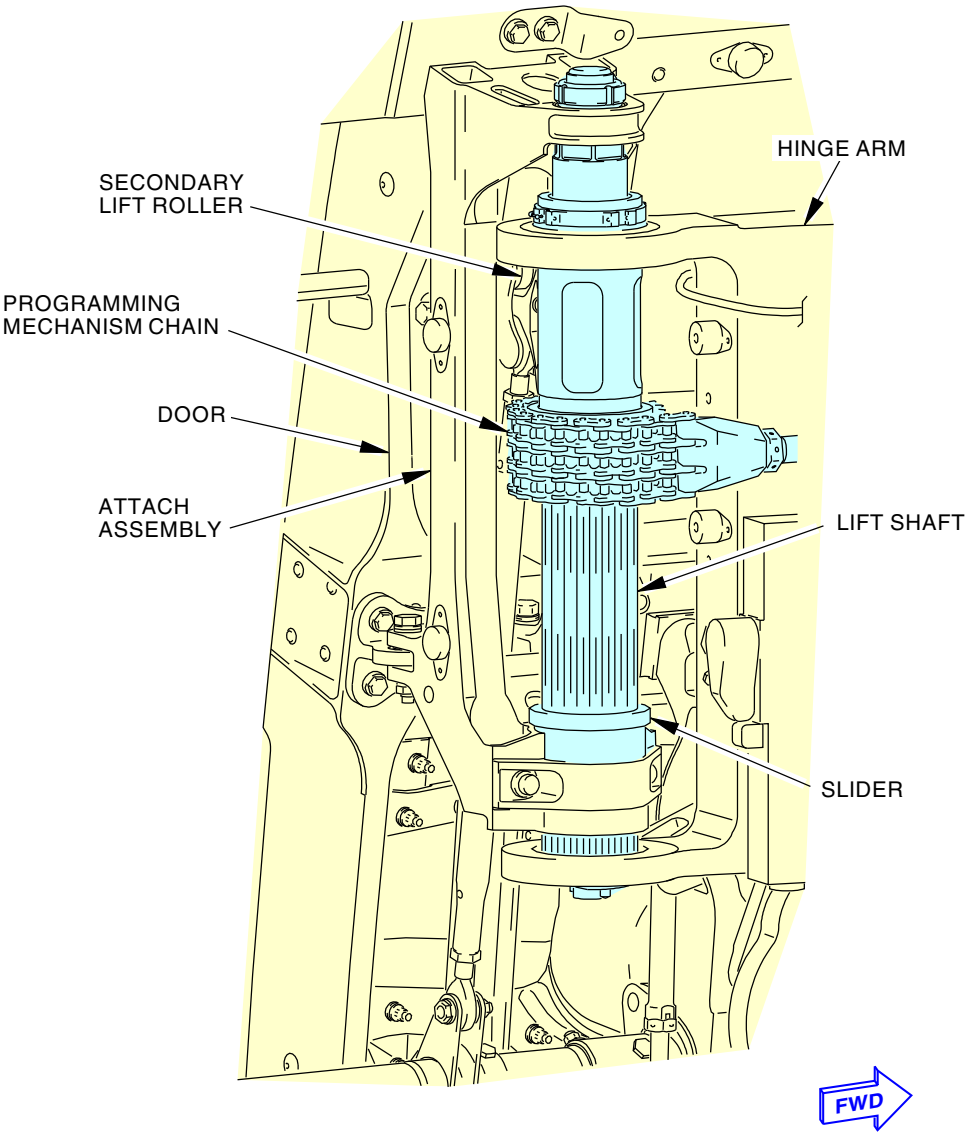
1 APPLY 26-28 POUND FORCE HERE IN THE CENTER OF THE CHAIN AND MAKE SURE THE AVERAGE DEFLECTION AT THE TOP AND BOTTOM OF THE CHAIN IS 0.14-0.18 INCH.

2 SPACERS PUSH THE DOOR INBOARD. 0.012-0.014 INCH SPACER BETWEEN UPPER GUIDE ROLLER AND INBOARD AND OUTBOARD SURFACES OF GUIDE TRACK. 0.026-0.028 INCH SPACER BETWEEN LOWER GUIDE ROLLER AND OUTBOARD SURFACE OF GUIDE TRACK.

H09968 S0006425028_V2

Passenger Entry Door Fast Check
Figure 601/52-12-00-990-820 (Sheet 2 of 5)

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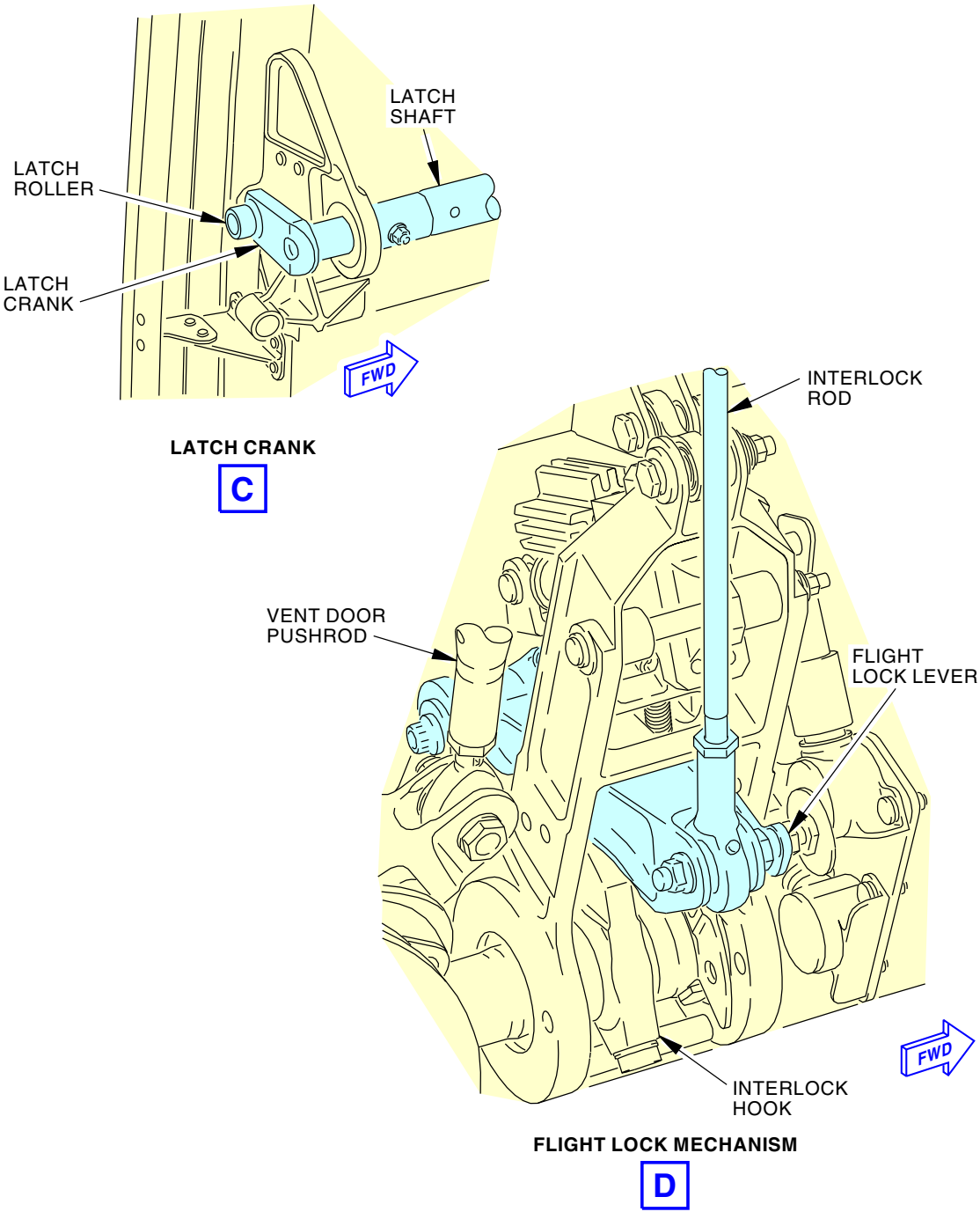
LIFT MECHANISM

B

H09970 S0006425029_V2

Passenger Entry Door Fast Check
Figure 601/52-12-00-990-820 (Sheet 3 of 5)

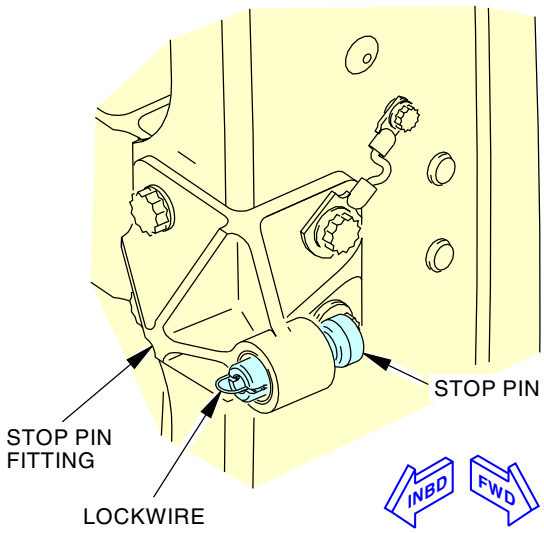
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H09983 S0006425030_V2

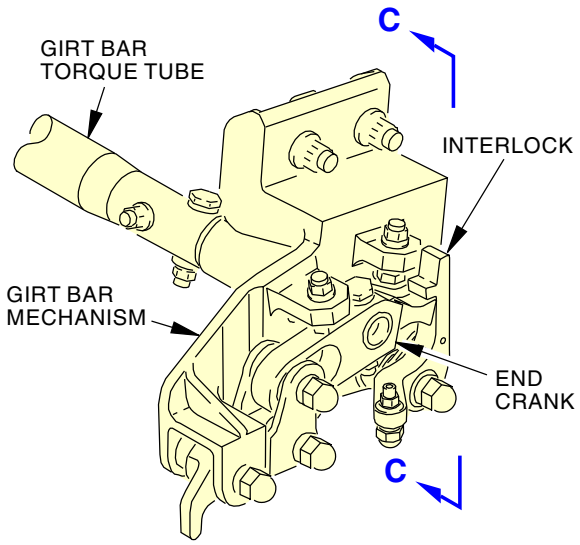
Passenger Entry Door Fast Check
Figure 601/52-12-00-990-820 (Sheet 4 of 5)

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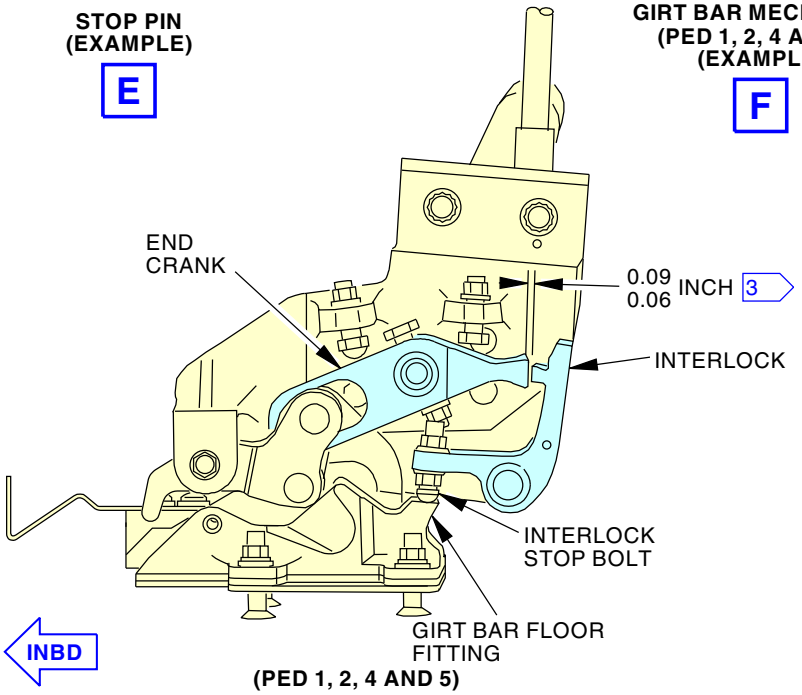
STOP PIN (EXAMPLE)

E



GIRT BAR MECHANISM (PED 1, 2, 4 AND 5) (EXAMPLE)

F



(PED 1, 2, 4 AND 5)

C-C

3 INSTALL SPACER HERE TO DO A CHECK ON THE CLEARANCE BETWEEN THE END CRANK AND INTERLOCK.

H09989 S0006425031_V2

Passenger Entry Door Fast Check
Figure 601/52-12-00-990-820 (Sheet 5 of 5)

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TASK 52-12-00-220-801

3. Passenger Entry Door Inspection

A. General

(1) This procedure has the wear limits for the passenger entry door.

B. References

Reference	Title
52-12-00-860-803	Open the Door Internally with the Interior Handle (P/B 201)
52-12-00-860-804	Close the Door Internally with the Interior Handle (P/B 201)

C. Tools/Equipment

Reference	Description
STD-1162	Gauge - Depth

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Dimensions Examination

SUBTASK 52-12-00-860-046

(1) Open the door as follows:

(a) Do this task: (Open the Door Internally with the Interior Handle, TASK 52-12-00-860-803).

SUBTASK 52-12-00-010-006

(2) If necessary, remove the door lining.

SUBTASK 52-12-00-220-001

(3) Examine the parts in (Table 604) that follows:

Table 604/52-12-00-993-824 Passenger Entry Door Wear Limits

INDEX NO.	PART NAME	DIM.	DESIGN LIMITS				WEAR LIMITS		ACTION
			DIMENSION		CLEARANCE		DIMENSION		
			MIN	MAX	MIN	MAX	MIN	MAX	
1	GuideTrack (Except LWR AFT)	ID	0.9050	0.9150	0.0290	0.0415		0.9200	*[1] *[2]
	Guide Roller	OD	0.8735	0.8760			------		*[1]
2	LWR AFT Guide Track	ID	0.9050	0.9150	0.0290	0.0415		0.9200	*[1] *[3]
	Guide Roller	OD	0.8735	0.8760			------		*[1]

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Table 604/52-12-00-993-824 Passenger Entry Door Wear Limits (Continued)

INDEX NO.	PART NAME	DIM.	DESIGN LIMITS				WEAR LIMITS		ACTION
			DIMENSION		CLEARANCE		DIMENSION		
			MIN	MAX	MIN	MAX	MIN	MAX	
3	Latch Track	ID	0.8800	0.8900	0.0040	0.0165		0.8950	*[1]*[4]
	Latch Roller	OD	0.8735	0.8760			------		*[1]

*[1] REPLACE WHEN WORN

*[2] EXCEPT FOR THE DIMENSION NOTED IN THE TABLE, GOUGES AND NICKS LESS THAN 0.03 INCHES DEEP ARE ALLOWED

*[3] GOUGES AND NICKS LESS THAN 0.01 INCH DEEP ARE ALLOWED ON THE FLAT SURFACE INDICATED BY THE CROSS HATCHED AREA IN DETAIL A. OTHERWISE, EXCEPT FOR THE DIMENSION NOTED IN THE TABLE, GOUGES AND NICKS LESS THAN 0.03 INCHES DEEP ARE ALLOWED.

*[4] MINIMUM ALLOWABLE WALL THICKNESS AT THE AREA INDICATED BY DIM A IN DETAIL B IS 0.097 INCHES. OTHERWISE, EXCEPT FOR THE DIMENSION NOTED IN THE TABLE, GOUGES AND NICKS LESS THAN 0.03 INCHES DEEP ARE ALLOWED.

(4) Measure the latch track width in the Detail B.

NOTE: This is the cross hatched area indicated in the Detail B.

(5) Measure the depth of the gouges and nicks with a depth gauge, STD-1162 or equivalent.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-00-410-003

(1) Install the door lining.

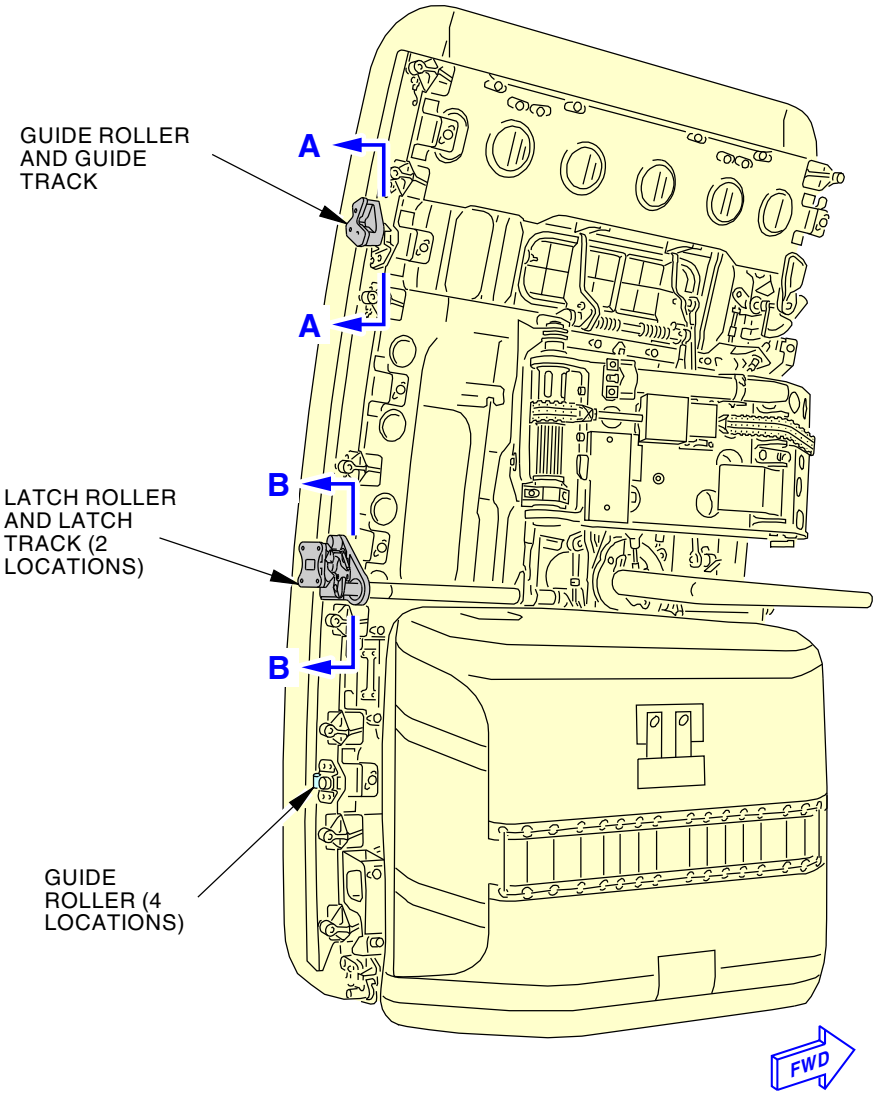
SUBTASK 52-12-00-860-047

(2) Close the door as follows:

(a) Do this task: (Close the Door Internally with the Interior Handle, TASK 52-12-00-860-804).

——— END OF TASK ———

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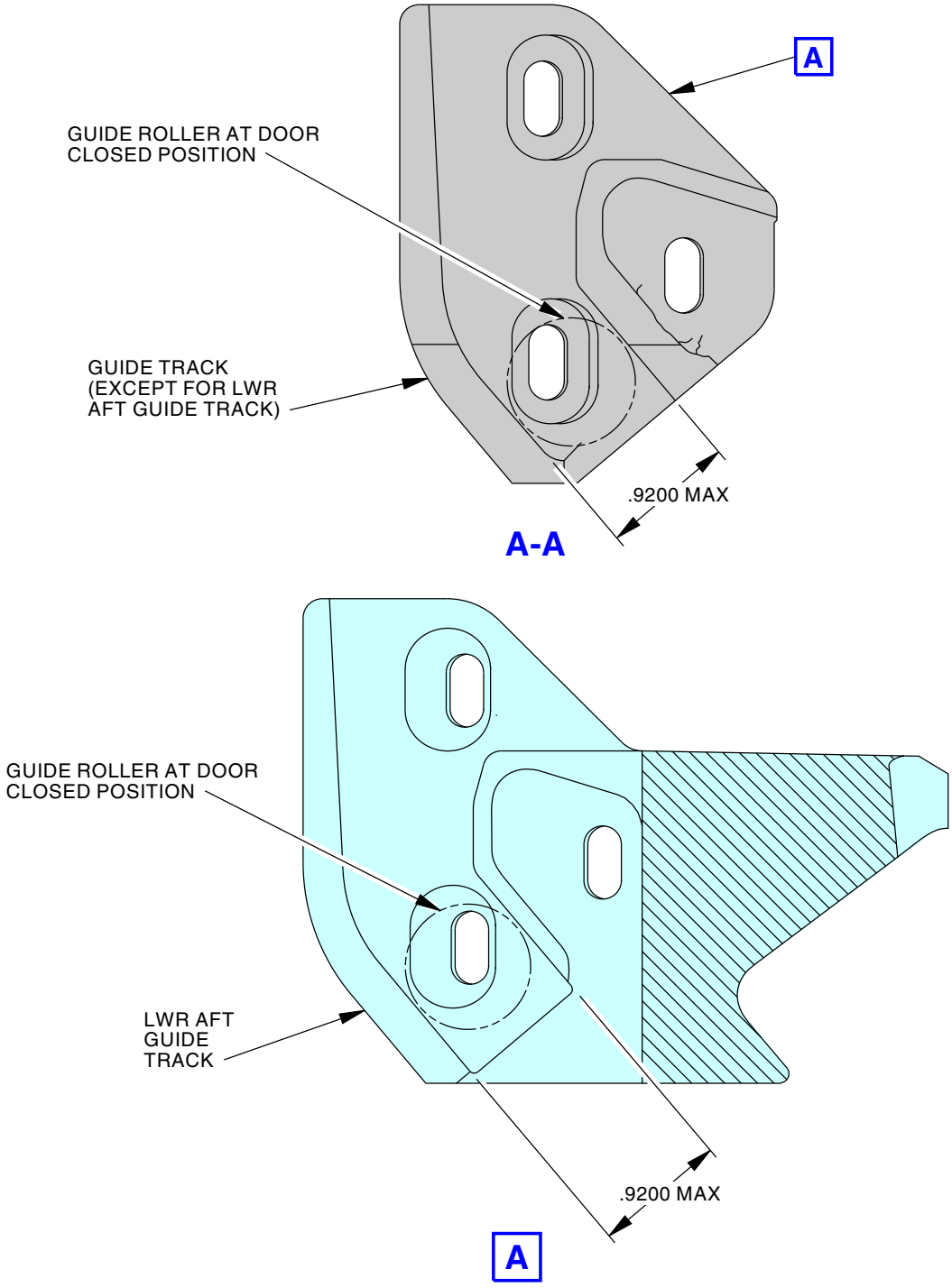


PASSENGER ENTRY DOOR (DOOR LINING REMOVED)

1700936 S0000310484_V2

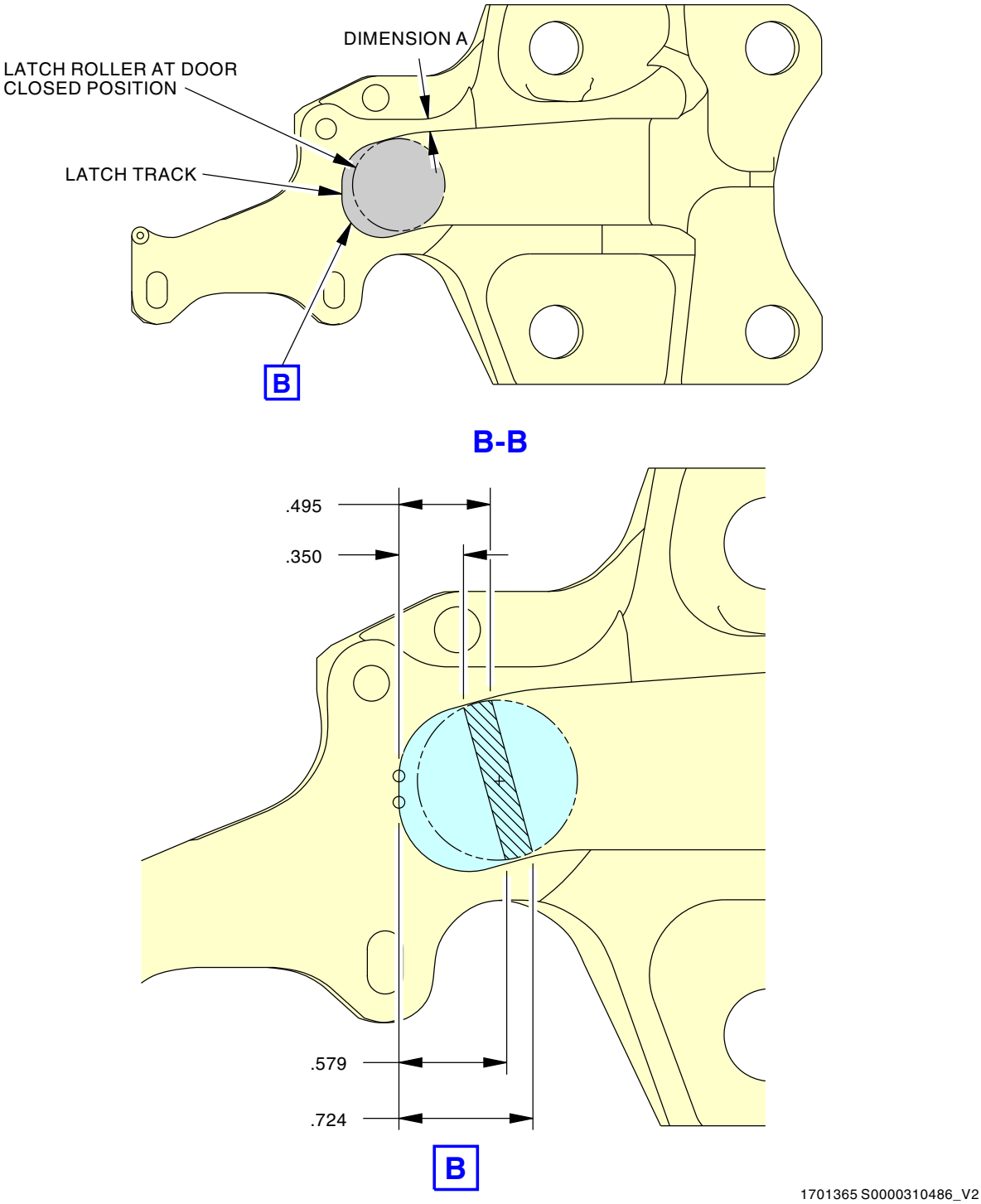
Passenger Entry Door Wear Limits
Figure 602/52-12-00-990-837 (Sheet 1 of 3)

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Passenger Entry Door Wear Limits
Figure 602/52-12-00-990-837 (Sheet 2 of 3)

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Passenger Entry Door Wear Limits
Figure 602/52-12-00-990-837 (Sheet 3 of 3)

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PASSENGER ENTRY DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the passenger entry door.

(2) An installation of the passenger entry door.

TASK 52-12-01-000-801

2. Passenger Entry Door Removal

(Figure 401)

A. References

Reference	Title
25-21-02-000-801	Doorway Lining Removal (P/B 401)
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-66-01-000-801	Door-Mounted Escape Slide Pack Removal (P/B 401)
52-12-20-000-803-002	Emergency Power Assist System (EPAS) Battery Pack Removal (PED 1, 2, 4, 5) (P/B 401)
52-12-22-000-801	Emergency Power Assist System (EPAS) Reservoir Removal (P/B 401)
52-12-25-000-802	Hinge Covers Removal (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1983	Assembly - Sling, Passenger Entry/Service Door Part #: A52004-83 Supplier: 81205 Opt Part #: A52004-44 Supplier: 81205
SPL-1989	Screw Equipment - Safety, Passenger Door Counter-Balance Spring Part #: J52021-1 Supplier: 81205
SPL-1991	Equipment - Fitting, Passenger Entry/Service Door Part #: A52004-95 Supplier: 81205 Opt Part #: A52004-46 Supplier: 81205
SPL-2005	Barrier, Frame Equipment - Passenger Entry Door Part #: J52009-149 Supplier: 81205 Part #: J52009-55 Supplier: 81205
STD-1146	Pad - Protective, Ensolite or Equivalent 1/2 Inch by 72 Inches by 96 Inches
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

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D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Removal

SUBTASK 52-12-01-860-001

(1) Put the adjustable height cabin and general access stand, STD-1160 outboard of the door.

(2) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-01-010-001

(3) Get access to the hinge mechanism as follows:

(a) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

(b) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

(c) Do this task: Doorway Lining Removal, TASK 25-21-02-000-801.

1) Only do the steps to remove the applicable lining on the forward side of the doorway.

(d) Do this task: Door-Mounted Escape Slide Pack Removal, TASK 25-66-01-000-801.

(e) Do this task: Emergency Power Assist System (EPAS) Battery Pack Removal (PED 1, 2, 4, 5), TASK 52-12-20-000-803-002.

(f) Do this task: Emergency Power Assist System (EPAS) Reservoir Removal, TASK 52-12-22-000-801.

F. Removal

SUBTASK 52-12-01-480-001

(1) Safety the counterbalance spring [8] as follows:

(a) Remove the plug [6].

(b) Apply the grease, D00633, to the counterbalance spring safety screw and washer [7].

1) It is necessary to use the screw equipment, SPL-1989.

(c) Install the safety screw equipment, SPL-1989.

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(d) Turn the counterbalance spring safety screw and washer [7] (screw equipment, SPL-1989) until you feel an increase in torque and then turn it two turns more.

SUBTASK 52-12-01-420-001

(2) Install the passenger entry/service door sling assembly, SPL-1983, as follows:

(a) Remove the bolts [1] on the door [5] for the sling attach fitting [3].

1) The sling attach fitting [3] is the passenger entry/service door fitting equipment, SPL-1991.

(b) Install the passenger entry/service door fitting equipment, SPL-1991, on the door [5].

(c) Attach the passenger entry/service door sling assembly, SPL-1983, to the passenger entry/service door fitting equipment, SPL-1991.

(d) Attach the passenger entry/service door sling assembly, SPL-1983, to a crane to hold the weight of the door [5].

SUBTASK 52-12-01-020-001

(3) Disconnect the hinge mechanism from the fuselage [11] as follows:

(a) Open the door.

(b) Disconnect the electrical connector [13] between the hinge arm [4] and the fuselage [11].

(c) For PED 1-4, do these steps:

1) Loosen the nut [21] and nut [18] on the adjuster bolt [30] for the adjuster arm [12].

2) Remove the adjuster bolt [30], spacer ring [29], spacer ring [22], nut [21], adjuster [20], washer [19], and nut [18].

(d) For PED 5, do these steps:

1) Loosen the nut [44] and nut [43] on the adjuster bolt [30] for the adjuster arm [12].

2) Remove the adjuster bolt [30], spacer ring [29], spacer ring [22], nut [43], nut [44], convex washer [45], spacer ring [46], washer [47], and adjuster [20].

(e) Remove the bolt [31], washer [36], and nut [35] that attach the adjuster arm [12].

(f) Remove the bolt [23], washer [24], bushing [25], bushing [26], washer [28], and nut [27] that attach the lower part of the hinge arm [4] to the fuselage [11].

(g) Remove the bolt [16], bushing [17], bushing [15], washer [14], spacer ring [32], and nut [33] that attach the upper part of the hinge arm [4] to the fuselage [11].

1) Remove the nut [33] and spacer ring [32] from below and through the anchor shaft [37].

(h) Remove the adjuster arm [12] and spacer ring [34].

SUBTASK 52-12-01-020-002

(4) Remove the door [5] from the cutout.

SUBTASK 52-12-01-480-002

WARNING YOU MUST INSTALL A SAFETY BARRIER IN THE CUTOUT IF YOU REMOVE THE DOOR. IF YOU DO NOT OBEY THIS INSTRUCTION, INJURY TO PERSONS CAN OCCUR.

(5) Install the safety barrier frame, SPL-2005, or equivalent in the door cutout.

NOTE: The barrier installs in the guide tracks and in the girt bar floor fittings.

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SUBTASK 52-12-01-420-002

(6) Remove the passenger entry/service door sling assembly, SPL-1983, from the door [5] as follows:

(a) Lower the door onto a protective pad, STD-1146.

(b) Disconnect the passenger entry/service door sling assembly, SPL-1983, from the crane.

(c) Disconnect the passenger entry/service door sling assembly, SPL-1983, from the sling attach fitting [3].

1) The sling attach fitting [3] is the passenger entry/service door fitting equipment, SPL-1991.

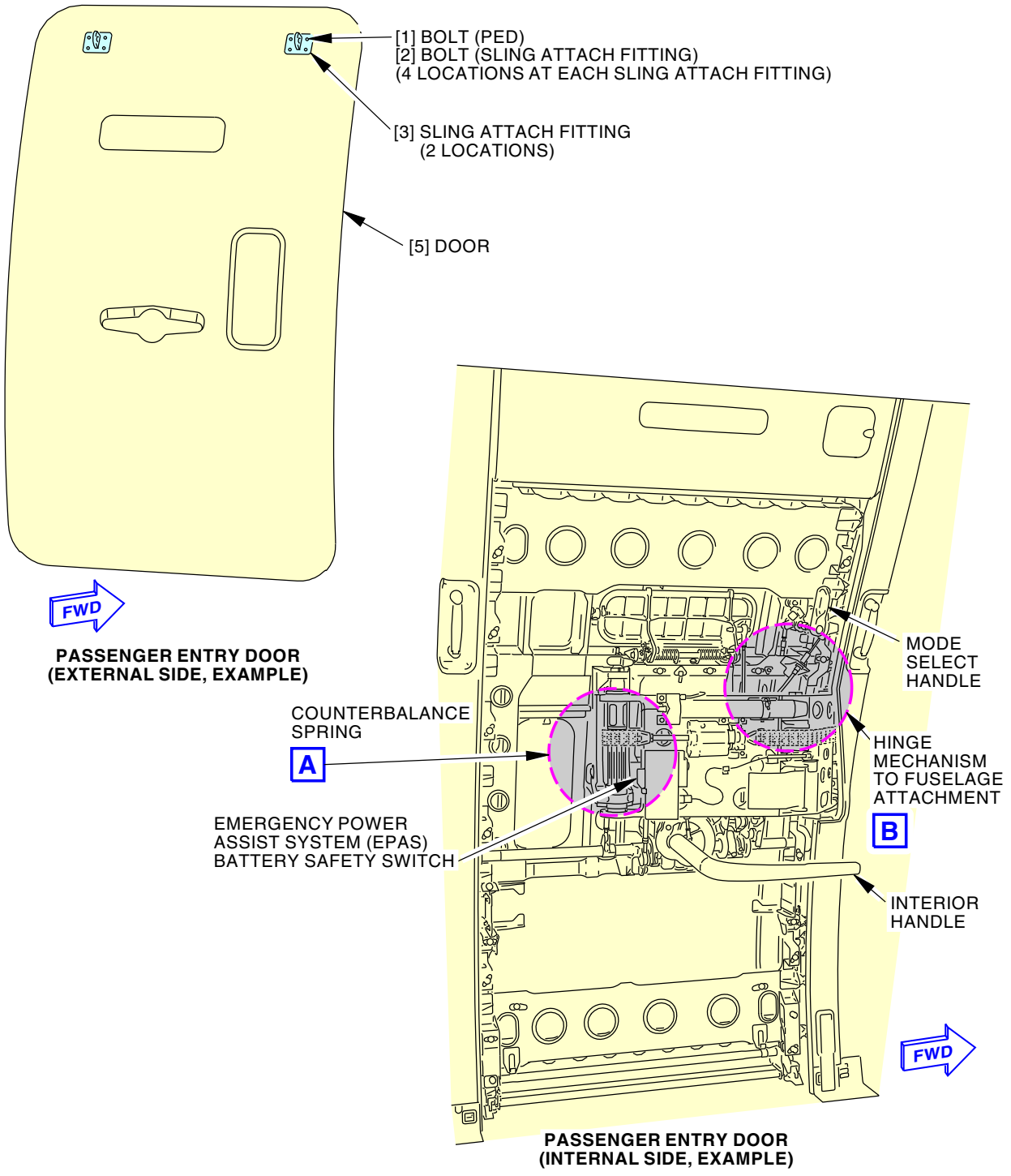
(d) Remove the passenger entry/service door fitting equipment, SPL-1991, from the door [5].

(e) Apply the corrosion inhibiting material, G50136, to the bolts [1].

(f) Install the bolts [1] on the door [5].

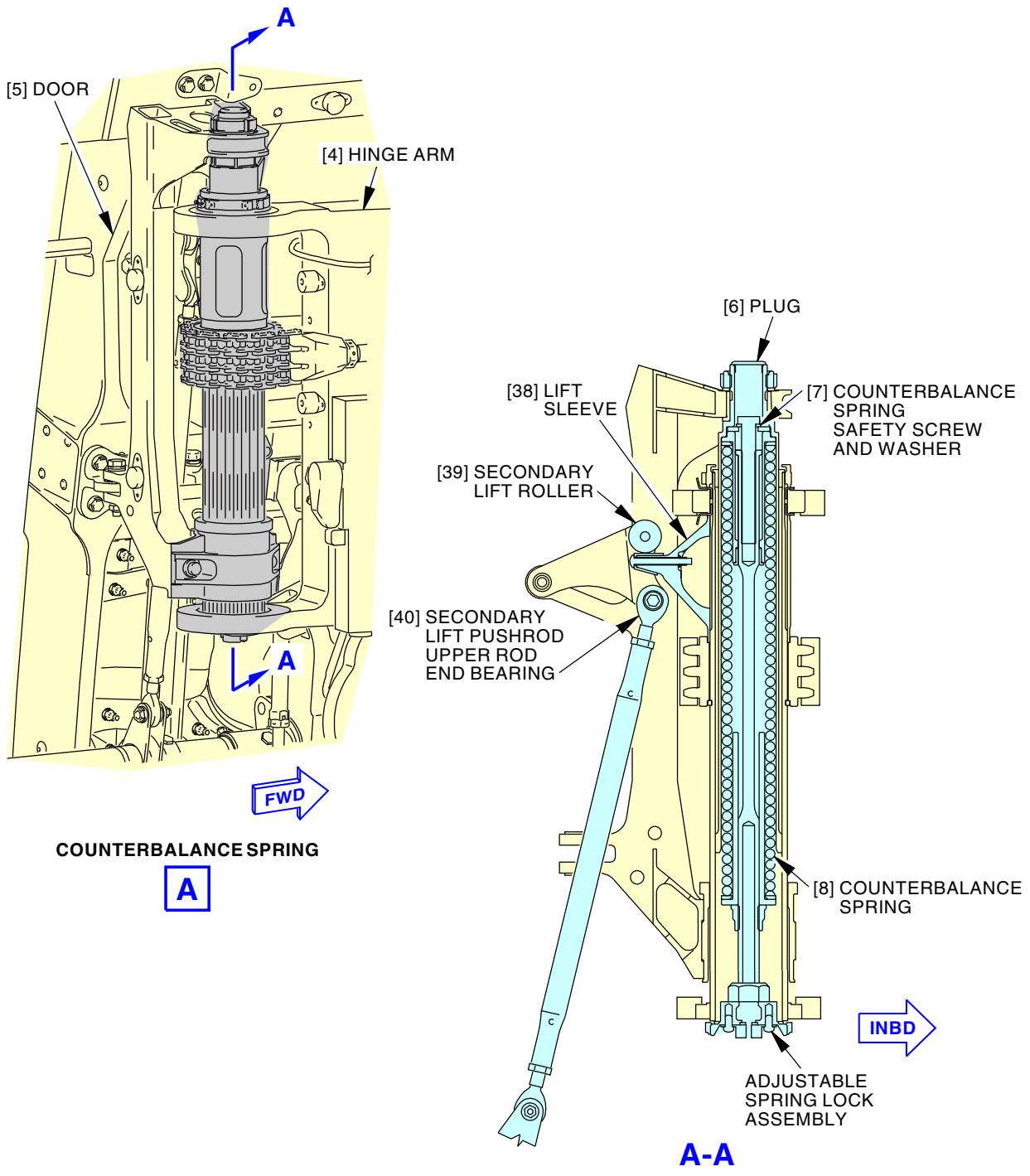
END OF TASK

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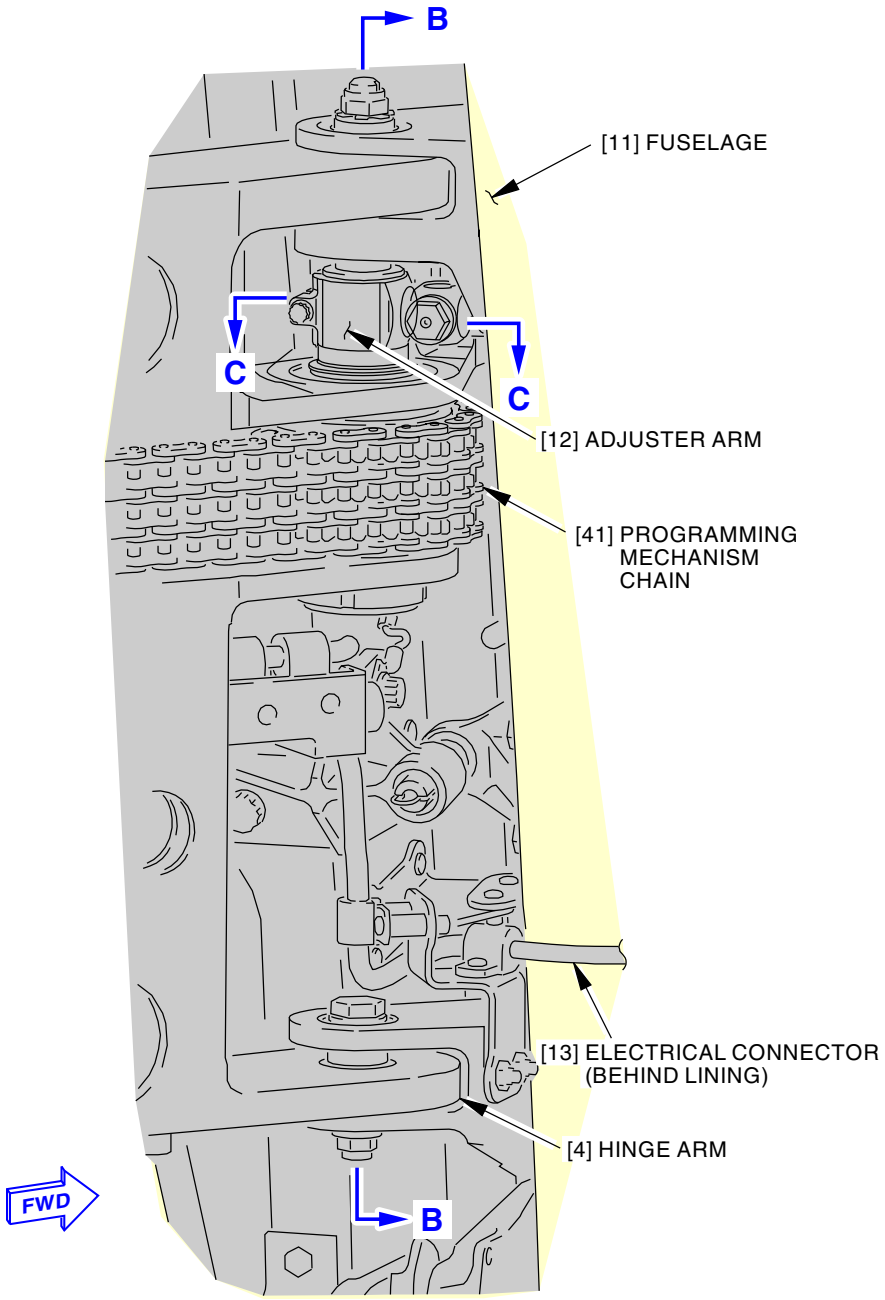
Passenger Entry Door Installation
Figure 401/52-12-01-990-802 (Sheet 1 of 5)

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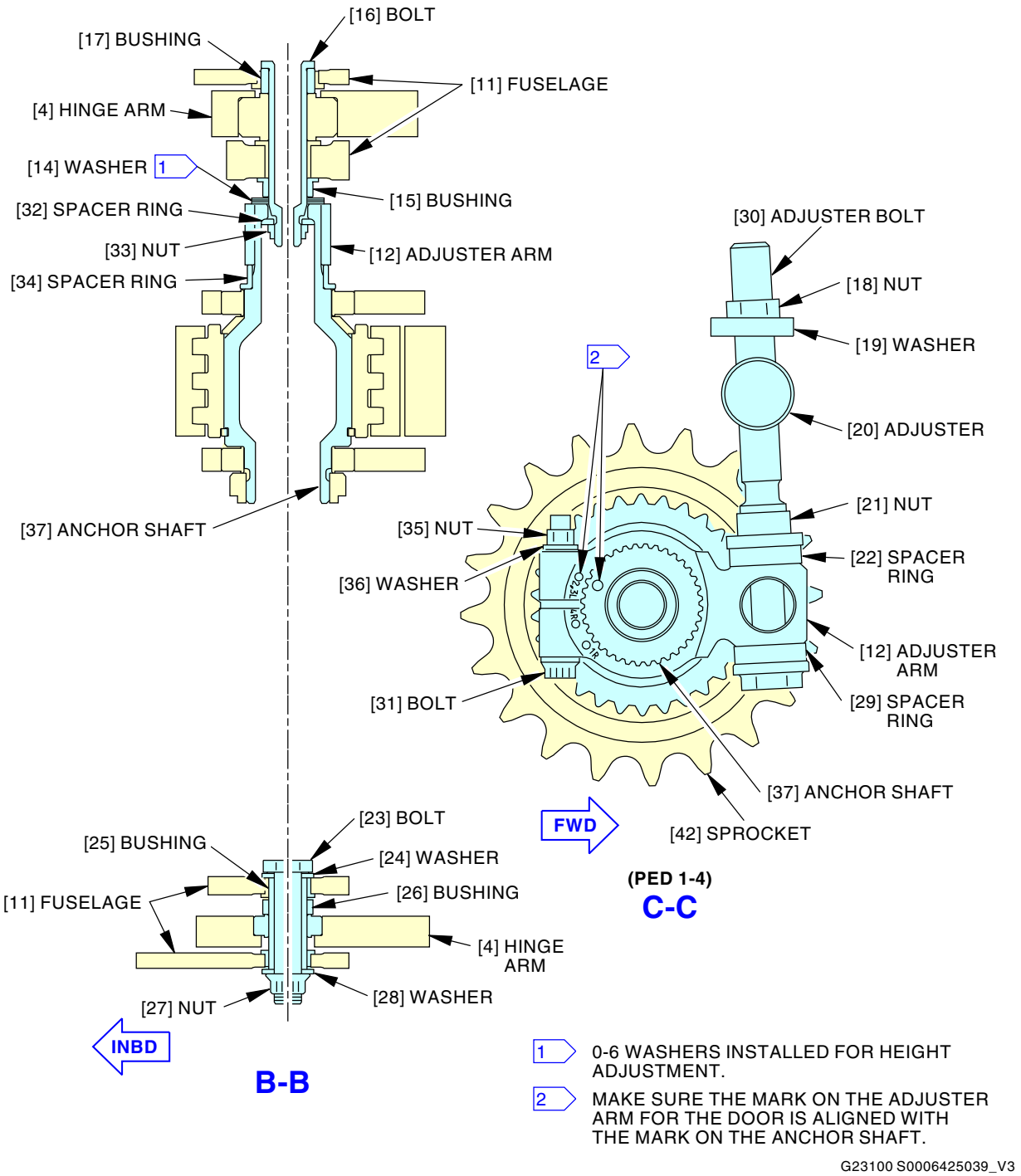
Passenger Entry Door Installation
Figure 401/52-12-01-990-802 (Sheet 2 of 5)

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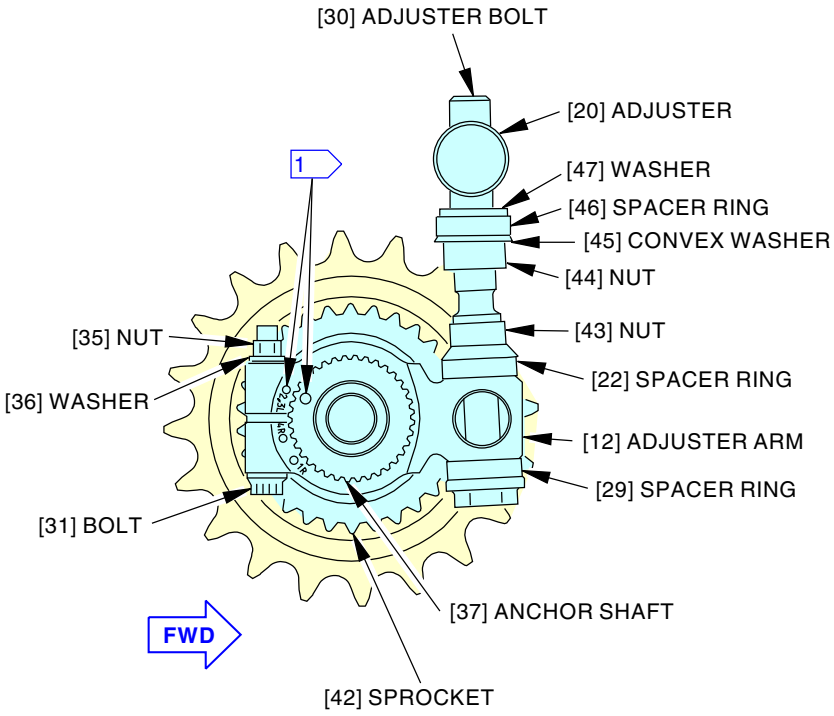
Passenger Entry Door Installation
Figure 401/52-12-01-990-802 (Sheet 3 of 5)

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Passenger Entry Door Installation
Figure 401/52-12-01-990-802 (Sheet 4 of 5)

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G23101 S0006425040_V3

Passenger Entry Door Installation
Figure 401/52-12-01-990-802 (Sheet 5 of 5)

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TASK 52-12-01-400-801

3. Passenger Entry Door Installation

(Figure 401)

A. References

Reference	Title
25-21-02-400-801	Doorway Lining Installation (P/B 401)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
25-66-01-400-801	Door-Mounted Escape Slide Pack Installation (P/B 401)
52-12-00-730-801	Passenger Entry Door System Test (P/B 501)
52-12-00-820-801	Passenger Entry Door Adjustment (P/B 501)
52-12-20-400-802-002	Emergency Power Assist System (EPAS) Battery Pack Installation (PED 1, 2, 4, 5) (P/B 401)
52-12-22-400-801	Emergency Power Assist System (EPAS) Reservoir Installation (P/B 401)
52-12-25-400-802	Hinge Covers Installation (P/B 201)
52-12-25-400-803	Upper Liner Installation (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1983	Assembly - Sling, Passenger Entry/Service Door Part #: A52004-83 Supplier: 81205 Opt Part #: A52004-44 Supplier: 81205
SPL-1989	Screw Equipment - Safety, Passenger Door Counter-Balance Spring Part #: J52021-1 Supplier: 81205
SPL-1991	Equipment - Fitting, Passenger Entry/Service Door Part #: A52004-95 Supplier: 81205 Opt Part #: A52004-46 Supplier: 81205
SPL-2005	Barrier, Frame Equipment - Passenger Entry Door Part #: J52009-149 Supplier: 81205 Part #: J52009-55 Supplier: 81205
STD-1146	Pad - Protective, Ensolite or Equivalent 1/2 Inch by 72 Inches by 96 Inches
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Consumable Materials

Reference	Description	Specification
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44

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(Continued)

Zone	Area
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Installation

SUBTASK 52-12-01-860-009

(1) Make sure the adjustable height cabin and general access stand, STD-1160 is installed outboard of the door.

SUBTASK 52-12-01-080-002

(2) Remove the safety barrier frame, SPL-2005, from the door cutout.

SUBTASK 52-12-01-420-003

(3) Move the door to the correct position as follows:

(a) Remove the bolts [1] on the door [5] for the sling attach fitting [3].

1) The sling attach fitting [3] is the passenger entry/service door fitting equipment, SPL-1991.

(b) Install the passenger entry/service door fitting equipment, SPL-1991, on the door [5].

(c) Attach the passenger entry/service door sling assembly, SPL-1983, to the passenger entry/service door fitting equipment, SPL-1991.

(d) Attach the passenger entry/service door sling assembly, SPL-1983, to a crane to hold the weight of the door [5].

(e) Move the door [5] to a vertical position parallel to the door opening.

SUBTASK 52-12-01-860-002

(4) Make sure the counterbalance spring safety screw and washer [7] is installed.

(a) It is necessary to use the screw equipment, SPL-1989.

SUBTASK 52-12-01-860-003

(5) For PED 1, 2, 4, and 5 make sure the escape slide pack is not installed.

SUBTASK 52-12-01-420-004

(6) Connect the hinge mechanism to the fuselage [11] as follows:

(a) Install the spacer ring [34] and adjuster arm [12] on the hinge arm [4].

(b) Make sure the mark on the adjuster arm [12] for the door [5] is aligned with the mark on the anchor shaft [37].

CAUTION

DO NOT LET THE HINGE ARM FALL OR MOVE FREELY DURING THE INSTALLATION. DAMAGE TO THE DOOR CAN OCCUR.

(c) Hold the hinge arm [4] approximately perpendicular to the door [5].

(d) Make sure the handle is in the open position.

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(e) Make sure the lift sleeve [38] is between the secondary lift roller [39] and secondary lift pushrod upper rod end bearing [40].

(f) Align the hinge arm [4] with the fuselage [11].

(g) Install the bolt [16], bushing [17], bushing [15], washer [14], spacer ring [32], and nut [33] that attach the upper part of the hinge arm [4] to the fuselage [11].

1) Install the nut [33] and spacer ring [32] from below and through the anchor shaft [37].

(h) Install the bolt [23], washer [24], bushing [25], bushing [26], washer [28], and nut [27] that attach the lower part of the hinge arm [4] to the fuselage [11].

1) Move the hinge arm and door [5] as necessary to install the bolt [23].

(i) Measure the forward and aft distances from the bottom of the programming mechanism chain [41] to the bottom of the hinge arm [4].

(j) Make sure the forward and aft distances are equal within ± 0.02 in. (0.51 mm).

1) If it is necessary, adjust as follows:

a) Add or remove the washer [14] between the adjuster arm [12] and bushing [15].

b) Lightly hit the top or bottom of the anchor shaft [37] to adjust the height of the sprocket [42] and remove free play in the assembly.

(k) Tighten the nut [27].

(l) Tighten the nut [33].

(m) Install the bolt [31], washer [36], and nut [35] on the adjuster arm [12].

(n) Release the weight of the door [5] from the crane.

(o) Put the protective pad, STD-1146, under the door [5] to protect the door [5] when you lower it.

(p) Move the door [5] until the door skin is as close to the door cutout as possible.

(q) For PED 1-4, install the adjuster bolt [30], spacer ring [29], spacer ring [22], nut [21], adjuster [20], washer [19], and nut [18].

(r) For PED 5, install the adjuster bolt [30], spacer ring [29], spacer ring [22], nut [43], nut [44], convex washer [45], spacer ring [46], washer [47], and adjuster [20].

(s) Connect the electrical connector [13] between the hinge arm [4] and fuselage [11].

SUBTASK 52-12-01-420-005

(7) Remove the passenger entry/service door sling assembly, SPL-1983, from the door [5] as follows:

(a) Disconnect the passenger entry/service door sling assembly, SPL-1983, from the crane.

(b) Disconnect the passenger entry/service door sling assembly, SPL-1983, from the passenger entry/service door fitting equipment, SPL-1991.

1) The passenger entry/service door fitting equipment, SPL-1991, is the sling attach fitting [3].

(c) Remove the passenger entry/service door fitting equipment, SPL-1991, from the door [5].

(d) Apply the corrosion inhibiting material, G50136, to the bolts [1].

(e) Install the bolts [1] on the door [5].

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SUBTASK 52-12-01-080-001

(8) Remove the counterbalance spring safety screw and washer [7] (screw equipment, SPL-1989) as follows:

(a) Open the door.

(b) Deflect the latch lock interlock and turn the interior handle to the closed position to lower the door outside of the cutout.

(c) Remove the safety screw equipment, SPL-1989.

(d) Install the plug [6].

SUBTASK 52-12-01-820-001

(9) Do this task: Passenger Entry Door Adjustment, TASK 52-12-00-820-801.

(a) Only do the steps for the Installation Rigging.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-01-410-001

(1) Close access to the hinge mechanism as follows:

(a) Do this task: Emergency Power Assist System (EPAS) Reservoir Installation, TASK 52-12-22-400-801.

(b) Do this task: Emergency Power Assist System (EPAS) Battery Pack Installation (PED 1, 2, 4, 5), TASK 52-12-20-400-802-002.

(c) Do this task: Door-Mounted Escape Slide Pack Installation, TASK 25-66-01-400-801.

(d) Do this task: Doorway Lining Installation, TASK 25-21-02-400-801.

1) Only do the steps to install the lining on the forward side of the doorway.

(e) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

(f) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

(g) If necessary, remove the adjustable height cabin and general access stand, STD-1160.

SUBTASK 52-12-01-860-004

(2) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

G. Installation Test

SUBTASK 52-12-01-730-001

(1) Do this task: Passenger Entry Door System Test, TASK 52-12-00-730-801.

——— END OF TASK ———

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EXTERIOR HANDLE MECHANISM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the exterior handle mechanism.

(2) An installation of the exterior handle mechanism.

B. The interior handle mechanism is part of the latch mechanism. Refer to the Latch Mechanism Removal and Latch Mechanism Installation tasks for the removal/installation of the interior handle mechanism.

TASK 52-12-02-000-801

2. Exterior Handle Mechanism Removal

(Figure 401)

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet
STD-1166	Block - Wood, 1 to 3 Inch Thick, More Than 6 Inch Length

C. Consumable Materials

Reference	Description	Specification
G00291	Tape - Aluminum Foil, Scotch 425	AMS-T-23397 / L-T-80

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Removal

SUBTASK 52-12-02-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

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(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

(d) Install a DO-NOT-OPERATE tag on the interior handle.

(e) Make sure the adjustable height cabin and general access stand, STD-1160, is outboard of the door.

F. Removal

SUBTASK 52-12-02-020-001

(1) Disconnect the pull cable [2] from the exterior handle mechanism [5] as follows:

(a) Open the door to get access to the handle mechanism behind the hinge arm.

(b) Remove the Scotch 425 Aluminum Foil Tape, G00291, to get access to the retainer [3] on the disarm collar [1].

(c) Remove the retainer [3] from the disarm collar [1].

(d) Remove the pull cable [2] from the disarm collar [1].

(e) Close and latch the door.

SUBTASK 52-12-02-020-002

(2) Remove the exterior handle [9] from the exterior handle shaft [6] as follows:

(a) Remove the bolts [10] that attach the exterior handle [9] to the exterior handle shaft [6].

(b) Remove the exterior handle [9] and shims [8].

SUBTASK 52-12-02-020-003

(3) Disconnect the exterior handle mechanism [5] from the handle box [4] as follows:

(a) Remove the retaining bolt [7], 0-ring [11], seal [12], and outboard clutch [13] from the exterior handle shaft [6].

(b) Pull the exterior handle shaft [6] outboard and install a wood block, STD-1166, to hold the exterior handle shaft [6] away from the bolts [14] on the cover plate [15].

NOTE: The spring [16] will compress and hold the exterior handle mechanism [5] tight against the cover plate [15].

(c) Remove the bolts [14] that attach the cover plate [15] to the exterior handle mechanism [5] and handle box [4].

SUBTASK 52-12-02-020-004

(4) Remove the exterior handle mechanism [5] from the door as follows:

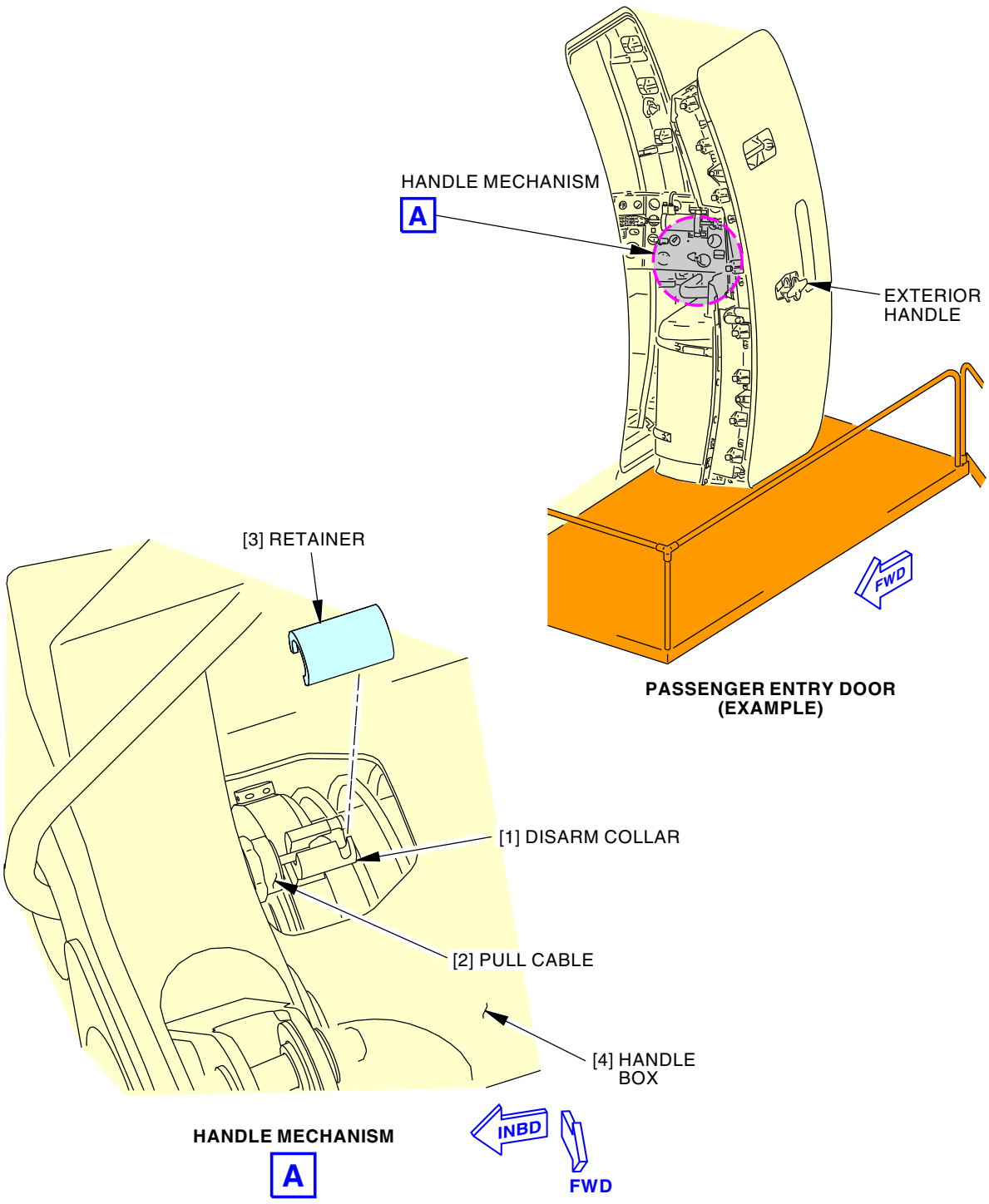
(a) Pull on the cover plate [15] to loosen the exterior handle mechanism [5] from the handle box [4] and handle shaft [18].

(b) Remove the exterior handle mechanism [5] from the handle box [4].

(c) If the split ring [17] is not installed on the handle shaft [18] or is loose when you pull the exterior handle mechanism [5] out, remove the split ring [17].

——— END OF TASK ———

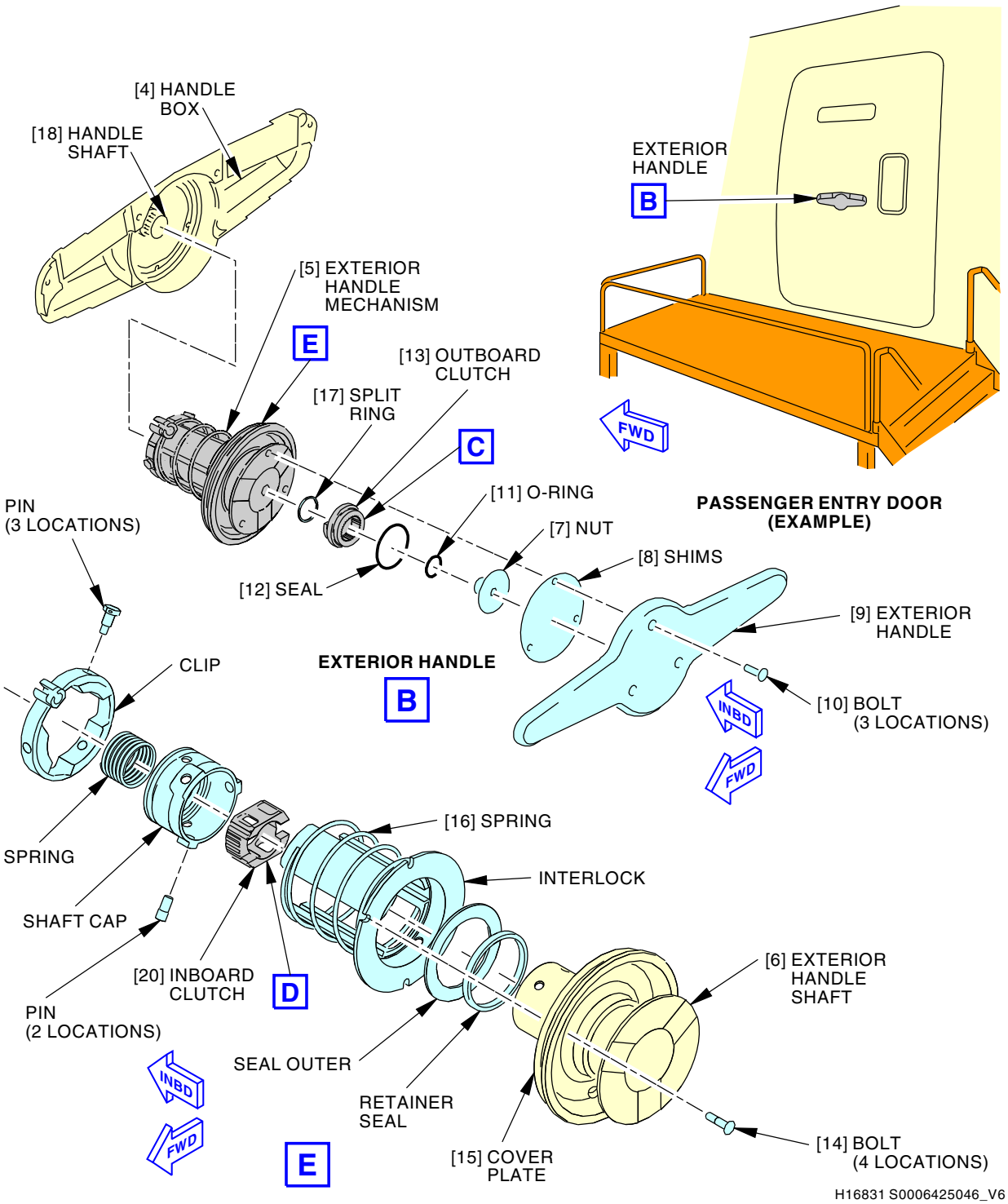
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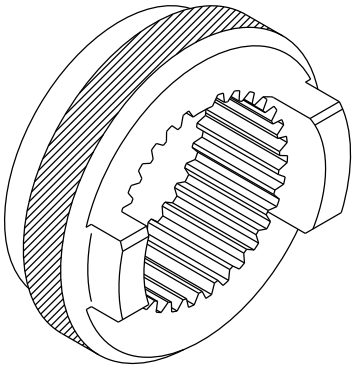
Exterior Handle Mechanism Installation
Figure 401/52-12-02-990-802 (Sheet 1 of 4)

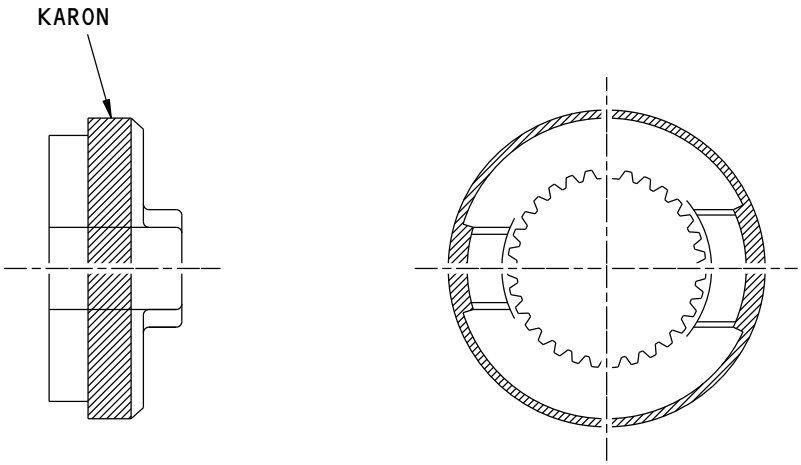
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Exterior Handle Mechanism Installation
Figure 401/52-12-02-990-802 (Sheet 2 of 4)

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OUTBOARD CLUTCH

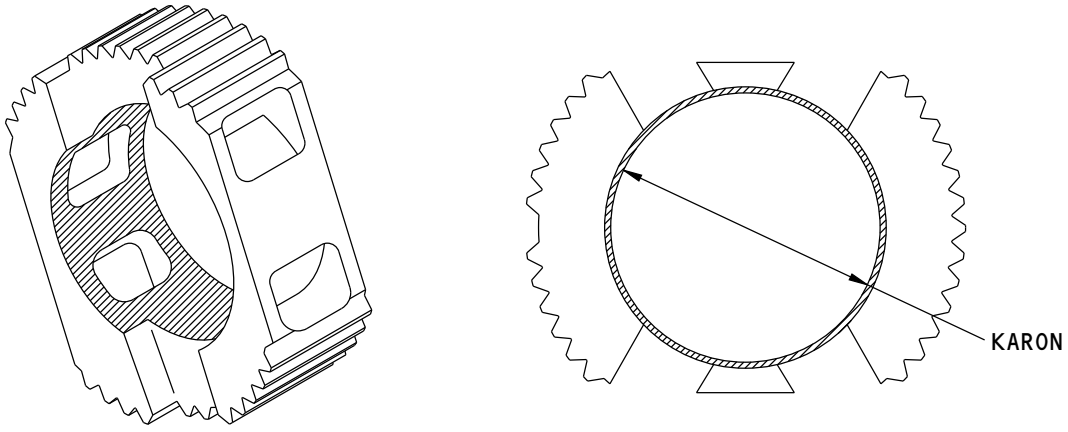
C

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Exterior Handle Mechanism Installation
Figure 401/52-12-02-990-802 (Sheet 3 of 4)

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Exterior Handle Mechanism Installation
Figure 401/52-12-02-990-802 (Sheet 4 of 4)

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TASK 52-12-02-400-801

3. Exterior Handle Mechanism Installation

(Figure 401)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-00-730-801	Passenger Entry Door System Test (P/B 501)
52-12-00-820-801	Passenger Entry Door Adjustment (P/B 501)

B. Tools/Equipment

Reference	Description
STD-1166	Block - Wood, 1 to 3 Inch Thick, More Than 6 Inch Length

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
G00291	Tape - Aluminum Foil, Scotch 425	AMS-T-23397 / L-T-80

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Installation

SUBTASK 52-12-02-420-001

(1) Install the exterior handle mechanism [5] on the door as follows:

(a) If the split ring [17] is not installed on the handle shaft [18] or is loose, do these steps:

1) Apply a bead of the sealant, A00247, between the split rings [17] and handle shaft [18].

2) Put the split rings [17] on the handle shaft [18].

3) Apply a force to the split rings [17] to push out the excess sealant, A00247, and remove the unwanted sealant, A00247.

(b) Push the exterior handle mechanism [5] into its correct position in the handle box [4] on the door.

NOTE: The exterior handle mechanism [5] fits tightly in the handle box [4].

SUBTASK 52-12-02-420-002

(2) Connect the exterior handle mechanism [5] to the handle box [4] as follows:

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(a) Pull the exterior handle shaft [6] outboard and install a wood block, STD-1166, to hold the exterior handle shaft [6] away from the bolts [14] on the cover plate [15].

NOTE: The spring [16] will compress and hold the exterior handle mechanism [5] tight against the cover plate [15].

(b) Push the exterior handle mechanism [5] into position over the handle shaft [18].

1) Align the exterior handle mechanism [5] so that the keeper is on top.

(c) Hold the exterior handle mechanism [5] in its correct position and install the bolts [14] to attach the cover plate [15] to the exterior handle mechanism [5] and handle box [4].

(d) Install the outboard clutch [13], seal [12], 0-ring [11], and retaining bolt [7] on the exterior handle shaft [6].

1) Make sure that the split ring [17] does not fall out and is properly in place when the outboard clutch [13] is installed.

2) Tighten the retaining bolt [7] to 15 in-lb (2 N·m) - 30 in-lb (3 N·m) above run-on torque.

SUBTASK 52-12-02-420-003

(3) Install the exterior handle [9] on the exterior handle shaft [6] as follows:

(a) Put the exterior handle [9] and shims [8] in their correct position.

(b) Install the bolts [10] to attach the exterior handle [9] to the exterior handle shaft [6].

SUBTASK 52-12-02-420-004

(4) Connect the pull cable [2] to the exterior handle mechanism [5] as follows:

(a) Open the door to get access to the handle mechanism behind the hinge arm.

(b) Install the pull cable [2] in the disarm collar [1].

(c) Install the retainer [3] on the disarm collar [1].

(d) Install the Scotch 425 Aluminum Foil Tape, G00291, a minimum of 0.5 in. (12.7 mm) over the edge of the cutout in the handle box [4].

(e) Close and latch the door.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-02-860-003

(1) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

SUBTASK 52-12-02-080-001

(2) Remove the DO-NOT-OPERATE tag on the interior handle.

G. Installation Test

SUBTASK 52-12-02-710-003

(1) Do an adjustment of the pull cable [2] (TASK 52-12-00-820-801).

SUBTASK 52-12-02-710-001

(2) Do a test on the exterior handle mechanism [5] as follows:

(a) Do this task: Passenger Entry Door System Test, TASK 52-12-00-730-801.

1) Only do the Exterior Handle Mechanism Test.

END OF TASK

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LATCH MECHANISM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the latch mechanism.

(2) An installation of the latch mechanism.

TASK 52-12-03-000-801

2. Latch Mechanism Removal

(Figure 401)

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
52-12-02-000-801	Exterior Handle Mechanism Removal (P/B 401)
52-12-16-000-802	Pull Cable Removal (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1146	Pad - Protective, Ensolite or Equivalent 1/2 Inch by 72 Inches by 96 Inches
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Prepare for the Removal

SUBTASK 52-12-03-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

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(d) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

Row	Col	Number	Name
N	15	C52611	L FLT LOCK DR

Right Power Management Panel, P210

Row	Col	Number	Name
N	8	C52610	R FLT LOCK DR

SUBTASK 52-12-03-010-001

(2) Get access to the latch mechanism [1] as follows:

(a) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

(b) Make sure the adjustable height cabin and general access stand, STD-1160, is outboard of the door.

(c) Open the door until the hinge is perpendicular to the door.

E. Removal

SUBTASK 52-12-03-000-001

(1) Do this task: Exterior Handle Mechanism Removal, TASK 52-12-02-000-801.

SUBTASK 52-12-03-020-001

(2) Disconnect the latch mechanism [1] from the door as follows:

ARO ALL; AIRPLANES WITH LATCH INTERLOCKS

(a) Disengage the latch interlock [2].

ARO ALL

(b) Turn the interior handle [26] to lower the door onto a protective pad, STD-1146, to make sure the door weight is not on the secondary lift pushrod [3] at the latch shaft [15].

(c) Remove the bolt [10], washer [11], bushing [12], washer [13], and nut [14] to disconnect the secondary lift pushrod [3] at the latch shaft [15].

1) You can turn the interior handle [26] toward the open position to make it easier to remove the bolt [10].

a) Do not let the gas spring [20] snap the handle cam [27] to the fully open or closed position.

(d) Remove the bolt [21], washer [22], bushing [23], washer [24], and nut [25] to disconnect the drive rod [6] at the handle box [4].

(e) Remove the bolt [29], washer [30], washer [31], and nut [32] that attach the latch crank [8] to the latch shaft [15].

(f) Remove the latch crank [8], washer [28], and washer [48] between the latch crank [8] and latch shaft [15].

1) Keep the latch crank [8] for the subsequent installation.

NOTE: The latch mechanism is a matched drilled assembly.

SUBTASK 52-12-03-020-002

(3) Disconnect the flight lock mechanism [9] from the door structure as follows:

(a) Disconnect the electrical connector [39] and electrical connector [47] from the flight lock actuator [33] and flight lock engaged and disengaged proximity sensors [40].

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(b) Remove the bolt [42], washer [43], bushing [44], washer [45], and nut [46] that attach the interlock rod [7] to the interlock roller arm [41].

(c) Remove the bolt [34], washer [35], bushing [36], washer [37], and nut [38] that attach the flight lock mechanism [9] to the door structure.

SUBTASK 52-12-03-020-003

(4) Do this task: Pull Cable Removal, TASK 52-12-16-000-802.

(a) Only do the steps to remove the pull cable from the handle mechanism.

SUBTASK 52-12-03-000-002

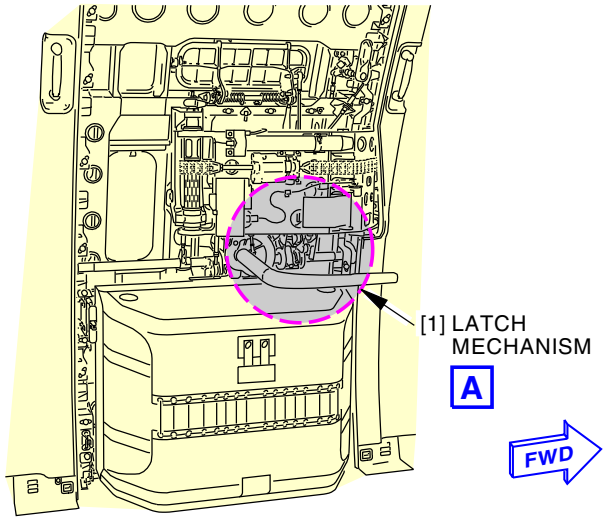
(5) Remove the latch mechanism [1] from the door structure as follows:

(a) Hold the latch mechanism [1] and remove the bolt [16], washer [17], and shim [18] that attach the handle box [4] to the door structure.

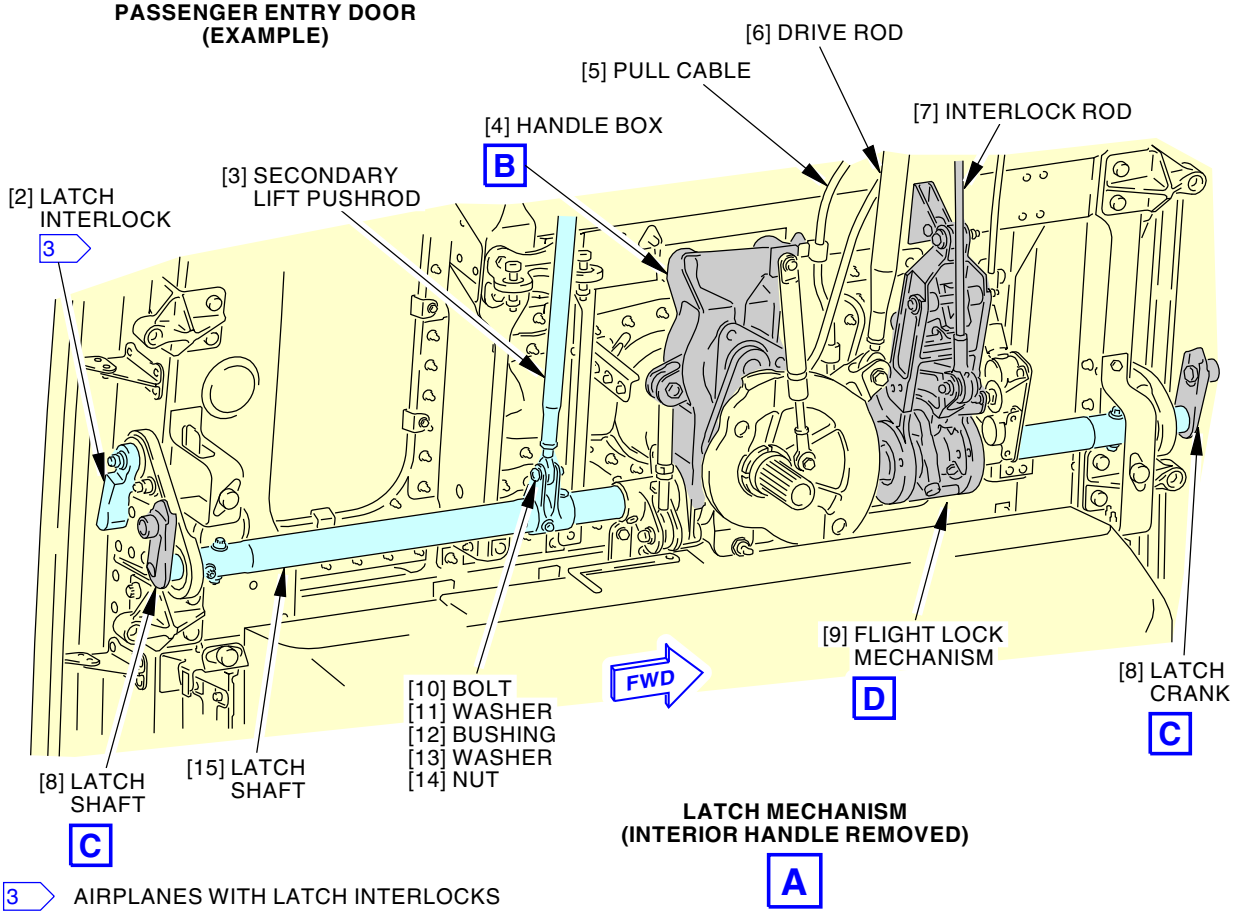
(b) Remove the latch mechanism [1].

——— END OF TASK ———

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PASSENGER ENTRY DOOR
(EXAMPLE)

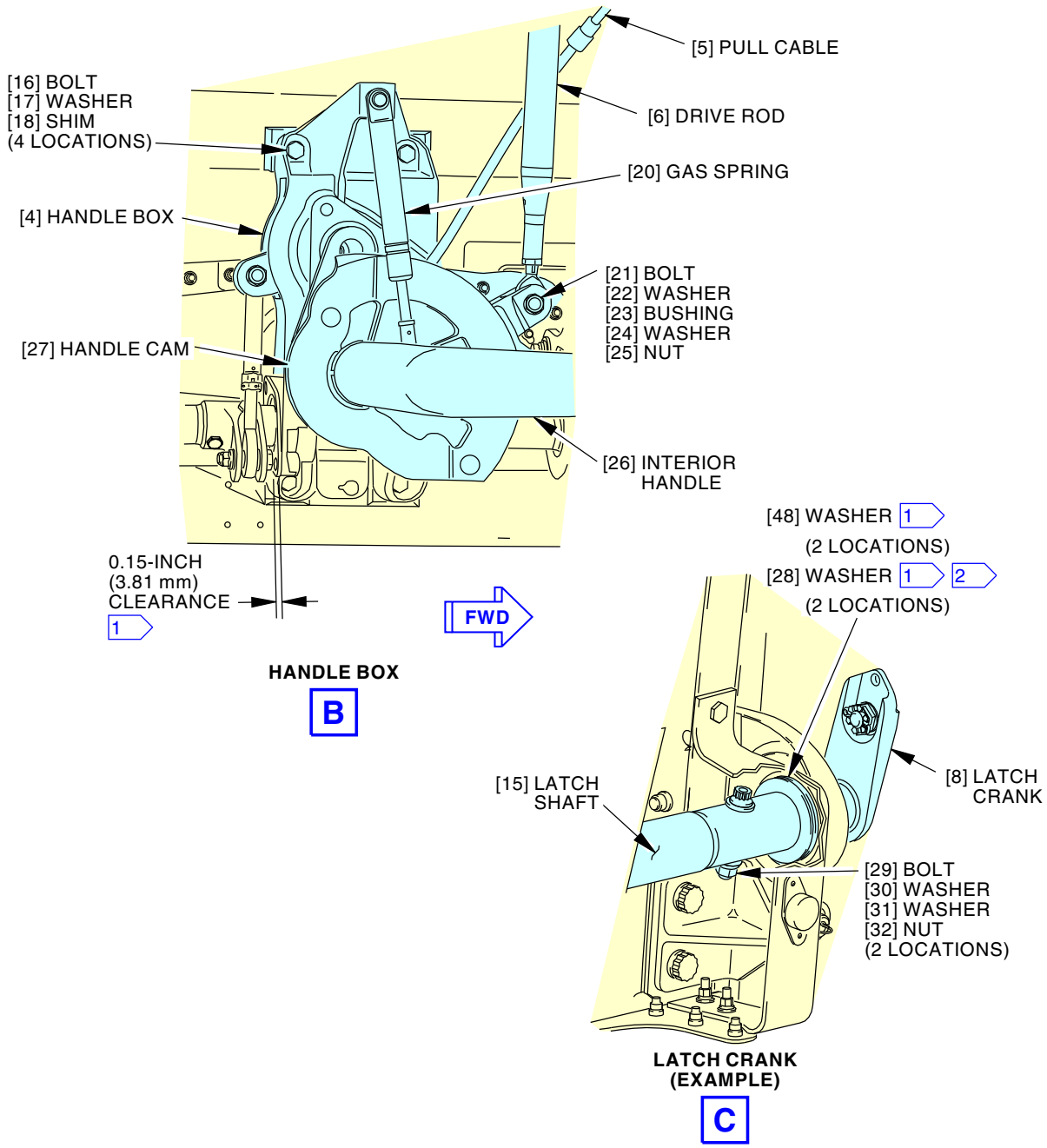


LATCH MECHANISM
(INTERIOR HANDLE REMOVED)

M64551 S0006425052_V2

Latch Mechanism Installation
Figure 401/52-12-03-990-802 (Sheet 1 of 3)

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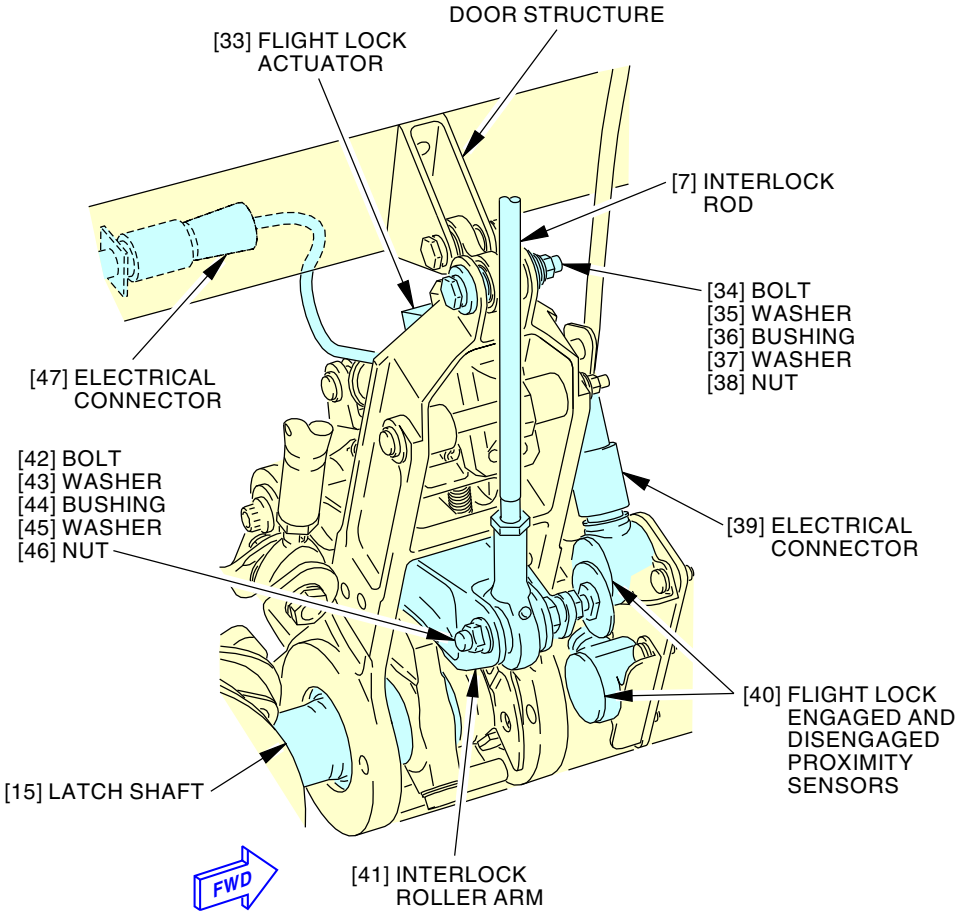
1 ADD OR REMOVE WASHERS BETWEEN LATCH SHAFT AND DOOR STRUCTURE TO GET THIS CLEARANCE.

2 MAKE SURE THE CLEARANCE BETWEEN THE WASHER AND THE BEARING IN THE DOOR STRUCTURE IS 0.01-0.02 INCH (0.25-0.51 mm) AT EACH SIDE OF THE DOOR.

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Latch Mechanism Installation
Figure 401/52-12-03-990-802 (Sheet 2 of 3)

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FLIGHT LOCK MECHANISM

D

J21852 S0000170681_V3

Latch Mechanism Installation
Figure 401/52-12-03-990-802 (Sheet 3 of 3)

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TASK 52-12-03-400-801

3. Latch Mechanism Installation

(Figure 401)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-00-730-801	Passenger Entry Door System Test (P/B 501)
52-12-02-400-801	Exterior Handle Mechanism Installation (P/B 401)
52-12-16-400-802	Pull Cable Installation (P/B 201)
52-12-25-400-803	Upper Liner Installation (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1146	Pad - Protective, Ensolite or Equivalent 1/2 Inch by 72 Inches by 96 Inches

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Installation

SUBTASK 52-12-03-400-001

(1) Install the latch mechanism [1] on the door structure as follows:

(a) Hold the latch mechanism [1] in its correct position and install the bolt [16], washer [17], and shim [18] to attach the latch mechanism [1] to the door structure.

SUBTASK 52-12-03-420-001

(2) Do this task: Pull Cable Installation, TASK 52-12-16-400-802.

(a) Only do the steps to install the pull cable in the handle mechanism.

SUBTASK 52-12-03-400-002

(3) Connect the flight lock mechanism [9] to the door structure as follows:

(a) Install the bolt [34], washer [35], bushing [36], washer [37], and nut [38] to attach the flight lock mechanism [9] to the door structure.

(b) Install the bolt [42], washer [43], bushing [44], washer [45], and nut [46] to attach the interlock rod [7] to the interlock roller arm [41].

(c) Connect the electrical connector [39] and electrical connector [47] to the flight lock actuator [33] and flight lock engaged and disengaged proximity sensors [40].

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SUBTASK 52-12-03-400-003

(4) Connect the latch mechanism [1] to the door as follows:

(a) Install the latch crank [8] with the washer [28] and washer [48] between the latch crank [8] and latch shaft [15].

1) Use the latch crank [8] from the previous removal.

NOTE: The latch mechanism is a matched drilled assembly.

(b) Make sure the clearance to the handle box [4] is within the limits (View B and View C, Figure 401).

(c) Install the bolt [29], washer [30], washer [31], and nut [32] to attach the latch crank [8] to the latch shaft [15].

(d) Install the bolt [21], washer [22], bushing [23], washer [24], and nut [25] to connect the drive rod [6] at the handle box [4].

(e) Install the bolt [10], washer [11], bushing [12], washer [13], and nut [14] to connect the secondary lift pushrod [3] at the latch shaft [15].

1) You can turn the interior handle [26] toward the open position to make it easier to install the bolt.

a) Do not let the gas spring [20] snap the handle cam [27] to the fully open or closed position.

(f) Turn the interior handle [26] to lift the door from the protective pad, STD-1146.

SUBTASK 52-12-03-410-001

(5) Do this task: Exterior Handle Mechanism Installation, TASK 52-12-02-400-801.

SUBTASK 52-12-03-010-002

(6) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

E. Installation Test

SUBTASK 52-12-03-720-001

(1) Do this task: Passenger Entry Door System Test, TASK 52-12-00-730-801.

(a) Only do the Normal Operation Interior Handle Mechanism Test.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-03-860-002

(1) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

Row	Col	Number	Name
N	15	C52611	L FLT LOCK DR

Right Power Management Panel, P210

Row	Col	Number	Name
N	8	C52610	R FLT LOCK DR

SUBTASK 52-12-03-860-004

(2) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

END OF TASK

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VENT DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the vent door.

(2) An installation of the vent door.

TASK 52-12-04-000-801

2. Vent Door Removal

(Figure 401)

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Prepare for the Removal

SUBTASK 52-12-04-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

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(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-04-010-001

(2) Get access to the vent door [1] as follows:

(a) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

(b) Make sure the adjustable height cabin and general access stand, STD-1160, is outboard of the vent door [1].

(c) Open the vent door [1] until the hinge is perpendicular to the vent door [1].

(d) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985.

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

E. Removal

SUBTASK 52-12-04-020-001

WARNING HOLD THE VENT DOOR WHEN YOU DISCONNECT THE DRIVE ROD AND INTERLOCK ROD FROM THE VENT DOOR. WHEN YOU DISCONNECT THE RODS, THE VENT DOOR WILL FULLY OPEN FROM THE FORCE OF ITS SPRINGS.

(1) Disconnect the drive rod [4] and interlock rod [3] as follows:

(a) Remove the bolt [22], washer [23], bushing [24], washer [25], and nut [26] to disconnect the drive rod [4] from the drive crank [27].

(b) Remove the bolt [13], washer [14], radius filler [15], washer [16], and nut [17] that attach the drive crank [27] to the shaft [2].

(c) Remove the bolt [18], washer [19], washer [20], and nut [21] to disconnect the interlock rod [3] from the vent door [1].

SUBTASK 52-12-04-020-002

(2) Disengage the springs [7] from the shaft [2] as follows:

(a) Remove the bolts [8], washers [9], bushings [10], washers [11], and nuts [12] that hold the springs [7] to the structure.

(b) Loosen the bolt [28], washer [51], bushing [52], washers [53], bushing [54], and nut [55] that hold the other end of the spring [7] and disengage the spring [7].

(c) Loosen the bolt [32], washer [56], washer [57], bushing [58], washer [59], and nut [60] that hold the other end of the spring [7] and disengage the spring [7].

SUBTASK 52-12-04-020-003

(3) Remove the vent door [1] as follows:

(a) Remove the bolts [41], washers [42], washers [43], and nuts [44] that attach the aft fitting [40] to the structure.

(b) Loosen the aft fitting [40] from the structure and remove it from the shaft [2].

(c) Pull the vent door [1] aft from the forward fitting [45].

SUBTASK 52-12-04-020-004

(4) Remove the vent door [1] from the shaft [2] as follows:

(a) Remove the bolt [30], washers [31], and nut [33] that attach the aft crank [6] and go through the shaft [2].

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(b) Loosen the bolt [29], washer [46], washer [47], bushing [48], washer [49], and nut [50] that hold the other end of the spring [5] and disengage the spring [5].

(c) Remove the washers [39] on the aft end of the shaft [2].

(d) Remove the aft crank [6] from the shaft [2].

(e) Remove the spring [5] from the shaft [2].

(f) Remove the washers [38] between the vent door [1] and the aft crank [6].

(g) Pull the shaft [2] forward through the first hole in the vent door [1].

(h) Remove the springs [7] from the shaft [2].

(i) Remove the drive crank [27] from the shaft [2].

(j) Remove the washers [37] at the vent door bushing [34].

(k) Continue to pull the shaft [2] forward through the second hole in the vent door [1].

(l) Remove the washer [36] on the shaft [2].

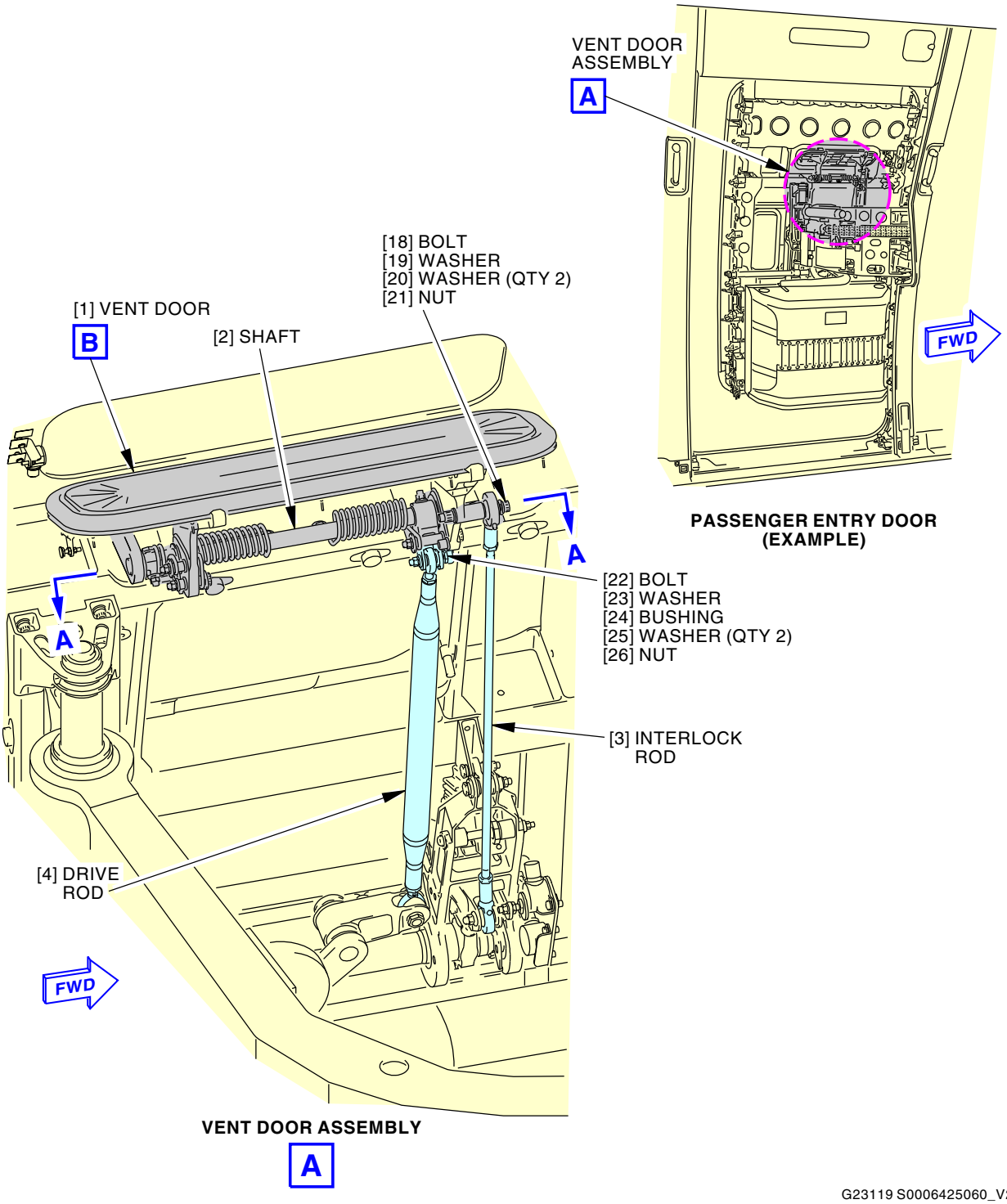
(m) Remove the washer [35] on the forward end of the shaft [2].

SUBTASK 52-12-04-020-005

(5) Remove the vent door [1].

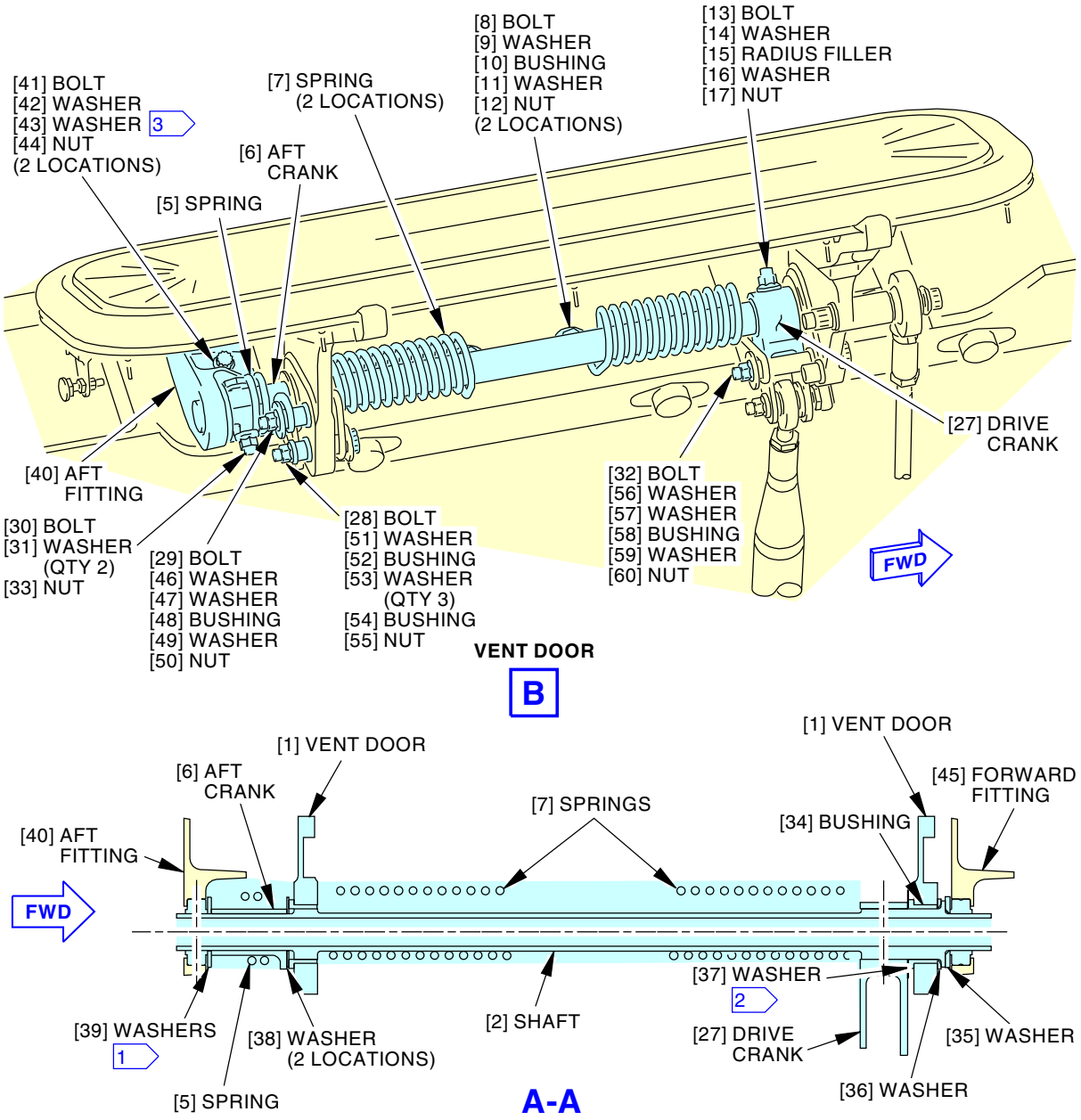
——— END OF TASK ———

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Vent Door Installation
Figure 401/52-12-04-990-802 (Sheet 1 of 2)

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1 WASHERS INSTALLED TO FILL THE CLEARANCE.

2 0.005-0.010 INCH (1.127-0.254 mm) CLEARANCE BETWEEN WASHER AND BUSHING.

3 TWO WASHERS ARE INSTALLED AT OUTBOARD LOCATION.

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Vent Door Installation
Figure 401/52-12-04-990-802 (Sheet 2 of 2)

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TASK 52-12-04-400-801

3. Vent Door Installation

(Figure 401)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-25-400-803	Upper Liner Installation (P/B 201)
52-71-01-730-801	Passenger Entry Door Indication Functional Test (P/B 201)
52-71-01-900-801	Vent Door Locked Proximity Sensor Removal, Installation, and Adjustment (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Installation

SUBTASK 52-12-04-420-001

(1) Hold the vent door [1] in its correct position.

SUBTASK 52-12-04-420-002

(2) Install the shaft [2] through the vent door [1] as follows:

(a) Install the washer [35] on the shaft [2].

(b) Install the washer [36] on the shaft [2].

(c) Hold the shaft [2] at the forward end and push the shaft [2] aft through the first hole in the vent door [1].

(d) Install the washer [37] at the vent door bushing [34].

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1) Make sure the clearance between the washer [37] and bushing [34] is within the limits (View A-A, Figure 401).

(e) Install the drive crank [27] and springs [7] on the shaft [2].

(f) Continue to push the shaft [2] aft through the second hole in the vent door [1].

(g) Install the washers [38] at the vent door [1].

(h) Install the aft crank [6] on the shaft [2].

(i) Install the spring [5] on the shaft [2].

(j) Install the washers [39] at the aft crank [6].

(k) Install the aft fitting [40] on the shaft [2].

1) Make sure the clearance between the aft fitting [40] and aft crank [6] is within the limits (View A-A, Figure 401).

(l) Install the bolt [30], washers [31], and nut [33] to attach the aft crank [6] and go through the shaft [2].

1) Do not tighten the nut [33].

SUBTASK 52-12-04-420-003

(3) Install the vent door [1] as follows:

(a) Push the vent door [1] through the forward fitting [45].

(b) Make sure the shaft [2] is aligned correctly and the hole in the forward end of the shaft [2] is up.

(c) Apply the sealant, A00247, to the aft fitting and the mating structure to make a surface seal between the aft fitting [40] and the structure.

(d) Put the aft fitting [40] in its correct position on the structure.

(e) Apply the sealant, A00247, to the mating surfaces of the bolts [41], washers [42], washers [43], nuts [44], and brush seal after installation.

(f) Install the bolts [41], washers [42], washers [43], and nuts [44] to attach the aft fitting [40] to the structure.

SUBTASK 52-12-04-420-004

(4) Engage the spring [5] and spring [7] as follows:

(a) Engage the spring [5] with the bolt [30], washer [31], and nut [33].

(b) Engage the spring [5] with the bolt [29], washer [46], washer [47], bushing [48], washer [49], and nut [50].

(c) Tighten the nut [33] and nut [50] that hold the spring [5].

(d) Apply the sealant, A00247, to the mating surfaces of the bolts [8], washers [9], bushings [10], washers [11], nuts [12], and brush seal after installation.

(e) Install the bolts [8], washers [9], bushings [10], washers [11], and nuts [12] that hold the springs [7] on the structure.

(f) Engage the spring [7] with the bolt [28], washer [51], bushing [52], washer [53], bushing [54], and nut [55].

(g) Engage the spring [7] with the bolt [32], washer [56], washer [57], bushing [58], washer [59], and nut [60].

(h) Tighten the nut [55] and nut [60] that hold the springs [7].

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SUBTASK 52-12-04-420-005

(5) Connect the drive rod [4] and interlock rod [3] as follows:

(a) Apply the sealant, A00247, between the radius filler [15] and drive crank [27].

(b) Apply the sealant, A00247, to the mating surfaces of the bolt [13], washer [14], radius filler [15], washer [16], nut [17], and brush seal after installation.

(c) Install the bolt [13], washer [14], radius filler [15], washer [16], and nut [17] for the drive crank [27] that go through the shaft [2].

(d) Install the bolt [22], washer [23], bushing [24], washer [25], and nut [26] to connect the drive rod [4] to the drive crank [27].

(e) Install the bolt [18], washer [19], washer [20], and nut [21] to connect the interlock rod [3] to the vent door [1].

SUBTASK 52-12-04-820-001

(6) Do this task: Vent Door Locked Proximity Sensor Removal, Installation, and Adjustment, TASK 52-71-01-900-801.

(a) Only do the Adjustment procedure.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-04-410-001

(1) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

SUBTASK 52-12-04-080-001

(2) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985.

SUBTASK 52-12-04-860-003

(3) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

G. Installation Test

SUBTASK 52-12-04-710-001

(1) Do a test on the vent door [1] as follows:

(a) Open and close the door.

(b) Make sure the vent door [1] operates correctly.

(c) Make sure the vent door [1] does not touch the upper liner.

(d) Do this task: Passenger Entry Door Indication Functional Test, TASK 52-71-01-730-801.

1) Only do the test on the locked proximity sensor.

——— END OF TASK ———

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GAS SPRING - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) A removal of the gas spring.

(2) An installation of the gas spring.

TASK 52-12-05-000-801

2. Gas Spring Removal

(Figure 201)

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Prepare for the Removal

SUBTASK 52-12-05-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARMED position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

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SUBTASK 52-12-05-010-001

(2) Get access to the gas spring [4] as follows:

(a) Make sure the adjustable height cabin and general access stand, STD-1160, is outboard of the door.

(b) Open the door until the hinge is perpendicular to the door.

(c) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985.

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

E. Removal

SUBTASK 52-12-05-020-001

WARNING

DO NOT TRY TO COMPRESS THE GAS SPRING MANUALLY. IT IS NOT POSSIBLE TO COMPRESS THE SPRING MANUALLY. INJURY CAN OCCUR IF THE SPRING SUDDENLY MOVES AND TRAPS THE HAND BETWEEN THE SPRING AND THE STRUCTURE. USE AN INTERIM TOOL TO COMPRESS THE SPRING.

(1) Disconnect the top end of the gas spring [4] from the handle box [1] as follows:

(a) Push down on the gas spring [4] to compress it.

(b) Remove the bolt [5], washer [6], bushing [7], washer [9], and nut [8] that attach the gas spring [4] to the handle box [1].

SUBTASK 52-12-05-020-002

(2) Disconnect the bottom end of the gas spring [4] from the handle cam [3] as follows:

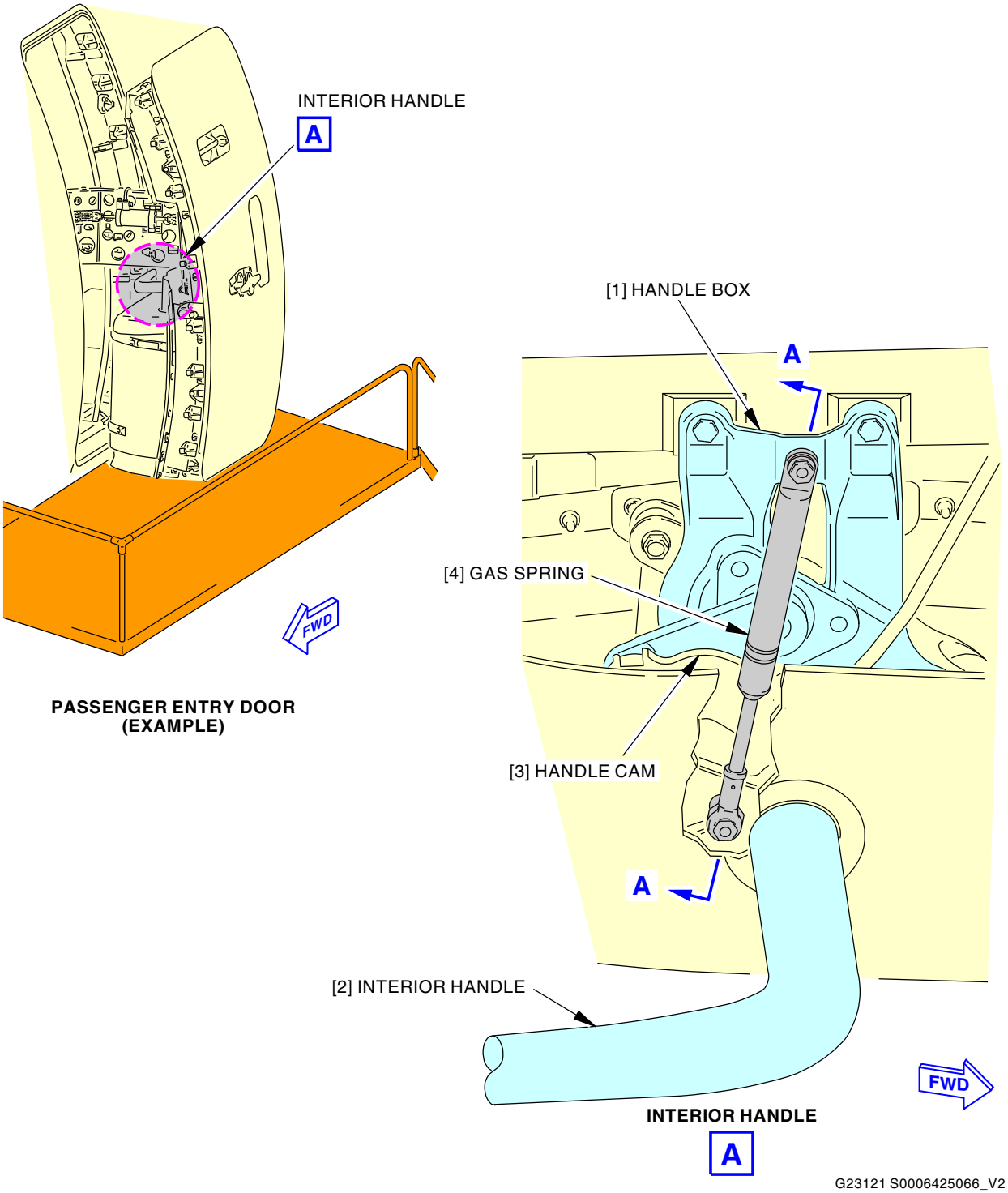
(a) Remove the bolt [13], washer [12], washer [14], washer [10], and nut [11] that attach the gas spring [4] to the handle cam [3].

SUBTASK 52-12-05-020-003

(3) Remove the gas spring [4].

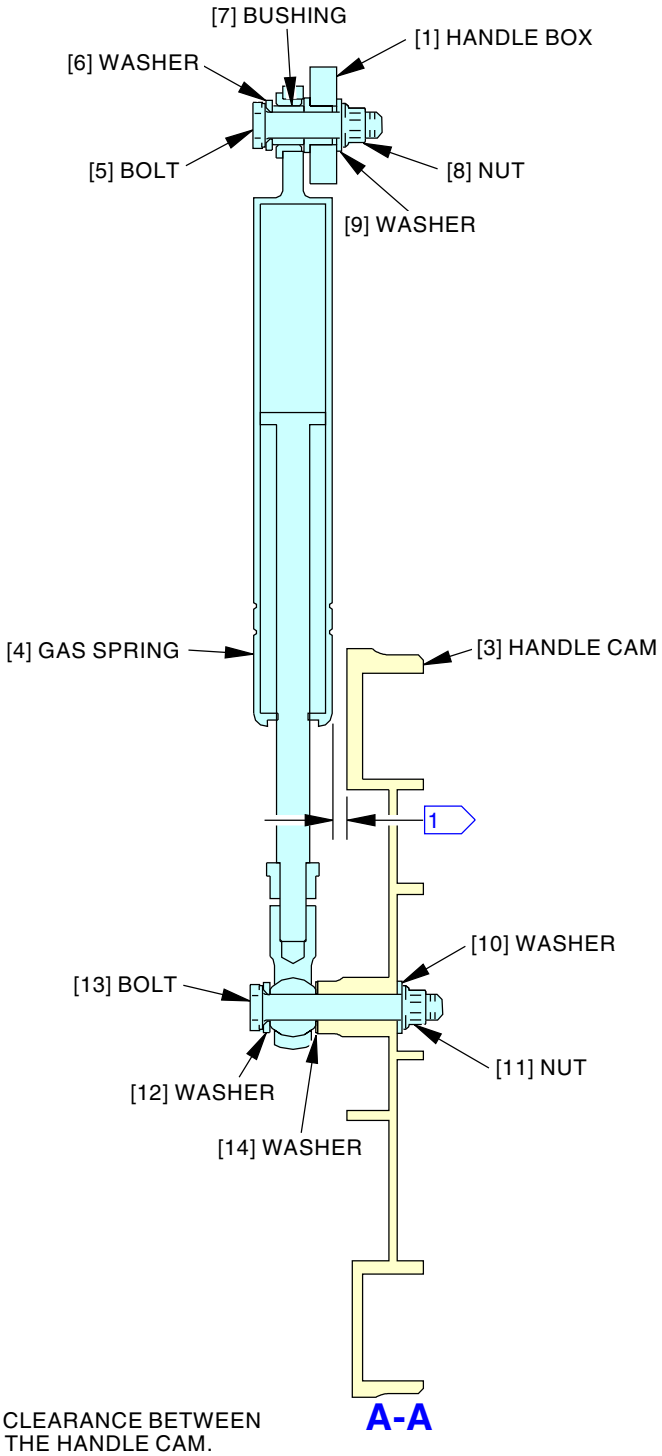
END OF TASK

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Gas Spring Installation
Figure 201/52-12-05-990-802 (Sheet 1 of 2)

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1 MAKE SURE THERE IS CLEARANCE BETWEEN THE GAS SPRING AND THE HANDLE CAM.

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Gas Spring Installation
Figure 201/52-12-05-990-802 (Sheet 2 of 2)

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TASK 52-12-05-400-801

3. Gas Spring Installation

(Figure 201)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Installation

SUBTASK 52-12-05-420-001

(1) Connect the bottom end of the gas spring [4] to the handle cam [3] as follows:

(a) Hold the gas spring [4] in its correct position and install the bolt [13], washer [12], washer [14], washer [10], and nut [11] to attach the gas spring [4] to the handle cam [3].

(b) Make sure there is clearance between the gas spring [4] and handle cam [3] (View A-A, Figure 201):

1) If necessary, adjust as follows:

a) Add or remove the washer [14] between the gas spring [4] rod end bearing and handle cam [3] to get the clearance.

SUBTASK 52-12-05-420-002

WARNING DO NOT TRY TO COMPRESS THE GAS SPRING MANUALLY. IT IS NOT POSSIBLE TO COMPRESS THE SPRING MANUALLY. INJURY CAN OCCUR IF THE SPRING SUDDENLY MOVES AND TRAPS THE HAND BETWEEN THE SPRING AND THE STRUCTURE. USE AN INTERIM TOOL TO COMPRESS THE SPRING.

(2) Connect the top end of the gas spring [4] to the handle box [1] as follows:

(a) Push down on the gas spring [4] to compress it a minimum of 0.05 in. (1.27 mm).

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(b) Install the bolt [5], washer [6], bushing [7], washer [9], and nut [8] to attach the gas spring [4] to the handle box [1].

(c) Keep the clearance between the gas spring [4] and handle cam [3].

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-05-080-001

(1) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985.

SUBTASK 52-12-05-860-003

(2) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

F. Installation Test

SUBTASK 52-12-05-710-001

(1) Do a test on the gas spring [4] as follows:

(a) Turn the interior handle to its open and closed positions.

(b) Make sure the gas spring [4] does not bottom out in any position.

(c) Make sure the gas spring [4] does not touch the handle cam [3].

——— END OF TASK ———

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HINGE MECHANISM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the hinge mechanism.

(2) An installation of the hinge mechanism.

B. The hinge mechanism has these parts:

(1) Hinge arm and all of the parts on the hinge arm.

TASK 52-12-06-000-801

2. Hinge Mechanism Removal

(Figure 401, Figure 402)

A. References

Reference	Title
25-21-02-000-801	Doorway Lining Removal (P/B 401)
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
52-12-25-000-802	Hinge Covers Removal (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1989	Screw Equipment - Safety, Passenger Door Counter-Balance Spring Part #: J52021-1 Supplier: 81205
SPL-3988	Pin - Rig (J20003-11 Assembly Included in Kit J20003-34) Part #: J20003-34 Supplier: 81205

C. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

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E. Prepare for the Removal

SUBTASK 52-12-06-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-06-010-001

(2) Get access to the hinge mechanism as follows:

(a) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

(b) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

(c) Do this task: Doorway Lining Removal, TASK 25-21-02-000-801.

1) Only do the steps to remove the applicable lining on the forward side of the doorway.

F. Removal

SUBTASK 52-12-06-480-001

(1) Safety the counterbalance spring [6] as follows:

(a) Remove the plug [4].

(b) Apply the grease, D00633, to the counterbalance spring safety screw and washer [5] (screw equipment, SPL-1989).

(c) Install the counterbalance spring safety screw and washer [5] (screw equipment, SPL-1989).

(d) Turn the counterbalance spring safety screw and washer [5] (screw equipment, SPL-1989) until you feel an increase in torque and then turn it two turns more.

(e) Close the door.

SUBTASK 52-12-06-020-001

(2) Disconnect the hinge mechanism from the door [3] as follows:

(a) Install the rig pin (J20003-11 assembly), SPL-3988, through the holes in the flight lock mechanism and vent door interlock hook to safety the door.

(b) Disconnect the electrical connector [9] between the hinge arm [1] and door [3].

(c) Remove the bolt [18], washer [14], washer [17], bushing [16], and nut [15] that attach the secondary lift pushrod [12] to the bellcrank [10] on the latch shaft [11].

(d) Remove the bolts [19], washers [20], washers [22], radius filler [24], shims [21], and nuts [23] that attach the top of the attach assembly [2] to the door [3].

1) Make a record of the location of the shim [21] for the subsequent installation.

(e) Remove the bolt [25], washer [26], washer [27], and nut [28] that attach the attach assembly [2] to the bracket [13] on the door [3].

(f) Hold the hinge arm [1] to support it after the attach assembly [2] is disconnected from the door [3].

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SUBTASK 52-12-06-020-002

(3) Disconnect the hinge mechanism from the fuselage [41] as follows:

(a) Disconnect the electrical connector [43] between the hinge arm [1] and fuselage [41].

(b) For PED 1-4, do these steps:

1) Loosen the nut [61] and nut [58] on the adjuster bolt [57] for the adjuster arm [42].

2) Remove the adjuster bolt [57], spacer ring [62], spacer ring [63], nut [61], adjuster [60], washer [59], and nut [58].

(c) For PED 5, do these steps:

1) Loosen the nut [70] and nut [71] on the adjuster bolt [57] for the adjuster arm [42].

2) Remove the adjuster bolt [57], spacer ring [68], spacer ring [69], spacer ring [73], nut [70], nut [71], washer [74], convex washer [72], and adjuster [60].

(d) Remove the bolt [65], washer [66], and nut [67] that attach the adjuster arm [42].

(e) Remove the bolt [47], washer [48], washer [49], bushing [51], bushing [64], and nut [50] that attach the lower part of the hinge arm [1] to the fuselage [41].

(f) Remove the bolt [45], spacer ring [55], bushing [44], bushing [46], washer [56], and nut [54] that attach the upper part of the hinge arm [1] to the fuselage [41].

1) Remove the nut and spacer from below and through the anchor shaft [52].

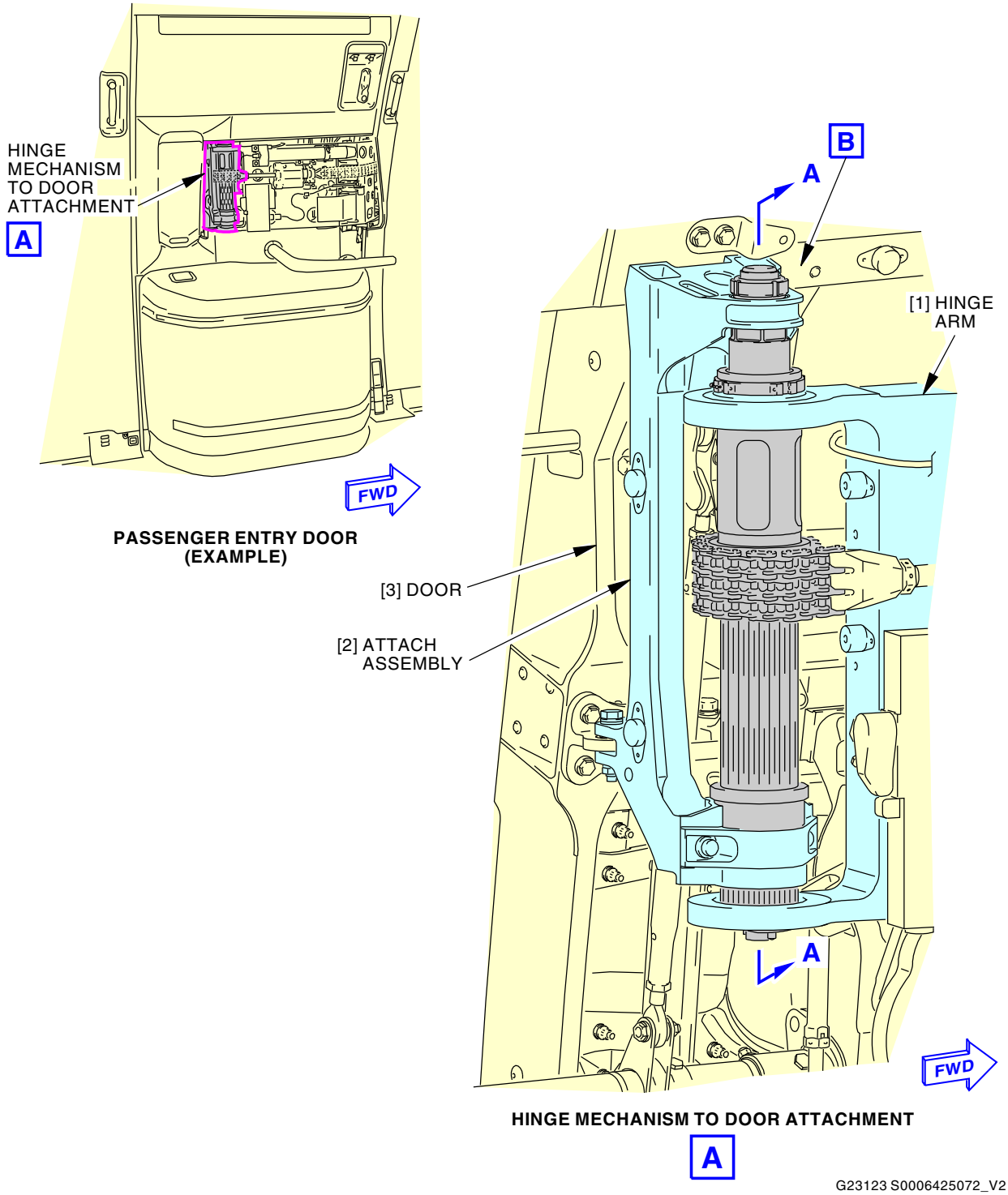
(g) Remove the adjuster arm [42] and spacer ring [53].

SUBTASK 52-12-06-020-003

(4) Remove the hinge arm [1] from the door [3].

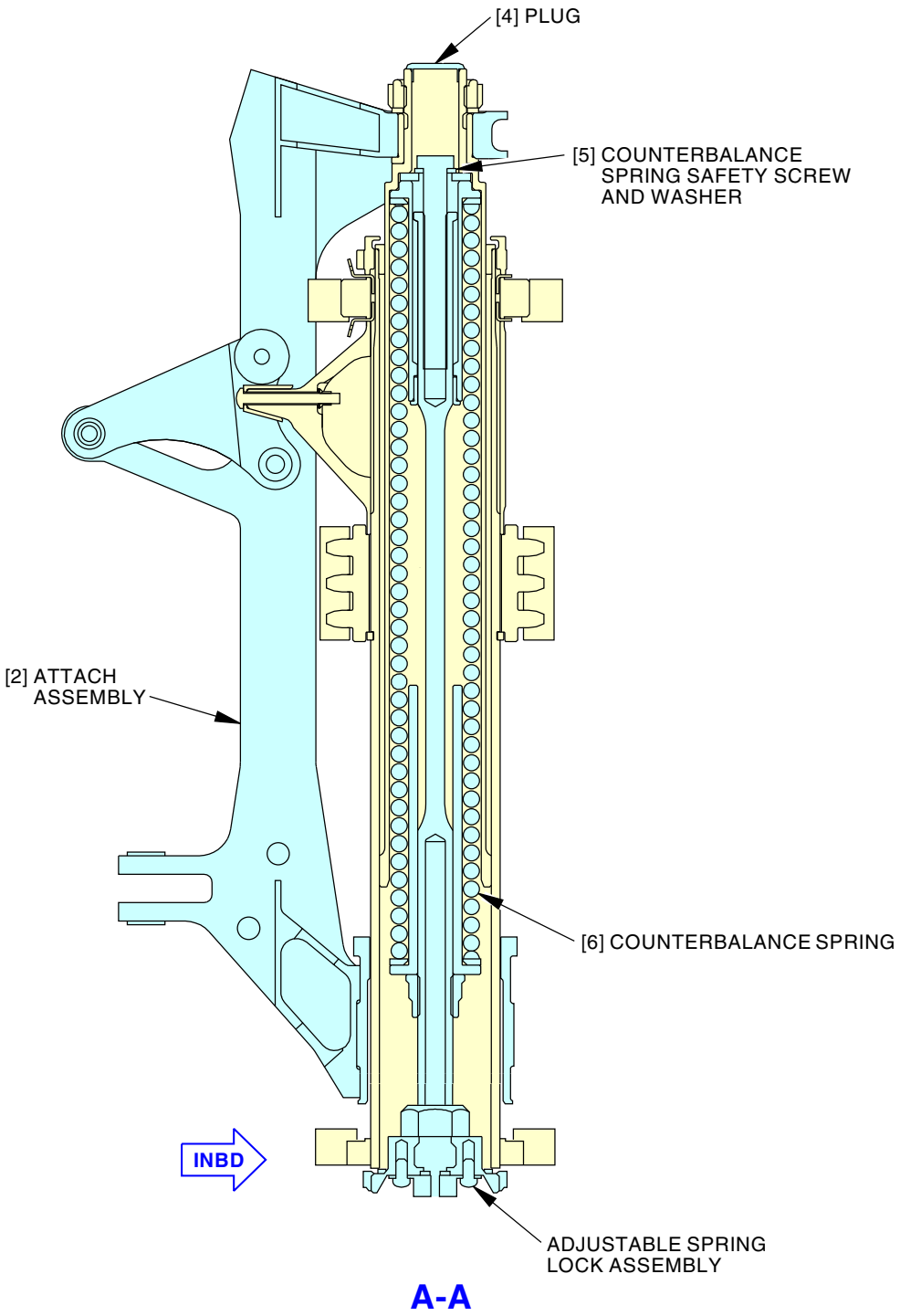
——— END OF TASK ———

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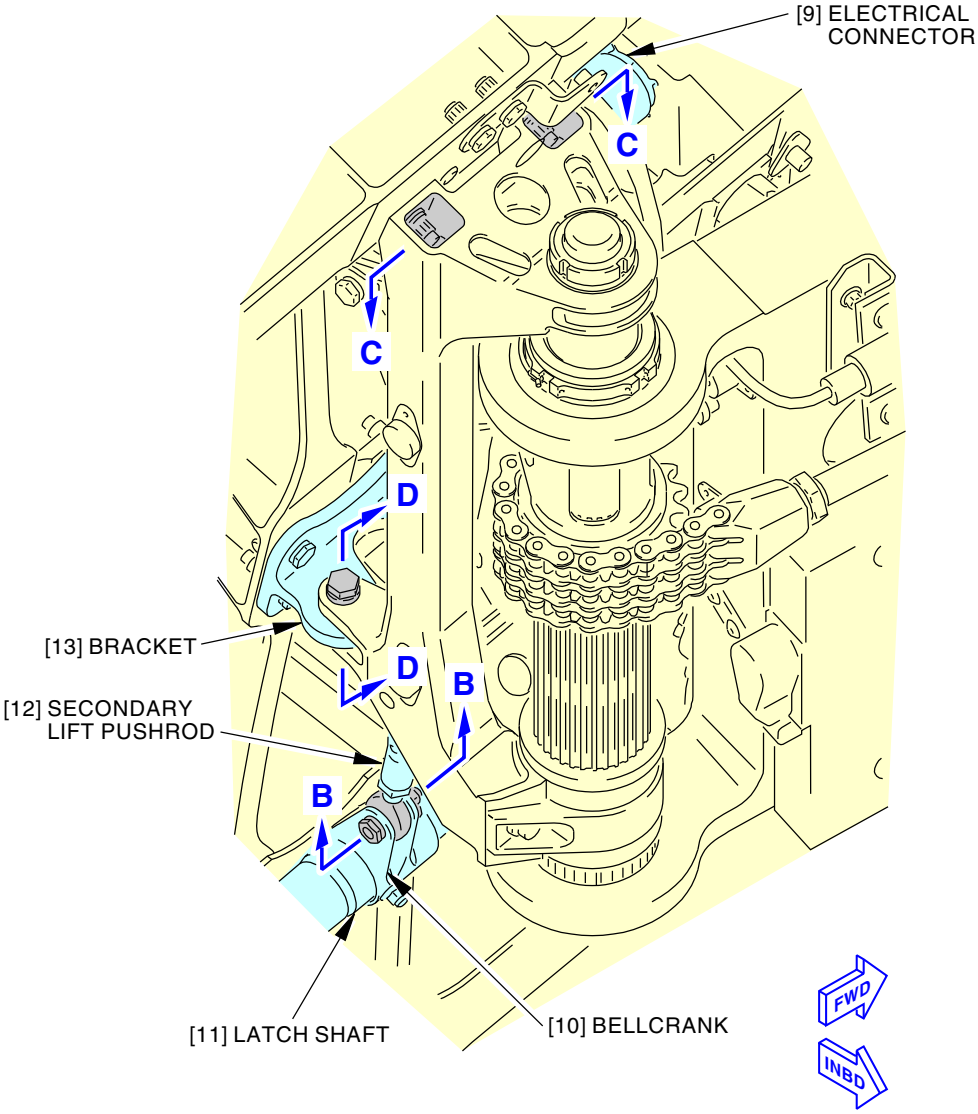
Hinge Mechanism to Door Installation
Figure 401/52-12-06-990-803 (Sheet 1 of 4)

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Hinge Mechanism to Door Installation
Figure 401/52-12-06-990-803 (Sheet 2 of 4)

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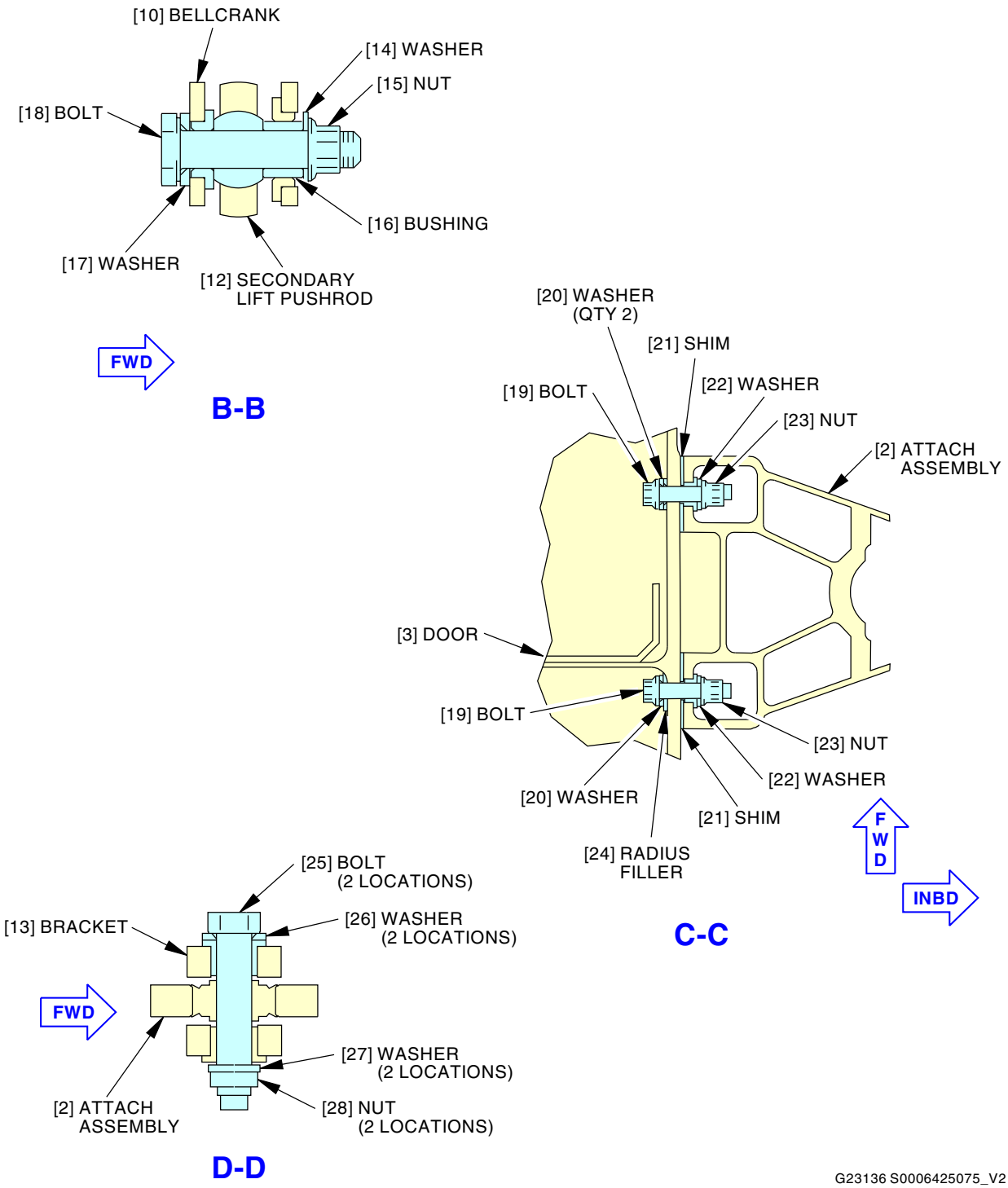
HINGE MECHANISM TO DOOR ATTACHMENT

B

G23133 S0006425074_V2

Hinge Mechanism to Door Installation
Figure 401/52-12-06-990-803 (Sheet 3 of 4)

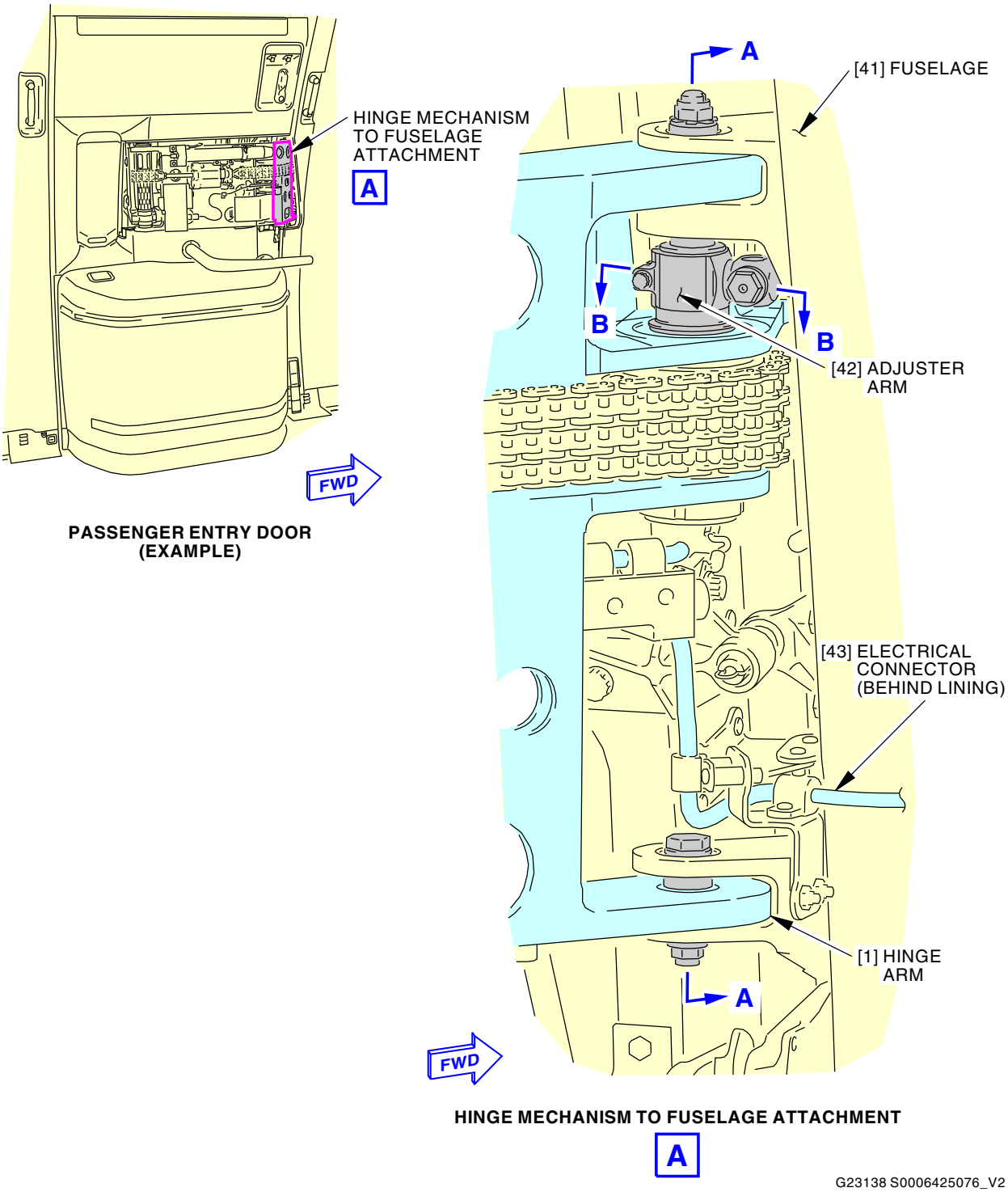
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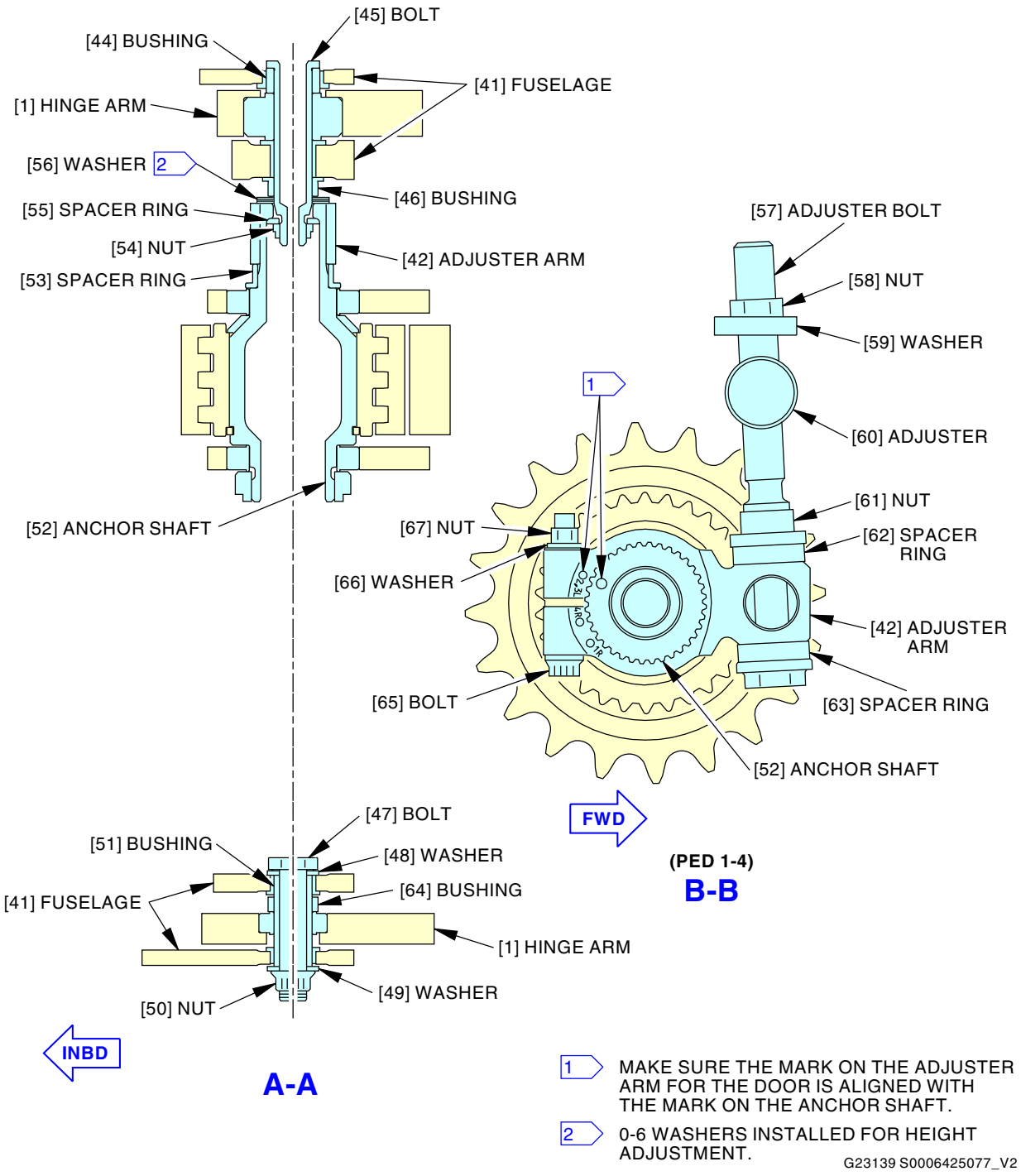
Hinge Mechanism to Door Installation
Figure 401/52-12-06-990-803 (Sheet 4 of 4)

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Hinge Mechanism to Fuselage Installation
Figure 402/52-12-06-990-804 (Sheet 1 of 3)

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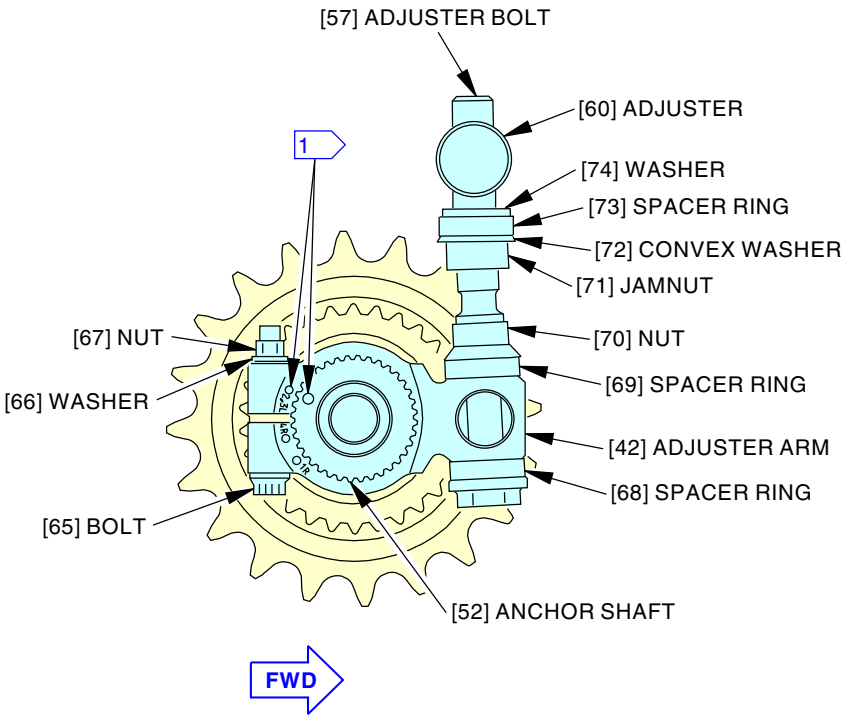
1 MAKE SURE THE MARK ON THE ADJUSTER ARM FOR THE DOOR IS ALIGNED WITH THE MARK ON THE ANCHOR SHAFT.

2 0-6 WASHERS INSTALLED FOR HEIGHT ADJUSTMENT.

G23139 S0006425077_V2

Hinge Mechanism to Fuselage Installation
Figure 402/52-12-06-990-804 (Sheet 2 of 3)

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(PED 5)

B-B

G23142 S0006425078_V2

Hinge Mechanism to Fuselage Installation
Figure 402/52-12-06-990-804 (Sheet 3 of 3)

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TASK 52-12-06-400-801

3. Hinge Mechanism Installation

(Figure 401, Figure 402)

A. References

Reference	Title
25-21-02-400-801	Doorway Lining Installation (P/B 401)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-25-400-802	Hinge Covers Installation (P/B 201)
52-12-25-400-803	Upper Liner Installation (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1989	Screw Equipment - Safety, Passenger Door Counter-Balance Spring Part #: J52021-1 Supplier: 81205
SPL-3988	Pin - Rig (J20003-11 Assembly Included in Kit J20003-34) Part #: J20003-34 Supplier: 81205

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Installation

SUBTASK 52-12-06-420-001

(1) Connect the hinge mechanism to the fuselage [41] as follows:

(a) Install the spacer ring [53] and adjuster arm [42] on the hinge arm [1].

(b) Make sure the mark on the adjuster arm [42] for the door is aligned with the mark on the anchor shaft [52].

(c) Hold the hinge arm [1] in its correct position and align with the fuselage [41].

(d) Install the bolt [45], bushing [44], bushing [46], washer [56], spacer ring [55], and nut [54] to attach the upper part of the hinge arm [1] to the fuselage [41].

1) Install the spacer ring [55] and nut [54] from below and through the anchor shaft [52].

(e) Install the bolt [47], washer [48], washer [49], bushing [51], bushing [64], and nut [50] to attach the lower part of the hinge arm [1] to the fuselage [41].

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(f) For PED 1-4, install the adjuster bolt [57], spacer ring [62], spacer ring [63], nut [61], adjuster [60], washer [59], and nut [58].

(g) For PED 5, install the adjuster bolt [57], spacer ring [68], spacer ring [69], spacer ring [73], nut [70], nut [71], washer [74], convex washer [72], and adjuster [60].

(h) Connect the electrical connector [43] between the hinge arm [1] and fuselage [41].

SUBTASK 52-12-06-420-002

(2) Connect the hinge mechanism to the door [3] as follows:

(a) Install one bolt [25], washer [26], washer [27], and nut [28] to attach the attach assembly [2] to the bracket [13] on the door [3].

(b) Loosely install the bolts [19], washers [20], washers [22], radius filler [24], shims [21], and nuts [23] to attach the top of the attach assembly [2] to the door [3].

1) Make sure to install the shims [21] in the correct locations.

(c) Install the bolt [18], washer [14], washer [17], bushing [16], and nut [15] to attach the secondary lift pushrod [12] to the bellcrank [10] on the latch shaft [11].

(d) Install the other bolt [25], washer [26], washer [27], and nut [28] to attach the attach assembly [2] to the bracket [13] on the door [3].

(e) Tighten the fasteners that attach the attach assembly [2] to the door [3].

(f) Connect the electrical connector [9] between the hinge arm [1] and door [3].

(g) Remove the rig pin (J20003-11 assembly), SPL-3988, from the flight lock mechanism.

SUBTASK 52-12-06-000-001

(3) Remove the counterbalance spring safety screw and washer [5] (screw equipment, SPL-1989) as follows:

(a) Open the door.

(b) Deflect the latch lock interlock and turn the interior handle to the closed position to lower the door outside of the cutout.

(c) Remove the counterbalance spring safety screw and washer [5] (screw equipment, SPL-1989).

(d) Install the plug [4].

E. Installation Test

SUBTASK 52-12-06-710-001

(1) Do a test on the hinge mechanism as follows:

(a) Open and close the door.

(b) Make sure the hinge mechanism operates smoothly and correctly.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-06-410-001

(1) Close access to the hinge mechanism as follows:

(a) Do this task: Doorway Lining Installation, TASK 25-21-02-400-801.

1) Only do the steps to install the applicable lining on the forward side of the doorway.

(b) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

(c) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

SUBTASK 52-12-06-860-002

(2) Arm the door as follows:

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(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

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PROGRAMMING MECHANISM CHAIN - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the programming mechanism chain.

(2) An installation of the programming mechanism chain.

B. In this procedure the long chain is referred to as the chain assembly [12] and the short chain as the chain assembly [13].

TASK 52-12-07-000-801

2. Programming Mechanism Chain Removal

(Figure 401)

A. General

(1) Use this procedure to disconnect the parts of the programming mechanism chain. If you want to do work on only one part of the programming mechanism chain, do the steps to disconnect that part only and then stop.

(2) The programming mechanism chain has these parts:

(a) Short chain (approximately 1 ft (305 mm) long).

(b) Long chain (approximately 3 ft (914 mm) long).

(3) The chains can be removed and installed separately, but should be kept as a matched set.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
52-12-25-000-802	Hinge Covers Removal (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46

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(Continued)

Zone	Area
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Removal

SUBTASK 52-12-07-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARMED position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-07-010-001

(2) Get access to the programming mechanism chain [1] as follows:

(a) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

(b) Make sure the adjustable height cabin and general access stand, STD-1160, is outboard of the door.

(c) Open the door until the hinge is perpendicular to the door.

(d) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985.

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

F. Removal

SUBTASK 52-12-07-020-001

(1) Remove the tension in the programming mechanism chain [1] as follows:

(a) Remove the lockwires [6] from the adjuster bushings [5].

(b) Loosen the adjuster bushings [5] same number of turns until there is slack in the chain assembly [12] and chain assembly [13].

SUBTASK 52-12-07-020-002

(2) Disconnect the chain end fitting [11] and chain end fitting [14] from the chain assembly [12] or chain assembly [13] as follows:

(a) Remove the lockwires [7] from the chain end fitting [11] and chain end fitting [14].

(b) Remove the cotter pins [9].

(c) Remove the link plates [8] and links [4].

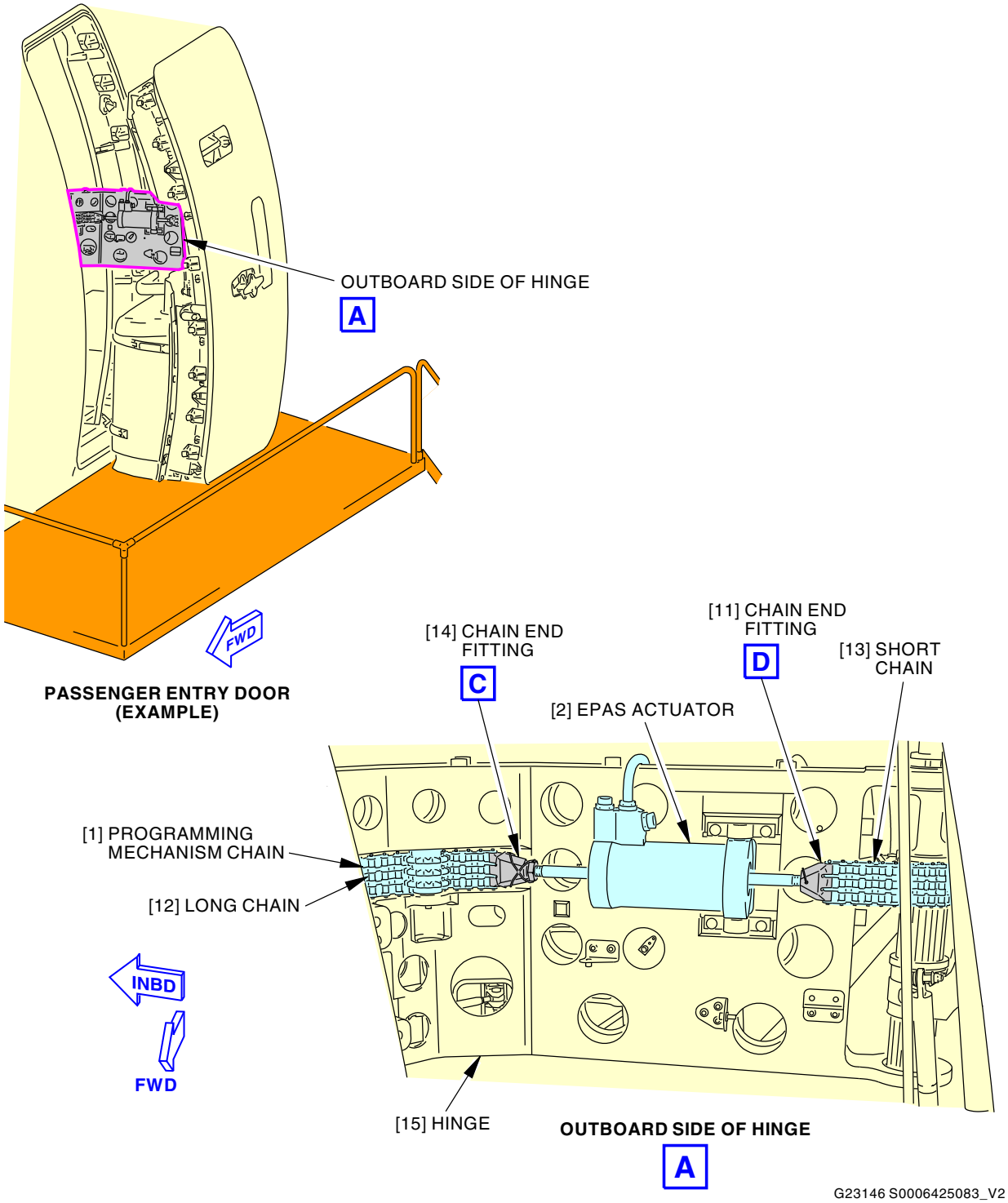
(d) Do this procedure again to disconnect the other chain if it is necessary.

SUBTASK 52-12-07-020-003

(3) Remove the chain assembly [12] or chain assembly [13] from the hinge [15].

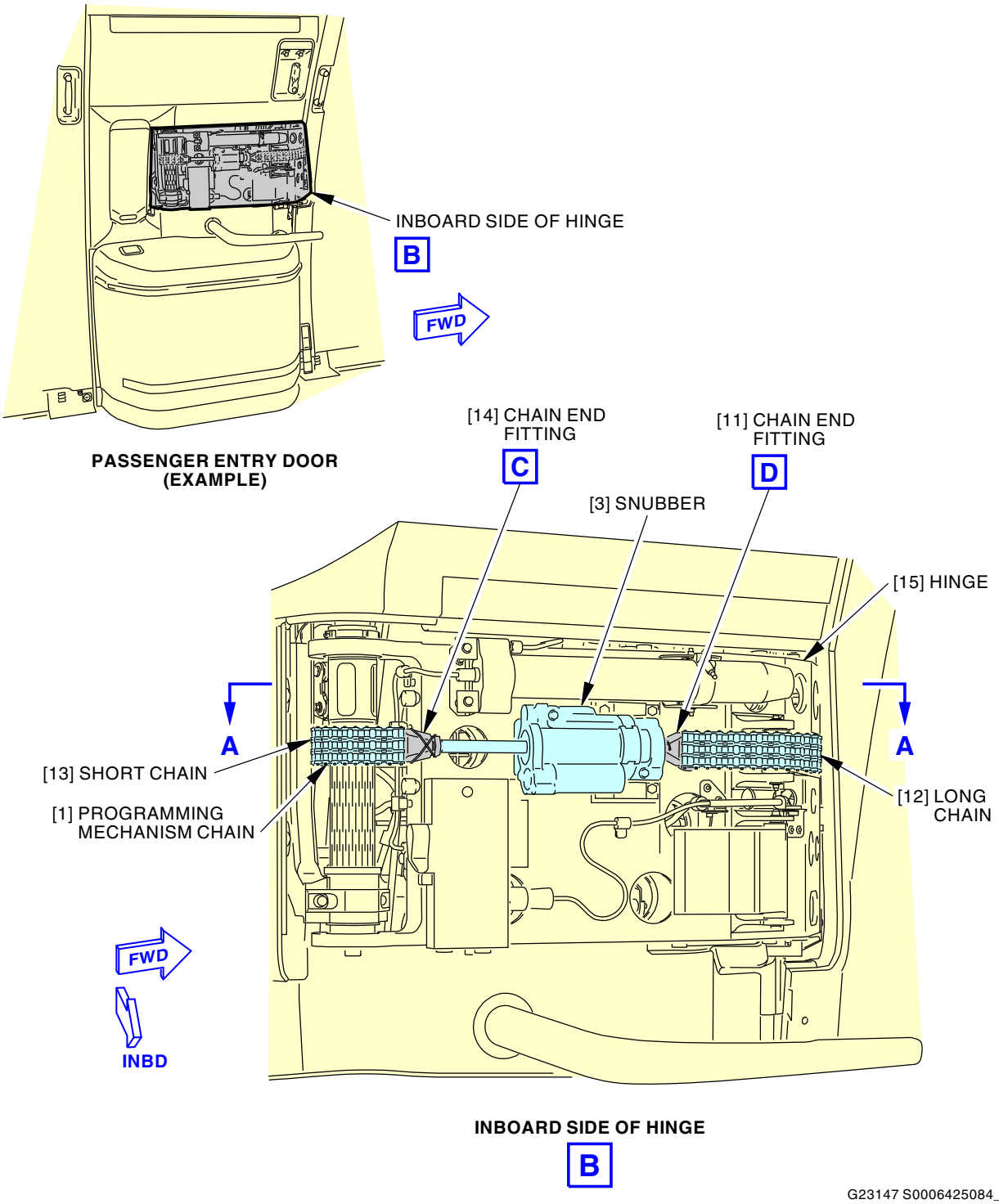
END OF TASK

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Programming Mechanism Chain Installation
Figure 401/52-12-07-990-802 (Sheet 1 of 4)

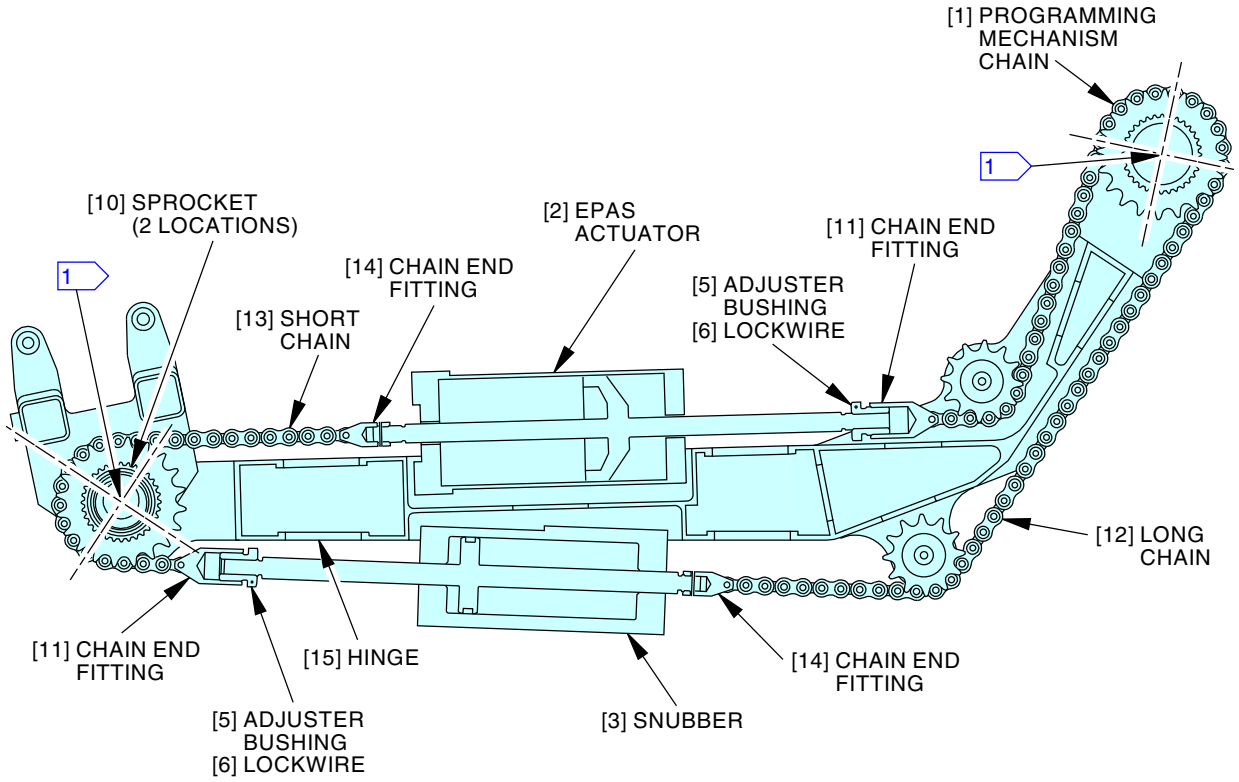
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G23147 S0006425084_V2

Programming Mechanism Chain Installation
Figure 401/52-12-07-990-802 (Sheet 2 of 4)

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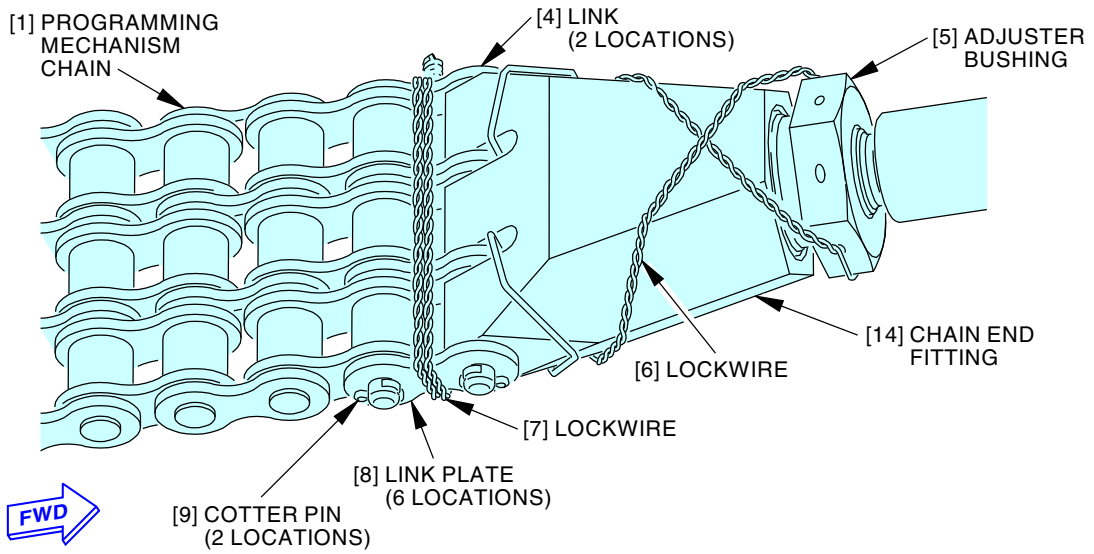
A-A

1 ALIGN THE MISSING TOOTH ON THE SPLINE OF THE SPROCKET WITH THE CORRECT PIN/ROLLER ON THE CHAIN.

G23148 S0006425085_V2

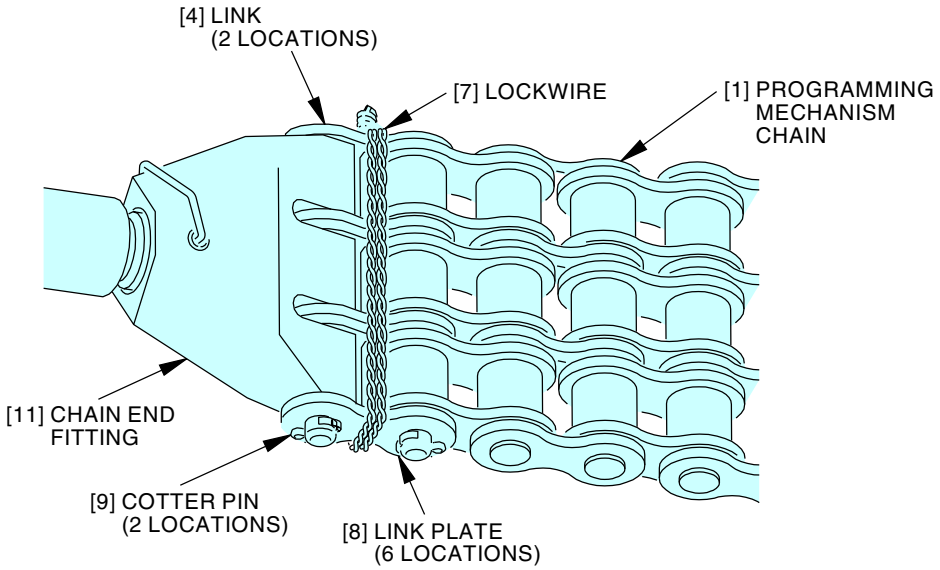
Programming Mechanism Chain Installation
Figure 401/52-12-07-990-802 (Sheet 3 of 4)

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CHAIN END FITTING (EXAMPLE)

C



CHAIN END FITTING (EXAMPLE)

D

G23149 S0006425086_V3

Programming Mechanism Chain Installation
Figure 401/52-12-07-990-802 (Sheet 4 of 4)

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TASK 52-12-07-400-801

3. Programming Mechanism Chain Installation

(Figure 401)

A. General

(1) Use this procedure to connect the parts of the programming mechanism chain. If you did work on only one part of the programming mechanism chain, do the steps to connect that part only.

(2) The programming mechanism chain has these parts:

(a) Short chain (approximately 1 ft (305 mm) long).

(b) Long chain (approximately 3 ft (914 mm) long).

(3) The chains can be removed and installed separately, but should be kept as a matched set.

B. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-00-820-801	Passenger Entry Door Adjustment (P/B 501)
52-12-25-400-802	Hinge Covers Installation (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205

D. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33

E. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

F. Installation

SUBTASK 52-12-07-420-001

(1) Install the programming mechanism chain [1] on the hinge [15] as follows:

(a) Apply the grease, D00633, to the links of the chain assembly [12] or chain assembly [13].

(b) Apply the grease, D00633, to the sprockets [10].

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(c) Align the missing tooth on the spline of the sprockets [10] with the correct pin/roller on the chain assembly [12] or chain assembly [13] as shown on the View A-A, Figure 401.

(d) Hold the chain assembly [12] or chain assembly [13] in its correct position on the hinge [15].

SUBTASK 52-12-07-420-002

(2) Connect the chain end fitting [11] and chain end fitting [14] to the chain assembly [12] or chain assembly [13] as follows:

(a) Install the links [4] between the end of the chain assembly [12] or chain assembly [13] and chain end fitting [11], and chain end fitting [14].

(b) Install the link plates [8].

(c) Install the cotter pins [9].

1) Make sure the cotter pins [9] are new.

(d) Install the lockwires [7].

(e) Do this procedure again to connect the other chain if it is necessary.

SUBTASK 52-12-07-420-003

(3) Adjust the tension in the programming mechanism chain [1] as follows:

(a) Tighten the inboard and outboard adjuster bushings [5] the same number of turns until there is tension in the programming mechanism chain [1].

(b) Do this task: Passenger Entry Door Adjustment, TASK 52-12-00-820-801.

1) Only do the Programming Mechanism Chain Pre-Tension Adjustment.

(c) Install the lockwires [6] on the adjuster bushings [5].

G. Installation Test

SUBTASK 52-12-07-080-001

(1) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985.

SUBTASK 52-12-07-710-001

(2) Do a test on the programming mechanism chain [1] as follows:

(a) Push the door open and closed.

1) Do not latch the door.

(b) Make sure the programming mechanism chain [1] operates smoothly.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-07-410-001

(1) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

SUBTASK 52-12-07-860-003

(2) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

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SNUBBER - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the snubber.

(2) An installation of the snubber.

TASK 52-12-08-000-801

2. Snubber Removal

(Figure 401)

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
52-12-25-000-802	Hinge Covers Removal (P/B 201)

B. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

C. Prepare for the Removal

SUBTASK 52-12-08-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch [12] to the DISARM position.

NOTE: If the EPAS battery safety switch [12] is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-08-010-001

(2) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

D. Removal

SUBTASK 52-12-08-480-001

(1) Install wires between the programming mechanism chain [13] to keep the chain in its correct position, in the locations shown on the View A-A, Figure 401.

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SUBTASK 52-12-08-020-001

(2) Disconnect the snubber [10] from the chain end fitting [1] as follows:

(a) Remove the lockwire [14] from the adjuster bushing [2].

(b) Loosen the adjuster bushing [2] to disengage the rod [11].

NOTE: The chain end fitting [1] has left-hand threads.

(c) Move the rod [11] from the adjuster bushing [2].

(d) Remove the adjuster bushing [2].

SUBTASK 52-12-08-020-002

(3) Disconnect the snubber [10] from the chain end fitting [4] as follows:

(a) Remove the lockwire [5] from the spring pin [6].

(b) Remove the spring pin [6].

(c) Remove the bolts [7] and washers [8] that hold the trunnion bracket [3].

(d) Hold the snubber [10] and remove the trunnion bracket [3].

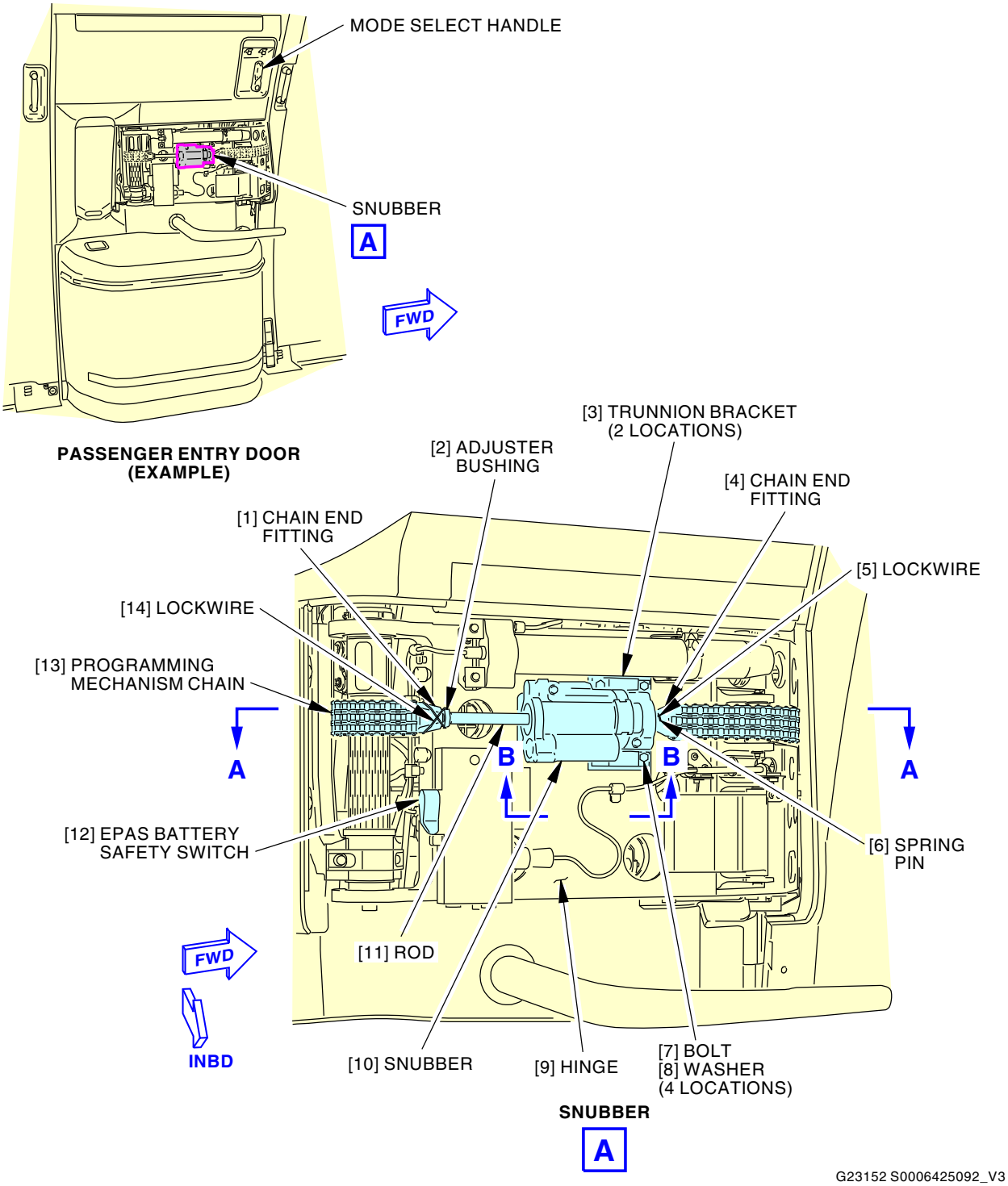
(e) Turn the snubber [10] and its rod [11] to disengage the rod [11] from the chain end fitting [4].

SUBTASK 52-12-08-020-003

(4) Remove the snubber [10].

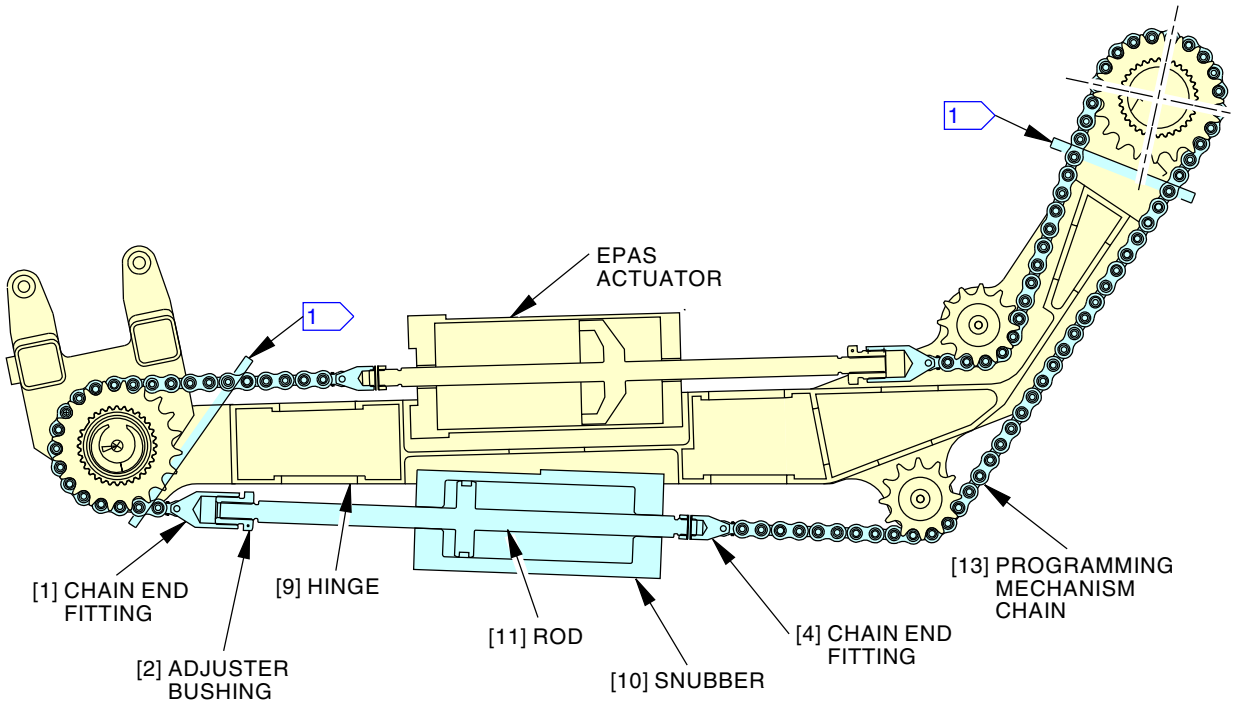
——— END OF TASK ———

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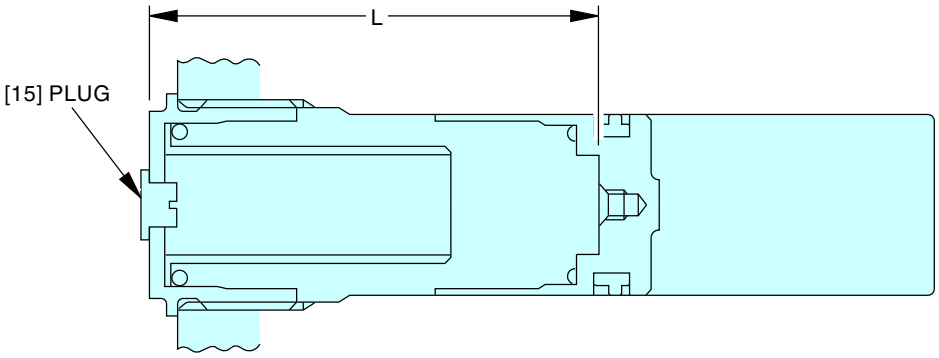


Snubber Installation
Figure 401/52-12-08-990-802 (Sheet 1 of 2)

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A-A



SNUBBER FLUID LEVEL CHECK
(SEE TABLE 401)

B-B

1 INSTALL A WIRE AT THIS LOCATION TO KEEP PROGRAMMING MECHANISM CHAIN IN ITS CORRECT POSITION.

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Snubber Installation
Figure 401/52-12-08-990-802 (Sheet 2 of 2)

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TASK 52-12-08-400-801

3. Snubber Installation

(Figure 401)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-00-730-801	Passenger Entry Door System Test (P/B 501)
52-12-00-820-801	Passenger Entry Door Adjustment (P/B 501)
52-12-25-400-802	Hinge Covers Installation (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1165	Rod - 3/16 Inch Diameter, 5 to 6 Inch Length

C. Installation

SUBTASK 52-12-08-220-001

(1) Do a check on the fluid level in the snubber [10] before you install it as follows:

(a) Remove the plug [15] from the snubber [10].

(b) Put a clean rod (3/16 Inch Diameter, 5 to 6 Inch Length), STD-1165, in the snubber [10] and remove it to measure the fluid level (Figure 401).

(c) Make sure the fluid level is in the range shown for the given temperature (Table 401).

Table 401/52-12-08-993-802 Snubber Fluid Level Limits Vs. Temperature

TEMPERATURE (degrees Fahrenheit/Celsius)	UPPER LIMIT LENGTH, L (inches/millimeters)*[1]	LOWER LIMIT LENGTH, L (inches/millimeters) *[2]
160°F (71°C)	1.7 in. (43.2 mm)	2.6 in. (66.0 mm)
140°F (60°C)	1.9 in. (48.3 mm)	2.8 in. (71.1 mm)
120°F (49°C)	2.0 in. (50.8 mm)	2.9 in. (73.7 mm)
100°F (38°C)	2.1 in. (53.3 mm)	3.0 in. (76.2 mm)
80°F (27°C)	2.2 in. (55.9 mm)	3.1 in. (78.7 mm)
60°F (16°C)	2.3 in. (58.4 mm)	3.2 in. (81.3 mm)
40°F (4°C)	2.4 in. (61.0 mm)	3.3 in. (83.8 mm)
20°F (-7°C)	2.6 in. (66.0 mm)	3.4 in. (86.4 mm)
0°F (-18°C)	2.7 in. (68.6 mm)	3.6 in. (91.4 mm)
-20°F (-29°C)	2.8 in. (71.1 mm)	3.7 in. (94.0 mm)
-40°F (-40°C)	2.9 in. (73.7 mm)	3.8 in. (96.5 mm)

*[1] The upper limit length is the maximum permitted level of fluid in the snubber [10].

*[2] The lower limit length is the minimum permitted level of fluid in the snubber [10].

(d) Install the plug [15] back on the snubber.

SUBTASK 52-12-08-420-001

(2) Connect the snubber [10] to the chain end fitting [4] as follows:

(a) Hold the snubber [10] in its correct position.

(b) Align the hole on the chain end fitting [4] and rod [11] and install the spring pin [6].

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(c) Install the trunnion bracket [3] on the snubber [10].

(d) Install the bolts [7] and washers [8] to attach the trunnion bracket [3] and snubber [10].

(e) Install the lockwire [5] on the spring pin [6].

SUBTASK 52-12-08-420-002

(3) Connect the snubber [10] to the chain end fitting [1] as follows:

(a) Push the rod [11] toward the snubber [10] to make clearance to turn the adjuster bushing [2].

(b) Turn the adjuster bushing [2] on to the rod [11] 5.5 ±0.5 turns.

(c) Tighten the adjuster bushing on to the chain end fitting [1] until there is tension in the programming mechanism chain [13].

NOTE: The chain end fitting [1] has left-hand threads.

(d) Remove the wires between the programming mechanism chain [13].

(e) Do this task: Passenger Entry Door Adjustment, TASK 52-12-00-820-801.

1) Only do the steps for Programming Mechanism Chain Pre-Tension Adjustment.

(f) Install the lockwire [14] on the adjuster bushing [2].

D. Installation Test

SUBTASK 52-12-08-710-001

(1) Do a test on the snubber [10] as follows:

(a) Do this task: Passenger Entry Door System Test, TASK 52-12-00-730-801.

1) Only do the steps for Hinge and Snubber Test in the Normal Operation Tests.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-08-410-001

(1) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

SUBTASK 52-12-08-860-003

(2) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch [12] to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

END OF TASK

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HOLD-OPEN MECHANISM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the hold-open mechanism.

(2) An installation of the hold-open mechanism.

TASK 52-12-09-000-801

2. Hold-Open Mechanism Removal

(Figure 401)

A. General

(1) Use this procedure to disconnect the parts of the hold-open mechanism. If you want to do work on only one part of the hold-open mechanism, do the steps to disconnect that part only and then stop.

(2) The hold-open mechanism has these parts:

(a) Hold-open handle.

(b) Rod.

(c) Crank.

(d) Spring.

(e) Hook.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
52-12-25-000-802	Hinge Covers Removal (P/B 201)

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Prepare for the Removal

SUBTASK 52-12-09-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARMED position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

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(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-09-010-001

(2) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

E. Removal

SUBTASK 52-12-09-020-001

(1) Disconnect the rod [3] from the hold-open handle [1] as follows:

NOTE: The rod [3] consists of the rod end [30], turnbuckle [31], and clevis [5].

(a) Turn the hook [4] to remove the force on the hold-open handle [1] and hold it in this position.

(b) Remove the bolt [6], washer [7], washer [8], bushing [9], washer [10], and nut [11] that attach the rod [3] to the hold-open handle [1].

(c) Release the hook [4].

SUBTASK 52-12-09-020-002

(2) Remove the rod [3], crank [19], and spring [20] from the hinge [2] as follows:

(a) Open the door a small distance to get access under the hinge [2] to the bolt [21], bushing [22], washer [23], and nut [24] that attach the hook [4] to the crank [19].

(b) Turn the hook [4] to remove the force on the spring [20] and hold it in this position.

(c) Remove the bolt [21], bushing [22], washer [23], and nut [24] that attach the hook [4] to the crank [19].

(d) Remove the hook [4] from the hinge [2] down through the opening in the hinge [2].

(e) Remove the rod [3], crank [19], and spring [20] as one piece through the opening in the hinge [2].

SUBTASK 52-12-09-020-003

(3) Disconnect the hold-open handle [1] from the hinge [2] as follows:

(a) Remove the bolt [25], washer [26], bushings [27], washer [28], and nut [29] that attach the hold-open handle [1] to the hinge [2].

SUBTASK 52-12-09-020-004

(4) Disconnect the remaining parts of the hold-open mechanism as follows:

(a) Remove the lockwire [12].

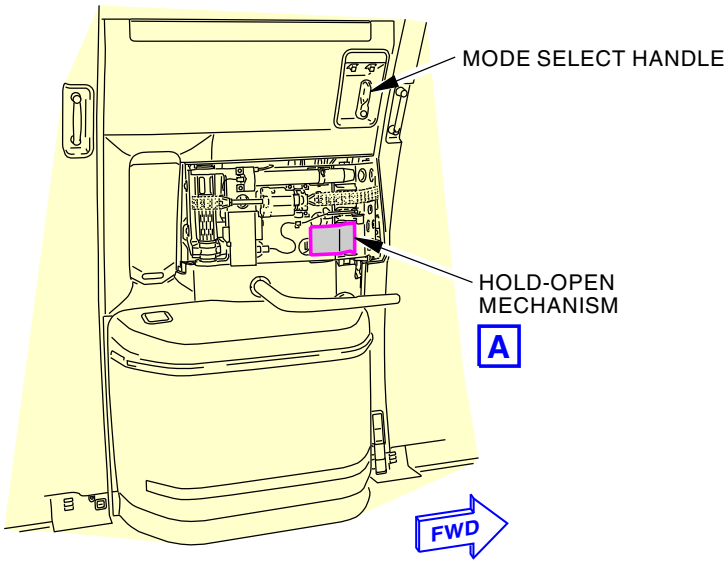
(b) Remove the bolt [13], washer [14], washer [15], washers [16], washer [17], and nut [18] that attach the rod [3] to the crank [19].

(c) Do not change the length of the rod [3] while it is disconnected from the hold-open mechanism.

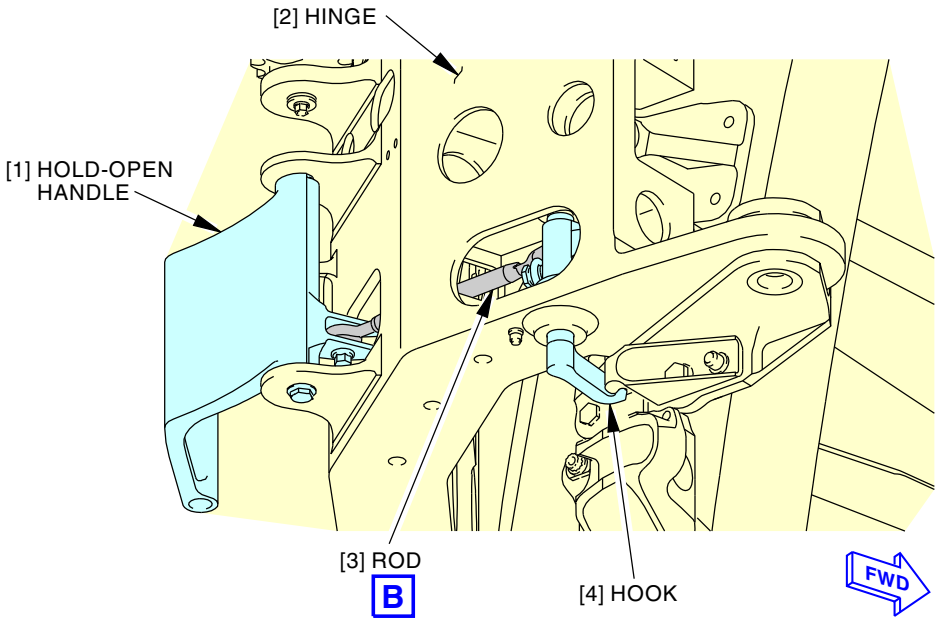
(d) Remove the spring [20] from the crank [19].

END OF TASK

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PASSENGER ENTRY DOOR (EXAMPLE)



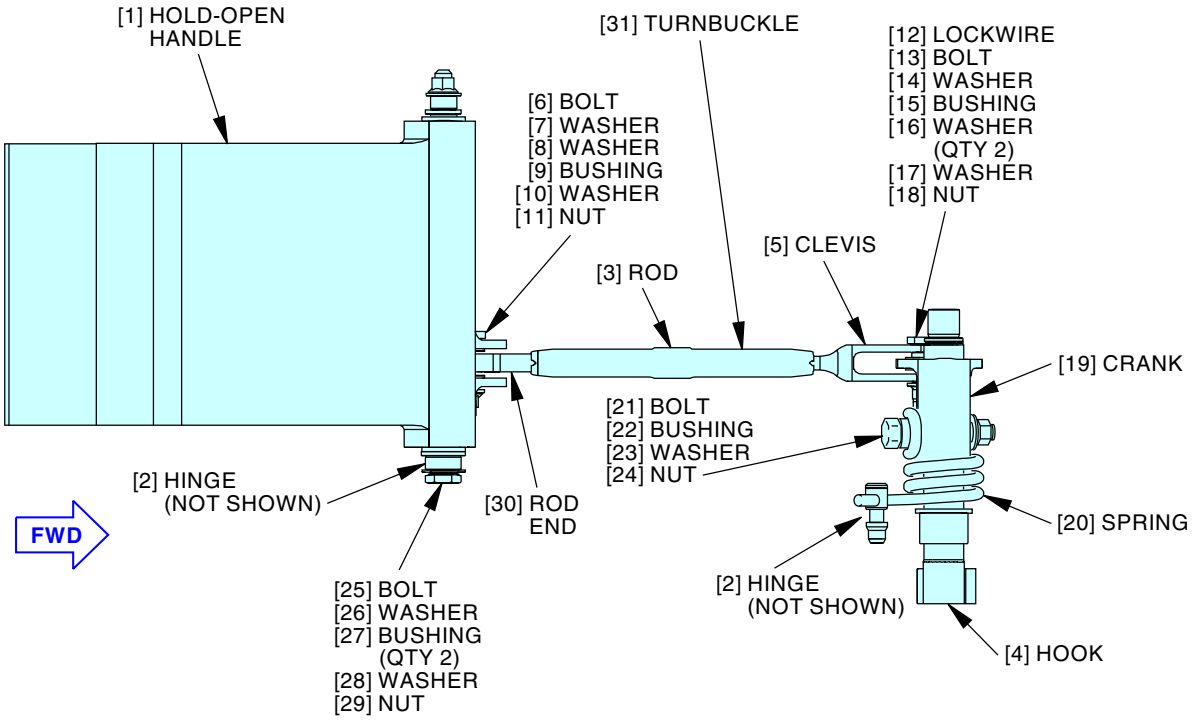
HOLD-OPEN MECHANISM (DOOR OPEN POSITION)

A

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Hold-Open Mechanism Installation
Figure 401/52-12-09-990-802 (Sheet 1 of 2)

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ROD
(DOOR STRUCTURE NOT SHOWN)

B

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Hold-Open Mechanism Installation
Figure 401/52-12-09-990-802 (Sheet 2 of 2)

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TASK 52-12-09-400-801

3. Hold-Open Mechanism Installation

(Figure 401)

A. General

(1) Use this procedure to connect the parts of the hold-open mechanism. If you did work on only one part of the hold-open mechanism, do the steps to connect that part only.

(2) The hold-open mechanism has these parts:

(a) Hold-open handle.

(b) Rod.

(c) Crank.

(d) Spring.

(e) Hook.

B. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-25-400-802	Hinge Covers Installation (P/B 201)

C. Installation

SUBTASK 52-12-09-420-001

(1) Connect the parts of the hold-open mechanism as follows:

(a) Install the bolt [13], washer [14], washer [15], washers [16], washer [17], and nut [18] to attach the rod [3] to the crank [19].

(b) Install the lockwire [12].

(c) Install the spring [20] over the crank [19].

SUBTASK 52-12-09-420-002

(2) Install the rod [3], crank [19], and spring [20] in the hinge [2] as follows:

NOTE: The rod [3] consists of the rod end [30], turnbuckle [31], and clevis [5].

(a) Put the rod [3], crank [19], and spring [20] in their correct position in the hinge [2].

(b) Install the hook [4] through the hinge [2] into the crank [19].

(c) Install the bolt [21], bushing [22], washer [23], and nut [24] to attach the hook [4] to the crank [19].

SUBTASK 52-12-09-420-003

(3) Connect the hold-open handle [1] to the hinge [2] and rod [3] as follows:

(a) Install the bolt [25], washer [26], bushings [27], washer [28], and nut [29] to attach the hold-open handle [1] to the hinge [2].

(b) Install the bolt [6], washer [7], washer [8], bushing [9], washer [10], and nut [11] to attach the hold-open handle [1] to the rod [3].

D. Installation Test

SUBTASK 52-12-09-710-001

(1) Do a test on the hold-open mechanism as follows:

(a) Open and close the door.

(b) Make sure the hold-open mechanism operates correctly.

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E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-09-410-001

(1) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

SUBTASK 52-12-09-860-003

(2) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

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STOP PIN FITTING - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of a stop pin fitting.

(2) An installation of a stop pin fitting.

TASK 52-12-10-000-801

2. Stop Pin Fitting Removal

(Figure 401)

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-66-06-000-801	Bustle Removal (P/B 401)
52-12-25-000-801	Access Panels Removal (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Prepare for the Removal

SUBTASK 52-12-10-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

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(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-10-010-001

(2) Get access to the passenger entry door stop pin fitting [11] as follows:

(a) Remove the applicable door lining to get access to the stop pin fitting [11] as follows:

1) Do this task: Access Panels Removal, TASK 52-12-25-000-801.

2) Do this task: Bustle Removal, TASK 25-66-06-000-801.

3) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

(b) Make sure the adjustable height cabin and general access stand, STD-1160, is outboard of the door.

(c) Open the door until the hinge is perpendicular to the door.

(d) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985.

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

E. Removal

SUBTASK 52-12-10-020-001

(1) Remove the stop pin fitting [11] as follows:

(a) Remove the retainer [10] and stop pin [9] from the stop pin fitting [11].

(b) Remove the bolts [1], washers [2], washers [3], and nuts [4] that attach the stop pin fitting [11] to the door structure.

NOTE: At some stop pin fitting locations there are nut plates, not nuts.

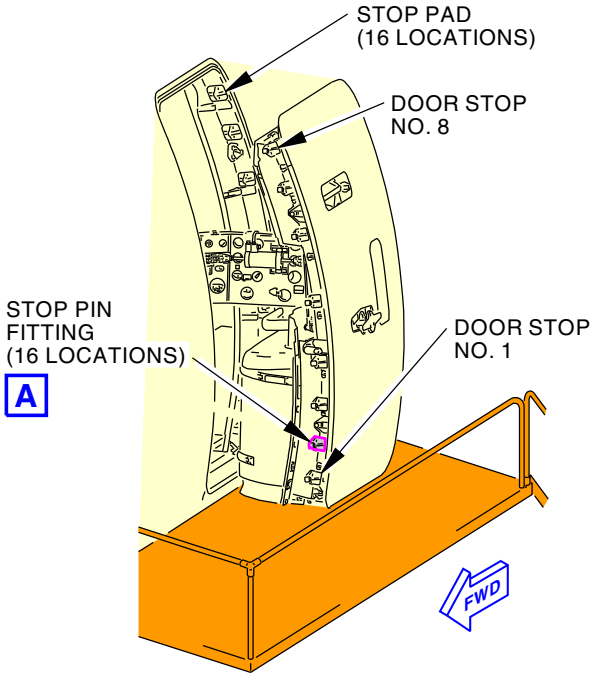
(c) Remove the sealant from the head of the bolt [6].

(d) Remove the bolt [6], washer [7], and nut [8] that attach the bonding jumper [5] to the door structure.

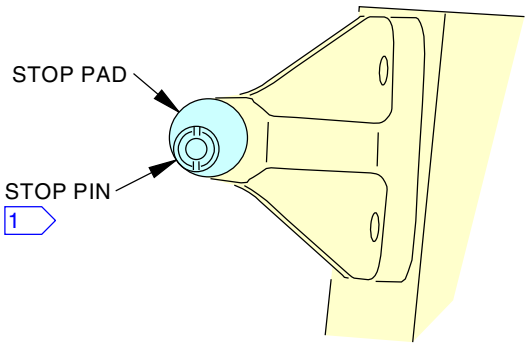
(e) Remove the stop pin fitting [11].

END OF TASK

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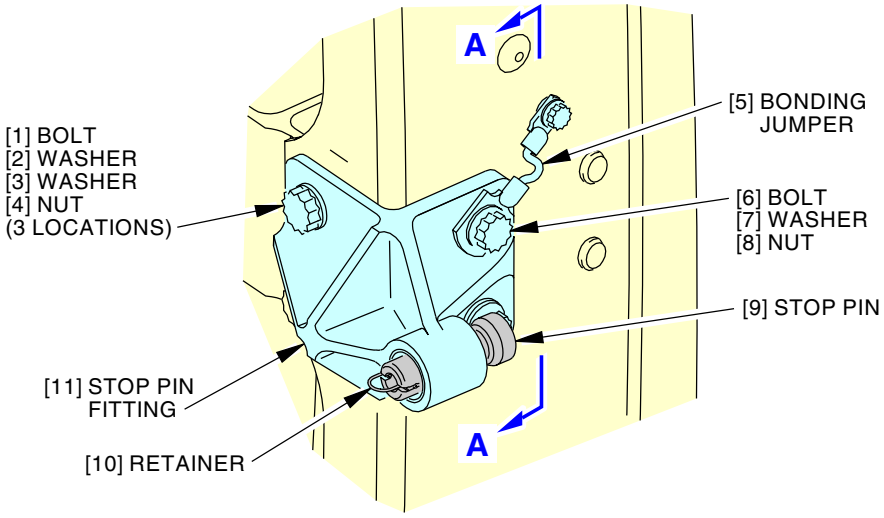


**PASSENGER ENTRY DOOR
(EXAMPLE)**



**MAXIMUM MISALIGNMENT
(EXAMPLE)**

A-A



**STOP PIN FITTING
(EXAMPLE)**

A

1 ALL OF THE FACE OF THE STOP PIN MUST TOUCH THE FACE OF THE STOP PAD.

G23165 S0006425104_V2

**Stop Pin Fitting Installation
Figure 401/52-12-10-990-802**

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TASK 52-12-10-400-801

3. Stop Pin Fitting Installation

(Figure 401)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
25-66-06-400-801	Bustle Installation (P/B 401)
52-12-00-820-801	Passenger Entry Door Adjustment (P/B 501)
52-12-25-400-801	Access Panels Installation (P/B 201)
52-12-25-400-803	Upper Liner Installation (P/B 201)
SWPM 20-20-00	Standard Wiring Practices Manual

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
A02315	Sealant - Low Density, Synthetic Rubber. 2 Part	BMS5-142 Type II
G01048	Lockwire - MS20995C32, Corrosion Resistant Steel - 0.032 Inch (0.8128 mm) Diameter	NASM20995
G50710	Tube - Flexible, Flame-Retardant, Adhesive-Lined, Polyolefin Heat-Shrinkable Tubing (Tyco Electronics DWP-125)	

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Installation

SUBTASK 52-12-10-160-001

(1) Remove unwanted sealant from the faying surface of the door.

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SUBTASK 52-12-10-120-001

(2) Clean the applicable area of the stop pin fitting and the bonding jumper (SWPM 20-20-00).

NOTE: The stop pin fitting is titanium alloy.

F. Installation

SUBTASK 52-12-10-420-001

(1) Install the stop pin fitting [11] as follows:

(a) Apply sealant, A00247, to the faying surface of the stop pin fitting [11].

(b) Hold the stop pin fitting [11] in its correct position and install the bolts [1], washers [2], washers [3], and nuts [4] that attach the stop pin fitting [11] to the door structure.

NOTE: At some stop pin fitting locations there are nut plates, not nuts.

(c) Install the bolt [6], washer [7], and nut [8] that attach the bonding jumper [5] to the door structure.

(d) Tighten the bolts [1] and bolt [6] to 162 in-lb (18.3 N·m) - 198 in-lb (22.4 N·m).

(e) Apply the sealant, A02315, to the bolt [6] to make a seal around the head of the bolt [6] and terminal end of the bonding jumper [5].

SUBTASK 52-12-10-420-002

(2) Install the stop pin [9] and retainer [10] in the stop pin fitting [11].

(a) Turn the stop pin [9] inboard until you are sure it will not touch the stop pad when you close the door.

SUBTASK 52-12-10-420-003

(3) If the DWP-125 heat-shrink tube, G50710, or MS20995C32 lockwire, G01048, is not installed on the stop pin [9], then install as follows:

(a) Do not install both the MS20995C32 lockwire, G01048, and DWP-125 heat-shrink tube, G50710.

(b) Install the DWP-125 heat-shrink tube, G50710 (preferred), on the end of the stop pin [9] as far as possible.

1) If necessary, shrink tube can be cut to approximately 0.20 in. (5.08 mm) more than the length of the stop pin [9].

NOTE: Heat will make the shrink tube smaller.

(c) Install the MS20995C32 lockwire, G01048 (alternative), as follows:

1) Put the MS20995C32 lockwire, G01048, around the stop pin [9] and twist the wire 7 to 10 times per inch.

NOTE: This will twist the wire into a 2 strand string.

a) The base of the wire must not be immediately above the stop pin retainer spring.

2) Make sure that the base of the wire is within ⅛ in. (3 mm) of the stop pin [9] threads.

3) Put the excess wire into the hole of the stop pin [9].

4) Make sure that the wire does not extend more than the diameter of the door stop or the retainer loop.

NOTE: This is to make sure that the wire does not catch on the adjacent structures.

SUBTASK 52-12-10-080-001

(4) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985.

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G. Adjustment

SUBTASK 52-12-10-820-001

(1) Adjust the stop pin [9] as follows:

(a) Make sure the alignment between the stop pin [9] and the stop pad is as shown on the View A-A, Figure 401.

(b) Do this task: Passenger Entry Door Adjustment, TASK 52-12-00-820-801.

1) Do only the steps to measure and adjust the stop pin clearance.

NOTE: The steps are in the Door Alignment Adjustment subtask.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-10-410-001

(1) Close access to the stop pin fitting [11] as follows:

(a) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

(b) Do this task: Bustle Installation, TASK 25-66-06-400-801.

(c) Do this task: Access Panels Installation, TASK 52-12-25-400-801.

SUBTASK 52-12-10-860-003

(2) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

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MODE SELECT MECHANISM - MAINTENANCE PRACTICES

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal of the mode select handle.

(2) An installation of the mode select handle.

(3) A removal of the mode select mechanism.

(4) An installation of the mode select mechanism.

(5) A check of the mode select mechanism.

TASK 52-12-15-000-801

2. Mode Select Handle Removal

(Figure 201)

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)

B. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

C. Prepare for the Removal

SUBTASK 52-12-15-860-001

(1) Make sure the door is safe as follows:

(a) Move the mode select handle [1] to the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

D. Removal

SUBTASK 52-12-15-020-001

(1) Remove the mode select handle [1] from the mode select mechanism [19] as follows:

(a) Remove the cap [6] from the mode select handle [1].

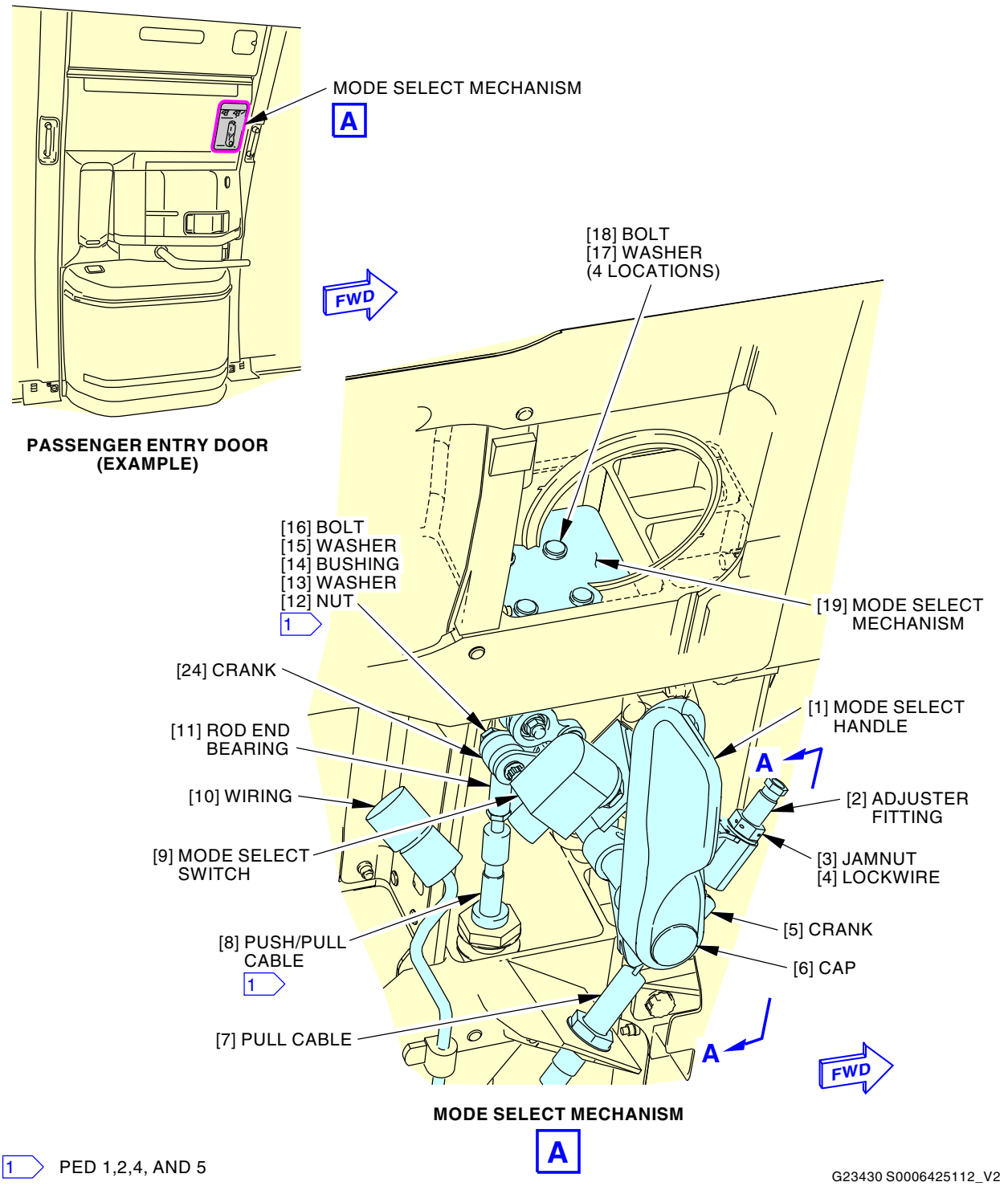
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(b) Remove the screw [20] and washer [21] that attach the mode select handle [1] to the shaft [23].

(c) Remove the mode select handle [1] from the shaft [23].

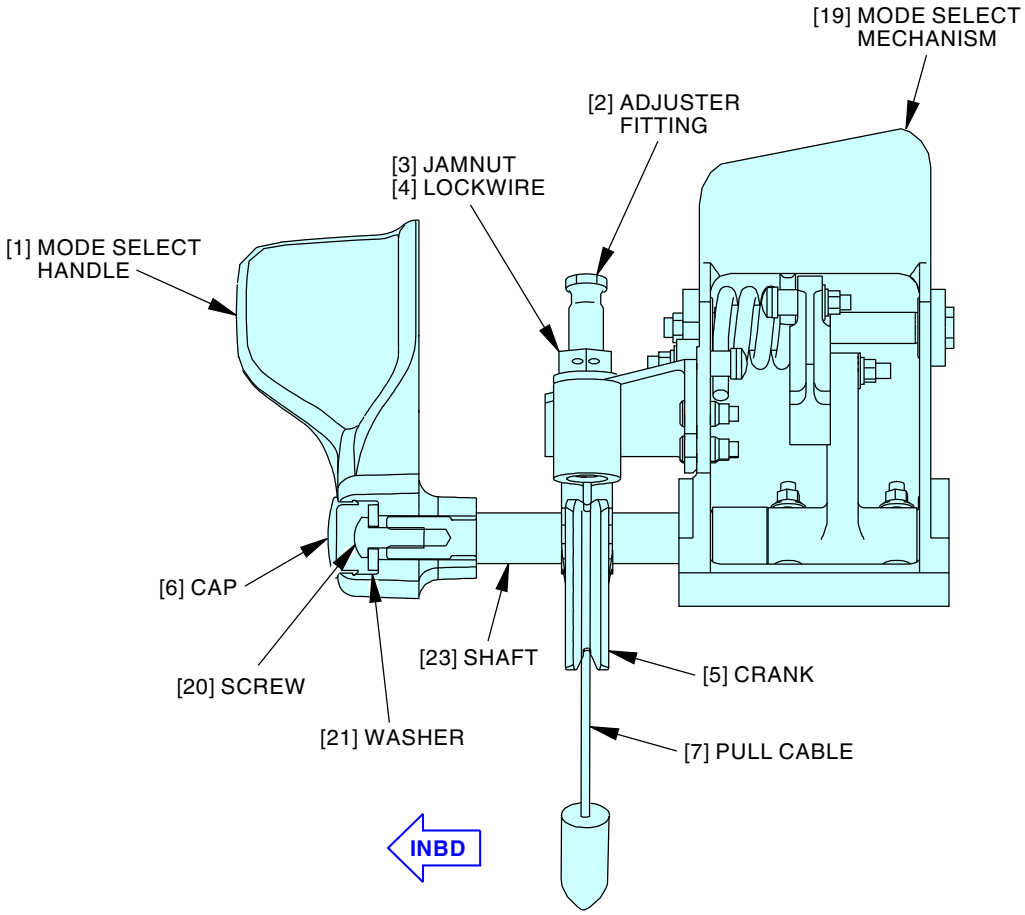
——— END OF TASK ———

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Mode Select Mechanism Installation
Figure 201/52-12-15-990-804 (Sheet 1 of 2)

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A-A

G23432 S0006425113_V3

Mode Select Mechanism Installation
Figure 201/52-12-15-990-804 (Sheet 2 of 2)

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TASK 52-12-15-400-801

3. Mode Select Handle Installation

(Figure 201)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)

B. Consumable Materials

Reference	Description	Specification
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Mode select handle	Not Specified	
19	Mode select mechanism	52-11-15-22-010	ARO 001-013
		52-11-15-22-015	ARO 001-013
		52-11-15-62-010	ARO 001-013
		52-11-15-62-015	ARO 001-013
		52-12-15-01-015	ARO ALL
		52-12-15-01-020	ARO ALL
		52-12-15-02-010	ARO ALL
		52-12-15-02-015	ARO ALL
		52-12-15-03-010	ARO ALL
		52-12-15-03-015	ARO ALL
		52-12-15-10-010	ARO ALL
		52-12-15-10-015	ARO ALL

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Installation

SUBTASK 52-12-15-420-001

(1) Install the mode select handle [1] on the mode select mechanism [19] as follows:

(a) Put the mode select handle [1] in its correct position on the shaft [23].

(b) Apply the corrosion inhibiting material, G50136, to the screw [20] and its mating surfaces.

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(c) Install the screw [20] and washer [21] to attach the mode select handle [1] to the shaft [23].

(d) Align the decorative finishes of the cap [6] and mode select handle [1] and install the cap on the mode select handle [1].

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-15-860-007

(1) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

TASK 52-12-15-000-802

4. Mode Select Mechanism Removal

(Figure 201)

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)

B. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

C. Prepare for the Removal

SUBTASK 52-12-15-860-003

(1) Make sure the door is safe as follows:

(a) Move the mode select handle [1] to the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-15-010-001

(2) Get access to the mode select mechanism as follows:

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(a) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

D. Removal

SUBTASK 52-12-15-020-002

(1) Disconnect the wiring [10] from the mode select switch [9].

SUBTASK 52-12-15-020-003

(2) Disconnect the pull cable [7] from the mode select mechanism [19] as follows:

(a) Remove the lockwire [4] from the jamnut [3] on the adjuster fitting [2] at the end of the pull cable [7].

(b) Loosen the jamnut [3] on the adjuster fitting [2].

(c) Turn the adjuster fitting [2] until its threads are not engaged.

(d) Pull the ball on the end of the pull cable [7] from the key hole in the adjuster fitting [2] to remove the pull cable [7] from the crank [5] on the mode select mechanism [19].

SUBTASK 52-12-15-020-004

(3) Disconnect the push/pull cable [8] from the mode select mechanism [19] as follows:

(a) Remove the bolt [16], washer [15], bushing [14], washer [13], and nut [12] that attach the rod end bearing [11] on the push/pull cable [8] to the crank [24].

SUBTASK 52-12-15-020-005

(4) Remove the mode select mechanism [19] from the door structure as follows:

(a) Hold the mode select mechanism [19] and remove the bolts [18] and washers [17] that attach the mode select mechanism [19] to the door structure.

(b) Remove the mode select mechanism [19] from the door.

——— END OF TASK ———

TASK 52-12-15-400-802

5. Mode Select Mechanism Installation

(Figure 201)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-00-820-801	Passenger Entry Door Adjustment (P/B 501)
52-12-25-400-803	Upper Liner Installation (P/B 201)

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
19	Mode select mechanism	52-11-15-22-010	ARO 001-013
		52-11-15-22-015	ARO 001-013
		52-11-15-62-010	ARO 001-013
		52-11-15-62-015	ARO 001-013

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(Continued)

AMM Item	Description	AIPC Reference	AIPC Effectivity
19 (cont.)		52-12-15-01-015	ARO ALL
		52-12-15-01-020	ARO ALL
		52-12-15-02-010	ARO ALL
		52-12-15-02-015	ARO ALL
		52-12-15-03-010	ARO ALL
		52-12-15-03-015	ARO ALL
		52-12-15-10-010	ARO ALL
		52-12-15-10-015	ARO ALL

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Installation

SUBTASK 52-12-15-420-002

(1) Install the mode select mechanism [19] on the door structure as follows:

(a) Apply the corrosion inhibiting material, G50136, to the bolts [18] and washers [17] that attach the mode select mechanism [19] to the door structure and their mating surfaces.

(b) Hold the mode select mechanism [19] in its correct position and install the bolts [18] and washers [17] to attach the mode select mechanism [19] to the door structure.

SUBTASK 52-12-15-420-003

(2) Connect the push/pull cable [8] to the mode select mechanism [19] as follows:

(a) Hold the rod end bearing [11] in its correct position in the crank on the mode select mechanism [19] and install the bolt [16], washer [15], bushing [14], washer [13], and nut [12] to attach the rod end bearing [11] to the crank [24].

SUBTASK 52-12-15-420-004

(3) Connect the pull cable [7] to the mode select mechanism [19] as follows:

(a) Hold the pull cable [7] in its correct position through the crank [5].

(b) Put the ball on the end of the pull cable [7] through the key hole on the adjuster fitting [2].

(c) Turn the adjuster fitting [2] until its threads are engaged.

(d) Apply the sealant, A00247, to the retaining hole in the crank [5].

(e) Tighten the jamnut [3] on the adjuster fitting [2].

(f) Install the lockwire [4] on the jamnut [3] on the adjuster fitting [2].

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SUBTASK 52-12-15-820-001

(4) Adjust the pull cable [7] and push/pull cable [8] as follows:

(a) Do this task: Passenger Entry Door Adjustment, TASK 52-12-00-820-801.

1) Only do the Push/Pull Cable Adjustment.

(b) Do this task: Passenger Entry Door Adjustment, TASK 52-12-00-820-801.

1) Only do the Pull Cable Adjustment.

SUBTASK 52-12-15-420-005

(5) Connect the wiring [10] to the mode select switch [9].

SUBTASK 52-12-15-410-001

(6) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

F. Installation Test

SUBTASK 52-12-15-710-001

(1) Do a test on the mode select mechanism [19] as follows:

(a) Move the mode select handle [1] from the MANUAL/DISARM position to the AUTOMATIC/ARM position and back to the MANUAL/DISARM position.

(b) Make sure the mode select mechanism [19] operates correctly.

(c) Make sure the push/pull cable [8] operates correctly between the girt bar mechanism and the mode select mechanism [19].

(d) Make sure the pull cable [7] operates correctly between the exterior handle and the mode select mechanism [19].

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-15-860-008

(1) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

TASK 52-12-15-200-801

6. Mode Select Mechanism Check

(Figure 202)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an inspection of the mode select mechanism and pull cable.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)
52-12-25-400-803	Upper Liner Installation (P/B 201)

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C. Consumable Materials

Reference	Description	Specification
G00291	Tape - Aluminum Foil, Scotch 425	AMS-T-23397 / L-T-80

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Procedure

SUBTASK 52-12-15-860-005

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-15-010-002

(2) Get access to the mode select mechanism and cables as follows:

(a) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

(b) Pull off the Scotch 425 Aluminum Foil Tape, G00291 over the access hole for the exterior handle mechanism to get access to the end of the pull cable.

SUBTASK 52-12-15-220-001

(3) Do a check of the mode select mechanism and pull cable as follows:

(a) Examine the mode select mechanism for wear or damage.

(b) Make sure the jamnuts are tight and the lockwire is not damaged or missing.

(c) Examine the pull cable and cable sheath for wear or damage.

(d) Make sure the pull cable is tightly attached to the handle mechanism.

(e) Examine the disarm collar for wear or damage.

(f) Make sure the retainer is not damaged or missing.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-15-410-002

(1) Install the Scotch 425 Aluminum Foil Tape, G00291 a minimum of 0.5 inch over the edge of the cutout in the handle box.

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SUBTASK 52-12-15-410-003

(2) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

SUBTASK 52-12-15-860-009

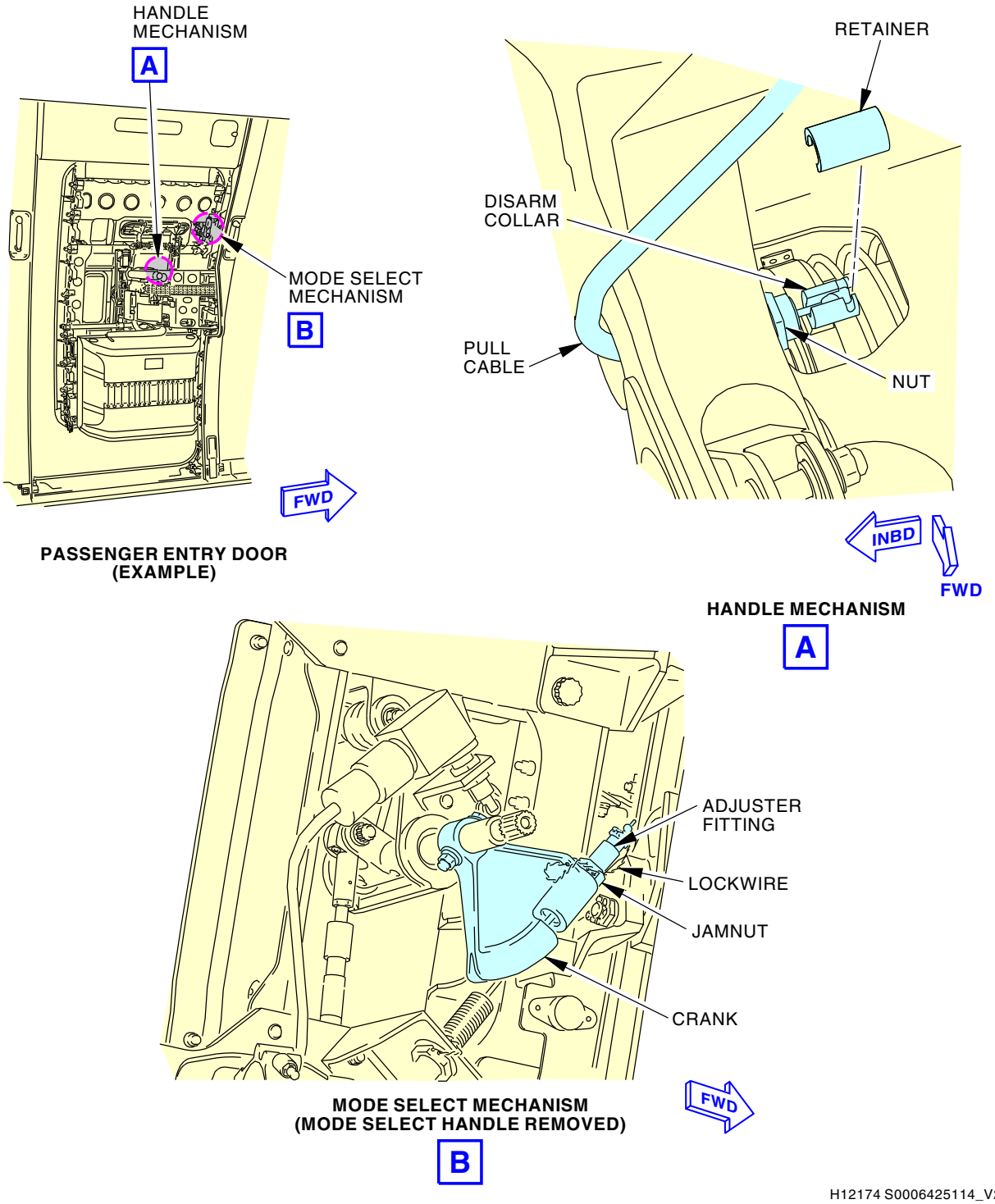
(3) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

END OF TASK

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Mode Select Mechanism Check
Figure 202/52-12-15-990-802

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PASSENGER ENTRY DOOR (PED) CABLES - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) A removal of the push/pull cable.

(2) An installation of the push/pull cable.

(3) A removal of the pull cable.

(4) An installation of the pull cable.

B. There are two cables on the door.

(1) On PED 1, 2, 4, and 5, one end of the push/pull cable is attached to the mode select mechanism, and the other end is attached to the girt bar mechanism. The cable pushes to arm the escape system and pulls to disarm the escape system.

(2) The pull cable (disarm cable) is attached at one end to the mode select mechanism and at the other end to the handle mechanism. The cable pulls to put the mode select handle in the MANUAL/DISARM position when the door is opened with the exterior handle.

TASK 52-12-16-000-801

2. Push/Pull Cable Removal

(Figure 201)

A. General

(1) This task is for PED 1, 2, 4, and 5.

B. References

Reference	Title
25-66-01-000-801	Door-Mounted Escape Slide Pack Removal (P/B 401)
52-12-25-000-801	Access Panels Removal (P/B 201)
52-12-25-000-804	Outboard Cover and Flap Removal (P/B 201)
52-12-25-000-805	Bustle Closeout Panel Removal (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43

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(Continued)

Zone	Area
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Removal

SUBTASK 52-12-16-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle [1] is in the MANUAL/DISARM position.

(b) Turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-16-010-001

(2) Get access to the push/pull cable [2] as follows:

(a) Do this task: Door-Mounted Escape Slide Pack Removal, TASK 25-66-01-000-801.

(b) Make sure the adjustable height cabin and general access stand, STD-1160 is outboard of the door.

(c) Open the door until the hinge is perpendicular to the door.

(d) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985.

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

(e) Do this task: Access Panels Removal, TASK 52-12-25-000-801.

1) Remove the forward access panels only.

(f) For door 1L or 2L, do this task: Outboard Cover and Flap Removal, TASK 52-12-25-000-804.

(g) Do this task: Bustle Closeout Panel Removal, TASK 52-12-25-000-805.

F. Removal

SUBTASK 52-12-16-020-002

(1) Disconnect the push/pull cable [2] from the girt bar mechanism as follows:

(a) Move the mode select handle [1] to a position that is approximately 22 degrees from vertical.

NOTE: You can hold the mode select handle in this position with balls of tape.

(b) At the two ends of the torque tube [4], remove the bolts [28], washers [29], and nuts [30] that hold the end cranks [31] of the girt bar mechanism.

NOTE: This lets you turn the torque tube to move the crank [14] away from the end of the cable.

(c) Remove the bolt [10], washers [11], bushing [12], and nut [13] that attach the lower rod end bearing [9] to the crank [14].

SUBTASK 52-12-16-020-003

(2) Remove the push/pull cable [2] from the door structure as follows:

(a) Turn the lower rod end bearing [9] to disengage the threads at the upper end of the cable from the upper rod end bearing [5].

(b) Remove the lockpin [21].

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(c) Turn the cable sheath [20] out of the adjuster bushing [26] to decrease the tension on the cable sheath [20].

(d) Disengage the slotted retainer [15] from the cable sheath [20] and remove it.

NOTE: You can also put the slotted retainer on the top of beam No. 6 if you will install the new cable immediately.

(e) Pull the top of the push/pull cable [2] out of beam No. 6.

(f) Remove the flat washer [17], spring [18], and countersunk washer [19].

1) Do not remove the spherical seat [16] from the beam No. 6.

(g) At beam No. 2, remove the lockwire [27] that holds the jamnut [22].

(h) Turn the jamnut [22] until its threads disengage from the adjuster bushing [26].

(i) Remove the grommets [3] from the holes in the door beams.

NOTE: You can move the cable sheath [20] up and down to make removal of the grommets easier.

(j) While you move the push/pull cable [2] down through the remaining door beams, remove the jamnut [22], washer [23], flanged bushing [24], and countersunk washer [25].

(k) Remove the push/pull cable [2] from the door.

(l) Measure the length of the push/pull cable [2] and record it.

NOTE: You can use this dimension to set the initial position of the lower rod end bearing [9] on the new cable.

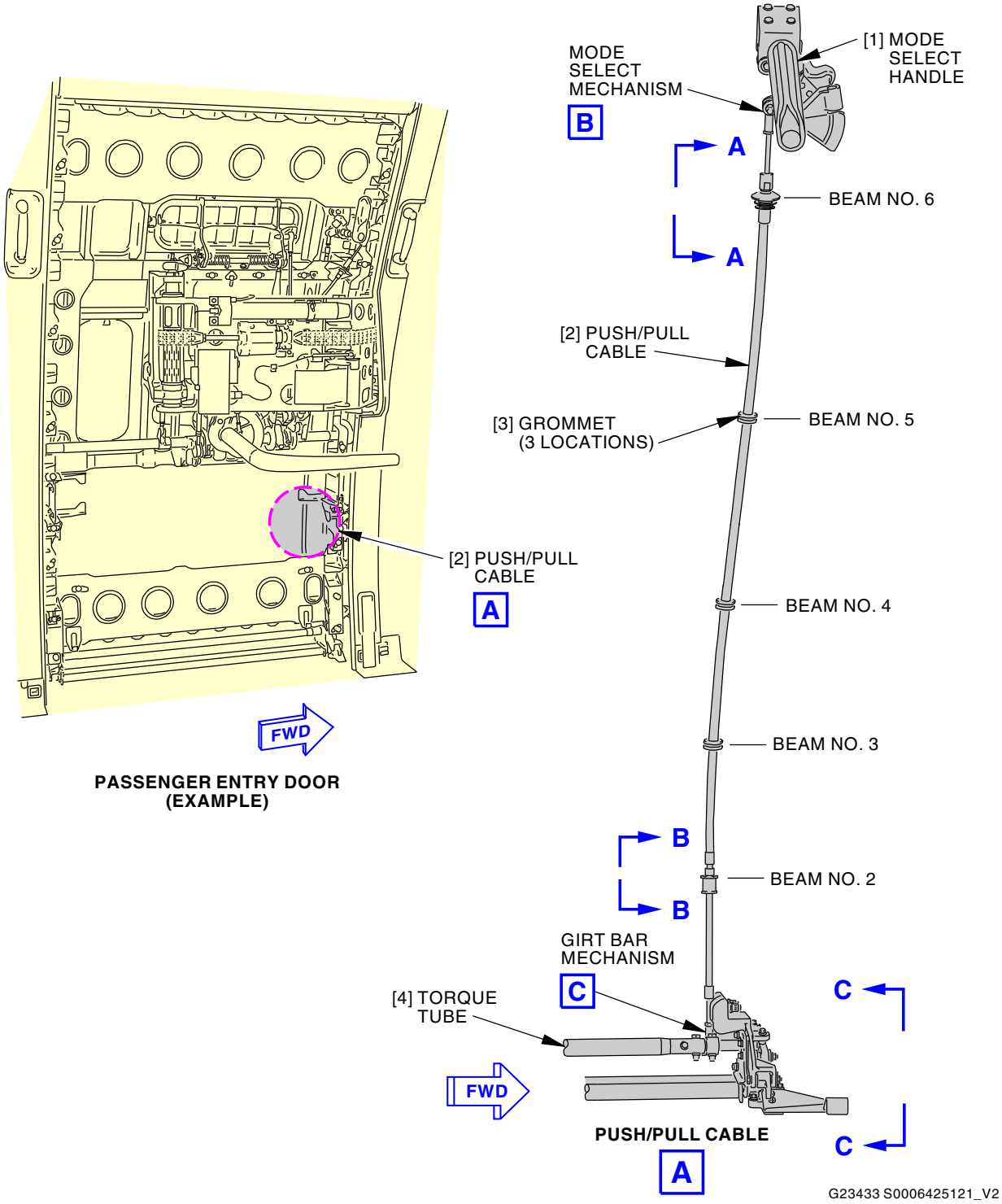
(m) Bend the tab on the tabwasher [8] so you can turn the jamnut [7].

(n) Remove the lower rod end bearing [9], jamnut [7], and tabwasher [8] from the push/pull cable [2].

(o) Install the protective caps on the threads of the push/pull cable [2].

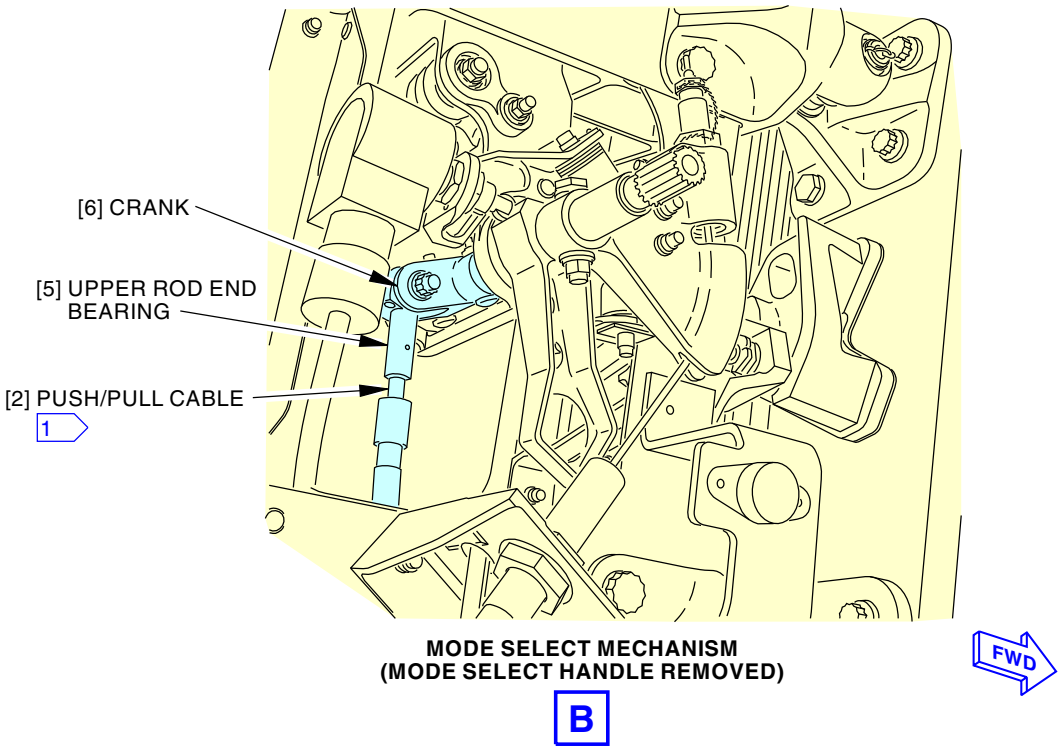
——— END OF TASK ———

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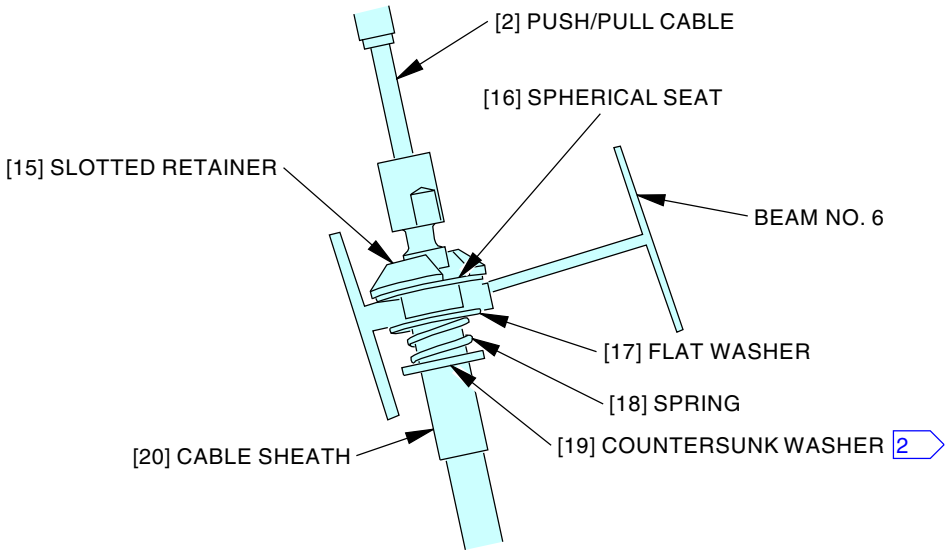
Push/Pull Cable PED 1, 2, 4, and 5 Installation
Figure 201/52-12-16-990-803 (Sheet 1 of 4)

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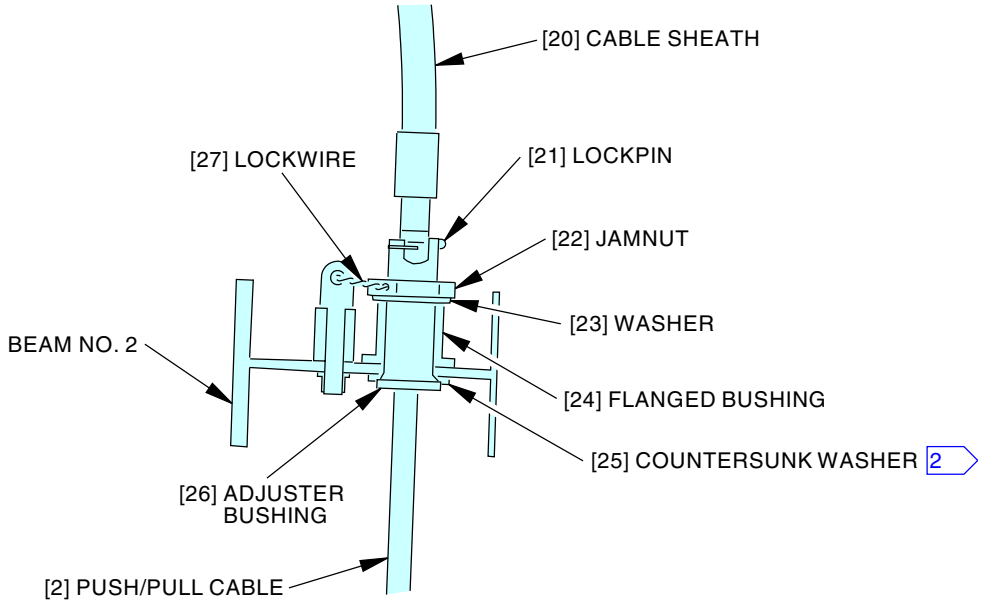


Push/Pull Cable PED 1, 2, 4, and 5 Installation
Figure 201/52-12-16-990-803 (Sheet 2 of 4)

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A-A



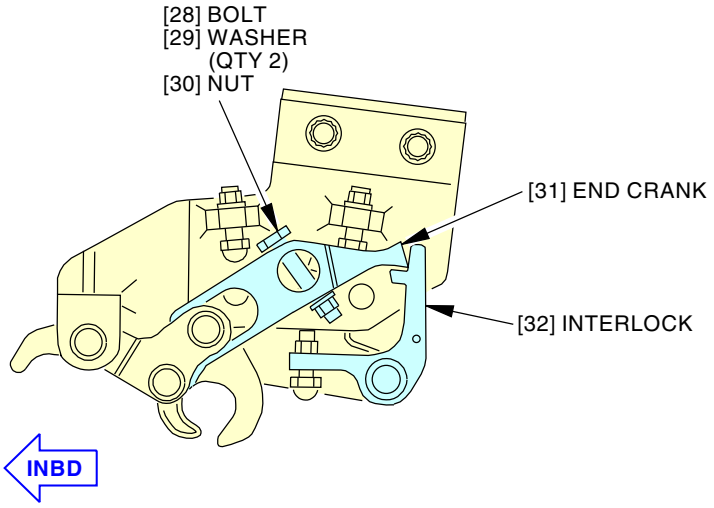
B-B

2 INSTALL SO THAT THE COUNTERSINK POINTS DOWN

H84533 S0006425123_V2

Push/Pull Cable PED 1, 2, 4, and 5 Installation
Figure 201/52-12-16-990-803 (Sheet 3 of 4)

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(EXAMPLE)

C-C

H84260 S0006425124_V2

Push/Pull Cable PED 1, 2, 4, and 5 Installation
Figure 201/52-12-16-990-803 (Sheet 4 of 4)

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TASK 52-12-16-400-801

3. Push/Pull Cable Installation

(Figure 201)

A. General

(1) This task is for PED 1, 2, 4, and 5.

B. References

Reference	Title
25-66-01-400-801	Door-Mounted Escape Slide Pack Installation (P/B 401)
52-12-00-820-801	Passenger Entry Door Adjustment (P/B 501)
52-12-25-400-801	Access Panels Installation (P/B 201)
52-12-25-400-804	Outboard Cover and Flap Installation (P/B 201)
52-12-25-400-805	Bustle Closeout Panel Installation (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205

D. Consumable Materials

Reference	Description	Specification
G00007	Compound - Corrosion Preventive - DC 33	

E. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

F. Installation

SUBTASK 52-12-16-420-001

(1) Install the push/pull cable [2] as follows:

(a) Remove the protective caps from the threads of the push/pull cable [2].

(b) Install the jamnut [7], a new tabwasher [8], and the lower rod end bearing [9] on the push/pull cable [2].

1) Use the dimension you measured on the cable you removed to set the initial position of the lower rod end bearing [9].

(c) Tighten the jamnut [7] with your fingers.

1) Do not bend the tabs on the tabwasher [8].

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(d) Turn the adjuster bushing [26] on the new push/pull cable [2] to increase the distance from the adjuster bushing [26] to the top of the cable sheath [20].

NOTE: This will make it easier to install the cable.

(e) Apply silicone DC 33 compound, G00007 to the surfaces of the push/pull cable [2] that move in and out of the cable sheath [20].

CAUTION

BE CAREFUL NOT TO CUT THE CABLE SHEATH ON THE SHARP EDGES OF THE DOOR BEAMS WHEN YOU INSTALL THE CABLE. IF NOT, IT CAN CAUSE DAMAGE.

(f) Put the top of the push/pull cable [2] up through beam No. 1.

(g) Put the countersunk washer [25] on the push/pull cable [2] so the countersink points down.

(h) Put the top of the push/pull cable [2] up through beam No. 2.

(i) Put the flanged bushing [24], washer [23], and jamnut [22] on the push/pull cable [2].

(j) Put the top of the push/pull cable [2] up through beams No. 3, 4, and 5.

(k) Install the grommets [3] in the holes in beams No. 3, 4, and 5.

NOTE: You can put grease on the grommets to make the installation easier. You can also move the cable sheath [20] up and down to make the installation easier.

(l) Put the countersunk washer [19] on the push/pull cable [2] so the countersink points down.

(m) Put the spring [18] and flat washer [17] on the push/pull cable [2].

(n) Put the top of the push/pull cable [2] up through beam No. 6 and the spherical seat [16].

(o) Push up on the cable sheath [20] while you install the slotted retainer [15] to hold the top end of the cable sheath [20].

(p) Turn the lower rod end bearing [9] to engage the threads at the top of the push/pull cable in the upper rod end bearing [5].

NOTE: Turn the lower rod end bearing until the cable threads are fully engaged in the upper rod end bearing, and you can not turn the lower rod end bearing more.

(q) Turn the adjuster bushing [26] with your hand to increase tension on the cable sheath [20].

1) Turn the adjuster bushing [26] until the countersunk washer [25] touches the bottom of beam No. 2.

(r) Install the flanged bushing [24], washer [23], and jamnut [22] on the adjuster bushing [26].

1) Hold the adjuster bushing [26] so it does not turn when you install the jamnut [22].

(s) Safety the jamnut [22] with the lockwire [27].

SUBTASK 52-12-16-420-002

(2) Connect the push/pull cable [2] to the girt bar mechanism as follows:

(a) Install the bolt [10], washers [11], bushing [12], and nut [13] to attach the lower rod end bearing [9] to the crank [14].

1) Do not tighten the nut [13].

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(b) Disengage the two interlocks [32], and hold them in that position with wire.

NOTE: This will let you move the mode select handle [1], to turn the torque tube [4] with the door open.

(c) At the two ends of the torque tube [4], install the bolts [28], washers [29], and nuts [30] that hold the end cranks [31] of the girt bar mechanism.

NOTE: You can move the mode select handle [1] to align the holes for the bolts.

G. Adjustment

SUBTASK 52-12-16-820-003

(1) Adjust the tension on the push/pull cable sheath [20] as follows:

(a) Move the mode select handle [1] to the MANUAL/DISARM position.

CAUTION USE A WRENCH ONLY ON THE FLATS ON THE CABLE SHEATH. IF YOU DO NOT OBEY THIS INSTRUCTION, DAMAGE TO THE CABLE SHEATH CAN OCCUR.

(b) Turn the cable sheath [20] into the adjuster bushing [26] by increments of one-half turn, to increase tension on the cable sheath [20].

(c) Move the mode select handle [1] from the MANUAL/DISARM position to the AUTOMATIC/ARM position, then to the MANUAL/DISARM position.

1) Do this step three times each time you turn the cable sheath [20] one-half turn.

(d) Increase the tension on the cable sheath [20] by one-half turn increments until you can not turn the slotted retainer [15] with your fingers.

(e) When you can not turn the slotted retainer [15] with your fingers, decrease the tension on the cable sheath [20] as follows:

1) Turn the cable sheath [20] one-half turn in the opposite direction.

(f) Install the lockpin [21].

(g) Remove the wire that holds the interlocks [32] in the disengaged position.

SUBTASK 52-12-16-820-001

(2) Adjust the push/pull cable [2] as follows:

(a) Do this task: Passenger Entry Door Adjustment, TASK 52-12-00-820-801.

1) Do the Push/Pull Cable Adjustment and the Mode Select Handle Overtravel Stop (Bumper) Adjustment for PED 1, 2, 4, and 5, only.

(b) Make sure the jamnut [7] is safetied with the tabwasher [8].

(c) Move the mode select handle [1] to the AUTOMATIC/ARM position and then to the MANUAL/DISARM position, and make sure the push/pull cable [2] moves freely.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-16-410-001

(1) Close access to the push/pull cable [2] as follows:

(a) Do this task: Bustle Closeout Panel Installation, TASK 52-12-25-400-805.

(b) For door 1L or 2L, do this task: Outboard Cover and Flap Installation, TASK 52-12-25-400-804.

(c) Do this task: Access Panels Installation, TASK 52-12-25-400-801.

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(d) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985 and close the door.

(e) Do this task: Door-Mounted Escape Slide Pack Installation, TASK 25-66-01-400-801.

SUBTASK 52-12-16-860-005

(2) Turn the EPAS battery safety switch to the ARM position.

——— END OF TASK ———

TASK 52-12-16-000-802

4. Pull Cable Removal

(Figure 202)

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet
STD-1166	Block - Wood, 1 to 3 Inch Thick, More Than 6 Inch Length

C. Consumable Materials

Reference	Description	Specification
G00291	Tape - Aluminum Foil, Scotch 425	AMS-T-23397 / L-T-80

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Removal

SUBTASK 52-12-16-860-003

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

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(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-16-010-002

(2) Get access to the pull cable [41] as follows:

(a) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

(b) Make sure the adjustable height cabin and general access stand, STD-1160 is outboard of the door.

(c) Open the door until the hinge is perpendicular to the door.

(d) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985.

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

F. Removal

SUBTASK 52-12-16-020-004

(1) Disconnect the pull cable [41] from the mode select mechanism as follows:

(a) Remove the lockwire [50] on the jamnut [51] on the adjuster fitting [49] at the end of the pull cable [41].

(b) Loosen the jamnut [51] on the adjuster fitting [49].

(c) Turn the adjuster fitting [49] until its threads are not engaged.

(d) Disengage the ball on the end of the pull cable [41] from the keyhole in the adjuster fitting [49].

SUBTASK 52-12-16-020-005

(2) Remove the pull cable [41] from the door structure as follows:

(a) Remove the bolt [44], washer [45], and nut [46] from the clamp [43] on the pull cable [41].

(b) Pull the exterior handle outboard and install the wood block, STD-1166 to keep it in that position.

NOTE: This gives access to the nut [54] on the pull cable [41] at the handle mechanism.

(c) Loosen the nut [54], but do not remove it.

(d) Remove the wood block, STD-1166 from the exterior handle.

(e) Remove the lockwire [47] on the lower jamnut [42] and the upper jamnut [48].



CAUTION

USE A WRENCH ONLY ON THE CABLE FLATS WHEN YOU LOOSEN OR TIGHTEN THE JAMNUTS. IF YOU DO NOT OBEY THIS INSTRUCTION, DAMAGE TO THE CABLE CAN OCCUR.

(f) Loosen the lower jamnut [42] and the upper jamnut [48].

(g) Remove the upper jamnut [48] and the washer [57].

(h) Move the pull cable [41] down through the bracket.

(i) Remove the lower jamnut [42] and the washer [57].

(j) Remove the pull cable [41] from the door structure.

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SUBTASK 52-12-16-020-006

(3) Disconnect the pull cable [41] from the handle mechanism as follows:

(a) Remove the Scotch 425 Aluminum Foil Tape, G00291 on the handle mechanism to get access to the retainer [53A] on the disarm collar [55].

(b) Remove the retainer [53A] from the disarm collar [55].

(c) Push the upper end of the pull cable [41] down, and disengage the ball on the end of the cable from the slot in the disarm collar [55].

(d) Pull the exterior handle outboard and install the wood block, STD-1166 to keep it in that position.

NOTE: This gives access to the nut [54] on the pull cable [41].

(e) Remove the nut [54] and washer [56].

(f) Remove the pull cable [41] from the door.

(g) Remove the wood block, STD-1166 from the exterior handle.

——— END OF TASK ———

TASK 52-12-16-400-802

5. Pull Cable Installation

(Figure 202)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-00-820-801	Passenger Entry Door Adjustment (P/B 501)
52-12-25-400-803	Upper Liner Installation (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1166	Block - Wood, 1 to 3 Inch Thick, More Than 6 Inch Length

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
G00291	Tape - Aluminum Foil, Scotch 425	AMS-T-23397 / L-T-80

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47

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(Continued)

Zone	Area
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Installation

SUBTASK 52-12-16-420-004

(1) Connect the pull cable [41] to the handle mechanism as follows:

(a) Pull the exterior handle outboard and install the wood block, STD-1166 to keep it in that position.

NOTE: This gives access to the nut [54] on the pull cable [41].

(b) Put the pull cable [41] through the handle mechanism in its correct position.

(c) Install the washer [56] and nut [54].

(d) Install the pull cable [41] in the disarm collar [55].

(e) Pull the upper end of the pull cable [41] up until the ball on the end of the cable engages the slot in the disarm collar [55].

(f) Install the retainer [53A] on the disarm collar [55].

1) Install the retainer [53A] so the beveled opening points outboard.

(g) Install the Scotch 425 Aluminum Foil Tape, G00291 a minimum of 0.5 in. (12.7 mm) over the edge of the cutout in the handle mechanism.

(h) Remove the wood block, STD-1166 from the exterior handle.

SUBTASK 52-12-16-420-005

(2) Install the pull cable [41] on the door structure as follows:

(a) Hold the pull cable [41] in its correct position on the door structure.

(b) Put the lower jamnut [42] and washer [57] on the pull cable [41].

(c) Turn the lower jamnut [42] down and move the pull cable [41] up through the bracket.

(d) Install the upper jamnut [48] and washer [57].

(e) Install the bolt [44], washer [45], and nut [46] on the clamp [43] for the pull cable [41].

CAUTION

USE A WRENCH ONLY ON THE CABLE FLATS WHEN YOU LOOSEN OR TIGHTEN THE JAMNUTS. IF YOU DO NOT OBEY THIS INSTRUCTION, DAMAGE TO THE CABLE CAN OCCUR.

(f) Tighten the lower jamnut [42] and the upper jamnut [48].

SUBTASK 52-12-16-420-006

(3) Connect the pull cable [41] to the mode select mechanism as follows:

(a) Put the pull cable [41] in its correct position through the crank [52].

(b) Put the ball on the end of the pull cable [41] through the keyhole on the adjuster fitting [49].

(c) Turn the adjuster fitting [49] to engage its threads with the pull cable [41] threads.

(d) Tighten the jamnut [51] on the adjuster fitting [49].

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SUBTASK 52-12-16-820-002

(4) Adjust the pull cable [41] as follows:

(a) Do this task: Passenger Entry Door Adjustment, TASK 52-12-00-820-801.

1) Do the Pull Cable Adjustment only.

(b) Make sure the lockwire [47] and lockwire [50] is installed on the lower jamnut [42], upper jamnut [48], and jamnut [51].

(c) Apply the sealant, A00247 to the lockwire hole in the crank [52] and remove the unwanted material.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-16-410-002

(1) Close access to the pull cable [41] as follows:

(a) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985.

(b) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

SUBTASK 52-12-16-860-006

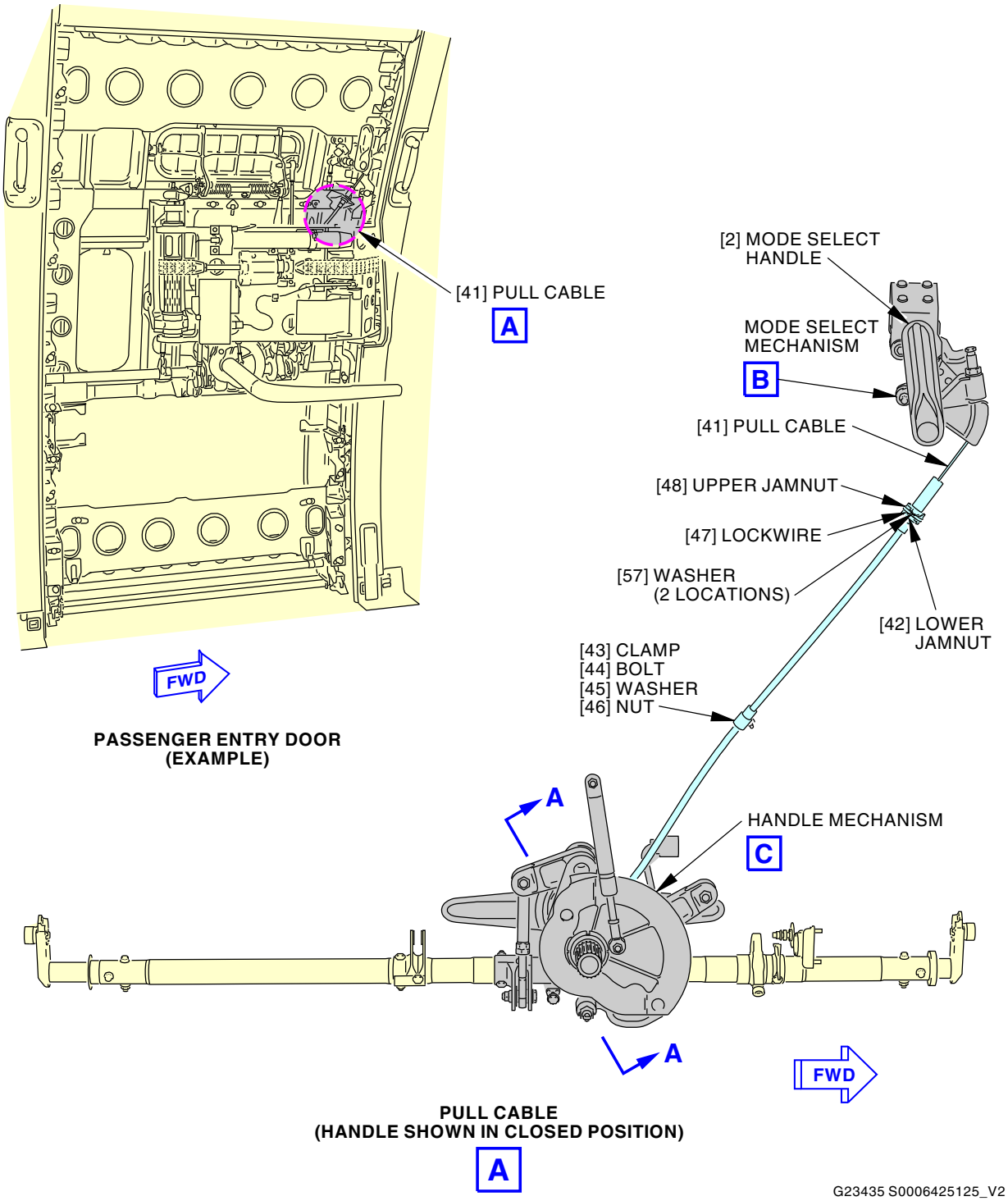
(2) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

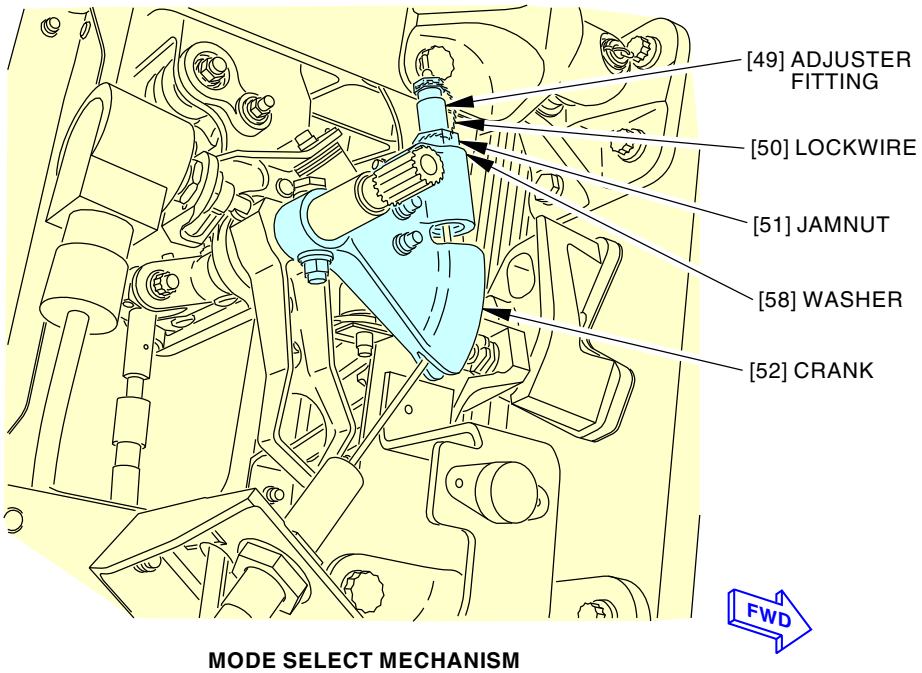
——— END OF TASK ———

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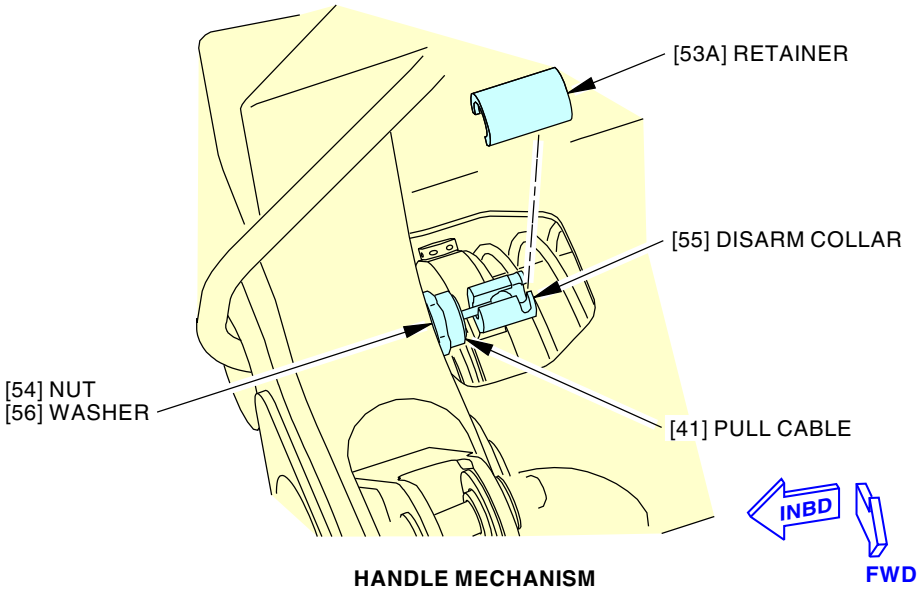
Pull Cable Installation
Figure 202/52-12-16-990-802 (Sheet 1 of 3)

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MODE SELECT MECHANISM
(MODE SELECT HANDLE REMOVED)

B



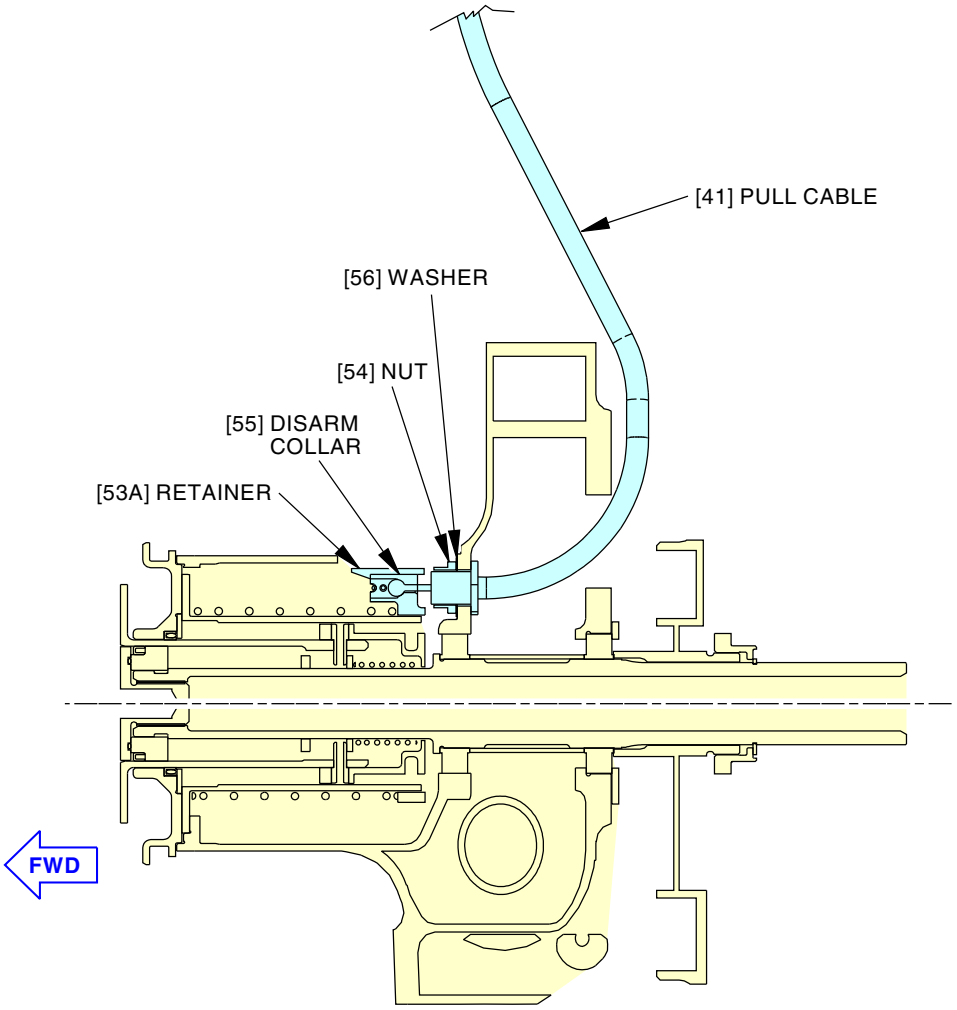
HANDLE MECHANISM

C

H15022 S0006425126_V2

Pull Cable Installation
Figure 202/52-12-16-990-802 (Sheet 2 of 3)

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(HANDLE SHOWN IN OPEN POSITION)

A-A

H12513 S0006425127_V2

Pull Cable Installation
Figure 202/52-12-16-990-802 (Sheet 3 of 3)

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GIRT BAR MECHANISM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the girt bar mechanism.

(2) An installation of the girt bar mechanism.

TASK 52-12-17-000-801

2. Girt Bar Mechanism Removal

(Figure 401)

A. General

(1) Use this procedure to disconnect the parts of the girt bar mechanism. If you want to do work on only one part of the girt bar mechanism, do the steps to disconnect that part only and then stop.

NOTE: This procedure applies to PED 1, 2, 4, and 5 only.

(2) The girt bar mechanism has these parts:

NOTE: The two sides of the girt bar mechanism have similar parts.

(a) Girt bar torque tube with end fitting and end crank

(b) On forward side of girt bar mechanism, crank for the push/pull cable

(c) Support fitting with bearing

(d) Carrier fitting

(e) Interlock with spring

(f) Hook

(3) Do not remove the fasteners [4] that attach the girt bar mechanism support fitting to beam No. 1. These fasteners are installed in an undersized hole (transition fit) and are difficult to remove or install correctly. Remove and install the parts of the girt bar mechanism only.

B. References

Reference	Title
25-66-01-000-801	Door-Mounted Escape Slide Pack Removal (P/B 401)
52-12-25-000-801	Access Panels Removal (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
SPL-1997	Simulator - Rigging, Passenger Door Escape Slide Part #: J52014-1 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

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D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Removal

SUBTASK 52-12-17-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) Turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-17-010-001

(2) Get access to the girt bar mechanism as follows:

(a) Do this task: Door-Mounted Escape Slide Pack Removal, TASK 25-66-01-000-801.

(b) Install the passenger door escape slide rigging simulator, SPL-1997.

NOTE: If you do not install this tool, it will be difficult to close the door after it is opened because the door will be too high to enter the cutout.

(c) Remove the applicable aft or forward bottom access panel (TASK 52-12-25-000-801).

(d) Make sure the adjustable height cabin and general access stand, STD-1160 is outboard of the door.

(e) Open the door until the hinge is perpendicular to the door.

(f) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985.

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

F. Girt Bar Mechanism Removal

SUBTASK 52-12-17-020-001

(1) Disconnect the push/pull cable [3] from the girt bar mechanism as follows:

(a) On the forward side of the girt bar torque tube assembly [2], remove the bolt [17], washer [18], bushing [19], washer [20], and nut [21] that attach the push/pull cable [3] to the crank [12].

(b) Remove the push/pull cable [3] from the crank [12].

SUBTASK 52-12-17-020-002

(2) Disconnect the hook [11] and end crank [7] as follows:

(a) Remove the bolt [25], washer [26], washer [27], and nut [28] that attach the end crank [7] to the end fitting [13].

(b) Remove the bolt [40], washer [41], bushing [42], bushing [60], washer [43], and nut [44] that attach the hook [11] and end crank [7] to the support fitting [14].

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(c) Remove the hook [11] and end crank [7] from the support fitting [14].

(d) Remove the washers [15] and washers [16] between the end crank [7] and the support fitting [14].

(e) Remove the bolt [34], spacer [35], bushing [36], roller [37], washer [38], and nut [39] that attach the end crank [7] to the hook [11].

(f) Remove the end crank [7] from the hook [11].

(g) Identify the end crank [7], end fitting [13], and girt bar torque tube [6] as a matched set.

(h) Remove the bolt [29], roller [30], bushing [31], washer [32], and nut [33] that go through the hook [11].

SUBTASK 52-12-17-020-003

(3) Disconnect the interlock [8] as follows:

(a) Remove the bolt [45], washer [46], washer [58], washers [59], bushing [47], washer [48], nut [49], and spring [9] that attach the interlock [8] to the carrier fitting [10].

(b) Remove the interlock [8] from the carrier fitting [10].

SUBTASK 52-12-17-020-004

(4) Disconnect the girt bar torque tube assembly [2] as follows:

(a) On the aft side of the girt bar torque tube [6], do these steps:

1) Remove the bolts [54], washers [55], washers [56], and nuts [57] that attach the end fitting [13] to the girt bar torque tube [6].

2) Make a mark across the aft end fitting [13] and girt bar torque tube [6] to show the correct alignment of the holes for the subsequent installation.

3) Push the aft end fitting [13] into the girt bar torque tube [6] to make clearance for the removal of the girt bar torque tube assembly [2] from the forward support fitting [14].

(b) Push the girt bar torque tube assembly [2] forward and turn the aft end down.

(c) Pull the girt bar torque tube assembly [2] from the forward support fitting [14].

(d) Remove the aft end fitting [13] from the girt bar torque tube [6].

SUBTASK 52-12-17-020-005

(5) Disconnect the carrier fitting [10] as follows:

(a) Remove the bolts [22], washers [23], and nuts [24] that attach the carrier fitting [10] to the support fitting [14].

(b) Remove the carrier fitting [10].

(c) Remove the filler [61] from between the carrier fitting [10] and the support fitting [14].

SUBTASK 52-12-17-020-006

(6) Continue to disconnect the girt bar torque tube assembly [2] as follows:

(a) On the forward side of the girt bar torque tube [6], do these steps:

1) Make a mark across the forward end fitting [13] and girt bar torque tube [6] to show the correct alignment of the holes for the subsequent installation.

2) Remove the bolts [54], washers [55], washers [56], and nuts [57] that attach the forward end fitting [13] to the girt bar torque tube [6].

3) Remove the forward end fitting [13] from the girt bar torque tube [6].

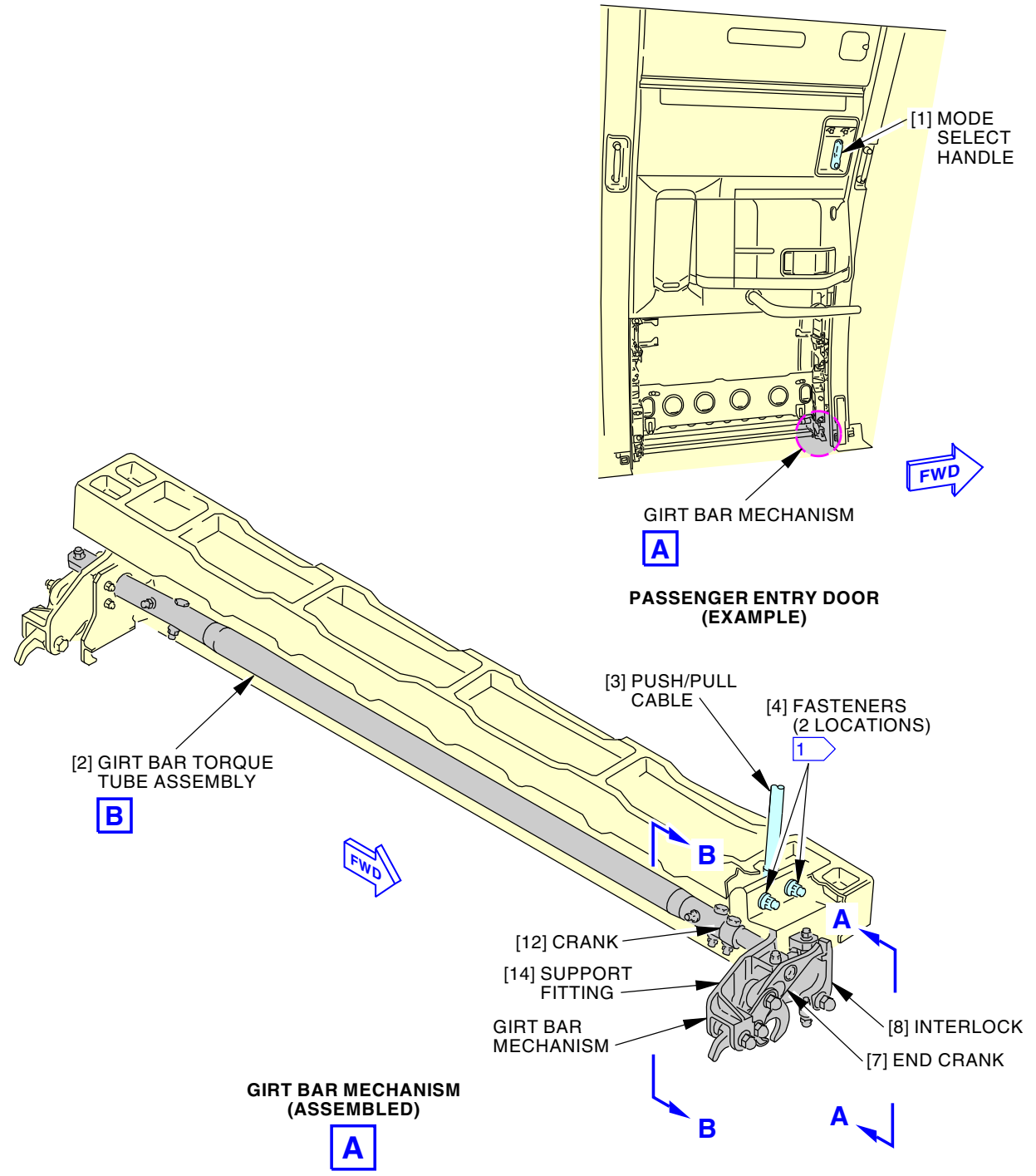
(b) Remove the bolt [50], washer [51], washer [52], and nut [53] that attach the crank [12] to the end fitting [13].

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(c) Remove the crank [12] from the end fitting [13].

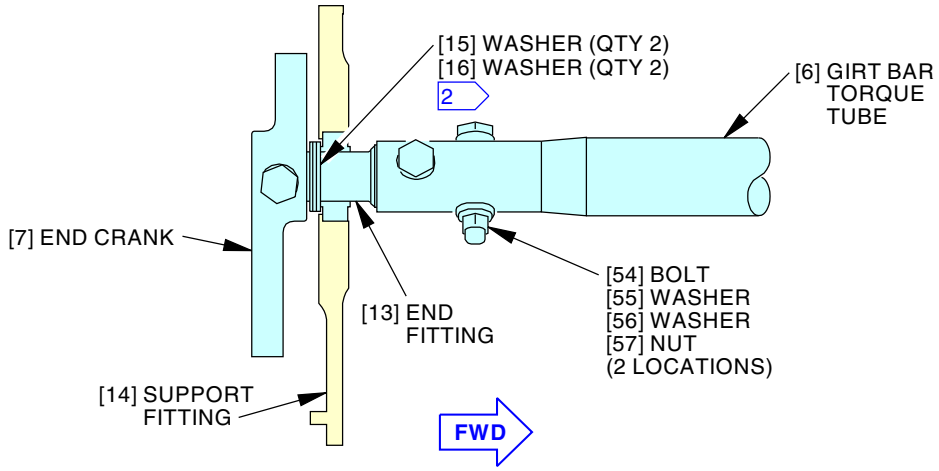
——— END OF TASK ———

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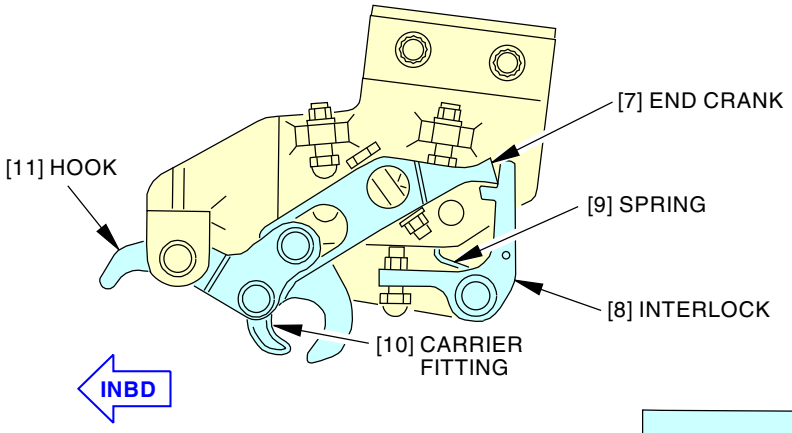
Girt Bar Mechanism PED 1, 2, 4, and 5 Installation
Figure 401/52-12-17-990-803 (Sheet 1 of 3)

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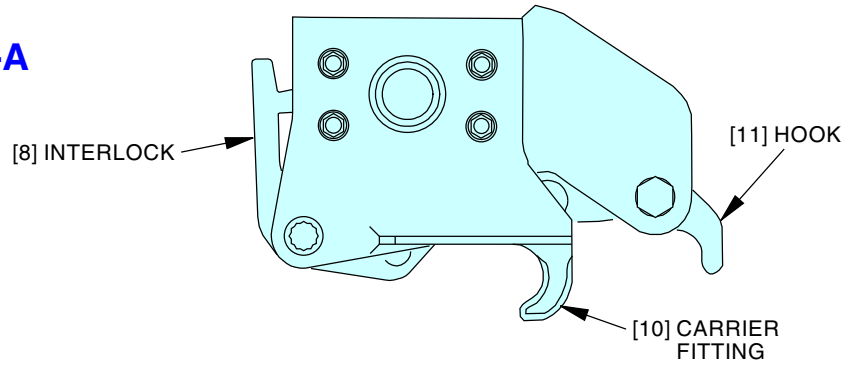


[2] GIRT BAR TORQUE TUBE ASSEMBLY
(AFT SIDE SHOWN, FORWARD SIDE OPPOSITE)

B



A-A



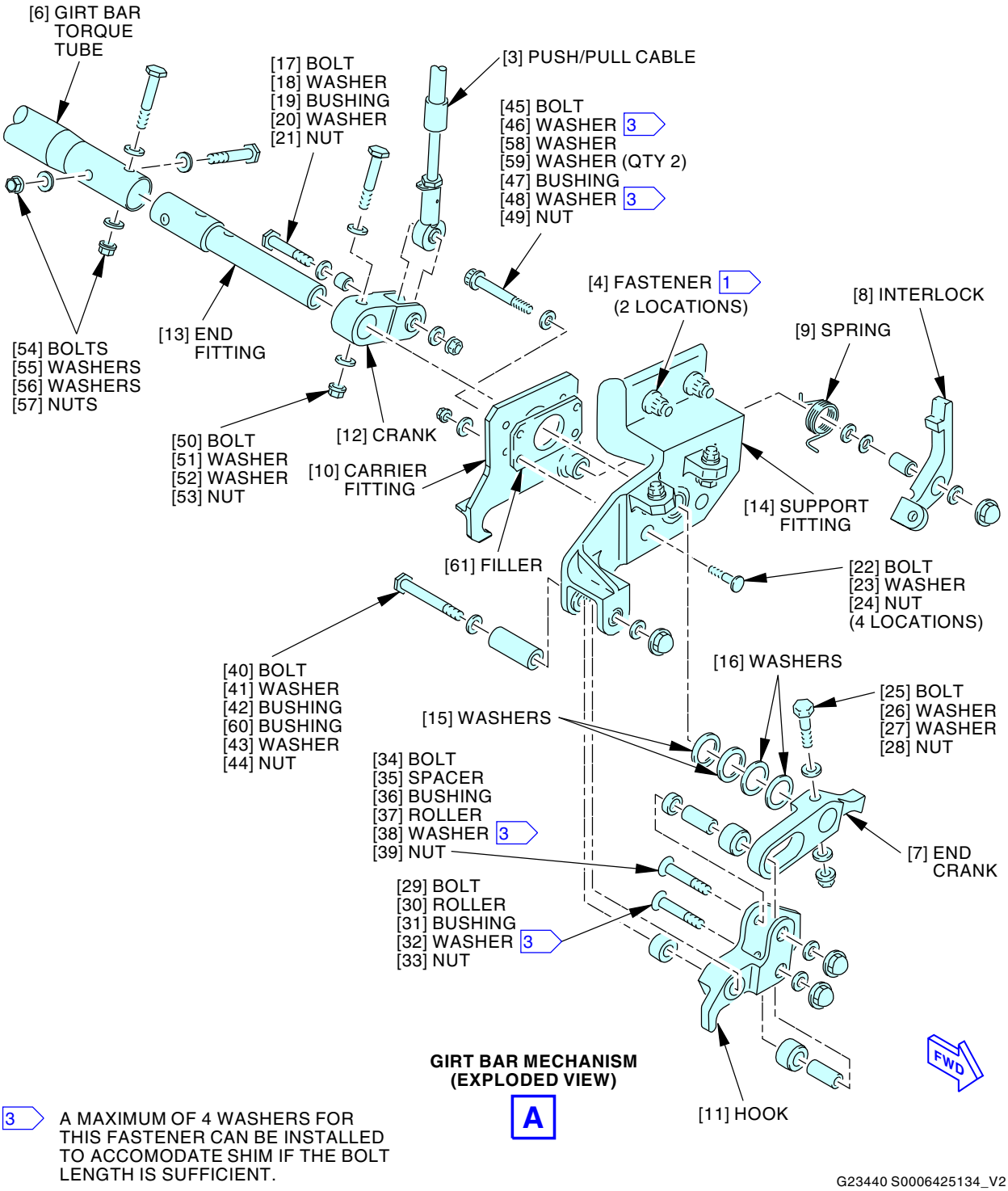
B-B

2 0.02-0.04 INCH CLEARANCE BETWEEN WASHERS AND END CRANK ON EACH SIDE OF GIRT BAR TORQUE TUBE.

G23439 S0006425133_V2

Girt Bar Mechanism PED 1, 2, 4, and 5 Installation
Figure 401/52-12-17-990-803 (Sheet 2 of 3)

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Girt Bar Mechanism PED 1, 2, 4, and 5 Installation
Figure 401/52-12-17-990-803 (Sheet 3 of 3)

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TASK 52-12-17-400-801

3. Girt Bar Mechanism Installation

(Figure 401)

A. General

(1) Use this procedure to connect the parts of the girt bar mechanism. If you did work on only one part of the girt bar mechanism, do the steps to connect that part only.

NOTE: This procedure applies to PED 1, 2, 4, and 5 only.

(2) The girt bar mechanism has these parts:

NOTE: The two sides of the girt bar mechanism have similar parts.

(a) Girt bar torque tube with end fitting and end crank

(b) On forward side of girt bar mechanism, crank for the push/pull cable

(c) Support fitting with bearing

(d) Carrier fitting

(e) Interlock with spring

(f) Hook

(3) Do not remove the fasteners [4] that attach the girt bar mechanism support fitting to beam No. 1. These fasteners are installed in an undersized hole (transition fit) and are difficult to remove or install correctly. Remove and install the parts of the girt bar mechanism only.

B. References

Reference	Title
25-66-01-400-801	Door-Mounted Escape Slide Pack Installation (P/B 401)
52-12-00-730-801	Passenger Entry Door System Test (P/B 501)
52-12-00-820-801	Passenger Entry Door Adjustment (P/B 501)
52-12-25-400-801	Access Panels Installation (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
SPL-1997	Simulator - Rigging, Passenger Door Escape Slide Part #: J52014-1 Supplier: 81205

D. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

E. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41

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(Continued)

Zone	Area
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

F. Girt Bar Mechanism Installation

SUBTASK 52-12-17-420-001

(1) Connect the girt bar torque tube assembly [2] as follows:

(a) On the forward side of the girt bar torque tube assembly [2], do these steps:

1) Apply the sealant, A00247 to the mating surfaces of the crank [12] and end fitting [13].

2) Put the crank [12] on the end fitting [13] in its correct position.

NOTE: The open end of the crank [12] points outboard.

3) Apply the sealant, A00247 to the bolt [50] that attaches the crank [12] to the end fitting [13] and the hole in the crank [12] that it goes through.

4) Install the bolt [50], washer [51], washer [52], and nut [53] to attach the crank [12] to the end fitting [13].

(b) Put the forward end fitting [13] in its correct position in the girt bar torque tube [6].

(c) Install the bolts [54], washers [55], washers [56], and nuts [57] to attach the end fitting [13] to the forward side of the girt bar torque tube [6].

(d) Tighten the nuts [57] to 15 ±5 in-lb (1.7 ±0.6 N·m) above the run-on torque.

SUBTASK 52-12-17-420-002

(2) Connect the carrier fitting [10] as follows:

(a) Put the carrier fitting [10] and filler [61] in their correct position on the support fitting [14].

(b) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the bolts [22], washers [23], and nuts [24] that attach the carrier fitting [10] to the support fitting [14].

(c) Install the bolts [22], washers [23], and nuts [24] to attach the carrier fitting [10] and filler [61] to the support fitting [14].

(d) Tighten the nuts [24] to 30 ±5 in-lb (3.4 ±0.6 N·m).

SUBTASK 52-12-17-420-003

(3) Continue to connect the girt bar torque tube assembly [2] as follows:

(a) Put the aft end fitting [13] in the aft end of the girt bar torque tube [6] and push it in to make clearance for the installation of the girt bar torque tube assembly [2].

(b) Put the girt bar torque tube assembly [2] in the forward support fitting [14].

(c) Push the girt bar torque tube assembly [2] forward and turn the aft end up.

(d) Pull the aft end fitting [13] out of the girt bar torque tube [6] and into its correct position.

(e) Install the bolts [54], washers [55], washers [56], and nuts [57] to attach the end fitting [13] to the aft side of the girt bar torque tube [6].

(f) Tighten the nuts [57] to 15 ±5 in-lb (1.7 ±0.6 N·m) above the run-on torque.

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SUBTASK 52-12-17-420-004

(4) Connect the interlock [8] as follows:

(a) Put the interlock [8] in its correct position on the carrier fitting [10].

(b) Apply the sealant, A00247 to the leg of the spring [9] and mating hole in the support fitting [14].

(c) Install the spring [9] in the support fitting [14]. Remove the excess sealant, A00247.

(d) Put the spring [9] on the carrier fitting [10] and hold in this position.

(e) Put the bolt [45] and washer [46] through the carrier fitting [10].

(f) Install the spring [9] on the interlock [8].

(g) Turn the interlock [8] to put a load on the spring [9] and hold.

(h) Install the bolt [45], washer [46], washer [58], washers [59], bushing [47], washer [48], and nut [49] to attach the interlock [8] to the carrier fitting [10].

SUBTASK 52-12-17-420-005

(5) Connect the hook [11] and end crank [7] as follows:

(a) Install the bolt [29], roller [30], bushing [31], washer [32], and nut [33] that go through the hook [11].

(b) Put the end crank [7] in its correct position on the hook [11].

(c) Install the bolt [34], spacer [35], bushing [36], roller [37], washer [38], and nut [39] to attach the end crank [7] to the hook [11].

(d) Put the washers [15] and washers [16] on the girt bar torque tube assembly [2] against the support fitting [14].

(e) Put the hook [11] and end crank [7] in their correct positions in the support fitting [14] and on the girt bar torque tube assembly [2].

(f) Install the bolt [40], washer [41], bushing [42], bushing [60], washer [43], and nut [44] to attach the hook [11] and end crank [7] to the support fitting [14].

(g) Make sure the clearance between the washers [15] and washers [16] and the end crank [7] is as shown (Figure 401, View B).

(h) If it is necessary, adjust as follows:

1) Add or remove equal quantities of washers [15] and washers [16] on each side of the girt bar torque tube assembly [2] to get the correct clearance.

2) If you cannot get the correct clearance, one additional washer [16] can be added or removed from the forward side to get the correct clearance.

(i) Install the bolt [25], washer [26], washer [27], and nut [28] to attach the end crank [7] to the girt bar torque tube assembly [2].

SUBTASK 52-12-17-420-006

(6) Connect the push/pull cable [3] to the girt bar mechanism as follows:

(a) On the forward side of the girt bar torque tube assembly [2], put the push/pull cable [3] in its correct position in the crank [12].

(b) Install the bolt [17], washer [18], bushing [19], washer [20], and nut [21] to attach the push/pull cable [3] to the crank [12].

SUBTASK 52-12-17-820-001

(7) Do the Girt Bar Mechanism Adjustment (TASK 52-12-00-820-801).

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G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-17-410-001

(1) Close access as follows:

(a) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985.

(b) Close and latch the door.

(c) Remove the passenger door escape slide rigging simulator, SPL-1997.

(d) Do this task: Door-Mounted Escape Slide Pack Installation, TASK 25-66-01-400-801.

(e) Do this task: Access Panels Installation, TASK 52-12-25-400-801.

H. Installation Test

SUBTASK 52-12-17-710-001

(1) Do the Girt Bar Mechanism Test: (TASK 52-12-00-730-801).

SUBTASK 52-12-17-860-002

(2) Turn the EPAS battery safety switch to the ARM position.

——— END OF TASK ———

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GIRT BAR MECHANISM - INSPECTION/CHECK

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A check of the girt bar mechanism for passenger entry doors 1, 2, 4, and 5.

TASK 52-12-17-200-801

2. Girt Bar Mechanism Check

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an inspection of the girt bar mechanism.

NOTE: This task is for passenger entry doors 1, 2, 4, and 5.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Procedure

SUBTASK 52-12-17-860-003

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) Turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-17-010-002

(2) Get access to the girt bar mechanism as follows:

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(a) Make sure the adjustable height cabin and general access stand, STD-1160 is outboard of the door.

(b) Open the door until the hinge is perpendicular to the door.

(c) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985.

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

SUBTASK 52-12-17-220-001

(3) Do a check of the girt bar mechanism as follows:

(a) Examine the girt bar mechanism for wear or damage.

(b) Pull the top of the interlock outboard and release.

(c) Make sure the interlock moves back to its initial position.

(d) Examine the interlock spring for wear or damage.

(e) Try to move the mode select handle to the AUTOMATIC/ARM position.

1) Make sure the mode select handle will not move to the AUTOMATIC/ARM position.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-17-410-002

(1) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985.

SUBTASK 52-12-17-410-003

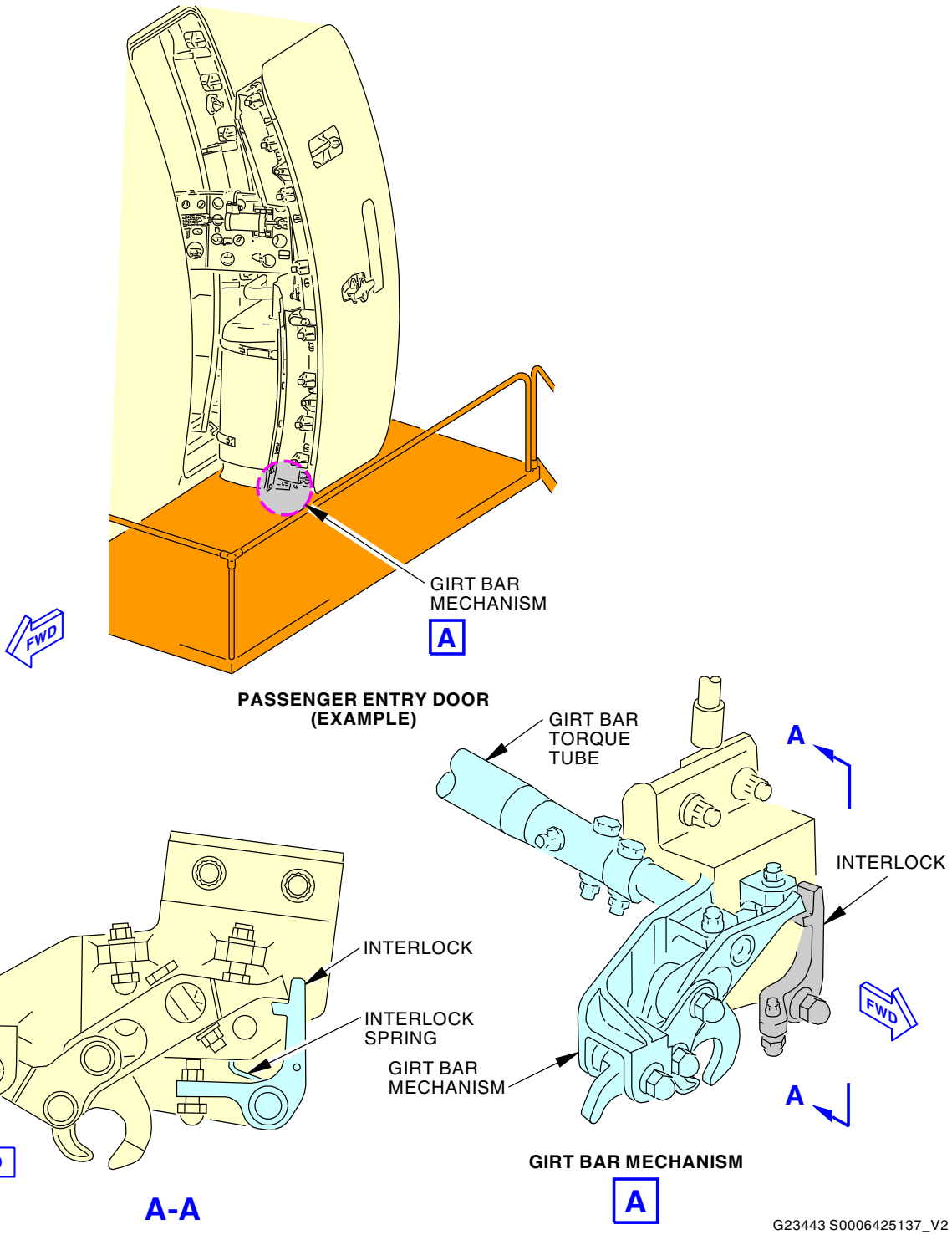
(2) Close the door.

SUBTASK 52-12-17-860-004

(3) Turn the EPAS battery safety switch to the ARM position.

——— END OF TASK ———

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Girt Bar Mechanism PED 1, 2, 4, and 5 Check
Figure 601/52-12-17-990-802

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GIRT BAR FLOOR FITTINGS - INSPECTION/CHECK

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A check of the girt bar floor fittings.

TASK 52-12-18-200-801

2. Girt Bar Floor Fittings Check

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is a check of the passenger entry door girt bar floor fittings.

NOTE: This procedure is for PED 1, 2, 4, and 5 only.

B. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Procedure

SUBTASK 52-12-18-860-001

(1) Make sure the passenger entry door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) Make sure the adjustable height cabin and general access stand, STD-1160 is outboard of the door.

SUBTASK 52-12-18-010-001

(2) Open the door and engage the hold-open.

SUBTASK 52-12-18-210-001

(3) Do a check on the girt bar floor fittings as follows:

(a) Make sure the girt bar floor fitting is clean and clear of unwanted materials.

(b) Make sure the girt bar floor fitting is tightly attached to the floor.

(c) Push the pawl on the girt bar floor fitting down and release.

(d) Make sure the pawl moves back to its initial position.

(e) Do these steps again for the other girt bar floor fitting.

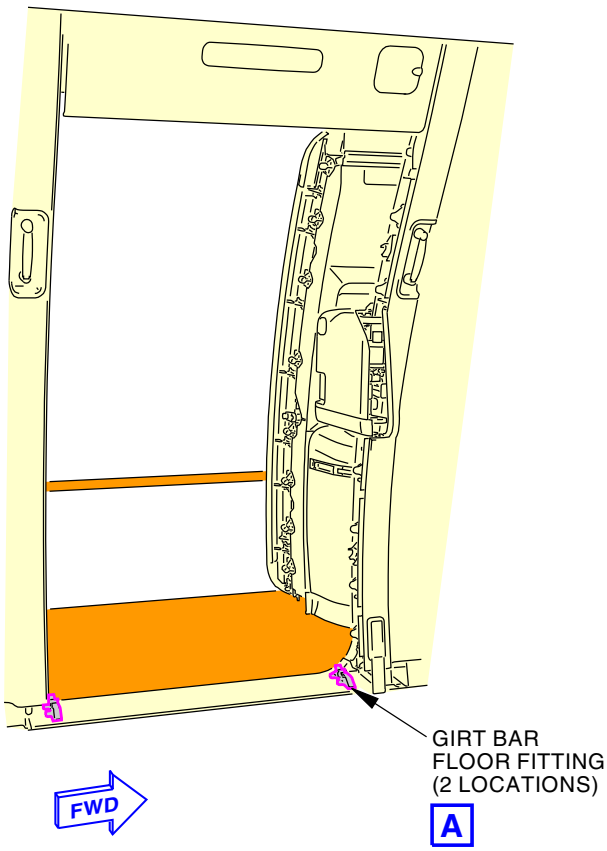
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SUBTASK 52-12-18-410-001

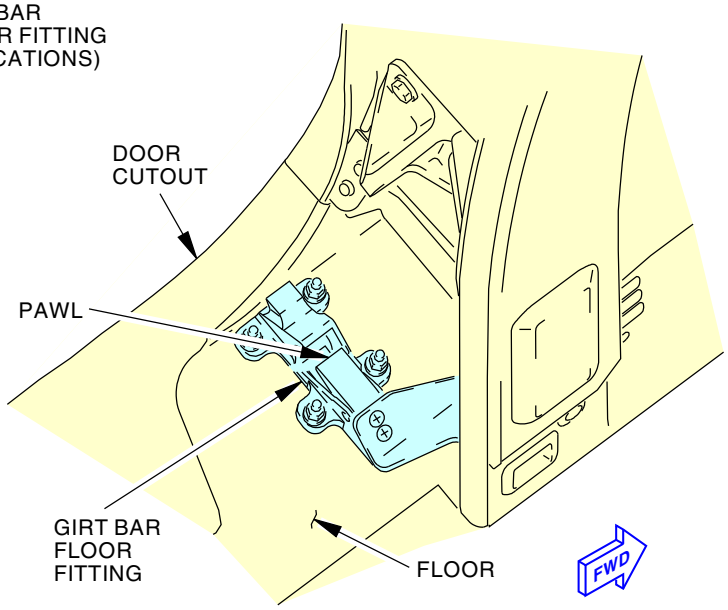
(4) Disengage the hold-open and close the door.

END OF TASK

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PASSENGER ENTRY DOOR
(EXAMPLE)



GIRT BAR FLOOR FITTING
A

G23445 S0006425141_V2

Girt Bar Floor Fittings PED 1, 2, 4, and 5 Check
Figure 601/52-12-18-990-801

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EMERGENCY POWER ASSIST SYSTEM (EPAS) BATTERY FOR PASSENGER ENTRY DOOR 3 - REMOVAL/INSTALLATION

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) Emergency Power Assist System (EPAS) Battery Pack Removal.

(2) Emergency Power Assist System (EPAS) Battery Pack Installation.

TASK 52-12-19-000-802

2. Emergency Power Assist System (EPAS) Battery Pack Removal (PED 3)

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This procedure gives the task to install the primary emergency power assist system (EPAS) battery pack at passenger entry door (PED) 3.

(2) One EPAS battery pack is installed on each passenger entry door (PED) 3. The PED 3 door is also known as the over-wing emergency exit door.

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

(3) The battery pack BPAS10-5 (S283W203-5) has internal fuses, a trickle charger and a safety switch to disarm the battery. It also has an internal battery test function that tests the battery output for all four channels.

ARO ALL

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
52-12-25-000-802	Hinge Covers Removal (P/B 201)

C. Location Zones

Zone	Area
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

D. Prepare for the Removal

SUBTASK 52-12-19-865-001

(1) For the applicable passenger entry doors, open these circuit breakers and install safety tags:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

SUBTASK 52-12-19-860-072

(2) Make sure that the passenger entry door is closed and latched.

SUBTASK 52-12-19-040-006

(3) Make sure that the mode select handle [10] is in the MANUAL/DISARM position.

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SUBTASK 52-12-19-040-007

(4) Do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the door latch actuator for the escape slide compartment.

SUBTASK 52-12-19-010-015

(5) Remove the forward and aft hinge covers from the door (Hinge Covers Removal, TASK 52-12-25-000-802).

SUBTASK 52-12-19-040-008

(6) Turn the safety switch [9] on the EPAS battery to the DISARM position.

E. EPAS Battery Pack Removal

SUBTASK 52-12-19-020-001

(1) Remove the battery pack [1].

(a) Disconnect the electrical connector [3] from the battery pack [1].

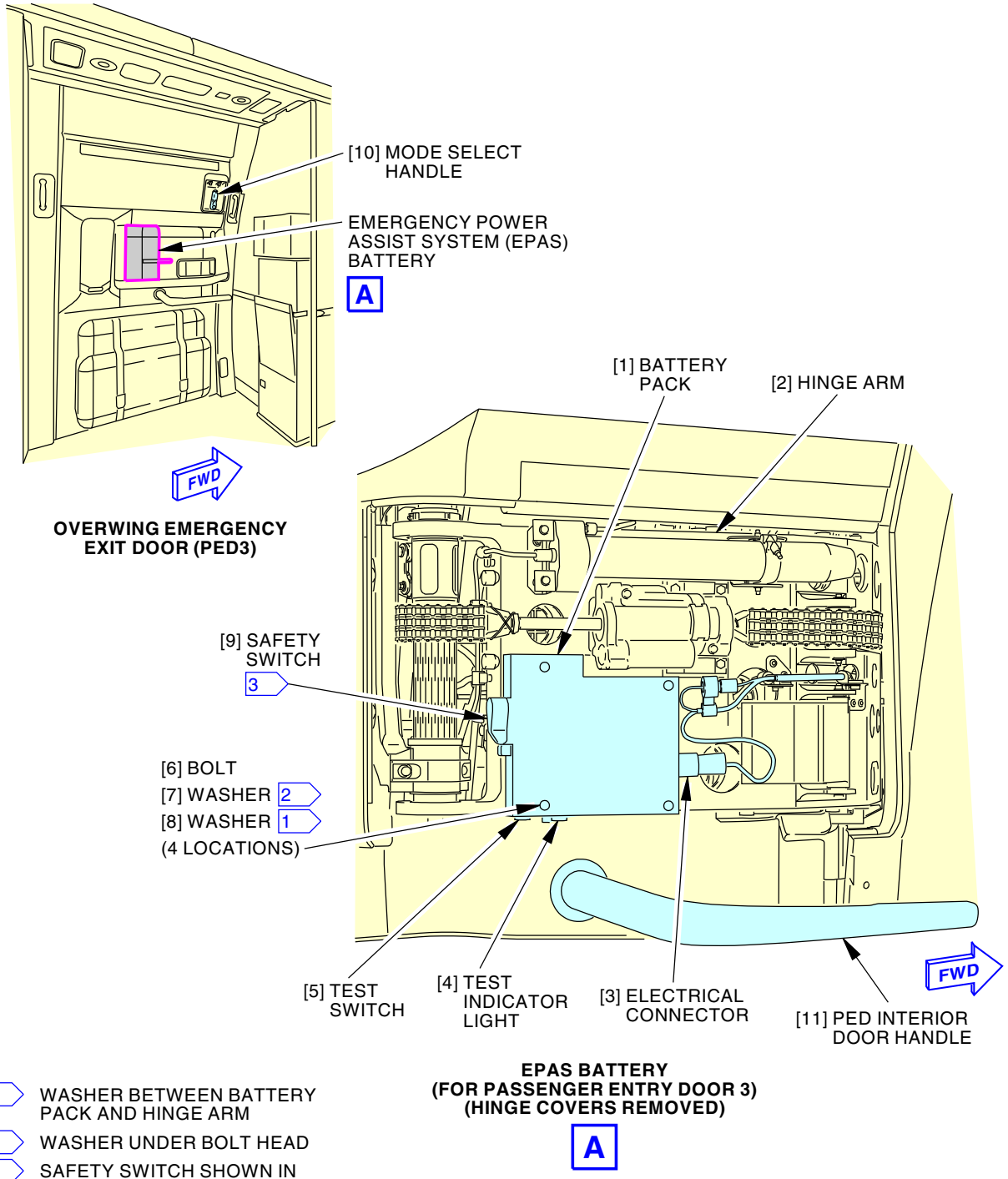
(b) Remove the four bolts [6] and four washers [7] that attach the battery pack [1] to the hinge arm [2].

(c) Remove the battery pack [1] and four washers [8] from the hinge arm [2].

NOTE: These washers were installed between the battery pack and the hinge arm.

——— END OF TASK ———

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Emergency Power Assist System (EPAS) Battery Pack Installation
Figure 401/52-12-19-990-816

EFFECTIVITY
ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

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TASK 52-12-19-400-801

3. Emergency Power Assist System (EPAS) Battery Pack Installation (PED 3)

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This procedure gives the task to install the primary emergency power assist system (EPAS) battery pack at the passenger entry door (PED) 3.

(2) One EPAS battery pack is installed on each passenger entry door (PED) 3. The PED 3 door is also known as the over-wing emergency exit door.

ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY

NOTE: The backup batteries should be replaced every two years.

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

(3) The battery pack BPAS10-5 (S283W203-5) has internal fuses, a trickle charger and a safety switch to disarm the battery. It also has an internal battery test function that tests the battery output for all four channels.

ARO ALL

B. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-19-710-802	Emergency Power Assist System (EPAS) Battery Operational Test (PED 3) (P/B 501)
52-12-25-400-802	Hinge Covers Installation (P/B 201)

C. Consumable Materials

Reference	Description	Specification
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796 Class III
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5 Class A

D. Location Zones

Zone	Area
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

E. EPAS Battery Pack Installation

SUBTASK 52-12-19-420-001

(1) Install the battery pack [1].

(a) Apply compound, C00528 to the mating surfaces of the battery pack [1] and the hinge arm [2].

(b) Apply compound, C00528 to all areas of the hole including countersink, counterbore, or other recess, and immediately install the bolts [6] and washers [7].

(c) Install the bolts [6] and the washers [7] into the holes in the battery pack [1].

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(d) Install washers [8] on the threaded ends of the four bolts [6] that extend from the back of the battery pack [1].

NOTE: These washers are installed between the battery pack and the hinge arm. Use the corrosion preventive compound to help keep the washer on the threaded end of the bolt during the installation of the battery pack.

(e) Hold the battery pack [1] in the correct position and install the bolts into the hinge arm [2].

1) Tighten the four bolts [6] to 22.5 in-lb (2.54 N·m) - 27.5 in-lb (3.11 N·m).

(f) Connect the electrical connector [3] to the battery pack [1].

(g) Remove the excess compound, C00528 with a cotton wiper, G00034.

F. Installation Test

SUBTASK 52-12-19-720-007

(1) Do the a test for the EPAS battery pack:

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

(a) Do this task: Emergency Power Assist System (EPAS) Battery Operational Test (PED 3), TASK 52-12-19-710-802.

ARO ALL

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-19-440-004

(1) Put the safety switch [9] on the EPAS battery pack to the ARM position.

(a) Do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

SUBTASK 52-12-19-410-010

(2) Install the forward and aft hinge covers on the passenger entry door (Hinge Covers Installation, TASK 52-12-25-400-802).

NOTE: If the safety switch for the EPAS battery is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-19-865-002

(3) Remove the safety tags and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

——— END OF TASK ———

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EMERGENCY POWER ASSIST SYSTEM (EPAS) BATTERY FOR PASSENGER ENTRY DOOR 3 - ADJUSTMENT/TEST

1. General

A. This procedure contains scheduled maintenance task data.

B. Passenger entry door (PED) 3 is also known as the overwing emergency exit door.

C. This procedure has these tasks:

(1) An operational test of the EPAS battery for PED 3.

(2) A system test of the off-wing escape system circuits and the EPAS circuit for PED 3.

(3) A test of the squib circuit continuity from the EPAS battery for PED 3.

(4) A test of the continuity through these squibs for PED 3:

(a) EPAS reservoir.

(b) Off-wing escape slide inflation bottle.

(c) Off-wing spoiler auxiliary retract device (SARD).

TASK 52-12-19-710-802

2. Emergency Power Assist System (EPAS) Battery Operational Test (PED 3)

(Figure 501)

A. General

(1) This procedure gives the task to do an operational test of the emergency power assist system (EPAS) battery in the passenger entry door (PED) 3.

(2) This operational test procedure is only for the battery pack, BPAS10-5 (Boeing Specification S283W203-5).

(a) The battery pack, BPAS10-5 (S283W203-5), has a test light and test switch function. This battery pack has internal circuits that check the battery performance through a pulsed load test current, monitor the input voltage and monitor the fuse condition and battery output continuity.

B. References

Reference	Title
52-12-19-000-802	Emergency Power Assist System (EPAS) Battery Pack Removal (PED 3) (P/B 401)
52-12-19-400-801	Emergency Power Assist System (EPAS) Battery Pack Installation (PED 3) (P/B 401)

C. Location Zones

Zone	Area
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

D. Procedure

SUBTASK 52-12-19-865-003

(1) Make sure that these circuit breakers are closed:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L

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(Continued)

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

SUBTASK 52-12-19-860-073

(2) Make sure that the left and right PED 3 are closed and locked.

SUBTASK 52-12-19-040-009

(3) Make sure that the mode select switch is in the MANUAL/DISARMED position.

SUBTASK 52-12-19-040-010

(4) Make sure that the fabric pull handle for the backup battery firing switch is in the stored position and you cannot see it.

NOTE: When the pull handle is in the stored position, the backup battery firing switch is in the NO FIRE position. The pull handle is stored in a fabric cover on the bottom of the dripshield at the top of the PED 3 door opening. When the PED 3 door is closed and latched, access to the pull handle is not possible because the door lining prevents access to the fabric cover and the pull handle.

SUBTASK 52-12-19-860-074

(5) Make sure that the aft hinge cover and the forward hinge cover are installed on the PED 3 door.

NOTE: When the hinge covers are installed, the safety switch for the EPAS battery pack is in the ARM position. If the safety switch for the EPAS battery is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-19-710-002

(6) Push and release the test switch on the EPAS battery pack one time.

SUBTASK 52-12-19-710-003

(7) If the red test light on the EPAS battery pack comes on for approximately 10 seconds, the battery is good.

NOTE: The red test light will come on if the battery current is more than 5 amps across the test load, the internal fuses in the battery pack are good and the battery pack voltage is more than 20 volts DC.

NOTE: The EPAS battery has an internal slow (trickle) charger to continuously charge the battery from the input 28 volts DC from the airplane. The battery will not charge if the safety switch is in the DISARM position. The test switch on the battery will not operate.

SUBTASK 52-12-19-710-004

(8) If the red test light on the EPAS battery pack does not come on, do these steps:

(a) Charge the battery from the input of 28V DC from the airplane for a period of time.

(b) Do this test again.

1) If the light is not on, then continue.

(c) Make sure that the safety switch for the EPAS battery pack is in the ARM position.

(d) Make sure that the circuit breakers are closed.

(e) If the battery does not operate with the safety switch in the ARM position and the circuit breakers closed, do these tasks:

1) Emergency Power Assist System (EPAS) Battery Pack Removal (PED 3), TASK 52-12-19-000-802.

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2) Emergency Power Assist System (EPAS) Battery Pack Installation (PED 3), TASK 52-12-19-400-801.

——— END OF TASK ———

TASK 52-12-19-720-802

3. Emergency Power Assist System (EPAS) Battery - System Test (PED 3)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is a system test of the emergency power assist system (EPAS) on the passenger entry doors (PED) 3:

(a) Squib shunt circuit test

(b) EPAS battery power input test

(c) EPAS battery operational test

(d) Mode select switch test

(e) PED interior handle door-open switch test

(f) EPAS and overwing escape system squib test

(2) The passenger entry door (PED) 3 is also known as the overwing emergency exit door.

(3) One EPAS battery pack is installed on each PED 3. The EPAS battery pack fires the squib on the EPAS reservoir on the PED 3, the squib on the inflation bottle for the overwing escape slide and the squib on the spoiler auxiliary retract device (SARD).

(4) The battery pack, BPAS10-5 (S283W203-5), has a test light and test switch function. The BPAS10-5 battery pack has internal circuits that check the battery performance through a pulsed load test current, monitor the input voltage and monitor the fuse condition and battery output continuity.

(5) This test uses a test box and loads to test the airplane wiring between the battery pack and the squibs with the squibs disconnected from the circuit. This test also does an in-line resistance check through the squibs from an in-line electrical connector which requires the use of an igniter circuit tester to prevent the accidental operation of the squibs.

(6) The squibs are electro-explosive devices (EED). Maintenance personnel that touch the EED must use wrist straps to ground themselves to a ground point. These persons must wear clothes that make a small static electrical charge such as cotton or cotton/synthetic blends. Do not wear all wool clothing, all nylon clothing or all synthetic clothing that make a large static electrical charge. Remove reflective outerwear such as visual safety vests or coats before you touch the EED or disconnect or connect wire bundles.

(7) There is a primary EPAS battery and a backup battery at each PED 3. The primary EPAS battery pack and the backup battery pack must have the same part number.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
27-51-00-040-801	Trailing Edge Flap Deactivation (P/B 201)
27-51-00-440-801	Trailing Edge Flap Reactivation (P/B 201)
29-11-00-860-807	Main Hydraulic System and the Reservoir Depressurization (P/B 201)

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(Continued)

Reference	Title
31-61-00-800-816	Showing a System Synoptic Page (P/B 201)
52-12-25-000-802	Hinge Covers Removal (P/B 201)
52-12-25-400-802	Hinge Covers Installation (P/B 201)
52-12-28-000-802	Door Open Switch Removal, Installation and Adjustment (P/B 201)
WDM 52-11-19	Wiring Diagram Manual

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1565	Strap - Adjustable Wrist, Conductive, Static Control Part #: 09070 Supplier: 62576 Part #: 14810 Supplier: 62576 Part #: 2214 Supplier: 55203 Opt Part #: 2211 Supplier: 55203 Opt Part #: 2212 Supplier: 55203 Opt Part #: 2213 Supplier: 55203
COM-1793	Multimeter - Digital/Analog (or equivalent meter meets task requirements) Part #: 117 Supplier: 89536 Part #: 260-8XPI Supplier: 55026 Part #: 287 Supplier: 89536 Part #: 289 Supplier: 89536 Part #: 87V Supplier: 89536 Part #: FLUKE 27 II Supplier: 89536 Part #: FLUKE-77-4 Supplier: 89536 Opt Part #: 187 Supplier: 89536 Opt Part #: 189 Supplier: 89536 Opt Part #: 260 Supplier: 55026 Opt Part #: 27 Supplier: 89536 Opt Part #: 77 SERIES III Supplier: 89536 Opt Part #: 87 Supplier: 89536 Opt Part #: FLUKE 27 Supplier: 89536 Opt Part #: MODEL 27 Supplier: 89536
SPL-2004	Box - Test, Squib, Overwing Exit Part #: J52029-57 Supplier: 81205
STD-685	Power Supply - 115 VAC, 400 Hz
STD-1231	Multimeter - Standard
STD-1232	Protractor - Digital

D. Location Zones

Zone	Area
197	Aft Wing-to-Body Fairings, Left
198	Aft Wing-to-Body Fairings, Right
212	Flight Compartment, Right
243	Area Above Passenger Compartment Ceiling, Left - Section 44

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(Continued)

Zone	Area
244	Area Above Passenger Compartment Ceiling, Right - Section 44
552	Landing Gear Support Beam & Rear Spar to Wing Trailing Edge - Left Wing
553	Spoiler No. 7
652	Landing Gear Support Beam & Rear Spar to Wing Trailing Edge - Right Wing
653	Spoiler No. 8
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

E. Access Panels

Number	Name/Location
552CB	Inboard Fixed Trailing Edge Panel
652CB	Inboard Fixed Trailing Edge Panel

F. Prepare for the Test

SUBTASK 52-12-19-865-012

(1) Open this circuit breaker and install safety tag:

Power Supply Assembly Center, M24301

Row	Col	Number	Name
A	1	CBA1-C	ACE PWR

SUBTASK 52-12-19-860-005

WARNING MAKE SURE THE SPEEDBRAKE LEVER IS IN ITS DOWN-AND-LOCKED POSITION BEFORE YOU OPEN THESE CIRCUIT BREAKERS. IF YOU DO NOT OBEY THIS INSTRUCTION, THE SPOILERS CAN RETRACT AND CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

(2) Make sure that the speed brake lever is in the down and locked position.

SUBTASK 52-12-19-860-006

(3) Do this task: Trailing Edge Flap Deactivation, TASK 27-51-00-040-801.

SUBTASK 52-12-19-860-007

(4) If there is hydraulic power, depressurize the center hydraulic system (Main Hydraulic System and the Reservoir Depressurization, TASK 29-11-00-860-807).

NOTE: The center hydraulic system supplies hydraulic power for spoilers No. 7 and 8.

SUBTASK 52-12-19-860-008

(5) Move the FLT CONTROL HYD VALVE POWER - WING C switch to the OFF position.

SUBTASK 52-12-19-860-004

(6) Make sure that the applicable PED 3 is CLOSED and LOCKED.

SUBTASK 52-12-19-040-019

(7) Make sure that the mode select handle is in the MANUAL/DISARM position.

SUBTASK 52-12-19-010-003

(8) Remove the aft hinge cover and the forward hinge cover from the applicable PED 3 (Hinge Covers Removal, TASK 52-12-25-000-802).

SUBTASK 52-12-19-010-004

(9) Get access to the SARD (Spoiler Auxiliary Retract Device) cylinder:

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(a) For the left or right wing, open the applicable access panels:

Number	Name/Location
552CB	Inboard Fixed Trailing Edge Panel
652CB	Inboard Fixed Trailing Edge Panel

SUBTASK 52-12-19-040-021

(10) Do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: This procedure will disarm the EPAS battery pack in the PED 3, disarm the backup battery pack on the overhead panel at PED 3 and disarm the inflation bottle for the off-wing escape slide. It is not necessary to disarm the off-wing escape slide compartment door latch actuator.

G. Procedure

SUBTASK 52-12-19-730-010

(1) Squib Shunt Test

WARNING PUT ON A WRIST STRAP THAT IS ATTACHED TO A GROUND BEFORE YOU MAKE ELECTRICAL CONNECTIONS TO AN ELECTRICAL EXPLOSIVE DEVICE. STATIC ELECTRICITY CAN CAUSE AN EXPLOSION.

(a) Before you touch a squib, put on a static control wrist strap, COM-1565 so that it touches your skin, then connect it to an electrical ground.

WARNING PUT CAPS ON THE BOTTLE SQUIBS AND FLOW VALVE SQUIBS. IF YOU DO NOT PUT CAPS ON THE SQUIBS, THE SQUIBS CAN FIRE ACCIDENTALLY AND CAUSE INJURIES TO PERSONNEL.

(b) For the left off-wing escape system, disconnect the electrical connectors from the off-wing escape system squibs as follows:

1) Refer to the: WDM 52-11-19.
2) Disconnect the electrical connector DM52117 from the squib for the left off-wing escape slide inflation bottle.
   a) Remove the shorting cap from the storage pouch and install it on the squib.
      NOTE: A shorting cap is also known as a faraday cap.
      <1> Refer to the figure: Escape Slide Inflation Bottle/Figure 502.
3) Disconnect the electrical connector DM27143 from the squib for the left SARD cylinder for spoiler 7.
   a) Remove the shorting cap from the storage pouch and install it on the squib for the SARD cylinder.
      <1> Refer to the figure: Spoiler Auxiliary Retract Device (SARD)/Figure 503.
4) Disconnect the electrical connector DM52110 from the EPAS reservoir squib on the left PED 3.
   a) Remove the protective cap from the hinge arm and install the protective cap on the squib.
      <1> Refer to the figure: Emergency Power Assist System (EPAS) Battery System Test/Figure 501.

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WARNING PUT CAPS ON THE BOTTLE SQUIBS AND FLOW VALVE SQUIBS. IF YOU DO NOT PUT CAPS ON THE SQUIBS, THE SQUIBS CAN FIRE ACCIDENTALLY AND CAUSE INJURIES TO PERSONNEL.

(c) For the right off-wing escape system, disconnect the electrical connectors from the off-wing escape system squibs as follows:

1) Refer to the: WDM 52-11-19.

2) Refer to the table: Left/Right PED 3 EPAS and Over-Wing Escape System/Table 501.

3) Disconnect the electrical connector DM52116 from the squib for the right off-wing escape slide inflation bottle.

a) Remove the shorting cap from the storage pouch and install it on the squib.

<1> Refer to the figure: Escape Slide Inflation Bottle/Figure 502.

4) Disconnect the electrical connector DM27243 from the squib for the right SARD cylinder for spoiler 8.

a) Remove the shorting cap from the storage pouch and install it on the squib for the SARD cylinder.

<1> Refer to the figure: Spoiler Auxiliary Retract Device (SARD)/Figure 503.

5) Disconnect the electrical connector DM52110 from the EPAS reservoir squib on the right PED 3.

a) Remove the protective cap from the hinge arm and install the protective cap on the squib.

<1> Refer to the figure: Emergency Power Assist System (EPAS) Battery System Test/Figure 501.

(d) Use a digital/analog multimeter, COM-1793 to measure the resistance between the connector pins on the electrical connector through the wire bundle.

Table 501/52-12-19-993-807 Left/Right PED 3 EPAS and Over-Wing Escape System

CONNECTOR NUMBER	DEVICE	PINS
DM52110	M52110 Left EPAS Pneumatic Reservoir	1, 2
DM52110	M52110 Right EPAS Pneumatic Reservoir	1, 2
DM27143	M27143 Left Spoiler Auxiliary Retract Device (SARD) Spoiler No.7	1, 3
DM27243	M27243 Right Spoiler Auxiliary Retract Device (SARD) Spoiler No.8	1, 3
DM52117	M52117 Left Overwing Escape Slide Inflation Bottle	1, 2
DM52116	M52116 Right Overwing Escape Slide Inflation Bottle	1, 2

1) Refer to the table: Left/Right PED 3 EPAS and Over-Wing Escape System/Table 501.

2) Make sure that the resistance is less than 2 ohms.

SUBTASK 52-12-19-730-005

(2) EPAS Battery Power Input Test

NOTE: This is a measurement of the airplane power input to the EPAS battery pack.

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(a) For the applicable door, open these circuit breakers and install safety tags:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

(b) Make sure that the PED 3 is CLOSED and LOCKED.

(c) Disconnect the wire bundle electrical connector, DM52115, from the EPAS battery pack.

(d) Use a multimeter, STD-1231 to measure the voltage between pin 1 and pin 2 (ground) of the wire bundle electrical connector, DM52115.

1) Refer to the WDM 52-11-19.

(e) Make sure that the voltage is less than 5 volts DC.

(f) For the applicable door, remove the safety tags and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

(g) Measure the voltage between pin 1 and pin 2 (ground) of the wire bundle electrical connector, DM52115.

1) Refer to the WDM 52-11-19.

(h) Make sure that the voltage is more than 24 volts DC.

(i) For the applicable door, open these circuit breakers and install safety tags:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

(j) Connect the wire bundle electrical connector, DM52115, to the EPAS battery.

(k) For the applicable door, remove the safety tags and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

SUBTASK 52-12-19-730-011

(3) EPAS Battery Operational Test

(a) For the applicable door, make sure these circuit breakers are closed:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

(b) Make sure that the PED 3 is CLOSED and LOCKED.

(c) Turn the safety switch for the EPAS battery to the ARM position.

(d) Push the test switch on the EPAS battery.

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(e) Make sure that the red test light comes on.

(f) For the applicable door, open these circuit breakers and install safety tags:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

(g) Push the test switch for the EPAS battery.

(h) Make sure that the red test light does not come on.

(i) For the applicable door, remove the safety tags and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

(j) Turn the safety switch for the EPAS battery to the DISARM position.

(k) Push the test switch on the EPAS battery.

(l) Make sure that the red test light does not come on.

SUBTASK 52-12-19-730-006

(4) Mode Select Switch Test

(a) Make sure that the mode select handle is in the MANUAL/DISARM position.

(b) Connect a 115 VAC power supply, STD-685 for the overwing exit squib test box, SPL-2004.

(c) Make sure that power for the overwing exit squib test box, SPL-2004 is OFF.

(d) Connect the electrical connectors to the overwing exit squib test box, SPL-2004 with the test cable assembly to the squib wire bundle connectors (Figure 504).

1) Connect the J5 connector on the slide load assembly to the wire bundle connector for the overwing escape slide.

2) Connect the J6 connector on the SARD load assembly to the wire bundle connector for the Spoiler Auxiliary Retract Device (SARD).

3) Connect the J7 connector on the EPAS load assembly to the wire bundle connector for the EPAS reservoir.

4) Connect the P2 connector on the test cable assembly to the J2 connector on the slide load assembly.

5) Connect the P3 connector on the test cable assembly to the J3 connector on the SARD load assembly.

6) Connect the P4 connector on the test cable assembly to the J4 connector on the EPAS reservoir load assembly.

7) Connect the P1 connector on the test cable assembly to the J1 connector on the overwing exit squib test box, SPL-2004.

(e) Set the power switch for the overwing exit squib test box, SPL-2004 to ON.

1) Make sure that the red power indication light comes on.

(f) Push the ARM switch on the overwing exit squib test box, SPL-2004.

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1) Make sure that the green ARMED light comes on.

NOTE: A failure at this step would indicate a faulty overwing exit squib test box, SPL-2004, not a failed airplane.

(g) Turn the safety switch for the EPAS battery to the ARM position.

(h) Turn the PED interior door handle to the OPEN position.

1) Make sure that the three SQUIB POWER AVAILABLE lights (amber) on the overwing exit squib test box, SPL-2004 do not come on.

2) Make sure that the three TEST INDICATION lights (green) on the overwing exit squib test box, SPL-2004 do not come on.

(i) Turn the PED interior door handle to the CLOSED position.

(j) Move the mode select handle to the AUTOMATIC/ARM position.

1) Make sure that the three SQUIB POWER AVAILABLE lights (amber) on the overwing exit squib test box, SPL-2004 do not come on.

WARNING HOLD THE DOOR TO KEEP THE DOOR IN THE FUSELAGE. IF THE DOOR MOVES OUT OF THE FUSELAGE, THE ESCAPE SLIDE CAN RELEASE. INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT CAN OCCUR.

(k) Turn the PED interior door handle to the OPEN position.

1) Make sure that the three SQUIB POWER AVAILABLE lights (amber) on the overwing exit squib test box, SPL-2004 come on.

2) Make sure that the three TEST INDICATION lights (green) on the overwing exit squib test box, SPL-2004 come on.

NOTE: If a TEST INDICATION light comes on red and the EPAS battery is fully charged, there is not enough current to fire a squib in that circuit, and you must repair the wiring.

(l) Turn the PED interior door handle to the CLOSED position.

1) Make sure that the three SQUIB POWER AVAILABLE lights (amber) on the overwing exit squib test box, SPL-2004 go off.

(m) Turn the mode select handle to the MANUAL/DISARM position.

(n) Put the digital protractor, STD-1232 against the mode select handle and set it to zero.

(o) Move the mode select handle to the AUTOMATIC/ARM position.

(p) Push the door-open switch and hold it while you do these steps: (TASK 52-12-28-000-802):

1) Make sure that the three SQUIB POWER AVAILABLE lights (amber) on the overwing exit squib test box, SPL-2004 come on.

2) Slowly turn the mode select handle to the MANUAL/DISARM position.

3) Make sure that the three SQUIB POWER AVAILABLE lights (amber) on the overwing exit squib test box, SPL-2004 go off before the mode select handle is 10 degrees from the MANUAL/DISARM position.

(q) Release the door-open switch and continue to turn the mode select handle to the MANUAL/DISARM position.

(r) Do a check of the DOOR System Synoptic Page for the applicable door, ENTRY 3L, 3R.

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1) To show the page, do this task: Showing a System Synoptic Page, TASK 31-61-00-800-816.
2) Make sure that the M shows on the DOOR System Synoptic Page for the door.
3) Move the mode select handle to the AUTOMATIC/ARM position.
4) Make sure that the A shows on the DOOR System Synoptic Page for the door.
5) Turn the mode select handle to the MANUAL/DISARM position.

SUBTASK 52-12-19-730-007

(5) PED Interior Door Handle-Open Switch Test

NOTE: Use two persons to do these steps.

(a) Make sure that the applicable PED 3 is CLOSED and LOCKED.
(b) Make sure that the safety switch for the EPAS battery is in the ARM position.
(c) Make sure that the power switch for the overwing exit squib test box, SPL-2004 is in the ON position.
(d) Make sure that the red power indication light on the overwing exit squib test box, SPL-2004 is on.
(e) Hold the door so it does not move from the cutout, and turn the PED interior door handle to the fully open position.
(f) Put the digital protractor, STD-1232 against the PED interior door handle and set it to zero.
(g) Turn the PED interior door handle to the closed position.
(h) Move the mode select handle to the AUTOMATIC/ARM position.
(i) Slowly turn the PED interior door handle to the fully open position and do this check:
1) Make sure that the three SQUIB POWER AVAILABLE lights (amber) on the overwing exit squib test box, SPL-2004 come on when the PED interior door handle is 3-7 degrees from the open position.
(j) Turn the PED interior door handle slowly from the fully open position to the closed position and do this check:
1) Make sure that the three SQUIB POWER AVAILABLE lights (amber) on the overwing exit squib test box, SPL-2004 go off when the interior handle is 3-7 degrees from the open position.
(k) Turn the PED interior door handle to the closed position.
(l) Move the mode select handle to the MANUAL/DISARM position.
(m) Disconnect the connectors from the overwing exit squib test box, SPL-2004.
1) Disconnect the J5 connector on the slide load assembly from the wire bundle connector for the overwing escape slide.
2) Disconnect the J6 connector on the SARD load assembly from the wire bundle connector for the Spoiler Auxiliary Retract Device (SARD).
3) Disconnect the J7 connector on the EPAS load assembly from the wire bundle connector for the EPAS reservoir.
4) Disconnect the P2 connector on the test cable assembly from the J2 connector on the slide load assembly.
5) Disconnect the P3 connector on the test cable assembly from the J3 connector on the SARD load assembly.

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6) Disconnect the P4 connector on the test cable assembly from the J4 connector on the EPAS reservoir load assembly.

7) Disconnect the P1 connector from the test cable assembly from the J1 connector on the overwing exit squib test box, SPL-2004.

WARNING PUT ON A WRIST STRAP THAT IS ATTACHED TO A GROUND BEFORE YOU MAKE ELECTRICAL CONNECTIONS TO AN ELECTRICAL EXPLOSIVE DEVICE. STATIC ELECTRICITY CAN CAUSE AN EXPLOSION.

(n) Before you touch a squib, put on a static control wrist strap, COM-1565 so that it touches your skin, then connect it to an electrical ground.

(o) Do a check for stray voltage from the wire bundle connector before you connect the wire bundle connector to the squibs.

1) Use a multimeter, STD-1231.

(p) Connect the electrical connectors to the squibs for the emergency power assist system (EPAS) or off-wing escape system as follows:

NOTE: You must be careful when you connect the electrical connectors to the squibs. When examined, the electrical connector can appear to be fully engaged. However, a bent pin in the connector will not let the squib fire. You must straighten bent pins in the squib and do a squib test.

1) For the left EPAS and off-wing escape system:

a) Remove the protective cap from the EPAS reservoir and install it on the PED 3 hinge arm.

<1> Refer to the figure: Emergency Power Assist System (EPAS) Battery System Test/Figure 501.

b) Connect the electrical connector DM52110 to the squib for the EPAS reservoir.

c) Remove the shorting cap from the squib for the SARD cylinder and put it in the storage pouch .

<1> Refer to the figure:Spoiler Auxiliary Retract Device (SARD)/Figure 503.

d) Connect the electrical connector DM27143 to the squib for the SARD cylinder for spoiler 7.

e) Remove the shorting cap from the squib for the off-wing escape slide inflation bottle and put it in the storage pouch.

<1> Refer to the figure: Escape Slide Inflation Bottle/Figure 502.

f) Connect the electrical connector DM52117 to the squib for the off-wing escape slide inflation bottle.

2) For the right EPAS and off-wing escape system:

a) Remove the protective cap from the EPAS reservoir and install it on the PED 3 hinge arm.

<1> Refer to the figure: Emergency Power Assist System (EPAS) Battery System Test/Figure 501.

b) Connect the electrical connector DM52110 to the squib for the EPAS reservoir.

c) Remove the shorting cap from the squib for the SARD cylinder and put it in the storage pouch.

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<1> Refer to the figure: Spoiler Auxiliary Retract Device (SARD)/Figure 503.

d) Connect the electrical connector DM27243 to the squib for the SARD cylinder for spoiler 8.

e) Remove the shorting cap from the squib for the off-wing escape slide inflation bottle and put it in the storage pouch.

<1> Refer to the figure: Escape Slide Inflation Bottle/Figure 502.

f) Connect the electrical connector DM52116 to the squib for the off-wing escape slide inflation bottle.

SUBTASK 52-12-19-730-008

(6) Do this task: Emergency Power Assist System (EPAS) Squib Test (PED 3), TASK 52-12-19-710-801.

NOTE: This test uses an inline electrical connector D6253P/D6253J is on the PED 3 door.

NOTE: This test is necessary when an electrical connector is disconnected and connected again to an off-wing escape system squib or the EPAS reservoir squib.

NOTE: Do not use any multimeter for the continuity check across the squib circuit because the use of the wrong multimeter can cause the squib to fire. Use an approved ignition circuit tester.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-19-090-002

(1) Remove the static control wrist strap, COM-1565, the overwing exit squib test box, SPL-2004, the 115 VAC power supply, STD-685, the multimeter, STD-1231, and shorting cap.

SUBTASK 52-12-19-410-003

(2) Close the applicable access panel to close the access to the SARD (Spoiler Auxiliary Retract Device) cylinder:

(a) For the left wing or right wing, close these access panels:

Number	Name/Location
552CB	Inboard Fixed Trailing Edge Panel
652CB	Inboard Fixed Trailing Edge Panel

SUBTASK 52-12-19-860-009

(3) Remove the safety tag and close this circuit breaker:

Power Supply Assembly Center, M24301

Row	Col	Number	Name
A	1	CBA1-C	ACE PWR

SUBTASK 52-12-19-860-010

(4) Move the FLT CONTROL HYD VALVE POWER - WING C switch to the ON position.

SUBTASK 52-12-19-860-011

(5) Do this task: Trailing Edge Flap Reactivation, TASK 27-51-00-440-801.

SUBTASK 52-12-19-410-004

(6) Install the aft hinge cover and the forward hinge cover on the PED 3.

(a) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

NOTE: If the EPAS battery switch is in the DISARM position, the aft hinge cover will not be flush.

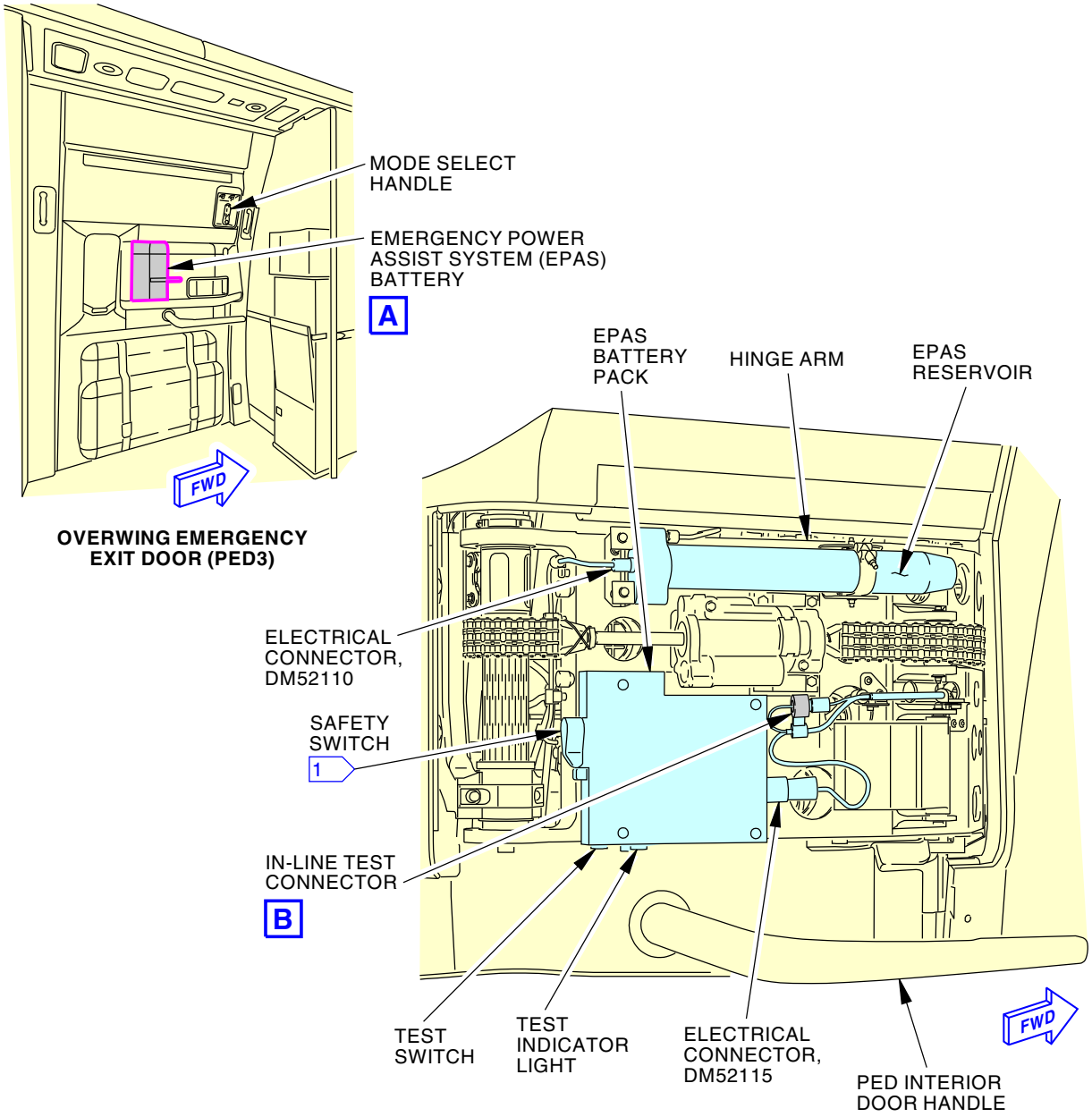
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SUBTASK 52-12-19-440-001

(7) Do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

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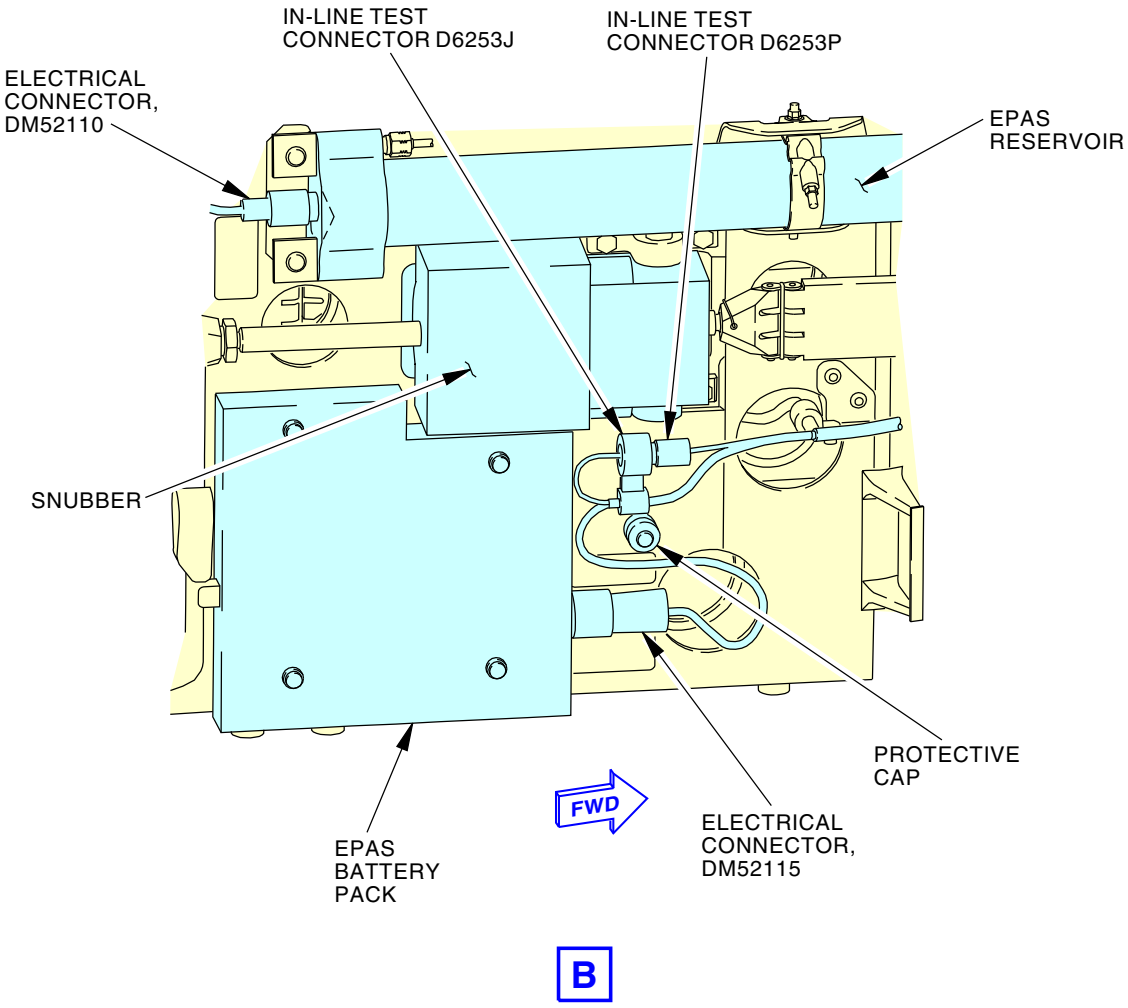


1 SAFETY SWITCH SHOWN IN ARMED POSITION

L19969 S0006425187_V3

Emergency Power Assist System (EPAS) Battery System Test
Figure 501/52-12-19-990-811 (Sheet 1 of 2)

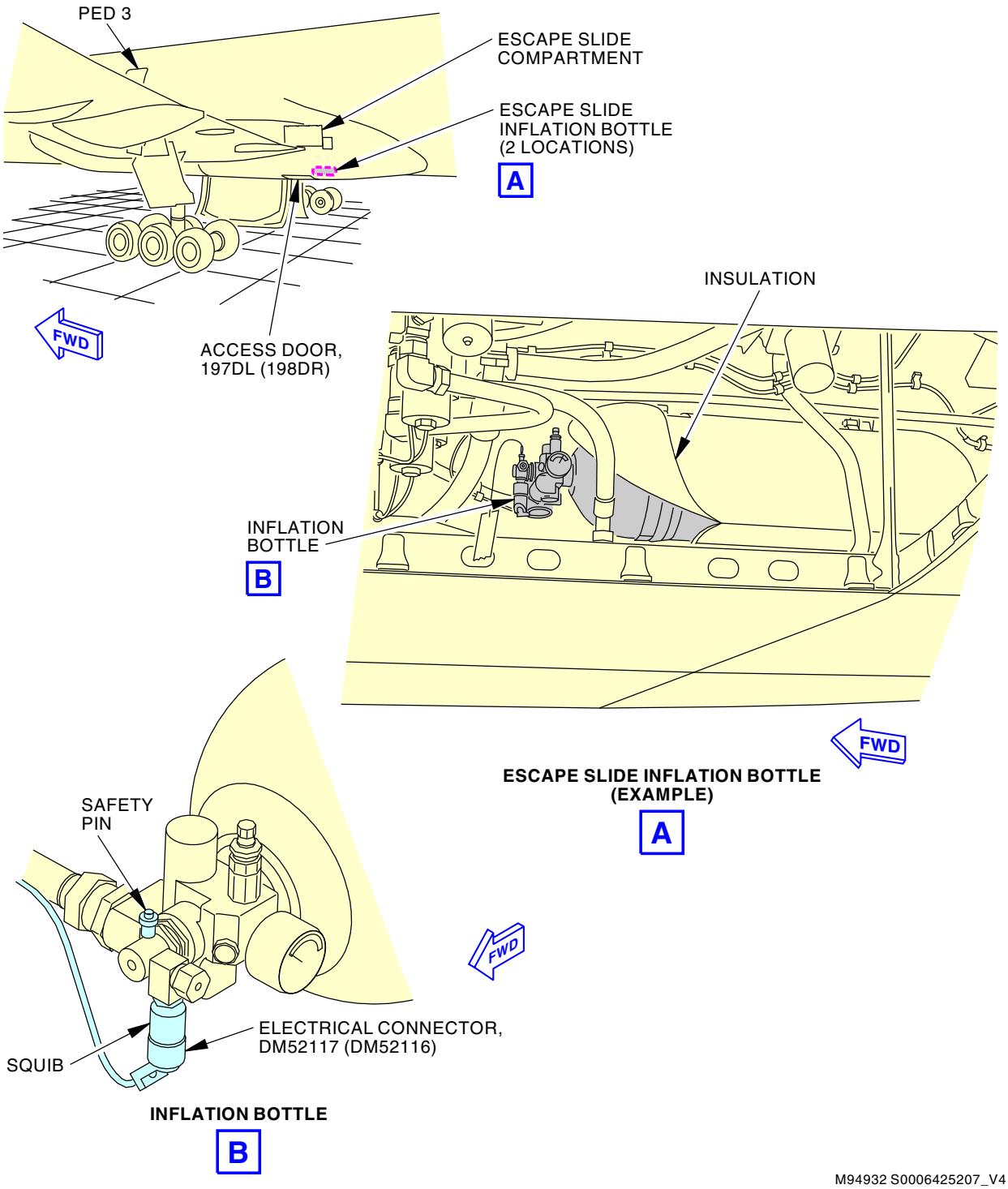
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491582 S0000147154_V3

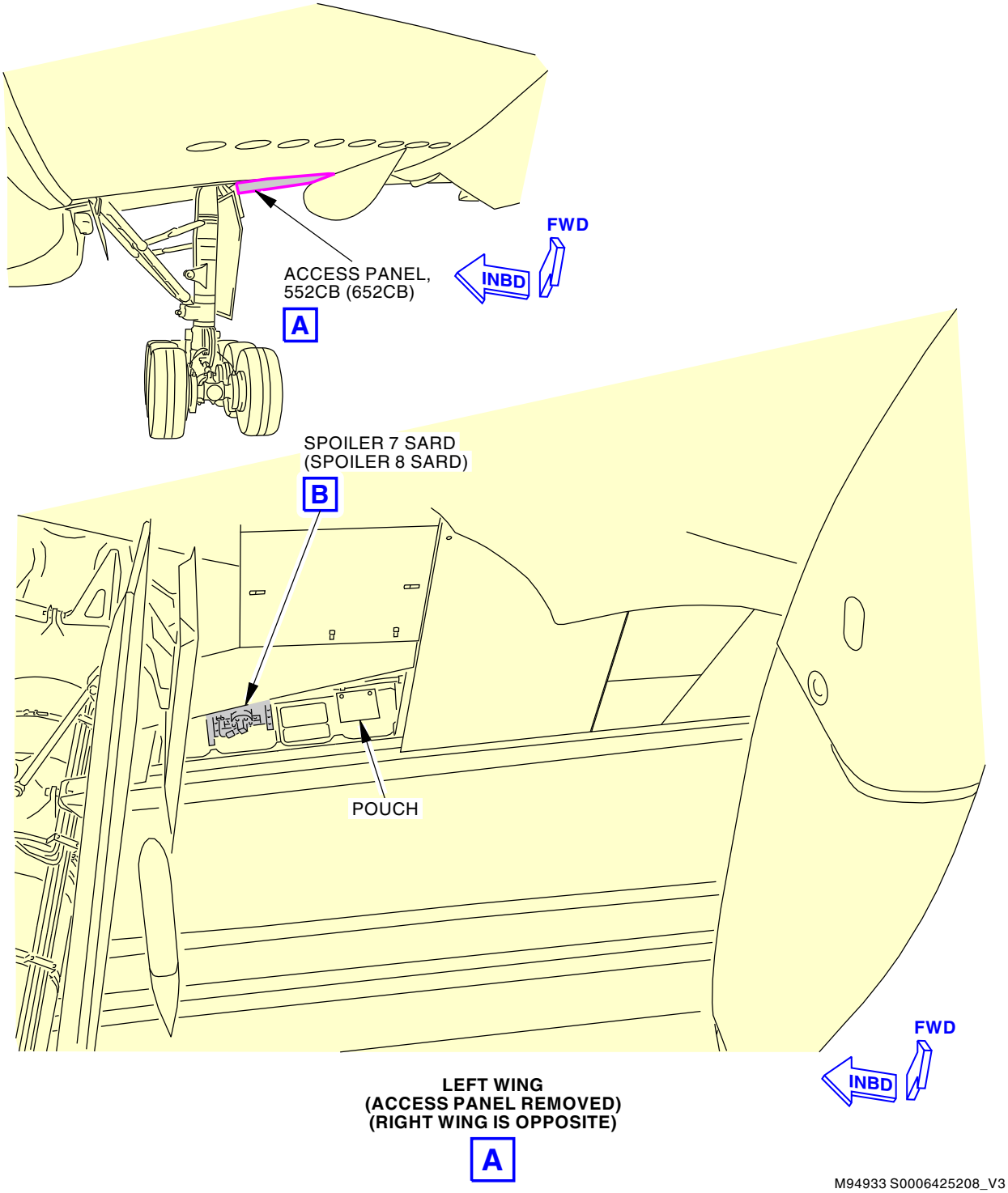
Emergency Power Assist System (EPAS) Battery System Test
Figure 501/52-12-19-990-811 (Sheet 2 of 2)

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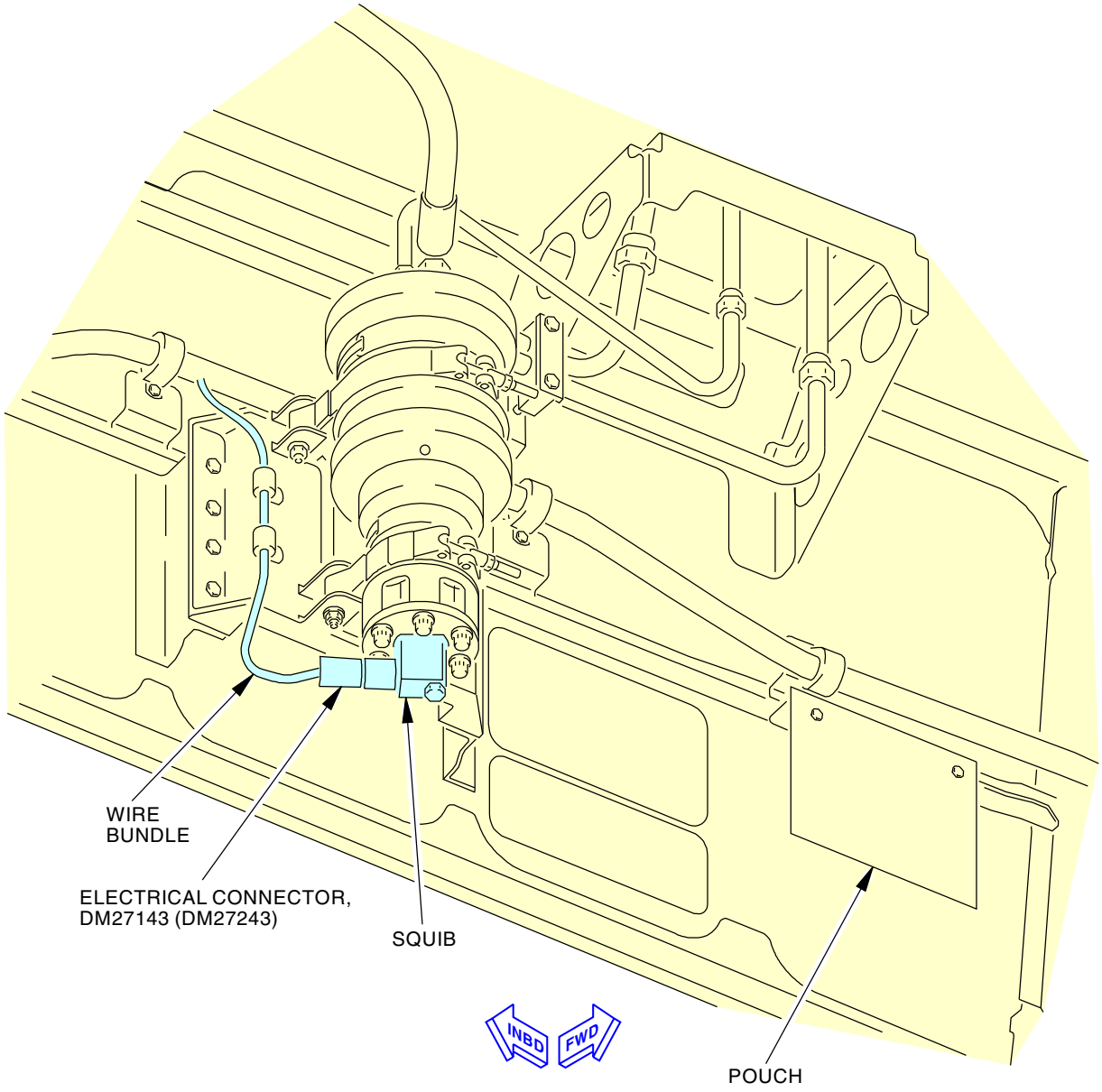
Escape Slide Inflation Bottle
Figure 502/52-12-19-990-813

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Spoiler Auxiliary Retract Device (SARD)
Figure 503/52-12-19-990-814 (Sheet 1 of 2)

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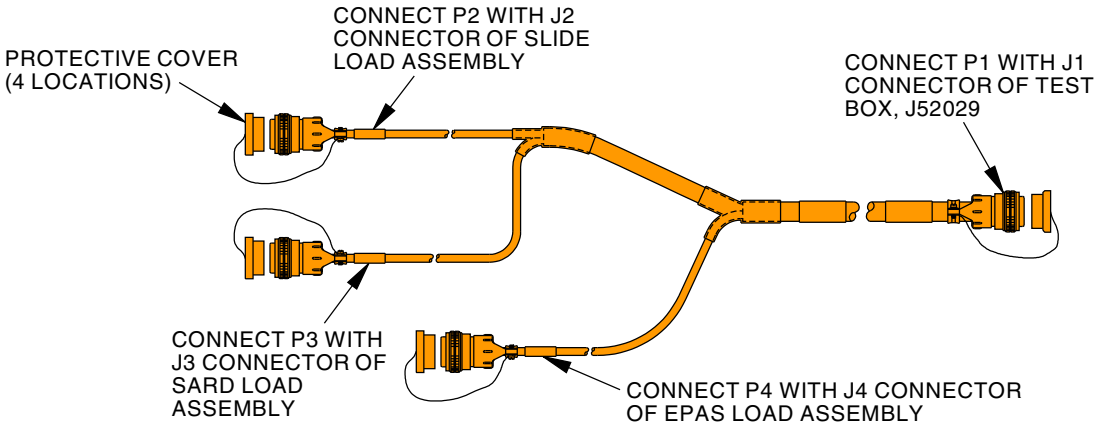
SPOILER 7 SARD
(SPOILER 8 SARD IS OPPOSITE)

B

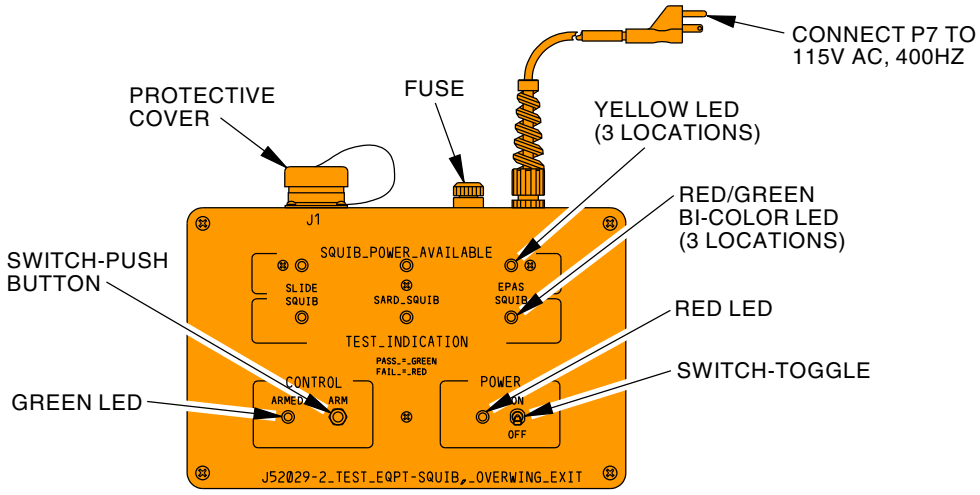
M94934 S0006425209_V3

Spoiler Auxiliary Retract Device (SARD)
Figure 503/52-12-19-990-814 (Sheet 2 of 2)

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J52029 TEST CABLE ASSEMBLY

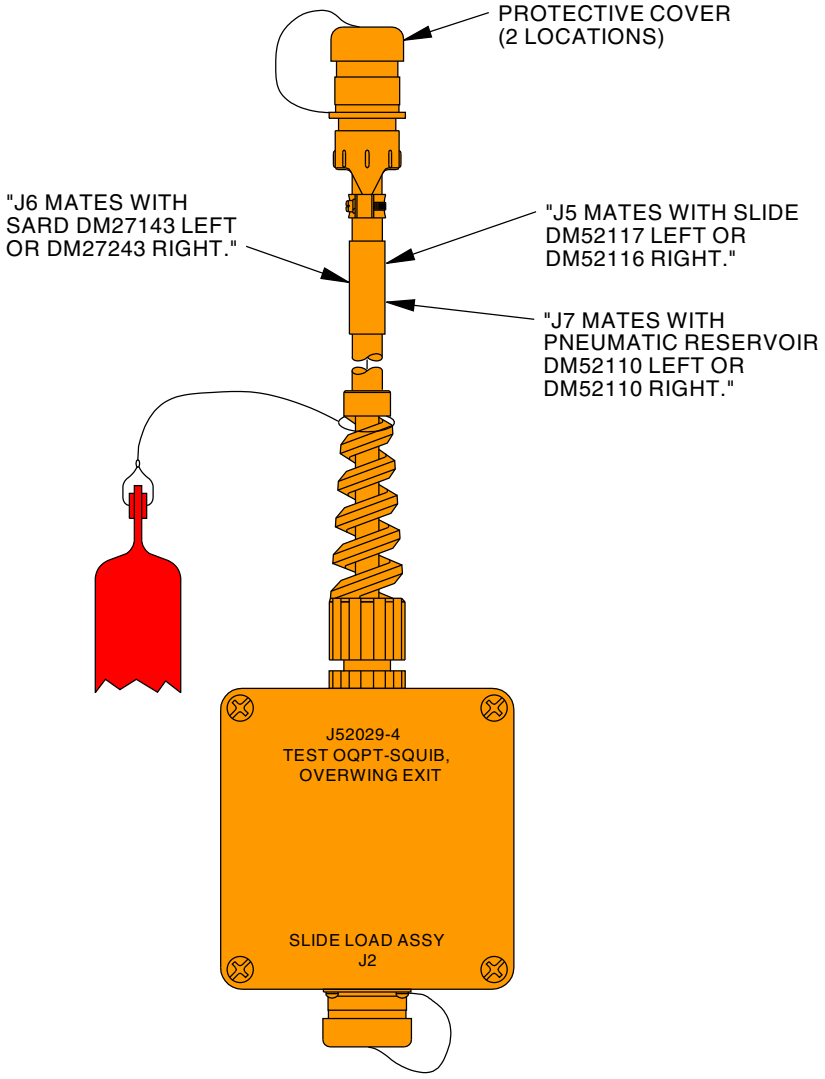


J52029 TEST BOX ASSEMBLY

2521334 S0000592291_V1

EPAS and Over-Wing Exit Squib Test Equipment
Figure 504/52-12-19-990-808 (Sheet 1 of 2)

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J52029 SLIDE LOAD ASSEMBLY IS SHOWN
(SARD LOAD ASSEMBLY AND EPAS LOAD ASSEMBLY ARE ALMOST THE SAME)

2521343 S0000592292_V2

EPAS and Over-Wing Exit Squib Test Equipment
Figure 504/52-12-19-990-808 (Sheet 2 of 2)

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TASK 52-12-19-720-805

4. Emergency Power Assist System (EPAS) Squib Circuit Continuity Test (PED 3)

(Figure 505)

A. General

(1) This procedure gives the task to test the squib circuit continuity between the emergency power assist system (EPAS) battery pack and the airplane wiring with these squibs disconnected:

(a) The squib on the EPAS pneumatic reservoir.

(b) The squib on the inflation bottle for the overwing escape slide.

(c) The squib on the spoiler auxiliary retract device (SARD).

(2) The passenger entry door (PED) 3 is also known as the over-wing emergency exit door.

(3) This test uses a test box and loads to test the airplane wiring between the battery pack and the squibs with the squibs disconnected from the circuit.

(4) The squibs are electro-explosive devices (EED). Maintenance personnel that touch the EED must use wrist straps to ground themselves to a ground point. These persons must wear clothes that make a small static electrical charge such as cotton or cotton/synthetic blends. Do not wear all wool clothing, all nylon clothing or all synthetic clothing. Remove reflective outerwear such as visual safety vests or coats before you touch the EED or disconnect or connect wire bundles.

(5) The battery pack, BPAS10-5 (S283W203-5), has a test light and test switch feature. The S283W203-5 battery pack has internal circuits that check battery performance through a pulsed load test current, monitor the input voltage and monitor the fuse condition and battery output internal continuity.

(6) There is a separate backup battery pack for the overwing escape system. The backup battery pack is not tested in this task. The backup battery pack on the overhead panel fires the squib on the inflation bottle for the overwing escape slide and the squib on the SARD. The backup battery pack does not fire the squib on the EPAS reservoir on PED 3.

B. References

Reference	Title
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)
25-21-08-400-801	Overdoor Panel Installation/Closing (P/B 201)
52-12-25-000-802	Hinge Covers Removal (P/B 201)
52-12-25-400-802	Hinge Covers Installation (P/B 201)
WDM 52-11-19	Wiring Diagram Manual

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1565	Strap - Adjustable Wrist, Conductive, Static Control Part #: 09070 Supplier: 62576 Part #: 14810 Supplier: 62576 Part #: 2214 Supplier: 55203 Opt Part #: 2211 Supplier: 55203 Opt Part #: 2212 Supplier: 55203 Opt Part #: 2213 Supplier: 55203

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(Continued)

Reference	Description
COM-1793	Multimeter - Digital/Analog (or equivalent meter meets task requirements) Part #: 117 Supplier: 89536 Part #: 260-8XPI Supplier: 55026 Part #: 287 Supplier: 89536 Part #: 289 Supplier: 89536 Part #: 87V Supplier: 89536 Part #: FLUKE 27 II Supplier: 89536 Part #: FLUKE-77-4 Supplier: 89536 Opt Part #: 187 Supplier: 89536 Opt Part #: 189 Supplier: 89536 Opt Part #: 260 Supplier: 55026 Opt Part #: 27 Supplier: 89536 Opt Part #: 77 SERIES III Supplier: 89536 Opt Part #: 87 Supplier: 89536 Opt Part #: FLUKE 27 Supplier: 89536 Opt Part #: MODEL 27 Supplier: 89536
COM-4242	Multimeter - Digital 0-1000 VAC & VDC ; 0-10 AMP AC & DC , 0 - 32 MEG OHMS Part #: 87V Supplier: 89536 Part #: FLUKE-77-4 Supplier: 89536 Opt Part #: 77 SERIES III Supplier: 89536
SPL-2004	Box - Test, Squib, Overwing Exit Part #: J52029-57 Supplier: 81205
STD-685	Power Supply - 115 VAC, 400 Hz

D. Location Zones

Zone	Area
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

E. Prepare for the Test

SUBTASK 52-12-19-860-025

(1) Make sure that the door linings are installed.

(a) Make sure that the pressure and acoustical seals are installed.

SUBTASK 52-12-19-860-026

(2) Make sure that the door to be tested is correctly rigged.

SUBTASK 52-12-19-865-004

(3) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

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Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

SUBTASK 52-12-19-490-001

(4) Get a 115 VAC power supply, STD-685 to operate the overwing exit squib test box, SPL-2004.

SUBTASK 52-12-19-860-075

(5) Make sure that PED 3 is fully CLOSED and LOCKED.

SUBTASK 52-12-19-040-011

(6) Make sure that the mode select handle for PED 3 is in the MANUAL/DISARM position.

SUBTASK 52-12-19-010-016

(7) Remove the aft hinge cover to get access to the safety switch for the EPAS battery pack (Hinge Covers Removal, TASK 52-12-25-000-802).

SUBTASK 52-12-19-040-012

(8) Put the safety switch on the EPAS battery pack to the DISARM position.

NOTE: The EPAS battery pack is located on the door hinge arm.

SUBTASK 52-12-19-010-017

(9) Open the overhead panel to get access to the backup battery above PED 3 (Overdoor Panel Opening/Removal, TASK 25-21-08-000-801).

SUBTASK 52-12-19-040-013

(10) Put the safety switch for the backup battery pack to the DISARM position.

NOTE: The backup battery pack is located on the overdoor panel next to the door.

F. Procedure

SUBTASK 52-12-19-490-002

WARNING PUT ON A WRIST STRAP THAT IS ATTACHED TO A GROUND BEFORE YOU MAKE ELECTRICAL CONNECTIONS TO AN ELECTRICAL EXPLOSIVE DEVICE. STATIC ELECTRICITY CAN CAUSE AN EXPLOSION.

(1) Before you touch a squib, put on a static control wrist strap, COM-1565 so that it touches your skin, then connect it to an electrical ground.

SUBTASK 52-12-19-030-001

WARNING PUT CAPS ON THE BOTTLE SQUIBS AND FLOW VALVE SQUIBS. IF YOU DO NOT PUT CAPS ON THE SQUIBS, THE SQUIBS CAN FIRE ACCIDENTALLY AND CAUSE INJURIES TO PERSONNEL.

(2) Disconnect the wire bundle connector from the squib for the side of the airplane that the backup battery pack is being tested.

Table 502/52-12-19-993-808 Left Side Squibs

LEFT SIDE CONNECTOR	NOMENCLATURE
DM52110	M52110 Emergency Pneumatic Reservoir Module (Left PED 3 door)

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Table 502/52-12-19-993-808 Left Side Squibs (Continued)

LEFT SIDE CONNECTOR	NOMENCLATURE
DM27143	M27143 Splr Aux Retract DVC - L2 (Left Spoiler Auxiliary Retract Device (SARD))
DM52117	M52117 Left Slide Deploy Device (Left Overwing Escape Slide)

Table 503/52-12-19-993-809 Right Side Squibs

RIGHT SIDE CONNECTOR	NOMENCLATURE
DM52110	M52110 Emergency Pneumatic Reservoir Module (R PED 3 door)
DM27243	M27243 Splr Aux Retract Dvc - R2 (Right Spoiler Auxiliary Retract Device (SARD))
DM52116	M52116 Right Slide Deploy Device (Right Overwing Escape Slide)

(a) Refer to the table: Left Side Squibs/Table 502 or Right Side Squibs/Table 503.

(b) Refer to: WDM 52-11-19.

(c) Put a shorting cap on the squib for the escape slide inflation bottle.

(d) Put a shorting cap on the squib for the SARD.

NOTE: A shorting cap is also known as a faraday cap.

SUBTASK 52-12-19-480-001

(3) Connect the overwing exit squib test box, SPL-2004 with the test cable assembly to the squib wire bundle connectors for the side of the airplane that the backup battery pack is being tested.

NOTE: The overwing exit squib test box uses a slide load assembly, a SARD load assembly, a EPAS load assembly and a test cable assembly.

(a) Refer to the table: Left Side Squibs/Table 502 or Right Side Squibs/Table 503.

(b) Connect the J5 connector on the slide load assembly to the wire bundle connector for the overwing escape slide.

(c) Connect the J6 connector on the SARD load assembly to the wire bundle connector for the SARD.

(d) Connect the J7 connector on the EPAS load assembly to the wire bundle connector for the EPAS reservoir.

(e) Connect the P2 connector on the test cable assembly to the J2 connector on the slide load assembly.

(f) Connect the P3 connector on the test cable assembly to the J3 connector on the SARD load assembly.

(g) Connect the P4 connector on the test cable assembly to the J4 connector on the EPAS reservoir load assembly.

(h) Connect the P1 connector on the test cable assembly to the J1 connector on the overwing exit squib test box, SPL-2004.

SUBTASK 52-12-19-760-003

(4) Do the test of the airplane wiring.

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(a) Close these circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

(b) Put the safety switch for the EPAS battery pack to the ARM position.

NOTE: The safety switch is located on the EPAS battery pack.

(c) Put the POWER switch on the overwing exit squib test box, SPL-2004 to the ON position.

1) Make sure that the power light comes on with a red color.

(d) Push the ARM switch on the overwing exit squib test box, SPL-2004.

1) Make sure that the ARMED light comes on with a green color.

2) Make sure that the SQUIB POWER AVAILABLE lights are off.

(e) Put the mode select handle on PED 3 in the AUTOMATIC/ARM position.

(f) Turn the PED interior door handle to the open position.

1) Make sure that the SQUIB POWER AVAILABLE lights come on with a yellow color.

2) Make sure that the TEST INDICATION lights come on with a green color.

NOTE: The TEST INDICATION lights that come on with a red color indicates that the test has failed.

(g) Turn the PED interior door handle to the CLOSED and LOCKED position.

NOTE: Do not open the door until the test is completed.

(h) Turn the mode select handle to the MANUAL/DISARM position.

(i) Make sure that the safety switch for the backup battery pack is in the DISARM position.

(j) Put the safety switch for the EPAS battery pack in the DISARM position.

(k) Open these circuit breakers and install safety tags:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

SUBTASK 52-12-19-030-002

(5) Disconnect the overwing exit squib test box, SPL-2004 and test cable assembly from the wire bundle connectors for the squib.

(a) Disconnect the J5 connector on the slide load assembly from the wire bundle connector for the overwing escape slide.

(b) Disconnect the J6 connector on the SARD load assembly from the wire bundle connector for the SARD.

(c) Disconnect the J7 connector on the EPAS load assembly from the wire bundle connector for the EPAS reservoir.

(d) Disconnect the P2 connector on the test cable assembly from the J2 connector on the slide load assembly.

(e) Disconnect the P3 connector on the test cable assembly from the J3 connector on the SARD load assembly.

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(f) Disconnect the P4 connector on the test cable assembly from the J4 connector on the EPAS reservoir load assembly.

(g) Disconnect the P1 connector from the test cable assembly from the J1 connector on the overwing exit squib test box, SPL-2004.

SUBTASK 52-12-19-760-002

(6) Do a check for stray voltage to the wire bundle before you connect the wire bundle connectors to the squibs.

(a) Use a digital/analog multimeter, COM-1793.

SUBTASK 52-12-19-490-003



WARNING PUT ON A WRIST STRAP THAT IS ATTACHED TO A GROUND BEFORE YOU MAKE ELECTRICAL CONNECTIONS TO AN ELECTRICAL EXPLOSIVE DEVICE. STATIC ELECTRICITY CAN CAUSE AN EXPLOSION.

(7) Before you touch a squib, put on a static control wrist strap, COM-1565 so that it touches your skin, then connect it to an electrical ground.

SUBTASK 52-12-19-090-001

(8) Remove the shorting cap from the squibs.

SUBTASK 52-12-19-865-005

(9) Connect the electrical connectors on the wire bundles to the squibs.

(a) Refer to the table: Left Side Squibs/Table 502 or Right Side Squibs/Table 503.

SUBTASK 52-12-19-080-001

(10) Remove the static control wrist strap, COM-1565, the overwing exit squib test box, SPL-2004, the 115 VAC power supply, STD-685, the digital/analog multimeter, COM-1793 or digital multimeter, COM-4242 and the shorting cap.

G. Put the Airplane Back to its Usual Condition

SUBTASK 52-12-19-860-045

(1) Make sure that PED 3 is fully closed and latched.

SUBTASK 52-12-19-440-005

(2) Put the safety switch on the backup battery pack to the ARM position.

SUBTASK 52-12-19-410-011

(3) Close the overhead panel for the backup battery above PED 3 (Overdoor Panel Installation/Closing, TASK 25-21-08-400-801).

SUBTASK 52-12-19-440-006

(4) Put the safety switch on the EPAS battery pack to the ARM position.

SUBTASK 52-12-19-410-012

(5) Install the aft hinge cover on the PED 3 (Hinge Covers Installation, TASK 52-12-25-400-802).

SUBTASK 52-12-19-860-046

(6) Make sure that the mode select handle for PED 3 is in the AUTOMATIC/ARM position.

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SUBTASK 52-12-19-865-006

(7) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

Overhead Circuit Breaker Panel, P11

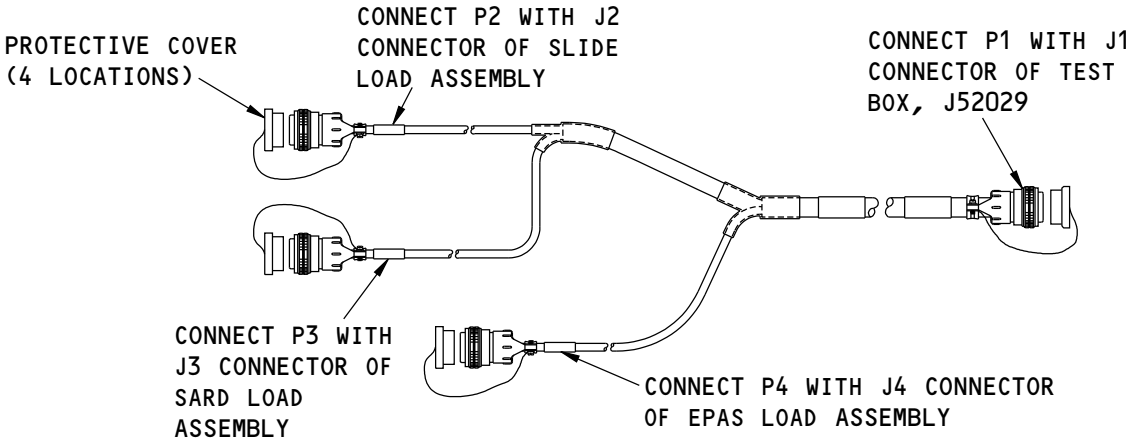
Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

Right Power Management Panel, P210

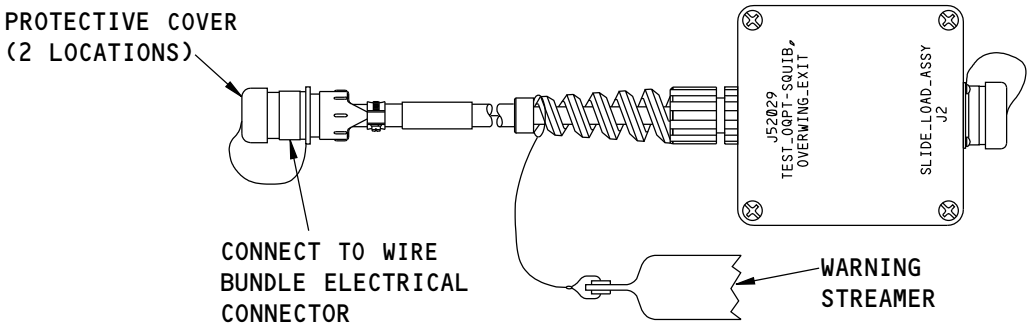
Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

END OF TASK

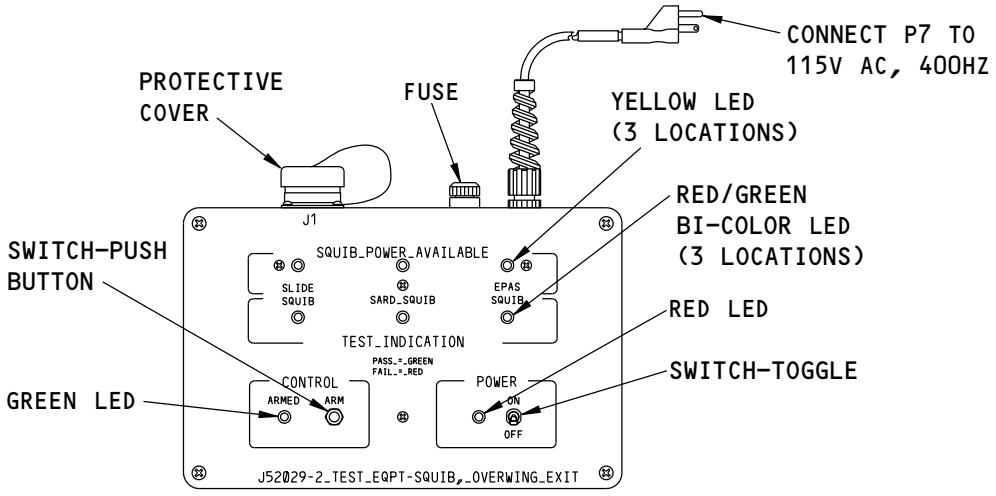
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J52029 TEST CABLE ASSEMBLY



J52029 SLIDE LOAD ASSEMBLY SHOWN
(SARD LOAD ASSEMBLY AND EPAS LOAD ASSEMBLY SIMILAR)



J52029 TEST BOX ASSEMBLY

491583 S0000146868_V1

EPAS and Over-Wing Exit Squib Test Equipment
Figure 505/52-12-19-990-807

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TASK 52-12-19-710-801

5. Emergency Power Assist System (EPAS) Squib Test (PED 3)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is a functional test of the continuity through the squibs for the emergency power assist system (EPAS) and the off-wing escape system:

(a) EPAS reservoir for the passenger entry door (PED) 3 (also known as the overwing emergency exit door).

(b) Escape slide inflation bottle for off-wing escape.

(c) Spoiler auxiliary retract device (SARD) for off-wing escape.

(2) This test is required whenever an electrical connector is disconnected and connected again to an off-wing escape system squibs or the EPAS reservoir squib.

B. References

Reference	Title
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)
25-21-08-400-801	Overdoor Panel Installation/Closing (P/B 201)
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-25-000-802	Hinge Covers Removal (P/B 201)
52-12-25-400-802	Hinge Covers Installation (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-2001	Tester - Igniter, Squib Circuit, Digital Part #: 101-5HJ-NAV Supplier: 52892 Part #: 620A-4R Supplier: 1CRL2 Part #: ALPHA 4314 Supplier: 53504 Opt Part #: 4314A Supplier: 53504

D. Location Zones

Zone	Area
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

E. Prepare for the Test

SUBTASK 52-12-19-865-009

(1) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

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Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

SUBTASK 52-12-19-860-021

(2) Make sure that the pilot's emergency light switch on the overhead panel, P5, is in the OFF position.

SUBTASK 52-12-19-860-020

(3) Make sure that the applicable PED 3 door is CLOSED and LOCKED.

NOTE: Do not open the door until the test is complete.

SUBTASK 52-12-19-040-014

(4) Make sure that the mode select handle is in the MANUAL/DISARM position.

SUBTASK 52-12-19-040-015

(5) Do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the off-wing escape slide compartment door latch actuator.

SUBTASK 52-12-19-010-008

(6) Remove the aft hinge cover and the forward hinge cover.

(a) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

SUBTASK 52-12-19-040-016

(7) Put the safety switch on the EPAS battery pack to the DISARM position.

NOTE: The EPAS battery pack is located on the door hinge arm.

SUBTASK 52-12-19-010-019

(8) Open the overhead panel to get access to the backup battery above the PED 3 door.

(a) Do this task: Overdoor Panel Opening/Removal, TASK 25-21-08-000-801.

SUBTASK 52-12-19-040-017

(9) Put the safety switch on the backup battery pack to the DISARM position.

F. Procedure

SUBTASK 52-12-19-730-009

WARNING USE AN APPROVED CIRCUIT TESTER TO MEASURE THE RESISTANCE ACROSS AN EXPLOSIVE DEVICE. THE INCORRECT CIRCUIT TESTER CAN FIRE THE SQUIB. INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Squib Continuity Test

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(a) Get a digital squib circuit igniter tester, COM-2001 and test leads with clips.

NOTE: Do not use any multimeter for the continuity check across the squib circuit because the use of the wrong multimeter can cause the squib to fire. Use an approved ignition circuit tester.

NOTE: The in-line electrical connector D6253P/D6253J is on the PED 3 door below the snubber.

(b) On the door hinge arm, disconnect in-line connector D6253P from in-line connector D6253J.

1) To disconnect the connectors, push on the two sides of the connector at the center to release the clips and pull the connectors apart.

(c) Set the digital squib circuit igniter tester, COM-2001 and set for ohms, low resistance range scale.

NOTE: Low resistance range is 0-10 ohms or 0-20 ohms.

(d) Connect the digital squib circuit igniter tester, COM-2001 to Pin 1 of plug connector D6253P and the jack for Pin 1 of connector D6253J.

NOTE: The wires for Pin 1 are a yellow color. The squib for the inflation bottle for the overwing escape slide is tested at Pin 1.

1) Make sure the circuit tester shows 3 ohms or less.

(e) Disconnect the tester from Pin 1 on connectors D6253P and D6253J.

(f) Do the check again between Pin 2 of plug connector D6253P and Pin 2 of jack connector D6253J.

NOTE: The wires for Pin 2 are a blue color. The squib for the spoiler auxiliary retract device (SARD) is tested at Pin 2.

1) Make sure the circuit tester shows 3 ohms or less.

(g) Disconnect the tester from Pins 2 on connectors D6253P and D6253J.

(h) Do the check again between Pin 3 of plug connector D6253P and Pin 3 of jack connector D6253J.

NOTE: The wires for Pin 3 are a red color. The squib for the EPAS reservoir is tested at Pin 3.

1) Make sure the circuit tester shows 3 ohms or less.

(i) Disconnect the tester from Pins 3 on connectors D6253P and D6253J.

(j) Connect in-line plug connector D6253P to in-line jack connector D6253J.

G. Put the Airplane Back to its Usual Condition

SUBTASK 52-12-19-440-008

(1) Put the safety switch on the backup battery pack to the ARM position.

SUBTASK 52-12-19-410-014

(2) Close the overhead panel for the backup battery above PED 3.

(a) Do this task: Overdoor Panel Installation/Closing, TASK 25-21-08-400-801.

SUBTASK 52-12-19-440-009

(3) Put the safety switch on the EPAS battery pack to the ARM position.

NOTE: The battery pack is located on the door hinge arm.

SUBTASK 52-12-19-410-008

(4) Install the aft hinge cover and the forward hinge cover.

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(a) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

NOTE: If the EPAS battery switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-19-440-003

(5) Do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

SUBTASK 52-12-19-865-010

(6) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

END OF TASK

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EMERGENCY POWER ASSIST SYSTEM (EPAS) BATTERY FOR PASSENGER ENTRY DOOR 3 - INSPECTION/CHECK

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has this task:

(1) A check of the electrical charge of the emergency power assist system (EPAS) battery for the PED 3 (overwing emergency exit door).

TASK 52-12-19-200-801

2. Emergency Power Assist System (EPAS) Battery - Electrical Charge Check (PED 3)

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task gives the procedure to test the electrical charge in the emergency power assist system (EPAS) battery pack for passenger entry door (PED) 3.

(2) The PED 3 is also known as the overwing emergency exit door.

(3) The EPAS battery pack fires the squib on the inflation bottle for the overwing escape slide, the squib on the spoiler auxiliary retract device (SARD) and the squib on the EPAS pneumatic reservoir on PED 3.

(4) A separate battery pack is used as the backup battery pack for the off-wing escape system.

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

(5) The battery pack BPAS10-5 (S283W203-5) has internal circuits that check the battery performance through a pulsed load test current, monitor the input airplane power (28 volts DC) and monitor the fuse condition and battery output continuity for the different channels. The test light and test switch on the bottom of the battery pack BPAS10-5 (S283W203-5) are functional.

ARO ALL

(6) The battery pack supplier recommends correct battery maintenance and conditioning to make sure the longest life and best performance is possible. The supplier recommends that the battery pack is charged for 24 hours twice a month to make sure that the battery pack is fully charged. The operating temperature of the EPAS battery is above 5 °F (-15 °C).

B. References

Reference	Title
52-12-19-000-802	Emergency Power Assist System (EPAS) Battery Pack Removal (PED 3) (P/B 401)
52-12-19-400-801	Emergency Power Assist System (EPAS) Battery Pack Installation (PED 3) (P/B 401)

C. Location Zones

Zone	Area
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

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D. Procedure

SUBTASK 52-12-19-865-011

(1) Make sure that these circuit breakers are closed:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

SUBTASK 52-12-19-860-076

(2) Make sure that the applicable PED 3 is CLOSED and LOCKED.

SUBTASK 52-12-19-860-077

(3) Make sure that the aft hinge cover is installed flush.

NOTE: If the aft hinge cover is installed flush the safety switch for the EPAS battery is in the ARM position. If the safety switch for the EPAS battery is in the DISARM position, the aft hinge cover will not be installed flush. If the safety switch for the EPAS battery is in the DISARM position, the test light will not come on when you push the test switch and the battery pack will not charge.

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

SUBTASK 52-12-19-212-001

(4) Do a check of the electrical charge in the EPAS battery as follows:

(a) Push and release the test switch on the EPAS battery pack one time.

NOTE: The test switch is on the bottom of the EPAS battery.

(b) If the red test light on the EPAS battery pack comes on for approximately 10 seconds, the battery is good.

NOTE: The red test light will come on if the battery current is more than 5 amps across the test load, the internal fuses in the battery pack are good and the battery pack voltage is more than 20 volts DC.

NOTE: The EPAS battery has an internal slow (trickle) charger to continuously charge the battery from the input 28 volts DC from the airplane. If the safety switch for the EPAS battery is in the DISARM position, the test light will not come on when you push the test switch and the battery pack will not charge.

(c) If the red test light on the EPAS battery pack does not come on, do these steps:

1) Make sure that the safety switch for the EPAS battery pack is in the ARM position.

2) Make sure that the circuit breakers given above are closed.

3) If the safety switch is at the ARM position, the circuit breakers are closed, and the red test light does not come on (the battery pack is not operational) then do the applicable step:

a) Replace the EPAS battery pack with a battery pack that is fully charged.

<1> Do this task:Emergency Power Assist System (EPAS) Battery Pack Removal (PED 3), TASK 52-12-19-000-802.

<2> Do this task:Emergency Power Assist System (EPAS) Battery Pack Installation (PED 3), TASK 52-12-19-400-801.

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ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY (Continued)

b) Let the trickle charger inside the EPAS battery pack recharge the battery.

NOTE: It is possible there is an internal problem in the battery pack, a circuit breaker was open or there is a airplane wiring problem which could prevent the recharge of the battery pack.

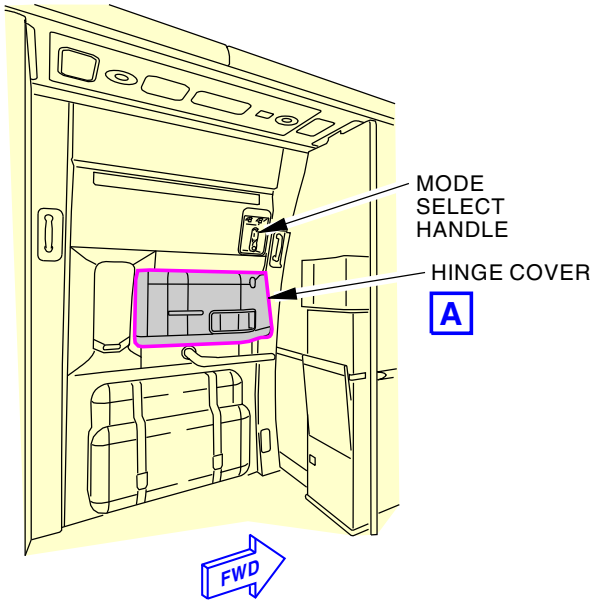
NOTE: An alternative procedure is to let the trickle charger inside the battery assembly recharge the battery. A minimum of one to three hours from full discharge to adequate power to pass self-test and fire the outputs.

<1> If you let the internal trickle charger recharge the battery, you must do the test in this procedure again before you release the airplane for service.

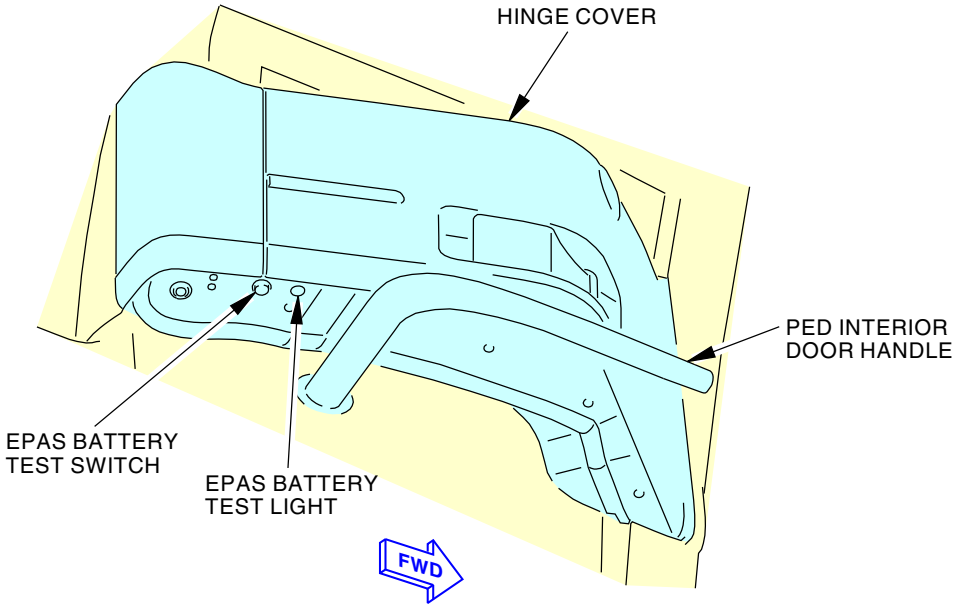
ARO ALL

——— END OF TASK ———

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**PASSENGER ENTRY DOOR 3
(EXAMPLE)**



**HINGE COVER
(BOTTOM SIDE)
(SAFETY SWITCH IN ARMED POSITION)**

A

G23449 S0006425243_V4

**Emergency Power Assist System (EPAS) Battery Electrical Charge Check
Figure 601/52-12-19-990-809**

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EMERGENCY POWER ASSIST SYSTEM (EPAS) BATTERY FOR PASSENGER ENTRY DOORS 1, 2, 4 AND 5 - REMOVAL/INSTALLATION

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) Emergency Power Assist System (EPAS) Battery Pack Removal.

(2) Emergency Power Assist System (EPAS) Battery Pack Installation.

(3) Emergency Power Assist System (EPAS) 9 Volt Back-Up Battery Removal for Doors 1, 2, 4, and 5 Left and Right.

(4) Emergency Power Assist System (EPAS) 9 Volt Back-Up Battery Installation for Doors 1, 2, 4, and 5 Left and Right.

TASK 52-12-20-000-803-002

2. Emergency Power Assist System (EPAS) Battery Pack Removal (PED 1, 2, 4, 5)

(Figure 401)

A. General

(1) This procedure gives the task to remove the emergency power assist system (EPAS) battery pack at the passenger entry door 1, 2, 4 and 5.

(2) One EPAS battery pack is installed on each passenger entry door (PED) 1, 2, 4 and 5. For this procedure, the passenger entry door will be known as PED. The EPAS battery pack fires the squib on the EPAS reservoir on the PED.

(3) The battery pack 285W0955-101 (Boeing Specification S283W203-6) and 285W0955-102 (Boeing Specification S283W203-7) have a green battery pack test light and an amber squib continuity test light. This battery pack does not have a test light and test switch on the bottom of the battery. This battery pack also has two 9 volt backup batteries installed in the pack.

B. References

Reference	Title
52-12-25-000-802	Hinge Covers Removal (P/B 201)

C. Location Zones

Zone	Area
ARO ALL	
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

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ARO ALL (Continued)

(Continued)

Zone	Area

ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY

D. Prepare for the Removal

SUBTASK 52-12-20-865-001

(1) Open these circuit breakers and install safety tags:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	9	C33640	EMER LTS-DR 5L & 5R
H	10	C33641	EMER LTS-DR 2L & 2R
H	11	C33642	EMER LTS-DR 1L & 1R
H	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

SUBTASK 52-12-20-860-007-002

(2) Make sure that the passenger entry door is closed and latched.

SUBTASK 52-12-20-040-007

(3) Make sure that the mode select handle [29] is in the MANUAL/DISARM position.

SUBTASK 52-12-20-040-008

(4) Turn the safety switch [26] for the EPAS battery to the DISARM position.

SUBTASK 52-12-20-010-004-002

(5) Remove the forward and aft hinge covers.

(a) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

E. Battery Pack Removal

SUBTASK 52-12-20-020-008

(1) Remove the battery pack [21].

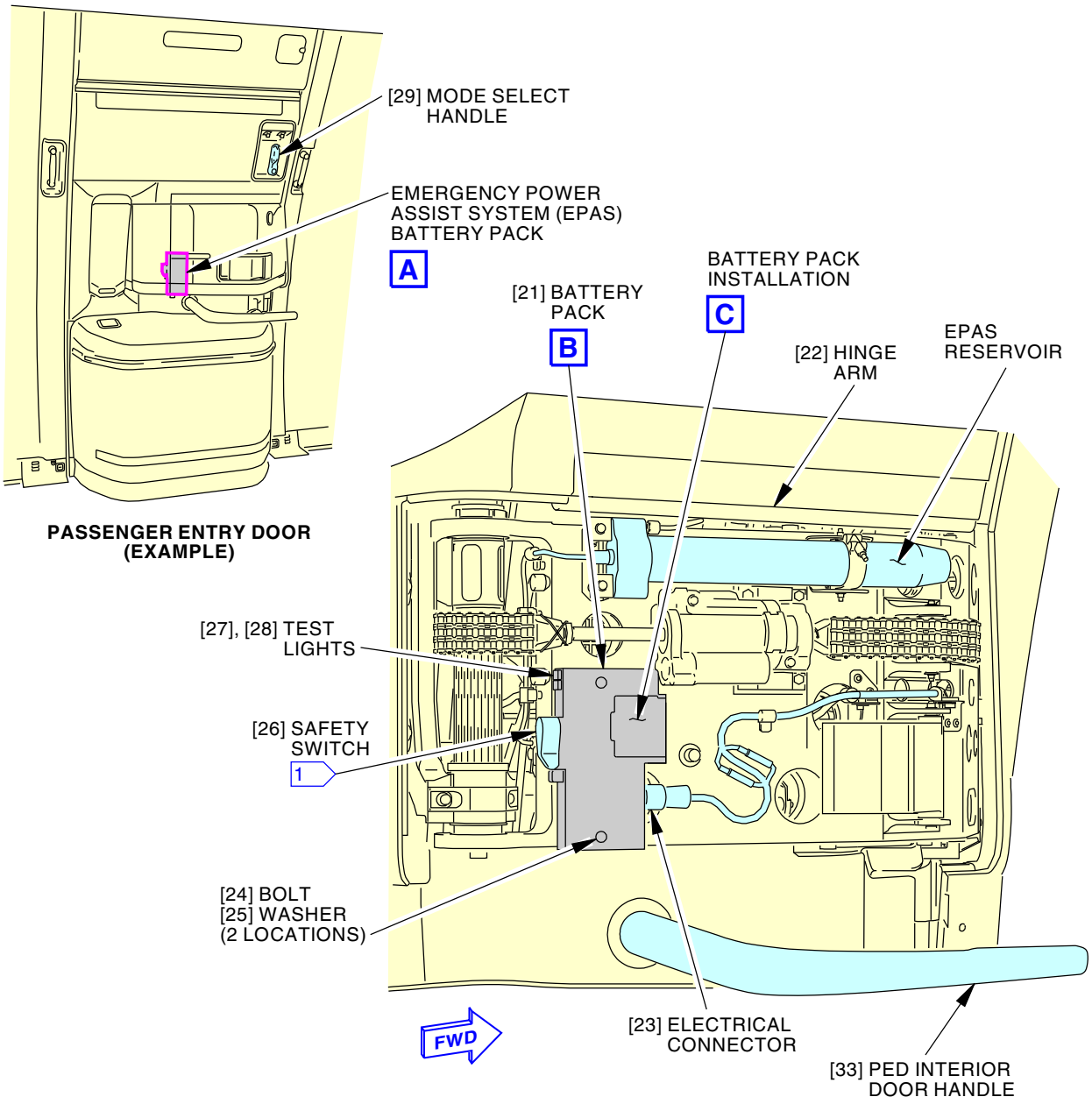
(a) Disconnect the electrical connector [23] from the battery pack [21].

(b) Remove the two bolts [24] and two washers [25] that attach the battery pack [21] to the hinge arm [22].

(c) Remove the battery pack [21] from the hinge arm [22].

——— END OF TASK ———

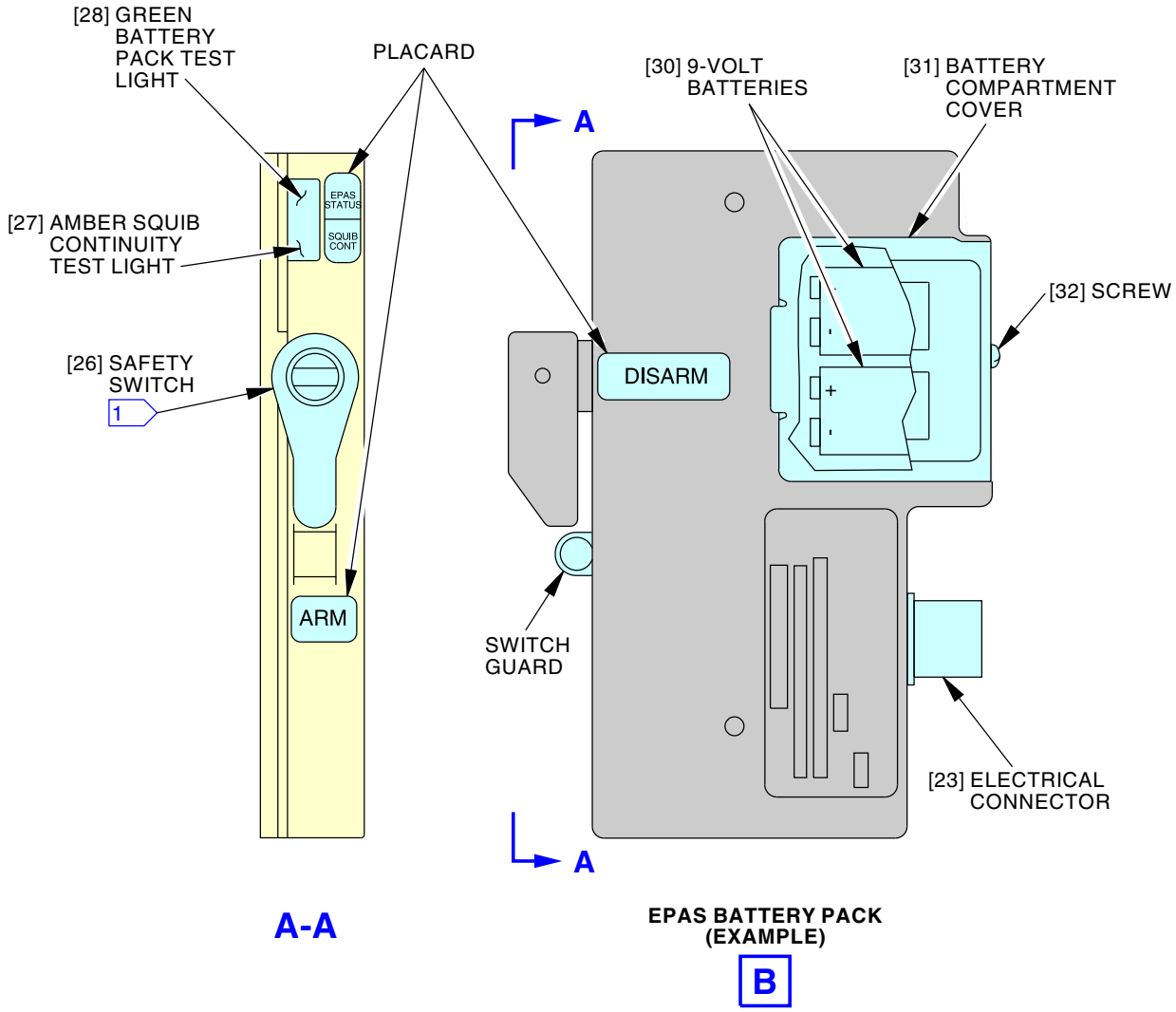
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Emergency Power Assist System (EPAS) Battery Installation
Figure 401/52-12-20-990-832 (Sheet 1 of 3)

EFFECTIVITY
ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY

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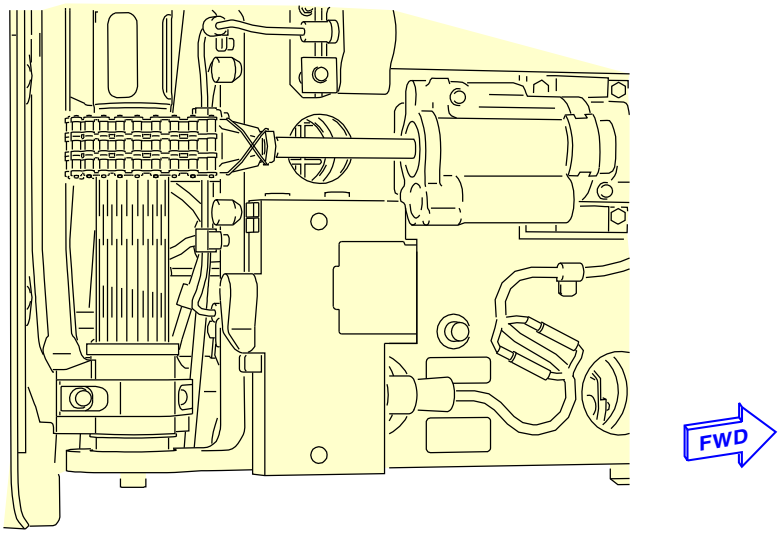


M91400 S0006425181_V3

Emergency Power Assist System (EPAS) Battery Installation
Figure 401/52-12-20-990-832 (Sheet 2 of 3)

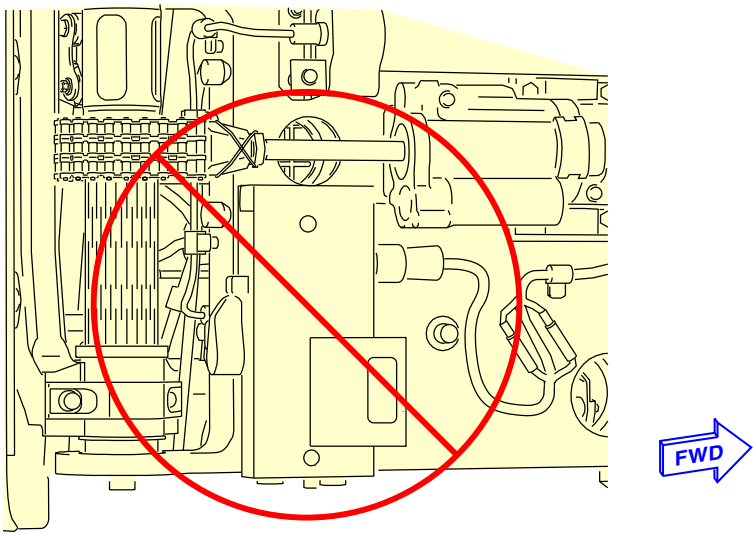
EFFECTIVITY
ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY

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**EMERGENCY POWER ASSIST SYSTEM (EPAS)
BATTERY PACK INSTALLATION
(CORRECTLY INSTALLED)**

C



**EMERGENCY POWER ASSIST SYSTEM (EPAS)
BATTERY PACK INSTALLATION
(INCORRECTLY INSTALLED)**

C

2180324 S0000481413_V2

**Emergency Power Assist System (EPAS) Battery Installation
Figure 401/52-12-20-990-832 (Sheet 3 of 3)**

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TASK 52-12-20-400-802-002

3. Emergency Power Assist System (EPAS) Battery Pack Installation (PED 1, 2, 4, 5)

A. General

(1) This procedure gives the task to install the primary emergency power assist system (EPAS) battery pack at the passenger entry door 1, 2, 4 and 5.

(2) One EPAS battery pack is installed on each passenger entry door (PED) 1, 2, 4 and 5. For this procedure, the passenger entry door will be known as PED.

(3) The battery back 285W0955–101 (Boeing Specification S283W203–6) and 285W0955-102 (Boeing Specification S283W203-7) has green battery pack test light and an amber squib continuity test light. This battery pack does not have a test light and test switch on the bottom of the battery. This battery pack also has two 9 volt backup batteries installed in the pack.

B. References

Reference	Title
52-12-20-700-802-002	Emergency Power Assist System (EPAS) Battery Operational Test (PED 1, 2, 4, 5) (P/B 501)
52-12-25-400-802	Hinge Covers Installation (P/B 201)

C. Consumable Materials

Reference	Description	Specification
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796 Class III
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5 Class A

D. Location Zones

Zone	Area
ARO ALL	
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY

E. EPAS Battery Pack Installation

SUBTASK 52-12-20-420-003-002

(1) Install the battery pack [21].

(2) Make sure that the 9 volt backup batteries are installed in the pack Emergency Power Assist System (EPAS) 9 Volt Back-Up Battery Installation (PED 1, 2, 4, 5), TASK 52-12-20-400-803-002

(a) Make sure at least two years remain prior to the “best before” or “best used by” date printed on the battery.

(b) Make sure that these batteries are replaced every two years.

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(c) Apply corrosion preventive compound, C00528 to the mating surfaces of the battery pack [21] and the hinge arm [22].

(d) Apply corrosion preventive compound, C00528 to all areas of the hole including any countersink, counterbore, or other recess, and immediately install the two bolts [24] and two washers [25].

CAUTION MAKE SURE THAT YOU INSTALL THE EPAS BATTERY PACK IN THE CORRECT DIRECTION. INSTALLATION OF THE BATTERY PACK IN THE INCORRECT DIRECTION CAN CAUSE DAMAGE TO THE BATTERY CASING.

(e) Hold the battery pack [21] in the correct position and install the two bolts [24] and two washers [25] to attach the battery pack [21] to the hinge arm [22] (Figure 401, sheet 3).

1) Tighten the bolts to 22.5-27.5 inch pounds (2.54-3.10 newton-meters).

(f) Connect the electrical connector [23] to the battery pack [21].

(g) Remove the excess corrosion preventive compound, C00528 with a cotton wiper, G00034.

F. Installation Test

SUBTASK 52-12-20-720-013

(1) For the applicable door, do this task: Emergency Power Assist System (EPAS) Battery Operational Test (PED 1, 2, 4, 5), TASK 52-12-20-700-802-002.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-20-440-007

(1) Put the safety switch [26] on the EPAS battery pack to the ARM position.

SUBTASK 52-12-20-410-002-002

(2) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-20-865-002

(3) Remove the safety tags and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	9	C33640	EMER LTS-DR 5L & 5R
H	10	C33641	EMER LTS-DR 2L & 2R
H	11	C33642	EMER LTS-DR 1L & 1R
H	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

——— END OF TASK ———

TASK 52-12-20-000-804-002

4. Emergency Power Assist System (EPAS) 9 Volt Back-Up Battery Removal (PED 1, 2, 4, 5)

(Figure 402)

NOTE: This procedure is a scheduled maintenance task.

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A. General

(1) This procedure gives the task to remove the 9 volt backup batteries on the primary emergency power assist system (EPAS) battery pack at the passenger entry door 1, 2, 4 and 5.

(2) One EPAS battery pack is installed on each passenger entry door (PED) 1, 2, 4 and 5. For this procedure, the passenger entry door will be known as PED.

(3) The battery back 285W0955-101 (S283W203–7) and 285W0955-102 (S283W203-7) has green battery pack test light and an amber squib continuity test light. This battery pack does not have a test light and test switch on the bottom of the battery. This battery pack also has two 9 volt backup batteries installed in the pack.

B. References

Reference	Title
52-12-25-000-802	Hinge Covers Removal (P/B 201)

C. Location Zones

Zone	Area
ARO ALL	
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY

D. Prepare for the Removal

SUBTASK 52-12-20-865-003

(1) For the applicable PEDs, open these circuit breakers and attach safety tags.

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	9	C33640	EMER LTS-DR 5L & 5R
H	10	C33641	EMER LTS-DR 2L & 2R
H	11	C33642	EMER LTS-DR 1L & 1R
H	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

SUBTASK 52-12-20-860-151

(2) Make sure the passenger entry door is closed and latched.

SUBTASK 52-12-20-040-009

(3) Make sure the mode select handle [29] is in the MANUAL/DISARM position.

SUBTASK 52-12-20-010-006-002

(4) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

SUBTASK 52-12-20-040-010

(5) Turn the safety switch [26] on the EPAS battery to the DISARM position.

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E. Backup 9-Volt Battery Removal

SUBTASK 52-12-20-020-009-002

(1) Remove the battery pack [21] from PED 1R, 2R, 4R, and 5R.

NOTE: To change the 9-volt batteries in the battery pack on PED 1L, 2L, 4L, and 5L, it is not necessary to remove the battery pack from the hinge arm.

(a) Disconnect the electrical connector [23] from the battery pack [21].

(b) Remove the bolts [24] and washers [25] that attach the battery pack [21] to the hinge arm [22].

(c) Remove the battery pack [21] from the hinge arm [22].

SUBTASK 52-12-20-020-004-002

(2) Remove the two 9-volt batteries [30].

(a) Remove the screw [32] from the battery compartment cover [31] on the battery pack [21].

(b) Remove the two 9-volt batteries [30].

——— END OF TASK ———

TASK 52-12-20-400-803-002

5. Emergency Power Assist System (EPAS) 9 Volt Back-Up Battery Installation (PED 1, 2, 4, 5)

(Figure 402)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This procedure gives the task to install the 9 volt backup batteries on the primary emergency power assist system (EPAS) battery pack at the passenger entry door 1, 2, 4 and 5.

(2) One EPAS battery pack is installed on each passenger entry door (PED) 1, 2, 4 and 5. For this procedure, the passenger entry door will be known as PED.

(3) The battery pack 285W0955-101 (S283W203-6) and 285W0955-102 (S283W203-7) have a green test light for the battery pack status and an amber test light for squib continuity. This battery pack does not have a test light and test switch on the bottom of the battery. This battery pack also has two alkaline 9 volt backup batteries installed in the pack.

B. References

Reference	Title
52-12-20-700-802-002	Emergency Power Assist System (EPAS) Battery Operational Test (PED 1, 2, 4, 5) (P/B 501)
52-12-25-400-802	Hinge Covers Installation (P/B 201)

C. Tools/Equipment

Reference	Description
STD-607	Multimeter - Digital, 8000 Series

D. Consumable Materials

Reference	Description	Specification
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796 Class III

E. Location Zones

Zone	Area
ARO ALL	

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ARO ALL (Continued)

(Continued)

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY

F. Backup 9-Volt Battery Installation

SUBTASK 52-12-20-420-004-002

(1) Install the two 9-volt batteries [30] in the EPAS battery pack.

WARNING MAKE SURE THAT THE BATTERIES ARE IN A GOOD CONDITION. MAKE SURE THAT THE BATTERIES DID NOT CHANGE THEIR DIMENSIONS. MAKE SURE THAT THERE IS NO FLUID LEAKAGE OR CORROSION FROM THE BATTERIES. MAKE SURE THAT THE PAPER END CAPS DO NOT EXTEND FROM THE BATTERIES. IF THE BATTERIES DO NOT HAVE THESE CONDITIONS, INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT CAN OCCUR.

(a) Make sure the replacement 9-volt batteries [30] are in good condition:

1) Measure the output voltage from each battery with a multimeter, STD-607 or any standard digital multimeter.
2) Make sure that the voltage is equal to or higher than 8.7 volts.
3) Make sure at least two years remain prior to the “best before” or “best used by” date printed on the battery.
4) Make sure these batteries are replaced every two years.
5) Make sure that the battery case is not expanded.
6) Make sure that the cardboard end caps do not stick out of the battery case.
7) Make sure there are no fluid leaks from the battery.
8) Make sure there is no corrosion on the battery.

SUBTASK 52-12-20-420-008

(2) Install the 9-volt batteries [30] in the battery pack [21].

(a) Make sure you install the battery connection to the correct polarity marks.

(b) Close the battery compartment cover [31] on the battery pack [21] and install the screw [32].

SUBTASK 52-12-20-420-009-002

(3) If the battery pack was removed from PED 1R, 2R, 4R, and 5R, do these steps to install the battery pack [21]:

NOTE: To change the 9-volt batteries in the battery pack on PED 1L, 2L, 4L and 5L, it was not necessary to remove the battery pack from the hinge arm.

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(a) Apply the corrosion preventative compound, C00528 to the mating surfaces of the battery pack [21] and the hinge arm [22].

(b) Apply the corrosion preventative compound, C00528 to the mating surfaces of the bolt [24] and the washer [25] that attach the battery pack [21] to the hinge arm [22].

(c) Hold the battery pack [21] in its correct position and install the bolts [24] and washers [25] to attach the battery pack [21] to the hinge arm [22].

(d) Tighten the bolts to 25.0 ±2.5 in-lb (2.8 ±0.3 N·m).

(e) Connect the electrical connector [23] to the battery pack [21].

SUBTASK 52-12-20-865-004

(4) Remove the safety tags and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	9	C33640	EMER LTS-DR 5L & 5R
H	10	C33641	EMER LTS-DR 2L & 2R
H	11	C33642	EMER LTS-DR 1L & 1R
H	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

SUBTASK 52-12-20-720-014

(5) Do this task: Emergency Power Assist System (EPAS) Battery Operational Test (PED 1, 2, 4, 5), TASK 52-12-20-700-802-002.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-20-440-008

(1) Turn the safety switch [26] on the EPAS battery to the ARM position.

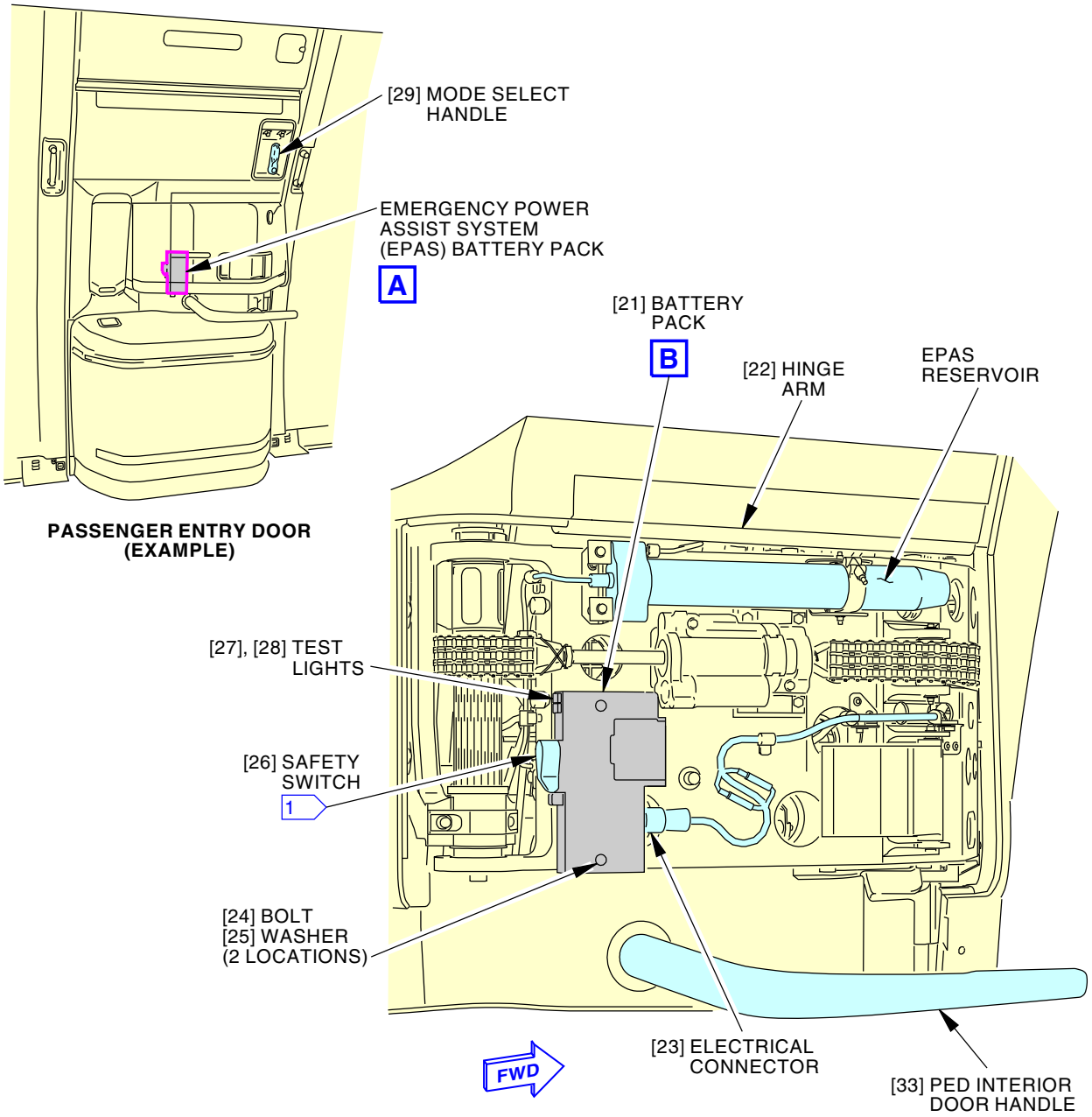
SUBTASK 52-12-20-410-020

(2) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

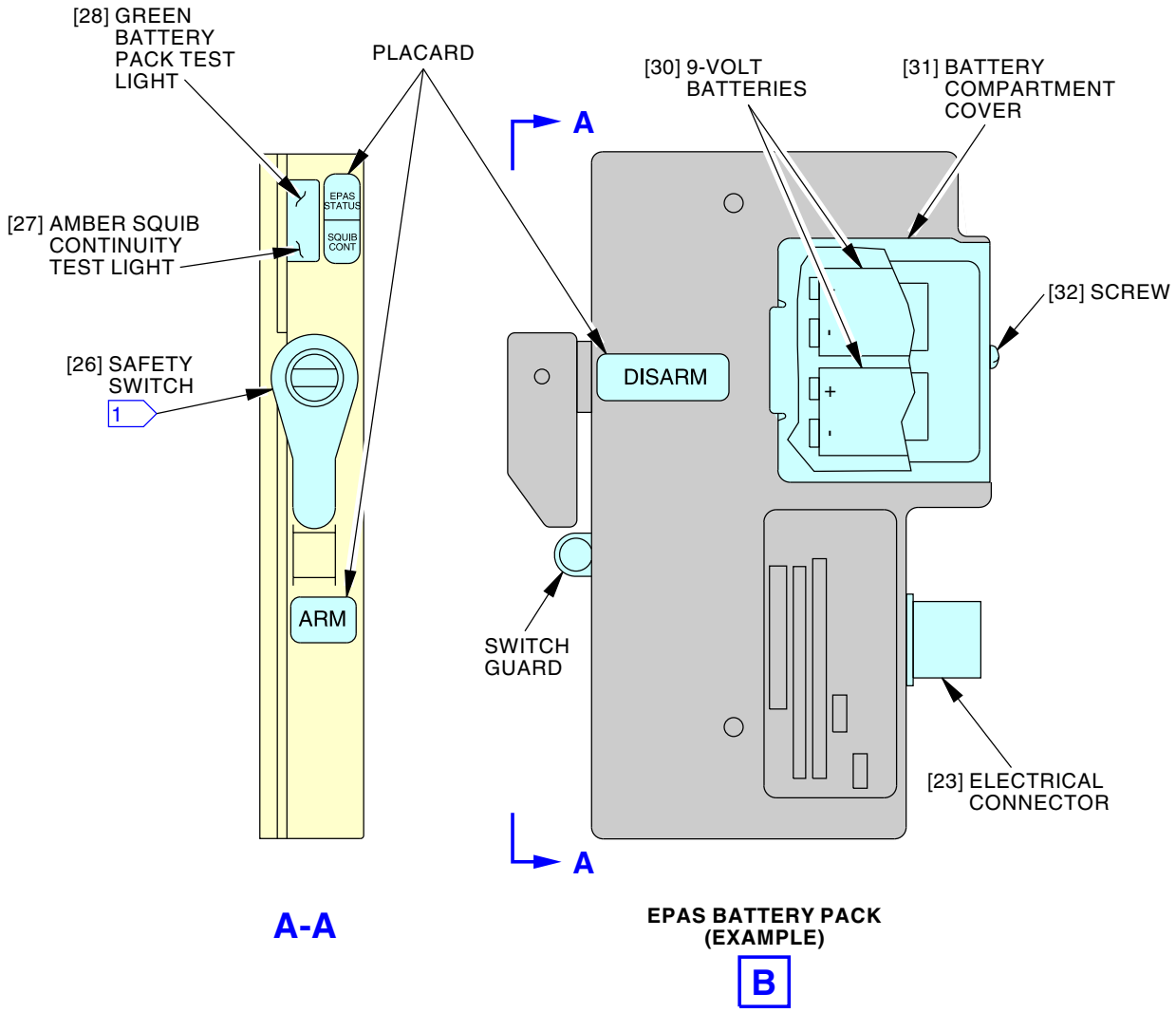
END OF TASK

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Emergency Power Assist System (EPAS) Battery Installation
Figure 402/52-12-20-990-803-002 (Sheet 1 of 2)

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Emergency Power Assist System (EPAS) Battery Installation
Figure 402/52-12-20-990-803-002 (Sheet 2 of 2)

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EMERGENCY POWER ASSIST SYSTEM (EPAS) BATTERY FOR PASSENGER ENTRY DOORS 1, 2, 4 AND 5 - ADJUSTMENT/TEST

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) Emergency Power Assist System (EPAS) System Test (PED 1, 2, 4, 5).

(2) Emergengy Power Assist System Reservoir (EPAS) Battery Operational Test (PED 1, 2, 4, 5).

TASK 52-12-20-700-801-002

2. Emergency Power Assist System (EPAS) - System Test (PED 1, 2, 4, 5)

(Figure 501)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is a system test of these components of the emergency power assist system (EPAS) on the passenger entry doors 1, 2, 4 and 5:

- EPAS battery (self test circuit and squib continuity circuit test)
- Mode select switch
- PED interior handle door open switch

(2) For this procedure, the passenger entry door will be known as PED. One EPAS battery pack is installed on each passenger entry door (PED) 1, 2, 4 and 5. The EPAS battery pack fires the squib on the EPAS reservoir on the PED.

(3) The battery pack 285W0955-101 (Boeing Specification S283W203-6) and 285W0955-102 (Boeing Specification S283W203-7) has two built in test modes, an internal self test and a squib circuit continuity test. The status of these test modes are indicated by two test lights located just above the battery pack safety switch. These battery packs do not have a test switch on the bottom of the battery.

(4) The battery pack internal self test light will continuously blink green when all of these conditions exist:

(a) There is airplane power (28 volts DC) to the battery pack.

(b) The safety switch for the battery pack is in the ARM position.

(c) The battery pack's internal 9 volt alkaline backup batteries have a charge.

(d) The battery pack capacitor is charged and ready to fire.

(5) The battery pack squib continuity test light will come on steady amber when all of these conditions exist:

(a) There is airplane power (28 volts DC) to the battery pack.

(b) The safety switch for the battery pack is in the DISARM position.

(c) The PED interior door handle is in the OPEN position.

(d) The PED mode select handle is in the AUTOMATIC/ARMED position.

(e) There is continuity in the squib circuit.

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(6) The squibs are electro-explosive devices (EED). Maintenance personnel that touch the EED must use wrist straps to ground themselves to a ground point. These persons must wear clothes that make a small static electrical charge such as cotton or cotton/synthetic blends. Do not wear all wool clothing, all nylon clothing or all synthetic clothing. Remove reflective outerwear such as visual safety vests or coats before you touch the EED or disconnect or connect wire bundles.

B. References

Reference	Title
25-66-01-820-801	Escape Slide Pack - Girt Material Stowage (P/B 401)
25-66-06-000-801	Bustle Removal (P/B 401)
25-66-06-400-801	Bustle Installation (P/B 401)
31-61-00-800-816	Showing a System Synoptic Page (P/B 201)
52-12-25-000-802	Hinge Covers Removal (P/B 201)
52-12-25-400-802	Hinge Covers Installation (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1565	Strap - Adjustable Wrist, Conductive, Static Control Part #: 09070 Supplier: 62576 Part #: 14810 Supplier: 62576 Part #: 2214 Supplier: 55203 Opt Part #: 2211 Supplier: 55203 Opt Part #: 2212 Supplier: 55203 Opt Part #: 2213 Supplier: 55203
COM-1793	Multimeter - Digital/Analog (or equivalent meter meets task requirements) Part #: 117 Supplier: 89536 Part #: 260-8XPI Supplier: 55026 Part #: 287 Supplier: 89536 Part #: 289 Supplier: 89536 Part #: 87V Supplier: 89536 Part #: FLUKE 27 II Supplier: 89536 Part #: FLUKE-77-4 Supplier: 89536 Opt Part #: 187 Supplier: 89536 Opt Part #: 189 Supplier: 89536 Opt Part #: 260 Supplier: 55026 Opt Part #: 27 Supplier: 89536 Opt Part #: 77 SERIES III Supplier: 89536 Opt Part #: 87 Supplier: 89536 Opt Part #: FLUKE 27 Supplier: 89536 Opt Part #: MODEL 27 Supplier: 89536
SPL-2000	Box - Test, Squib Connector Part #: J52027-1 Supplier: 81205
STD-1232	Protractor - Digital

D. Location Zones

Zone	Area
ARO ALL	

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ARO ALL (Continued)

(Continued)

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY

E. Prepare for the Test Procedures

SUBTASK 52-12-20-865-012

(1) For the applicable passenger entry doors, make sure these circuit breakers are closed:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	9	C33640	EMER LTS-DR 5L & 5R
H	10	C33641	EMER LTS-DR 2L & 2R
H	11	C33642	EMER LTS-DR 1L & 1R
H	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

SUBTASK 52-12-20-860-010-002

(2) Make sure the applicable passenger entry door is closed and latched.

SUBTASK 52-12-20-040-021

(3) Make sure that the mode select handle is in the MANUAL/DISARM position.

SUBTASK 52-12-20-010-008-002

(4) Remove the aft hinge cover and the forward hinge cover from the applicable passenger entry door.

(a) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

SUBTASK 52-12-20-040-022

(5) Turn the safety switch on the EPAS battery to the DISARM position.

SUBTASK 52-12-20-490-003

WARNING PUT ON A WRIST STRAP THAT IS ATTACHED TO A GROUND BEFORE YOU MAKE ELECTRICAL CONNECTIONS TO AN ELECTRICAL EXPLOSIVE DEVICE. STATIC ELECTRICITY CAN CAUSE AN EXPLOSION.

(6) Before you touch the squib for the EPAS reservoir, put on a static control wrist strap, COM-1565 so that it touches your skin, then connect it to an electrical ground.

SUBTASK 52-12-20-030-002

(7) Disconnect the wire bundle electrical connector, DM52109, from the EPAS reservoir.

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SUBTASK 52-12-20-490-004

WARNING PUT CAPS ON THE BOTTLE SQUIBS AND FLOW VALVE SQUIBS. IF YOU DO NOT PUT CAPS ON THE SQUIBS, THE SQUIBS CAN FIRE ACCIDENTALLY AND CAUSE INJURIES TO PERSONNEL.

(8) Get the protective cap on the hinge arm and install the cap on the EPAS reservoir.

NOTE: A protective cap is mounted on the PED under the snubber.

SUBTASK 52-12-20-480-004

(9) Connect the squib connector test box, SPL-2000 to the electrical connector, DM52109, on the wire bundle.

(a) Do not connect the digital/analog multimeter, COM-1793 to the jacks on the squib connector test box, SPL-2000 at this time.

SUBTASK 52-12-20-040-026

(10) Install the safety pins for the escape slide pack.

NOTE: Use two persons to do these steps.

WARNING SET THE SAFETY SWITCH ON THE BATTERY PACK TO THE DISARM POSITION. IF YOU DO NOT SET IT TO THE DISARM POSITION, AND YOU MOVE THE DOOR HANDLE TO THE OPEN POSITION, THE RESERVOIR SQUIB WILL FIRE. THE RESERVOIR PRESSURE WILL OPEN THE DOOR, AND RELEASE THE ESCAPE SLIDE OUT OF THE AIRCRAFT. THIS CAN CAUSE INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT.

(a) Make sure the safety switch on the EPAS battery is at the DISARM position.

(b) Do this task: Bustle Removal, TASK 25-66-06-000-801.

(c) Remove the two safety pins, and , from the storage pouch on the escape slide pack.

(d) Install the safety pin for the inflation cylinder for the escape slide.

(e) Move the mode select handle to the AUTOMATIC/ARM position.

WARNING HOLD THE DOOR TO KEEP THE DOOR IN THE FUSELAGE. IF THE DOOR MOVES OUT OF THE FUSELAGE, THE ESCAPE SLIDE CAN RELEASE. INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT CAN OCCUR.

(f) Hold the door so it does not move from the cutout, and turn the PED interior door handle approximately 135 degrees to unlatch and lift the door.

NOTE: With the mode select switch in the AUTOMATIC/ARM position and the PED interior door handle in the OPEN position, the escape slide will deploy if the door moves more than 3.0 inches (76.2 millimeters) out of the fuselage.

(g) Install the safety pin for the pack release.

NOTE: To install the safety pin, you must put the pin and lanyard through the center slit in the girt material.

(h) Turn the PED interior handle to the CLOSED position to lower and latch the door.

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F. Test Procedures

SUBTASK 52-12-20-730-002-002

(1) EPAS Battery Test (Self Test Circuit and Squib Continuity Circuit)

NOTE: This test uses the squib connector test box, SPL-2000 to test the internal circuits in the battery pack with the EPAS reservoir squib disconnected.

(a) Make sure the safety switch for the EPAS battery is at the DISARM position.

(b) Look at the two test lights on the EPAS battery.

(c) Make sure that the green test indicator light on the battery pack is not on and does not blink.

(d) Turn the safety switch on the EPAS battery to the ARM position.

(e) Make sure that the green test indicator light for battery pack is on and continuously blinks.

(f) Make sure that the amber test light for squib continuity is not on.

(g) For the applicable passenger entry doors, open these circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	9	C33640	EMER LTS-DR 5L & 5R
H	10	C33641	EMER LTS-DR 2L & 2R
H	11	C33642	EMER LTS-DR 1L & 1R
H	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

(h) Make sure that the green test indicator light is not on and does not blink.

(i) For the applicable passenger entry doors, close these circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	9	C33640	EMER LTS-DR 5L & 5R
H	10	C33641	EMER LTS-DR 2L & 2R
H	11	C33642	EMER LTS-DR 1L & 1R
H	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

(j) Make sure that the green test light is on and continuously blinks.

(k) Turn the safety switch on the EPAS battery to the DISARM position.

(l) Put a jumper wire across the jacks on squib connector test box, SPL-2000.

(m) Make sure that the amber test light for squib continuity is not on.

(n) Move the mode select handle to the AUTOMATIC/ARM position.

(o) Make sure that the amber test indicator light is not on.

WARNING HOLD THE DOOR TO KEEP THE DOOR IN THE FUSELAGE. IF THE DOOR MOVES OUT OF THE FUSELAGE, THE ESCAPE SLIDE CAN RELEASE. INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT CAN OCCUR.

(p) Turn the PED interior door handle to the OPEN position.

NOTE: With the mode select switch in the AUTOMATIC/ARM position and the PED door handle in the OPEN position, the escape slide will deploy if the door moves more than 3.0 inches (76.2 millimeters) out of the fuselage.

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(q) Make sure that the amber test indicator light is on steady.

(r) Move the PED interior door handle to the CLOSED and LOCKED position.

(s) Remove the jumper wire across the jacks on the squib connector test box, SPL-2000.

WARNING HOLD THE DOOR TO KEEP THE DOOR IN THE FUSELAGE. IF THE DOOR MOVES OUT OF THE FUSELAGE, THE ESCAPE SLIDE CAN RELEASE. INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT CAN OCCUR.

(t) Turn the PED interior door handle to the OPEN position.

NOTE: With the mode select switch in the AUTOMATIC/ARM position and the PED interior door handle in the OPEN position, the escape slide will deploy if the door moves more than 3.0 inches (76.2 millimeters) out of the fuselage.

(u) Make sure that the amber test indicator light is not on.

(v) Turn the PED interior door handle to the CLOSED and LOCKED position.

(w) Put the mode select handle to the MANUAL/DISARM position.

SUBTASK 52-12-20-730-003-002

(2) Mode Select Switch Test

(a) If it is necessary, connect the squib connector test box, SPL-2000 to the electrical connector, DM52109, on the wire bundle.

(b) Make sure that the mode select handle is in the MANUAL/DISARM position.

(c) Put the digital protractor, STD-1232 against the mode select handle and adjust it to zero.

(d) Connect the digital/analog multimeter, COM-1793 to the jacks on the squib connector test box, SPL-2000.

(e) Set the digital/analog multimeter, COM-1793 for continuity.

NOTE: If it is possible, set the multimeter so it makes a sound when there is continuity.

(f) Turn the mode select handle to the AUTOMATIC/ARM position.

(g) Make sure that the digital/analog multimeter, COM-1793 shows continuity.

(h) Disconnect the blue inline plug connector D06228P from the blue inline jack connector D06228J.

(i) Make sure that the digital/analog multimeter, COM-1793 does not show continuity.

(j) Turn the mode select handle slowly to the MANUAL/DISARM position.

(k) Make sure that the digital/analog multimeter, COM-1793 shows continuity before the mode select handle is 10 degrees from the DISARM position.

(l) Connect the blue inline plug connector D06228P to the blue inline jack connector D06228J.

ARO ALL

(m) Do a check of the DOOR System Synoptic Page for the applicable door, ENTRY 1L, 1R, 2L, 2R, 4L, 4R, 5L, 5R.

1) To show the page, do this task: Showing a System Synoptic Page, TASK 31-61-00-800-816.

2) Make sure the M shows on the DOOR System Synoptic Page for the door.

3) Move the mode select handle to the AUTOMATIC/ARM position.

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ARO ALL (Continued)

4) Make sure the A shows on the DOOR System Synoptic Page for the door.

5) Move the mode select handle to the MANUAL/DISARM position.

ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY

SUBTASK 52-12-20-730-004-002

(3) PED Interior Handle Door-Open Switch Test

NOTE: Use two persons to do these steps.

(a) If it is necessary, connect the squib connector test box, SPL-2000 to the electrical connector, DM52109, on the wire bundle.

(b) Make sure the safety pins for the inflation cylinder and the pack release are installed.

(c) Set the digital/analog multimeter, COM-1793 to DC volts.

(d) Turn the safety switch on the EPAS battery to the ARM position.

(e) Move the mode select handle is at the AUTOMATIC/ARM position.

WARNING HOLD THE DOOR TO KEEP THE DOOR IN THE FUSELAGE. IF THE DOOR MOVES OUT OF THE FUSELAGE, THE ESCAPE SLIDE CAN RELEASE. INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT CAN OCCUR.

(f) Hold the door so it does not move from the cutout, and turn the PED interior door handle to the OPEN position.

NOTE: With the mode select switch in the AUTOMATIC/ARM position and the PED interior door handle in the OPEN position, the escape slide will deploy if the door moves more than 3.0 inches (76.2 millimeters) out of the fuselage.

(g) Put the digital protractor, STD-1232 against the PED interior door handle and set it to zero.

(h) Turn the PED interior door handle to the CLOSED and LOCKED position.

WARNING HOLD THE DOOR TO KEEP THE DOOR IN THE FUSELAGE. IF THE DOOR MOVES OUT OF THE FUSELAGE, THE ESCAPE SLIDE CAN RELEASE. INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT CAN OCCUR.

(i) Hold the door so it does not move from the cutout, while you slowly turn the PED interior door handle to the OPEN position.

NOTE: With the mode select switch in the AUTOMATIC/ARM position and the PED interior door handle in the OPEN position, the escape slide will deploy if the door moves more than 3.0 inches (76.2 millimeters) out of the fuselage.

1) Measure the position of the interior door handle in degrees using the digital protractor, STD-1232 when the digital/analog multimeter, COM-1793 indicates between 14.5 volts and 19.5 volts.

2) Record the indicated degrees.

3) Make sure that the digital/analog multimeter, COM-1793 changes to show voltage when the PED interior door handle is 3-7 degrees from the OPEN position.

(j) Slowly turn the PED interior door handle to the CLOSED and LOCKED position.

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1) Measure the position of the interior door handle in degrees using the digital protractor, STD-1232 when the digital/analog multimeter, COM-1793 indicates less than 2 volts.

2) Record the indicated degrees.

.

3) Make sure that the digital/analog multimeter, COM-1793 changes to show less than 2 volts when the interior door handle is 3-7 degrees from the OPEN position.

(k) Turn the PED interior door handle to the CLOSED and LOCKED position.

(l) Move the mode select handle to the MANUAL/DISARM position.

(m) Turn the safety switch on the EPAS battery to the DISARM position.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-20-440-012

(1) Remove the safety pins from the escape slide pack.

NOTE: Use two persons to do these steps.

(a) Make sure the safety switch on the EPAS battery is at the DISARM position.

(b) Make sure the mode select handle is in the AUTOMATIC/ARM position.

WARNING HOLD THE DOOR TO KEEP THE DOOR IN THE FUSELAGE. IF THE DOOR MOVES OUT OF THE FUSELAGE, THE ESCAPE SLIDE CAN RELEASE. INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT CAN OCCUR.

(c) Turn the PED interior door handle approximately 135 degrees to unlatch and lift the door.

(d) Remove the safety pin for the escape slide pack release.

(e) Do this task: Escape Slide Pack - Girt Material Stowage, TASK 25-66-01-820-801.

NOTE: Stowage of the girt material must be checked each time a passenger entry door is lifted when the mode select handle is in the AUTOMATIC/ARM position. If there is interference between the girt material and the PED bottom seal, air leaks and noise can occur when the airplane is in flight.

(f) Turn the PED interior door handle to the closed position to lower and latch the door.

(g) Move the mode select handle to the MANUAL/DISARM position.

(h) Remove the safety pin from the inflation cylinder for the escape slide.

(i) Put the two safety pins in the storage pouch on the escape slide pack.

(j) Do this task: Bustle Installation, TASK 25-66-06-400-801.

SUBTASK 52-12-20-820-001-002

(2) Make sure that the applicable passenger entry door is CLOSED and LOCKED.

SUBTASK 52-12-20-040-023

(3) Make sure that the mode select handle is at the MANUAL/DISARM position.

SUBTASK 52-12-20-040-024

(4) Turn the safety switch for the EPAS battery to the DISARM position.

SUBTASK 52-12-20-080-002

(5) Disconnect the squib connector test box, SPL-2000 and the digital/analog multimeter, COM-1793 from the electrical connector, DM52109.

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SUBTASK 52-12-20-490-005

WARNING PUT ON A WRIST STRAP THAT IS ATTACHED TO A GROUND BEFORE YOU MAKE ELECTRICAL CONNECTIONS TO AN ELECTRICAL EXPLOSIVE DEVICE. STATIC ELECTRICITY CAN CAUSE AN EXPLOSION.

(6) Before you touch the squib for the EPAS reservoir, put on a static control wrist strap, COM-1565 so that it touches your skin, then connect the strap to an electrical ground.

SUBTASK 52-12-20-090-002

(7) Remove the protective cap from the squib on the EPAS reservoir.

NOTE: Store the shorting cap on the PED under the snubber.

SUBTASK 52-12-20-430-004

(8) Make sure that the EPAS battery and squib test is completed when the EPAS connector is reconnected.

SUBTASK 52-12-20-430-002

(9) Connect the electrical connector, DM52109, to the EPAS reservoir.

SUBTASK 52-12-20-700-004-002

(10) Do this task: Emergency Power Assist System (EPAS) Battery Operational Test (PED 1, 2, 4, 5), TASK 52-12-20-700-802-002.

SUBTASK 52-12-20-440-013

(11) Turn the safety switch for the EPAS battery to the ARM position.

SUBTASK 52-12-20-410-004-002

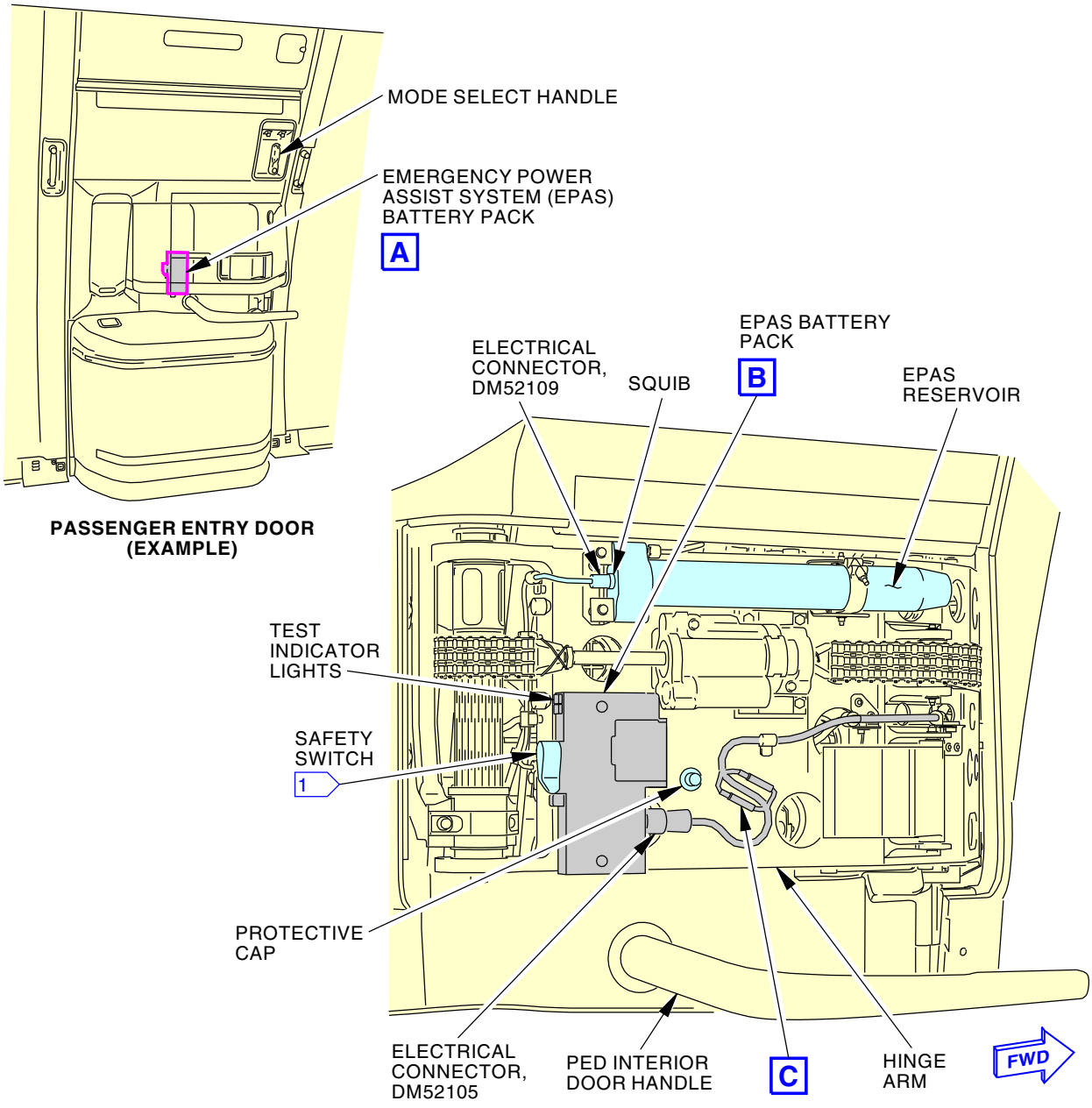
(12) Install the forward hinge cover and the aft hinge cover on the applicable passenger entry door.

(a) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

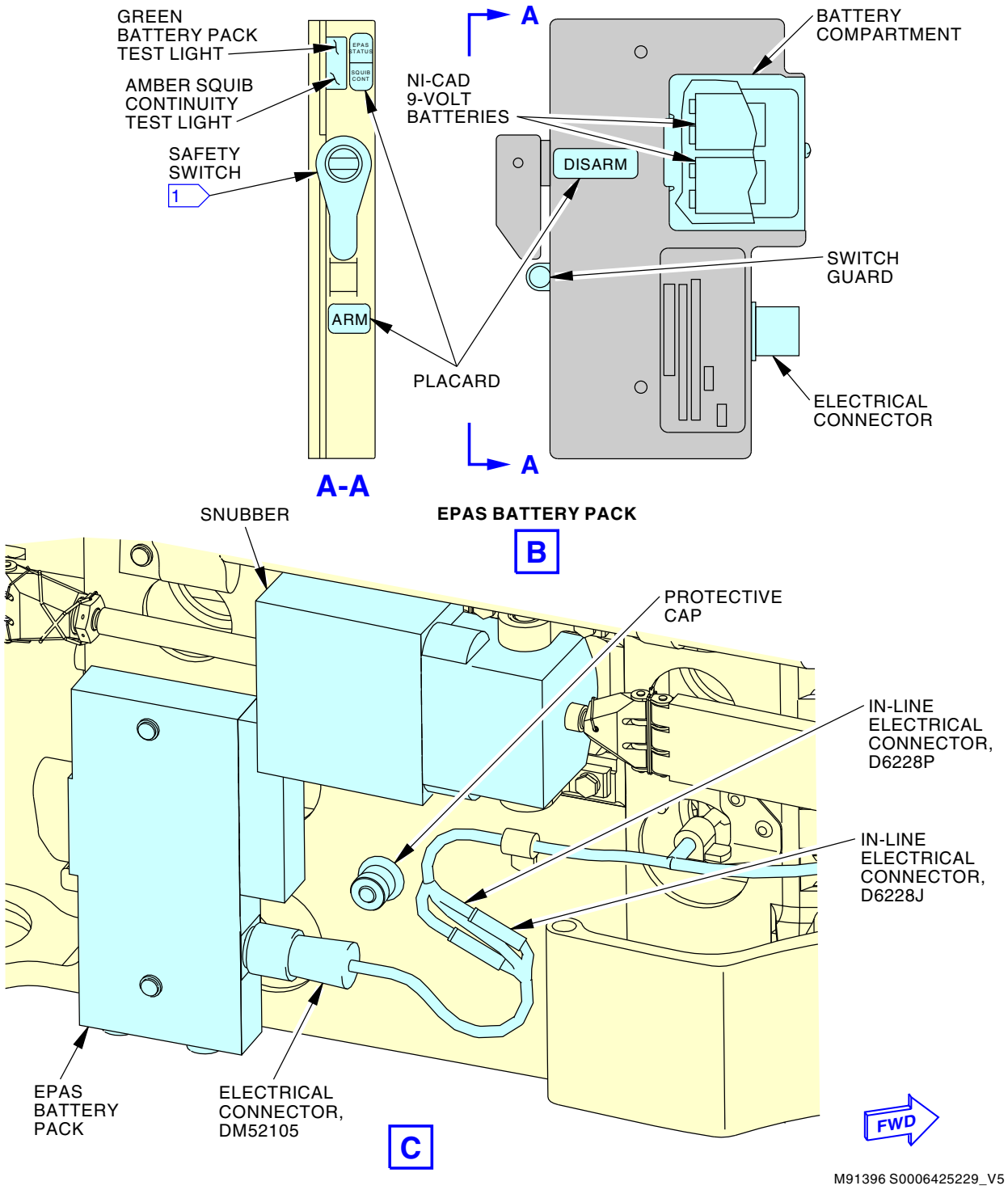
END OF TASK

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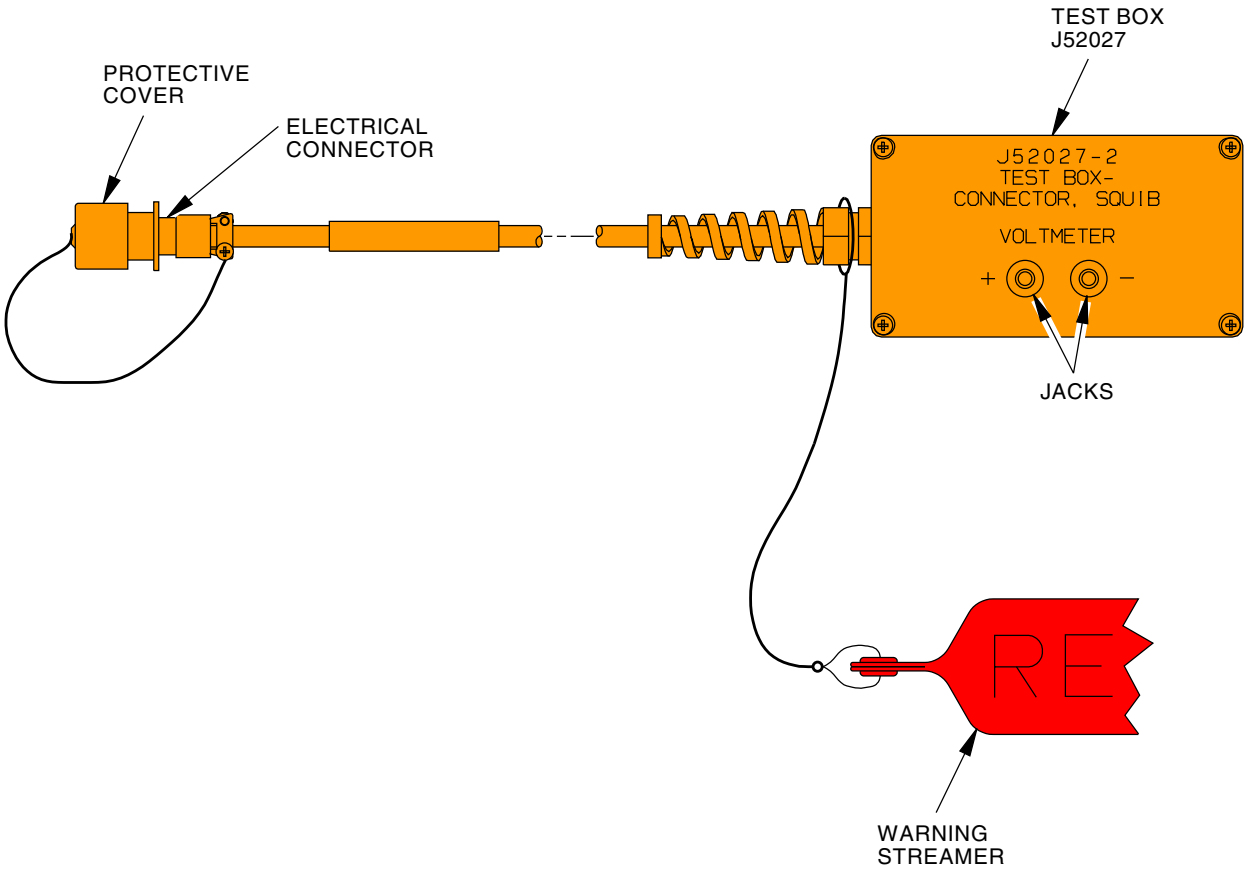
Emergency Power Assist System (EPAS) Battery System Test
Figure 501/52-12-20-990-822-002 (Sheet 1 of 2)

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Emergency Power Assist System (EPAS) Battery System Test
Figure 501/52-12-20-990-822-002 (Sheet 2 of 2)

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Emergency Power Assist System (EPAS) Continuity Test (PED 1, 2, 4, 5)
Figure 502/52-12-20-990-829

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TASK 52-12-20-700-802-002

3. Emergency Power Assist System (EPAS) Battery Operational Test (PED 1, 2, 4, 5)

A. General

(1) This task is an operational test of the EPAS battery which does an internal self test and the squib circuit continuity test.

(2) This test is required whenever the EPAS reservoir electrical connector is disconnected and connected again or if the EPAS battery is replaced. This test does not use the squib connector test box to test the internal circuits in the battery pack with the EPAS reservoir squib disconnected.

(3) For this procedure, the passenger entry door will be known as PED. One EPAS battery pack is installed on each passenger entry door (PED) 1, 2, 4 and 5. The EPAS battery pack fires the squib on the EPAS reservoir on the PED.

(4) The battery pack 285W0955-101 (Boeing Specification S283W203-6) and 285W0955-102 (Boeing Specification S283W203-7) has two built in test modes, an internal self test and a squib circuit continuity test. The status of these test modes are indicated by two test lights located just above the battery pack safety switch.

(a) These battery packs do not have a test light and test switch on the bottom of the battery.

(b) These battery packs do not have a battery charger.

(c) These battery packs use capacitors to supply the current to fire the squibs.

(d) These battery packs have two alkaline 9 volt backup batteries installed in the pack to fire the squibs.

(5) The green test light for the internal self test on the battery pack will come on and continuously blink when all of these conditions exist:

(a) There is airplane power (28 volts DC) to the battery pack.

(b) The safety switch on the battery pack is in the ARM position.

(c) The battery pack's internal 9 volt alkaline backup batteries have a charge.

(d) The battery pack capacitor is charged and ready to fire.

(6) The amber test light for squib continuity on the battery pack will come on steady amber when all of these conditions exist:

(a) There is airplane power (28 volts DC) to the battery pack.

(b) The safety switch on the battery pack is in the DISARM position.

(c) The PED interior door handle is in the OPEN position.

(d) The PED mode select handle is in the AUTOMATIC/ARMED position.

(e) There is continuity to the squib circuit.

B. References

Reference	Title
25-66-01-820-801	Escape Slide Pack - Girt Material Stowage (P/B 401)
25-66-06-000-801	Bustle Removal (P/B 401)
25-66-06-400-801	Bustle Installation (P/B 401)
52-12-20-000-803-002	Emergency Power Assist System (EPAS) Battery Pack Removal (PED 1, 2, 4, 5) (P/B 401)
52-12-20-400-802-002	Emergency Power Assist System (EPAS) Battery Pack Installation (PED 1, 2, 4, 5) (P/B 401)

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(Continued)

Reference	Title
52-12-25-000-802	Hinge Covers Removal (P/B 201)
52-12-25-400-802	Hinge Covers Installation (P/B 201)
WDM 52-11-11	Wiring Diagram Manual
WDM 52-11-14	Wiring Diagram Manual
WDM 52-11-15 or 52-11-16	Wiring Diagram Manual

C. Location Zones

Zone	Area
ARO ALL	
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY

D. Prepare for the Procedure

SUBTASK 52-12-20-865-011

(1) Make sure that these circuit breakers are closed:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	9	C33640	EMER LTS-DR 5L & 5R
H	10	C33641	EMER LTS-DR 2L & 2R
H	11	C33642	EMER LTS-DR 1L & 1R
H	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

SUBTASK 52-12-20-860-157

(2) Make sure the pilot's emergency light switch on the overhead panel, P5, is in the OFF position.

SUBTASK 52-12-20-860-011-002

(3) Make sure the applicable passenger entry door is CLOSED and LATCHED.

SUBTASK 52-12-20-040-019

(4) Make sure that the mode select handle is in the MANUAL/DISARM position.

SUBTASK 52-12-20-010-009-002

(5) Remove the aft hinge cover and the forward hinge cover.

(a) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

SUBTASK 52-12-20-040-020

(6) Move the safety switch on the EPAS battery pack to the DISARM position.

SUBTASK 52-12-20-040-027

(7) Install the safety pins for the escape slide pack (Figure 503).

NOTE: Use two persons to do these steps.

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WARNING SET THE SAFETY SWITCH ON THE BATTERY PACK TO THE DISARM POSITION. IF YOU DO NOT SET IT TO THE DISARM POSITION, AND YOU MOVE THE DOOR HANDLE TO THE OPEN POSITION, THE RESERVOIR SQUIB WILL FIRE. THE RESERVOIR PRESSURE WILL OPEN THE DOOR, AND RELEASE THE ESCAPE SLIDE OUT OF THE AIRCRAFT. THIS CAN CAUSE INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT.

(a) Make sure the safety switch on the EPAS battery is at the DISARM position.

(b) Do this task: Bustle Removal, TASK 25-66-06-000-801.

(c) Remove the two safety pins from the storage pouch on the escape slide pack.

(d) Install the on the inflation cylinder for the escape slide pack.

(e) Move the mode select handle to the AUTOMATIC/ARM position.

WARNING HOLD THE DOOR TO KEEP THE DOOR IN THE FUSELAGE. IF THE DOOR MOVES OUT OF THE FUSELAGE, THE ESCAPE SLIDE CAN RELEASE. INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT CAN OCCUR.

(f) Hold the door so it does not move from the cutout, and turn the PED interior door handle approximately 135 degrees to unlatch and lift the door.

NOTE: With the mode select switch in the AUTOMATIC/ARM position and the PED interior door handle in the OPEN position, the escape slide will deploy if the door moves more than 3.0 inches (76.2 millimeters) out of the fuselage.

(g) Install the for the pack release.

NOTE: To install the safety pin, you must put the pin and lanyard through the center slit in the girt material.

(h) Turn the PED interior door handle to the CLOSED position to lower and latch the door.

E. Procedure

SUBTASK 52-12-20-730-005-002

(1) EPAS Battery Operational Test

(a) Make sure the safety switch on the EPAS battery pack is in the DISARM position.

(b) Make sure the green test light on the EPAS battery pack is off.

(c) Turn the mode select handle to the AUTOMATIC/ARM position.

(d) Make sure the amber test light on the EPAS battery pack is off.

NOTE: The amber test light is for squib continuity.

WARNING SET THE SAFETY SWITCH ON THE BATTERY PACK TO THE DISARM POSITION. IF YOU DO NOT SET IT TO THE DISARM POSITION, AND YOU MOVE THE DOOR HANDLE TO THE OPEN POSITION, THE RESERVOIR SQUIB WILL FIRE. THE RESERVOIR PRESSURE WILL OPEN THE DOOR, AND RELEASE THE ESCAPE SLIDE OUT OF THE AIRCRAFT. THIS CAN CAUSE INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT.

(e) Make sure the safety switch on the EPAS battery pack is in the DISARM position.

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WARNING HOLD THE DOOR TO KEEP THE DOOR IN THE FUSELAGE. IF THE DOOR MOVES OUT OF THE FUSELAGE, THE ESCAPE SLIDE CAN RELEASE. INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT CAN OCCUR.

(f) Turn the PED interior door handle to the OPEN position.

NOTE: With the mode select switch in the AUTOMATIC/ARM position and the PED door handle in the OPEN position, the escape slide will deploy if the door moves more than 3.0 inches (76.2 millimeters) out of the fuselage.

(g) Make sure the amber test light on the EPAS battery pack is on with a steady amber light.

(h) Turn the PED interior door handle to the CLOSED and LOCKED position.

(i) Make sure the amber test light on the EPAS battery pack is off.

(j) Turn the mode select handle to the MANUAL/DISARM position.

(k) Put the safety switch on the EPAS battery pack to the ARM position.

(l) Make sure that the green test light on the EPAS battery pack is on and continuously blinks.

NOTE: The green test light is for the battery internal self-test for battery charge. The green battery status light will be on if the battery output current is more than 5 amps and the battery pack receives a 28 volts DC input from the airplane.

(m) Put the safety switch on the EPAS battery pack to the DISARM position.

(n) If it is necessary, make a record of the date when the test has passed on the battery pack placard.

SUBTASK 52-12-20-900-001

(2) If the green test light for battery status on the EPAS battery pack does not come on, do these steps:

(a) Make sure the safety switch for the EPAS battery pack is in the ARM position.

(b) Make sure the applicable circuit breakers given above are closed.

(c) If the safety switch is at the ARM position and the circuit breakers are closed, the battery is not operational; replace the EPAS battery on the passenger entry door.

1) Do this task:Emergency Power Assist System (EPAS) Battery Pack Removal (PED 1, 2, 4, 5), TASK 52-12-20-000-803-002.

2) Do this task:Emergency Power Assist System (EPAS) Battery Pack Installation (PED 1, 2, 4, 5), TASK 52-12-20-400-802-002.

SUBTASK 52-12-20-900-002

(3) If the amber status light for squib circuit continuity does not come on, do these steps:

(a) Make sure the safety switch for the EPAS battery pack is in the DISARM position.

(b) Make sure the mode select switch is at the AUTOMATIC/ARM position.

(c) Make sure the PED interior door handle for the applicable passenger entry door is at the OPEN position.

(d) If the safety switch is at the DISARM position, the mode select switch is at AUTOMATIC/ARM position and the interior door handle is at the OPEN position, there is a wiring problem.

1) Repair the airplane wiring; refer to: WDM 52-11-11, WDM 52-11-14, WDM 52-11-15 or 52-11-16.

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F. Put the Airplane Back to the Usual Condition

SUBTASK 52-12-20-440-015

(1) If the safety pins were installed in the escape slide pack, remove the safety pins .

WARNING

SET THE SAFETY SWITCH ON THE BATTERY PACK TO THE DISARM POSITION. IF YOU DO NOT SET IT TO THE DISARM POSITION, AND YOU MOVE THE DOOR HANDLE TO THE OPEN POSITION, THE RESERVOIR SQUIB WILL FIRE. THE RESERVOIR PRESSURE WILL OPEN THE DOOR, AND RELEASE THE ESCAPE SLIDE OUT OF THE AIRCRAFT. THIS CAN CAUSE INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT.

(a) Make sure the safety switch on the EPAS battery is at the DISARM position.

(b) Make sure the mode select handle is in the AUTOMATIC/ARM position.

WARNING

HOLD THE DOOR TO KEEP THE DOOR IN THE FUSELAGE. IF THE DOOR MOVES OUT OF THE FUSELAGE, THE ESCAPE SLIDE CAN RELEASE. INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT CAN OCCUR.

(c) Hold the door so it does not move from the cutout, and turn the PED interior door handle approximately 135 degrees to unlatch and lift the door.

NOTE: With the mode select switch in the AUTOMATIC/ARM position and the PED interior door handle in the OPEN position, the escape slide will deploy if the door moves more than 3.0 inches (76.2 millimeters) out of the fuselage.

(d) Remove the safety pin for the escape slide pack release.

(e) Do this task: Escape Slide Pack - Girt Material Stowage, TASK 25-66-01-820-801

NOTE: Stowage of the girt material must be checked each time a passenger entry door is lifted when the mode select handle is in the AUTOMATIC/ARM position. If there is interference between the girt material and the PED bottom seal, air leaks and noise can occur when the airplane is in flight.

(f) Turn the PED interior door handle to the closed position to lower and latch the door.

(g) Move the mode select handle to the MANUAL/DISARM position.

(h) Remove the safety pin from the inflation cylinder for the escape slide.

(i) Put the two safety pins in the storage pouch on the escape slide pack.

(j) Do this task: Bustle Installation, TASK 25-66-06-400-801.

SUBTASK 52-12-20-440-014

(2) Put the safety switch on the EPAS battery pack to the ARM position.

SUBTASK 52-12-20-730-006-002

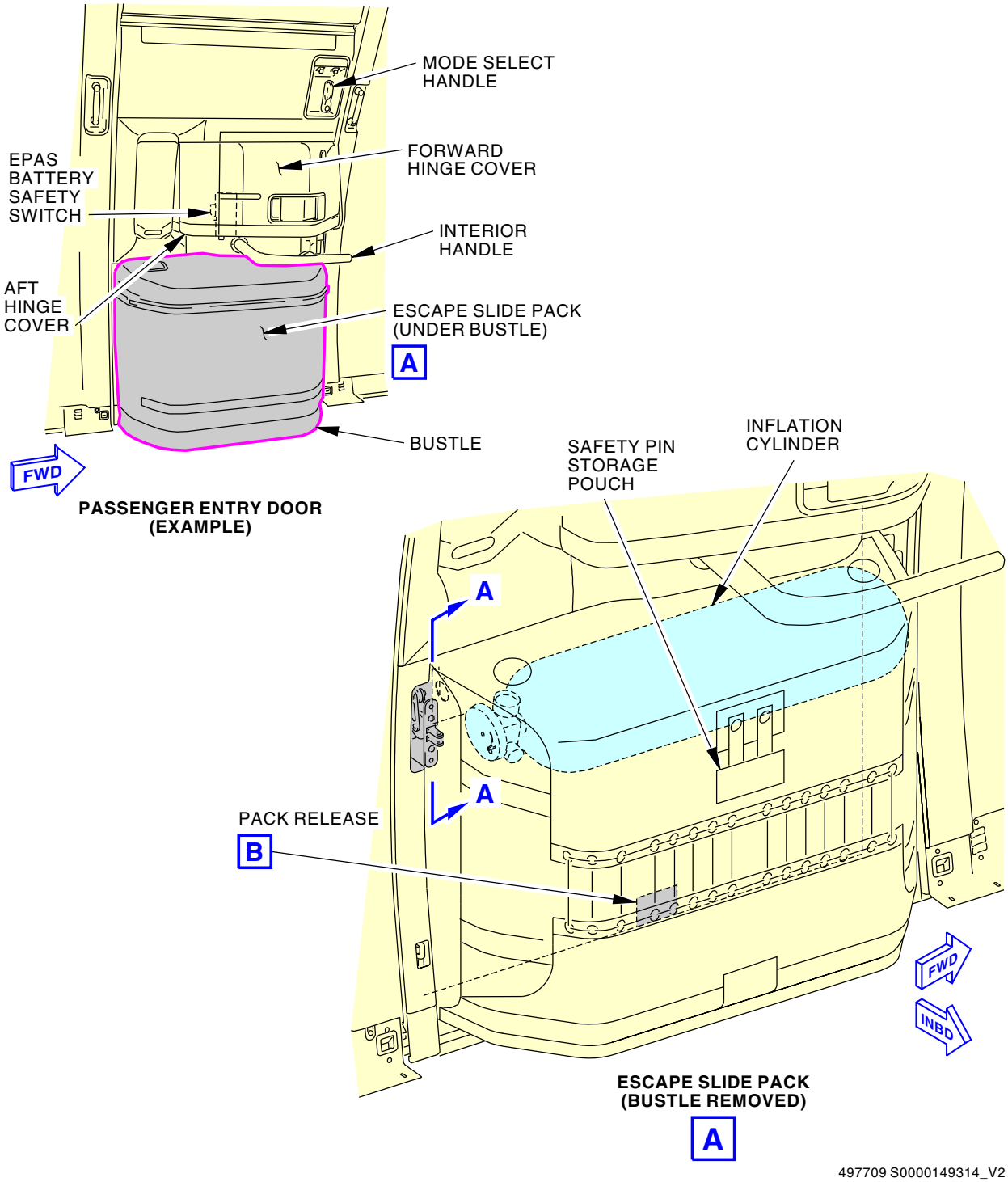
(3) Install the aft hinge cover and the forward hinge cover.

(a) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

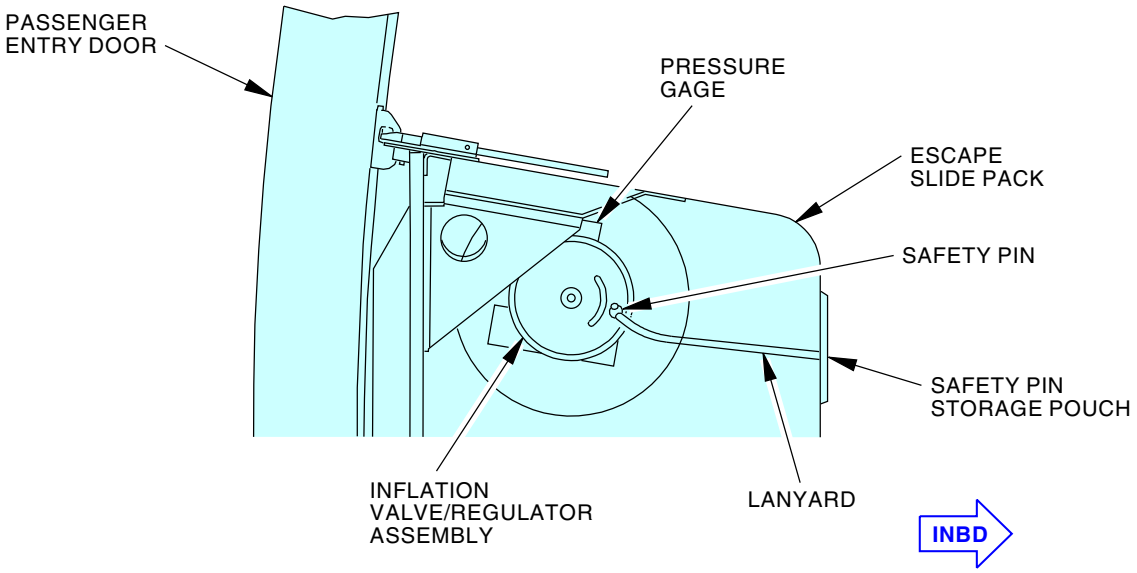
END OF TASK

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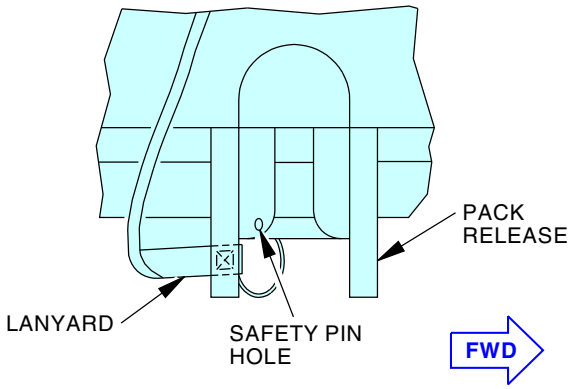


Escape Slide Pack Safety Pins
Figure 503/52-12-20-990-830 (Sheet 1 of 2)

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A-A



PACK RELEASE

B

497686 S0000149315_V2

Escape Slide Pack Safety Pins
Figure 503/52-12-20-990-830 (Sheet 2 of 2)

EFFECTIVITY
ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY

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EMERGENCY POWER ASSIST SYSTEM (EPAS) BATTERY FOR PASSENGER ENTRY DOORS 1, 2, 4 AND 5 - INSPECTION/CHECK

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY

(1) A check of the electrical charge of the emergency power assist system (EPAS) battery on passenger entry doors (PED) 1, 2, 4, and 5.

TASK 52-12-20-200-805

2. Emergency Power Assist System (EPAS) Battery - Electrical Charge Check (PED 1, 2, 4, 5)

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task uses the EPAS battery self-test feature to find if the battery is charged and ready to supply the current to fire the EPAS reservior squib.

(2) One EPAS battery pack is installed on each passenger entry door (PED) 1, 2, 4 and 5. The EPAS battery pack fires the squib on the EPAS reservoir on the PED.

(3) The EPAS battery pack (Boeing Specification S283W203-6/-7) has two built in test modes, an internal self test and a squib circuit continuity test. The status of these test modes are indicated by two test lights located just above the battery pack safety switch. These battery packs do not have a test switch on the bottom of the battery.

(4) The battery pack internal self test light will continuously blink green when all of these conditions exist:

(a) There is airplane power (28 volts DC) to the battery pack.

(b) The safety switch for the battery pack is in the ARM position.

(c) The battery pack's internal 9 volt alkaline backup batteries have a charge.

(d) The battery pack capacitor is charged and ready to fire.

B. Location Zones

Zone	Area
ARO ALL	
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

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(Continued)

Zone	Area
ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY	

C. Access Panels

Number	Name/Location
831BAW	Aft Hinge Cover - Door 1L
832BAW	Aft Hinge Cover - Door 2L
834BAW	Aft Hinge Cover - Door 3L (-200) (No. 4L, -300)
835BAW	Aft Hinge Cover - Door 4L (-200) (No. 5L, -300)
841BAW	Aft Hinge Cover - Door 1R
842BAW	Aft Hinge Cover - Door 2R
844BAW	Aft Hinge Cover - Door 3R (-200) (No. 4R, -300)
845BAW	Aft Hinge Cover - Door 4R (-200) (No. 5R, -300)

D. Battery Pack Test Procedure

SUBTASK 52-12-20-865-009

(1) For the applicable passenger entry doors, make sure these circuit breakers are closed:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	9	C33640	EMER LTS-DR 5L & 5R
H	10	C33641	EMER LTS-DR 2L & 2R
H	11	C33642	EMER LTS-DR 1L & 1R
H	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

SUBTASK 52-12-20-860-154

(2) Make sure the applicable passenger entry door 1, 2, 4 or 5 is CLOSED and LOCKED.

SUBTASK 52-12-20-010-034

(3) Open the applicable access panels:

Number	Name/Location
831BAW	Aft Hinge Cover - Door 1L
832BAW	Aft Hinge Cover - Door 2L
834BAW	Aft Hinge Cover - Door 3L (-200) (No. 4L, -300)
835BAW	Aft Hinge Cover - Door 4L (-200) (No. 5L, -300)
841BAW	Aft Hinge Cover - Door 1R
842BAW	Aft Hinge Cover - Door 2R
844BAW	Aft Hinge Cover - Door 3R (-200) (No. 4R, -300)
845BAW	Aft Hinge Cover - Door 4R (-200) (No. 5R, -300)

SUBTASK 52-12-20-860-155

(4) Make sure the safety switch for the EPAS battery is in the ARM position.

SUBTASK 52-12-20-210-003

(5) Make sure that the green test light on the battery pack is on and continuously blinks.

NOTE: The green test light shows the battery pack's internal, 9 volt backup batteries are charged and the battery pack capacitors are charged and ready to fire.

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ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY (Continued)

SUBTASK 52-12-20-410-021

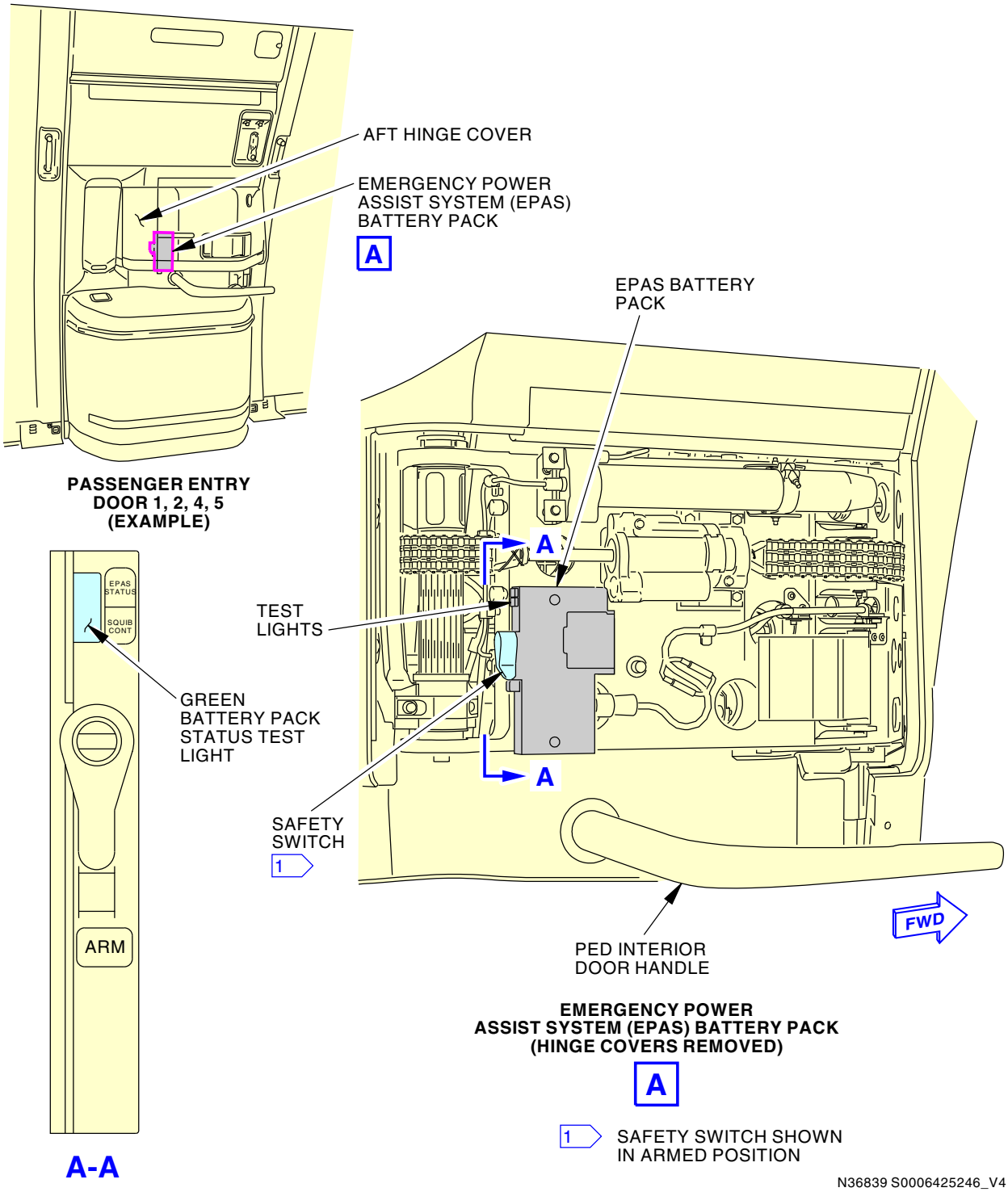
(6) Close the applicable access panels:

Number	Name/Location
831BAW	Aft Hinge Cover - Door 1L
832BAW	Aft Hinge Cover - Door 2L
834BAW	Aft Hinge Cover - Door 3L (-200) (No. 4L, -300)
835BAW	Aft Hinge Cover - Door 4L (-200) (No. 5L, -300)
841BAW	Aft Hinge Cover - Door 1R
842BAW	Aft Hinge Cover - Door 2R
844BAW	Aft Hinge Cover - Door 3R (-200) (No. 4R, -300)
845BAW	Aft Hinge Cover - Door 4R (-200) (No. 5R, -300)

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

——— END OF TASK ———

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Emergency Power Assist System (EPAS) Battery Electrical Charge Check
Figure 601/52-12-20-990-827

EFFECTIVITY
ARO ALL; AIRPLANES WITH THE S283W203-6 OR S283W203-7 BATTERY

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EMERGENCY POWER ASSIST SYSTEM (EPAS) ACTUATOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) The removal of the emergency power assist system (EPAS) actuator.

(2) An installation of the emergency power assist system (EPAS) actuator.

TASK 52-12-21-000-801

2. Emergency Power Assist System (EPAS) Actuator Removal

(Figure 401)

A. General

(1) This procedure gives the task to remove the emergency power assist system (EPAS) actuator.

(2) One EPAS actuator is installed on each passenger entry door (PED) 1, 2, 3, 4 and 5. For this procedure, the passenger entry door will be known as PED. The PED 3 door is also known as the over-wing emergency exit door.

B. References

Reference	Title
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
52-12-25-000-802	Hinge Covers Removal (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Removal

SUBTASK 52-12-21-860-010

(1) Make sure the passenger entry door (PED) is in the CLOSED and LOCKED position.

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SUBTASK 52-12-21-040-002

(2) Make sure the mode select handle on the passenger entry door is in the MANUAL/DISARM position.

SUBTASK 52-12-21-010-002

(3) Remove the aft hinge cover and the forward hinge cover to get access to the EPAS battery in the passenger entry doors.

(a) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

SUBTASK 52-12-21-040-003

(4) Turn the safety switch for the EPAS battery pack to the DISARM position.

NOTE: The primary battery pack is located on the door hinge arm.

SUBTASK 52-12-21-010-004

(5) For the PED 3 door (overwing emergency exit door), open the overhead panel above the PED 3 door to get access to the backup battery pack.

(a) Do this task: Overdoor Panel Opening/Removal, TASK 25-21-08-000-801.

SUBTASK 52-12-21-040-007

(6) Turn the safety switch for the backup battery pack to the DISARM position.

SUBTASK 52-12-21-040-001

(7) For the PED 3 door (overwing emergency exit door), disarm the off-wing escape system for the escape slide inflation bottle and the spoiler auxiliary retract device (SARD).

(a) Do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

SUBTASK 52-12-21-490-001

(8) Get the adjustable height cabin and general access stand, STD-1160 into position outboard of the passenger entry door.

SUBTASK 52-12-21-860-004

(9) Turn the PED interior door handle to the OPEN position and open the passenger entry door until the hinge arm is perpendicular to the door.

SUBTASK 52-12-21-490-002

(10) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985 (Figure 402).

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

SUBTASK 52-12-21-980-001

(11) Stand outboard and forward of the passenger entry door to get access to the actuator [12] on the outboard side of the hinge arm [13].

F. Remove the Actuator

SUBTASK 52-12-21-480-001

(1) Install wire [17] and wire [18] between the programming mechanism chain [14] in the locations shown to keep the chain in the correct position.

(a) Refer to the figure: Emergency Power Assist System (EPAS) Actuator Installation/Figure 401.

SUBTASK 52-12-21-020-001

(2) Remove the tube [4] to disconnect the EPAS actuator [12] from the EPAS reservoir [19] as follows:

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(a) Disconnect the tube [4] from the inlet port [5] on the actuator [12].

(b) Disconnect the tube [4] from the outlet port [20] on the reservoir [19].

(c) Install a cover on the inlet port [5], the outlet port [20] and the ends of the tube [4] to prevent contamination.

SUBTASK 52-12-21-020-002

(3) Disconnect the EPAS actuator [12] from the chain end fitting [1]:

(a) Remove the lockwire [15] on the adjuster bushing [2].

(b) Loosen the adjuster bushing [2] to disengage the rod [3]; the chain end fitting [1] has left-hand threads..

(c) Remove the rod [3] from the adjuster bushing [2].

(d) Remove the adjuster bushing [2].

SUBTASK 52-12-21-020-003

(4) Remove the EPAS actuator [12] from the chain end fitting [9]:

(a) Remove the lockwire [7] from the spring pin [8].

(b) Remove the spring pin [8].

(c) Hold the actuator [12] and remove the two trunnion brackets [6].

1) Remove the four bolts [10] and four washers [11] from the two trunnion brackets [6].

(d) Turn the actuator [12] to disengage the rod [3] from the chain end fitting [9].

(e) Remove the actuator [12] from the hinge arm [13].

——— END OF TASK ———

TASK 52-12-21-400-801

3. Emergency Power Assist System (EPAS) Actuator Installation

(Figure 401)

A. General

(1) This procedure gives the task to install the emergency power assist system (EPAS) actuator.

(2) One EPAS actuator is installed on each passenger entry door (PED) 1, 2, 3, 4 and 5. For this procedure, the passenger entry door will be known as PED. The PED 3 door is also known as the over-wing emergency exit door.

B. References

Reference	Title
25-21-08-400-801	Overdoor Panel Installation/Closing (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-00-820-801	Passenger Entry Door Adjustment (P/B 501)
52-12-25-400-802	Hinge Covers Installation (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205

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D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Install the EPAS Actuator

SUBTASK 52-12-21-420-001

(1) Install the EPAS actuator [12].

(a) Hold the actuator [12] in the correct position.

(b) Align the rod [3] with the hole in the chain end fitting [9] and install the spring pin [8].

(c) Install the two trunnion brackets [6] on the actuator [12].

1) Install the four bolts [10] and washers [11] through the two trunnion brackets [6] and into the actuator [12].

(d) Install the lockwire [7] on the spring pin [8].

SUBTASK 52-12-21-420-002

(2) Connect the EPAS actuator [12] to the chain end fitting [1].

(a) Push the rod [3] into the actuator [12] to make clearance to turn the adjuster bushing [2].

(b) Install adjuster bushing [2] on the rod [3].

(c) Turn the adjuster bushing [2] on the rod [3] 9.5 ±0.5 turns.

(d) Tighten the adjuster bushing [2] in to the chain end fitting [1] until there is tension in the programming mechanism chain [14].

NOTE: The chain end fitting [1] has left-hand threads.

(e) Remove the wire [17] and wire [18] between the programming mechanism chain [14].

(f) Do this task: Passenger Entry Door Adjustment, TASK 52-12-00-820-801.

NOTE: Only do the Programming Mechanism Chain Pre-Tension Adjustment.

(g) Install the lockwire [15] on the adjuster bushing [2].

SUBTASK 52-12-21-420-003

(3) Connect the EPAS actuator [12] to the EPAS reservoir [19].

(a) Remove the covers on the outlet port [20], the inlet port [5] and ends of the tube [4].

(b) Connect the tube [4] to the outlet port [20] on the reservoir [19].

(c) Connect the tube [4] to the inlet port [5] on the actuator [12].

F. Installation Test

SUBTASK 52-12-21-710-001

(1) Do a test on the EPAS actuator [12] as follows:

(a) Open and close the passenger entry door.

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(b) Make sure the programming mechanism chain [14] and actuator [12] operate correctly.

(c) Make sure the chain end fitting [1] and the chain end fitting [9] do not touch the hinge arm sprockets for the programming mechanism chain [14].

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-21-080-001

(1) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985 (Figure 402).

SUBTASK 52-12-21-440-002

(2) For the PED 3 door (overwing emergency exit door), arm the off-wing escape system for the escape slide inflation bottle and the spoiler auxiliary retract device (SARD).

(a) Do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

SUBTASK 52-12-21-440-003

(3) Turn the safety switch for the EPAS battery pack to the ARM position.

SUBTASK 52-12-21-410-003

(4) Install the aft hinge cover and the forward hinge cover.

(a) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

SUBTASK 52-12-21-440-004

(5) Turn the safety switch for the backup battery pack to the ARM position.

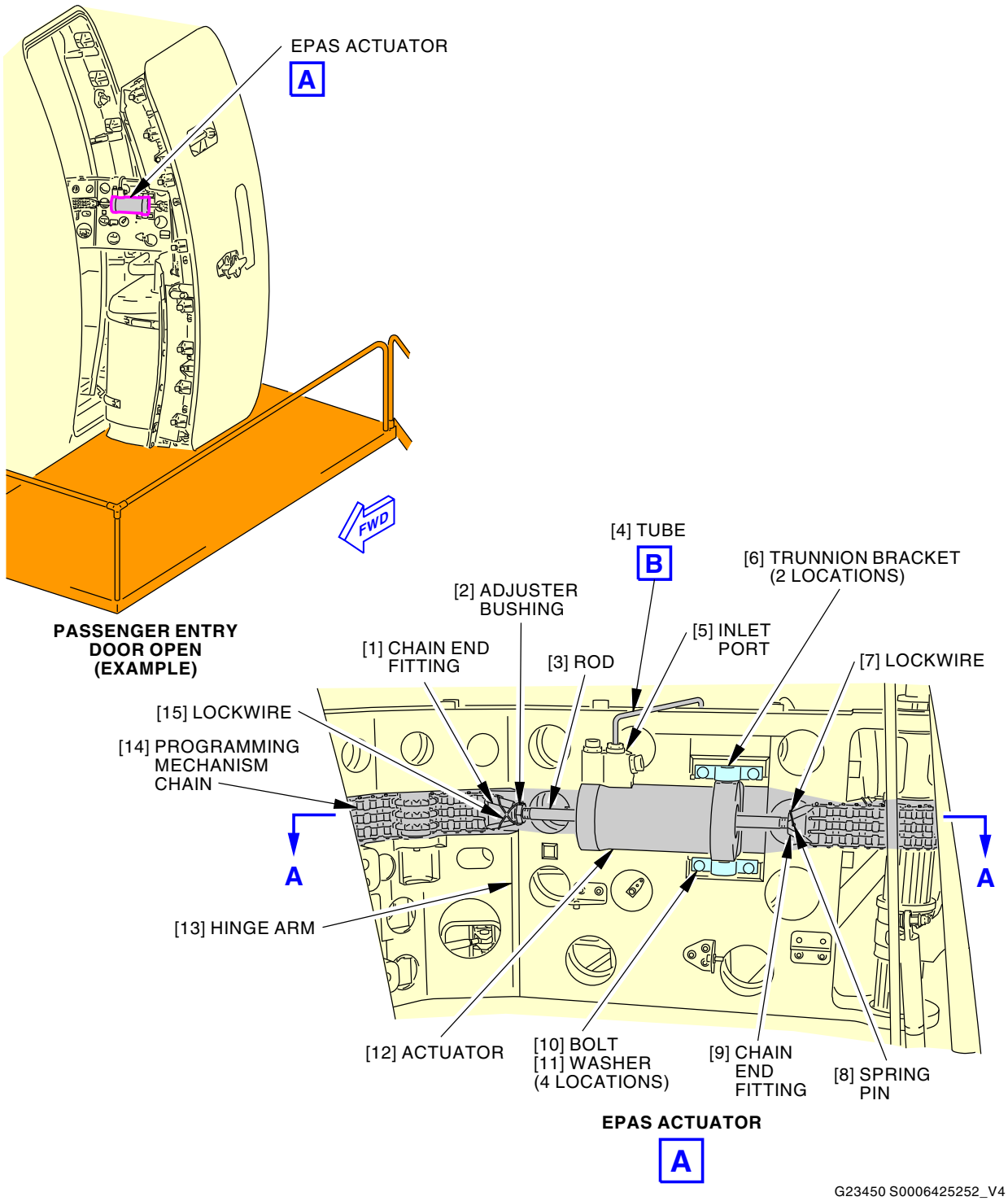
SUBTASK 52-12-21-410-004

(6) For the PED 3 door (overwing emergency exit door), close the overhead panel above the PED 3 door.

(a) Do this task: Overdoor Panel Installation/Closing, TASK 25-21-08-400-801.

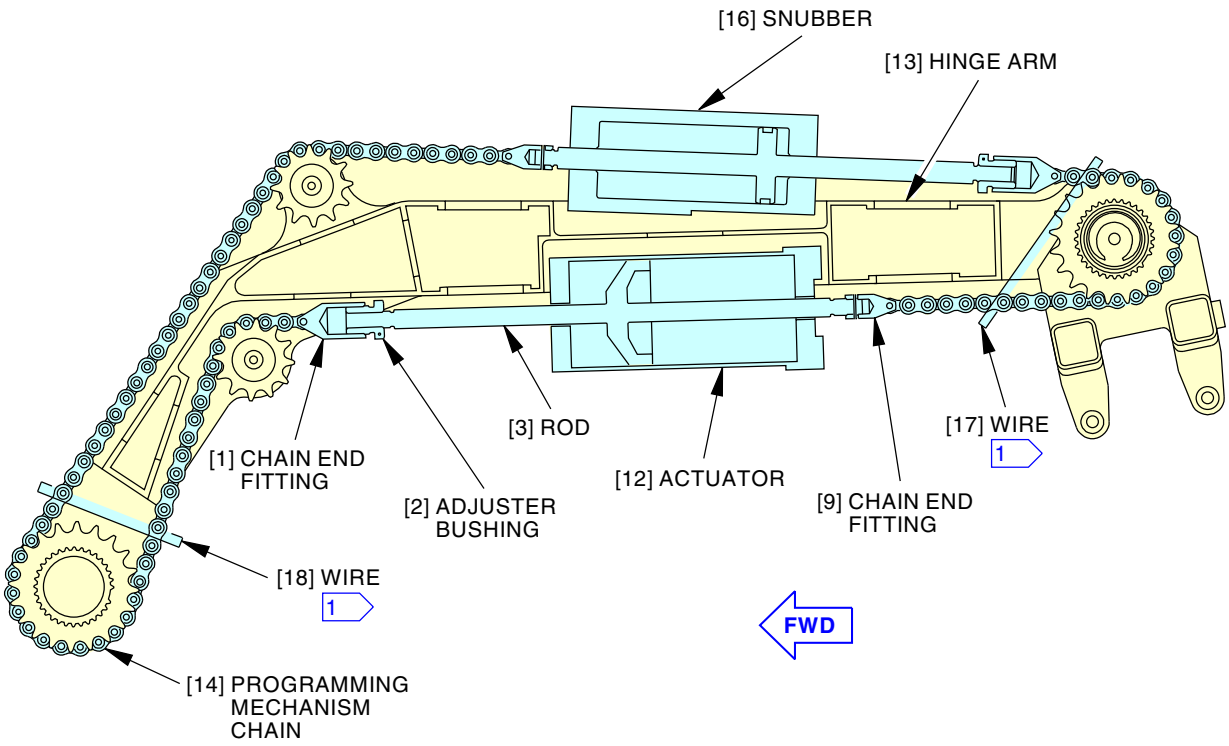
——— END OF TASK ———

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Emergency Power Assist System (EPAS) Actuator Installation
Figure 401/52-12-21-990-801 (Sheet 1 of 3)

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(DOOR CLOSED POSITION)

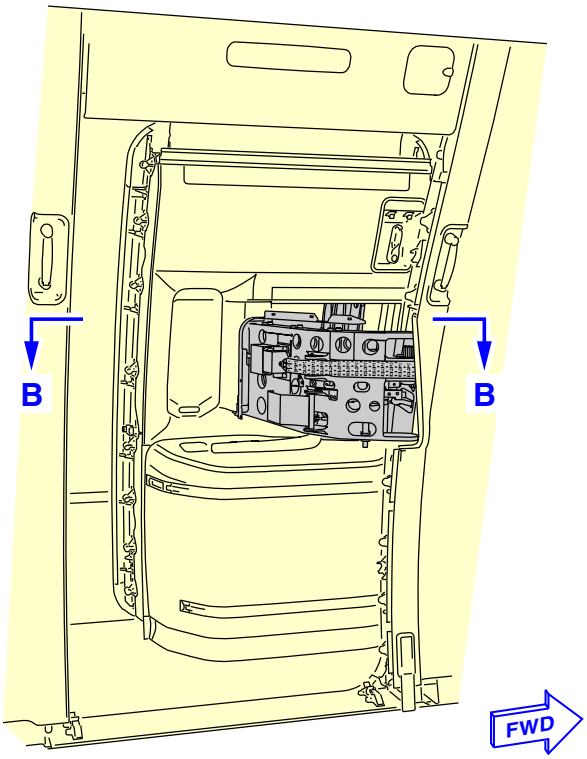
A-A

1 INSTALL A WIRE AT THIS LOCATION TO KEEP PROGRAMMING MECHANISM CHAIN IN ITS CORRECT POSITION.

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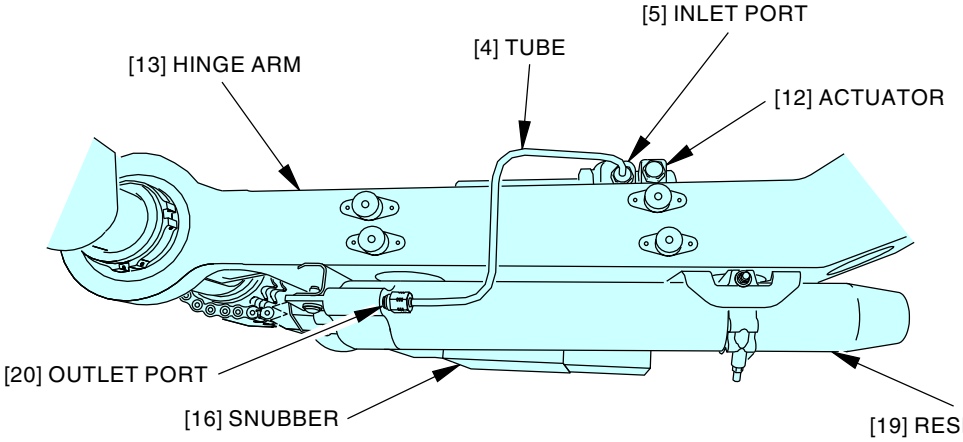
Emergency Power Assist System (EPAS) Actuator Installation
Figure 401/52-12-21-990-801 (Sheet 2 of 3)

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**PASSENGER ENTRY DOOR OPEN
(VIEW LOOKING OUTBOARD)
(EXAMPLE)**

B

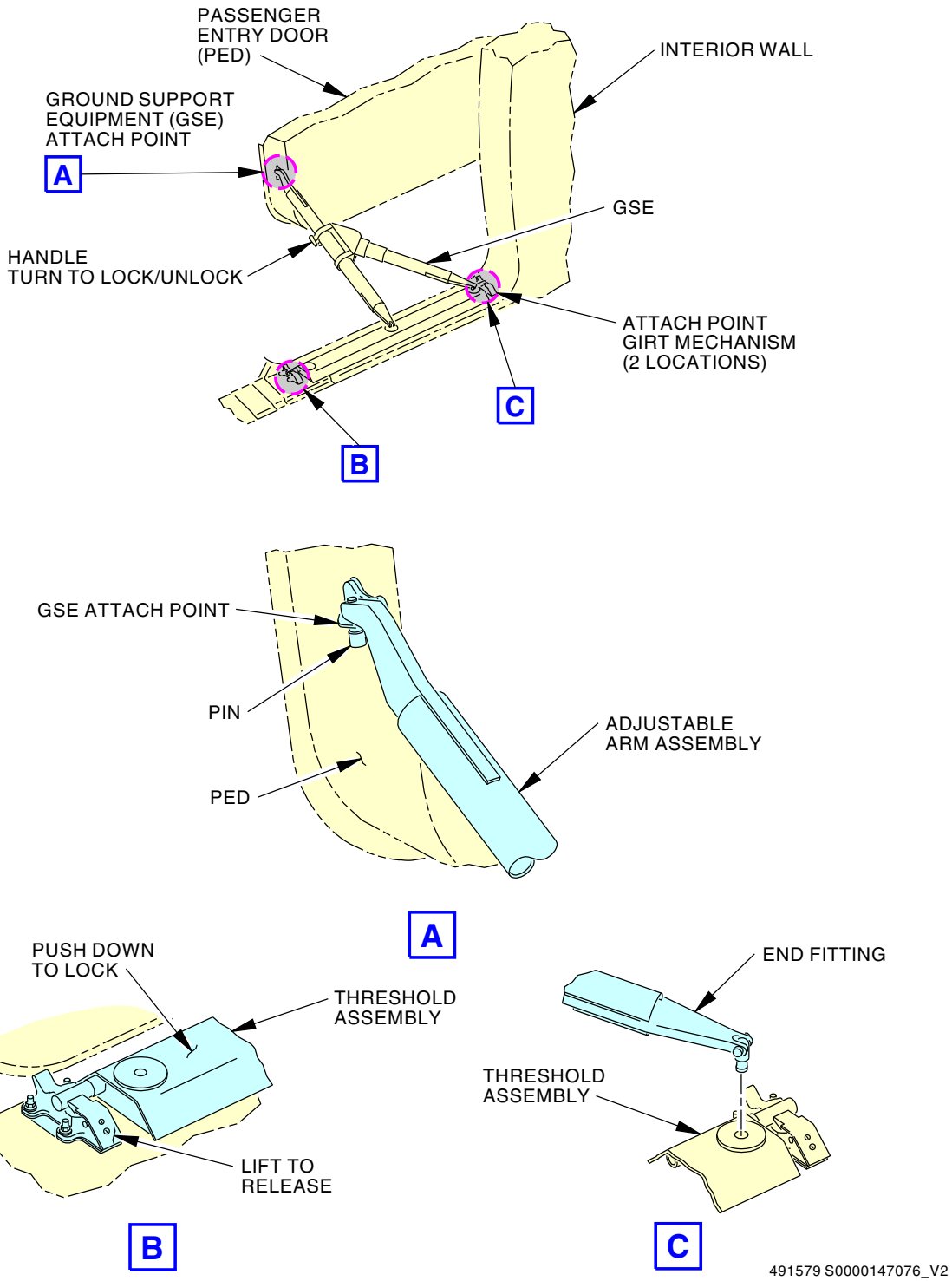


B-B

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**Emergency Power Assist System (EPAS) Actuator Installation
Figure 401/52-12-21-990-801 (Sheet 3 of 3)**

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Passenger Entry Door Hold Open Equipment J52001
Figure 402/52-12-21-990-803

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EMERGENCY POWER ASSIST SYSTEM (EPAS) ACTUATOR TUBING - INSPECTION/CHECK

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has this task:

(1) The check of the tubing between the EPAS actuator and the EPAS pneumatic reservoir.

TASK 52-12-21-212-801

2. EPAS Actuator Tubing Check

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is for does a check of the tube that connects the emergency power assist system (EPAS) actuator to the EPAS pneumatic reservoir.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-21-000-801	Emergency Power Assist System (EPAS) Actuator Removal (P/B 401)
52-12-21-400-801	Emergency Power Assist System (EPAS) Actuator Installation (P/B 401)
52-12-25-000-802	Hinge Covers Removal (P/B 201)
52-12-25-400-802	Hinge Covers Installation (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46

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(Continued)

Zone	Area
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Procedure

SUBTASK 52-12-21-490-003

(1) Make sure the adjustable height cabin and general access stand, STD-1160 is outboard of the door.

SUBTASK 52-12-21-860-005

(2) Make sure the applicable left or right passenger entry door (PED) 1, 2, 3, 4 or 5 is CLOSED and LOCKED.

SUBTASK 52-12-21-040-004

(3) Turn the mode select handle to the MANUAL/DISARM position.

SUBTASK 52-12-21-010-003

(4) Remove the forward hinge cover and the aft hinge cover to get access to the safety switch for the EPAS battery pack.

(a) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

SUBTASK 52-12-21-040-005

(5) For PED 1, 2, 4, and 5, turn the safety switch for the EPAS battery pack to the DISARM position.

SUBTASK 52-12-21-040-006

(6) For the PED 3 (overwing emergency exit door), disarm the EPAS battery pack on PED 3 and the backup battery pack on the overhead panel.

NOTE: This procedure will turn the safety switch for the EPAS battery pack on PED 3 and the backup battery pack on the overhead panel to the DISARM position and disarm the inflation bottle for the escape slide. It is not necessary to disarm the escape slide compartment door latch actuator.

(a) Do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

SUBTASK 52-12-21-860-007

(7) Turn the PED interior door handle to the OPEN position.

(a) Open the door until the hinge arm is perpendicular to the door.

(b) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985.

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

F. Procedure

SUBTASK 52-12-21-211-001

(1) Examine the tube that connects the EPAS reservoir to the EPAS actuator for wear or damage.

(a) If the tube is worn or damaged, replace the tube.

1) Do this task: Emergency Power Assist System (EPAS) Actuator Removal, TASK 52-12-21-000-801.

2) Do this task: Emergency Power Assist System (EPAS) Actuator Installation, TASK 52-12-21-400-801.

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G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-21-080-002

(1) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985.

SUBTASK 52-12-21-860-008

(2) Close the applicable left or right passenger entry door (PED) 1, 2, 3, 4 or 5.

SUBTASK 52-12-21-860-009

(3) Turn the PED interior door handle to the CLOSED and LOCKED position.

SUBTASK 52-12-21-440-001

(4) For PED 1, 2, 4, or 5, turn the safety switch for the EPAS battery to the ARM position.

SUBTASK 52-12-21-410-002

(5) Install the forward hinge cover and the aft hinge cover on the PED.

(a) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

NOTE: If the EPAS battery switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-21-860-006

(6) For PED 3 (overwing emergency exit door), arm the escape system.

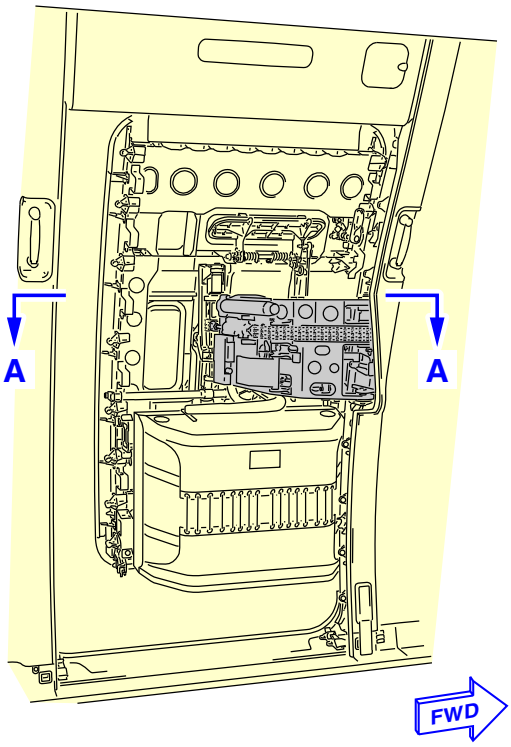
(a) Do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

SUBTASK 52-12-21-090-001

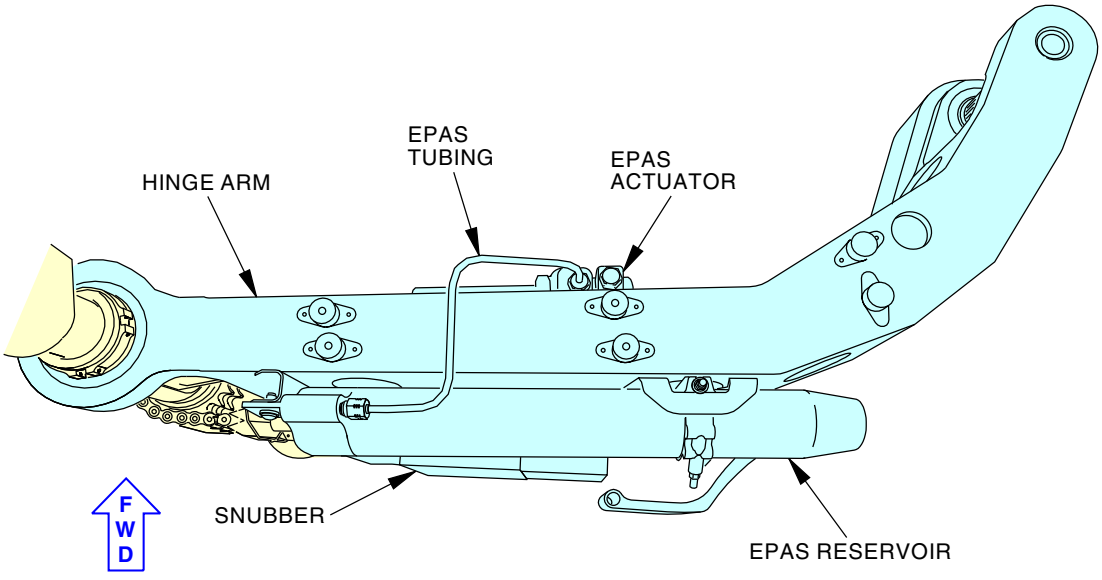
(7) Remove the adjustable height cabin and general access stand, STD-1160.

——— END OF TASK ———

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**PASSENGER ENTRY DOOR
(EXAMPLE)**



M94479 S0006425247_V2

**Emergency Power Assist System (EPAS) Tubing Check
Figure 601/52-12-21-990-802**

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EMERGENCY POWER ASSIST SYSTEM (EPAS) RESERVOIR - REMOVAL/INSTALLATION

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) The removal of the emergency power assist system (EPAS) reservoir.

(2) An installation of the emergency power assist system (EPAS) reservoir.

TASK 52-12-22-000-801

2. Emergency Power Assist System (EPAS) Reservoir Removal

(Figure 401)

A. General

(1) This procedure gives the task to remove the emergency power assist system (EPAS) pneumatic reservoir.

(2) One EPAS pneumatic reservoir is installed on each passenger entry door (PED) 1, 2, 3, 4 and 5. For this procedure, the passenger entry door will be known as PED. The PED 3 door is also known as the over-wing emergency exit door.

(3) The EPAS battery pack on each passenger entry door (PED) 1, 2, 3, 4 and 5, fires the squib on the pneumatic reservoir and the escape slide.

(4) The squibs are electro-explosive devices (EED). Maintenance personnel that touch the EED must use wrist straps to ground themselves to a ground point. These persons must wear clothes that make a small static electrical charge such as cotton or cotton/synthetic blends. Do not wear all wool clothing, all nylon clothing or all synthetic clothing. Remove reflective outerwear such as visual safety vests or coats before you touch the EED or disconnect or connect wire bundles.

B. References

Reference	Title
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
52-12-25-000-802	Hinge Covers Removal (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1565	Strap - Adjustable Wrist, Conductive, Static Control Part #: 09070 Supplier: 62576 Part #: 14810 Supplier: 62576 Part #: 2214 Supplier: 55203 Opt Part #: 2211 Supplier: 55203 Opt Part #: 2212 Supplier: 55203 Opt Part #: 2213 Supplier: 55203
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

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D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Removal

SUBTASK 52-12-22-860-001

(1) Make sure the passenger entry door is closed and latched.

SUBTASK 52-12-22-860-005

(2) Make sure the mode select handle [12] on the passenger entry door is in the MANUAL/DISARM position.

SUBTASK 52-12-22-010-001

(3) Get access to the EPAS battery in the passenger entry doors.

(a) For the PED 1, 2, 3, 4 and 5 door, remove the aft hinge cover and the forward hinge cover.

1) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

(b) For the PED 3 door (overwing emergency exit door), open the overhead panel above the PED 3 door to get access to the backup battery.

1) Do this task: Overdoor Panel Opening/Removal, TASK 25-21-08-000-801.

SUBTASK 52-12-22-040-001

(4) For the PED 1, 2, 3, 4 and 5 door, turn the safety switch [9] for the EPAS battery pack [10] to the DISARM position.

NOTE: The battery pack is located on the door hinge arm.

SUBTASK 52-12-22-040-002

(5) For the PED 3 door (overwing emergency exit door), disarm the off-wing escape system for the escape slide inflation bottle and the spoiler auxiliary retract device (SARD).

(a) Do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: This procedure will turn the safety switch for the backup EPAS battery to the DISARM position. It is not necessary to disarm the escape slide compartment door latch actuator.

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F. Remove the EPAS Reservoir

SUBTASK 52-12-22-860-002

WARNING PUT ON A WRIST STRAP THAT IS ATTACHED TO A GROUND BEFORE YOU MAKE ELECTRICAL CONNECTIONS TO AN ELECTRICAL EXPLOSIVE DEVICE. STATIC ELECTRICITY CAN CAUSE AN EXPLOSION.

(1) Before you touch a squib, put on a static control wrist strap, COM-1565 so that it touches your skin, then connect it to an electrical ground.

SUBTASK 52-12-22-020-001

WARNING PUT CAPS ON THE BOTTLE SQUIBS AND FLOW VALVE SQUIBS. IF YOU DO NOT PUT CAPS ON THE SQUIBS, THE SQUIBS CAN FIRE ACCIDENTALLY AND CAUSE INJURIES TO PERSONNEL.

(2) Remove the EPAS reservoir [5].

(a) Disconnect the electrical connector [11] from the squib on the EPAS reservoir [5] and install the protective cap on the squib.

NOTE: The protective cap is stored on a bracket below the snubber and next to the EPAS battery electrical connector on the passenger entry door. If the protective cap is not on the storage bracket, use a shorting cap.

(b) Remove the tube [4].

1) Open the passenger entry door for access to the EPAS actuator [14] if it is necessary.

a) Get the adjustable height cabin and general access stand, STD-1160 into position outboard of the passenger entry door.

b) Make sure the mode select switch on the passenger entry door is in the MANUAL/DISARM position.

c) Make sure the safety switch on the primary EPAS battery is in the DISARM position.

2) Remove the tube [4] from the inlet port [13] of the EPAS actuator [14] on the other side of the hinge arm [7].

3) Remove the tube [4] from the outlet port [3] on the reservoir [5].

4) Install a protective cover on the inlet port [13] on the actuator [14], the outlet port [3] on the reservoir [5] and the tube [4] to prevent contamination.

5) Close and latch the passenger entry door.

(c) Hold the reservoir [5] and disconnect the clamp [6] from the reservoir.

(d) Remove the two bolts [1] and two washers [2] that attach the reservoir [5] to the hinge arm [7].

(e) Remove the reservoir [5].

END OF TASK

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TASK 52-12-22-400-801

3. Emergency Power Assist System (EPAS) Reservoir Installation

(Figure 401)

A. General

(1) This procedure gives the task to install the Emergency Power Assist System (EPAS) pneumatic reservoir.

(2) One EPAS pneumatic reservoir is installed on each passenger entry door (PED) 1, 2, 3, 4 and 5. For this procedure, the passenger entry door will be known as PED. The PED 3 door is also known as the over-wing emergency exit door.

(3) The EPAS battery pack on each passenger entry door (PED) 1, 2, 3, 4 and 5, fires the squib on the pneumatic reservoir.

(4) The squibs are electro-explosive devices (EED). Maintenance personnel that touch the EED must use wrist straps to ground themselves to a ground point. These persons must wear clothes that make a small static electrical charge such as cotton or cotton/synthetic blends. Do not wear all wool clothing, all nylon clothing or all synthetic clothing. Remove reflective outerwear such as visual safety vests or coats before you touch the EED or disconnect or connect wire bundles.

B. References

Reference	Title
25-21-08-400-801	Overdoor Panel Installation/Closing (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-19-710-801	Emergency Power Assist System (EPAS) Squib Test (PED 3) (P/B 501)
52-12-20-700-802-002	Emergency Power Assist System (EPAS) Battery Operational Test (PED 1, 2, 4, 5) (P/B 501)
52-12-22-200-801	Emergency Power Assist System (EPAS) Reservoir Pressure Level Check (P/B 601)
52-12-25-400-802	Hinge Covers Installation (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1565	Strap - Adjustable Wrist, Conductive, Static Control Part #: 09070 Supplier: 62576 Part #: 14810 Supplier: 62576 Part #: 2214 Supplier: 55203 Opt Part #: 2211 Supplier: 55203 Opt Part #: 2212 Supplier: 55203 Opt Part #: 2213 Supplier: 55203

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(Continued)

Reference	Description
COM-1793	Multimeter - Digital/Analog (or equivalent meter meets task requirements) Part #: 117 Supplier: 89536 Part #: 260-8XPI Supplier: 55026 Part #: 287 Supplier: 89536 Part #: 289 Supplier: 89536 Part #: 87V Supplier: 89536 Part #: FLUKE 27 II Supplier: 89536 Part #: FLUKE-77-4 Supplier: 89536 Opt Part #: 187 Supplier: 89536 Opt Part #: 189 Supplier: 89536 Opt Part #: 260 Supplier: 55026 Opt Part #: 27 Supplier: 89536 Opt Part #: 77 SERIES III Supplier: 89536 Opt Part #: 87 Supplier: 89536 Opt Part #: FLUKE 27 Supplier: 89536 Opt Part #: MODEL 27 Supplier: 89536
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Consumable Materials

Reference	Description	Specification
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796 Class III

E. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

F. Install the EPAS Reservoir

SUBTASK 52-12-22-210-002

(1) Do a check of the pressure in the reservoir [5].

(a) Do this task: Emergency Power Assist System (EPAS) Reservoir Pressure Level Check, TASK 52-12-22-200-801.

NOTE: The reservoir [5] has a pressure gage which compensates for the temperature. This makes the GO band move when the temperature changes.

SUBTASK 52-12-22-420-001

(2) Install the EPAS reservoir [5].

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(a) Apply the corrosion preventive compound, C00528 to all areas of the holes including any countersink, counterbore, or other recess, and immediately install the fasteners in the next step.

(b) Hold the reservoir [5] in the correct position and install the two bolts [1] and two washers [2].

(c) Install the clamp [6] around the reservoir [5].

1) Tighten the nut on the clamp to 23.0 in-lb (2.60 N·m) - 27.0 in-lb (3.05 N·m).

(d) Remove the protective cover on the inlet port [13] on the actuator [14], the outlet port [3] on the reservoir [5] and the tube [4].

(e) Install the tube [4] between the EPAS actuator and the reservoir [5] if it is necessary.

1) Open the passenger entry door for access to the EPAS actuator [14].

a) Get the adjustable height cabin and general access stand, STD-1160 into position outboard of the passenger entry door.

b) Make sure the mode select switch on the passenger entry door is in the MANUAL/DISARM position.

c) Make sure the safety switch on the primary EPAS battery is in the DISARM position.

2) Install the tube [4] to the outlet port [3] on the reservoir [5].

a) Tighten the tube nut to 76 in-lb (8.6 N·m) - 84 in-lb (9.5 N·m).

3) Install the tube [4] to the inlet port [13] of the EPAS actuator [14] on the other side of the hinge arm [7].

a) Tighten the tube nut to 76 in-lb (8.6 N·m) - 84 in-lb (9.5 N·m).

4) Close and latch the passenger entry door.

SUBTASK 52-12-22-420-002

WARNING PUT ON A WRIST STRAP THAT IS ATTACHED TO A GROUND BEFORE YOU MAKE ELECTRICAL CONNECTIONS TO AN ELECTRICAL EXPLOSIVE DEVICE. STATIC ELECTRICITY CAN CAUSE AN EXPLOSION.

(3) Before you touch a squib, put on a static control wrist strap, COM-1565 so that it touches your skin, then connect it to an electrical ground.

SUBTASK 52-12-22-420-003

(4) Connect the electrical connector [11] to the reservoir [5].

NOTE: You must be careful when you connect the electrical connectors to the squib. When examined, the electrical connector can appear to be completely engaged. However, a bent pin in the connector will not let the squib fire. You must straighten any bent pins in the squib.

(a) Make sure the pins in the electrical connector [11] are straight and the electrical connector is not damaged.

(b) Use the digital/analog multimeter, COM-1793 to make sure there is no stray voltage in the electrical connector [11] before you connect it to the squib on the reservoir [5].

(c) Remove the protective cap from the squib.

NOTE: Store the protective cap on the hinge arm below the snubber.

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CAUTION

BE CAREFUL WHEN YOU CONNECT THE ELECTRICAL CONNECTOR. DAMAGE TO THE PINS IN THE CONNECTOR CAN EASILY OCCUR.

(d) Connect the electrical connector [11] to the squib on the reservoir [5].

G. Installation Test

SUBTASK 52-12-22-760-001

(1) Do a EPAS reservoir squib continuity test.

(a) For PED 1, 2, 4, 5, do this task: Emergency Power Assist System (EPAS) Battery Operational Test (PED 1, 2, 4, 5), TASK 52-12-20-700-802-002.

(b) For PED 3 (overwing emergency exit door), do this task: Emergency Power Assist System (EPAS) Squib Test (PED 3), TASK 52-12-19-710-801.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-22-440-001

(1) Arm the passenger entry door as follows:

(a) For PED 1, 2, 4, and 5, turn the safety switch [9] on the EPAS battery to the ARM position.

(b) For the PED 3 (overwing emergency exit door), arm the off-wing escape system for the escape slide inflation bottle and the spoiler auxiliary retract device (SARD).

1) Do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

NOTE: This procedure will turn the safety switch for the backup EPAS battery to the ARM position.

SUBTASK 52-12-22-410-003

(2) Close the access to the EPAS battery in the passenger entry doors.

(a) For the PED 1, 2, 3, 4 and 5 door, install the aft hinge cover and the forward hinge cover.

1) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

(b) For the PED 3 door (overwing emergency exit door), close the overhead panel above the PED 3 door.

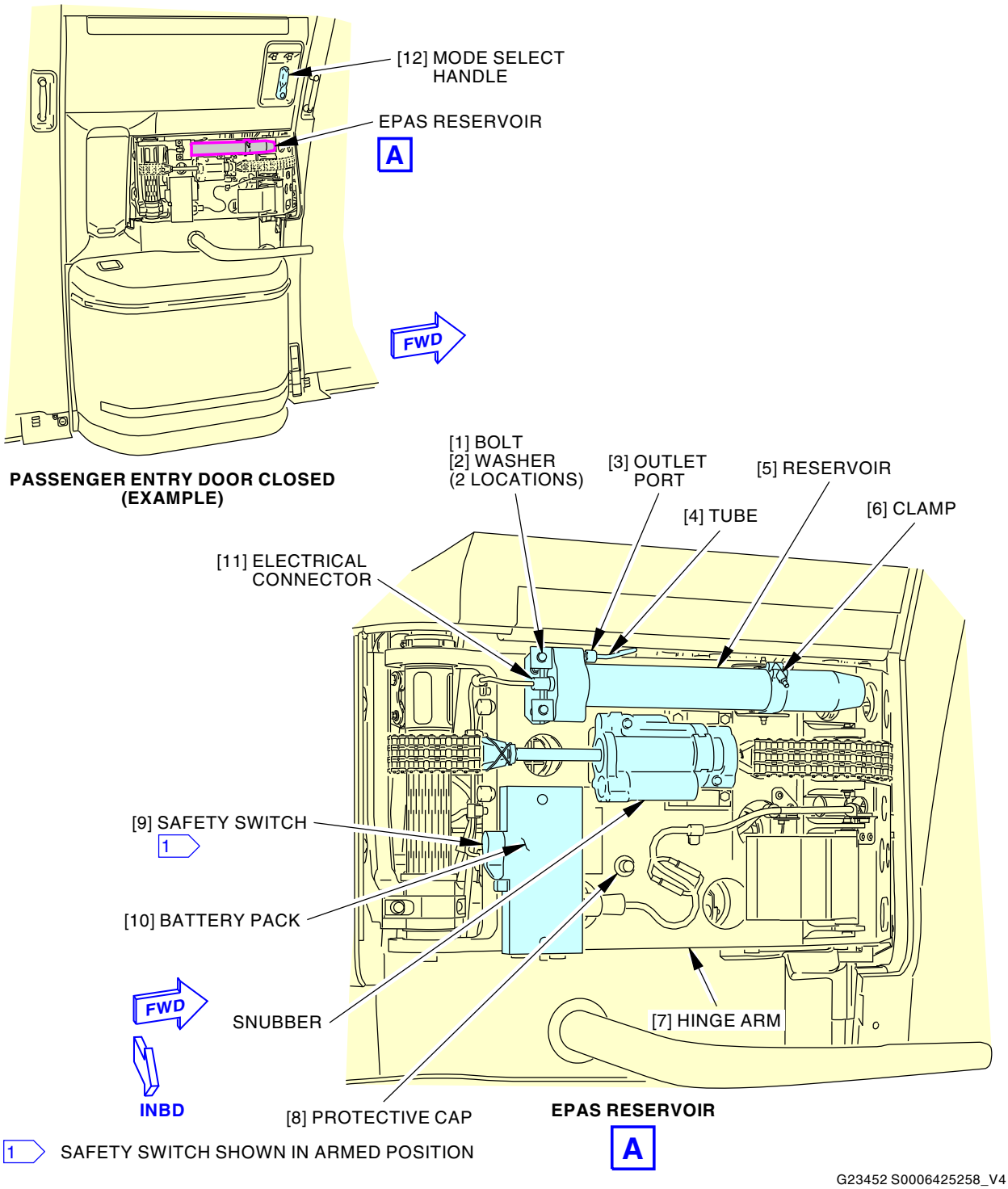
1) Do this task: Overdoor Panel Installation/Closing, TASK 25-21-08-400-801.

SUBTASK 52-12-22-090-001

(3) Remove the adjustable height cabin and general access stand, STD-1160.

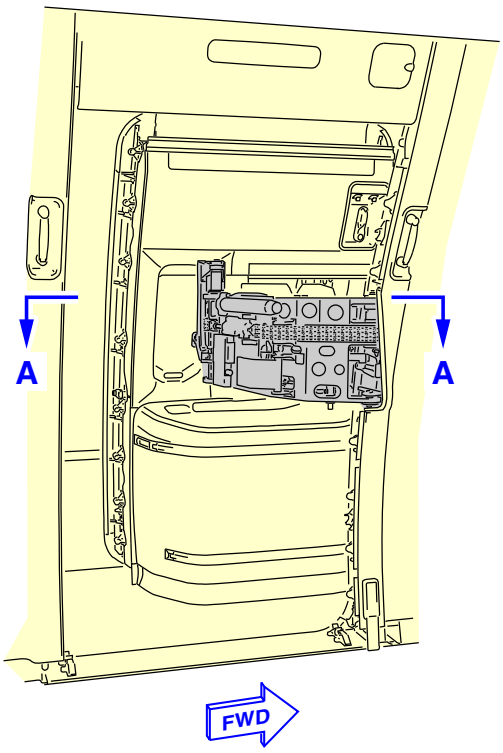
——— END OF TASK ———

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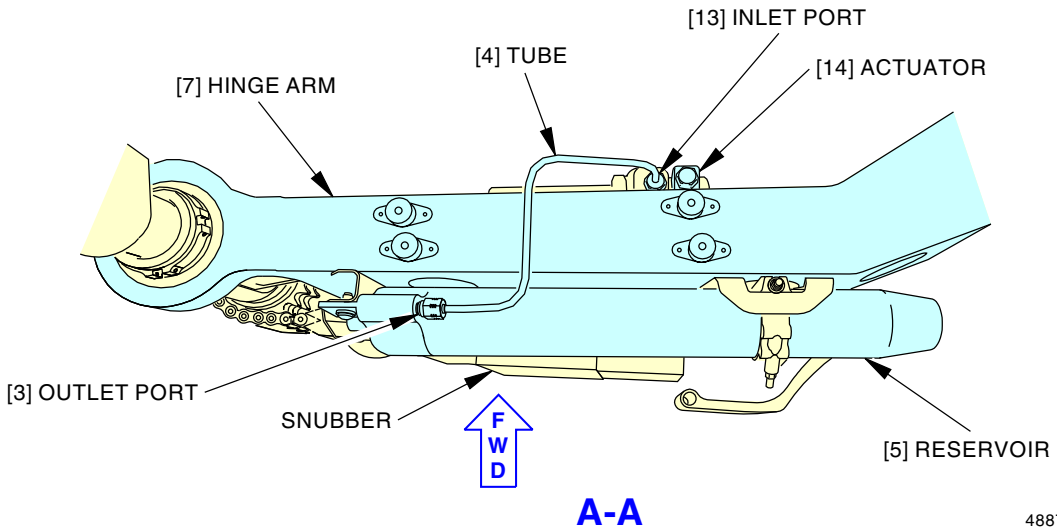


Emergency Power Assist System (EPAS) Reservoir Installation
Figure 401/52-12-22-990-802 (Sheet 1 of 2)

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**PASSENGER ENTRY DOOR OPEN
(EXAMPLE)**



**Emergency Power Assist System (EPAS) Reservoir Installation
Figure 401/52-12-22-990-802 (Sheet 2 of 2)**

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EMERGENCY POWER ASSIST SYSTEM (EPAS) RESERVOIR - INSPECTION/CHECK

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A check of the emergency power assist system (EPAS) reservoir.

TASK 52-12-22-200-801

2. Emergency Power Assist System (EPAS) Reservoir Pressure Level Check

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

B. Procedure

SUBTASK 52-12-22-210-001

(1) Do a check on the EPAS reservoir pressure level as follows:

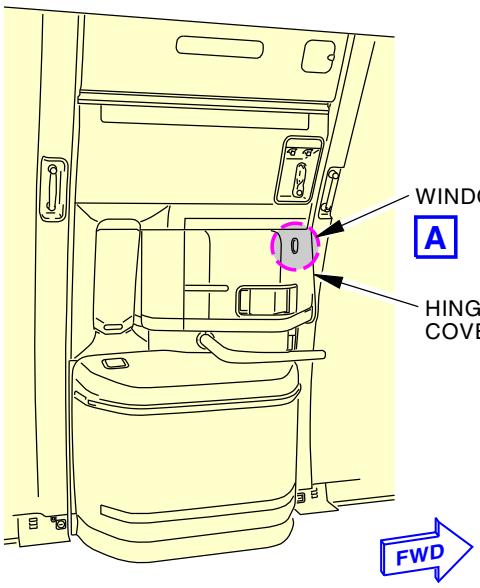
(a) Look through the window in the hinge cover at the reservoir pressure gage.

(b) Make sure the pressure indicator needle is in the GO band (green).

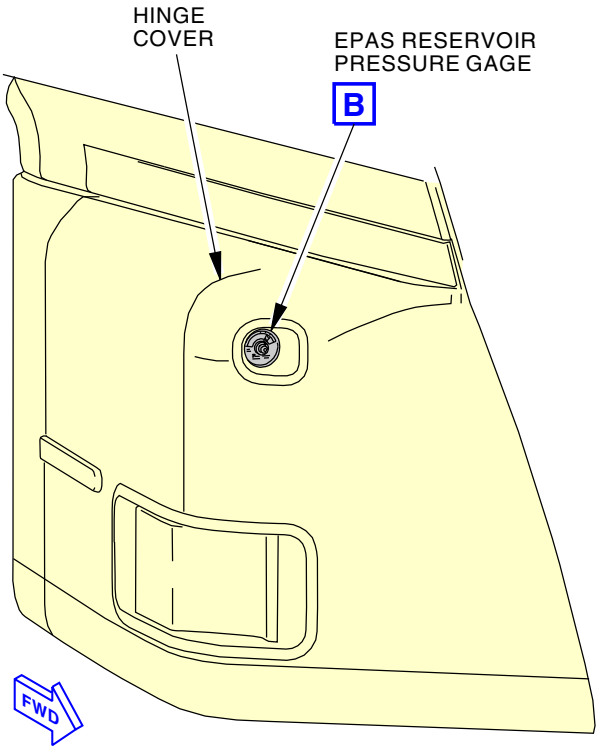
NOTE: The reservoir has a temperature compensating pressure gage. This makes the GO band move when the temperature changes.

END OF TASK

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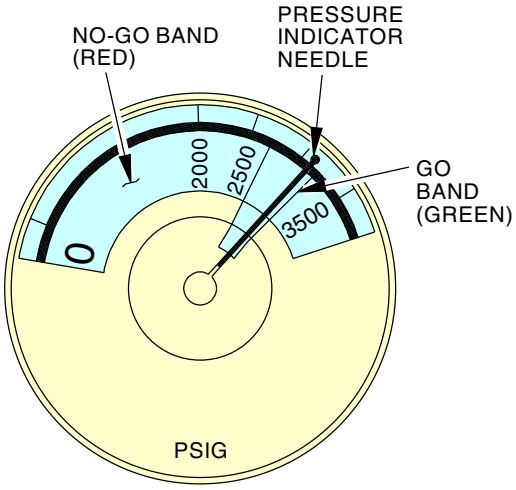


PASSENGER ENTRY DOOR (EXAMPLE)



WINDOW

A



EPAS RESERVOIR PRESSURE GAGE

B

G23454 S0006425261_V2

Emergency Power Assist System (EPAS) Reservoir Pressure Level Check
Figure 601/52-12-22-990-801

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BACKUP BATTERY SWITCH - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the off-wing escape system backup switch.

(2) An installation of the off-wing escape system backup switch.

TASK 52-12-23-000-801

2. Over Wing Escape System Backup Battery Switch Removal

(Figure 401)

A. General

(1) This procedure gives the task to remove the backup battery switch for the backup emergency power assist system (EPAS) battery.

(2) One backup battery switch is installed over each passenger entry door (PED) 3. For this procedure, the passenger entry door will be known as PED. The PED 3 door is also known as the over-wing emergency exit door.

(3) The backup EPAS battery pack on the passenger entry door (PED) 3 fires the squibs on the overwing escape slide and spoiler auxiliary retract device (SARD).

B. References

Reference	Title
25-21-02-000-801	Doorway Lining Removal (P/B 401)
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)

C. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Location Zones

Zone	Area
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

E. Prepare for the Removal

SUBTASK 52-12-23-865-001

(1) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

SUBTASK 52-12-23-040-001

(2) Make sure the off-wing escape system is safe as follows:

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(a) Do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the off-wing escape slide compartment door latch actuator.

SUBTASK 52-12-23-010-001

(3) Remove the upper lining [12] above the PED 3 door to get access to the backup switch for the backup EPAS battery.

(a) Do this task: Doorway Lining Removal, TASK 25-21-02-000-801.

F. Remove the Backup Switch

SUBTASK 52-12-23-020-001

(1) Remove the backup switch [1].

NOTE: The backup switch can be removed without the removal of the trigger cable and the web fabric pull handle.

(a) Disconnect the electrical connector [5] from the backup switch [1].

(b) Remove the locknut [3] that holds the trigger cable [4] on the switch arm [2].

(c) Turn the threaded end of the trigger cable [4] to disengage the cable from the switch arm [2].

(d) Remove the four bolts [6] and four washers [7] that attach the backup switch [1] box to the fuselage sill beam fittings.

(e) Remove the backup switch [1] and shim [11].

SUBTASK 52-12-23-010-002

(2) Remove the pull handle [9] and trigger cable [4] if it is necessary.

NOTE: The web fabric pull handle is attached to the trigger cable. A fabric cover with hook and loop material (velcro strips) is attached to the bottom of the drip shield. The web fabric pull handle is stored in the fabric cover.

(a) Open the passenger entry door for access to the fabric cover [14] on the bottom of the drip shield [8].

1) Get the adjustable height cabin and general access stand, STD-1160 into position outboard of the passenger entry door.

2) Make sure the mode select switch [13] on the passenger entry door is in the MANUAL/DISARM position.

3) Make sure the safety switch on the backup EPAS battery is in the DISARM position.

(b) Pull down the outboard edge of the fabric cover [14] on the bottom of the drip shield [8] to get access the pull handle [9].

NOTE: The nomenclature on the cover is: TO INFLATE SLIDE; PULL DOWN COVER; PULL HANDLE.

(c) Pull the pull handle [9] from the hook and loop material (velcro strips) on the fabric cover [14].

(d) Pull the pull handle [9] to pull the trigger cable [4] through the holes in the drip shield [8] and the sill beam [10].

(e) Close the passenger entry door.

——— END OF TASK ———

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TASK 52-12-23-400-801

3. Over Wing Escape System Backup Battery Switch Installation

(Figure 401)

A. General

(1) This procedure gives the task to install the backup battery switch for the backup emergency power assist system (EPAS) battery.

(2) One backup battery switch is installed over each passenger entry door (PED) 3. For this procedure, the passenger entry door will be known as PED. The PED 3 door is also known as the over-wing emergency exit door.

(3) The backup EPAS battery pack on the passenger entry door (PED) 3 fires the squibs on the overwing escape slide and spoiler auxiliary retract device (SARD).

B. References

Reference	Title
25-21-02-400-801	Doorway Lining Installation (P/B 401)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)

C. Tools/Equipment

Reference	Description
STD-1097	Caliper - Vernier, 0-6 inch, Readable to 1/1000 inch
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Consumable Materials

Reference	Description	Specification
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

E. Location Zones

Zone	Area
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

F. Install the Backup Switch

SUBTASK 52-12-23-420-001

(1) Install the backup switch [1].

NOTE: The backup switch can be removed without the removal of the trigger cable and the web fabric pull handle.

(a) Remove the locknut [3] and trigger cable [4] from the new switch before the installation.

(b) Install the shim [11] between the box of the backup switch [1] and the fittings on the sill beam [10] if it is necessary.

1) Put the backup switch [1] in position and measure the gap between the switch box and the fittings on the sill beam with a vernier caliper (0 - 6 inch, readable to 1/1000 inch), STD-1097.

2) Remove the 0.003 inch (0.076 millimeter) thick laminations to adjust the shim thickness.

3) Apply primer, C00259 to the shim after you have removed the laminations and have a final shim thickness.

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a) Mix the two-component primer by volume to the ratios given by the primer manufacturer; do not mix components from different manufacturers.

4) It is permitted to install the shim with wet primer.

(c) Install the four bolts [6] and four washers [7] through the shim [11] to attach the backup switch [1] box to the fuselage sill beam fittings.

(d) Connect the electrical connector [5] to the backup switch [1].

SUBTASK 52-12-23-420-002

(2) Install the pull handle [9] and trigger cable [4].

(a) To install a new pull handle [9] and trigger cable [4] through the drip shield [8] and the sill beam [10], do these steps:

1) Open the passenger entry door for access to the fabric cover [14] on the bottom of the drip shield [8].

a) Make sure the adjustable height cabin and general access stand, STD-1160 into position outboard of the passenger entry door.

b) Make sure the mode select switch [13] on the passenger entry door is in the MANUAL/DISARM position.

c) Make sure the safety switch on the backup EPAS battery is in the DISARM position.

2) Open the fabric cover [14] on the bottom of the drip shield [8].

3) Push the threaded stud of the trigger cable [4] up through the access hole in the fabric cover [14] and the drip shield [8] and the sill beam [10].

NOTE: The trigger cable is installed up from below the sill beam. The web fabric pull handle is attached to the trigger cable. A threaded stud is swagged to the other end of the cable. A fabric cover with hook and loop material (velcro strips) is attached to the bottom of the drip shield with six screws.

4) Push the threaded stud of the trigger cable [4] up through the access holes in the fabric cover [14] and the drip shield [8] and the sill beam [10].

(b) Make sure the switch arm [2] touches the upper stop fitting on the switch box.

(c) Turn the threaded stud the trigger cable [4] into the threaded end of the switch arm [2].

1) Turn the trigger cable so that the threaded stud goes through the switch arm to install the locknut.

2) Turn the trigger cable so that the pull handle [9] will align in the same direction as the fabric cover [14].

(d) Install the locknut [3] on the threaded stud of the trigger cable [4].

1) Tighten the locknut to 20-25 inch-pounds (2.3-2.8 newton-meters).

(e) Make sure you can see 2-5 threads of the threaded stud of the trigger cable [4] after the installation of the locknut [3].

(f) To store the new pull handle [9] on the drip shield [8], do these steps:

1) Put the pull handle [9] in position on the open fabric cover [14].

2) Align the pull handle [9] in the same direction as the fabric cover [14].

3) Make the handle flat on the fabric cover [14].

4) Press the pull handle [9] into the hook and loop material (velcro strips) of the fabric cover [14].

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5) Fold over the fabric cover [14] and press the outboard edge of the fabric cover to the hook and loop material to close the access to the pull handle [9].

6) Close the passenger entry door (PED) 3.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-23-440-002

(1) Do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

SUBTASK 52-12-23-410-003

(2) Install the upper lining [12] above the PED 3 door to close the access to the backup EPAS battery switch.

(a) Do this task: Doorway Lining Installation, TASK 25-21-02-400-801.

SUBTASK 52-12-23-090-001

(3) Remove the adjustable height cabin and general access stand, STD-1160.

SUBTASK 52-12-23-865-002

(4) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

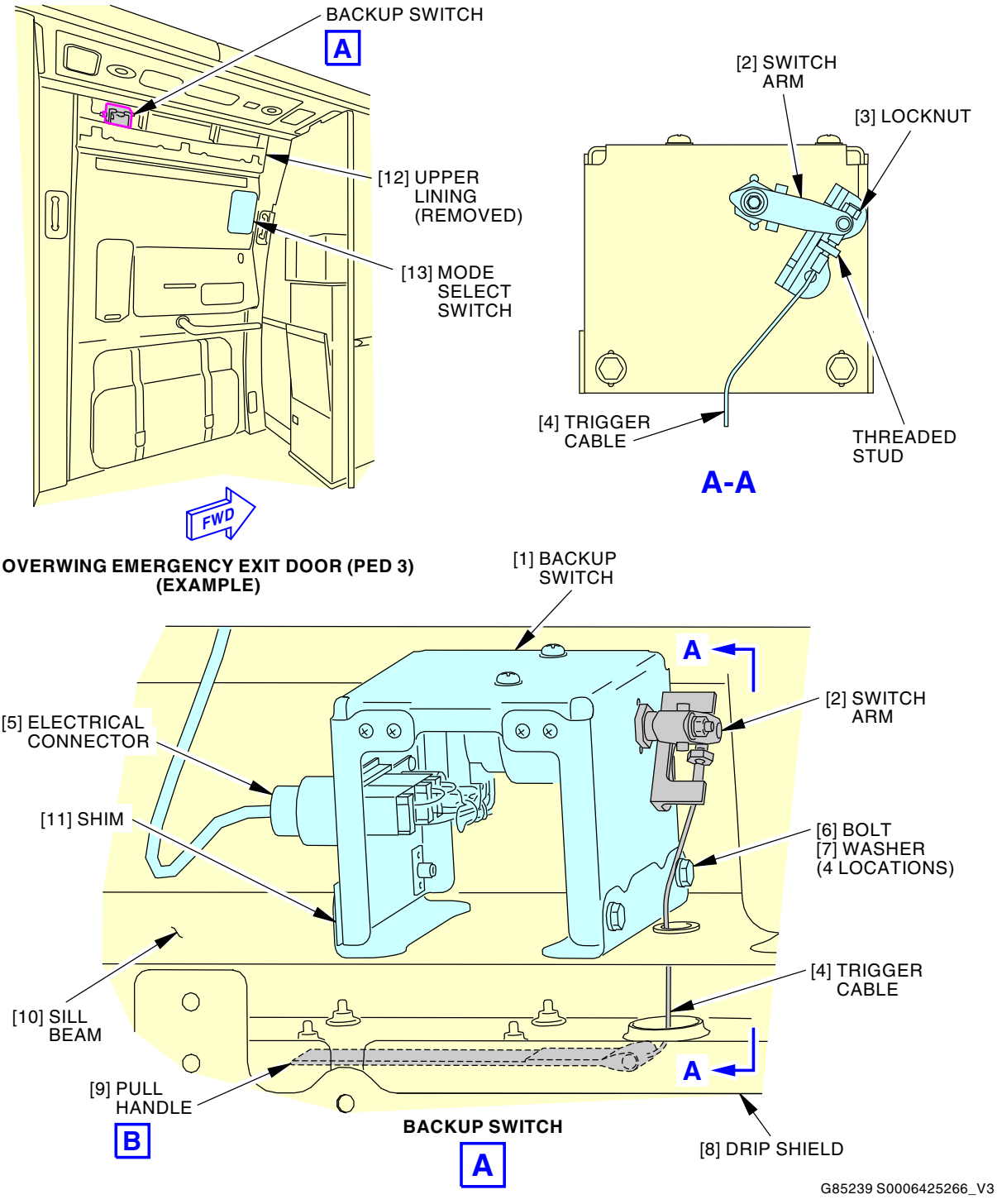
Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

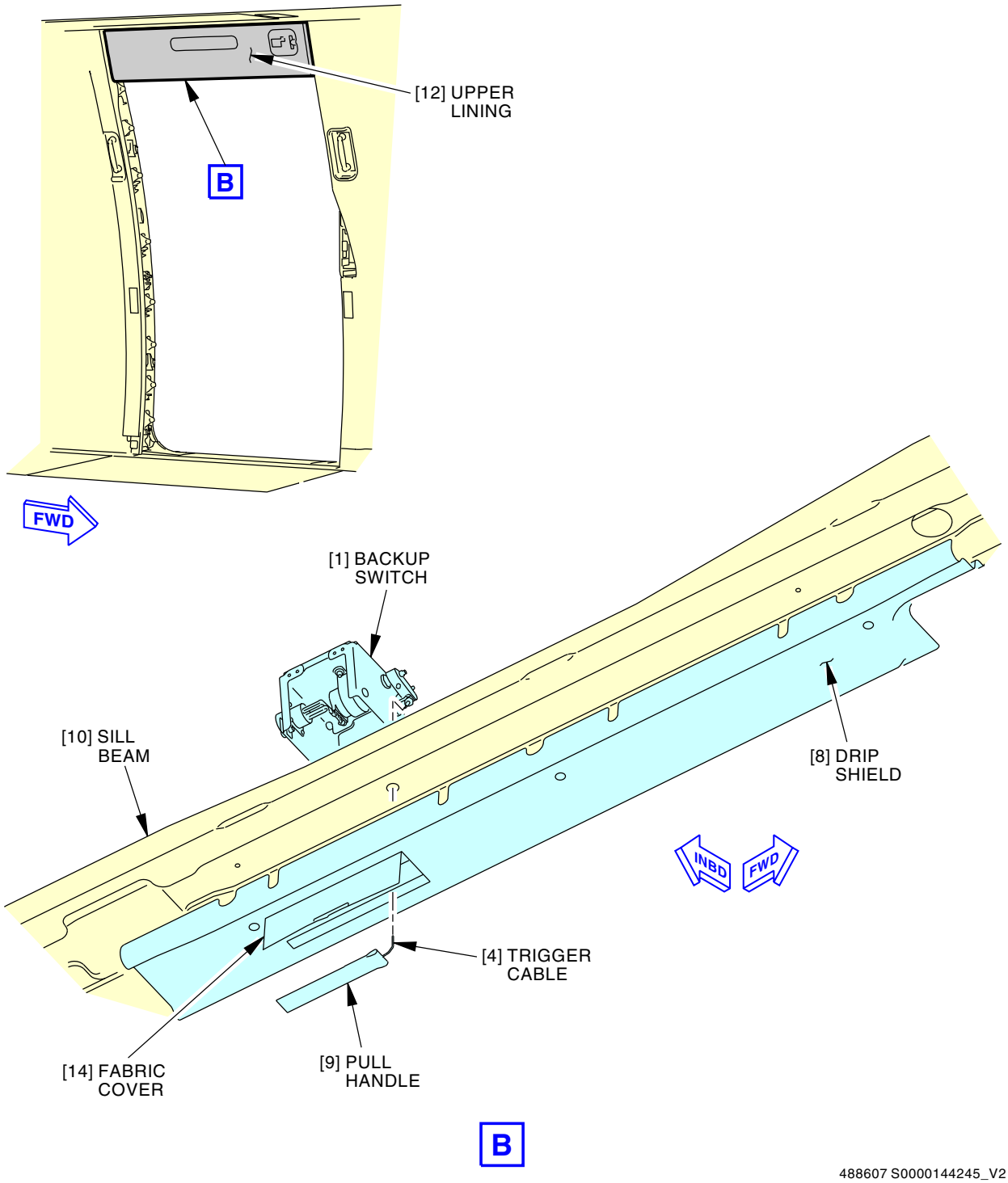
END OF TASK

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Off-Wing Escape System Backup Switch Installation
Figure 401/52-12-23-990-801 (Sheet 1 of 2)

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Off-Wing Escape System Backup Switch Installation
Figure 401/52-12-23-990-801 (Sheet 2 of 2)

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OFF-WING ESCAPE SYSTEM BACKUP BATTERY - REMOVAL/INSTALLATION

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal of the backup battery for the off-wing escape system.

(2) An installation of the backup battery for the off-wing escape system.

TASK 52-12-24-000-804

2. Over Wing Escape System Backup Battery Pack Removal

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This procedure gives the steps to remove the backup battery pack for the off-wing escape system.

(2) The passenger entry door (PED) 3 is also known as the over-wing emergency exit door.

(3) The backup battery pack fires the squib on the inflation bottle for the overwing escape slide and the squib on the spoiler auxiliary retract device (SARD). The backup battery pack does not fire the squib on the emergency power assist system (EPAS) reservoir on PED 3. The backup battery pack is installed on an overhead panel above PED 3.

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

(4) The battery pack BPAS10-5 (S283W203-5) has internal fuses, a trickle charger and a safety switch to disarm the battery. It also has an internal battery test feature that tests the battery output for all four channels.

ARO ALL

B. References

Reference	Title
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)

C. Location Zones

Zone	Area
243	Area Above Passenger Compartment Ceiling, Left - Section 44
244	Area Above Passenger Compartment Ceiling, Right - Section 44
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

D. Prepare for the Removal

SUBTASK 52-12-24-865-001

(1) For the applicable battery, open these circuit breakers and install the safety tags:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

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Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

SUBTASK 52-12-24-040-004

(2) Disarm the off-wing escape system.

(a) Do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide door latch actuator.

SUBTASK 52-12-24-860-019

(3) Make sure that PED 3 is fully closed and latched.

SUBTASK 52-12-24-040-006

(4) Make sure that the mode select handle is in the MANUAL/DISARM position.

SUBTASK 52-12-24-010-001

(5) Open the overdoor panel [2].

(a) Do this task: Overdoor Panel Opening/Removal, TASK 25-21-08-000-801.

SUBTASK 52-12-24-040-005

(6) Put the safety switch [6] on the backup battery pack to the DISARM position.

E. Remove the Backup Battery

SUBTASK 52-12-24-020-001

(1) Remove the battery pack [1].

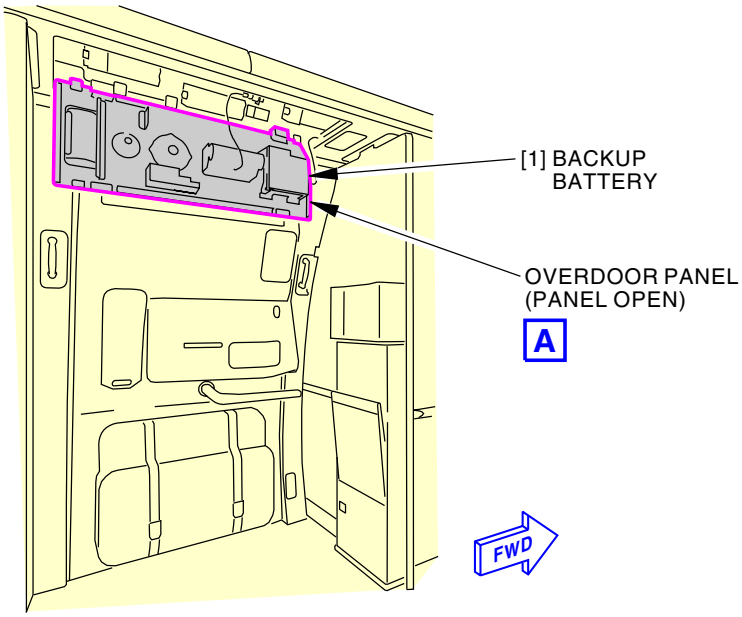
(a) Disconnect the electrical connector [3] from the battery pack [1].

(b) Remove the four screws [4] and four washers [5] that attach the battery pack [1] to the bracket [7].

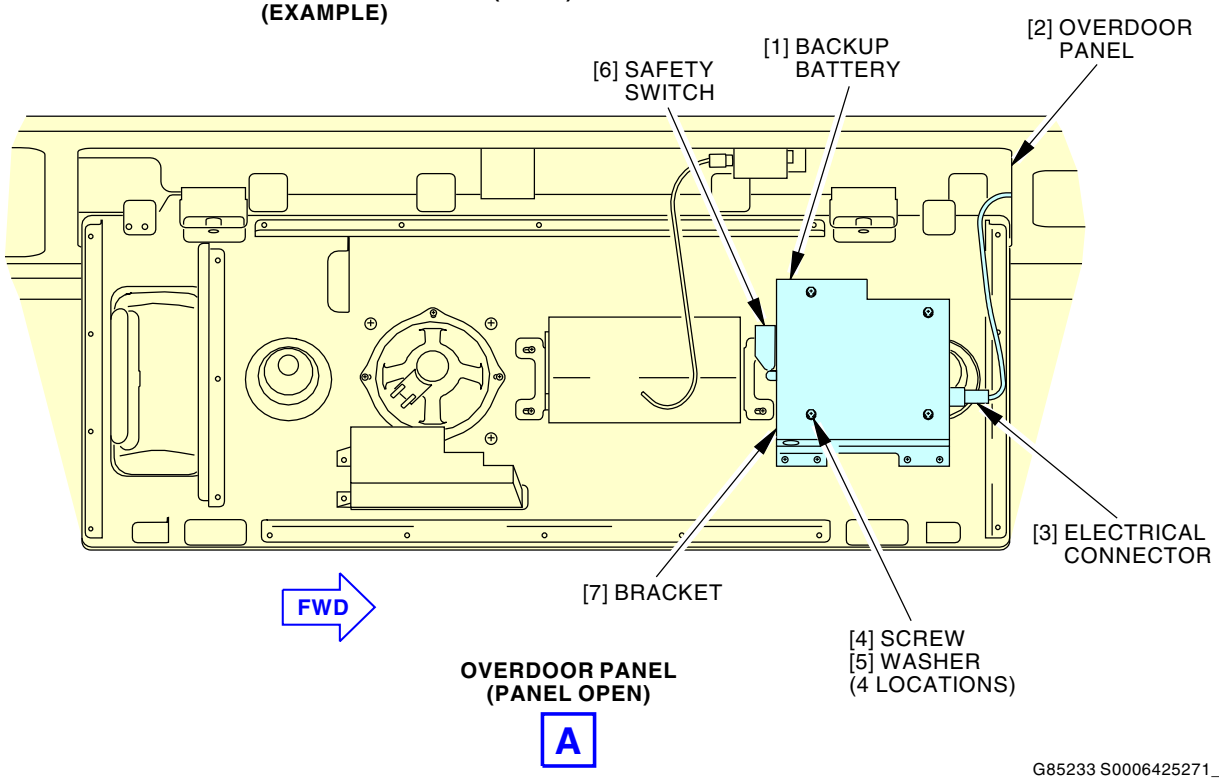
(c) Remove the battery pack [1].

——— END OF TASK ———

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OVERWING EMERGENCY EXIT DOOR (PED 3) (EXAMPLE)



Off-Wing Escape System Backup Battery Installation
Figure 401/52-12-24-990-810

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TASK 52-12-24-400-802

3. Over Wing Escape System Backup Battery Pack Installation

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This procedure gives the steps to install the backup battery pack for the off-wing escape system.

(2) The passenger entry door (PED) 3 is also known as the over-wing emergency exit door.

(3) The backup battery pack fires the squib on the inflation bottle for the overwing escape slide and the squib on the spoiler auxiliary retract device (SARD). The backup battery pack does not fire the squib on the emergency power assist system (EPAS) reservoir on PED 3. The backup battery pack is installed on an overhead panel above PED 3.

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

(4) The battery pack, BPAS10-5 (S283W203-5), has internal fuses, a trickle charger and a safety switch to disarm the battery. It also has a test feature that tests the battery output continuity for all four channels.

ARO ALL

B. References

Reference	Title
25-21-08-400-801	Overdoor Panel Installation/Closing (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-24-710-801	Over Wing Escape System Backup Battery - Operational Test (P/B 501)

C. Location Zones

Zone	Area
243	Area Above Passenger Compartment Ceiling, Left - Section 44
244	Area Above Passenger Compartment Ceiling, Right - Section 44
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

D. Install the Backup Battery

SUBTASK 52-12-24-420-001

(1) Install the battery pack [1].

(a) Install the four screws [4] and four washers [5] to attach the battery pack [1] to the bracket [7].

(b) Connect the electrical connector [3] to the backup battery pack [1].

E. Installation Test

SUBTASK 52-12-24-720-001

(1) Do a test of the electrical voltage from the backup battery.

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

(a) Do this task: Over Wing Escape System Backup Battery - Operational Test, TASK 52-12-24-710-801.

ARO ALL

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F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-24-410-009

(1) Close the overdoor panel [2] (Overdoor Panel Installation/Closing, TASK 25-21-08-400-801).

SUBTASK 52-12-24-410-008

(2) For the applicable door, remove the safety tags and close the circuit breakers:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

SUBTASK 52-12-24-860-018

(3) Do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

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OFF-WING ESCAPE SYSTEM BACKUP BATTERY - ADJUSTMENT/TEST

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

(1) An operational test of the backup battery for the off-wing escape system.

ARO ALL

(2) A system test of the backup battery for the off-wing escape system.

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

TASK 52-12-24-710-801

2. Over Wing Escape System Backup Battery - Operational Test

A. General

(1) This procedure gives the task to do an operational test of the backup battery of the overwing escape system.

(2) The passenger entry door (PED) 3 is also known as the overwing emergency exit door.

(3) This operational test procedure is only for the battery pack BPAS10-5 (S283W203-5).

(4) The battery pack BPAS10-5 (S283W203-5) has a test light and test switch on the bottom of the battery. The backup battery pack is installed on an overhead panel above PED 3.

(5) The battery pack BPAS10-5 (S283W203-5) has internal fuses, a trickle charger and a safety switch to disarm the battery. It also has an internal battery test feature that tests the battery output for all four channels.

(6) A separate battery pack for the emergency power assist system (EPAS) is installed on PED 3. The primary EPAS battery pack and the backup battery pack must have the same part number at the same location.

B. References

Reference	Title
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)
25-21-08-400-801	Overdoor Panel Installation/Closing (P/B 201)
52-12-24-000-804	Over Wing Escape System Backup Battery Pack Removal (P/B 401)
52-12-24-400-802	Over Wing Escape System Backup Battery Pack Installation (P/B 401)

C. Location Zones

Zone	Area
ARO ALL	
243	Area Above Passenger Compartment Ceiling, Left - Section 44
244	Area Above Passenger Compartment Ceiling, Right - Section 44
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

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(Continued)

Zone	Area

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

D. Procedure

SUBTASK 52-12-24-865-002

(1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

SUBTASK 52-12-24-860-020

(2) Make sure that the left and right PED 3 are CLOSED and LOCKED.

SUBTASK 52-12-24-040-007

(3) Make sure that the mode select switch for PED 3 is in the MANUAL/DISARMED position.

SUBTASK 52-12-24-040-008

(4) Make sure that the fabric pull handle for the backup battery firing switch is in the stored position and can not be seen.

NOTE: When the pull handle is in the stored position, the backup battery firing switch is in the NO FIRE position. The pull handle is stored in a fabric cover on the bottom of the dripshield at the top of the PED 3 door opening. When the PED 3 door is closed and latched, access to the pull handle is not possible because the door prevents access to the fabric cover and the pull handle.

SUBTASK 52-12-24-010-003

(5) Open the overhead panel to get access to the backup battery above PED 3 (Overdoor Panel Opening/Removal, TASK 25-21-08-000-801).

SUBTASK 52-12-24-860-021

(6) Make sure that the safety switch for the backup battery pack is in the ARM position.

SUBTASK 52-12-24-710-001

(7) Push and release the test switch on the backup battery pack one time.

SUBTASK 52-12-24-710-002

(8) If the red test light on the backup battery pack comes on for approximately 10 seconds, the backup battery is good.

NOTE: The red test light will come on if the battery current is more than 5 amps across the test load, the internal fuses in the battery pack are good and the battery pack voltage is more than 20 volts DC.

NOTE: The backup battery has an internal trickle charger to continuously charge the battery from the input 28 volts DC from the airplane. The battery will not charge if the safety switch is in the DISARM position. The test switch on the battery will not operate.

SUBTASK 52-12-24-710-003

(9) If the red test light on the backup battery pack does not come on, do these steps:

(a) Make sure that the safety switch for the backup battery pack is in the ARM position.

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ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY (Continued)

(b) Make sure that the circuit breakers given above are closed.

(c) If the safety switch is at the ARM position and the circuit breakers are closed, the battery is not operational; replace the backup battery.

1) Do this task:Over Wing Escape System Backup Battery Pack Removal, TASK 52-12-24-000-804.

2) Do this task:Over Wing Escape System Backup Battery Pack Installation, TASK 52-12-24-400-802.

SUBTASK 52-12-24-860-022

(10) Make sure that the safety switch for the backup battery pack is in the ARM position.

SUBTASK 52-12-24-410-011

(11) Close the overhead panel for the backup battery at PED 3 (Overdoor Panel Installation/Closing, TASK 25-21-08-400-801).

ARO ALL

——— END OF TASK ———

TASK 52-12-24-720-802

3. Over Wing Escape System Backup Battery - System Test

(Figure 502, Figure 505)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This procedure gives the task to test the backup battery pack for the overwing escape system:

(a) Squib shunt circuit test

(b) Backup battery power input test

(c) Backup battery switch test

(d) Overwing escape system squib test

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

(e) Backup battery operational test

ARO ALL

(2) The passenger entry door (PED) 3 is also known as the overwing emergency exit door.

(3) The backup battery pack fires the squib on the inflation bottle for the overwing escape slide and the squib on the spoiler auxiliary retract device (SARD). The backup battery pack does not fire the squib on the EPAS reservoir on PED 3.

(4) This test uses a test box and loads to test the airplane wiring between the battery pack and the squibs with the squibs disconnected from the circuit. This test also does an in-line resistance check through the squibs from an in-line electrical connector which requires the use of an igniter circuit tester to prevent the accidental operation of the squibs.

(5) The squibs are electro-explosive devices (EED). Maintenance personnel that touch the EED must use wrist straps to ground themselves to a ground point. These persons must wear clothes that make a small static electrical charge such as cotton or cotton/synthetic blends. Do not wear all wool clothing, all nylon clothing or all synthetic clothing that make a large static electrical charge. Remove reflective outerwear such as visual safety vests or coats before you touch the EED or disconnect or connect wire bundles.

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ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

(6) The battery pack BPAS10-5 (S283W203-5) has a test light and test switch feature. The S283W203-5 battery pack has internal circuits that check the battery performance through a pulsed load test current, monitor the input voltage and monitor the fuse condition and battery output continuity.

(7) The backup battery pack uses a separate, battery pack, BPAS10-5 (S283W203-5). The battery packs must have the same part number when installed as the EPAS battery pack at PED 3 and the backup battery pack on the overdoor panel at the same location.

ARO ALL

B. References

Reference	Title
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)
25-21-08-400-801	Overdoor Panel Installation/Closing (P/B 201)
52-12-25-000-802	Hinge Covers Removal (P/B 201)
52-12-25-400-802	Hinge Covers Installation (P/B 201)
WDM 52-11-19	Wiring Diagram Manual

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1565	Strap - Adjustable Wrist, Conductive, Static Control Part #: 09070 Supplier: 62576 Part #: 14810 Supplier: 62576 Part #: 2214 Supplier: 55203 Opt Part #: 2211 Supplier: 55203 Opt Part #: 2212 Supplier: 55203 Opt Part #: 2213 Supplier: 55203
COM-1793	Multimeter - Digital/Analog (or equivalent meter meets task requirements) Part #: 117 Supplier: 89536 Part #: 260-8XPI Supplier: 55026 Part #: 287 Supplier: 89536 Part #: 289 Supplier: 89536 Part #: 87V Supplier: 89536 Part #: FLUKE 27 II Supplier: 89536 Part #: FLUKE-77-4 Supplier: 89536 Opt Part #: 187 Supplier: 89536 Opt Part #: 189 Supplier: 89536 Opt Part #: 260 Supplier: 55026 Opt Part #: 27 Supplier: 89536 Opt Part #: 77 SERIES III Supplier: 89536 Opt Part #: 87 Supplier: 89536 Opt Part #: FLUKE 27 Supplier: 89536 Opt Part #: MODEL 27 Supplier: 89536

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(Continued)

Reference	Description
COM-2001	Tester - Igniter, Squib Circuit, Digital Part #: 101-5HJ-NAV Supplier: 52892 Part #: 620A-4R Supplier: 1CRL2 Part #: ALPHA 4314 Supplier: 53504 Opt Part #: 4314A Supplier: 53504
SPL-2004	Box - Test, Squib, Overwing Exit Part #: J52029-57 Supplier: 81205
STD-685	Power Supply - 115 VAC, 400 Hz
STD-753	Scale - Push/Pull, 0-25 pound (0-11 kilogram) Capacity, 1/4 pound (113 gram) Accuracy

D. Location Zones

Zone	Area
197	Aft Wing-to-Body Fairings, Left
198	Aft Wing-to-Body Fairings, Right
243	Area Above Passenger Compartment Ceiling, Left - Section 44
244	Area Above Passenger Compartment Ceiling, Right - Section 44
552	Landing Gear Support Beam & Rear Spar to Wing Trailing Edge - Left Wing
553	Spoiler No. 7
652	Landing Gear Support Beam & Rear Spar to Wing Trailing Edge - Right Wing
653	Spoiler No. 8
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

E. Access Panels

Number	Name/Location
197DL	Air-Driven Pump (ADP) Filter Module Access Door and Escape Slide Inflation Bottle
198DR	Hydraulic Ground Service Bay Access Door and Escape Slide Inflation Bottle
552CB	Inboard Fixed Trailing Edge Panel
652CB	Inboard Fixed Trailing Edge Panel

F. Prepare for the Test

SUBTASK 52-12-24-865-004

(1) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

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SUBTASK 52-12-24-490-001

(2) Get a 115 VAC power supply, STD-685 to operate the overwing exit squib test box, SPL-2004.

SUBTASK 52-12-24-860-024

(3) Make sure that PED 3 is fully CLOSED and LOCKED.

SUBTASK 52-12-24-040-012

(4) Make sure that the mode select handle for the PED 3 is in the MANUAL/DISARM position.

SUBTASK 52-12-24-010-005

(5) Remove the aft hinge cover to get access to the safety switch for the EPAS battery pack (Hinge Covers Removal, TASK 52-12-25-000-802).

SUBTASK 52-12-24-040-013

(6) Put the safety switch for the EPAS battery pack to the DISARM position.

NOTE: The EPAS battery pack is located on the door hinge arm.

SUBTASK 52-12-24-010-006

(7) Open the overhead panel to get access to the backup battery above PED 3 (Overdoor Panel Opening/Removal, TASK 25-21-08-000-801).

SUBTASK 52-12-24-040-014

(8) Put the safety switch for the backup battery pack to the DISARM position.

SUBTASK 52-12-24-010-011

(9) Turn the PED interior door handle to the OPEN position and open the PED 3.

NOTE: To access the backup switch, pull handle for the off-wing escape system, the PED 3 must be open.

SUBTASK 52-12-24-010-007

(10) Remove the applicable access panel to get access to the escape slide inflation bottle:

(a) Open these access panels:

Number	Name/Location
197DL	Air-Driven Pump (ADP) Filter Module Access Door and Escape Slide Inflation Bottle
198DR	Hydraulic Ground Service Bay Access Door and Escape Slide Inflation Bottle

SUBTASK 52-12-24-010-008

(11) Remove the applicable access panel to get access to the spoiler auxiliary retract device (SARD):

(a) Open these access panels:

Number	Name/Location
552CB	Inboard Fixed Trailing Edge Panel
652CB	Inboard Fixed Trailing Edge Panel

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G. Procedure

SUBTASK 52-12-24-760-001

WARNING PUT ON A WRIST STRAP THAT IS ATTACHED TO A GROUND BEFORE YOU MAKE ELECTRICAL CONNECTIONS TO AN ELECTRICAL EXPLOSIVE DEVICE. STATIC ELECTRICITY CAN CAUSE AN EXPLOSION.

(1) Before you touch a squib, put on a static control wrist strap, COM-1565 so that it touches your skin, then connect it to an electrical ground.

SUBTASK 52-12-24-020-002

WARNING PUT CAPS ON THE BOTTLE SQUIBS AND FLOW VALVE SQUIBS. IF YOU DO NOT PUT CAPS ON THE SQUIBS, THE SQUIBS CAN FIRE ACCIDENTALLY AND CAUSE INJURIES TO PERSONNEL.

(2) Disconnect the squib wire bundle connectors for the side of the airplane that the backup battery pack is being tested.

(a) Refer to the table: Left Side Squibs/Table 501 or Right Side Squibs/Table 502.

(b) Refer to: WDM 52-11-19.

(c) Remove the shorting cap from the storage pouch and install it on the squib for the escape slide inflation bottle.

(d) Remove the shorting cap from the storage pouch and install it on the squib for the SARD.

NOTE: A shorting cap is also known as a faraday cap.

Table 501/52-12-24-993-801 Left Side Squibs

LEFT SIDE CONNECTOR	NOMENCLATURE	PINS
DM52117	M52117 Left Overwing Escape Slide Inflation Bottle	1, 2
DM27143	M27143 Left Spoiler Auxiliary Retract Device (SARD) Spoiler No.7	1, 3

Table 502/52-12-24-993-802 Right Side Squibs

RIGHT SIDE CONNECTOR	NOMENCLATURE	PINS
DM52116	M52116 Right Overwing Escape Slide Inflation Bottle	1, 2
DM27243	M27243 Right Spoiler Auxiliary Retract Device (SARD) Spoiler No.8	1, 3

SUBTASK 52-12-24-760-006

(3) Squib Shunt Test

(a) Use a digital/analog multimeter, COM-1793 to measure the resistance between the connector pins on the electrical connector through the wire bundle.

1) Refer to the table: Left Side Squibs/Table 501 or Right Side Squibs/Table 502.

2) Make sure that the resistance is less than 2 ohms.

SUBTASK 52-12-24-760-007

(4) Backup Battery Power Input Test

NOTE: This is a measurement of the airplane power input to the backup battery pack.

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(a) For the applicable door, open these circuit breakers and install safety tags:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

(b) Disconnect the wire bundle electrical connector from the backup battery pack.

1) Disconnect the wire bundle electrical connector DM52122 from the left backup battery.
2) Disconnect the wire bundle electrical connector DM52123 from the right backup battery.

(c) Use a digital/analog multimeter, COM-1793 to measure the voltage between pin 1 and pin 2 (ground) of the wire bundle electrical connector.

1) Measure the voltage on the wire bundle electrical connector DM52122 for the left backup battery.
2) Measure the voltage on the wire bundle electrical connector DM52123 for the right backup battery.
3) Refer to the WDM 52-11-19.

(d) Make sure that the voltage is less than 5 volts DC.

(e) For the applicable door, remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

(f) Measure the voltage between pin 1 and pin 2 (ground) of the wire bundle electrical connector.

1) Measure the voltage on the wire bundle electrical connector DM52122 for the left backup battery.
2) Measure the voltage on the wire bundle electrical connector DM52123 for the right backup battery.
3) Refer to the WDM 52-11-19.

(g) Make sure that the voltage is more than 24 volts DC.

(h) For the applicable door, open these circuit breakers and install safety tags:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

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Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

(i) Connect the wire bundle electrical connector to the backup battery.

1) Connect the wire bundle electrical connector DM52122 to the left backup battery.

2) Connect the wire bundle electrical connector DM52123 to the right backup battery.

(j) For the applicable door, remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

SUBTASK 52-12-24-730-001

(5) Backup Battery Switch Test

(a) Make sure that the mode select handle is in the MANUAL/DISARM position.

(b) Connect a 115 VAC power supply, STD-685 for the overwing exit squib test box, SPL-2004.

(c) Make sure that power for the overwing exit squib test box, SPL-2004 is OFF.

(d) Connect the overwing exit squib test box, SPL-2004 with the test cable assembly to the wire bundle connectors for the side of the airplane that the backup battery pack is being tested.

NOTE: The overwing exit squib test box also uses a slide load assembly, a SARD load assembly, a EPAS load assembly and a test cable assembly.

1) Refer to the tables: Left Side Squibs/Table 501 or Right Side Squibs/Table 502.

2) Connect the J5 connector on the slide load assembly to the wire bundle connector for the overwing escape slide.

3) Connect the J6 connector on the SARD load assembly to the wire bundle connector for the SARD.

4) Connect the P2 connector on the test cable assembly to the J2 connector on the slide load assembly.

5) Connect the P3 connector on the test cable assembly to the J3 connector on the SARD load assembly.

6) Make sure that the protective cover remains installed on the P4 connector on the test cable assembly.

NOTE: The P4 connector and the EPAS load assembly is for the test of the squib circuit for the EPAS reservoir on PED 3 and is not used in this test. The backup battery pack does not fire the M52110, Emergency Pneumatic Reservoir Squib, on the EPAS reservoir.

7) Connect the P1 connector from the test cable assembly to the J1 connector on the overwing exit squib test box, SPL-2004.

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(e) Put the safety switch for the backup battery pack to the ARM position.

NOTE: The safety switch is located on the backup battery pack.

(f) Put the POWER switch on the overwing exit squib test box, SPL-2004 to the ON position.

1) Make sure that the red power light comes on.

(g) Press the ARM switch on the overwing exit squib test box, SPL-2004.

1) Make sure that the green ARMED light comes on.

2) Make sure that the two amber SQUIB POWER AVAILABLE lights are off.

NOTE: Only the squibs for the escape slide inflation bottle and the spoiler auxiliary retract device (SARD) are tested.

(h) Open the fabric cover on the bottom of the drip shield to get access the pull handle for the overwing escape system backup switch.

NOTE: The fabric cover has this nomenclature: TO INFLATE SLIDE; PULL DOWN COVER; PULL HANDLE.

(i) Attach a push/pull scale 0-25 pound (0-11 kilogram), STD-753 to the pull handle for the backup battery switch (Figure 502).

(j) Slowly pull down on the pull handle with the scale until it stops.

1) Make sure that the scale measurement is 8.0 lbf (35.6 N) to 18.0 lbf (80.1 N) as you pull down on the handle before the backup battery switch touches the end stop.

2) Make sure that the two amber SQUIB POWER AVAILABLE lights come on.

3) Make sure that the green TEST INDICATION lights come on.

NOTE: The TEST INDICATION lights that come on with a red color indicate the test has failed. Ignore the red test indication light for the M52110 Emergency Pneumatic Reservoir squib. Only the squibs for the escape slide inflation bottle and the spoiler auxiliary retract device (SARD) are tested.

(k) Put the safety switch for the backup battery pack to the DISARM position.

(l) Make sure that the mode select handle on PED 3 is in the MANUAL/DISARM position.

(m) Make sure that the safety switch for the EPAS battery pack on PED 3 is in the DISARM position.

(n) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

(o) Disconnect the overwing exit squib test box, SPL-2004 and test cable assembly from the wire bundle connectors for the squib.

1) Disconnect the J5 connector on the slide load assembly from the wire bundle connector for the overwing escape slide.

2) Disconnect the J6 connector on the SARD load assembly from the wire bundle connector for the SARD.

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3) Disconnect the P2 connector on the test cable assembly from the J2 connector on the slide load assembly.

4) Disconnect the P3 connector on the test cable assembly from the J3 connector on the SARD load assembly.

5) Disconnect the P1 connector from the test cable assembly to the J1 connector on the overwing exit squib test box, SPL-2004.

SUBTASK 52-12-24-760-003

(6) Do a check for stray voltage from the wire bundle connectors before you connect the wire bundle connectors to the squibs.

(a) Use a digital/analog multimeter, COM-1793.

SUBTASK 52-12-24-760-004

WARNING PUT ON A WRIST STRAP THAT IS ATTACHED TO A GROUND BEFORE YOU MAKE ELECTRICAL CONNECTIONS TO AN ELECTRICAL EXPLOSIVE DEVICE. STATIC ELECTRICITY CAN CAUSE AN EXPLOSION.

(7) Before you touch a squib, put on a static control wrist strap, COM-1565 so that it touches your skin, then connect it to an electrical ground.

SUBTASK 52-12-24-090-001

(8) Remove the shorting cap from the squibs.

(a) Refer to the tables: Left Side Squibs/Table 501 or Right Side Squibs/Table 502.

(b) Remove the shorting cap from the squib for the SARD cylinder and put it in the storage pouch.

1) Refer to the figure: Spoiler Auxiliary Retract Device (SARD)/Figure 504.

(c) Remove the shorting cap from the squib for the off-wing escape slide inflation bottle and put it in the storage pouch.

1) Refer to the figure: Escape Slide Inflation Bottle/Figure 503.

SUBTASK 52-12-24-420-002

(9) Connect the electrical connectors to the squibs for the off-wing escape system.

NOTE: You must be careful when you connect the electrical connectors to the squibs. When examined, the electrical connector can appear to be completely engaged. However, a bent pin in the connector will not let the squib fire. You must straighten any bent pins in the squib and do a squib test.

(a) Refer to the tables: Left Side Squibs/Table 501 or Right Side Squibs/Table 502.

(b) Connect the electrical connector DM27143 to the squib for the left SARD cylinder for spoiler 7.

(c) Connect the electrical connector DM52117 to the squib for the left off-wing escape slide inflation bottle.

(d) Connect the electrical connector DM27243 to the squib for the right SARD cylinder for spoiler 8.

(e) Connect the electrical connector DM52116 to the squib for the right off-wing escape slide inflation bottle.

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SUBTASK 52-12-24-760-005

(10) Do a check for continuity and resistance through the squibs from an in-line electrical connector D6253P/D6253J.

NOTE: This test uses an inline electrical connector D6253P/D6253J on PED 3.

NOTE: This test is required whenever an electrical connector is disconnected and connected again to an off-wing escape system squib or the EPAS reservoir squib.

NOTE: Do not use any multimeter for the continuity check across the squib circuit because the use of the wrong multimeter can cause the squib to fire. Use an approved ignition circuit tester.

(a) Get a digital squib circuit igniter tester, COM-2001 and test leads with clips.

(b) On the door hinge arm, disconnect connector D6253P from the inline connector D6253J.

NOTE: To disconnect the connector, squeeze the middle of the connector releasing its clips, and pull.

(c) Set the digital squib circuit igniter tester, COM-2001 and set for ohms, low resistance range scale.

(d) Connect the tester of D6253P and the jack for pin 1 of D6253J.

NOTE: The wires at pin 1 are color coded yellow.

1) Verify a reading of 3 ohms or less on the tester.

(e) Disconnect the tester from connector Pin 1 of D6253P and the jack of Pin 1 for D6253J.

(f) Connect the tester between connector Pin 2 of D6253P and the jack for Pin 2 of D6253J.

NOTE: The wires at pin 2 are color coded blue.

1) Verify a reading of 3 ohms or less on the tester.

(g) Disconnect the tester from connector Pin 2 of D6253P and the jack of Pin 2 for D6253J.

(h) Connect the tester between connector Pin 3 of D6253P and the jack of Pin 3 for D6253J.

NOTE: The wires at pin 3 are color coded red.

1) Verify a reading of 3 ohms or less on the tester.

(i) Disconnect the tester from connector Pin 3 of D6253P and the jack of Pin 3 for D6253J.

(j) Connect the connector D6253P to in-line connector D6253J.

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

SUBTASK 52-12-24-710-004

(11) Do this task: Over Wing Escape System Backup Battery - Operational Test, TASK 52-12-24-710-801.

(a) Refer to the figure: Off-Wing Escape System Backup Battery System Test/Figure 501.

ARO ALL

H. Put the Airplane Back to its Usual Condition

SUBTASK 52-12-24-840-001

(1) Remove the static control wrist strap, COM-1565, the overwing exit squib test box, SPL-2004, the 115 VAC power supply, STD-685, the digital/analog multimeter, COM-1793, and shorting cap.

SUBTASK 52-12-24-410-013

(2) Close access to the pull handle for the backup battery switch as follows:

(a) Attach the pull handle to the hook-and-loop material on the fabric cover.

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(b) Close the fabric cover on the drip shield; the hook-and-loop material on the fabric cover will keep the fabric cover closed.

SUBTASK 52-12-24-860-025

(3) Close PED 3 and turn the PED interior door handle to the fully CLOSED and LOCKED position.

SUBTASK 52-12-24-440-002

(4) Put the safety switch on the backup battery pack to the ARM position.

SUBTASK 52-12-24-410-014

(5) Close the overhead panel for the backup battery above PED 3 (Overdoor Panel Installation/Closing, TASK 25-21-08-400-801).

SUBTASK 52-12-24-440-003

(6) Put the safety switch for the EPAS battery pack to the ARM position.

NOTE: The EPAS battery pack is located on the door hinge arm.

SUBTASK 52-12-24-410-015

(7) Install the aft hinge cover on PED 3 (Hinge Covers Installation, TASK 52-12-25-400-802).

SUBTASK 52-12-24-410-016

(8) Install the applicable, under wing, access panel to close the access to the SARD cylinder:

(a) Close these access panels:

Number	Name/Location
552CB	Inboard Fixed Trailing Edge Panel
652CB	Inboard Fixed Trailing Edge Panel

SUBTASK 52-12-24-410-017

(9) Install the applicable, fuselage fairing, access panel to close the access to the escape slide inflation bottle:

(a) Close these access panels:

Number	Name/Location
197DL	Air-Driven Pump (ADP) Filter Module Access Door and Escape Slide Inflation Bottle
198DR	Hydraulic Ground Service Bay Access Door and Escape Slide Inflation Bottle

SUBTASK 52-12-24-865-005

(10) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

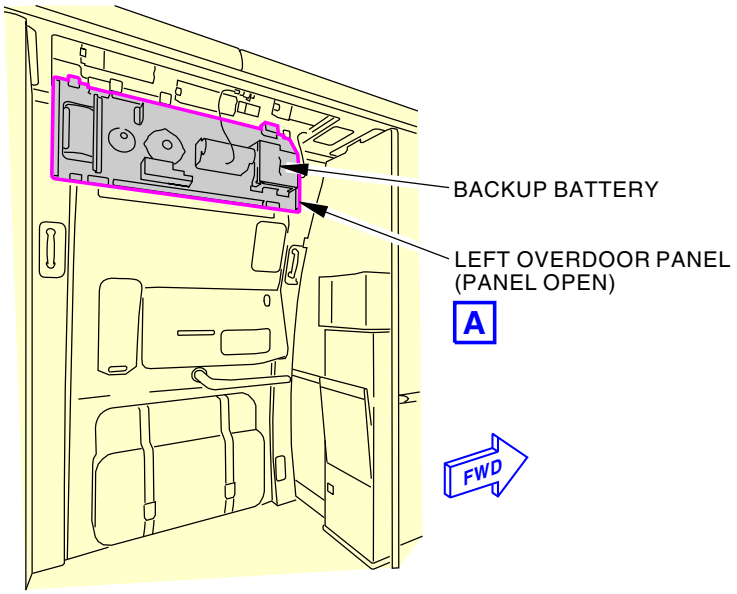
Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

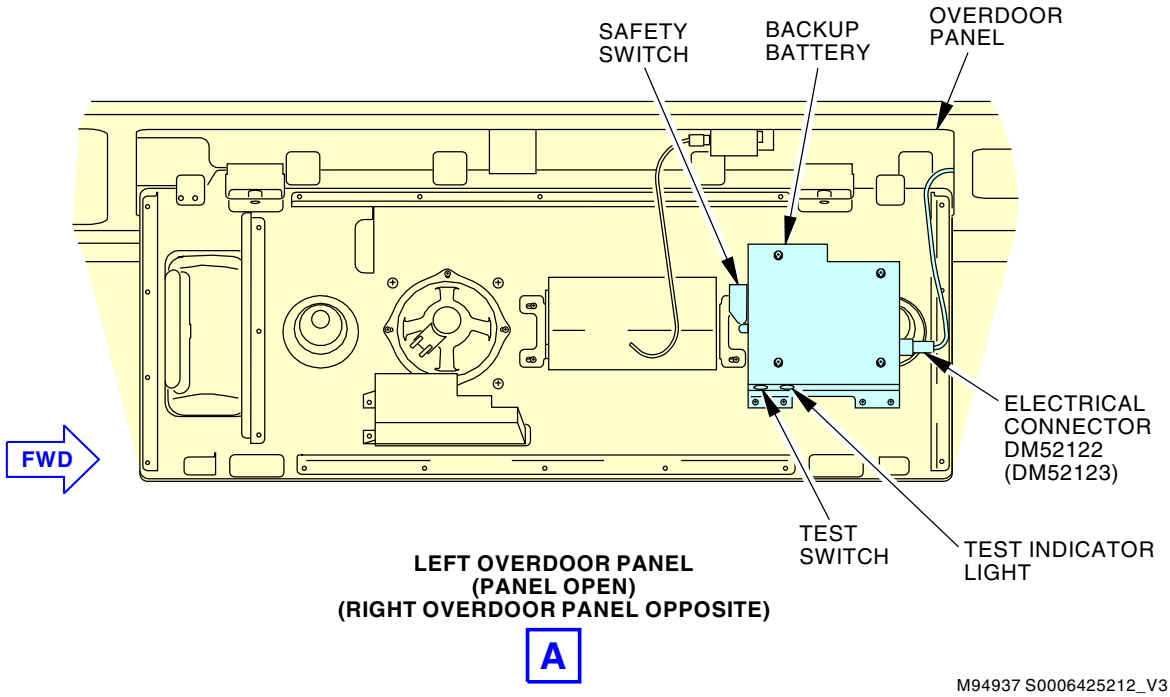
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END OF TASK

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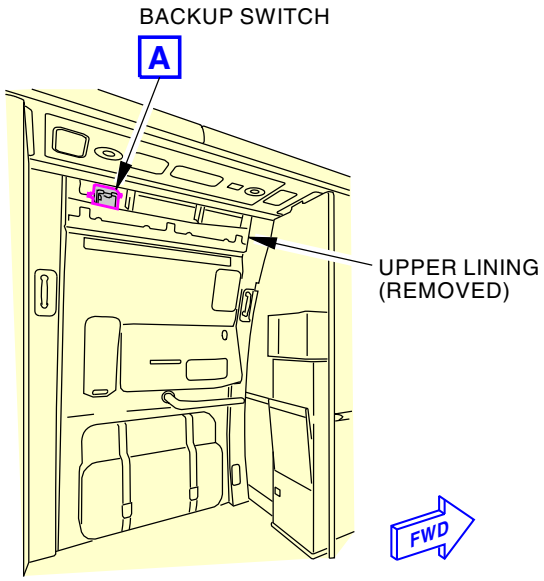
**PED 3 (OVERWING EMERGENCY EXIT DOOR) CLOSED
(EXAMPLE)**



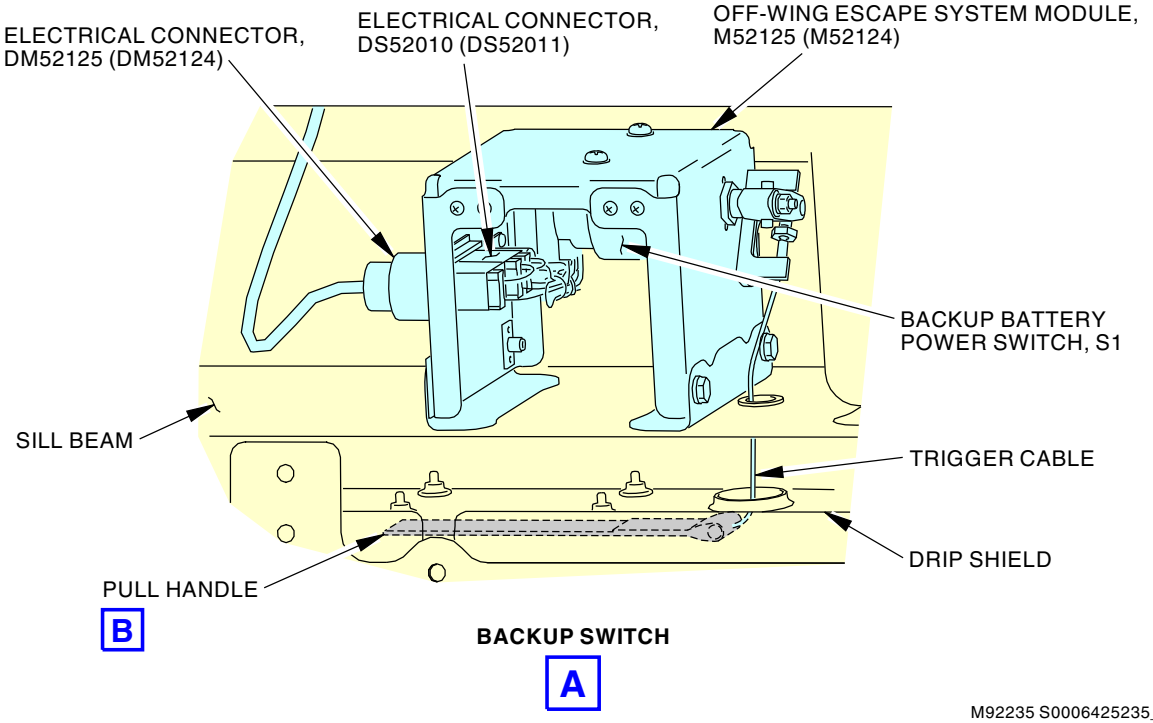
**LEFT OVERDOOR PANEL
(PANEL OPEN)
(RIGHT OVERDOOR PANEL OPPOSITE)**

**Off-Wing Escape System Backup Battery System Test
Figure 501/52-12-24-990-805**

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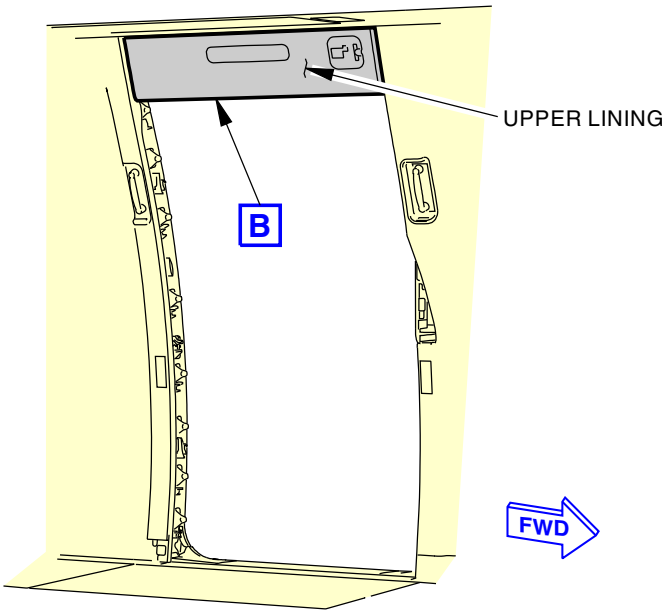


PED 3 (OVERWING EMERGENCY EXIT DOOR) CLOSED (EXAMPLE)

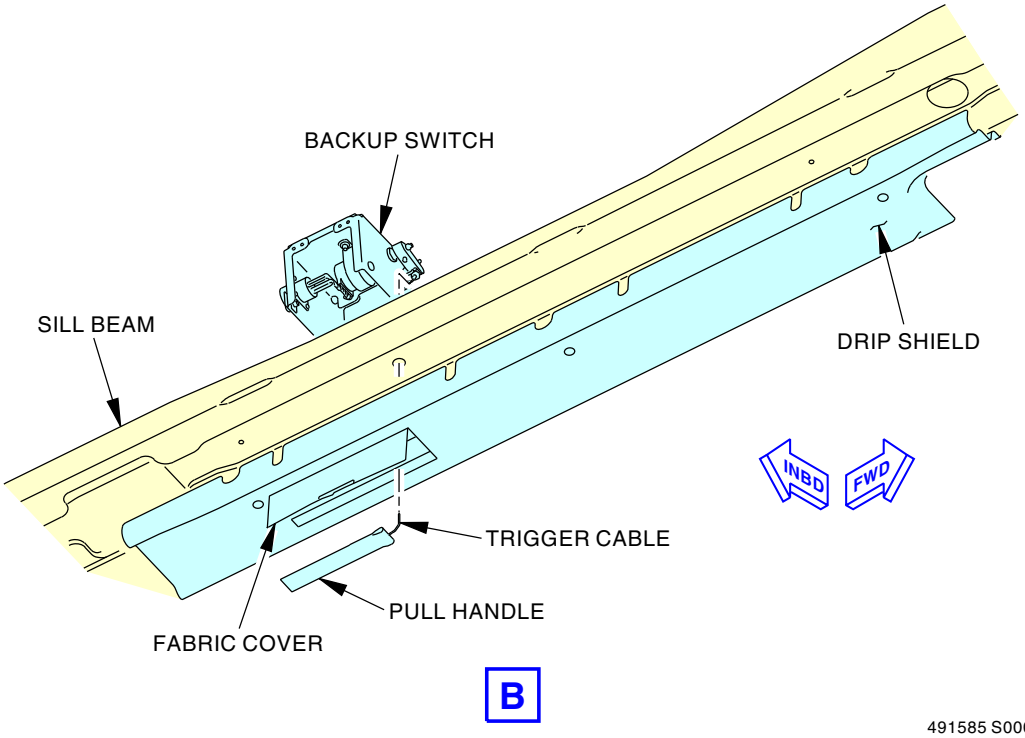


Off-Wing Escape System Backup Switch
Figure 502/52-12-24-990-808 (Sheet 1 of 2)

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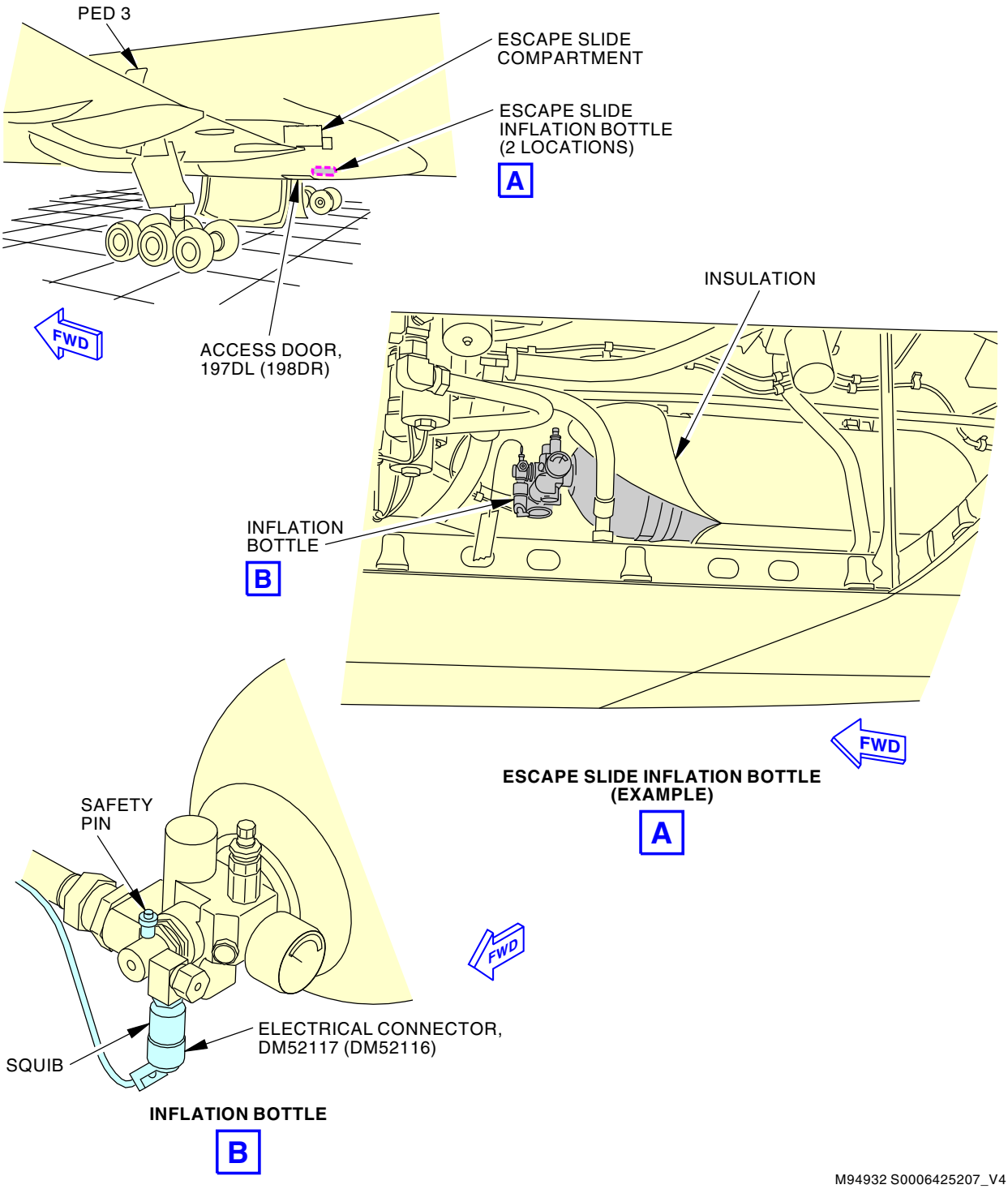
**PED 3 (OVERWING EMERGENCY EXIT DOOR) OPEN
(EXAMPLE)**



491585 S0000147047_V2

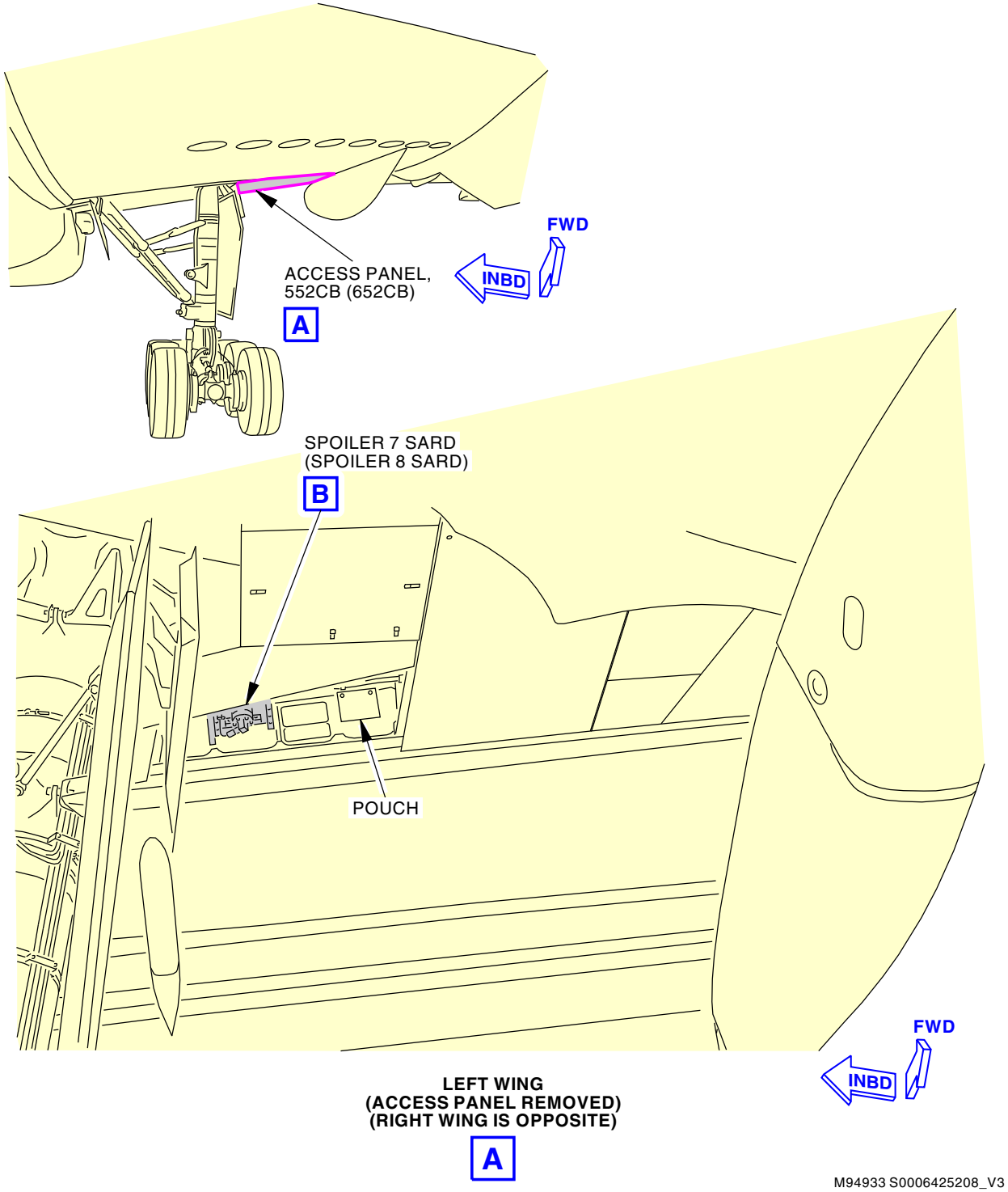
**Off-Wing Escape System Backup Switch
Figure 502/52-12-24-990-808 (Sheet 2 of 2)**

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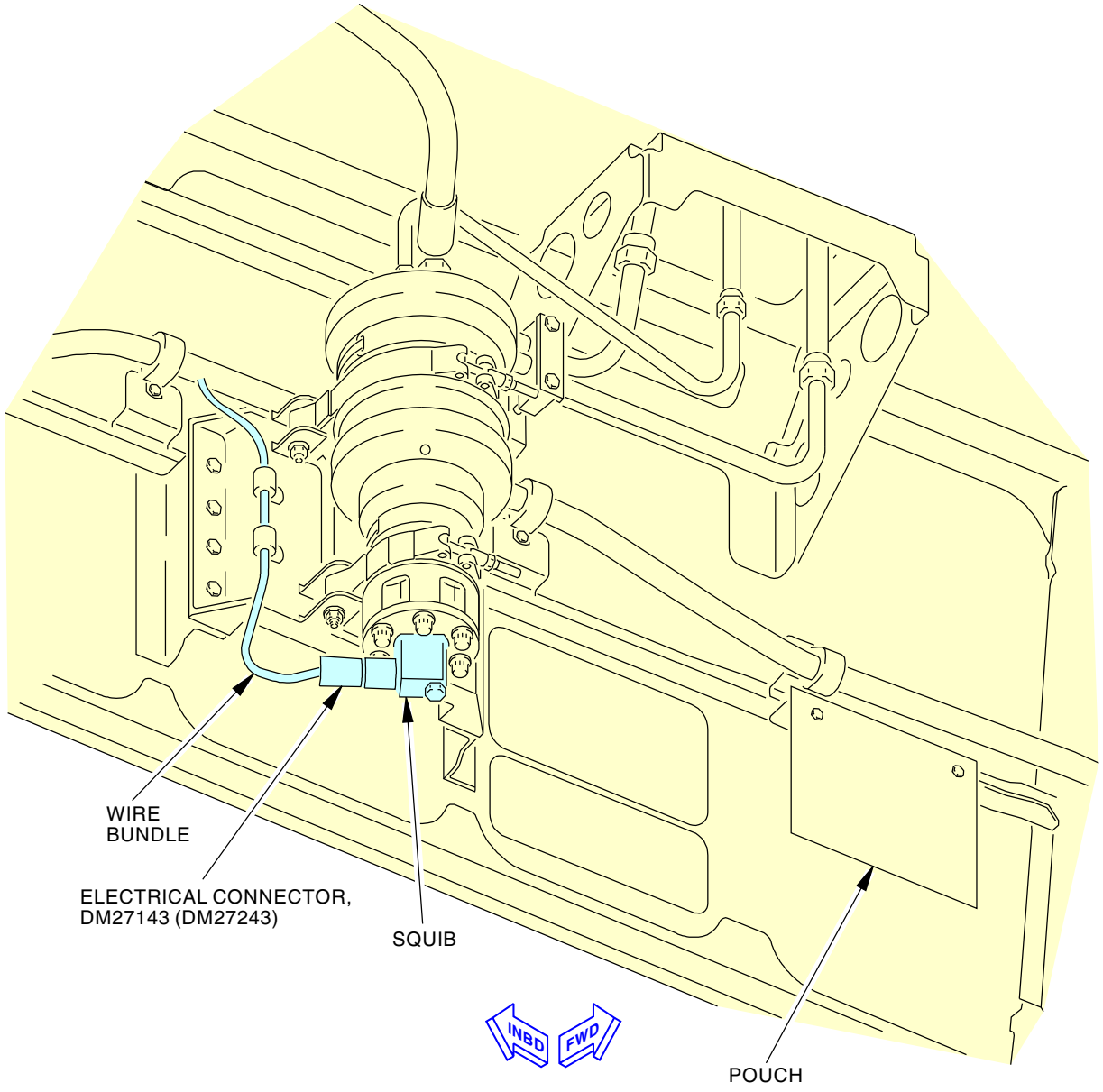
Escape Slide Inflation Bottle
Figure 503/52-12-24-990-806

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Spoiler Auxiliary Retract Device (SARD)
Figure 504/52-12-24-990-807 (Sheet 1 of 2)

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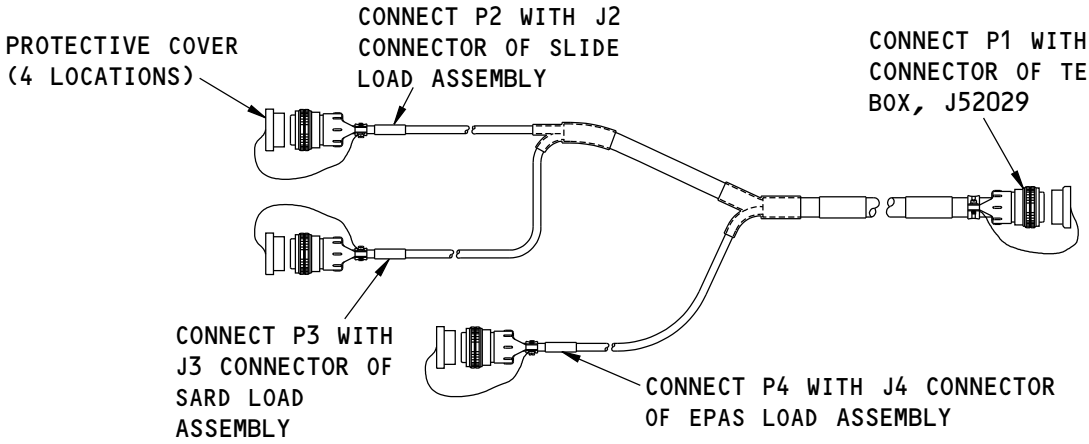
SPOILER 7 SARD
(SPOILER 8 SARD IS OPPOSITE)

B

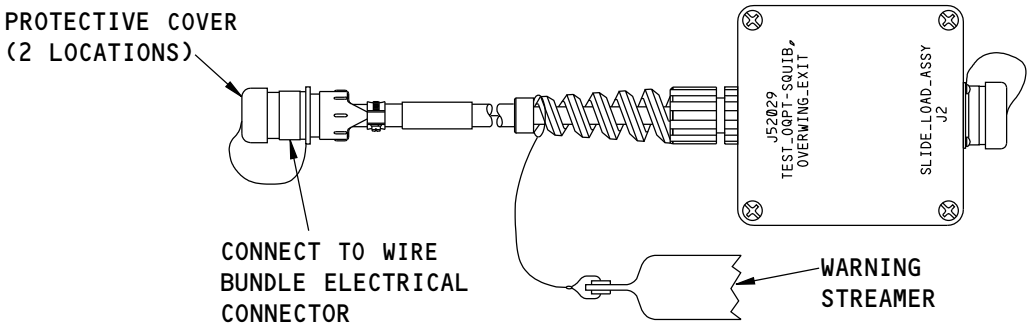
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Spoiler Auxiliary Retract Device (SARD)
Figure 504/52-12-24-990-807 (Sheet 2 of 2)

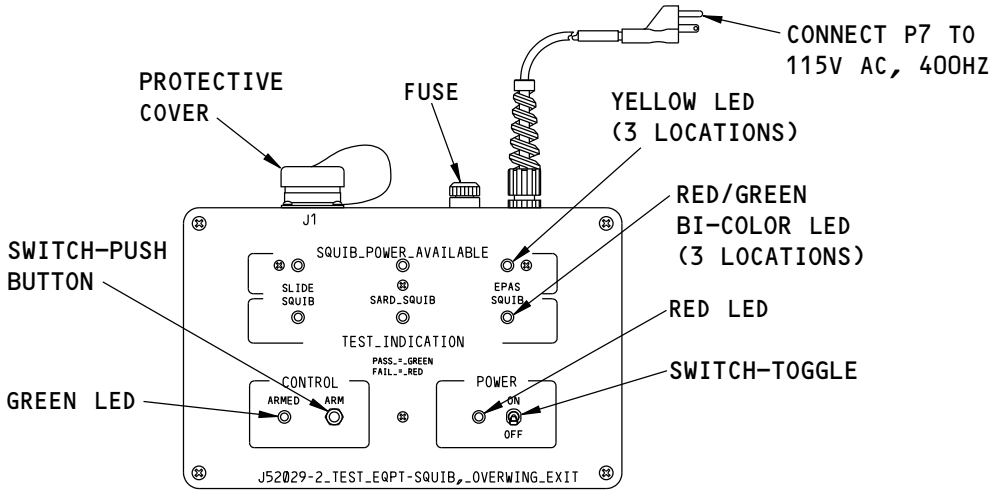
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J52029 TEST CABLE ASSEMBLY



J52029 SLIDE LOAD ASSEMBLY SHOWN
(SARD LOAD ASSEMBLY AND EPAS LOAD ASSEMBLY SIMILAR)



J52029 TEST BOX ASSEMBLY

491583 S0000146868_V1

EPAS and Over-Wing Exit Squib Test Equipment
Figure 505/52-12-24-990-803

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OFF-WING ESCAPE SYSTEM BACKUP BATTERY - INSPECTION/CHECK

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A check of the off-wing escape system backup battery electrical charge.

TASK 52-12-24-000-803

2. Off-Wing Escape System Backup Battery - Electrical Charge Check

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task gives the steps to test the electrical charge in the backup battery pack for the off-wing escape system.

(2) The passenger entry door (PED) 3 is also known as the overwing emergency exit door.

(3) The backup battery pack fires the squib on the inflation bottle for the overwing escape slide and the squib on the spoiler auxiliary retract device (SARD). The backup battery pack does not fire the squib on the emergency power assist system (EPAS) pneumatic reservoir on PED 3.

(4) A separate battery pack is used as the primary EPAS battery pack for PED 3.

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

(5) The S283W203-5 battery pack has internal circuits that check that battery performance through a pulsed load test current, monitor the input airplane power (28 volts DC) and monitor the fuse condition and battery output continuity for the different channels.

ARO ALL

(6) The supplier recommends proper battery maintenance and conditioning to ensure the longest life and best performance possible. The supplier recommends the battery pack is charged for 24 hours twice a month to ensure the battery pack is fully charged. The operating temperature of the EPAS battery is above 5 °F (-15 °C).

B. References

Reference	Title
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)
25-21-08-400-801	Overdoor Panel Installation/Closing (P/B 201)
52-12-24-000-804	Over Wing Escape System Backup Battery Pack Removal (P/B 401)
52-12-24-400-802	Over Wing Escape System Backup Battery Pack Installation (P/B 401)

C. Location Zones

Zone	Area
243	Area Above Passenger Compartment Ceiling, Left - Section 44
244	Area Above Passenger Compartment Ceiling, Right - Section 44
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

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D. Prepare for the Check

SUBTASK 52-12-24-865-006

(1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

Row	Col	Number	Name
H	15	C52612	L EPAS BACKUP BAT

Right Power Management Panel, P210

Row	Col	Number	Name
J	14	C52613	R EPAS BACKUP BAT

SUBTASK 52-12-24-860-026

(2) Make sure that the applicable PED 3 is CLOSED and LOCKED.

SUBTASK 52-12-24-010-002

(3) Open the overhead panel at PED 3 to get access to the backup battery (Overdoor Panel Opening/Removal, TASK 25-21-08-000-801).

SUBTASK 52-12-24-040-003

(4) Make sure that the safety switch for the backup battery is in the ARM position.

NOTE: If the safety switch for the backup battery is in the DISARM position, the test light will not come on when you push the test switch and the backup battery will not charge from the internal trickle charger.

E. Procedure

SUBTASK 52-12-24-210-001

ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY

(1) Do a check of the electrical charge of the backup battery as follows:

(a) Push and release the test switch on the backup battery one time.

NOTE: The test switch is on the bottom of the EPAS battery.

(b) If the red test light on the backup battery pack comes on for approximately 10 seconds, the battery is good.

NOTE: The red test light will come on if the battery current is more than 5 amps across the test load, the fuses in the battery pack are good and the input voltage from the airplane is more than 20 volts DC.

NOTE: The backup battery has an internal slow (trickle) charger to continuously charge the battery from the input 28 volts DC from the airplane. The battery will not charge if the safety switch is in the DISARM position. The test switch on the battery will not operate.

(c) If the red test light on the backup battery does not come on, do these steps:

1) Make sure that the safety switch for the backup battery pack is in the ARM position.

2) Make sure that the circuit breakers given above are closed.

3) If the safety switch is at the ARM position, the circuit breakers are closed, and the red test light does not come on, the battery pack is not operational; do the applicable step.

a) Replace the backup battery pack with a battery pack that is fully charged.

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ARO ALL; AIRPLANES WITH THE S283W203-5 BATTERY (Continued)

<1> Do this task: Over Wing Escape System Backup Battery Pack Removal, TASK 52-12-24-000-804.

<2> Do this task: Over Wing Escape System Backup Battery Pack Installation, TASK 52-12-24-400-802.

b) Let the trickle charger inside the backup battery pack recharge the battery.

NOTE: It is possible there is an internal problem in the battery pack, a circuit breaker was open or there is an airplane wiring problem which could prevent the recharge of the battery pack.

NOTE: An alternative procedure is to let the trickle charger inside the battery assembly recharge the battery. A minimum of one to three hours from full discharge to adequate power to pass self-test and fire the outputs may be necessary.

<1> If you let the internal trickle charger recharge the battery, you must do the test in this procedure again before you release the airplane for service.

ARO ALL

F. Put the Airplane Back to its Usual Condition

SUBTASK 52-12-24-860-014

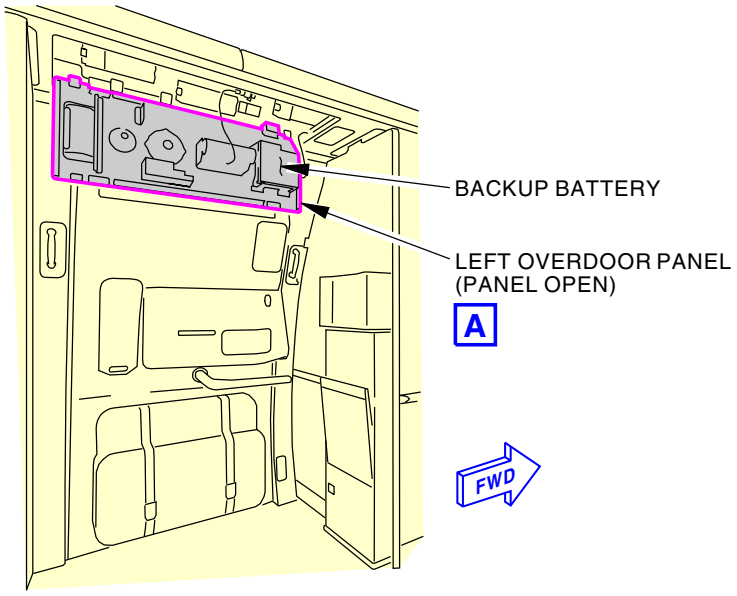
(1) Make sure that the safety switch for the backup battery is in the ARM position.

SUBTASK 52-12-24-410-010

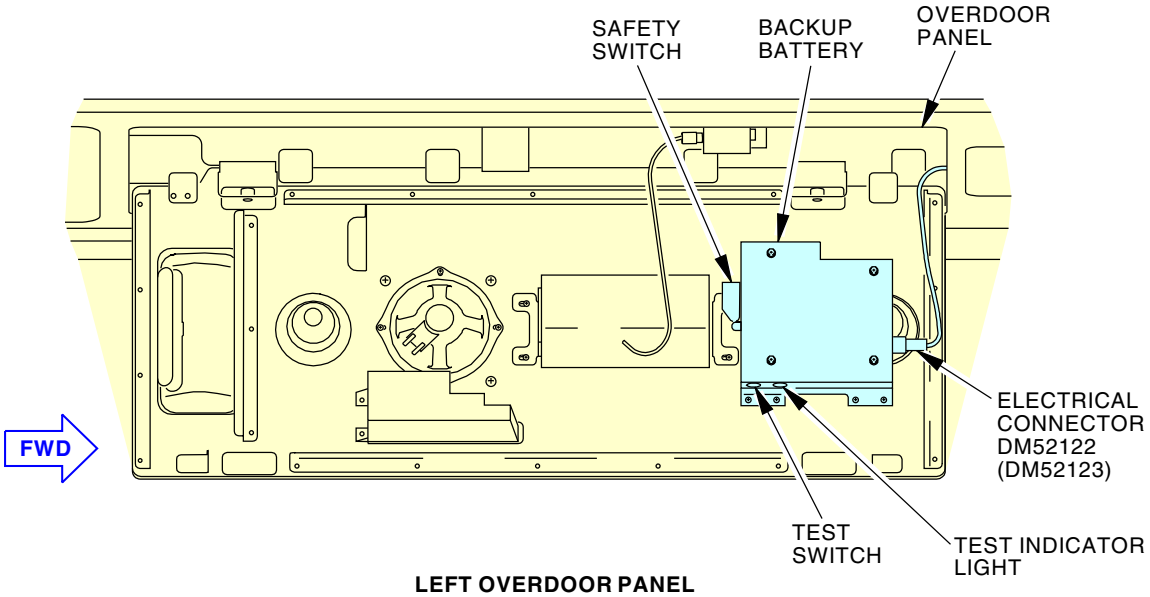
(2) Close the overhead panel at PED 3 (Overdoor Panel Installation/Closing, TASK 25-21-08-400-801).

——— END OF TASK ———

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**PED 3 (OVERWING EMERGENCY EXIT DOOR) CLOSED
(EXAMPLE)**



**LEFT OVERDOOR PANEL
(PANEL OPEN)
(RIGHT OVERDOOR PANEL OPPOSITE)**

A

L15536 S0006425275_V3

**Off-Wing Escape System Backup Battery Electrical Charge Check
Figure 601/52-12-24-990-802**

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DOOR LINING - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) Removal of the access panels.

(2) Installation of the access panels.

(3) Removal of the hinge covers.

(4) Installation of the hinge covers.

(5) Removal of the upper liner.

(6) Installation of the upper liner.

(7) Removal of the outboard cover and flap.

(8) Installation of the outboard cover and flap.

(9) Removal of the bustle closeout panel.

(10) Installation of the bustle closeout panel.

TASK 52-12-25-000-801

2. Access Panels Removal

(Figure 201)

A. General

(1) There are three access panels on the door. There is one access panel on the aft side of the door and two access panels on the forward side of the door.

(2) Removal of the access panels allows access to the mechanisms behind the upper liner.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43

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(Continued)

Zone	Area
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Removal

SUBTASK 52-12-25-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-25-860-002

(2) Get access to the forward top access panel [1], forward bottom access panel [3], aft access panel [5] as follows:

(a) Make sure the adjustable height cabin and general access stand, STD-1160, is outboard of the door.

(b) Open the door until the hinge is perpendicular to the door.

(c) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985.

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

F. Removal

SUBTASK 52-12-25-020-001

(1) Remove the forward top access panel [1], forward bottom access panel [3], or aft access panel [5] as follows:

(a) Turn the screws [2] that attach the panel to the door until they are disengaged from the door structure.

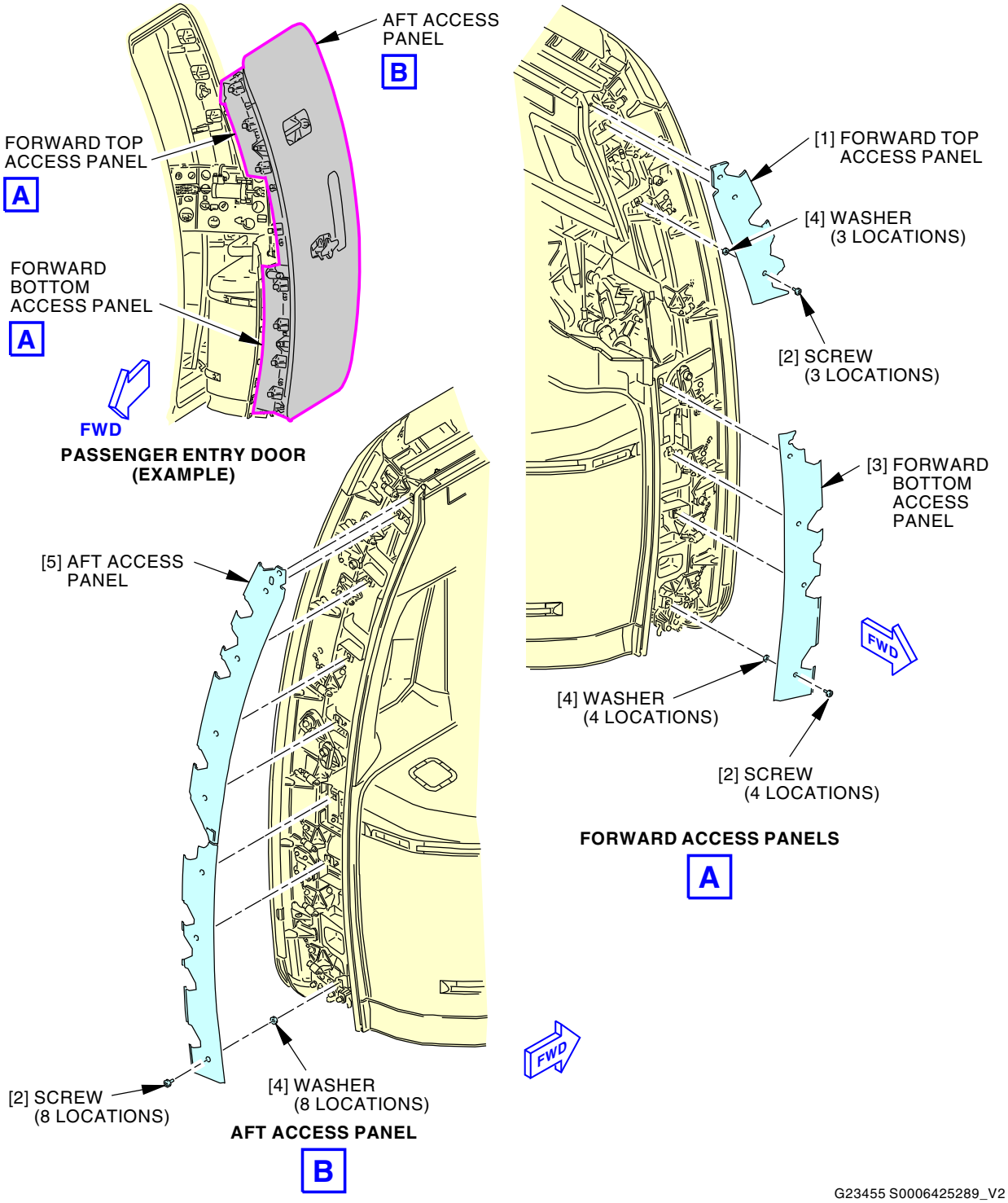
(b) Remove the panel.

(c) If it is necessary, remove the screws [2] and washers [4] that attach the panel to the door.

(d) Do these steps for each panel you will remove.

END OF TASK

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Access Panels Installation
Figure 201/52-12-25-990-806

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TASK 52-12-25-400-801

3. Access Panels Installation

(Figure 201)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Forward top access panel	52-11-25-25-090	ARO ALL
		52-11-25-25-095	ARO ALL
		52-12-25-15-100	ARO ALL
		52-12-25-15-105	ARO ALL
		52-12-25-16-030	ARO ALL
		52-12-25-16-035	ARO ALL
3	Forward bottom access panel	52-11-25-25-080	ARO ALL
		52-11-25-25-085	ARO ALL
		52-12-25-15-090	ARO ALL
		52-12-25-15-095	ARO ALL
		52-12-25-16-020	ARO ALL
		52-12-25-16-025	ARO ALL
5	Aft access panel	52-11-25-25-020	ARO ALL
		52-11-25-25-025	ARO ALL
		52-11-25-25-055	ARO ALL
		52-11-25-25-060	ARO ALL
		52-12-25-15-030	ARO ALL
		52-12-25-15-035	ARO ALL
		52-12-25-15-065	ARO ALL
		52-12-25-15-070	ARO ALL
		52-12-25-16-040	ARO ALL
		52-12-25-16-045	ARO ALL
		52-12-25-16-065	ARO ALL
		52-12-25-16-070	ARO ALL

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41

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(Continued)

Zone	Area
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Installation

SUBTASK 52-12-25-420-001

(1) Install the forward top access panel [1], forward bottom access panel [3], or aft access panel [5] as follows:

(a) If it is necessary, install the screws [2] and washers [4] on the panel.

(b) Hold the panel in its correct position.

(c) Turn the screws [2] to attach the panel to the door.

1) Install the screws [2] loosely, then adjust the position of the access panel and tighten them.

(d) Do these steps for each panel you will install.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-25-080-001

(1) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985.

SUBTASK 52-12-25-080-002

(2) Close the door.

SUBTASK 52-12-25-860-017

(3) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

TASK 52-12-25-000-802

4. Hinge Covers Removal

(Figure 202)

A. General

(1) There is a forward and aft hinge cover, closeout panel, and chain cover on the door.

(2) Removal of the hinge covers allows access to the components and mechanisms on the hinge arm.

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B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)

C. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Removal

SUBTASK 52-12-25-860-004

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-25-860-005

(2) Get access to the forward hinge cover [38] and the aft hinge cover [22] as follows:

(a) Make sure the adjustable height cabin and general access stand, STD-1160, is outboard of the door.

(b) Turn the interior handle to the open position.

F. Removal

SUBTASK 52-12-25-020-002

(1) Remove the closeout panel [21] as follows:

(a) For PED 1-4, remove the screw [23] that attaches the closeout panel [21] to the upper liner [61].

(b) For PED 5, remove the screw [24] and washer [25] that attach the closeout panel [21] to the upper liner [61].

(c) Pull the top edge of the closeout panel [21] from the slot in the stiffener.

(d) Remove the closeout panel [21].

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SUBTASK 52-12-25-010-001

(2) Remove the aft hinge cover [22] as follows:

(a) Remove the screw [31], washers [29], and washers [30] that attach the aft hinge cover [22] to the door structure.

NOTE: The aft hinge cover is spring-loaded to close.

(b) Remove the aft hinge cover [22].

SUBTASK 52-12-25-860-006

(3) Move the door to the fully open position.

SUBTASK 52-12-25-010-002

(4) Remove the forward hinge cover [38] as follows:

(a) Remove the screw [27] and screws [28] that attach the forward hinge cover [38] to the bottom of the hinge arm [44].

(b) Remove the screw [39], washer [40], and washers [45] that attach the forward hinge cover [38] to the forward side of the hinge arm [44].

(c) Remove the screw [32], washer [33], stop block [34], and screw [35] that attach the forward hinge cover [38] to the aft side of the hinge arm [44].

(d) Remove the screws [36] and washers [37] that attach the forward hinge cover [38] to the top of the hinge arm [44].

(e) Pull the forward hinge cover [38] inboard and aft to clear the hinge arm [44] and the door and remove the cover.

SUBTASK 52-12-25-010-003

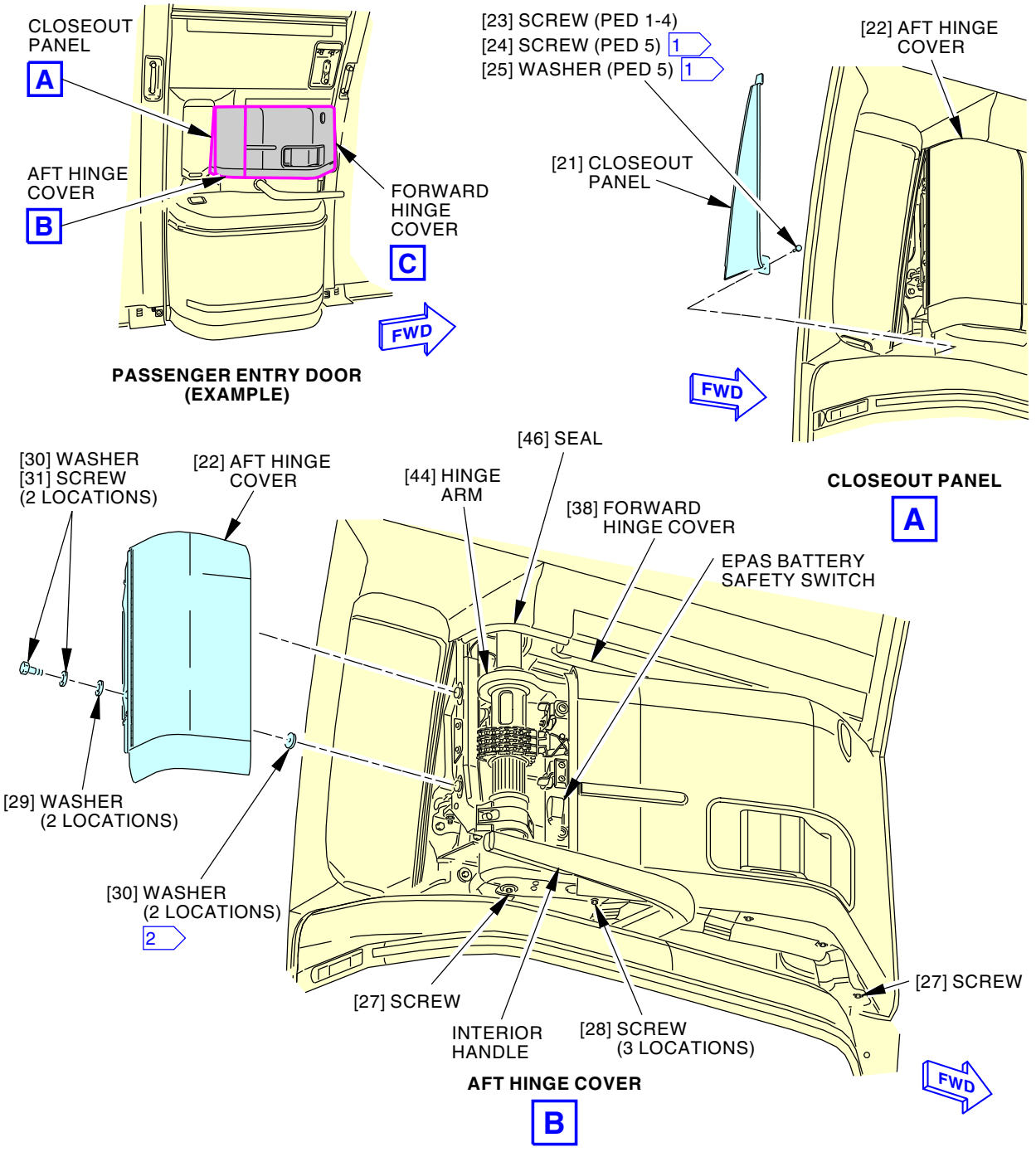
(5) Remove the chain cover [41] as follows:

(a) Remove the screw [42] and washer [43] that attach the chain cover [41] to the hinge arm [44].

(b) Remove the chain cover [41].

END OF TASK

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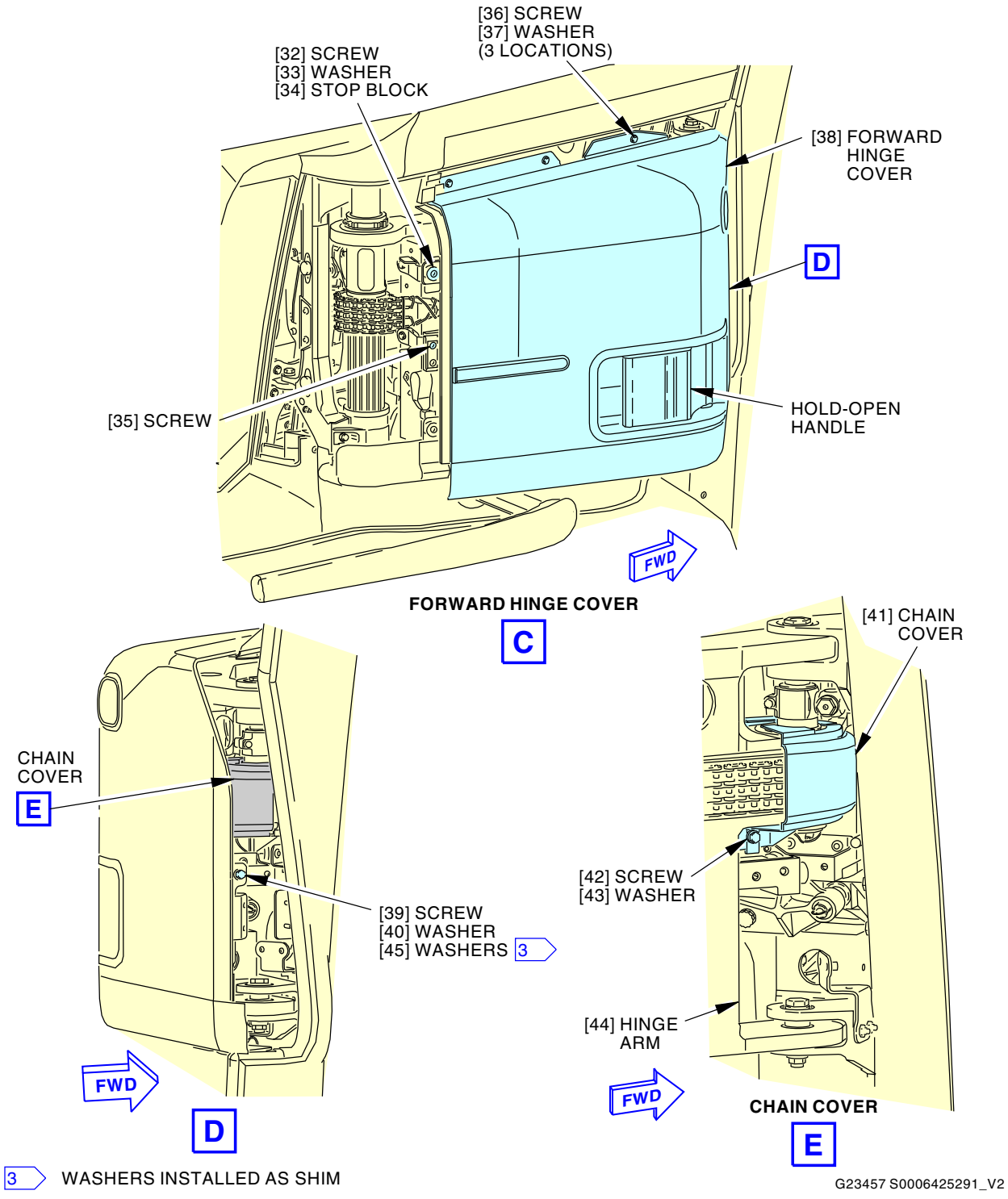
1 THE BRACKET AND FASTENER INSTALLATION IS HORIZONTAL NOT VERTICAL FOR PED 5.

2 1-2 WASHERS INSTALLED AS SHIM

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Hinge Covers Installation
Figure 202/52-12-25-990-807 (Sheet 1 of 2)

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Hinge Covers Installation
Figure 202/52-12-25-990-807 (Sheet 2 of 2)

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TASK 52-12-25-400-802

5. Hinge Covers Installation

(Figure 202)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
21	Closeout panel	52-12-25-20-195	ARO 001-016
		52-12-25-21-200	ARO ALL
		52-12-25-27-115	ARO ALL
22	Aft hinge cover	52-12-25-20-205	ARO 001-016
		52-12-25-21-210	ARO ALL
		52-12-25-27-140	ARO ALL
38	Forward hinge cover	52-12-25-20-215	ARO 001-016
		52-12-25-21-220	ARO ALL
		52-12-25-27-130	ARO ALL
41	Chain cover	52-12-25-20-225	ARO 001-016
		52-12-25-21-230	ARO ALL
		52-12-25-27-150	ARO ALL

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Installation

SUBTASK 52-12-25-860-007

(1) Make sure the door is in the fully open position.

SUBTASK 52-12-25-420-002

(2) Install the chain cover [41] as follows:

(a) Hold the chain cover [41] in its correct position.

(b) Install the screw [42] and washer [43] to attach the chain cover [41] to the hinge arm [44].

(c) Tighten the screw [42] until it is snug only.

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SUBTASK 52-12-25-420-003

(3) Install the forward hinge cover [38] as follows:

NOTE: Install the fasteners loosely, then adjust the position of the forward hinge cover and tighten the fasteners.

(a) Hold the forward hinge cover [38] in its correct position.

(b) Install the screws [36] and washers [37] to attach the forward hinge cover [38] to the top of the hinge arm [44].

(c) Install the screw [27] and screws [28] that attach the forward hinge cover [38] to the bottom of the hinge arm [44].

(d) Make sure the length of the screw [27] is sufficient to engage the locking feature of the shock mounts, but not too much to touch the shock mount supports.

(e) Install the screw [32], washer [33], stop block [34], and screw [35] to attach the forward hinge cover [38] to the aft side of the hinge arm [44].

(f) Install the screw [39], washer [40], and washers [45] to attach the forward hinge cover [38] to the forward side of the hinge arm [44].

(g) Add or remove the washers [45] to fill the clearance between the stiffener and the isolator if it is necessary.

SUBTASK 52-12-25-860-008

(4) Move the door to the closed but not lowered position.

SUBTASK 52-12-25-420-004

(5) Install the aft hinge cover [22] as follows:

(a) Hold the aft hinge cover [22] in its correct position.

(b) Install the screws [31], washers [29], and washers [30] to attach the aft hinge cover [22].

1) Install the screws [31] loosely.

2) Adjust the position of the aft hinge cover and tighten the screw.

(c) With the door closed, make sure the height of the aft hinge cover [22] and forward hinge cover [38] are even ± 0.03 in. (0.76 mm).

1) If it is necessary, adjust as follows:

a) Move the aft hinge cover [22] in the slots on the piano-hinge leg to adjust the height of the aft hinge cover [22].

(d) With the door closed, make sure the clearance between the aft hinge cover [22] and the forward hinge cover [38] is 0.125 ±0.050 in. (3.175 ±1.270 mm) and equal in width along the length within 0.03 in. (0.76 mm).

1) If it is necessary, adjust as follows:

a) Add or remove the washers [29] between the aft hinge cover [22] and the shock mounts on the door structure to get the correct clearance.

(e) With the door closed, make sure the angle between the forward hinge cover [38] and the aft hinge cover [22] surfaces is 180 degrees.

SUBTASK 52-12-25-420-005

(6) Install the closeout panel [21] as follows:

(a) Put the upper edge of the closeout panel [21] into the slot in the stiffener and move the outboard edge into the window shade track.

(b) Make sure the seal [46] is in its correct position.

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(c) For PED 1-4, install the screw [23] to attach the closeout panel [21] to the upper liner [61].

(d) For PED 5, install the screw [24] and washer [25] to attach the closeout panel [21] to the upper liner [61].

(e) With the door closed, make sure the clearance between the closeout panel [21] and the upper liner [61] is 0.10 ±0.03 in. (2.54 ±0.76 mm).

(f) With the door closed, make sure the clearance between the closeout panel [21] and the aft hinge cover [22] is equal within 0.03 in. (0.76 mm) along the length.

1) If it is necessary, adjust as follows:

a) Bend the bracket to get the correct clearance.

E. Installation Test

SUBTASK 52-12-25-860-009

(1) Turn the EPAS battery safety switch to the ARM position.

SUBTASK 52-12-25-710-001

(2) Do a test on the aft hinge cover [22] and the forward hinge cover [38] as follows:

(a) Open and close the door.

(b) Make sure the aft hinge cover [22] and forward hinge cover [38] operate smoothly and do not bind.

(c) Make sure the aft hinge cover [22] and the forward hinge cover [38] touch only at the rub strip.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-25-080-003

(1) Close the door.

SUBTASK 52-12-25-860-018

(2) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

TASK 52-12-25-000-803

6. Upper Liner Removal

(Figure 203)

A. General

(1) Removal of the upper liner allows access to the upper components and mechanisms on the door.

(2) Two persons are necessary to do this procedure: one person on each side of the door.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-66-06-000-801	Bustle Removal (P/B 401)
52-12-15-000-801	Mode Select Handle Removal (P/B 201)

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C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Removal

SUBTASK 52-12-25-860-010

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-25-860-011

(2) Get access to the upper liner [61] as follows:

(a) Do this task: Access Panels Removal, TASK 52-12-25-000-801.

(b) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

(c) Do this task: Bustle Removal, TASK 25-66-06-000-801.

(d) Remove the interior handle.

(e) Do this task: Mode Select Handle Removal, TASK 52-12-15-000-801.

(f) Make sure the adjustable height cabin and general access stand, STD-1160, is outboard of the door.

(g) Open the door until the hinge is perpendicular to the door.

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ARO ALL; AIRPLANES WITH LATCH INTERLOCKS

(h) Disengage the latch interlock.

ARO ALL

(i) Turn the exterior handle until the door is in the lowered position.

(j) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985.

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

F. Removal

SUBTASK 52-12-25-020-003

(1) Remove the upper liner [61] as follows:

(a) Put the passenger entry door in the closed position.

1) Make sure door is fully closed and locked.

(b) Remove the bolts [65] and washers [66] that attach the upper liner [61] to the top of the door.

(c) Remove the bolts [62] and washers [63] to disconnect the brackets [64] that attach the upper liner [61] to the top sides of the door.

(d) Remove the bolts [67] and washers [68] that attach the upper liner [61] to the upper support bracket [74] behind the upper liner [61].

(e) Remove the bolts [69] and washers [70] that attach the upper liner [61] to the lower support bracket [75] behind the upper liner [61].

(f) Remove the spacers [71], nuts [72], or nuts [73] that attach the upper liner [61] to the sides of the door.

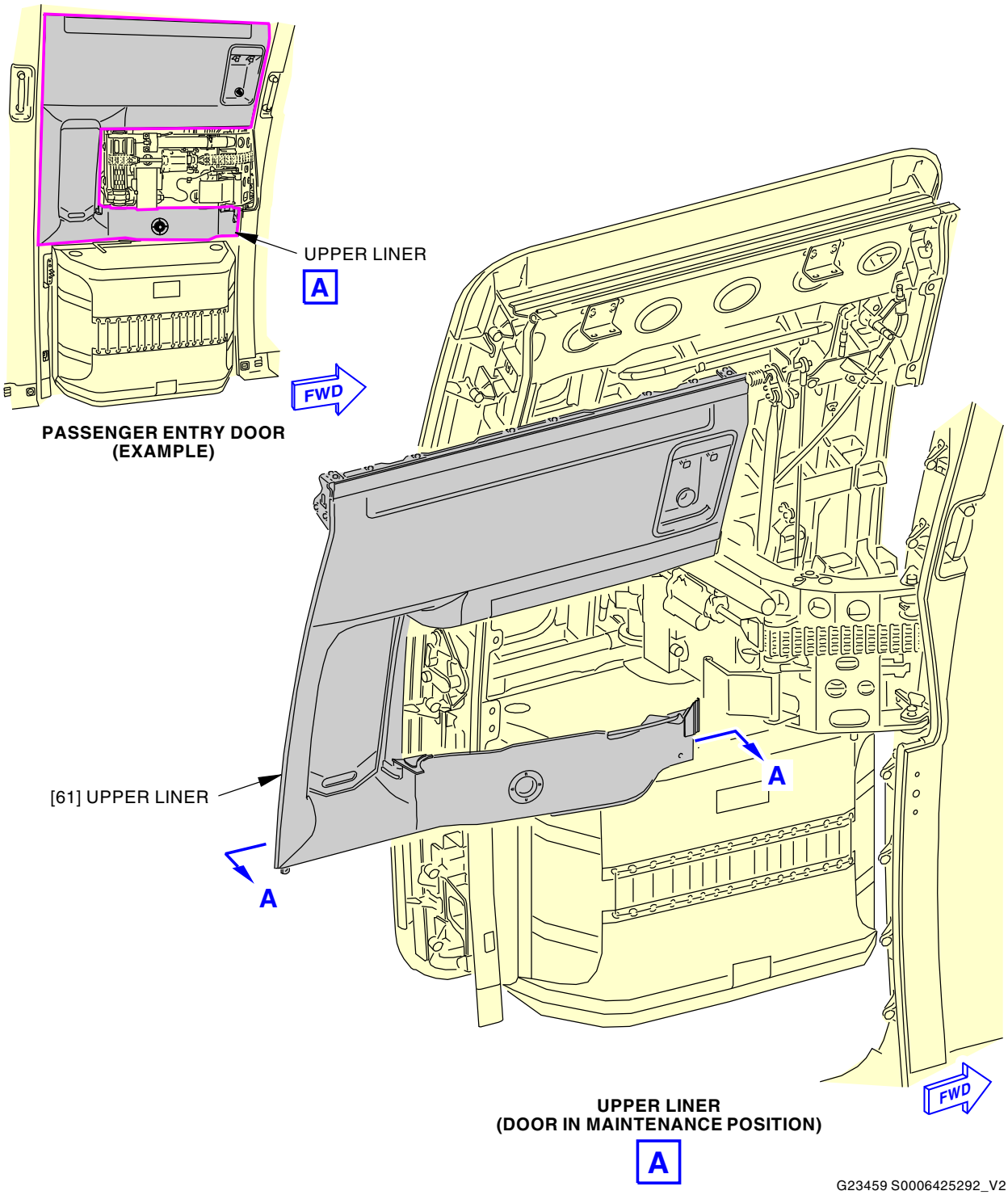
(g) With one person on each side of the door, pull the upper liner [61] away from the door and move it aft off of the hinge arm [44].

NOTE: Be careful when you handle the upper liner. Damage can easily occur.

(h) Remove the upper liner [61].

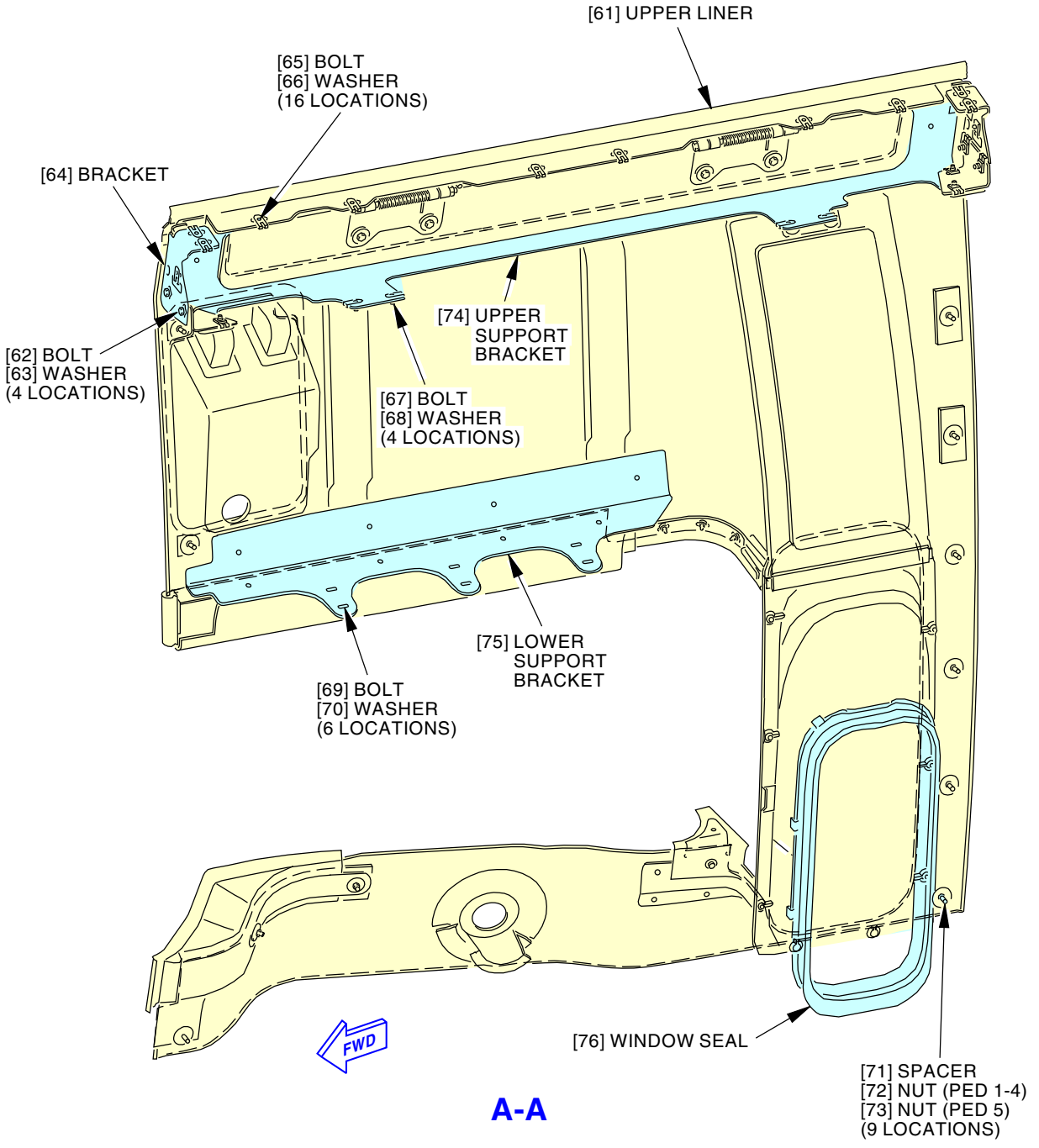
——— END OF TASK ———

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Upper Liner Installation
Figure 203/52-12-25-990-808 (Sheet 1 of 2)

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Upper Liner Installation
Figure 203/52-12-25-990-808 (Sheet 2 of 2)

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TASK 52-12-25-400-803

7. Upper Liner Installation

(Figure 203)

A. General

(1) Two persons are necessary to do this procedure: one person on each side of the door.

B. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
25-66-06-400-801	Bustle Installation (P/B 401)
52-12-15-400-801	Mode Select Handle Installation (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
61	Upper liner	52-12-25-20-235	ARO 001-016
		52-12-25-21-240	ARO ALL
		52-12-25-27-160	ARO ALL

E. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

F. Installation

SUBTASK 52-12-25-420-006

(1) Install the upper liner [61] as follows:

NOTE: Install the fasteners loosely, then adjust the position of the upper liner and tighten the fasteners.

(a) Make sure that the passenger entry door is fully closed and locked.

Hold the upper liner [61] in its correct position as follows:

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1) Make sure the window seal [76] touches the window all around its edge.
2) Make sure the mode select handle and interior handle shafts are in the center of their cutouts.
3) Make sure the upper liner [61] does not touch the hinge lift assembly.

(b) Install the bolts [65] and washers [66] to attach the upper liner [61] to the top of the door.

(c) Install the bolts [62] and washers [63] to connect the brackets [64] that attach the upper liner [61] to the top sides of the door.

(d) Install the bolts [67] and washers [68] to attach the upper liner [61] to the upper support bracket [74] behind the upper liner [61].

(e) Install the bolts [69] and washers [70] to attach the upper liner [61] to the lower support bracket [75] behind the upper liner [61].

(f) Install the spacers [71], nuts [72] or nuts [73] to attach the upper liner [61] to the sides of the door.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-25-860-012

(1) Close access to the upper liner [61] as follows:

(a) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985.

(b) Turn the exterior handle to the open position.

(c) Install the interior handle.

(d) Do this task: Mode Select Handle Installation, TASK 52-12-15-400-801.

(e) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

(f) With the door closed, make sure the clearance between the upper liner [61] and the forward hinge cover [38] is 0.125 ±0.050 in. (3.2 ±1.3 mm) (Figure 202).

(g) Do this task: Bustle Installation, TASK 25-66-06-400-801.

(h) Do this task: Access Panels Installation, TASK 52-12-25-400-801.

(i) With the door closed, make sure the clearance between the upper liner [61] and the doorway access panels is equal in width along the length within 0.10 in. (2.54 mm).

SUBTASK 52-12-25-080-004

(2) Close the door.

SUBTASK 52-12-25-860-019

(3) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

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TASK 52-12-25-000-804

8. Outboard Cover and Flap Removal

(Figure 204)

A. General

(1) There is an outboard cover and flap on passenger entry doors 1L and 2L.

(2) Removal of the outboard cover and flap allows access to the components and mechanisms behind the hinge.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43

D. Prepare for the Removal

SUBTASK 52-12-25-860-014

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) Turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-25-860-015

(2) Get access to the outboard cover [91] and flap [94] as follows:

(a) Make sure the adjustable height cabin and general access stand, STD-1160, is outboard of the door.

(b) Open the door until the hinge is perpendicular to the door.

(c) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985.

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

E. Removal

SUBTASK 52-12-25-020-004

(1) Remove the outboard cover [91] and flap [94] as follows:

(a) Pull the flap [94] from the outboard cover [91].

NOTE: The flap [94] is attached to the outboard cover [91] with hook and loop tape.

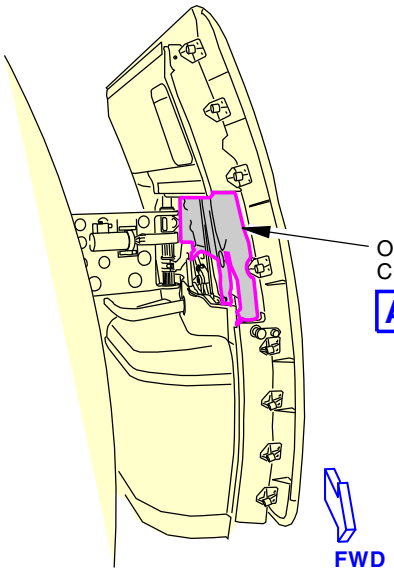
(b) Remove the screws [92] and washers [93] that attach the outboard cover [91] to the door.

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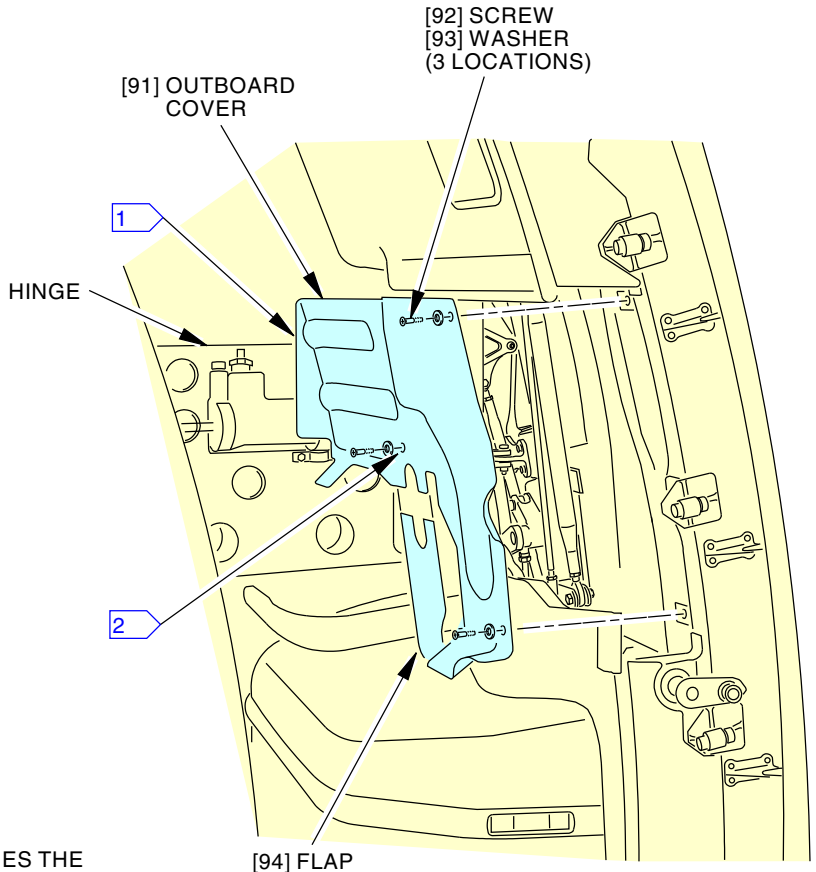
(c) Pull the outboard cover [91] from the door and disengage the hook and loop tape between the aft side of the outboard cover [91] and the lift assembly on the door.

——— END OF TASK ———

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PASSENGER ENTRY DOOR
1L OR 2L
(EXAMPLE)



1 HOOK AND LOOP TAPE ATTACHES THE AFT SIDE OF THE OUTBOARD COVER TO THE LIFT ASSEMBLY ON THE DOOR.

2 MAKE SURE THE FASTENER DOES NOT TOUCH THE WIRE BUNDLE BEHIND THE OUTBOARD COVER AT THIS LOCATION.

3 HOOK AND LOOP TAPE ATTACHES THE FLAP TO THE OUTBOARD COVER.

G23461 S0006425294_V2

Outboard Cover and Flap PASSENGER ENTRY DOOR 1L AND 2L - Installation
Figure 204/52-12-25-990-809

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TASK 52-12-25-400-804

9. Outboard Cover and Flap Installation

(Figure 204)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205

B. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43

C. Installation

SUBTASK 52-12-25-420-007

(1) Install the outboard cover [91] and flap [94] as follows:

(a) Put the outboard cover [91] in its correct position on the door and engage the hook and loop tape on the aft side of the outboard cover [91] to the lift assembly on the door.

(b) It is permitted for the edge of the flange on the outboard cover [91] to be misaligned with the hook tape on the lift assembly up to 0.20 in. (5.08 mm) outboard or inboard.

(c) Install the screws [92] and washers [93] to attach the outboard cover [91] to the door.

(d) Make sure the screws [92] does not touch the wire bundle behind the outboard cover [91] at the location shown, (Figure 204).

(e) Put the flap [94] in its correct position on the outboard cover [91] around the pull (disarm) cable and engage the hook and loop tape.

(f) It is permitted for the flap [94] to touch the door mechanism, but make sure it does not interfere with the door operation.

D. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-25-080-005

(1) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985.

SUBTASK 52-12-25-080-006

(2) Close the door.

SUBTASK 52-12-25-860-020

(3) Arm the door as follows:

(a) Turn the EPAS battery safety switch to the ARM position.

——— END OF TASK ———

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TASK 52-12-25-000-805

10. Bustle Closeout Panel Removal

(Figure 205)

A. General

(1) Removal of the bustle closeout panel gives access to the push/pull cable on doors 1, 2, 4, and 5.

B. References

Reference	Title
25-66-01-000-801	Door-Mounted Escape Slide Pack Removal (P/B 401)

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Prepare for the Removal

SUBTASK 52-12-25-860-021

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) Turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-25-860-022

(2) Get access to the bustle closeout panel [3] as follows:

(a) Do this task: Door-Mounted Escape Slide Pack Removal, TASK 25-66-01-000-801.

SUBTASK 52-12-25-010-004

(3) Do this task: Access Panels Removal, TASK 52-12-25-000-801.

NOTE: Only remove the forward, bottom access panel.

E. Removal

SUBTASK 52-12-25-020-005

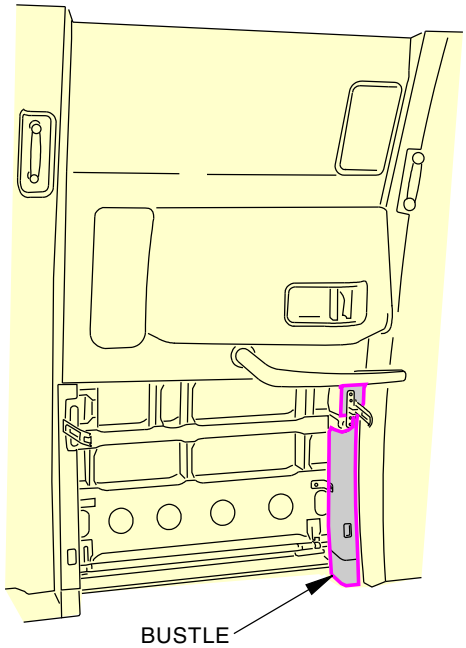
(1) Remove the bustle closeout panel [3] as follows:

(a) Remove the nuts [1], spacers [2], screws [5], washers [4], screw [7], and washer [6] that attach the bustle closeout panel [3] to the door structure.

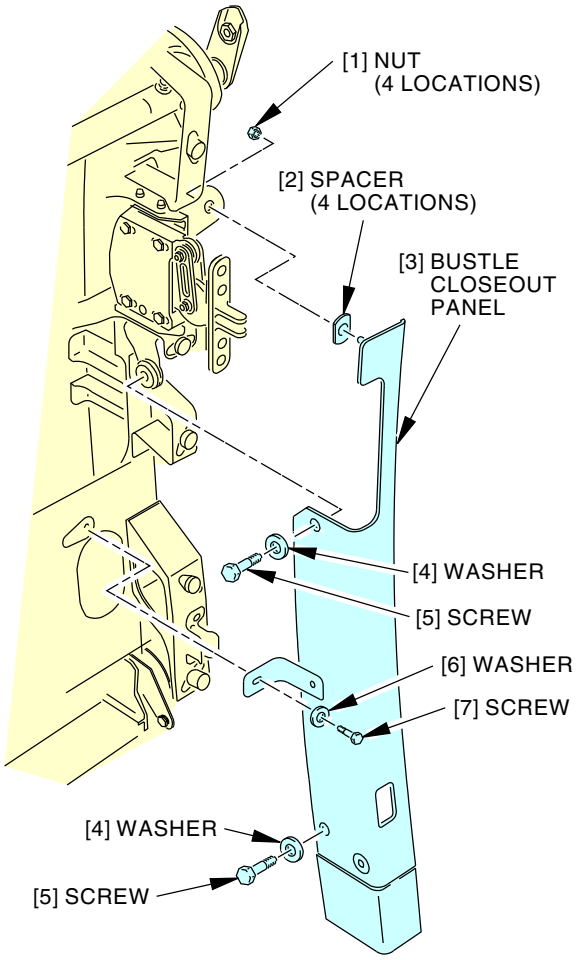
(b) Remove the bustle closeout panel [3].

END OF TASK

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**PASSENGER ENTRY DOOR
(BUSTLE AND ESCAPE SLIDE REMOVED)**



BUSTLE CLOSEOUT PANEL

A

H83872 S0006425295_V2

**Bustle Closeout Panel Installation
Figure 205/52-12-25-990-810**

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TASK 52-12-25-400-805

11. Bustle Closeout Panel Installation

(Figure 205)

A. References

Reference	Title
25-66-01-400-801	Door-Mounted Escape Slide Pack Installation (P/B 401)

B. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

C. Installation

SUBTASK 52-12-25-420-008

(1) Install the bustle closeout panel [3] as follows:

(a) Put the bustle closeout panel [3] in the correct position on the door structure.

(b) Install the nuts [1], spacers [2], screws [5], washers [4], screw [7], and washer [6] that attach the bustle closeout panel [3] to the door structure.

D. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-25-410-002

(1) Do this task: Access Panels Installation, TASK 52-12-25-400-801.

SUBTASK 52-12-25-410-001

(2) Do this task: Door-Mounted Escape Slide Pack Installation, TASK 25-66-01-400-801.

SUBTASK 52-12-25-860-023

(3) Turn the EPAS battery safety switch to the ARM position.

——— END OF TASK ———

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FLIGHT LOCK MECHANISM - MAINTENANCE PRACTICES

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal of the flight lock actuator.

(2) An installation of the flight lock actuator.

(3) A removal of the flight lock mechanism.

(4) An installation of the flight lock mechanism.

(5) A test of the flight lock control.

(6) A check of the flight lock mechanism.

TASK 52-12-26-000-801

2. Flight Lock Actuator Removal

(Figure 201)

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-66-01-000-801	Door-Mounted Escape Slide Pack Removal (P/B 401)
25-66-01-400-801	Door-Mounted Escape Slide Pack Installation (P/B 401)
25-66-06-000-801	Bustle Removal (P/B 401)
52-12-25-000-803	Upper Liner Removal (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

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D. Prepare for the Removal

SUBTASK 52-12-26-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

(d) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

Row	Col	Number	Name
N	15	C52611	L FLT LOCK DR

Right Power Management Panel, P210

Row	Col	Number	Name
N	8	C52610	R FLT LOCK DR

SUBTASK 52-12-26-010-001

(2) Get access to the flight lock mechanism [3] as follows:

(a) Make sure the adjustable height cabin and general access stand, STD-1160 is outboard of the door.

(b) Open the door until the hinge is perpendicular to the door.

NOTE: In the event that the passenger door is in the closed position and cannot be opened due to an engaged Flight Lock Actuator, gain access to the flight lock mechanism as necessary by performing AMM tasks: Upper Liner Removal, TASK 52-12-25-000-803, Bustle Removal, TASK 25-66-06-000-801, Door-Mounted Escape Slide Pack Removal, TASK 25-66-01-000-801/Door-Mounted Escape Slide Pack Installation, TASK 25-66-01-400-801. If further instruction is required, contact Boeing.

(c) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985.

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

E. Removal

SUBTASK 52-12-26-020-001

(1) Disconnect the interlock rod [11] from the interlock roller arm [4] as follows:

(a) Remove the bolt [6], washer [7], bushing [8], washer [9], and nut [10] that attach the interlock rod [11] to the interlock roller arm [4].

SUBTASK 52-12-26-020-002

(2) Disconnect the flight lock mechanism [3] from the door structure [2] to get access to the flight lock actuator [1] as follows:

(a) Remove the bolt [13], washer [14], bushing [15], washer [16], and nut [17] that attach the flight lock mechanism [3] to the door structure [2].

(b) Turn the flight lock mechanism [3] inboard to get access to the flight lock actuator [1].

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ARO ALL; AIRPLANES WITH P/N 904800-01 FLIGHT LOCK ACTUATOR

SUBTASK 52-12-26-020-008

(3) Disconnect the flight lock actuator [1] from the flight lock mechanism [3] as follows:

(a) Disconnect the electrical connector [12] from the flight lock actuator [1].

(b) Remove the bolt [26], washer [27], bushing [32], washer [29], and nut [30] that attach the flight lock actuator [1] to the lever [25].

(c) Remove the bolt [18], washer [19], bushing [20], washer [31], bushing [21], washer [22], and nut [23] that attach the flight lock actuator [1] to the housing [24].

NOTE: Make a note of the position of the parts for the subsequent installation.

ARO ALL

SUBTASK 52-12-26-020-004

(4) Remove the flight lock actuator [1] from the flight lock mechanism [3].

——— END OF TASK ———

TASK 52-12-26-400-801

3. Flight Lock Actuator Installation

(Figure 201)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Flight lock actuator	52-12-26-01-098	ARO ALL
		52-12-26-10-100	ARO ALL

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

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E. Installation

ARO ALL; AIRPLANES WITH P/N 904800-01 FLIGHT LOCK ACTUATOR

SUBTASK 52-12-26-420-007

(1) Connect the flight lock actuator [1] to the flight lock mechanism [3] as follows:

(a) Hold the flight lock actuator [1] and install the bolt [18], washer [19], bushing [20], washer [31], bushing [21], washer [22], and nut [23] to attach the flight lock actuator [1] to the housing [24].

(b) Make sure that the installed bushing [32] length is more than 0.375 in. (9.525 mm) and less than 0.380 in. (9.652 mm)

1) Replace the bushing [32] if it is not within limits.

(c) Install the bolt [26], washer [27], bushing [32], washer [29], and nut [30] that attach the flight lock actuator [1] to the lever [25].

(d) Connect the electrical connector [12] to the flight lock actuator [1].

ARO ALL

SUBTASK 52-12-26-420-002

(2) Connect the flight lock mechanism [3] to the door structure [2] as follows:

(a) Turn the flight lock mechanism [3] up to its correct position.

(b) Install the bolt [13], washer [14], bushing [15], washer [16], and nut [17] to attach the flight lock mechanism [3] to the door structure [2].

SUBTASK 52-12-26-420-003

(3) Connect the interlock rod [11] to the interlock roller arm [4] as follows:

(a) Install the bolt [6], washer [7], bushing [8], washer [9], and nut [10] to attach the interlock rod [11] to the interlock roller arm [4].

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-26-080-001

(1) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985.

SUBTASK 52-12-26-860-002

(2) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

Row	Col	Number	Name
N	15	C52611	L FLT LOCK DR

Right Power Management Panel, P210

Row	Col	Number	Name
N	8	C52610	R FLT LOCK DR

SUBTASK 52-12-26-860-010

(3) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

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G. Installation Test

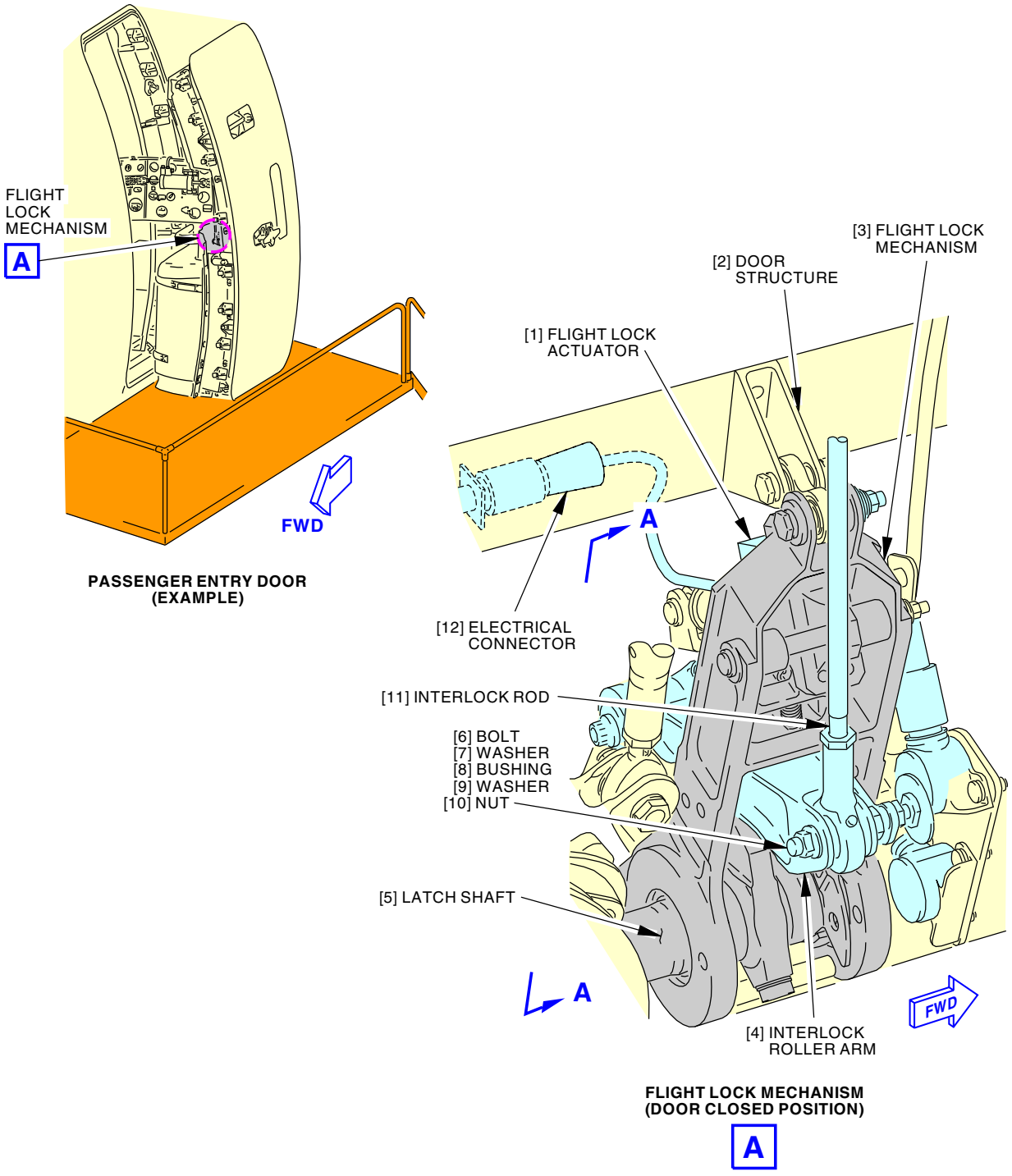
SUBTASK 52-12-26-720-001

(1) Do this task: Flight Lock Control Test, TASK 52-12-26-740-801.

NOTE: Only do the test for the door you replaced the flight lock actuator [1] on.

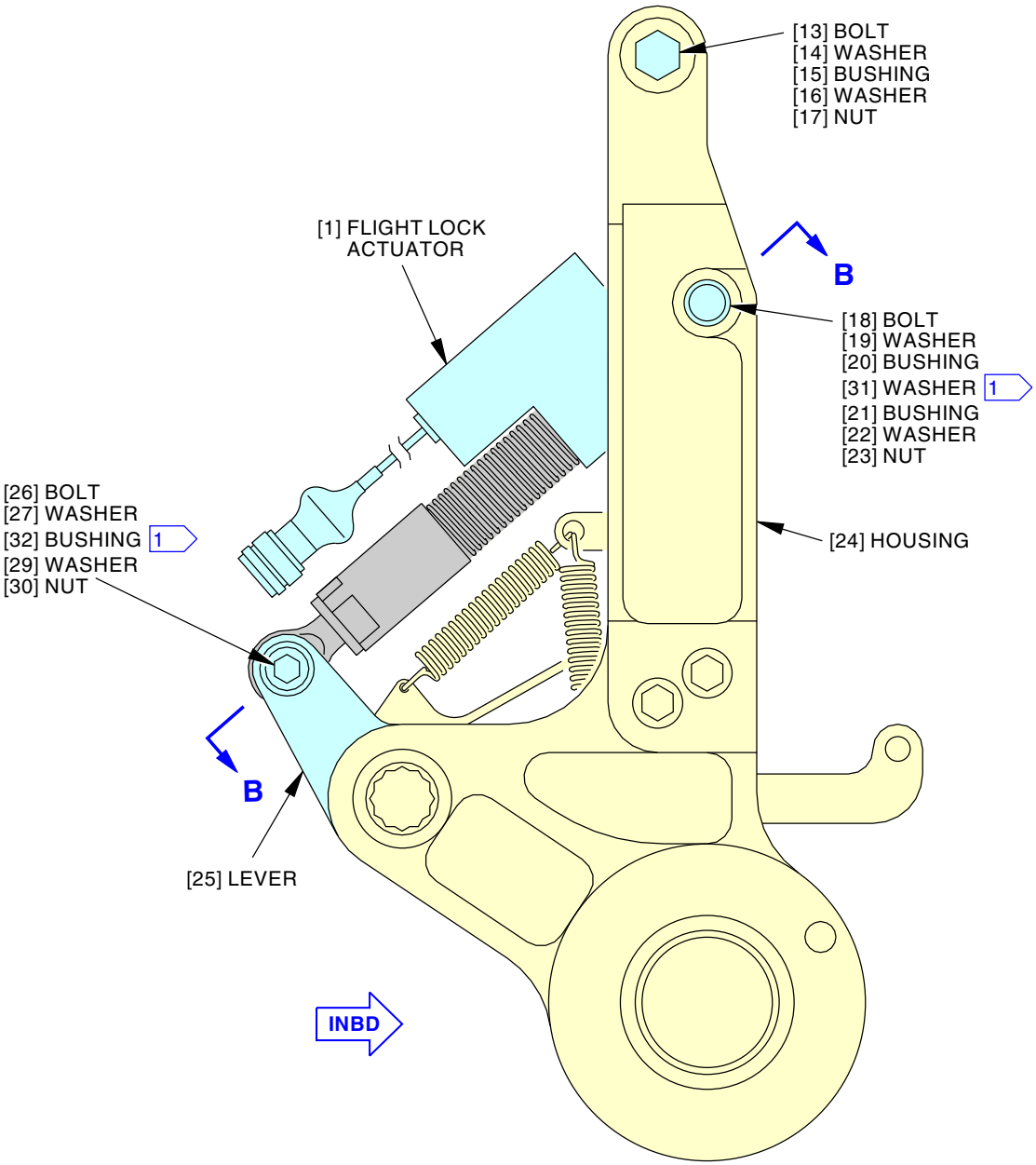
——— END OF TASK ———

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Flight Lock Actuator Installation
Figure 201/52-12-26-990-806 (Sheet 1 of 3)

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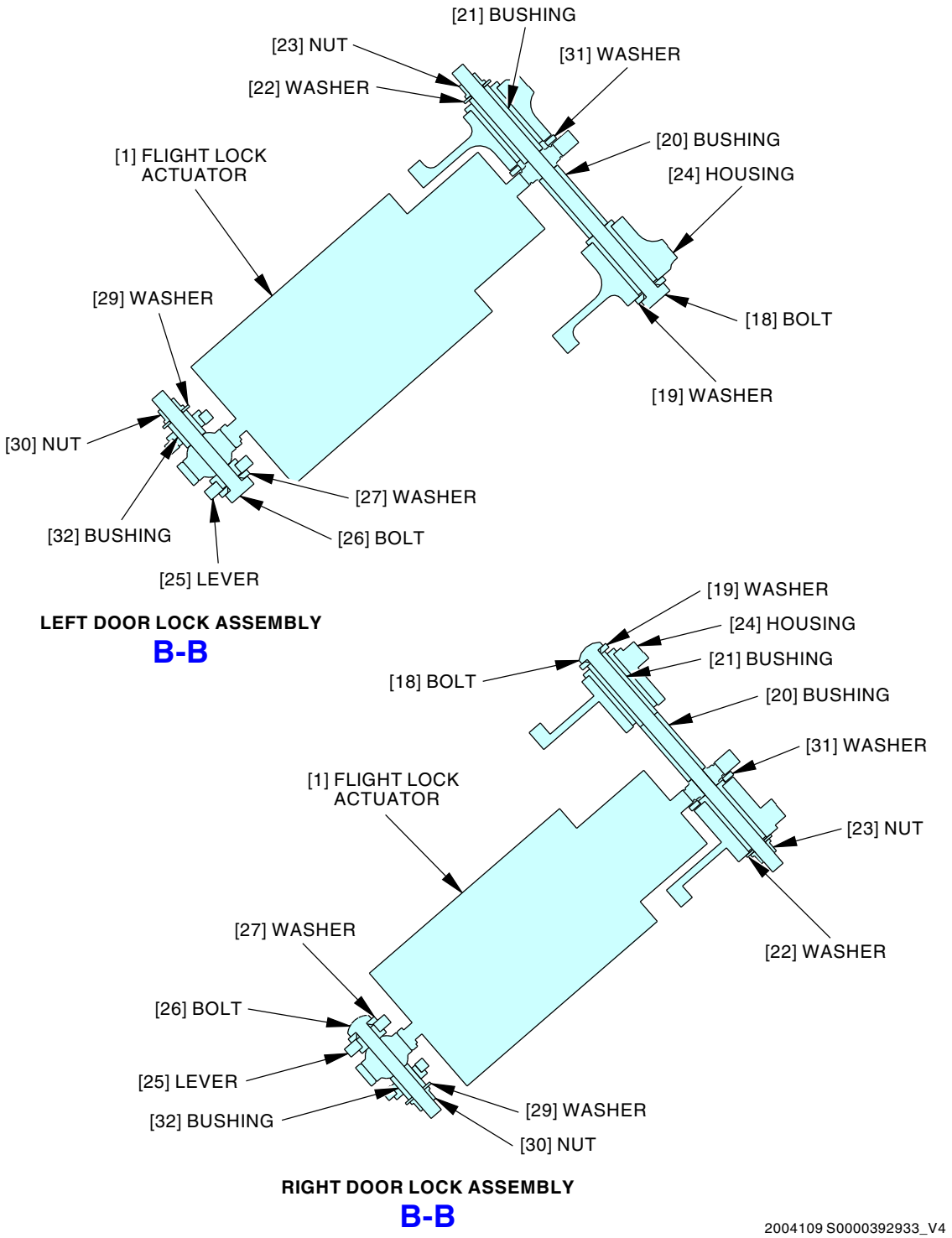
A-A

1 MAKE SURE THAT THE INSULATION WASHER [31] IS INSTALLED AND THE BUSHING [32] HAS THE CORRECT DIMENSIONS.

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Flight Lock Actuator Installation
Figure 201/52-12-26-990-806 (Sheet 2 of 3)

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Flight Lock Actuator Installation
Figure 201/52-12-26-990-806 (Sheet 3 of 3)

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TASK 52-12-26-000-802

4. Flight Lock Mechanism Removal

(Figure 202)

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1146	Pad - Protective, Ensolite or Equivalent 1/2 Inch by 72 Inches by 96 Inches
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Prepare for the Removal

SUBTASK 52-12-26-860-004

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

(d) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

Row	Col	Number	Name
N	15	C52611	L FLT LOCK DR

Right Power Management Panel, P210

Row	Col	Number	Name
N	8	C52610	R FLT LOCK DR

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SUBTASK 52-12-26-010-002

(2) Get access to the flight lock mechanism [3] as follows:

(a) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

(b) Make sure the adjustable height cabin and general access stand, STD-1160 is outboard of the door.

(c) Open the door until the hinge is perpendicular to the door.

E. Removal

SUBTASK 52-12-26-020-005

(1) Disconnect the latch mechanism from the door as follows:

ARO ALL; AIRPLANES WITH LATCH INTERLOCKS

(a) Disengage the latch interlock.

ARO ALL

(b) Turn the interior handle to lower the door onto a protective pad, STD-1146 to make sure the door weight is not on the secondary lift pushrod [41] at the latch shaft [5].

(c) Remove the bolt [52], washer [53], bushing [54], washer [55], and nut [56] to disconnect the secondary lift pushrod [41] at the latch shaft [5].

NOTE: You can turn the interior handle toward the open position to make it easier to remove the bolt [52], but do not let the gas spring [43] snap the handle cam [45] to the fully open or closed position.

(d) Remove the bolt [47], washer [48], bushing [49], washer [50], and nut [51] to disconnect the latch pushrod [46] at the latch shaft [5].

(e) Remove the bolts [57], washers [58], washers [59], and nuts [60] that attach the latch crank [44] to the latch shaft [5].

(f) Remove the latch crank [44].

NOTE: Keep the latch crank [44] for the subsequent installation. The latch mechanism is a matched drilled assembly.

SUBTASK 52-12-26-020-006

(2) Disconnect the flight lock mechanism [3] from the door structure [2] as follows:

(a) Disconnect the electrical connectors [12] [61] to the flight lock actuator [1] and the flight lock engaged and disengaged proximity sensors [62].

(b) Remove the bolt [65], interlock pin [66], washer [67], and nut [68] that attach the interlock hook [63] to the latch shaft [5].

(c) Remove the bolt [69], washer [70], and nut [71] that go through the latch shaft [5] at the flight lock mechanism [3].

(d) Remove the bolt [6], washer [7], bushing [8], washer [9], and nut [10] that attach the interlock rod [11] to the interlock roller arm [4].

(e) Remove the bolt [13], washer [14], bushing [15], washer [16], and nut [17] that attach the flight lock mechanism [3] to the door structure [2].

SUBTASK 52-12-26-020-007

(3) Remove the flight lock mechanism [3] from the latch mechanism as follows:

(a) Pull the latch shaft [5] aft through the handle box [42].

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(b) Move the flight lock mechanism [3] and interlock hook [63] forward over the end of the latch shaft [5].

NOTE: A self-aligning bearing in the handle box allows you to turn the latch shaft to get clearance for the flight lock mechanism.

(c) Remove the flight lock mechanism [3] from the airplane.

——— END OF TASK ———

TASK 52-12-26-400-802

5. Flight Lock Mechanism Installation

(Figure 202)

A. References

Reference	Title
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-00-730-801	Passenger Entry Door System Test (P/B 501)

B. Tools/Equipment

Reference	Description
STD-1146	Pad - Protective, Ensolite or Equivalent 1/2 Inch by 72 Inches by 96 Inches

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Installation

SUBTASK 52-12-26-420-004

(1) Install the flight lock mechanism [3] on the latch mechanism as follows:

(a) Put the flight lock mechanism [3] and interlock hook [63] over the forward end of the latch shaft [5].

(b) Move the flight lock mechanism [3] aft on the latch shaft [5].

(c) Push the latch shaft [5] forward through the handle box [42].

SUBTASK 52-12-26-420-005

(2) Connect the flight lock mechanism [3] to the door structure [2] as follows:

(a) Put the flight lock mechanism [3] in its correct position.

(b) Install the bolt [13], washer [14], bushing [15], washer [16], and nut [17] to attach the flight lock mechanism [3] to the door structure [2].

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(c) Install the bolt [6], washer [7], bushing [8], washer [9], and nut [10] to attach the interlock rod [11] to the interlock roller arm [4].

(d) Install the bolt [69], washer [70], and nut [71] that go through the latch shaft [5] at the flight lock mechanism [3].

(e) Tighten the nut [71] with your hand.

(f) Install the bolt [65], interlock pin [66], washer [67], and nut [68] to attach the interlock hook [63] to the latch shaft [5].

(g) Tighten the nut [68] with your hand.

(h) Connect the electrical connectors [12], [61] to the flight lock actuator [1] and the flight lock engaged and disengaged proximity sensors [62].

SUBTASK 52-12-26-420-006

(3) Connect the latch mechanism to the door as follows:

(a) Hold the latch crank [44] in the correct positions and install the bolts [57], washers [58], washers [59], and nuts [60] to attach the latch crank [44] to the latch shaft [5].

(b) Install the bolt [47], washer [48], bushing [49], washer [50], and nut [51] to connect the latch pushrod [46] at the latch shaft [5].

(c) Install the bolt [52], washer [53], bushing [54], washer [55], and nut [56] to connect the secondary lift pushrod [41] at the latch shaft [5].

NOTE: You can turn the interior handle toward the open position to make it easier to install the bolt [52], but do not let the gas spring [43] snap the handle cam [45] to the fully open or close position.

(d) Turn the interior handle to the open position and lift the door.

(e) Remove the protective pad, STD-1146.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-26-860-005

(1) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

Row	Col	Number	Name
N	15	C52611	L FLT LOCK DR

Right Power Management Panel, P210

Row	Col	Number	Name
N	8	C52610	R FLT LOCK DR

SUBTASK 52-12-26-860-011

(2) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

F. Installation Test

SUBTASK 52-12-26-720-002

(1) Do this task: Flight Lock Control Test, TASK 52-12-26-740-801.

NOTE: Only do the test for the door you replaced the flight lock mechanism on.

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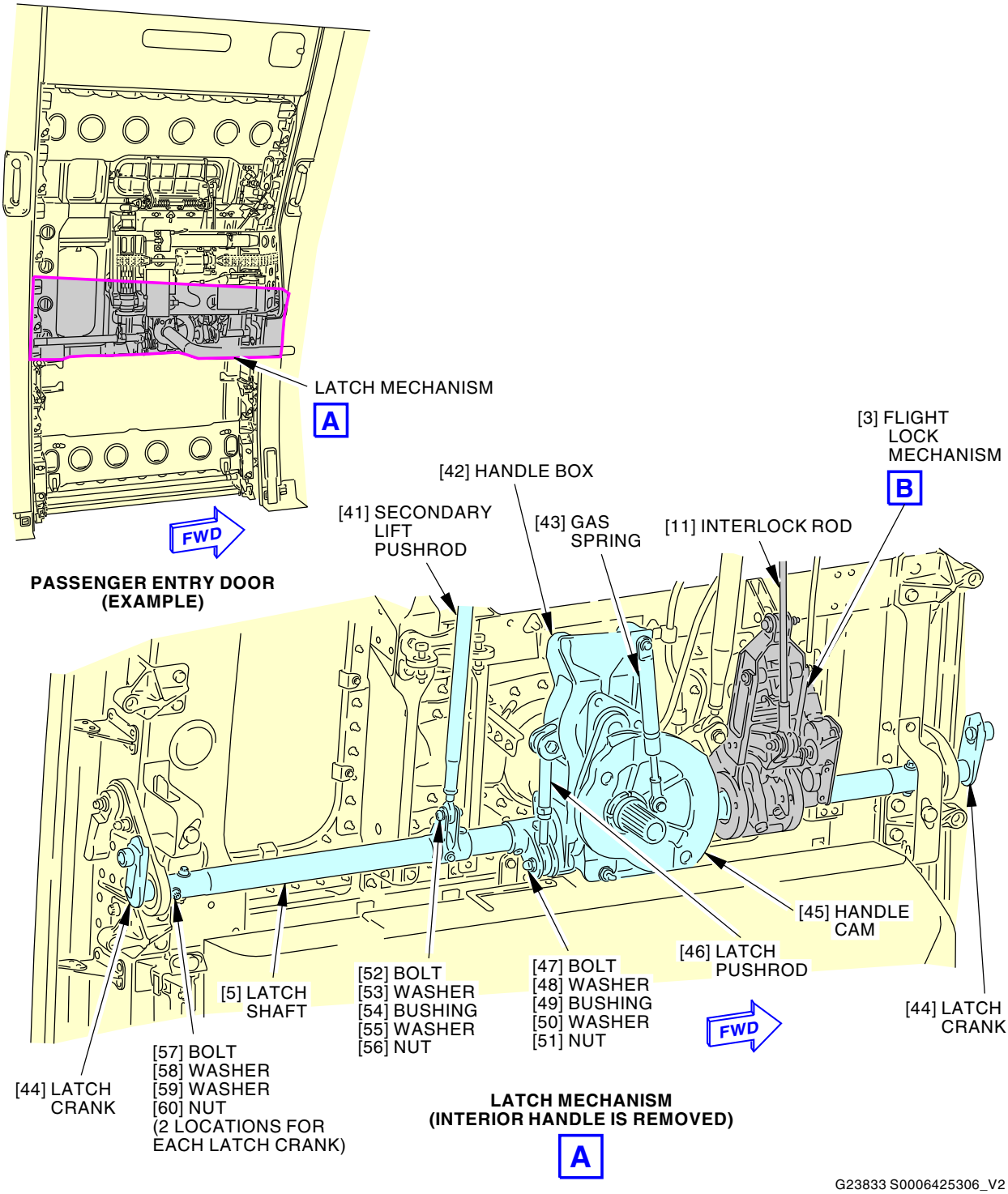
SUBTASK 52-12-26-720-003

(2) Do this task: Passenger Entry Door System Test, TASK 52-12-00-730-801.

NOTE: Only do the Interior Handle Mechanism Test, Door Lift Test, and Vent Door Test in the Normal Operation Tests.

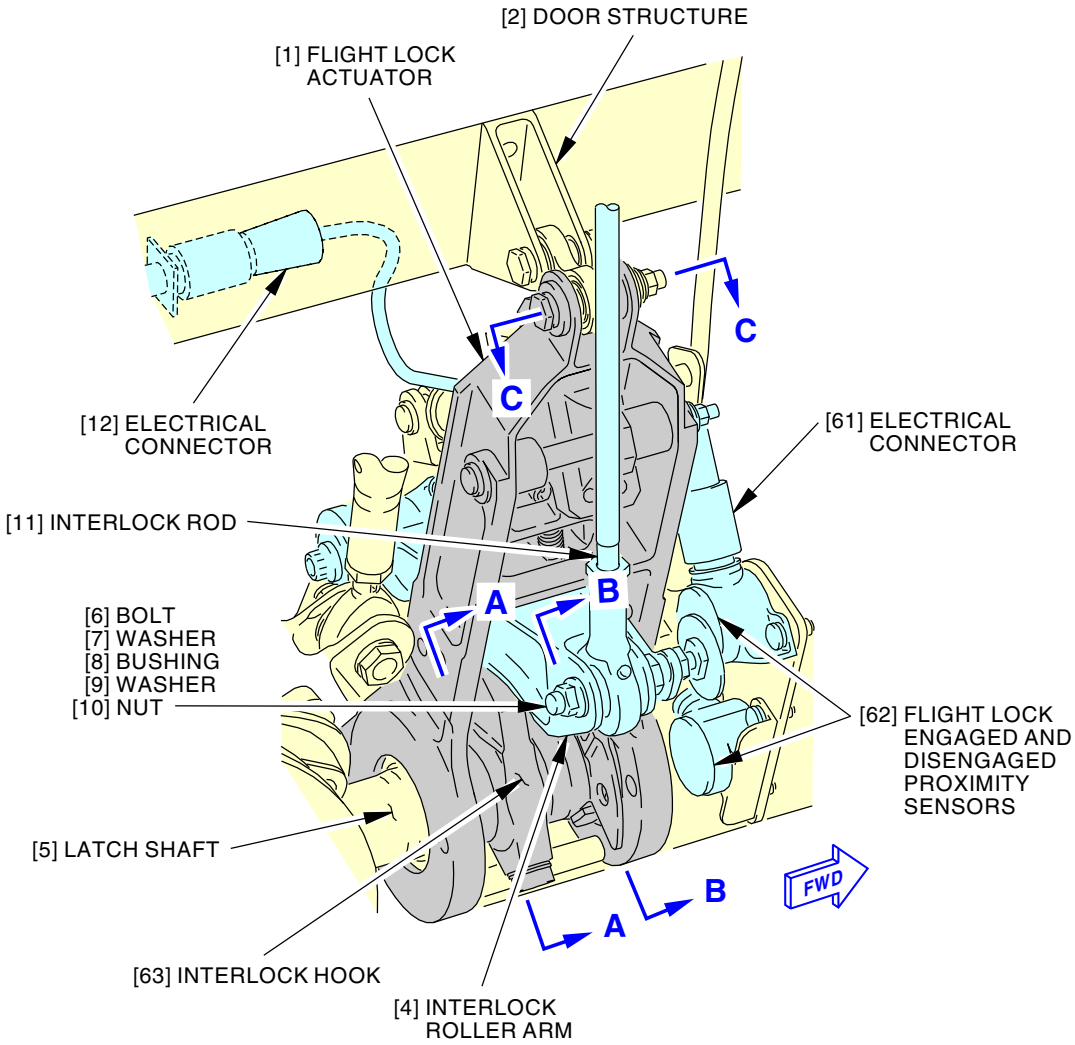
——— END OF TASK ———

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Flight Lock Mechanism Installation
Figure 202/52-12-26-990-805 (Sheet 1 of 3)

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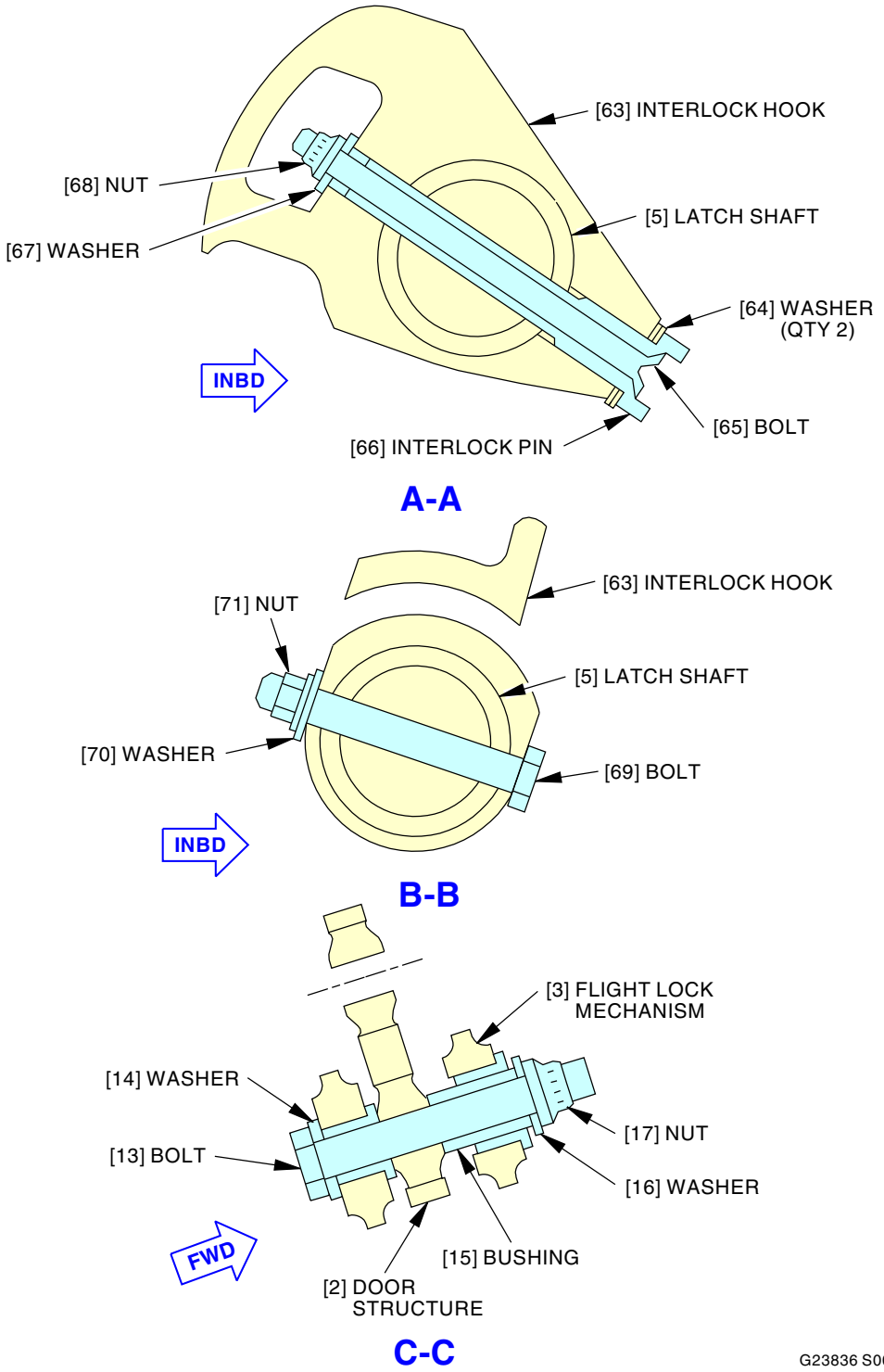
FLIGHT LOCK MECHANISM

B

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Flight Lock Mechanism Installation
Figure 202/52-12-26-990-805 (Sheet 2 of 3)

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Flight Lock Mechanism Installation
Figure 202/52-12-26-990-805 (Sheet 3 of 3)

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TASK 52-12-26-740-801

6. Flight Lock Control Test

A. General

(1) Use this procedure to do a test of the flight lock control.

NOTE: During this test any passenger entry door that is closed and latched will lock and cannot be opened until the test is stopped.

(2) A maintenance access terminal is necessary for this procedure. For instructions on how to use a maintenance access terminal, do this task: How to Use the Central Maintenance Computing System, TASK 45-10-00-740-808.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
45-10-00-740-808	How to Use the Central Maintenance Computing System (P/B 201)

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

D. Procedure

SUBTASK 52-12-26-860-007

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

NOTE: Primary External Power is required to run this test.

SUBTASK 52-12-26-740-001

(2) Use a maintenance access terminal (MAT) to do the system test of the flight lock control:

(a) Make these selections on the MAT:

1) ONBOARD MAINTENANCE
2) LINE MAINTENANCE
3) GROUND TESTS
4) 52 Passenger Door Flight Locks
5) SYSTEM TEST
6) Passenger Entry Door, Flight Lock Control Test
7) CONTINUE

(b) Do the instructions that show on the MAT and then make these selections:

1) CONTINUE

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2) START TEST

(c) Go into the passenger compartment and for each door, try to turn the interior handle to make sure the flight lock has engaged and the door is locked.

(d) Make this selection on the MAT:

1) STOP TEST

——— END OF TASK ———

TASK 52-12-26-200-801

7. Flight Lock Mechanism Check

(Figure 203)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is a check of the flight lock mechanism.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1985	Hold-Open - Passenger Entry Door Part #: J52001-34 Supplier: 81205
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Procedure

SUBTASK 52-12-26-860-008

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

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(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-26-010-003

(2) Get access to the flight lock mechanism as follows:

(a) Make sure the adjustable height cabin and general access stand, STD-1160 is outboard of the door.

(b) Open the door until the hinge is perpendicular to the door.

(c) For PED 1, 2, 4, and 5, install the passenger entry door hold-open, SPL-1985.

NOTE: The passenger entry door hold-open, SPL-1985, is designed for PED 1, 2, 4, and 5. It is not applicable for the overwing emergency exit doors (PED 3).

SUBTASK 52-12-26-220-001

(3) Do a check of the flight lock mechanism as follows:

(a) Examine the flight lock mechanism for wear or damage.

(b) Push the inboard end of flight lock lever down and release. Do this check:

1) Make sure the flight lock lever moves back to its initial position.

(c) Examine the flight lock actuator and lever springs for wear or damage.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-26-080-002

(1) For PED 1, 2, 4, and 5, remove the passenger entry door hold-open, SPL-1985.

SUBTASK 52-12-26-860-012

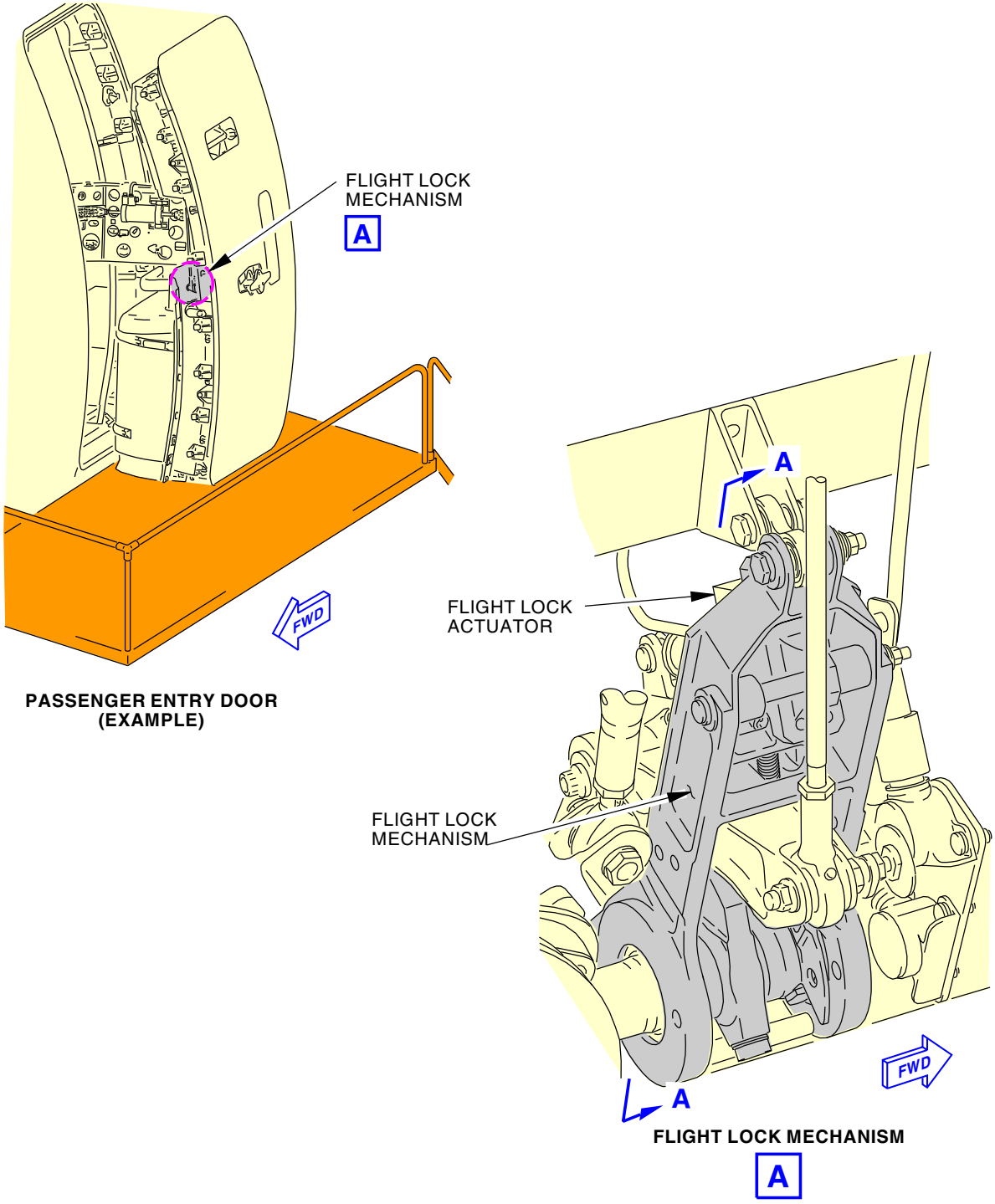
(2) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

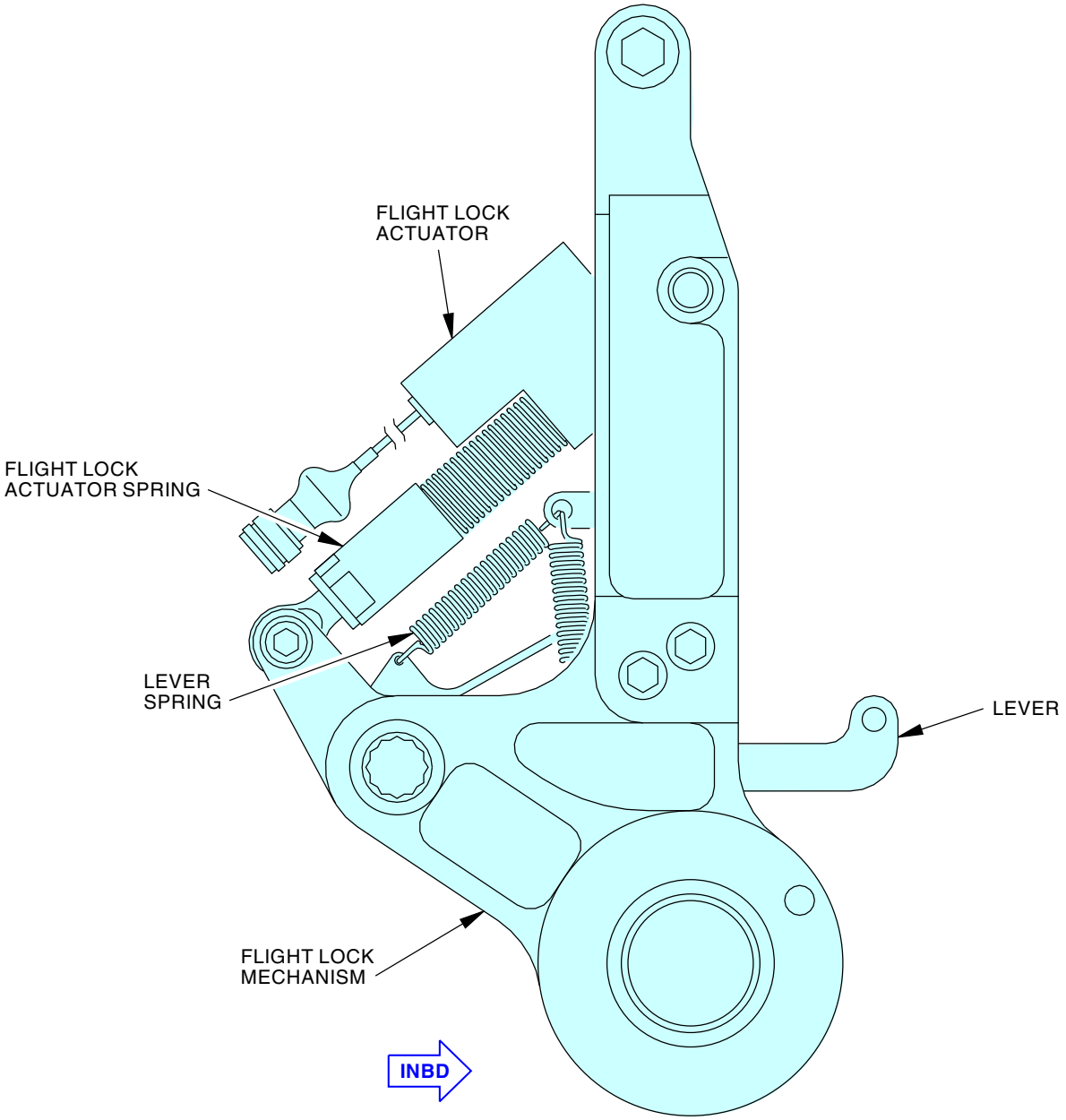
——— END OF TASK ———

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Flight Lock Mechanism Check
Figure 203/52-12-26-990-803 (Sheet 1 of 2)

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A-A

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Flight Lock Mechanism Check
Figure 203/52-12-26-990-803 (Sheet 2 of 2)

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PASSENGER ENTRY DOOR (PED) MODE SELECT SWITCH, DOOR OPEN SWITCH AND ISOLATION RELAY, K52110 - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) A removal, installation, and adjustment of the mode select switch.

(2) A removal, installation, and adjustment of the door open switch.

(3) A replacement of the Isolation Relay, K52110.

TASK 52-12-28-000-801

2. Mode Select Switch Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The mode select switch is found on the mode select mechanism. A cam on the shaft of the mode select mechanism pushes the switch when you turn the mode select handle to the AUTOMATIC/ARM position.

(2) The switch detects that the mode select mechanism is armed.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-19-710-802	Emergency Power Assist System (EPAS) Battery Operational Test (PED 3) (P/B 501)
52-12-19-720-802	Emergency Power Assist System (EPAS) Battery - System Test (PED 3) (P/B 501)
52-12-20-700-802-002	Emergency Power Assist System (EPAS) Battery Operational Test (PED 1, 2, 4, 5) (P/B 501)
52-12-25-000-801	Access Panels Removal (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)
52-12-25-400-801	Access Panels Installation (P/B 201)
52-12-25-400-803	Upper Liner Installation (P/B 201)
SWPM 20-30-12	Assembly of Splices
WDM 27-61-17	Wiring Diagram Manual
WDM 52-11-19	Wiring Diagram Manual

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

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Reference	Description
COM-1793	Multimeter - Digital/Analog (or equivalent meter meets task requirements) Part #: 117 Supplier: 89536 Part #: 260-8XPI Supplier: 55026 Part #: 287 Supplier: 89536 Part #: 289 Supplier: 89536 Part #: 87V Supplier: 89536 Part #: FLUKE 27 II Supplier: 89536 Part #: FLUKE-77-4 Supplier: 89536 Opt Part #: 187 Supplier: 89536 Opt Part #: 189 Supplier: 89536 Opt Part #: 260 Supplier: 55026 Opt Part #: 27 Supplier: 89536 Opt Part #: 77 SERIES III Supplier: 89536 Opt Part #: 87 Supplier: 89536 Opt Part #: FLUKE 27 Supplier: 89536 Opt Part #: MODEL 27 Supplier: 89536

D. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

E. Prepare for the Removal

SUBTASK 52-12-28-860-001

(1) Make sure the door is safe as follows:

(a) Move the mode select handle [2] to the MANUAL/DISARM position.

(b) For the applicable door, open the circuit breakers and install safety tags:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	9	C33640	EMER LTS-DR 5L & 5R
H	10	C33641	EMER LTS-DR 2L & 2R
H	11	C33642	EMER LTS-DR 1L & 1R
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R
H	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

(c) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

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(d) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-28-010-001

(2) Get access to the mode select switch [1] as follows:

(a) For full access, do this task: Upper Liner Removal, TASK 52-12-25-000-803.

(b) For quick access, do this task: Access Panels Removal, TASK 52-12-25-000-801.

NOTE: Remove only the forward top access panel.

F. Removal

SUBTASK 52-12-28-020-001

(1) Remove the mode select switch [1] as follows:

(a) For the overwing emergency exit door (PED 3), disconnect the wires from the mode select switch [1] as follows:

1) Identify the wires for the mode select switch [1] to make installation of a new switch easier.

2) Cut the wires for the mode select switch [1] near the splices.

(b) For doors 1, 2, 4, and 5, disconnect electrical connector DS52121.

(c) Remove the lockwire [8] from the jamnut [9].

(d) Remove the jamnut [9], lock washer [10], and key washer [11] that attach the mode select switch [1] to the bracket [7].

(e) Remove the mode select switch [1] from the bracket [7].

G. Installation

SUBTASK 52-12-28-420-001

(1) Install the mode select switch [1] as follows:

(a) Hold the mode select switch [1] in its correct position and install the jamnut [9], lock washer [10], and key washer [11] to attach the mode select switch [1] to the bracket [7].

1) Do not tighten the jamnut.

(b) Adjust the cam-to-roller gap as shown (View C, Figure 201).

(c) Tighten the jamnut [9].

(d) Install the lockwire [8] on the jamnut [9].

(e) For the overwing emergency exit door (PED 3), connect the wires to the mode select switch [1] and remove the identification tags (WDM 52-11-19) (SWPM 20-30-12).

(f) For doors 1, 2, 4, and 5, reconnect connector DS52121.

Table 201/52-12-28-993-802

MODE SELECT SWITCH		
SWITCH	**CONNECTOR**	**DESCRIPTION**
S52121	DS52121	PED 1, 2, 4, AND 5
S52122	------	OVER-WING EMERGENCY EXIT

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H. Installation Test

SUBTASK 52-12-28-720-001

(1) Do a test on the mode select switch [1] as follows:

(a) Do the EPAS Reservoir Squib Continuity Test for the PED 1,2,4 and 5 (TASK 52-12-20-700-802-002).

(b) For the over-wing emergency exit door (PED 3), do these steps:

WARNING SET THE SAFETY SWITCH ON THE BATTERY PACK TO THE DISARM POSITION. IF YOU DO NOT SET IT TO THE DISARM POSITION, AND YOU MOVE THE DOOR HANDLE TO THE OPEN POSITION, THE RESERVOIR SQUIB WILL FIRE. THE RESERVOIR PRESSURE WILL OPEN THE DOOR, AND RELEASE THE ESCAPE SLIDE OUT OF THE AIRCRAFT. THIS CAN CAUSE INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT.

1) Make sure the EPAS battery safety switch and the backup battery safety switch are in the DISARM position.

2) Move the mode select handle to the AUTOMATIC/ARM position.

3) Open the door.

NOTE: This will actuate the door-open switch.

4) Disconnect electrical connector D6225P/D6225J (WDM 27-61-17).

NOTE: The connector is on the door hinge arm.

5) Use a digital/analog multimeter, COM-1793 to make sure there is continuity between pins 25 and 26 of connector D6225J.

6) Reconnect connector D6225P/D6225J.

7) Do this task: Emergency Power Assist System (EPAS) Battery Operational Test (PED 3), TASK 52-12-19-710-802.

NOTE: Only do the applicable steps to test the mode select switch.

8) Do this task: Emergency Power Assist System (EPAS) Battery - System Test (PED 3), TASK 52-12-19-720-802.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-28-410-001

(1) Close access as follows:

(a) Do this task: Access Panels Installation, TASK 52-12-25-400-801.

(b) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

SUBTASK 52-12-28-860-007

(2) For the applicable door, remove the safety tags and close the circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	9	C33640	EMER LTS-DR 5L & 5R
H	10	C33641	EMER LTS-DR 2L & 2R
H	11	C33642	EMER LTS-DR 1L & 1R
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R

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(Continued)

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

SUBTASK 52-12-28-860-005

(3) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

TASK 52-12-28-000-802

3. Door Open Switch Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The door open switch is found on the handle mechanism. The handle mechanism pushes the switch when you turn the handle to the open position.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
25-66-01-000-801	Door-Mounted Escape Slide Pack Removal (P/B 401)
25-66-01-400-801	Door-Mounted Escape Slide Pack Installation (P/B 401)
52-12-19-710-802	Emergency Power Assist System (EPAS) Battery Operational Test (PED 3) (P/B 501)
52-12-19-720-802	Emergency Power Assist System (EPAS) Battery - System Test (PED 3) (P/B 501)
52-12-20-700-802-002	Emergency Power Assist System (EPAS) Battery Operational Test (PED 1, 2, 4, 5) (P/B 501)
52-12-25-000-803	Upper Liner Removal (P/B 201)
52-12-25-400-803	Upper Liner Installation (P/B 201)

C. Location Zones

Zone	Area
831	Left No. 1 Passenger Entry Door - Section 41
832	Left No. 2 Passenger Entry Door - Section 43
833	Left No. 3 Overwing Door - Section 44
834	Left No. 4 Passenger Entry Door - Section 46
835	Left No. 5 Passenger Entry Door - Section 47
841	Right No. 1 Passenger Entry Door - Section 41
842	Right No. 2 Passenger Entry Door - Section 43
843	Right No. 3 Overwing Door - Section 44
844	Right No. 4 Passenger Entry Door - Section 46
845	Right No. 5 Passenger Entry Door - Section 47

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D. Prepare for the Removal

SUBTASK 52-12-28-860-003

(1) Make sure the door is safe as follows:

(a) Move the mode select handle [2] to the MANUAL/DISARM position.

(b) For the applicable door, open the circuit breakers and install safety tags:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	9	C33640	EMER LTS-DR 5L & 5R
H	10	C33641	EMER LTS-DR 2L & 2R
H	11	C33642	EMER LTS-DR 1L & 1R
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R
H	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

(c) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(d) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-12-28-010-002

(2) Get access to the door open switch [6] as follows:

(a) For quick access, do this task: Door-Mounted Escape Slide Pack Removal, TASK 25-66-01-000-801.

NOTE: PED 1, 2, 4, and 5 only.

(b) For full access, do this task: Upper Liner Removal, TASK 52-12-25-000-803.

E. Removal

SUBTASK 52-12-28-020-002

(1) Remove the door open switch [6] as follows:

(a) Disconnect the applicable electrical connector for the door open switch [6].

NOTE: The wiring between the switch and the connector is approximately 18 in. (0.46 m) long.

Table 202/52-12-28-993-801

DOOR OPEN SWITCH		
SWITCH	**CONNECTOR**	**DESCRIPTION**
S52125	DS52125	PED 1, 2, 4, AND 5
S52126	DS52126	OVERWING EMERGENCY EXIT

(b) Remove the lockwire [16] from the jamnut [17].

(c) Remove the jamnut [17], lock washer [18], and key washer [19] that attach the door open switch [6] to the bracket [21].

(d) Remove the door open switch [6] from the bracket [21].

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F. Installation

SUBTASK 52-12-28-420-002

(1) Install the door open switch [6] as follows:

(a) Hold the door open switch [6] in its correct position and install the jamnut [17], lock washer [18], and key washer [19] to attach the door open switch [6] to the bracket [21].

(b) Install the lockwire [16] on the jamnut [17].

(c) Re-connect the applicable connector to the door open switch [6].

G. Adjustment

SUBTASK 52-12-28-220-001

(1) Adjust the door open switch [6] as follows:

(a) With the interior handle [5] in the open position, measure the distance the roller [15] is pushed into the door open switch [6].

(b) Move the interior handle [5] to the closed position.

(c) Measure the distance the roller [15] is pushed into the door open switch [6].

(d) Make sure the distance the roller [15] is pushed into the door open switch [6] by the handle mechanism [4] (View A-A, Figure 201).

1) If it is necessary adjust the jamnut [17] on the door open switch [6] to get the correct distance.

H. Installation Test

SUBTASK 52-12-28-720-003

(1) Do a test on the door open switch [6] as follows:

(a) For PED 1, 2, 4, and 5, do this task: Emergency Power Assist System (EPAS) Battery Operational Test (PED 1, 2, 4, 5), TASK 52-12-20-700-802-002.

(b) For the over-wing emergency exit door (PED 3), do these steps:

1) Do this task: Emergency Power Assist System (EPAS) Battery Operational Test (PED 3), TASK 52-12-19-710-802.

NOTE: Only do the applicable steps to test the door-open switch.

2) Do this task: Emergency Power Assist System (EPAS) Battery - System Test (PED 3), TASK 52-12-19-720-802.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-28-410-002

(1) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

SUBTASK 52-12-28-410-003

(2) Do this task: Door-Mounted Escape Slide Pack Installation, TASK 25-66-01-400-801.

NOTE: PED 1, 2, 4, and 5 only.

SUBTASK 52-12-28-860-006

(3) Arm the door as follows:

(a) For PED 1, 2, 4, and 5, turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

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SUBTASK 52-12-28-860-008

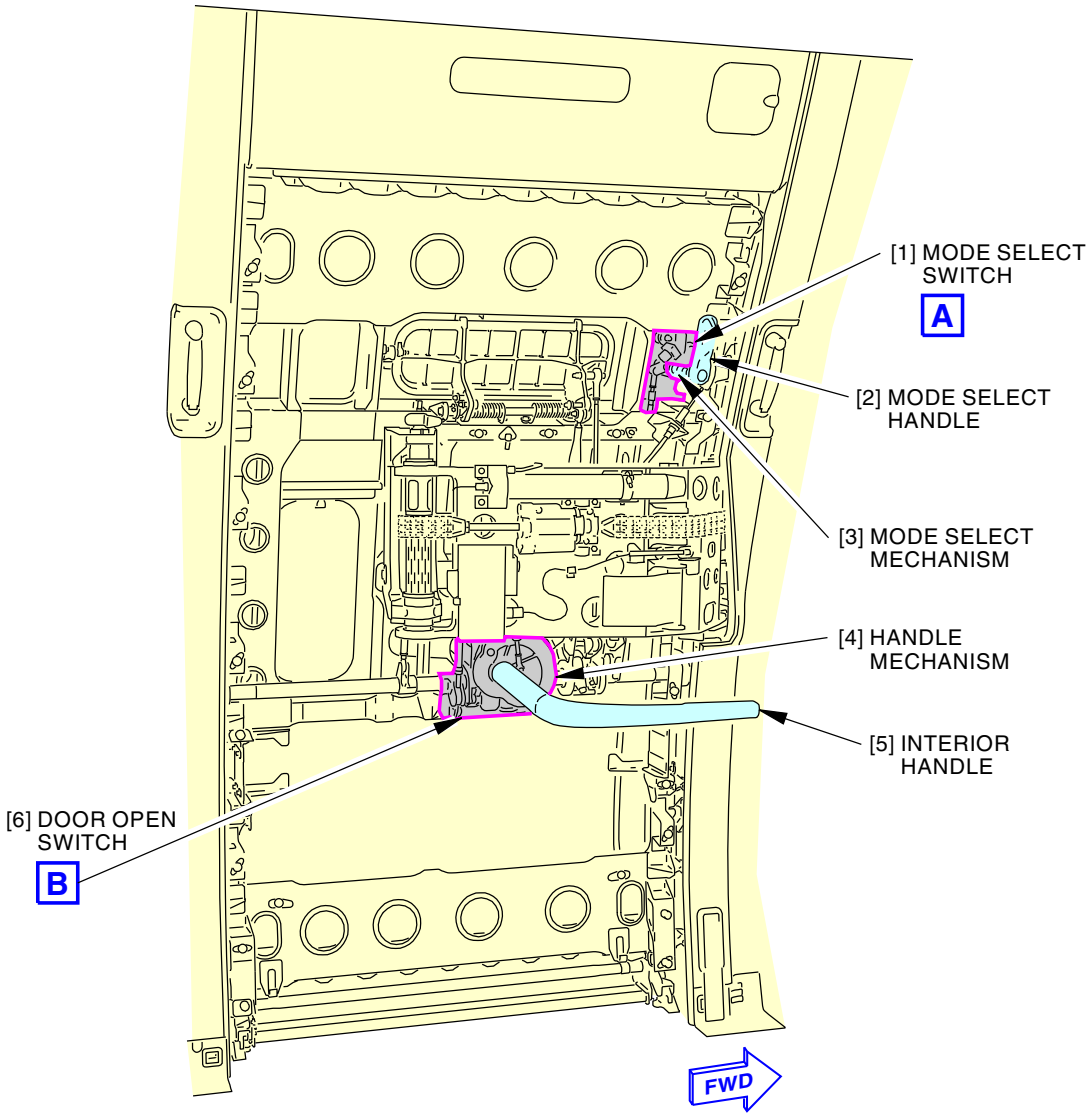
(4) For the applicable door, remove the safety tags and close the circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
H	9	C33640	EMER LTS-DR 5L & 5R
H	10	C33641	EMER LTS-DR 2L & 2R
H	11	C33642	EMER LTS-DR 1L & 1R
H	16	C33621	EMERGENCY LIGHTS DOOR 3L
H	17	C33620	EMERGENCY LIGHTS DOOR 3R
H	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

END OF TASK

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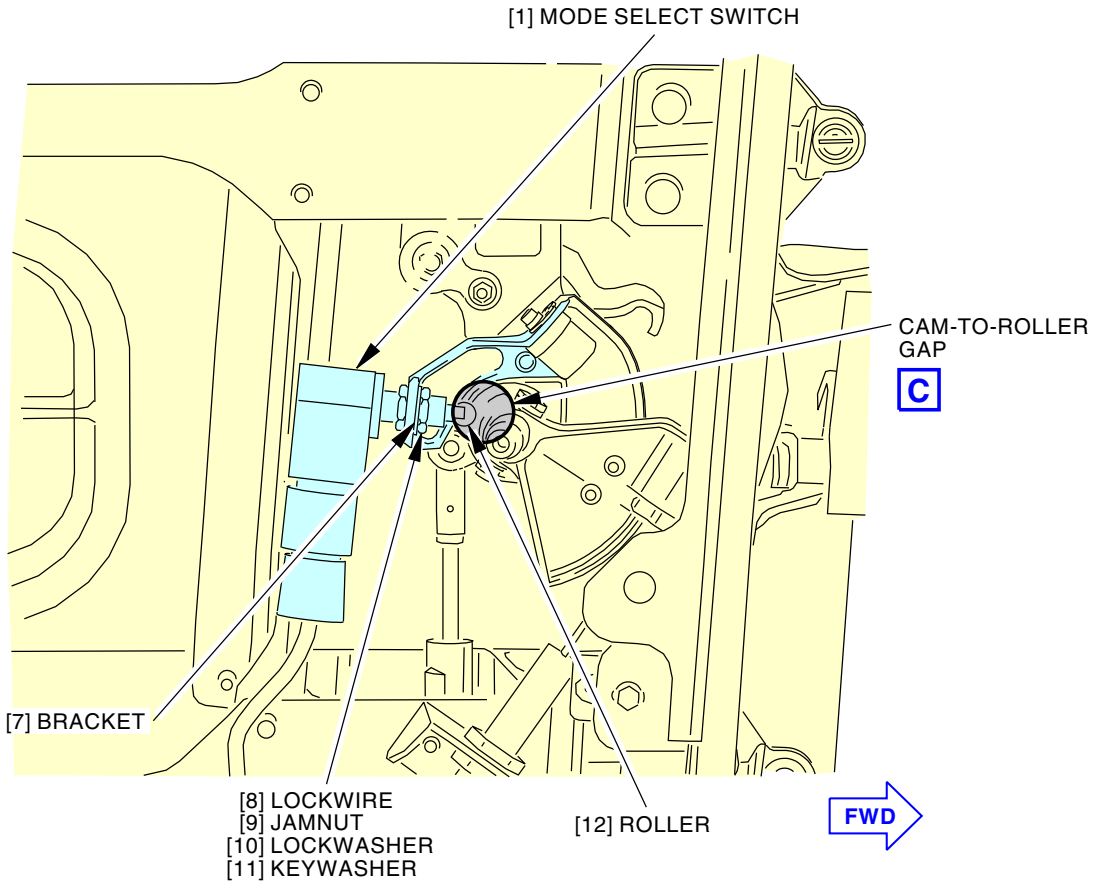


PASSENGER ENTRY DOOR (EXAMPLE)

G23847 S0006425317_V2

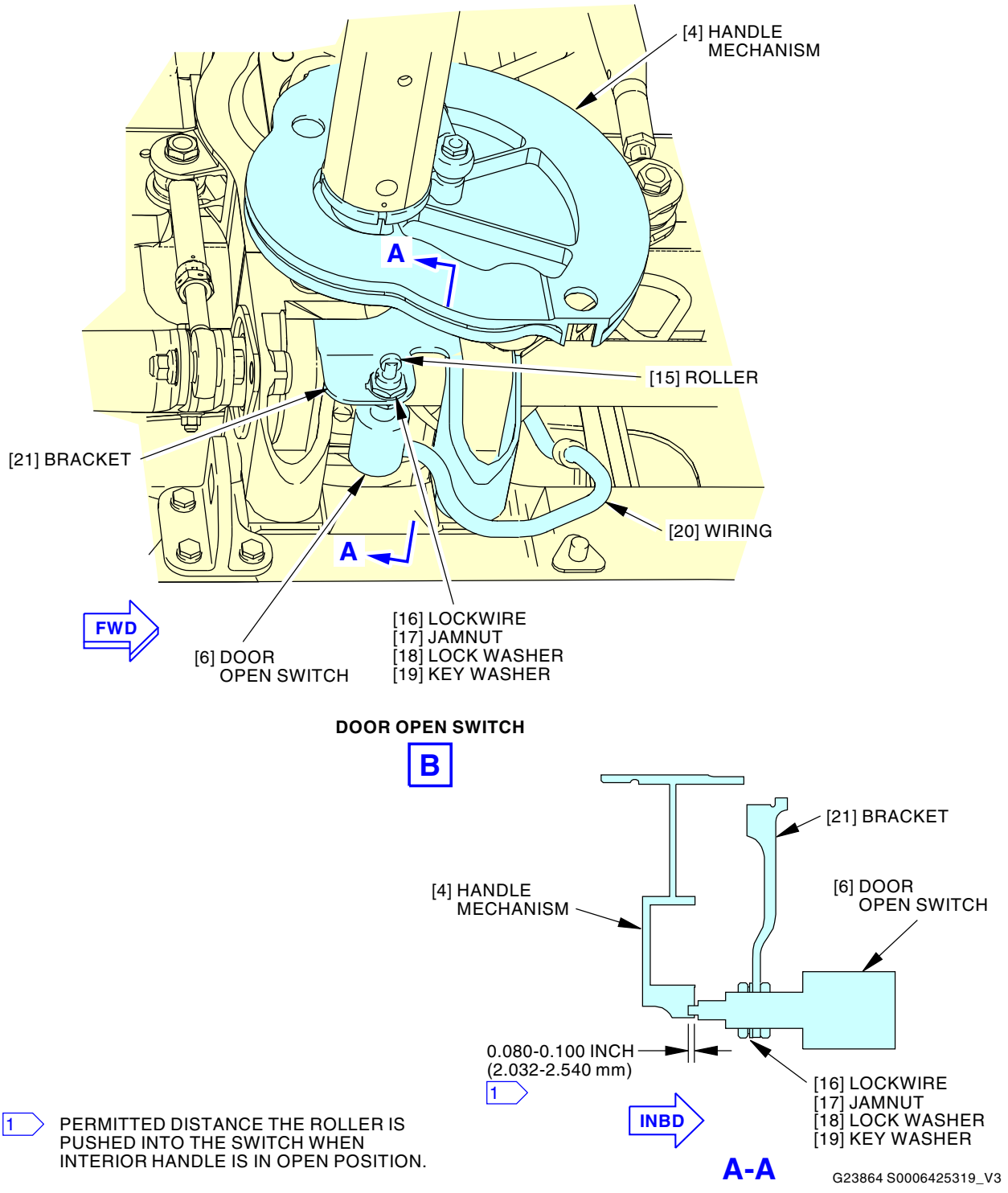
Mechanical Switches
Figure 201/52-12-28-990-801 (Sheet 1 of 3)

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Mechanical Switches
Figure 201/52-12-28-990-801 (Sheet 2 of 3)

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Mechanical Switches
Figure 201/52-12-28-990-801 (Sheet 3 of 3)

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TASK 52-12-28-960-801

4. Isolation Relay K52110 Replacement (PED 3)

(Figure 202)

A. General

(1) This procedure gives the task to replace the Isolation Relay, K52110 on the passenger entry door (PED) 3.

B. References

Reference	Title
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)
25-21-08-400-801	Overdoor Panel Installation/Closing (P/B 201)
52-12-25-000-802	Hinge Covers Removal (P/B 201)
52-12-25-400-802	Hinge Covers Installation (P/B 201)

C. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

D. Location Zones

Zone	Area
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

E. Prepare for the Replacement

SUBTASK 52-12-28-490-001

(1) Get the adjustable height cabin and general access stand, STD-1160 into position outboard of the passenger entry door (PED) 3.

SUBTASK 52-12-28-860-009

(2) Make sure the mode select handle on the passenger entry door is in the MANUAL/DISARM position.

SUBTASK 52-12-28-010-003

(3) Remove the aft hinge cover to get access to the EPAS battery pack in the passenger entry door.

(a) Do this task: Hinge Covers Removal, TASK 52-12-25-000-802.

SUBTASK 52-12-28-040-001

(4) Turn the safety switch for the primary EPAS battery pack to the DISARM position.

NOTE: The primary battery pack is located on the door hinge arm.

SUBTASK 52-12-28-010-004

(5) Open the overdoor panel above the PED 3 door to get access to the backup battery pack.

(a) Do this task: Overdoor Panel Opening/Removal, TASK 25-21-08-000-801.

SUBTASK 52-12-28-040-002

(6) Turn the safety switch for the backup battery pack to the DISARM position.

SUBTASK 52-12-28-010-005

(7) Open the passenger entry door until the hinge arm is perpendicular to the door.

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SUBTASK 52-12-28-010-006

(8) Stand outboard and forward of the passenger entry door to get access to the relay on the outboard side of the hinge arm.

F. Procedure

SUBTASK 52-12-28-960-001

(1) Isolation Relay Replacement

(a) Remove the screw [32], washer [33] and nut [34] from the relay electrical connector [35] and bracket.

(b) Disconnect the relay, K52110 from the relay electrical connector [35].

(c) Connect a new relay, K52110 to the relay electrical connector [35].

(d) Install the screw [32], washer [33] and nut [34] through the relay and the relay electrical connector [35] and bracket.

1) Tighten the nut [34].

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-28-410-004

(1) Close the passenger entry door (PED) 3.

SUBTASK 52-12-28-440-001

(2) Turn the safety switch for the backup battery pack to the ARM position.

SUBTASK 52-12-28-410-005

(3) Close the overdoor panel above the PED 3 door.

(a) Do this task: Overdoor Panel Installation/Closing, TASK 25-21-08-400-801.

SUBTASK 52-12-28-440-002

(4) Turn the safety switch for the EPAS battery pack to the ARM position.

SUBTASK 52-12-28-410-006

(5) Install the aft hinge cover on the PED 3 door.

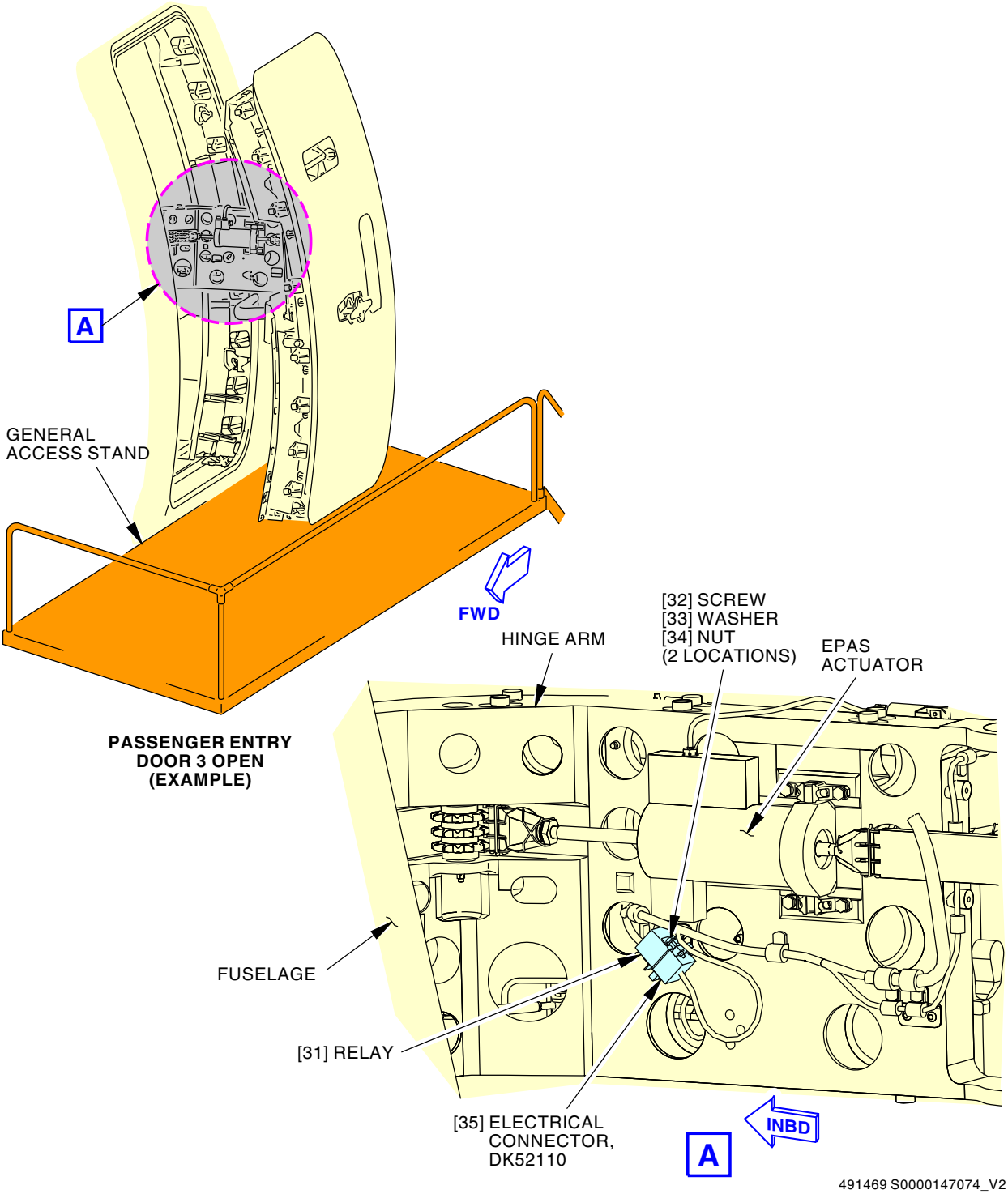
(a) Do this task: Hinge Covers Installation, TASK 52-12-25-400-802.

SUBTASK 52-12-28-090-002

(6) Remove the adjustable height cabin and general access stand, STD-1160.

——— END OF TASK ———

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Isolation Relay, K52110 Replacement (PED 3)
Figure 202/52-12-28-990-802

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LATCH TORQUE TUBE INTERLOCK MECHANISM - INSPECTION/CHECK

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A check of the latch torque tube interlock mechanism for the over-wing emergency exit door (PED 3).

TASK 52-12-29-200-801

2. Latch Torque Tube Interlock Mechanism Check (PED 3)

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an inspection of the latch torque tube interlock mechanism.

NOTE: This task is for the over-wing emergency exit doors (PED 3).

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)
52-12-25-400-803	Upper Liner Installation (P/B 201)

C. Location Zones

Zone	Area
833	Left No. 3 Overwing Door - Section 44
843	Right No. 3 Overwing Door - Section 44

D. Procedure

SUBTASK 52-12-29-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) Do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) Move the EPAS battery safety switch to the DISARM position.

SUBTASK 52-12-29-010-001

(2) Get access to the interlock mechanism as follows:

(a) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

SUBTASK 52-12-29-220-001

(3) Do a check of the latch torque tube interlock mechanism as follows:

(a) Examine the interlock push rod, rod end bearing, and self-aligning bearing for wear or damage.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-12-29-410-001

(1) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

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SUBTASK 52-12-29-860-003

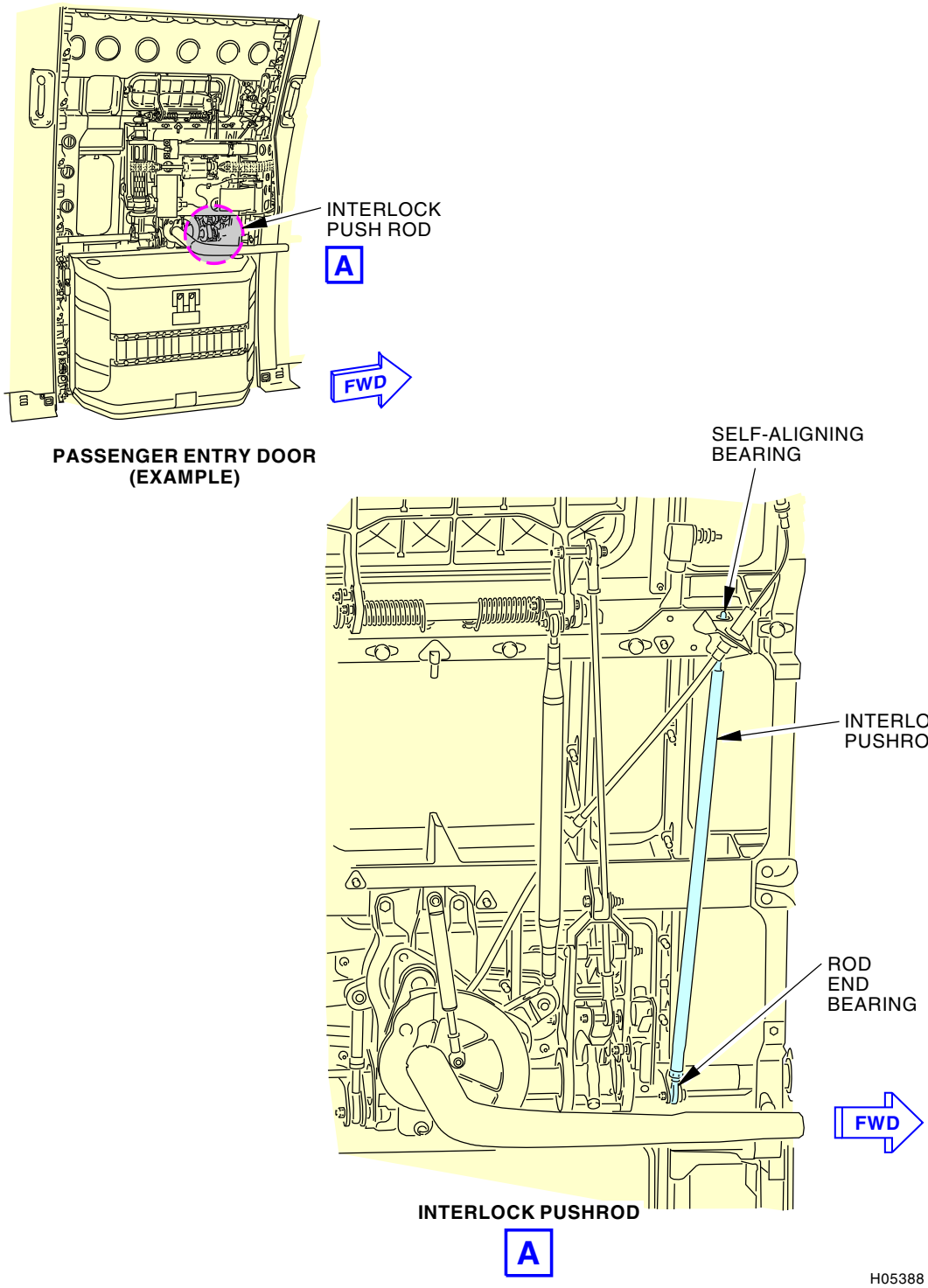
(2) Do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

SUBTASK 52-12-29-860-002

(3) Move the EPAS battery safety switch to the ARM position.

——— END OF TASK ———

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Interlock Mechanism Check
Figure 601/52-12-29-990-801

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CARGO DOOR - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) Open the aft cargo door

(2) Close the aft cargo door.

TASK 52-30-00-860-801

2. Open the Aft Cargo Door

A. References

Reference	Title
52-35-00-860-805	Open the Aft Small Cargo Door (P/B 201)

B. Location Zones

Zone	Area
823	Aft Small Cargo Door

C. Procedure

SUBTASK 52-30-00-860-001

(1) Open the applicable aft cargo door:

(a) Do this task: Open the Aft Small Cargo Door, TASK 52-35-00-860-805.

——— END OF TASK ———

TASK 52-30-00-860-802

3. Close the Aft Cargo Door

A. References

Reference	Title
52-35-00-860-806	Close the Aft Small Cargo Door (P/B 201)

B. Location Zones

Zone	Area
823	Aft Small Cargo Door

C. Procedure

SUBTASK 52-30-00-860-002

(1) Close the applicable aft cargo door:

(a) Do this task: Close the Aft Small Cargo Door, TASK 52-35-00-860-806.

——— END OF TASK ———

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FORWARD LARGE CARGO DOOR - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) Forward Large Cargo Door Deactivation.

(2) Forward Large Cargo Door Activation.

(3) Open the door electrically with the external cargo door control switch.

(4) Open the door electrically with the internal cargo door control switch.

(5) Close the door electrically with the external cargo door control switch.

(6) Close the door electrically with the internal cargo door control switch.

(7) Open the door manually.

(8) Close the door manually.

(9) Open the door with failure of the lift mechanism, lift power drive unit or rotary actuator (jammed).

(10) Open the door with failure of the latch/hook mechanism or latch/hook power drive unit (jammed).

(11) Open the door with failure of the lock mechanism (jammed).

TASK 52-34-00-040-801

2. Forward Large Cargo Door - Deactivation

A. General

(1) This task will deactivate the Forward Large Cargo Door.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1990	Equipment - Fitting, Forward And Aft Large Cargo Door Part #: A52004-101 Supplier: 81205 Opt Part #: A52004-45 Supplier: 81205
SPL-1993	Sling - Assembly, Forward And Aft Large Cargo Door And Small Cargo Door Part #: A52004-43 Supplier: 81205
SPL-2007	Barrier - Safety, Large Cargo Door Part #: J52011-1 Supplier: 81205
STD-1095	Crane - Lift, 2000 lb Capacity, 30 Foot Height

C. Location Zones

Zone	Area
117	Main Equipment Center, Left
821	Forward Large Cargo Door

D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

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E. Procedure

WARNING DO NOT OPERATE THE DOOR IN WINDS THAT ARE MORE THAN 40 KNOTS (74 KM/HOUR). DO NOT KEEP THE DOOR OPEN IN WINDS THAT ARE MORE THAN 65 KNOTS (120 KM/HOUR). INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT CAN OCCUR.

WARNING INSTALL THE HIGH VISIBILITY WARNING STRAP CORRECTLY WHEN THE CARGO DOOR IS OPEN. IF YOU DO NOT CORRECTLY INSTALL THE HIGH VISIBILITY WARNING STRAP, PERSONS CAN FALL OUT OF THE CARGO COMPARTMENT AND INJURY CAN OCCUR.

SUBTASK 52-34-00-860-055

(1) Make sure that clearance zones are established around the area of the Forward Large Cargo Door.

SUBTASK 52-34-00-480-006

WARNING MAKE SURE YOU INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER, PERSONS CAN FALL OUT OF THE CARGO COMPARTMENT AND INJURY CAN OCCUR.

(2) If suitable work stand is not available, install the cargo door safety barrier, SPL-2007 across the door opening.

SUBTASK 52-34-00-860-056

(3) Put the door in its vertical, free-hang position.

NOTE: The door is in the free-hang position when the bottom of the door can be freely moved in the open and close directions.

SUBTASK 52-34-00-860-057

WARNING BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(4) Open this circuit breaker and install safety tag:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

SUBTASK 52-34-00-860-058

(5) Open this access panel:

Number	Name/Location
117AL	Main Equipment Center Access Door

SUBTASK 52-34-00-860-059

(6) Open this circuit breaker and install safety tag:

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

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SUBTASK 52-34-00-710-008

(7) Do the following steps to make sure the Forward Large Cargo Door is deactivated:

(a) Hold the CARGO DOOR CONTROL switch, in the CLOSE position.

(b) Release the CARGO DOOR CONTROL switch.

(8) If the door does not move then the Forward Large Cargo Door is deactivated.

SUBTASK 52-34-00-860-060

(9) If the Forward Large Cargo Door is to be removed, do this step:

(a) Turn the lift manual drive until the drive arms are approximately 90 degrees to the inner skin of the door at the lift mechanism.

SUBTASK 52-34-00-480-007

(10) Install the forward and aft large cargo door fitting equipment, SPL-1990 and forward and aft cargo door sling, SPL-1993 to hold the weight of the door.

SUBTASK 52-34-00-480-008

(11) Make sure that the Forward Large Cargo Door is supported using a 30 foot height (2000 lb capacity) lift crane, STD-1095.

F. Forward Large Cargo Door - Tryout

WARNING DO NOT OPERATE THE DOOR IN WINDS THAT ARE MORE THAN 40 KNOTS (74 KM/HOUR). DO NOT KEEP THE DOOR OPEN IN WINDS THAT ARE MORE THAN 65 KNOTS (120 KM/HOUR). INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT CAN OCCUR.

WARNING INSTALL THE HIGH VISIBILITY WARNING STRAP CORRECTLY WHEN THE CARGO DOOR IS OPEN. IF YOU DO NOT CORRECTLY INSTALL THE HIGH VISIBILITY WARNING STRAP, PERSONS CAN FALL OUT OF THE CARGO COMPARTMENT AND INJURY CAN OCCUR.

NOTE: This tryout is to make sure that the Forward Large Cargo Door is in a zero energy state.

SUBTASK 52-34-00-860-061

(1) Make sure that clearance zones are established around the area of the Forward Large Cargo Door.

SUBTASK 52-34-00-480-009

WARNING MAKE SURE YOU INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER, PERSONS CAN FALL OUT OF THE CARGO COMPARTMENT AND INJURY CAN OCCUR.

(2) Make sure that a suitable work stand is used, or a cargo door safety barrier, SPL-2007 is installed across the door opening.

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SUBTASK 52-34-00-860-062

WARNING BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(3) Make sure that these circuit breakers are open and have safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-34-00-480-010

(4) Make sure that the Forward Large Cargo Door is supported by the 30 foot height (2000 lb capacity) lift crane, STD-1095 and the forward and aft large cargo door fitting equipment, SPL-1990 and the forward and aft cargo door sling, SPL-1993.

END OF TASK

TASK 52-34-00-440-801

3. Forward Large Cargo Door - Activation

A. General

(1) This task will activate the Forward Large Cargo Door.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1990	Equipment - Fitting, Forward And Aft Large Cargo Door Part #: A52004-101 Supplier: 81205 Opt Part #: A52004-45 Supplier: 81205
SPL-1993	Sling - Assembly, Forward And Aft Large Cargo Door And Small Cargo Door Part #: A52004-43 Supplier: 81205

C. Location Zones

Zone	Area
117	Main Equipment Center, Left
821	Forward Large Cargo Door

D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

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E. Procedure

WARNING DO NOT OPERATE THE DOOR IN WINDS THAT ARE MORE THAN 40 KNOTS (74 KM/HOUR). DO NOT KEEP THE DOOR OPEN IN WINDS THAT ARE MORE THAN 65 KNOTS (120 KM/HOUR). INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT CAN OCCUR.

WARNING INSTALL THE HIGH VISIBILITY WARNING STRAP CORRECTLY WHEN THE CARGO DOOR IS OPEN. IF YOU DO NOT CORRECTLY INSTALL THE HIGH VISIBILITY WARNING STRAP, PERSONS CAN FALL OUT OF THE CARGO COMPARTMENT AND INJURY CAN OCCUR.

SUBTASK 52-34-00-860-063

(1) Make sure that clearance zones are established around the area of the Forward Large Cargo Door.

SUBTASK 52-34-00-860-064

(2) Make sure that the Forward Large Cargo Door is installed and connected to the airplane hinges and lift system.

SUBTASK 52-34-00-080-005

(3) Make sure that the forward and aft large cargo door fitting equipment, SPL-1990 and forward and aft cargo door sling, SPL-1993 are removed from the door.

SUBTASK 52-34-00-860-065

(4) Put the door in the vertical, free-hang position.

NOTE: The door is in the free-hang position when the bottom of the door can be freely moved in the open and close directions.

SUBTASK 52-34-00-860-066

WARNING BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(5) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-34-00-860-067

(6) Close this access panel:

Number	Name/Location
117AL	Main Equipment Center Access Door

END OF TASK

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TASK 52-34-00-860-801

4. Open the Door Electrically with the External Cargo Door Control Switch

(Figure 201)

A. General

WARNING DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do not operate the door in high winds.

WARNING DO NOT OPEN THE DOOR WHEN THE AIRPLANE IS PRESSURIZED. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Do not open the door when the airplane is pressurized.

CAUTION DO NOT OPERATE THE DOOR ELECTRICALLY MORE THAN 2 FULL OPEN/CLOSE CYCLES WITHIN 5 MINUTES. DAMAGE TO THE LIFT MECHANISM CAN OCCUR.

(3) Do not operate the door electrically more than 2 full open/close cycles within 5 minutes.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2007	Barrier - Safety, Large Cargo Door Part #: J52011-1 Supplier: 81205

D. Location Zones

Zone	Area
821	Forward Large Cargo Door

E. Access Panels

Number	Name/Location
122AR	Forward Cargo Door Control Door

F. Procedure

SUBTASK 52-34-00-860-001

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-34-00-010-001

(2) Open this access panel:

Number	Name/Location
122AR	Forward Cargo Door Control Door

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SUBTASK 52-34-00-860-002

(3) Unlock the door as follows:

WARNING STAY AWAY FROM THE PATH OF THE LOCK HANDLE. THE LOCK HANDLE IS SPRING-LOADED TO OPEN WHEN YOU PULL THE CATCH RELEASE LEVER AND INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(a) Push the lock handle access cover in and pull the catch release lever out.

(b) Make sure the lock handle is fully open and UNLOCKED shows on each side of the handle.

(c) Make sure the vent door is open.

(d) Make sure the green DOOR LATCHED light on the control panel is on.

SUBTASK 52-34-00-210-001

(4) Make sure all persons and equipment are clear of the door.

SUBTASK 52-34-00-860-003

(5) Unlatch and open the door as follows:

(a) Hold the external CARGO DOOR CONTROL switch in the OPEN position.

(b) Release the switch when the door is fully open and the yellow DOOR UP light comes on.

SUBTASK 52-34-00-480-001

(6) Install the cargo door safety barrier, SPL-2007 across the door opening if you do work near the open door.

SUBTASK 52-34-00-410-001

(7) Close this access panel:

Number	Name/Location
122AR	Forward Cargo Door Control Door

——— END OF TASK ———

TASK 52-34-00-860-802

5. Open the Door Electrically with the Internal Cargo Door Control Switch

(Figure 201)

A. General

WARNING DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do not operate the door in high winds.

WARNING DO NOT OPEN THE DOOR WHEN THE AIRPLANE IS PRESSURIZED. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Do not open the door when the airplane is pressurized.

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CAUTION

DO NOT OPERATE THE DOOR ELECTRICALLY MORE THAN 2 FULL OPEN/CLOSE CYCLES WITHIN 5 MINUTES. DAMAGE TO THE LIFT MECHANISM CAN OCCUR.

(3) Do not operate the door electrically more than 2 full open/close cycles within 5 minutes.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2007	Barrier - Safety, Large Cargo Door Part #: J52011-1 Supplier: 81205

D. Location Zones

Zone	Area
821	Forward Large Cargo Door

E. Procedure

SUBTASK 52-34-00-860-004

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-34-00-210-002

WARNING

MAKE SURE ALL PERSONS AND EQUIPMENT ARE CLEAR OF THE PATH OF THE DOOR ON THE EXTERNAL SIDE. THE DOOR OPENS OUTBOARD AND UP. INITIALLY, THE DOOR MOVES DOWN BELOW THE DOOR CUTOUT. THE MOVEMENT OF THE DOOR CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

(2) Make sure all persons and equipment are clear of the door.

SUBTASK 52-34-00-860-005

(3) Unlock the door as follows:

(a) Open the access panel on the door lining for the lock handle release lever.

(b) Pull the yellow lock handle release lever.

(c) Make sure the vent door is open.

SUBTASK 52-34-00-860-006

(4) Unlatch and open the door as follows:

(a) Hold the internal DOOR CONT switch in the OPEN position.

NOTE: The internal cargo door control switch is found on the ceiling panel.

(b) Release the switch when the door is fully open and its movement stops.

SUBTASK 52-34-00-480-002

(5) Install the cargo door safety barrier, SPL-2007 across the door opening if you do work near the open door.

END OF TASK

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TASK 52-34-00-860-803

6. Close the Door Electrically with the External Cargo Door Control Switch

(Figure 201)

A. General

WARNING DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do not operate the door in high winds.

CAUTION DO NOT OPERATE THE DOOR ELECTRICALLY MORE THAN 2 FULL OPEN/CLOSE CYCLES WITHIN 5 MINUTES. DAMAGE TO THE LIFT MECHANISM CAN OCCUR.

(2) Do not operate the door electrically more than 2 full open/close cycles within 5 minutes.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2007	Barrier - Safety, Large Cargo Door Part #: J52011-1 Supplier: 81205

D. Location Zones

Zone	Area
821	Forward Large Cargo Door

E. Access Panels

Number	Name/Location
122AR	Forward Cargo Door Control Door

F. Procedure

SUBTASK 52-34-00-860-007

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-34-00-080-001

(2) Remove the cargo door safety barrier, SPL-2007 if it is installed.

SUBTASK 52-34-00-010-002

(3) Open this access panel:

Number	Name/Location
122AR	Forward Cargo Door Control Door

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SUBTASK 52-34-00-210-003

CAUTION

MAKE SURE THE E/E EQUIPMENT DOORS ARE CLOSED ON THE SIDES OF THE DOOR CUTOUT BEFORE YOU CLOSE THE CARGO DOOR. THE CARGO DOOR CAN CAUSE DAMAGE TO OPEN E/E EQUIPMENT DOORS WHEN IT CLOSES.

(4) Make sure the E/E equipment doors are closed on the sides of the door cutout.

SUBTASK 52-34-00-210-004

(5) Make sure all persons and equipment are clear of the door.

SUBTASK 52-34-00-860-008

(6) Close and latch the door as follows:

(a) Hold the external CARGO DOOR CONTROL switch in the CLOSE position.

(b) Make sure the yellow DOOR UP light goes off.

(c) Release the switch when the door is fully closed and the green DOOR LATCHED light comes on.

NOTE: The green DOOR LATCHED light comes on when the cam latches are fully latched.

SUBTASK 52-34-00-860-009

(7) Lock the door as follows:

(a) Make sure the vent door is open.

(b) Push the lock handle up and inboard to close the lock handle.

(c) Make sure the lock handle and catch release lever are flush with the door skin.

(d) Make sure the vent door is closed.

NOTE: The vent door is closed when it is flush with the door skin within 1.0 inch.

(e) Make sure the green DOOR LATCHED light at the control panel is off.

SUBTASK 52-34-00-410-002

(8) Close this access panel:

Number	Name/Location
122AR	Forward Cargo Door Control Door

——— END OF TASK ———

TASK 52-34-00-860-804

7. Close the Door Electrically with the Internal Cargo Door Control Switch

(Figure 201)

A. General

WARNING

DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do not operate the door in high winds.

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CAUTION DO NOT OPERATE THE DOOR ELECTRICALLY MORE THAN 2 FULL OPEN/CLOSE CYCLES WITHIN 5 MINUTES. DAMAGE TO THE LIFT MECHANISM CAN OCCUR.

(2) Do not operate the door electrically more than 2 full open/close cycles within 5 minutes.

(3) The door can be opened or closed electrically from the interior or exterior of the airplane, but the door can only be locked with the lock handle from the exterior of the airplane.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2007	Barrier - Safety, Large Cargo Door Part #: J52011-1 Supplier: 81205

D. Location Zones

Zone	Area
821	Forward Large Cargo Door

E. Procedure

SUBTASK 52-34-00-860-010

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-34-00-080-002

(2) Remove the cargo door safety barrier, SPL-2007 if it is installed.

SUBTASK 52-34-00-210-005

CAUTION MAKE SURE THE E/E EQUIPMENT DOORS ARE CLOSED ON THE SIDES OF THE DOOR CUTOUT BEFORE YOU CLOSE THE CARGO DOOR. THE CARGO DOOR CAN CAUSE DAMAGE TO OPEN E/E EQUIPMENT DOORS WHEN IT CLOSES.

(3) Make sure the E/E equipment doors are closed on the sides of the door cutout.

SUBTASK 52-34-00-210-006

WARNING MAKE SURE ALL PERSONS AND EQUIPMENT ARE CLEAR OF THE PATH OF THE DOOR ON THE EXTERNAL SIDE. THE DOOR CLOSES DOWN AND INBOARD AND MOVES BELOW THE DOOR CUTOUT. THE MOVEMENT OF THE DOOR CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

(4) Make sure all persons and equipment are clear of the door.

SUBTASK 52-34-00-860-011

(5) Close and latch the door as follows:

(a) Make sure the vent door is open.

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(b) Hold the DOOR CONT switch in the CLOSE position.

NOTE: The internal cargo door control switch is found on the ceiling.

(c) Release the switch when the door is fully closed and latched and the latch/hook power drive unit stops.

SUBTASK 52-34-00-860-012

(6) From the external side of the airplane, lock the door as follows:

(a) Make sure the vent door is open.

(b) Push the lock handle up and inboard to close the lock handle.

(c) Make sure the lock handle and catch are flush with the door skin.

(d) Make sure the vent door is closed.

NOTE: The vent door is closed when it is flush with the door skin within 1.0 inch.

——— END OF TASK ———

TASK 52-34-00-860-805

8. Open the Door Manually

(Figure 202)

A. General

WARNING DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do not operate the door in high winds.

WARNING DO NOT OPEN THE DOOR WHEN THE AIRPLANE IS PRESSURIZED. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Do not open the door when the airplane is pressurized.

(3) To operate the manual drives on the door you can use a speed wrench with a 3/8 inch square drive, or a power tool that meets the specifications of J52017.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2007	Barrier - Safety, Large Cargo Door Part #: J52011-1 Supplier: 81205

C. Location Zones

Zone	Area
821	Forward Large Cargo Door

D. Procedure

SUBTASK 52-34-00-860-013

(1) Unlock the door as follows:

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WARNING STAY AWAY FROM THE PATH OF THE LOCK HANDLE. THE LOCK HANDLE IS SPRING-LOADED TO OPEN WHEN YOU PULL THE CATCH RELEASE LEVER AND INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(a) Push the lock handle access cover in and pull the catch release lever.

(b) Make sure the lock handle is fully open and UNLOCKED shows on each side of the handle.

SUBTASK 52-34-00-860-014

(2) Unlatch the door as follows:

(a) Put the speed wrench or power tool in the latch/hook manual drive port found under the lock handle.

CAUTION DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(b) Turn counterclockwise to the fully not latched and not hooked position of the door. Stop when you feel a sudden increase in torque as the unlatched overtravel stop is touched.

NOTE: The lower edge of door will move 2-3 inches outboard.

(c) Remove the speed wrench or power tool.

SUBTASK 52-34-00-860-015

(3) Open the door as follows:

(a) Put the speed wrench or power tool in the lift manual drive port found on the door skin near the forward side.

CAUTION DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(b) Turn counterclockwise until you can get access to the lift manual drive port found on the forward edge of the door.

NOTE: It is usual for the door to stop at the low point of its travel.

(c) Move the speed wrench or power tool to the lift manual drive port found on the forward edge of the door.

(d) Turn counterclockwise until the door is in the fully open position. Stop when you feel a sudden increase in torque as the drive arm touches the overtravel stop bolt.

(e) Remove the speed wrench or power tool.

SUBTASK 52-34-00-480-004

(4) Install the cargo door safety barrier, SPL-2007 across the door opening if you do work near the open door.

END OF TASK

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TASK 52-34-00-860-806

9. Close the Door Manually

(Figure 202)

A. General

WARNING DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. IF YOU OPEN OR CLOSE THE DOOR IN HIGH WINDS, INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do not operate the door in high winds.

(2) To operate the manual drives on the door you can use a speed wrench with a 3/8 inch square drive or a power tool that meets the specifications of J52017.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2007	Barrier - Safety, Large Cargo Door Part #: J52011-1 Supplier: 81205

C. Location Zones

Zone	Area
821	Forward Large Cargo Door

D. Procedure

SUBTASK 52-34-00-080-003

(1) Remove the cargo door safety barrier, SPL-2007 if it is installed.

SUBTASK 52-34-00-860-016

(2) Close the door as follows:

(a) Put the speed wrench or power tool in the lift manual drive port found on the forward edge of the door.

CAUTION DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(b) Turn clockwise until the lower edge of the door is approximately 6 feet from the door cutout.

(c) Make sure the main cam latches and pull-in hooks are in position to latch so that the they do not hit the door cutout when you close the door.

(d) Move the speed wrench or power tool to the lift manual drive port found on the door skin near the forward side.

(e) Turn clockwise until the pull-in hooks touch the pins.

NOTE: It is usual for the door to stop at the low point of its travel.

(f) Remove the speed wrench or power tool.

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SUBTASK 52-34-00-860-017

(3) Latch the door as follows:

(a) Put the speed wrench or power tool in the latch/hook manual drive port found under the lock handle.

CAUTION DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(b) Turn clockwise to the fully latched position of the door. Stop when you feel a sudden increase in torque as the latched overtravel stop is touched.

(c) Remove the speed wrench or power tool.

SUBTASK 52-34-00-860-018

(4) Lock the door as follows:

(a) Make sure the vent door is open.

(b) Push the lock handle up and inboard to close the lock handle.

(c) Make sure the lock handle and catch release lever are flush with the door skin.

(d) Make sure the vent door is closed.

NOTE: The vent door is closed when it is flush with the door skin within 1.0 inch.

SUBTASK 52-34-00-210-007

(5) At each witness port, do these checks:

(a) Make sure you can see all of the yellow target on the main cam latch pin fitting.

(b) Make sure the yellow latch arrow on the main cam latch points to the yellow target on the main cam latch pin fitting.

(c) Make sure you can see all of the yellow lock circle on the lock pawl.

——— END OF TASK ———

TASK 52-34-00-800-801

10. Open the Cargo Door with Failure of the Lift Mechanism, Lift Power Drive Unit, or Rotary Actuator (Jammed)

(Figure 203)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1990	Equipment - Fitting, Forward And Aft Large Cargo Door Part #: A52004-101 Supplier: 81205 Opt Part #: A52004-45 Supplier: 81205
SPL-1993	Sling - Assembly, Forward And Aft Large Cargo Door And Small Cargo Door Part #: A52004-43 Supplier: 81205

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B. Location Zones

Zone	Area
821	Forward Large Cargo Door

C. Access Panels

Number	Name/Location
821AR	Panel
821GR	Panel

D. Procedure

SUBTASK 52-34-00-010-003

(1) Try to get access to the interior side of the door to look for damage and open the door.

SUBTASK 52-34-00-480-003

(2) Install the forward and aft large cargo door fitting equipment, SPL-1990 and forward and aft cargo door sling, SPL-1993 to hold the weight of the door.

SUBTASK 52-34-00-860-019

WARNING BLOCK THE DOOR AT THE LOWER EDGE. THE DOOR CAN OPEN SUDDENLY WITH GREAT FORCE AND INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(3) Block the door at the lower edge to stop sudden movement of the door in the open direction.

SUBTASK 52-34-00-010-004

(4) If you do not have access to the interior side of the door, do these steps:

(a) Open these access panels:

Number	Name/Location
821AR	Panel
821GR	Panel

(b) Push your hand through the internal door lining panels to get access to the drive arms and drive links.

NOTE: The lining panels are attached with snaps and velcro.

SUBTASK 52-34-00-030-001

(5) Remove the fasteners at the joint between the drive arm and the drive link at the forward and aft sides of the door.

NOTE: This step disconnects the lift mechanism.

SUBTASK 52-34-00-860-020

(6) Open the lock handle.

SUBTASK 52-34-00-860-021

(7) Make sure the vent door is open.

SUBTASK 52-34-00-860-022

(8) Operate the latch/hook manual drive to unlatch the door.

SUBTASK 52-34-00-860-023

(9) Slowly lift the door to get access to the broken components.

SUBTASK 52-34-00-210-008

(10) Do a check for damage and broken components.

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SUBTASK 52-34-00-960-001

(11) Replace the damaged or broken components.

——— END OF TASK ———

TASK 52-34-00-800-802

11. Open the Cargo Door with Failure of the Latch Mechanism or Latch/Hook Power Drive Unit (Jammed)

(Figure 203)

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Access Panels

Number	Name/Location
821CR	Panel
821DR	Panel
821ER	Panel
821FR	Panel

C. Procedure

SUBTASK 52-34-00-860-024

(1) Open the lock handle.

SUBTASK 52-34-00-860-025

(2) Make sure the vent door is open.

SUBTASK 52-34-00-010-005

(3) Try to get access to the interior side of the door to look for damage and open the door.

SUBTASK 52-34-00-010-006

(4) If you do not have access to the interior side of the door, do this step:

ARO ALL; AIRPLANES WITHOUT MIDSPAN LATCHES

(a) Open these access panels to get access to the main cam latches:

Number	Name/Location
821CR	Panel
821DR	Panel
821ER	Panel
821FR	Panel

ARO ALL

SUBTASK 52-34-00-030-003

(5) Disconnect the upper drive links from the bellcranks at the latch/hook torque tube.

SUBTASK 52-34-00-860-026

(6) Hit lightly the latch/hook mechanism idlers to move each of the main cam latches to the unlatched position.

NOTE: You can use the witness ports to see the position of the main cam latches.

SUBTASK 52-34-00-030-004

(7) If it is necessary, remove the witness ports to get access to the main cam latches.

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SUBTASK 52-34-00-860-027

(8) Hit lightly the main cam latches to turn to the unlatched position.

SUBTASK 52-34-00-030-005

(9) Disconnect the latch/hook torque tube at the forward and aft ends of the latch/hook power drive unit.

SUBTASK 52-34-00-860-028

WARNING BLOCK THE DOOR AT THE LOWER EDGE. THE DOOR CAN OPEN SUDDENLY WITH GREAT FORCE AND INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(10) Block the door at the lower edge of the door to stop sudden movement of the door in the open direction.

SUBTASK 52-34-00-860-029

(11) Move the pull-in hooks to the open position.

SUBTASK 52-34-00-860-030

(12) Operate the lift manual drive to open the door.

SUBTASK 52-34-00-210-009

(13) Do a check for damage and broken components.

SUBTASK 52-34-00-960-002

(14) Replace the damaged and broken components.

——— END OF TASK ———

TASK 52-34-00-800-803

12. Open the Cargo Door with Failure of the Lock Mechanism (Jammed)

(Figure 203)

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Access Panels

Number	Name/Location
821CR	Panel
821FR	Panel

C. Procedure

SUBTASK 52-34-00-010-007

(1) Try to get access to the interior side of the door to look for damage and open the door.

SUBTASK 52-34-00-210-010

(2) Make sure the lock pawls are not blocked or damaged.

NOTE: You can use the witness ports to see the position of the lock pawls.

SUBTASK 52-34-00-010-008

(3) If you do not have access to the interior side of the door, do this step:

(a) Remove the witness ports to get access to the lock pawls.

SUBTASK 52-34-00-860-031

(4) Hold the lock handle catch release open and move the lock pawls open.

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SUBTASK 52-34-00-860-032

(5) If the interlock mechanism holds the vent door closed, move it open.

NOTE: The vent door and the interlock mechanism are spring-loaded to open.

SUBTASK 52-34-00-860-033

(6) If the lock handle is open a small distance, move the vent door open.

NOTE: If the jam is close to the vent door, there will be a little windup in the linkage. If the jam is close to the lock handle there will be more windup in the linkage.

SUBTASK 52-34-00-010-009

(7) If you do not have access to the interior side of the door, to get access to the lock mechanism idlers, do this step:

(a) Open these access panels:

Number	Name/Location
821CR	Panel
821FR	Panel

SUBTASK 52-34-00-020-001

(8) Disconnect the lock mechanism idlers.

SUBTASK 52-34-00-860-034

(9) Open the lock handle and operate the latch/hook manual drive to open the door.

SUBTASK 52-34-00-210-011

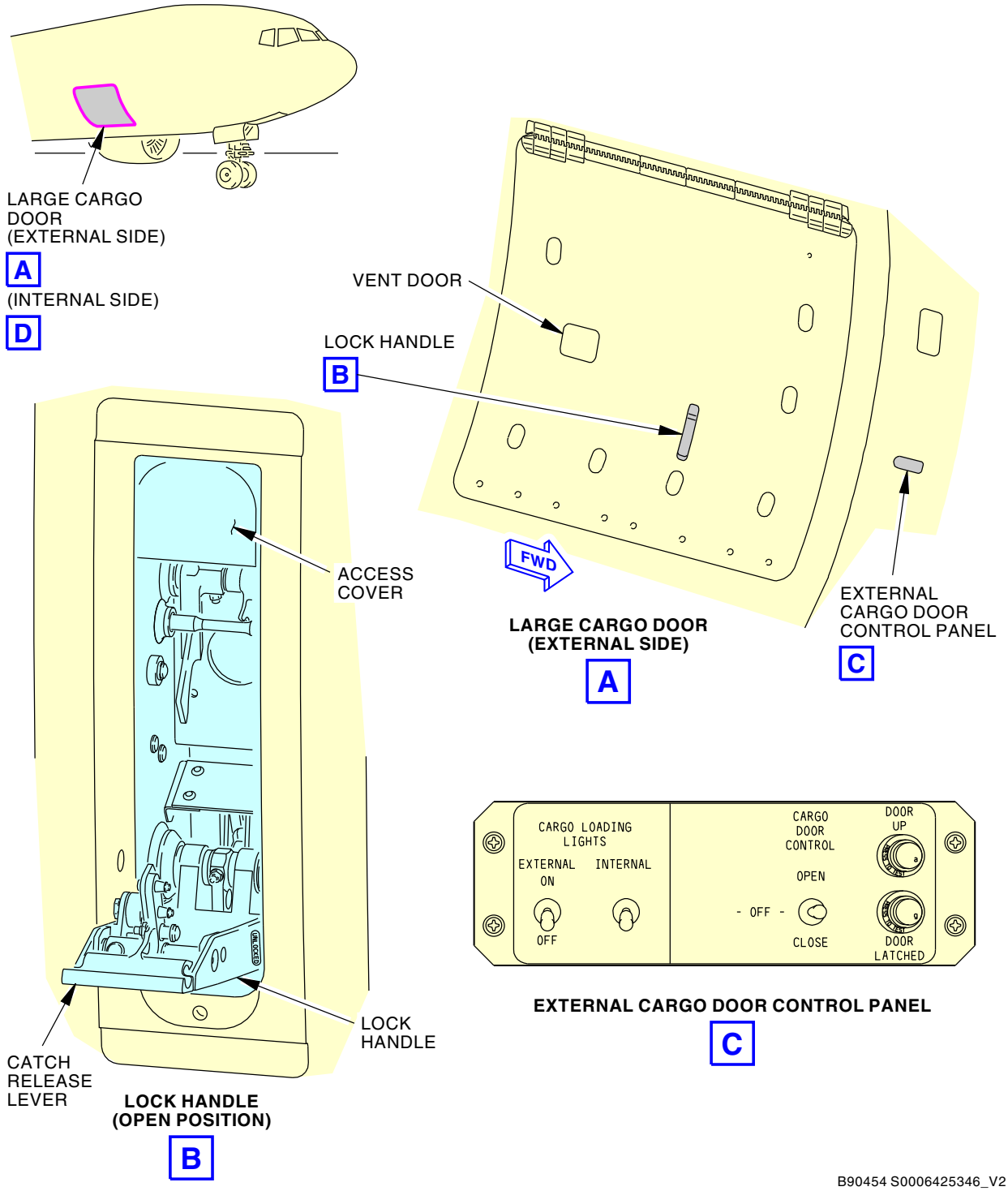
(10) Do a check for damage and broken components.

SUBTASK 52-34-00-960-003

(11) Replace the damaged or broken components.

——— END OF TASK ———

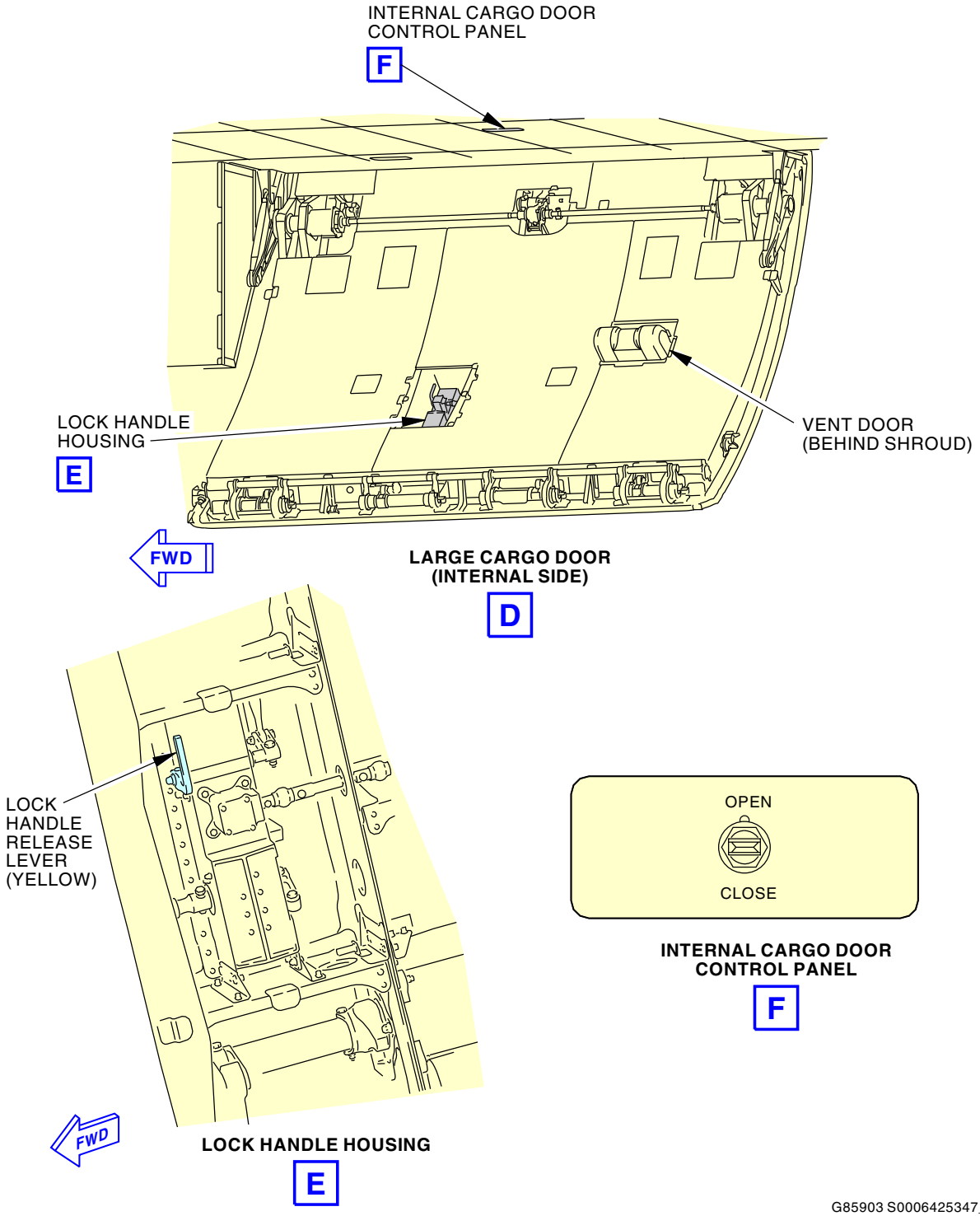
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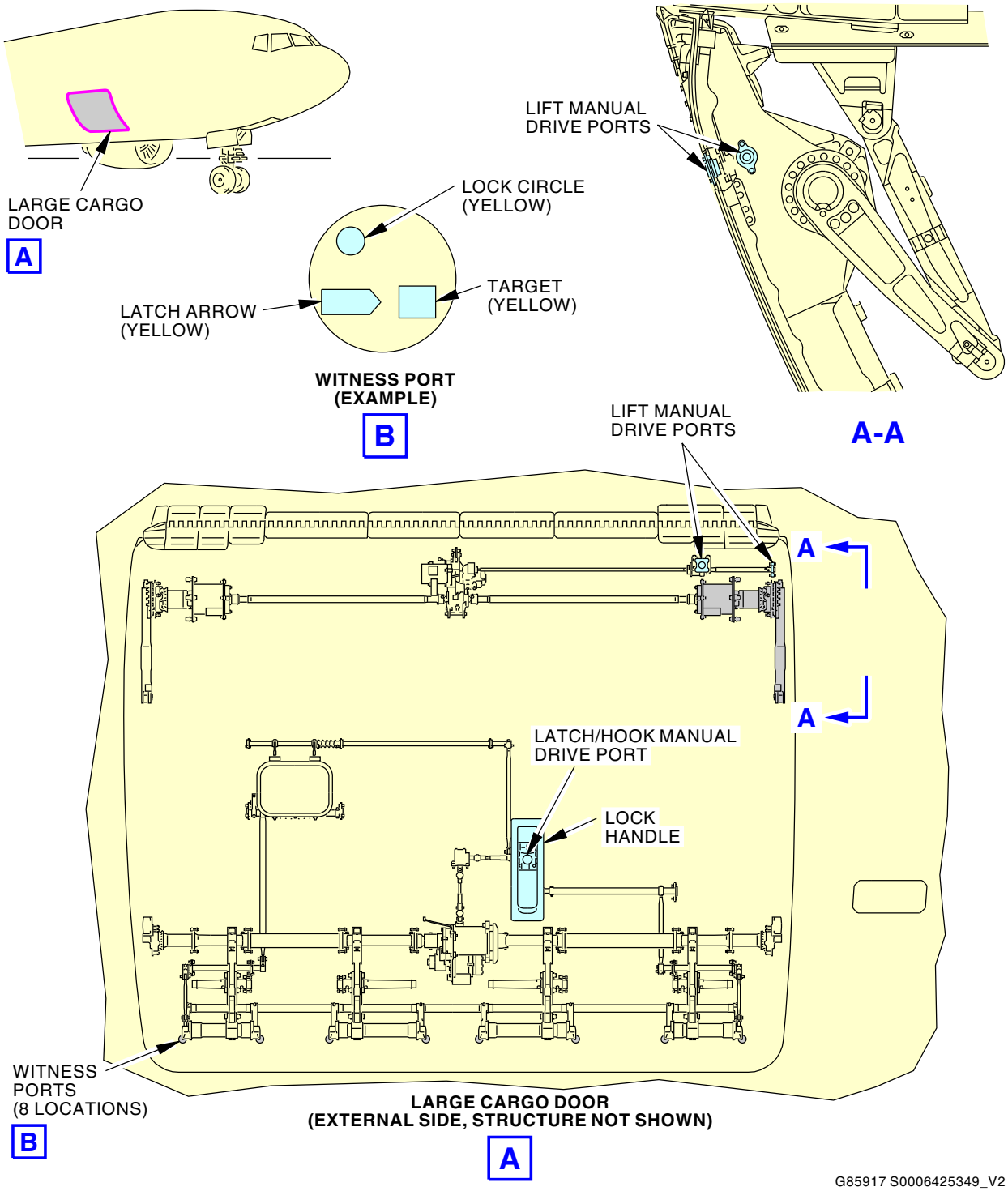
Large Cargo Door Electrical Operation
Figure 201/52-34-00-990-801 (Sheet 1 of 2)

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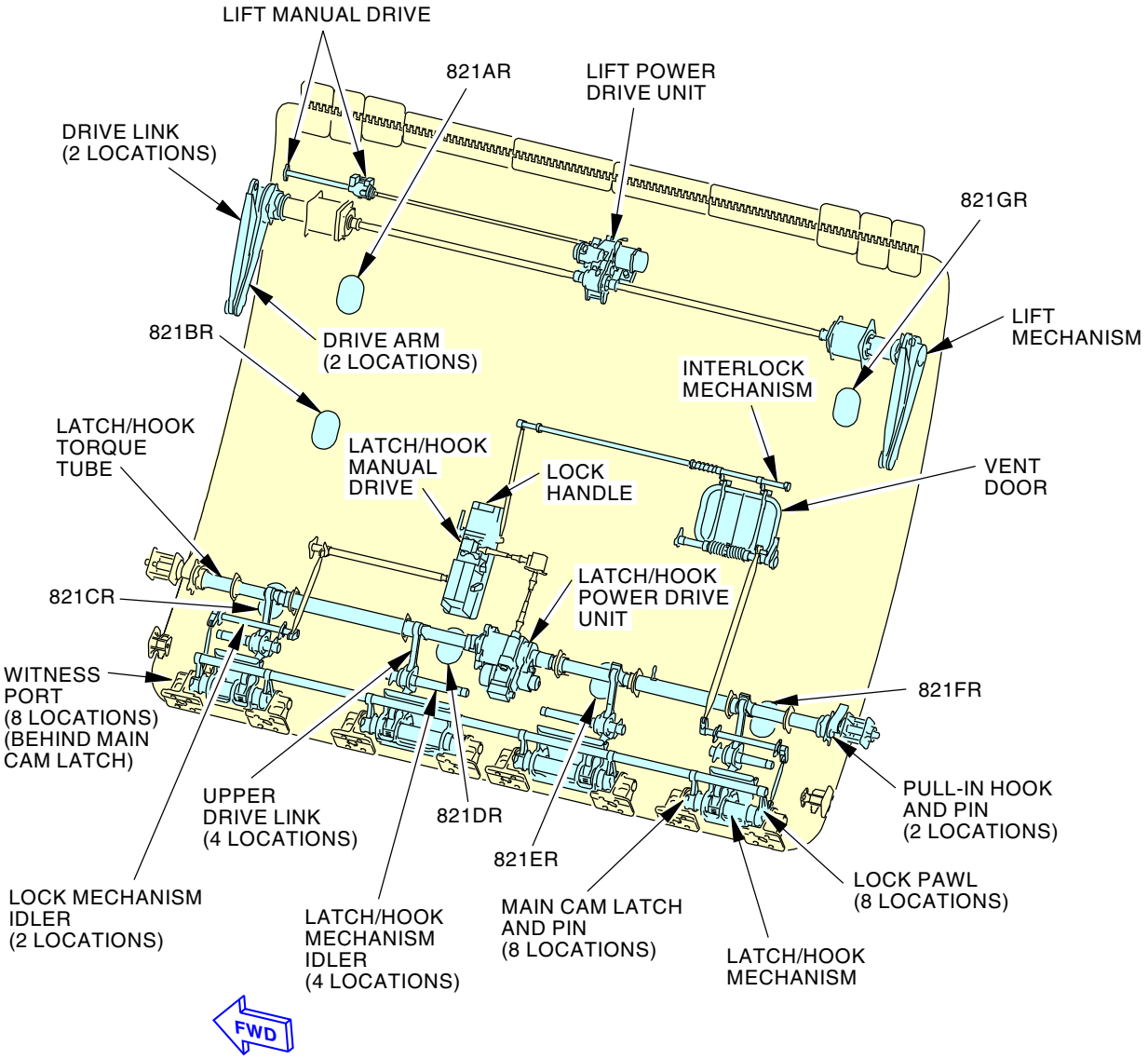
Large Cargo Door Electrical Operation
Figure 201/52-34-00-990-801 (Sheet 2 of 2)

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Large Cargo Door Manual Operation
Figure 202/52-34-00-990-802

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LARGE CARGO DOOR

G85938 S0006425351_V2

Large Cargo Door Mechanisms
Figure 203/52-34-00-990-803

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FORWARD LARGE CARGO DOOR - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

(1) An operational test of the forward large cargo door.

(2) An adjustment of the forward large cargo door.

(3) A system test of the forward large cargo door.

TASK 52-34-00-710-801

2. Forward Large Cargo Door Operational Test

(Figure 501, Figure 502)

A. General

(1) The operational test is a check of the door operation to make sure the door movement is smooth and the lift and latch/hook mechanisms operate correctly. It is also a check of the correct indication of the position of the door at the control panels and the flight compartment.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
31-61-00-800-813	Showing Status Messages (P/B 201)
31-61-00-800-814	Showing Alert Messages (P/B 201)
31-61-00-800-816	Showing a System Synoptic Page (P/B 201)

C. Location Zones

Zone	Area
821	Forward Large Cargo Door

D. Access Panels

Number	Name/Location
122AR	Forward Cargo Door Control Door

E. Operational Test

SUBTASK 52-34-00-860-035

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-34-00-010-010

(2) Open this access panel:

Number	Name/Location
122AR	Forward Cargo Door Control Door

SUBTASK 52-34-00-710-001

(3) Unlock the door and do these checks:

(a) Open the lock handle.

(b) Make sure the lock handle is fully open and UNLOCKED shows on each side of the handle.

(c) Make sure the vent door is open.

(d) Make sure the green DOOR LATCHED light on the control panel is on.

(e) Make sure this EICAS alert message, DOOR FWD CARGO, shows.

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1) To show the message, do this task: Showing Alert Messages, TASK 31-61-00-800-814.

(f) Make sure the door shows on the DOOR system synoptic page.

1) To show the page, do this task: Showing a System Synoptic Page, TASK 31-61-00-800-816.

SUBTASK 52-34-00-710-002

(4) Unlatch and open the door and do these checks:

(a) Make sure all persons and equipment are clear of the door.

(b) Hold the external CARGO DOOR CONTROL switch in the OPEN position.

1) While the door opens, do these checks:

a) Make sure that the green DOOR LATCHED light on the control panel goes off immediately after the main cam latches start to turn.

b) Make sure that the door moves smoothly and continuously to the fully open position.

c) Make sure that the yellow DOOR UP light on the control panel comes on when the door is fully open.

(c) Release the switch.

(d) Make sure the yellow DOOR UP light on the control panel is on.

(e) Make sure the green DOOR LATCHED light on the control panel is off.

(f) Make sure this EICAS status message, DOOR FWD CARGO IND, does not show.

1) To show the message, do this task: Showing Status Messages, TASK 31-61-00-800-813.

SUBTASK 52-34-00-710-003

(5) Close and latch the door and do these checks:

(a) Make sure all persons and equipment are clear of the door.

(b) Hold the external CARGO DOOR CONTROL switch in the CLOSE position.

1) While the door closes, do these checks:

a) Make sure the yellow DOOR UP light on the control panel goes off when the door starts to move down.

b) Make sure the door moves smoothly and continuously to the fully latched position.

c) Make sure the green DOOR LATCHED light on the control panel comes on when the door is in the fully latched position.

(c) Release the switch.

(d) Make sure the green DOOR LATCHED light on the control panel is on.

(e) Make sure this EICAS status message, DOOR FWD CARGO IND, does not show.

SUBTASK 52-34-00-710-004

(6) Lock the door and do these checks:

(a) Close the lock handle.

(b) Make sure the lock handle and catch release lever are flush to the door.

(c) Make sure this EICAS alert message, DOOR FWD CARGO, does not show.

(d) Make sure the door does not show on the DOOR system synoptic page.

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(e) Make sure the vent door is flush with the cargo door skin within 1 in. (25.4 mm).

SUBTASK 52-34-00-210-012

(7) At each witness port, do these checks:

(a) Make sure you can see all of the yellow target on the main cam latch pin fitting.

(b) Make sure the yellow latch arrow on the main cam latch points to the yellow target on the main cam latch pin fitting.

(c) Make sure you can see all of the yellow lock circle on the lock pawl.

SUBTASK 52-34-00-410-003

(8) Close this access panel:

Number	Name/Location
122AR	Forward Cargo Door Control Door

——— END OF TASK ———

TASK 52-34-00-820-801

3. Forward Large Cargo Door Adjustment

(Figure 503, Figure 504, Figure 505, Figure 506, Figure 507, Figure 508, Figure 509, Figure 510, Figure 511, Figure 512)

A. General

(1) These are the parts of the rigging procedure:

(a) The assembly rigging, which is done before the door is installed on the airplane or when it is necessary to adjust the door mechanisms.

(b) The installation rigging, which is done after installation of the door on the airplane.

(c) The sensor rigging, which is done after installation of the door on the airplane.

(2) Do the rigging procedure with no load on the door or the fuselage cutout. Do the procedure with the airplane operating weight empty and the airplane supported on its landing gear and stabilized with jacks.

(3) Do not operate the door electrically until the assembly, installation, and sensor rigging are complete.

B. References

Reference	Title
52-34-20-900-801	Latch Range Proximity Sensor Removal, Installation and Adjustment (P/B 201)
52-34-20-900-802	Unlatched and Latched Proximity Sensors Removal, Installation and Adjustment (P/B 201)
52-34-20-900-803	Door Up Proximity Sensor Removal, Installation and Adjustment (P/B 201)
52-34-20-900-804	Handle Unlocked Proximity Sensor Removal, Installation and Adjustment (P/B 201)
52-71-02-900-801	Closed Proximity Sensor Removal, Installation and Adjustment (P/B 201)
52-71-02-900-802	Latched Proximity Sensor Removal, Installation and Adjustment (P/B 201)
52-71-02-900-803	Locked Proximity Sensor Removal, Installation and Adjustment (P/B 201)

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C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1995	Kit - Tool, Fwd/Aft Cargo Door Rigging Adjustment Part #: J52013-1 Supplier: 81205

D. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95

E. Location Zones

Zone	Area
821	Forward Large Cargo Door

F. Prepare for the Adjustment

SUBTASK 52-34-00-700-001

(1) Tool fwd/aft cargo door rigging adjustment tool kit, SPL-1995 has three gage assemblies and two plug gages for use with the door rigging measurements.

SUBTASK 52-34-00-860-036

(2) Put the door in its vertical, free-hang position.

NOTE: The door is in the free-hang position when the bottom of the door can be freely moved in the open and close directions.

SUBTASK 52-34-00-860-037

(3) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-34-00-010-011

(4) Get access to the door mechanisms as follows:

(a) Remove the door lining.

CAUTION

ONLY REMOVE THE WASHERS AND NUTS THAT ATTACH THE SHROUD TO THE DOOR STRUCTURE. DO NOT REMOVE THE BOLTS. DAMAGE TO THE DOOR STRUCTURE CAN OCCUR.

(b) Remove the shroud on the vent door.

SUBTASK 52-34-00-720-001

(5) Make sure these mechanisms can move freely to these limits when there is no load applied:

(a) The maximum torque to turn the lift manual drive is 20 in-lb (2 N·m) at each port.

(b) The maximum torque to turn the latch/hook manual drive is 20 in-lb (2 N·m).

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(c) The maximum force to close the lock handle is 20 lbf (89 N) applied 0.50 in. (12.7 mm) - 1.00 in. (25.4 mm) from the top end of the handle.

(d) The maximum force to close the lock handle is 45 lbf (200 N) during the last inch of movement applied 0.50 in. (12.7 mm) - 1.00 in. (25.4 mm) from the top end of the handle.

SUBTASK 52-34-00-820-001

(6) Make sure there is no interference between the door cutout and the door is in this initial condition as follows:

NOTE: These steps are for a new, replacement door.

(a) Make sure the door will not hit the proximity sensors when it opens or closes.

(b) Make sure the door skin will not hit the fuselage skin when it opens or closes.

(c) Remove the main latch pins from the main latch pin fittings on the bottom of the door cutout.

(d) Make sure the main latch pin fittings are in the center of their adjustment as follows:

1) Make sure the main latch pin fittings are on the middle serrations with 0.062 in. (1.57 mm) of shim.

2) Remove some of the fasteners for each latch pin fitting until you have completed the rigging, but keep some to hold it in its position.

(e) Remove the bumper fittings from the sides of the door cutout.

(f) Make sure the pull-in pins are in the center of their adjustment.

G. Assembly Rigging

SUBTASK 52-34-00-820-003

(1) Do the interlock mechanism adjustment (Figure 504).

NOTE: This adjusts the alignment of the interlock pawls and the vent door.

(a) Close the lock handle.

(b) Disconnect the adjustable end of the interlock pushrod.

(c) Pull on the vent door until it touches the interlock pawls.

(d) Make sure the force to pull the top of the vent door open is less than 20 lbf (89 N).

(e) Adjust the length of the pushrod for the interlock mechanism to make the interlock pawls and the vent door align as shown on View A-A, Figure 504.

NOTE: Each 1/2 turn of the rod end bearing changes the pushrod length by 0.018 in. (0.457 mm).

(f) Connect the pushrod and make sure the adjustable rod end bearing covers at least 50 percent of the inspection hole of the pushrod.

(g) Open the lock handle.

(h) Make sure the two interlock pawls are fully above the intercostal as shown on View A-A, Figure 504.

SUBTASK 52-34-00-820-004

(2) Do the lock mechanism adjustment (Figure 505):

NOTE: This adjusts the lock mechanism in the locked and unlocked positions.

(a) Adjust the lock mechanism in the locked position as follows:

NOTE: This adjusts the pushrods for the lock handle and vent door.

1) Make sure the latch/hook manual drive is in the latched position.

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2) Close the lock handle.

3) Disconnect the adjustable end of the top pushrod for the lock handle.

4) Adjust the length of the pushrod until lock pawl No. 1 and 8 are in the position shown on View A, Figure 505.

NOTE: Each 1/2 turn of the rod end bearing changes the pushrod length by 0.018 in. (0.457 mm).

5) Connect the pushrod and make sure the adjustable rod end bearing covers at least 50 percent of the inspection hole of the pushrod.

6) Push the vent door closed and make sure you cannot see light leaks around the seal on the vent door.

7) Disconnect the adjustable end of the top pushrod for the vent door.

8) Adjust the length of the top pushrod for the vent door until the vent door is clear of the interlock pawls when it opens and closes inboard at the top of the vent door.

NOTE: Each 1/2 turn of the rod end bearing changes the pushrod length by 0.018 in. (0.457 mm).

9) Connect the pushrod and make sure the adjustable rod end bearing covers at least 50 percent of the inspection hole of the pushrod.

10) Open and close the lock handle and make sure the interlock pawls and the vent door do not touch.

11) At each witness port, make sure you can see all of the yellow lock circle on the lock pawl.

(b) Adjust the lock mechanism in the unlocked position as follows:

NOTE: This adjusts the open stops in the lock mechanism.

1) Open the lock handle.

2) Turn the latch/hook manual drive to the unlatched position.

3) Adjust the vent door open stop bolt until all of the lock pawls are as shown on View A-A, Figure 505.

NOTE: The stop bolt will touch the stop.

4) Make sure there are at least three full threads of engagement between the vent door stop bolt and the vent door stop arm.

5) Make sure the tail end of the bolt is clear of the door structure by at least 0.09 in. (2.3 mm) when the vent door is fully closed.

6) Pull the lock handle stop arm in the close direction to remove the backlash in the lock mechanism. Do not apply too much force.

7) Adjust the lock handle stop bolt to get the clearance shown between the stop bolt and the open stop (View C-C, Figure 505).

NOTE: The vent door stop bolt is the primary open stop for the lock mechanism. The lock handle open stop is the secondary open stop for the lock mechanism.

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H. Installation Rigging

SUBTASK 52-34-00-320-001

(1) If you install a new door, trim the door skin just enough to close the door.

NOTE: The skin trim for a new door is completed in two steps. The first step is to trim the skin just enough for the door to close. The second step is do a final skin trim after the main latch pin fitting adjustment later in the installation rigging.

SUBTASK 52-34-00-820-005

(2) Do the lift mechanism adjustment (Figure 506).

NOTE: This adjusts the lift mechanism to give sufficient free play for the pull-in hooks and aligns the forward and aft rotary actuators to make sure each side of the lift mechanism holds equal weight.

(a) Make sure the door is in its vertical, free-hang position.

(b) Disconnect the forward drive link from the fuselage structure.

(c) Turn the lift manual drive in the open direction (counterclockwise) to move the door just past the free-hang position. Do not turn more than 10 turns past the free-hang position.

NOTE: This removes the free play in the lift mechanism drive teeth at the aft side of the door.

(d) Disconnect the aft torque tube from the aft rotary actuator and pull the torque tube from the lift power drive unit to remove from the door.

(e) Hold the forward drive arm and drive link down and outboard by hand.

NOTE: This removes the free play in the lift mechanism drive teeth at the forward side of the door.

(f) Turn the lift manual drive, as necessary, to align the forward drive link with its attachment to the fuselage structure.

NOTE: This removes the free play in the lift mechanism drive teeth at the forward side of the door.

(g) Connect the forward drive link to the fuselage structure.

(h) Install the aft torque tube in the lift power drive unit and connect the torque tube to the aft rotary actuator.

(i) If it is necessary, turn the lift manual drive a maximum of one turn counterclockwise (door open position) to align the fastener holes in the coupling and the rotary actuator input splines.

(j) Turn the lift manual drive to move the door to the free-hang position.

(k) Move the door by hand and make sure the total displacement measured at the bottom edge of the door is as shown on View A-A, Figure 506.

(l) Initially, adjust the length of the forward stop bolt as shown on View A, Figure 506.

(m) Turn the lift manual drive until the forward drive arm touches the lift mechanism stop bolt.

(n) Make sure the forward drive arm touches the forward lift mechanism stop bolt before the aft side.

(o) Adjust the aft lift mechanism stop bolt until it touches the drive arm.

SUBTASK 52-34-00-820-006

(3) Do the centering roller adjustment (Figure 507).

NOTE: This adjusts the shims under the centering roller to change the clearance between the centering roller and ramp.

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(a) Put the door in its vertical, free-hang position.

(b) Make sure the latch/hook manual drive is in the unlatched position.

(c) Turn the lift manual drive until the pull-in hooks touch the pull-in pins.

(d) Turn the latch/hook manual drive 33 turns clockwise from the unlatched position to align the centering roller opposite of the crest of the centering ramp.

(e) Add or remove laminations of the laminated shim under the centering roller to get the clearances shown on View A-A, View B-B, Figure 507, and in Table 501.

Table 501/52-34-00-993-822

DIMENSION	GAP TOLERANCE inch (mm)
A	0.03 in. (0.76 mm) to 0.05 in. (1.27 mm)
B	0.01 in. (0.25 mm) to 0.05 in. (1.27 mm)

SUBTASK 52-34-00-820-007

(4) Do the pull-in hook and pin adjustment (Figure 508):

(a) Open the door sufficiently to get access to the pull-in pin.

(b) Add or remove the spacers to get the length that the pull-in pin extends from the door cutout as shown on View B-B, Figure 508.

(c) Turn the lift manual drive clockwise until one or both the pull-in hooks touch the pull-in pins.

(d) Turn the latch/hook manual drive clockwise (approximately 78 turns from the unlatched overtravel stop) until you can put a 0.18 in. (4.6 mm) - 0.19 in. (4.8 mm) diameter rig pin through the pull-in hook and the rig pin hole in the door cutout. Install the rig pin on only one side of the door.

(e) Put a temporary mark on the latch/hook torque tube in a location where you can see it through an access panel near the latch/hook manual drive port.

(f) Adjust the pull-in pins on the serrated plates until the door flushness is 0.00 in. (0.00 mm) - 0.09 in. (2.3 mm) below the skin splice.

NOTE: A negative flushness shows the door is inboard of the fuselage cutout. This is an initial door flushness. The final flushness for the door will be adjusted after the main latch pin fittings are adjusted.

(g) Adjust the forward and aft pull-in pins on the serrations until the clearances between the pull-in hooks and pull-in pins are as shown on View A-A, Figure 508.

SUBTASK 52-34-00-820-008

(5) Do the main latch adjustment (Figure 509):

NOTE: This adjusts the main latch pin fitting on the door cutout.

(a) Adjust the forward and aft position of each main latch pin fitting on its serrated plate to get the correct clearance between the main cam latch and the thrust plate (View A-A, Figure 509).

(b) To make small adjustments in the forward and aft position of the main latch pin fittings, adjust the laminated shim between the main latch pin fittings and the thrust plates.

(c) Close the door enough to get a 0.18 in. (4.6 mm) - 0.19 in. (4.8 mm) diameter rig pin through the pull-in hook and end frame. Align the temporary marks you made on the latch torque tube.

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(d) Adjust the laminated shim between the main latch pin fittings and the door cutout as given by the dummy latch pin tools.

(e) Make sure the clearance between the main latch pin fittings and the main cam latches in the unlatched position is as shown on View B-B, Figure 509.

(f) Remove the rig pin from the pull-in hook.

(g) Turn the latch/hook manual drive to the latched position.

(h) Make sure the clearance between the main latch pin fittings and the main cam latches in the latched position is as shown on View B-B, Figure 509.

(i) Make sure the flushness of the door is as shown in Table 502.

NOTE: A negative flushness shows the door is inboard of the fuselage cutout.

(j) Make sure the clearance between the pull-in hooks and pins is as shown on View C-C, Figure 509.

(k) Install the fasteners removed from the latch pin fittings as follows:

1) Apply sealant, A00247, to the shank and the threads of the fasteners.

2) Install and tighten fasteners to the torque values shown on View A-A, Figure 509.

SUBTASK 52-34-00-820-009

(6) Do a check of the final skin clearances are as shown on Figure 510 and in Table 502.

Table 502/52-34-00-993-821 Skin Clearances and Flushness Zones - Large Cargo Door

ZONE	CLEARANCE TOLERANCE inch (mm)	FLUSHNESS TOLERANCE inch (mm)
A, B	0.12 in. (3.05 mm) to 0.22 in. (5.59 mm)	
C	0.16 in. (4.06 mm) to 0.28 in. (7.11 mm)	-0.09 in. (2.29 mm) to +0.06 in. (1.52 mm) *[1]
D	0.12 in. (3.05 mm) to 0.22 in. (5.59 mm)	
E	0.10 in. (2.54 mm) to 0.22 in. (5.59 mm)	-0.09 in. (2.29 mm) to +0.06 in. (1.52 mm) *[1]

*[1] Flushness tolerances are applicable from the door corner upper tangent for a distance of 2 in. (50.8 mm).

(a) Make sure the clearances between the door skin and the fuselage skin are as shown in Table 502.

(b) If you install a new door, do these steps:

1) Measure the clearances between the main latch pin fittings and the thrust plates and make sure the clearance is as shown on View A-A, Figure 509.

2) Use the largest gap that you measured for the forward main cam latches and add +0.03 in. (0.76 mm) to +0.11 in. (2.8 mm) to get the correct skin clearance on the forward side of the door.

3) Use the largest gap that you measured for the aft main cam latches and add +0.03 in. (0.76 mm) to +0.11 in. (2.8 mm) to get the correct skin clearance on the aft side of the door.

4) Trim the door skin to get the correct skin clearances.

SUBTASK 52-34-00-820-011

(7) Do the bumper adjustment as shown on View A-A, Figure 511, and in Table 503.

(a) Open the door to the fully open position where the drive link touches the lift mechanism overtravel stop.

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(b) Adjust the laminate shim behind the bumper fitting to get the clearances as shown on View A-A, Figure 511, and in Table 503.

Table 503/52-34-00-993-823 Bumper Adjustment

FWD Bumper		AFT Bumper	
ZONE	CLEARANCE TOLERANCE inch (mm)	ZONE	CLEARANCE TOLERANCE inch (mm)
A-A	0.070 in. (1.778 mm) to 0.14 in. (3.56 mm)	A-A	0.070 in. (1.778 mm) to 0.14 in. (3.56 mm)

I. Sensor Rigging

SUBTASK 52-34-00-820-012

(1) Do the door control proximity sensor adjustment:

(a) Do this task: Latch Range Proximity Sensor Removal, Installation and Adjustment, TASK 52-34-20-900-801.

1) Only do the Adjustment.

(b) Do this task: Unlatched and Latched Proximity Sensors Removal, Installation and Adjustment, TASK 52-34-20-900-802.

1) For each proximity sensor, only do the Adjustment.

(c) Do this task: Door Up Proximity Sensor Removal, Installation and Adjustment, TASK 52-34-20-900-803.

1) Only do the Adjustment.

(d) Do this task: Handle Unlocked Proximity Sensor Removal, Installation and Adjustment, TASK 52-34-20-900-804.

1) Only do the Adjustment.

SUBTASK 52-34-00-820-013

(2) Do the door indication proximity sensor adjustment:

(a) Do this task: Closed Proximity Sensor Removal, Installation and Adjustment, TASK 52-71-02-900-801.

1) Only do the Adjustment.

(b) Do this task: Locked Proximity Sensor Removal, Installation and Adjustment, TASK 52-71-02-900-803.

1) Only do the Adjustment.

(c) Do this task: Latched Proximity Sensor Removal, Installation and Adjustment, TASK 52-71-02-900-802.

1) Only do the Adjustment.

J. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-00-410-004

(1) Close access to the door as follows:

(a) Put the shroud for the vent door in its correct position and install the washers and nuts that attach the shroud to the door structure.

(b) Install the door lining.

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SUBTASK 52-34-00-860-038

(2) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

END OF TASK

TASK 52-34-00-720-801

4. Forward Large Cargo Door System Test

A. General

(1) The system test is a check that the door is installed and adjusted correctly and that the mechanical and electrical systems operate correctly.

(2) Make sure the airplane is at operating weight empty and is fully supported by its landing gear.

(3) Make sure the installation and adjustment of the door is done. Make sure the door seals and door liners are installed. If it is necessary, remove the applicable door liners to make measurements and watch movement during the test.

(4) To operate the manual drives on the door you can use a speed wrench or a power tool that meets the specifications of J52017.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
52-71-02-730-801	Large Cargo Door Indication Proximity Sensor Test (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1557	Gauge - Force Part #: DG-200 Supplier: 92456 Part #: FDIX 100 Supplier: 0BFD9 Part #: FDIX 50 Supplier: 0BFD9 Part #: LG-010 Supplier: 92456 Part #: LG-050 Supplier: 92456 Part #: LG-100 Supplier: 92456 Opt Part #: DPP-500G Supplier: 92456 Opt Part #: DPPH-150 Supplier: 92456 Opt Part #: DPPH-200 Supplier: 92456 Opt Part #: DPPH-50 Supplier: 92456 Opt Part #: FDI 100 Supplier: 0BFD9 Opt Part #: FDI 50 Supplier: 0BFD9 Opt Part #: FDV 100 Supplier: 0BFD9 Opt Part #: FDV 50 Supplier: 0BFD9
STD-1184	Scale - Spring, 0-100 Lbs, Tension

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D. Location Zones

Zone	Area
821	Forward Large Cargo Door

E. Access Panels

Number	Name/Location
122AR	Forward Cargo Door Control Door

F. Prepare for the Test

SUBTASK 52-34-00-860-039

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

G. System Test

SUBTASK 52-34-00-720-002

(1) Door Closed, Latched and Locked Test (Figure 501).

NOTE: Two persons are necessary to do part of this procedure: one person on the internal side of the door and one person on the external side of the door.

(a) Make sure the door is closed, latched and locked.

(b) Open the lock handle.

(c) Close the lock handle and make sure the green DOOR LATCHED light on the control panel goes off as the lock handle closes.

(d) Make sure the lock handle and catch release lever are flush with the door skin.

(e) At each witness port, do these checks:

1) Make sure the yellow latch arrow on the main cam latch points to the yellow target on the main latch pin fitting.

2) Make sure you can see all of the yellow lock circle on the lock pawl.

(f) Make sure the door seal fully touches the edge of the seal depressor around the door cutout.

(g) Push the vent door fully closed with your hand and do this check:

NOTE: The seal can cause the door to not fully close until the airplane is pressurized.

1) Make sure the vent door seal fully touches the door around the vent door.

(h) Release the vent door.

SUBTASK 52-34-00-720-003

(2) Vent Door spring Test (Figure 501, Figure 512).

NOTE: Two persons are necessary to do part of this procedure: one person on the internal side of the door and one person on the external side of the door.

(a) Make sure the door is fully closed, latched and locked.

(b) Open the lock handle and do these checks:

1) Make sure the vent door and lock mechanism open quickly when the lock handle opens.

2) Make sure the interlock pawls do not interfere with the vent door as it opens.

(c) Make sure the eight lock pawls turned and are clear of the main cam latches.

(d) Push the vent door to the partially closed position.

(e) Put the force gauge, COM-1557 at the top center of the inner side of the vent door and push the vent door perpendicular to its surface in the close direction. Do this check:

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1) Make sure the lock handle does not start to close until you apply at least 7 lbf (31 N) to the vent door.

(f) Release the force and remove the force gauge, COM-1557.

(g) Close the lock handle.

(h) Put the force gauge, COM-1557 at the top center of the outer side of the vent door and push the vent door perpendicular to its surface in the open direction.

1) Make sure the vent door touches the interlock pawls and its movement inboard is stopped at 25 lbf (111 N) or less.

2) Increase the force on the vent door to 50 lbf (222 N).

3) Make sure the vent door does not move inboard.

(i) Release the force and remove the force gauge, COM-1557.

(j) Open the lock handle slowly and do these checks:

1) Make sure the vent door opens when the lock handle opens.

2) Make sure the interlock pawls do not touch the vent door.

3) Make sure the UNLOCKED shows adjacent and parallel to the door skin on each side of the lock handle.

(k) Make sure the vent door is fully open and the vent door stop bolt touches the stop.

SUBTASK 52-34-00-720-004

(3) Lock Mechanism (Figure 501, Figure 512).

(a) Lock Test.

1) Make sure the door is closed, latched and locked.

2) Open the lock handle.

3) Put the force gauge, COM-1557 on the catch release lever on the lock handle and pull the lock handle catch release lever outboard.

a) Make sure the force to pull the catch release lever outboard is 3 lbf (13 N) - 6 lbf (27 N).

4) Release the force and remove the force gauge, COM-1557.

5) At each witness port, make sure you cannot see the yellow circle on the lock pawl.

6) Put the force gauge, COM-1557 on the interlock cam lever in the lock handle housing and push the cam lever to its stop.

a) Make sure the force to push the cam lever inboard is 15 lbf (67 N) - 20 lbf (89 N).

7) Release the force and remove the force gauge, COM-1557.

8) Make sure the interlock cam lever turns freely inboard and outboard.

9) Put the force gauge, COM-1557 0.50 in. (12.7 mm) from the top of the outer side of the lock handle and push the lock handle perpendicular to its surface in the close direction.

a) Make sure the maximum force to move the lock handle until 2 in. (51 mm) from the closed position is not more than 20 lbf (89 N).

10) Release the force and remove the force gauge, COM-1557.

(b) Jammed Lock Test.

1) Open the door a small distance to get access to the bottom of the door.

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a) Do not open the door to the free-hanging position.

NOTE: This will prevent movement of the door while you apply loads.

2) Turn the latch/hook manual drive to the fully latched position.
3) Close the lock handle.
4) Install the 1.5 in. (38.1 mm) x 1.5 in. (38.1 mm) x 3 in. (76.2 mm) wood lock pawl restricter at the No. 8 lock pawl between the outboard side of the lock pawl and the door structure.

NOTE: You can hold the tool in this position with tape.

5) Pull the lock handle slowly open until it stops.
6) Make sure the lock pawl restricter is in the correct position.
7) Put the spring scale (0-100 Lbs), STD-1184 on the catch release lever of the lock handle and pull the lock handle perpendicular to its surface in the open direction.
8) Increase the force on the lock handle until the load limiter engages and jams the handle.
9) Make sure the pawl in the lock handle fully engages the mating teeth in the handle housing.
10) Release the force and remove the spring scale (0-100 Lbs), STD-1184.
11) Make sure the load limiter releases.

NOTE: You can tap the handle with your hand to release the load limiter pawl.

12) Close the lock handle.
13) Remove the lock pawl restricter from the No. 8 lock pawl.
14) Open the lock handle.
15) Install the wood lock pawl restricter on top of the No. 8 main cam latch and put fully forward against the step on the cam latch.
16) Push the lock handle slowly closed until it stops.
17) Make sure the lock pawl restricter is in the correct position.
18) Put the spring scale (0-100 Lbs), STD-1184 0.50 in. (12.7 mm) from the top of the outer side of the lock handle and push the lock handle perpendicular to its surface in the close direction.
19) Increase the force on the lock handle until the load limiter engages and jams the handle.
20) Make sure the pawl in the lock handle fully engages the mating teeth in the handle housing.
21) Release the force and remove the spring scale (0-100 Lbs), STD-1184.
22) Make sure the load limiter releases.

NOTE: You can tap the handle with your hand to release the load limiter pawl.

23) Remove the lock pawl restricter from the No. 8 main cam latch.
24) Turn the latch/hook manual drive to the unlatched position.

SUBTASK 52-34-00-720-005

(4) Latch/Hook Manual Drive Test (Figure 512).

(a) Open Test.

1) Make sure the door is closed and latched.

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2) Put the speed wrench in the latch/hook manual drive port found under the lock handle.

CAUTION DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES, OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

3) Turn clockwise until the overtravel coupling touches the latched overtravel stop.

4) Turn counterclockwise until the overtravel coupling touches the unlatched overtravel stop and do these checks:

a) Make sure the number of turns to move the overtravel coupling from the latched overtravel stop to the unlatched overtravel stop is 122-135.

b) Make sure the latch/hook mechanism operates smoothly with no vibration or unusual noises.

c) Make sure the torque to turn the latch/hook manual drive is not more than 30 in-lb (3 N·m).

ARO ALL; AIRPLANES WITHOUT MIDSPAN LATCHES

d) Make sure the main cam latches turn easily and freely disengage from the pins on the door cutout.

ARO ALL

e) Make sure the pull-in hooks turn smoothly and open the door 2 in. (51 mm) - 3 in. (76 mm).

5) At each witness port, make sure you cannot see the yellow latch arrow on the main cam latch point to the yellow target on the main cam latch pin fitting.

6) Use the torque wrench to turn the latch/hook manual drive counterclockwise against the overtravel stop and do these checks:

a) Continue to turn until you get a torque of 50 in-lb (6 N·m).

b) Turn 4 more turns or until the torque indication is 110 in-lb (12 N·m).

c) Make sure there is no torque limiter slippage of the latch/hook manual drive at less than 80 in-lb (9 N·m).

WARNING KEEP YOUR HANDS ON THE EXTERNAL SURFACE OF THE LATCH LOCK HANDLE. WHEN THE LOAD LIMITER RELEASES, INJURY TO PERSONS CAN OCCUR.

CAUTION DO NOT APPLY MORE THAN 100 LB (45 KG) TO THE LOCK HANDLE TO PUSH IT IN CLOSE DIRECTION. DAMAGE TO THE LOCK HANDLE CAN OCCUR.

7) Push the lock handle in the close direction and do this check:

a) Make sure you cannot move the lock handle more than 15° before the handle jams.

8) Release the force from the lock handle.

9) Make sure the lock handle opens fully.

(b) Close Test.

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1) Put the speed wrench in the latch/hook manual drive port found under the lock handle.

CAUTION DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES, OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

2) Turn clockwise until the overtravel coupling touches the latched overtravel stop and do these checks:
   a) Make sure the pull-in hooks smoothly engage the pull-in pins and the sides of the door close smoothly.
   b) Make sure the latch mechanism operates smoothly with no vibration or unusual noises.
   c) Make sure the torque to turn the latch/hook manual drive is not more than 30 in-lb (3 N·m).
3) Use the torque wrench to turn the latch/hook manual drive clockwise against the overtravel stop and do these checks:
   a) Continue to turn until you get a torque of 50 in-lb (6 N·m).
   b) Turn 4 more turns or until the torque is 110 in-lb (12 N·m).
   c) Make sure there is no torque limiter slippage of the latch/hook manual drive at less than 80 in-lb (9 N·m).
4) Turn the latch/hook manual drive to the unlatched position.

SUBTASK 52-34-00-720-006

(5) Lift Manual Drive Test (Figure 512).

(a) Open Test.

1) Make sure the door is closed but not latched.
2) Put the power tool in the lift manual drive port found on the door skin near the forward side.

CAUTION DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES, OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

3) Turn counterclockwise until the lower edge of the door is 4 ft (1.22 m) from the door cutout and do these checks:
   a) Make sure the pull-in hooks move clear of the pull-in pins on each side of the door cutout.
4) Move the power tool to the lift manual drive port found on the forward edge of the door.
5) Turn counterclockwise until the drive arms touch the overtravel stop bolts and the door is in the fully open position and do these checks:
   a) Make sure the lift mechanism operates smoothly with no vibration or unusual noises.

      NOTE: It is usual for the door to stop at the low point of its travel.

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b) Make sure the drive arms and drive links on each side of the door are synchronized with no unusual movement.

c) Make sure the electrical cable on the top of the door stays clear of the door mechanisms.

d) Make sure the two ground strap cables at the top of the door stay clear of the door mechanisms.

6) Make sure the forward and aft pull-in pins can be turned by hand.

7) Make sure the forward and aft drive arms touch the overtravel stop bolts.

8) Use the torque wrench to turn the lift manual drive counterclockwise until the torque limiter slippage is felt, heard or the torque is 110 in-lb (12 N·m).

9) Make sure there is torque limiter slippage of the lift manual drive at less than 110 in-lb (12 N·m).

10) Turn the lift manual drive 10 turns clockwise.

11) Make sure the forward and aft drive arms do not touch the overtravel stop bolts.

12) Use the torque wrench to turn the lift manual drive 1 full turn counterclockwise.

13) Make sure that the torque is less than 95 in-lb (11 N·m).

(b) Close Test.

1) Put the power tool in the lift manual drive port found on the forward edge of the door.

CAUTION DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES, OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

2) Turn clockwise until the lower edge of the door is 4 ft (1.22 m) from the door cutout.

3) Move the power tool to the lift manual drive port found on the door skin near the forward side.

4) Turn clockwise until the pull-in hooks touch the pull-in pins and do these checks:

a) Make sure the lift mechanism operates smoothly with no vibration or unusual noises.

NOTE: It is usual for the door to stop at the low point of its travel.

b) Make sure the electrical cable on the top of the door stays clear of the door mechanisms.

c) Make sure the drive arms and drive links on each side of the door are synchronized with no unusual movement.

d) Make sure the two ground strap cables at the top of the door stay clear of the door mechanisms.

5) Use the torque wrench to turn the lift manual drive clockwise until the torque limiter slippage is felt or heard or the torque is 110 in-lb (12 N·m).

6) Make sure there is torque limiter slippage of the lift manual drive at less than 110 in-lb (12 N·m).

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SUBTASK 52-34-00-720-007

(6) External Cargo Door Control Panel Test (Figure 501).

NOTE: Two persons are necessary to do part of this procedure: one person on the internal side of the door and one person on the external side of the door.

(a) Make sure the door is closed, latched, and locked.

(b) Open this access panel:

Number	Name/Location
122AR	Forward Cargo Door Control Door

(c) Make sure the green DOOR LATCHED light on the control panel is off.

(d) Make sure the yellow DOOR UP light is off.

(e) Hold the external CARGO DOOR CONTROL switch in the OPEN position.

(f) Make sure the door does not start to open.

(g) Make sure you cannot hear the noise of a motor from the inner side of the door.

(h) Release the switch.

(i) Hold the external CARGO DOOR CONTROL switch in the CLOSE position.

(j) Make sure the door does not start to open.

(k) Make sure you cannot hear the noise of a motor from the inner side of the door.

(l) Release the switch.

(m) Open the lock handle.

(n) Make sure the green DOOR LATCHED light on the control panel is on.

(o) Make sure the yellow DOOR UP light is off.

(p) Hold the external CARGO DOOR CONTROL switch in the CLOSE position.

(q) Make sure the door does not start to open.

(r) Release the switch.

(s) Open this circuit breaker and install safety tag:

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(t) Make sure the green DOOR LATCHED light on the control panel is off.

(u) Hold the external CARGO DOOR CONTROL switch in the OPEN position.

(v) Make sure the door does not start to open.

(w) Release the switch.

(x) Hold the external CARGO DOOR CONTROL switch in the CLOSE position.

(y) Make sure the door does not start to open.

(z) Release the switch.

(aa) Remove the safety tag and close this circuit breaker:

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(ab) Make sure the green DOOR LATCHED light on the control panel is on.

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(ac) Open this circuit breaker and install safety tag:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

(ad) Hold the external CARGO DOOR CONTROL switch in the OPEN position.

(ae) Make sure the door does not start to open.

(af) Release the switch.

(ag) Hold the external CARGO DOOR CONTROL switch in the CLOSE position.

(ah) Make sure the door does not start to open.

(ai) Release the switch.

(aj) Close this access panel:

Number	Name/Location
122AR	Forward Cargo Door Control Door

SUBTASK 52-34-00-720-008

(7) External Cargo Door Control Switch Test (Figure 501).

NOTE: Two persons are necessary to do part of this procedure: one person on the internal side of the door and one person on the external side of the door.

(a) Close Test.

1) Make sure that these circuit breakers are closed:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

Right Power Management Panel, P210

Row	Col	Number	Name
L	13	C32601	PSEU 2 PRI PWR

Standby Power Management Panel, P310

Row	Col	Number	Name
D	2	C32624	PSEU 2 ALTN PWR

2) Open this access panel:

Number	Name/Location
122AR	Forward Cargo Door Control Door

3) Make sure the external CARGO DOOR CONTROL switch is in the OFF position.

4) Make sure the door is in the fully open position.

5) Make sure all persons and equipment are clear of the door.

6) Use the stopwatch to measure the time it takes to close and latch the door electrically.

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7) Hold the external CARGO DOOR CONTROL switch in the CLOSE position.
   a) While the door closes, do these checks:
      <1> Make sure the yellow DOOR UP light on the control panel goes off when the door starts to move down.
      <2> Make sure the door closes and latches smoothly with no vibration or unusual noises.
      <3> Make sure the green DOOR LATCHED light comes on when the door is in the fully latched position.
8) Release the switch.
9) Make sure it takes 30-50 seconds to close the door from the fully open position to the fully closed and latched.
10) Make sure the green DOOR LATCHED light on the control panel is on.

(b) Open Test.
1) Make sure that this circuit breaker is closed:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

2) Make sure all persons and equipment are clear of the door.
3) Measure the time it takes to unlatch and open the door electrically.
4) Hold the external CARGO DOOR CONTROL switch in the OPEN position.
   a) While the door opens, do these checks:
      <1> Make sure the forward and aft drive arms do not touch the lift mechanism stop bolts.
      <2> Make sure the green DOOR LATCHED light on the control panel goes off immediately after the latches start to turn.
      <3> Make sure the door moves smoothly and continuously to the fully open position with no vibration or unusual noises.
      <4> Make sure the yellow DOOR UP light comes on when the door is fully open.
5) Release the switch.
6) Make sure it takes 60 seconds or less to open the door from the fully closed and latched to the fully open position.
7) Make sure the yellow DOOR UP light on the control panel is on.
8) Make sure the green DOOR LATCHED light is off.
9) Make sure the cargo handling SYSTEM POWER ON light is on.
10) Make sure the clearances between the forward and aft drive arms and lift mechanism stop bolts are 0.5 in. (12.7 mm).

(c) Close this access panel:

Number	Name/Location
122AR	Forward Cargo Door Control Door

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SUBTASK 52-34-00-720-009

(8) Internal Cargo Door Control Switch Test (Figure 501).

NOTE: Two persons are necessary to do part of this procedure: one person on the internal side of the door and one person on the external side of the door.

(a) Close Test.

1) Make sure the door is fully open.

2) Open this circuit breaker and install safety tag:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

3) Disconnect the electrical connector from the latch/hook power drive unit.

4) Remove the safety tag and close this circuit breaker:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

5) Hold the internal DOOR CONT switch in the CLOSE position and do this check:

a) Make sure the yellow DOOR UP light on the control panel goes off when the door starts to move down.

6) Override Test.

a) Continue to hold the internal switch in the CLOSE position.

b) As the door moves down, hold the external CARGO DOOR CONTROL switch in the OPEN position.

c) Wait 3 seconds.

d) Make sure the door continues to move closed.

e) Release the external switch.

7) Release the internal switch when the door stops.

8) Make sure the distance between the lower edge of the door and the door cutout is 2.3 in. (58 mm) - 3.0 in. (76 mm).

9) Make sure the forward and aft pull-in hooks do not touch the pull-in pins.

10) Open this circuit breaker and install safety tag:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

11) Connect the electrical connector to the latch power drive unit.

12) Remove the safety tag and close this circuit breaker:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

13) Use the stopwatch to measure the time it takes the door to fully latch.

14) Hold the internal DOOR CONT switch in the CLOSE position.

15) Release the switch when the latches start to turn.

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16) Make sure the time it takes the door to fully latch is 8 seconds or less.

17) Make sure the clearance between the latched overtravel stop and the overtravel coupling is 0.075 in. (1.90 mm) or more.

(b) Open Test.

1) Hold the internal DOOR CONT switch in the OPEN position.

2) Release the switch when the door is open at least 6 in. (152 mm) at the bottom.

3) Make sure the clearance between the unlatched overtravel stop and the overtravel coupling is 0.075 in. (1.90 mm) or more.

4) Override Test.

a) Hold the internal switch in the OPEN position.

b) As the door moves up, hold the external CARGO DOOR CONTROL switch in the CLOSE position.

c) Make sure the door continues to move up.

d) Release the external switch.

5) Release the internal switch when the door is fully open and the lift power drive unit goes off.

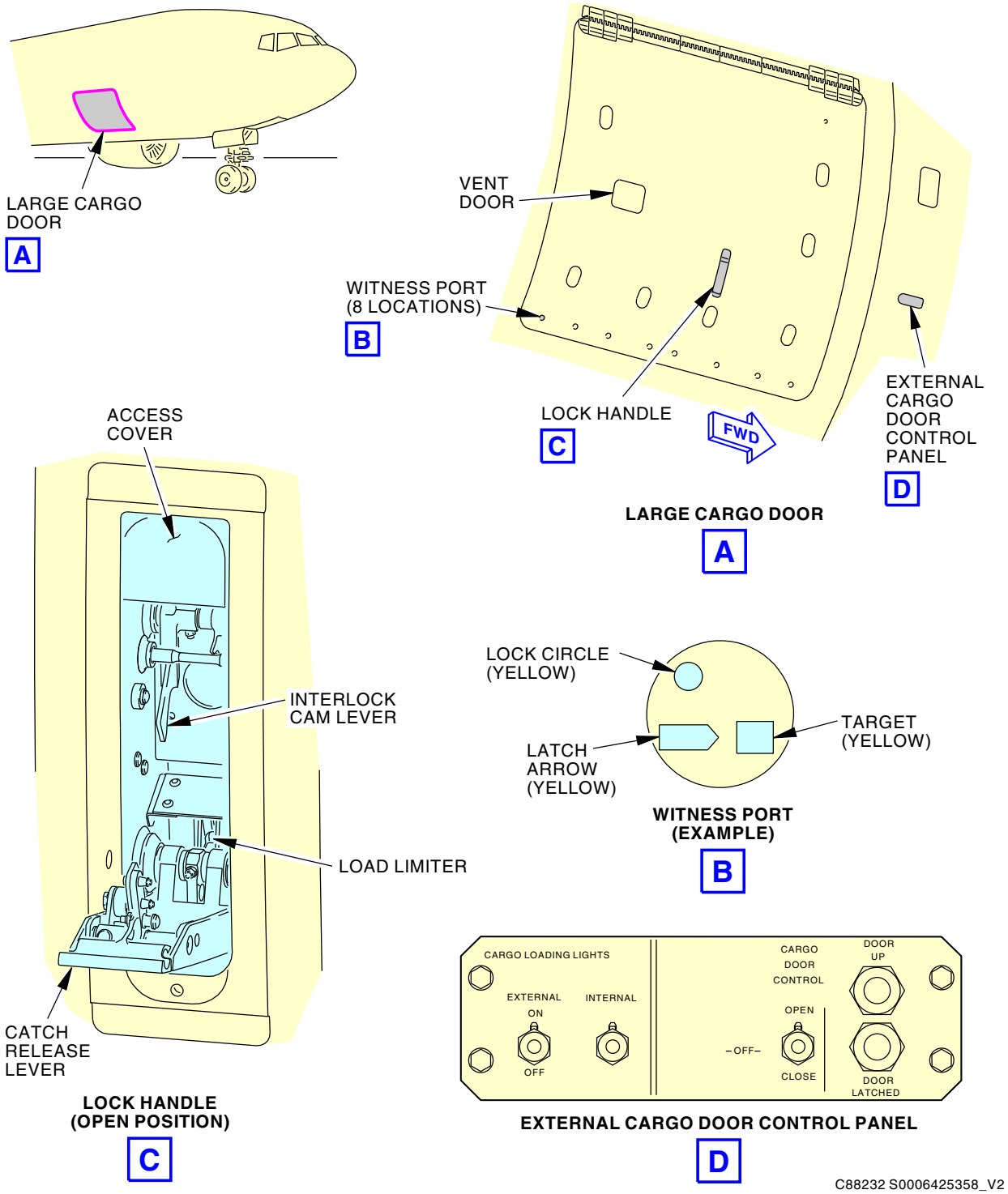
6) Make sure the yellow DOOR UP light on the control panel is on.

SUBTASK 52-34-00-720-010

(9) Do this task: Large Cargo Door Indication Proximity Sensor Test, TASK 52-71-02-730-801.

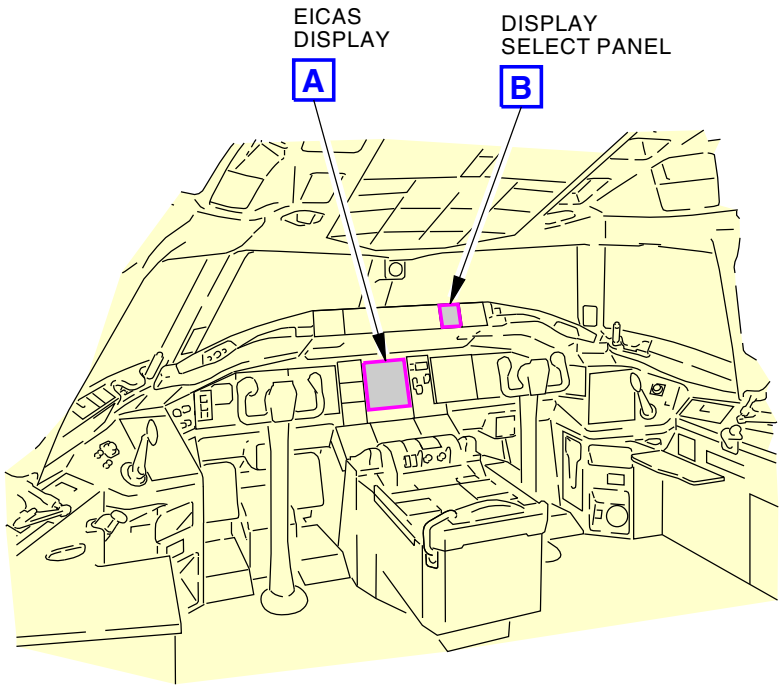
——— END OF TASK ———

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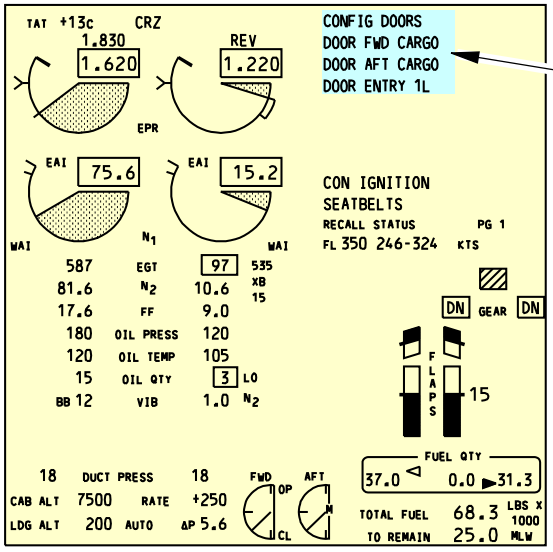


Large Cargo Door Operation
Figure 501/52-34-00-990-804

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FLIGHT COMPARTMENT



EICAS ALERT MESSAGES
1

EICAS DISPLAY

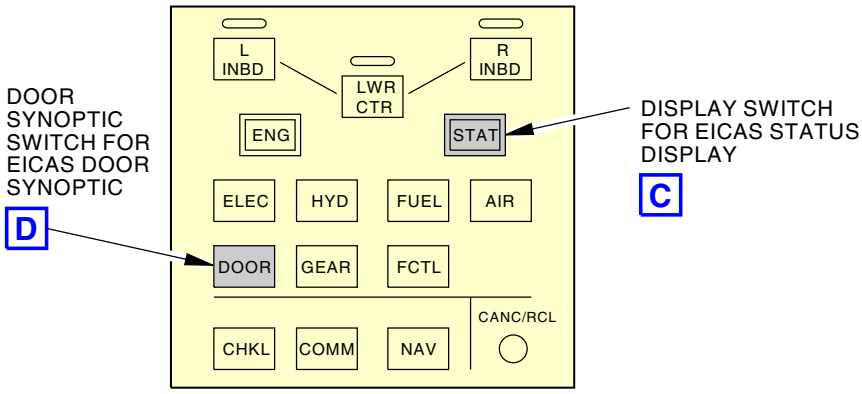
A

1 WARNING MESSAGES ARE RED
CAUTION MESSAGES ARE AMBER

E46556 S0006425359_V2

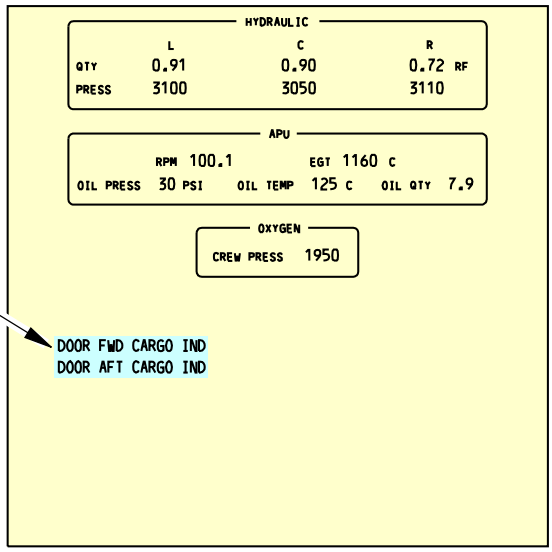
Large Cargo Door EICAS Messages
Figure 502/52-34-00-990-805 (Sheet 1 of 2)

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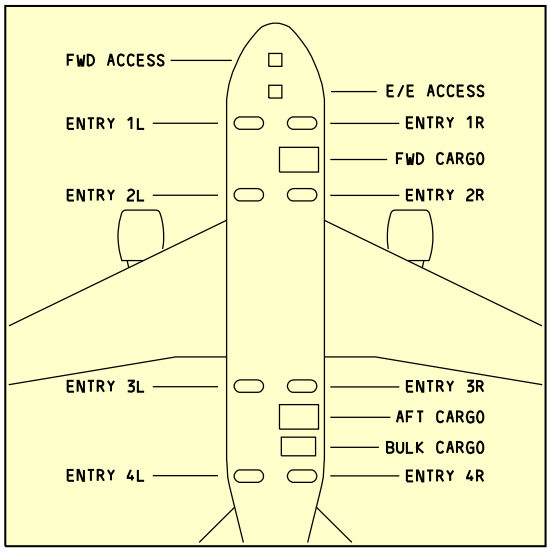
DISPLAY SELECT PANEL (DSP)

B



EICAS STATUS DISPLAY

C



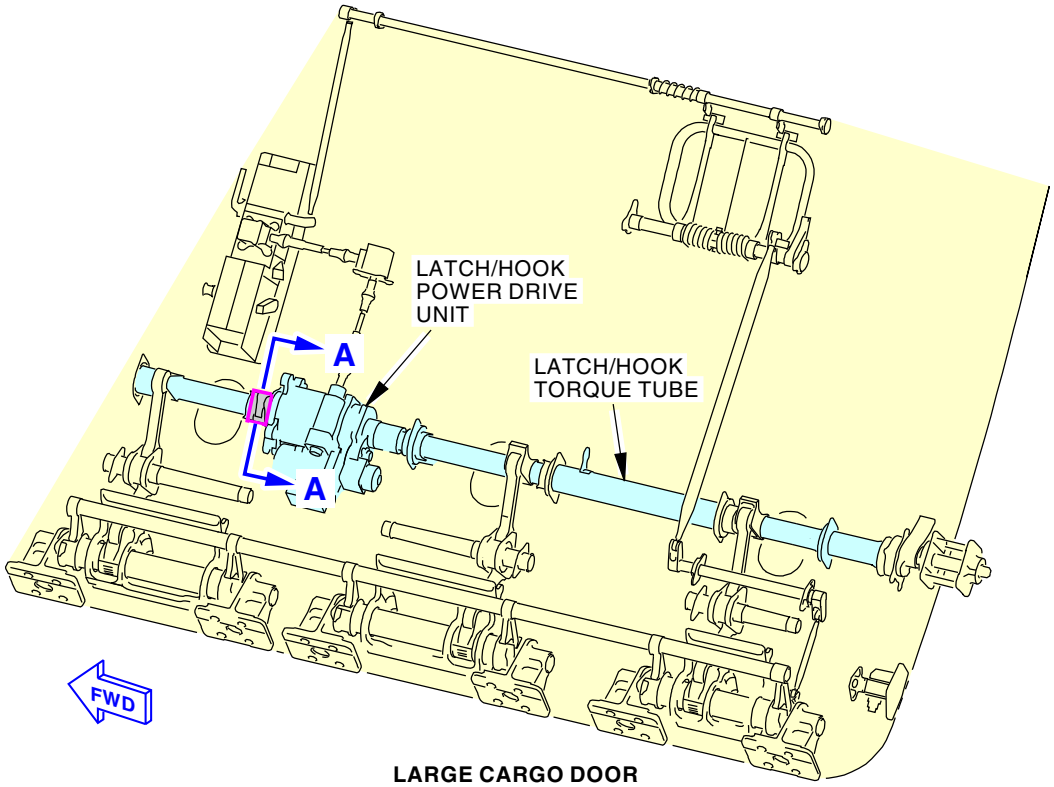
EICAS DOOR SYNOPTIC

D

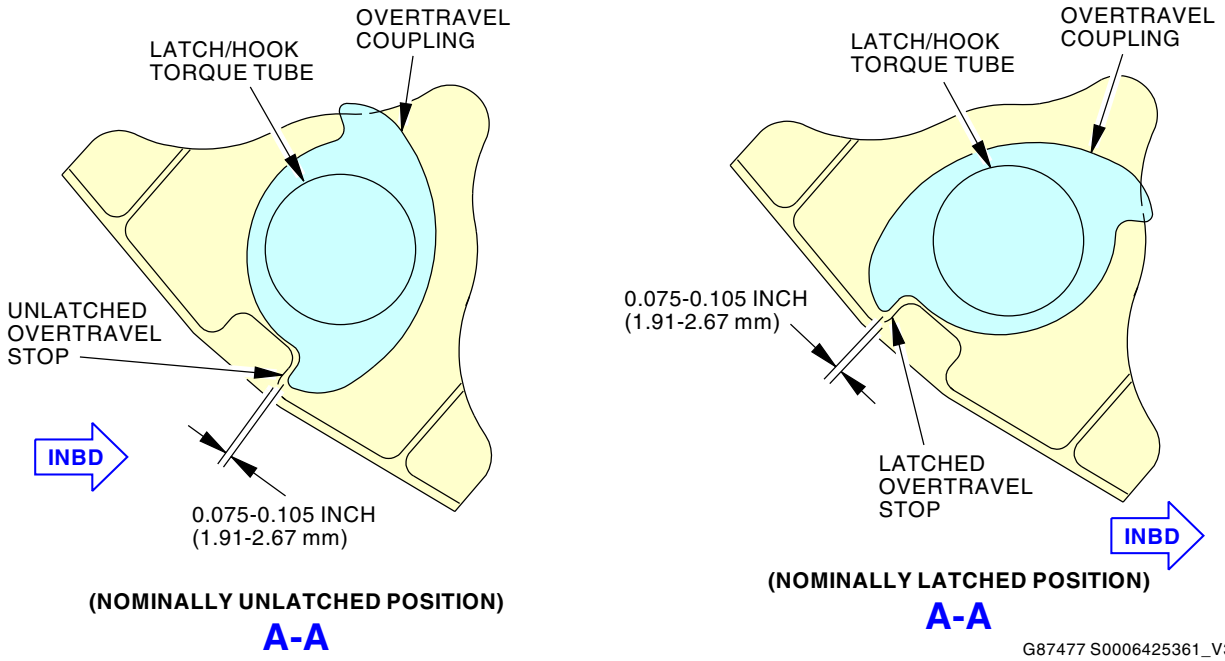
E46559 S0006425360_V2

Large Cargo Door EICAS Messages
Figure 502/52-34-00-990-805 (Sheet 2 of 2)

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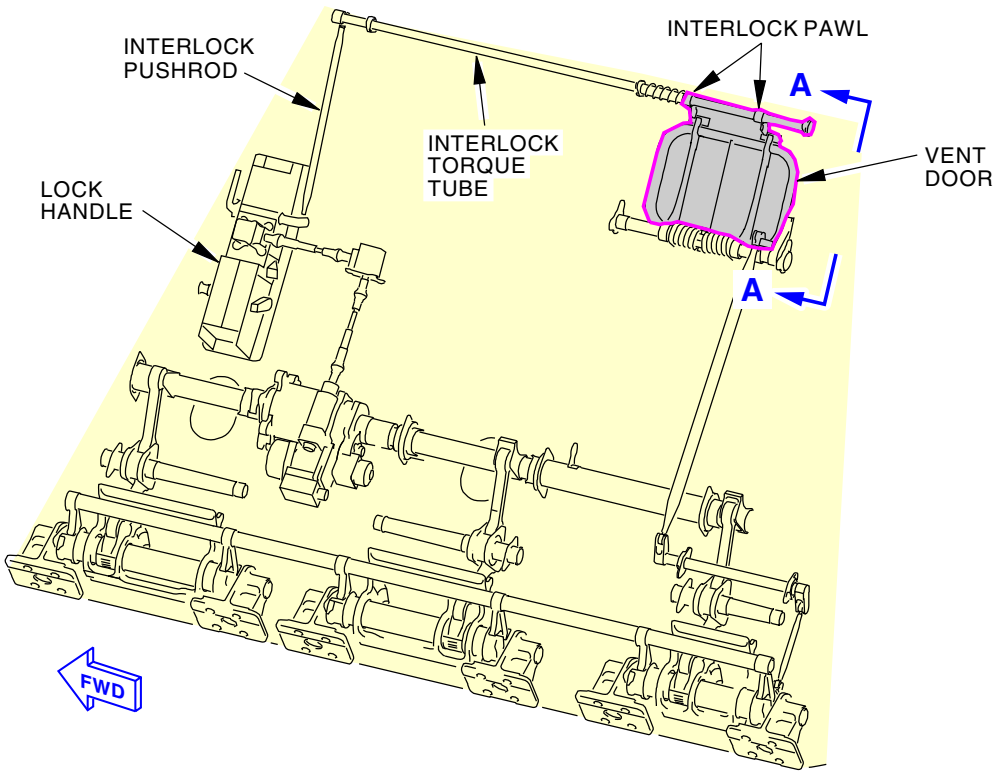


LARGE CARGO DOOR

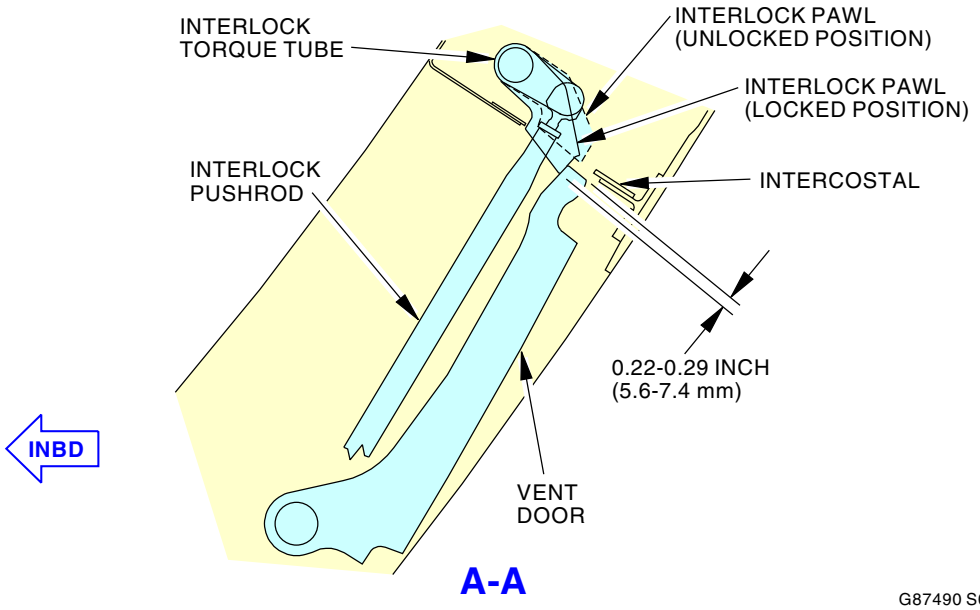


Latch/Hook Manual Drive Latched and Unlatched Positions
Figure 503/52-34-00-990-806

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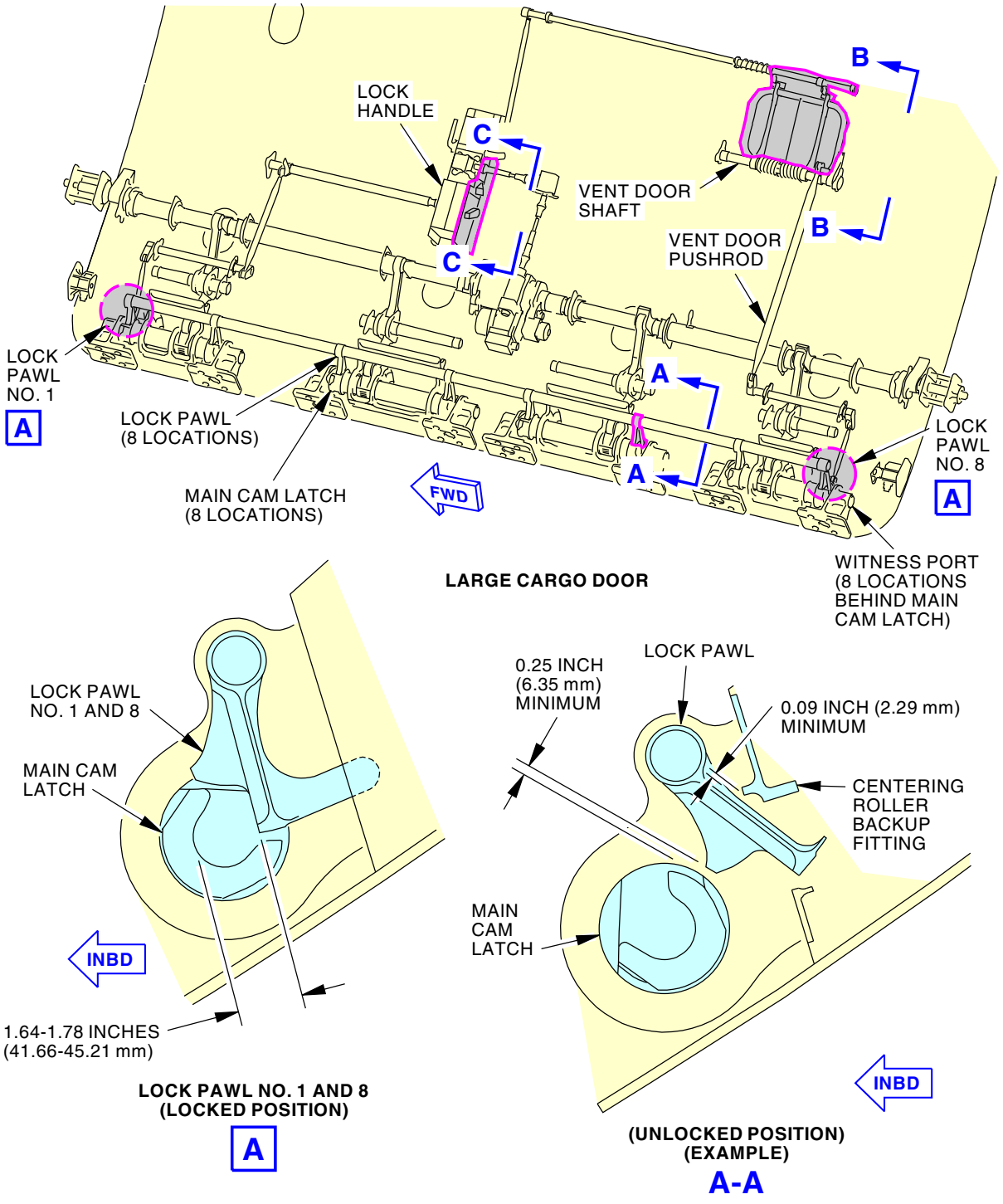
LARGE CARGO DOOR



G87490 S0006425364_V3

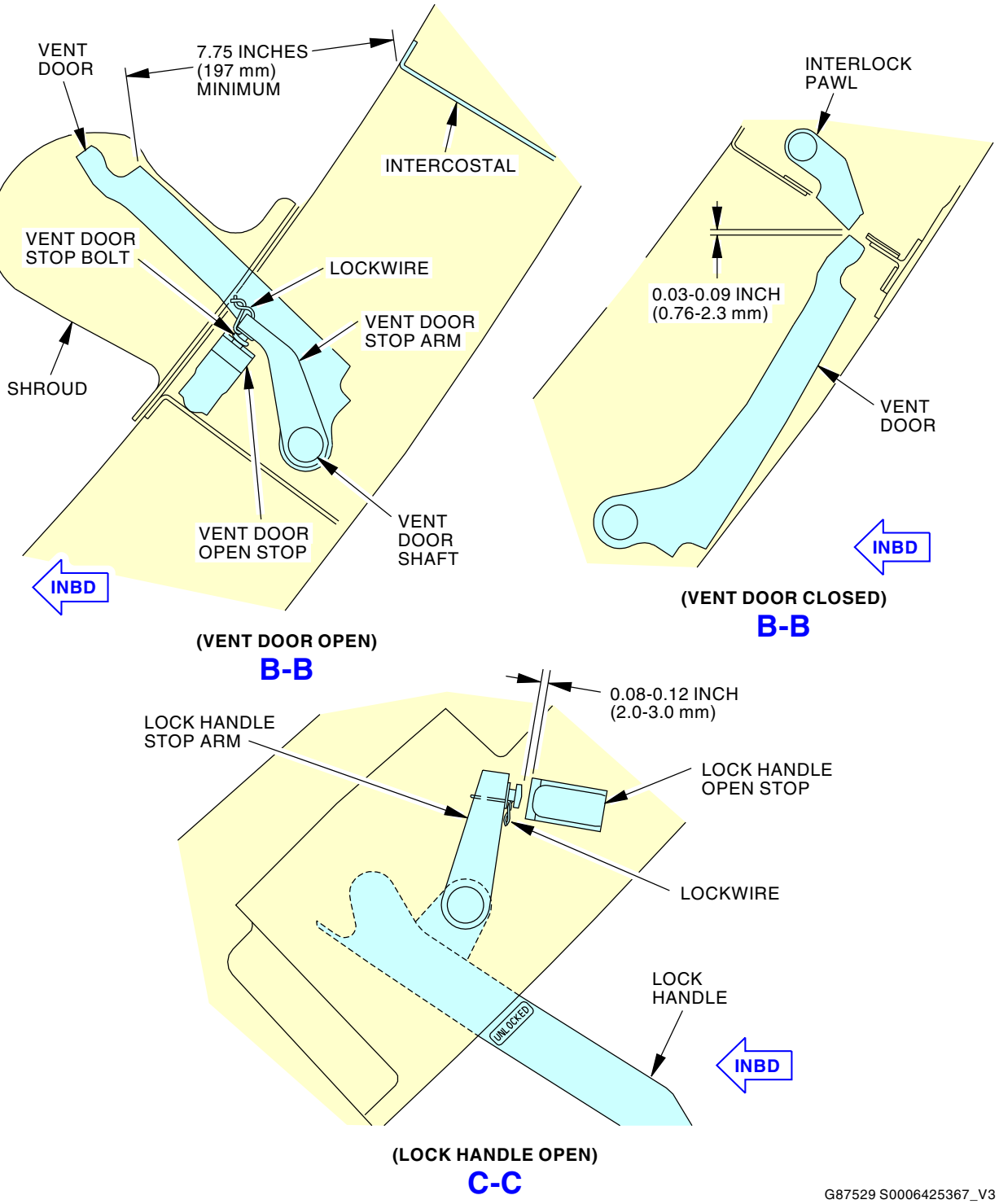
Interlock Mechanism Adjustment
Figure 504/52-34-00-990-807

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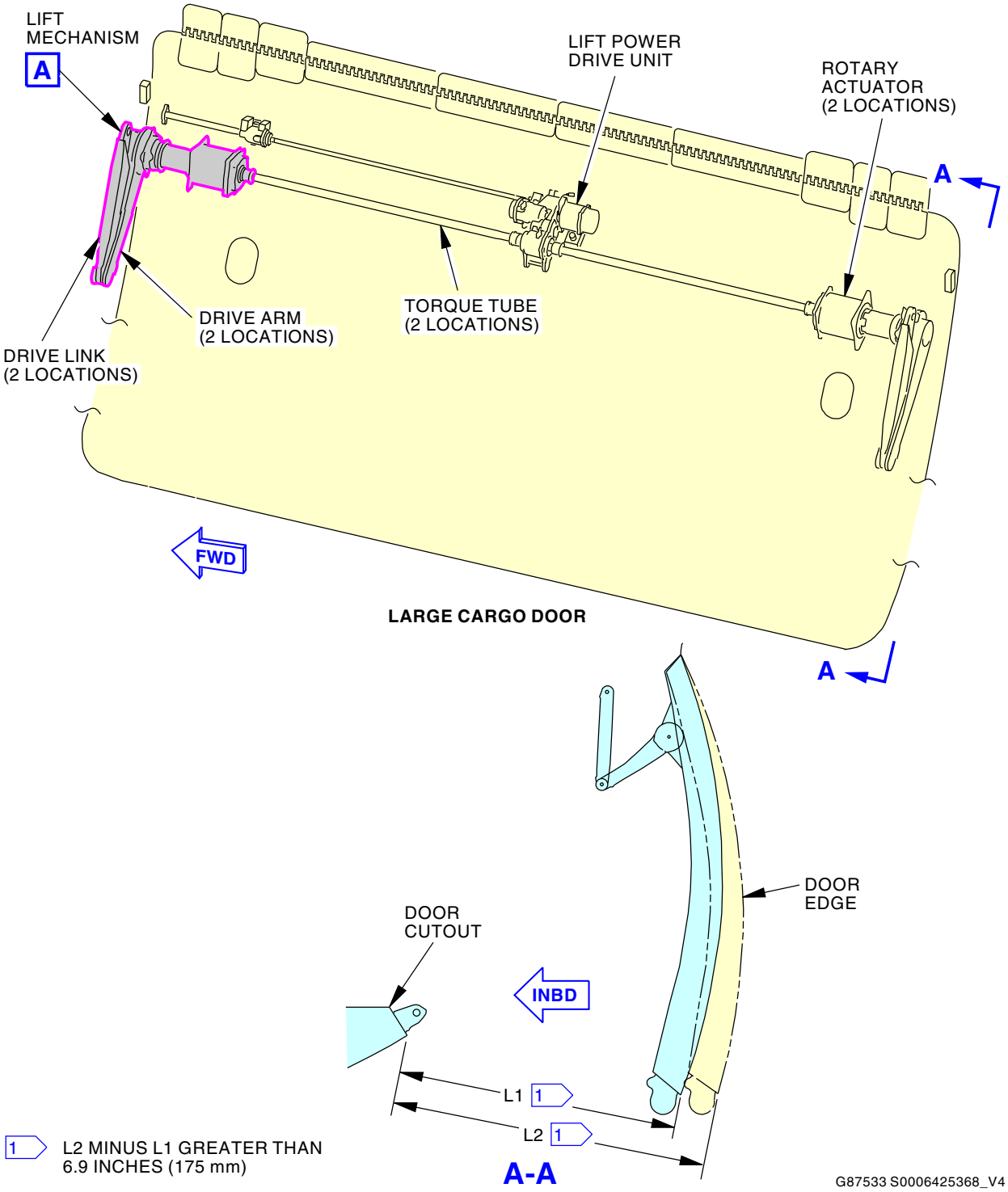
Lock Mechanism Adjustment
Figure 505/52-34-00-990-808 (Sheet 1 of 2)

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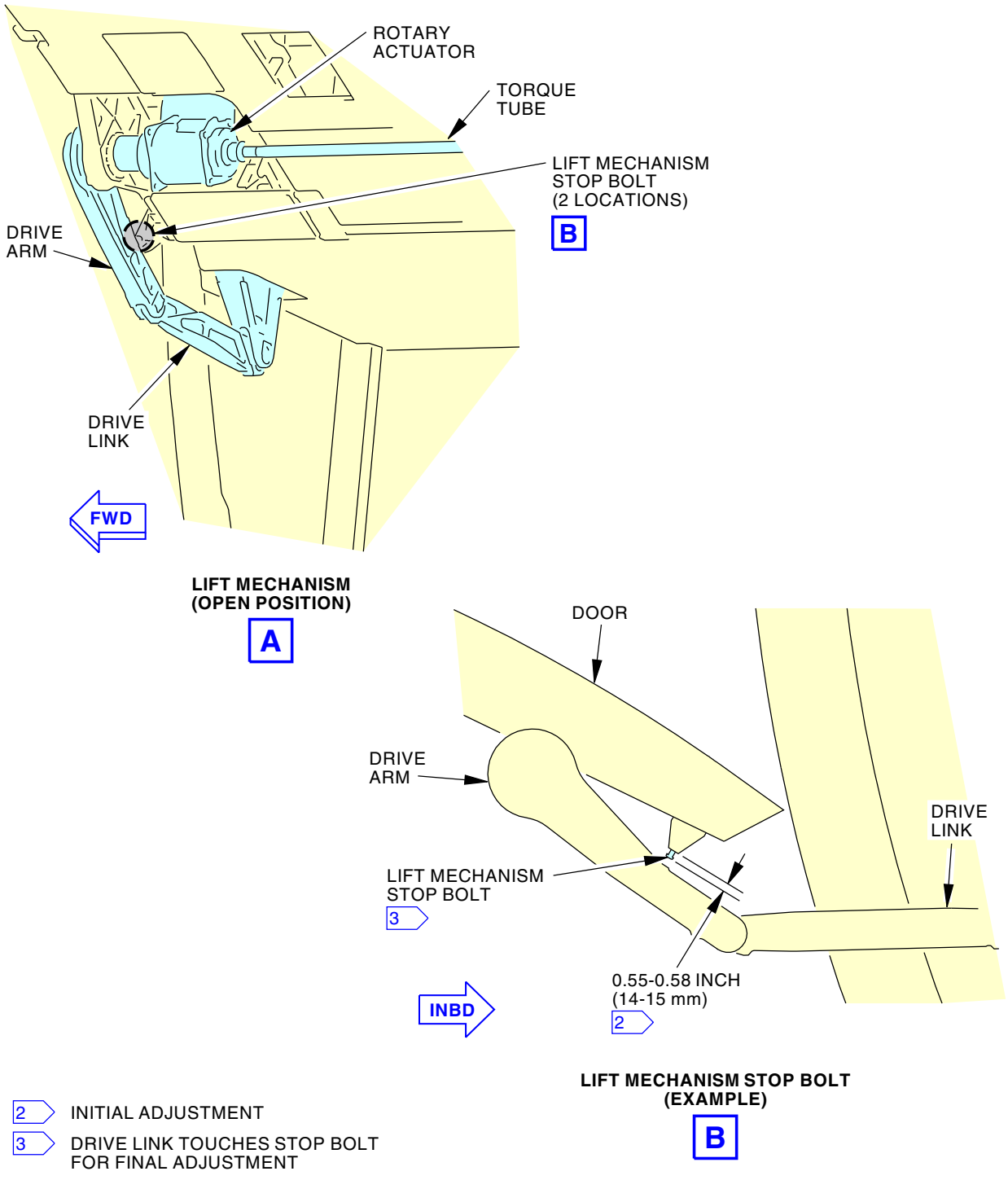
Lock Mechanism Adjustment
Figure 505/52-34-00-990-808 (Sheet 2 of 2)

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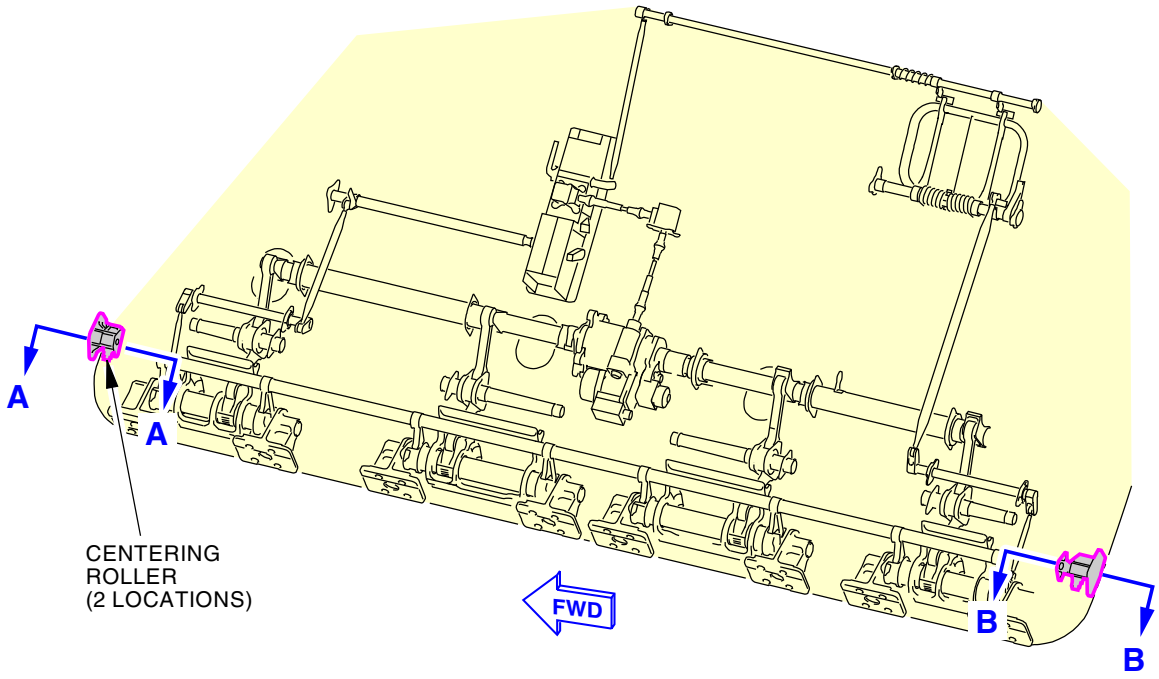
Lift Mechanism Adjustment
Figure 506/52-34-00-990-809 (Sheet 1 of 2)

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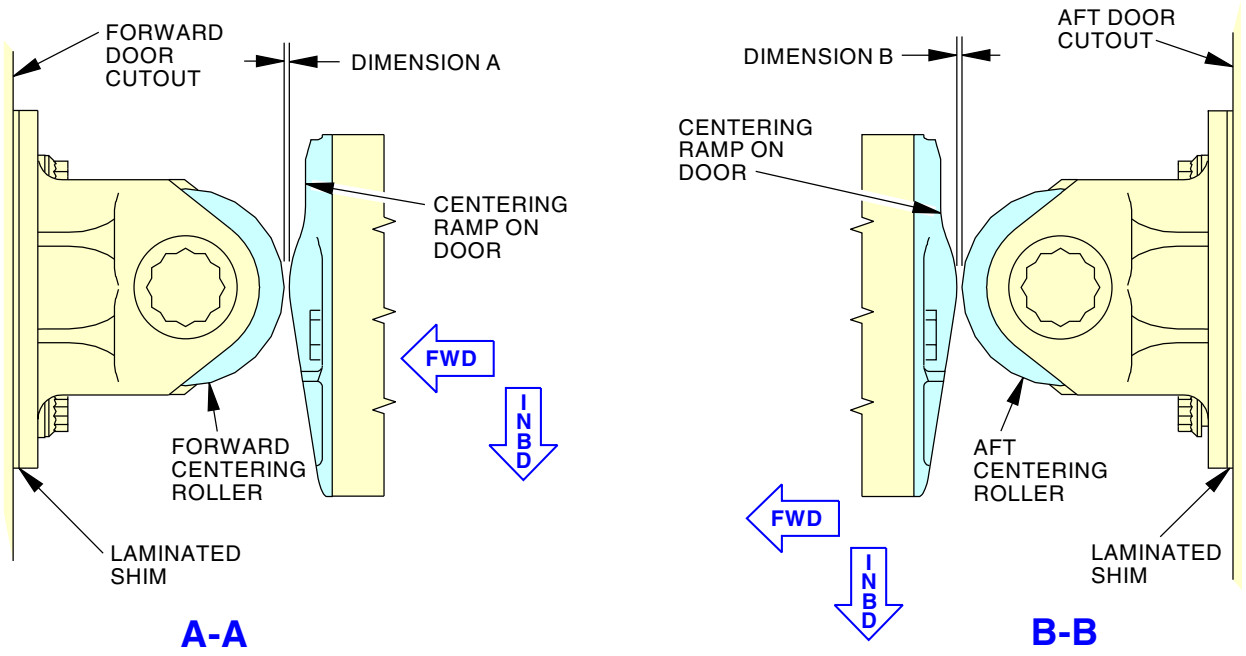


Lift Mechanism Adjustment
Figure 506/52-34-00-990-809 (Sheet 2 of 2)

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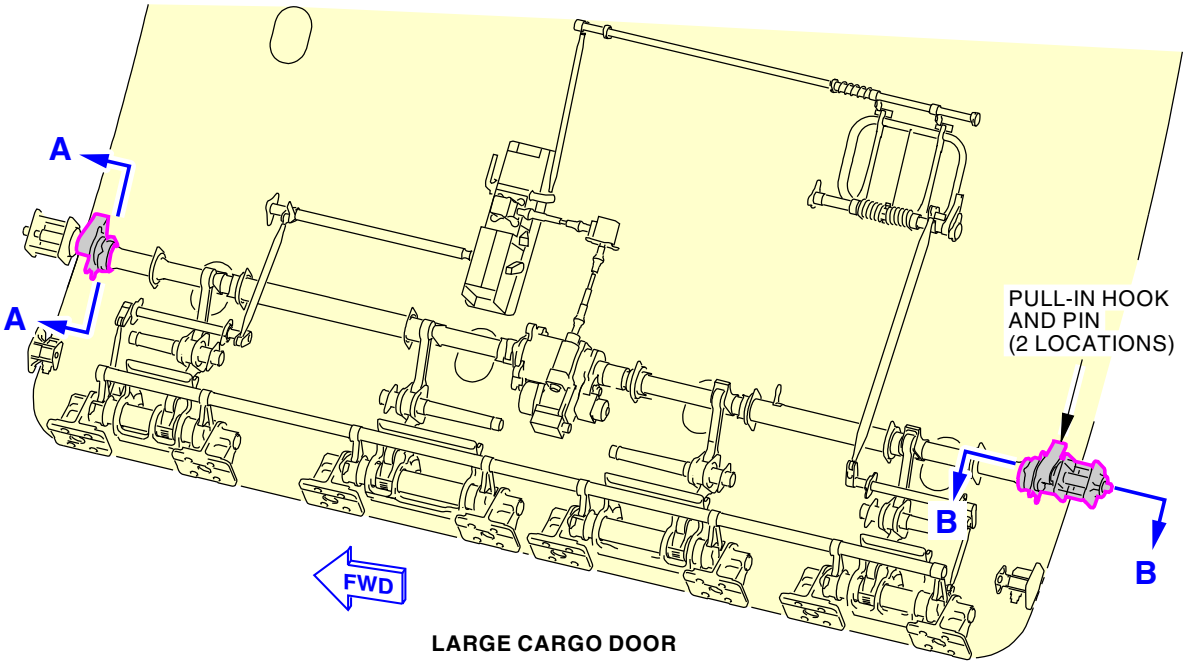
LARGE CARGO DOOR



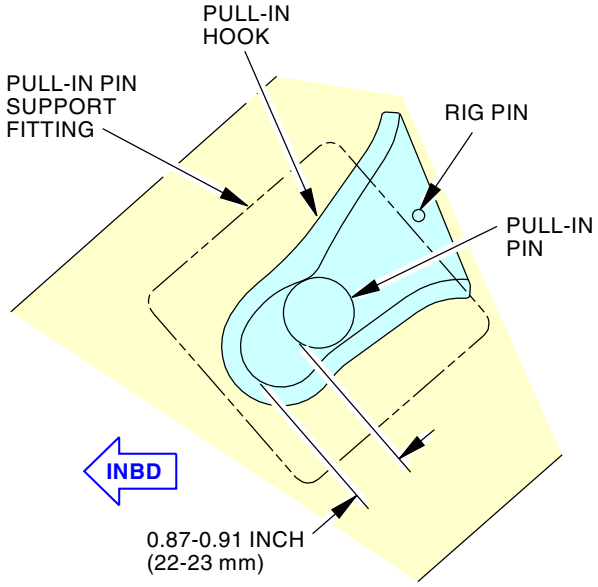
G87542 S0006425370_V3

Centering Roller Adjustment
Figure 507/52-34-00-990-810

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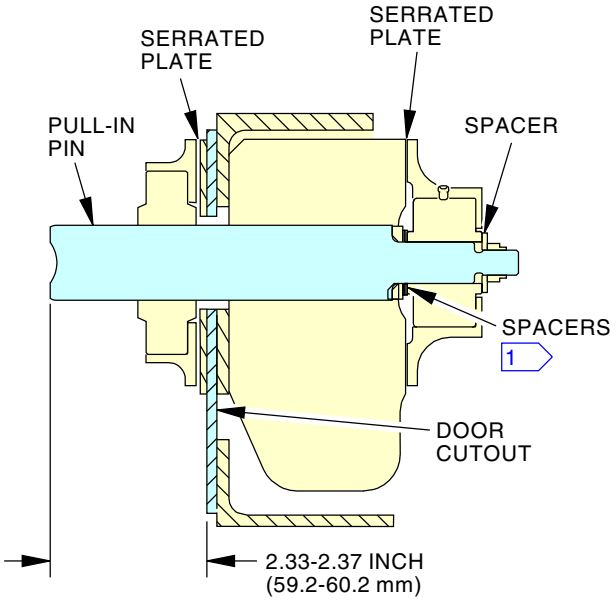


LARGE CARGO DOOR



(EXAMPLE)

A-A



(EXAMPLE)

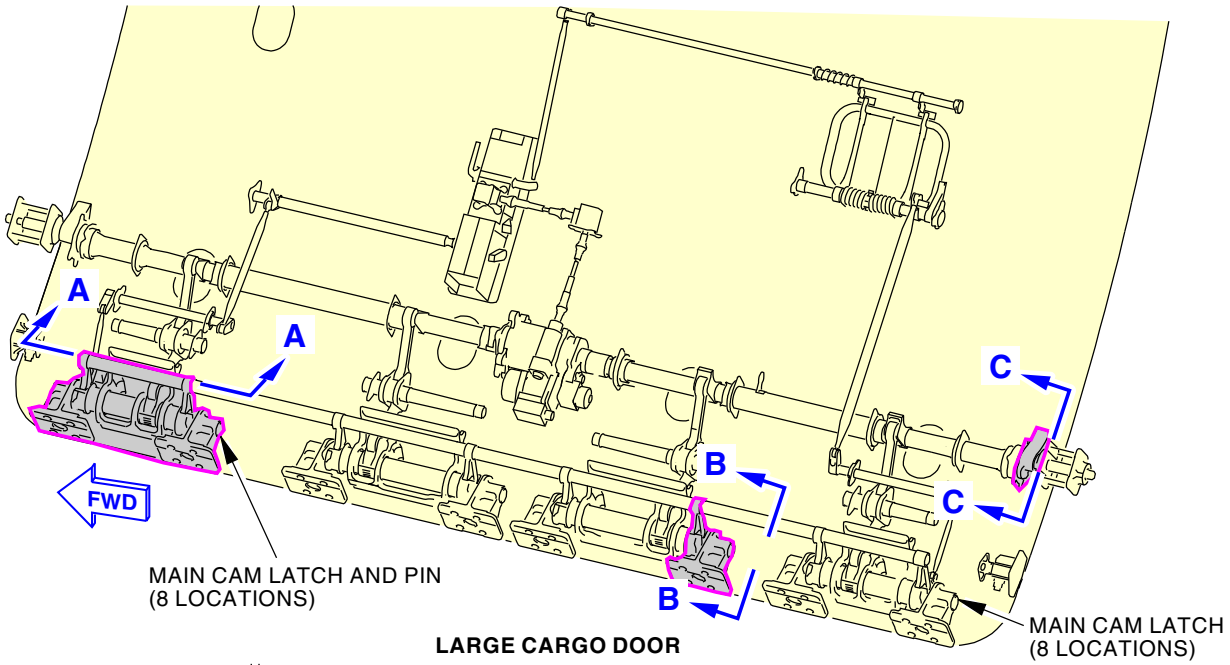
B-B

1 0-4 SPACERS INSTALLED

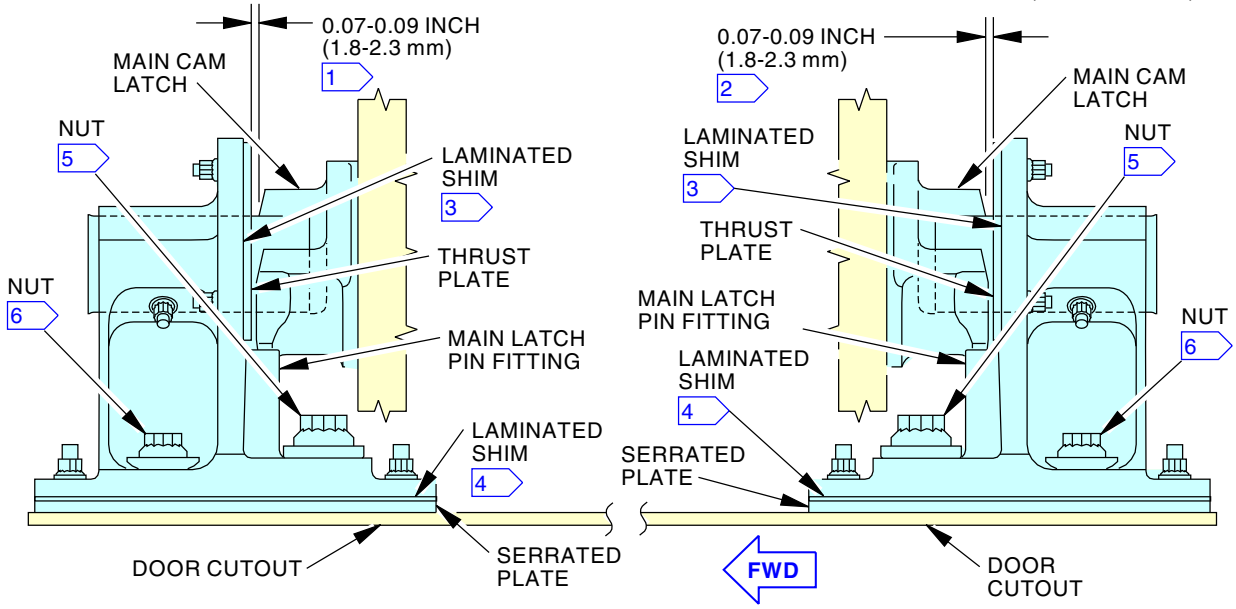
G87548 S0006425371_V3

Pull-In Hook and Pin Adjustment
Figure 508/52-34-00-990-811

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LARGE CARGO DOOR



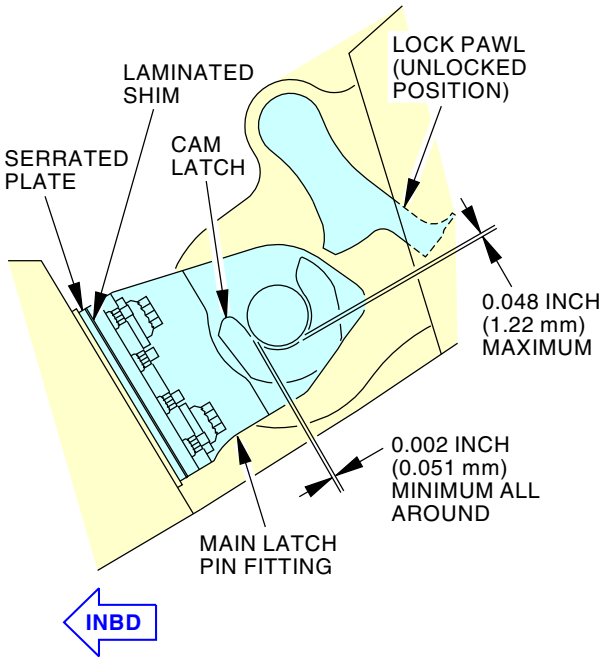
A-A

1 FORWARD MAIN CAM LATCH
2 AFT MAIN CAM LATCH
3 0.048 INCH (1.22 mm) MAXIMUM THICKNESS OF SHIM
4 0.125 INCH (3.18 mm) MAXIMUM THICKNESS OF SHIM
5 TORQUE NUT TO 1470 ±150 IN-LBS (166 ±17 N-m)
6 TORQUE NUT TO 670 ±50 IN-LBS (76 ±6 N-m)

G87554 S0006425373_V4

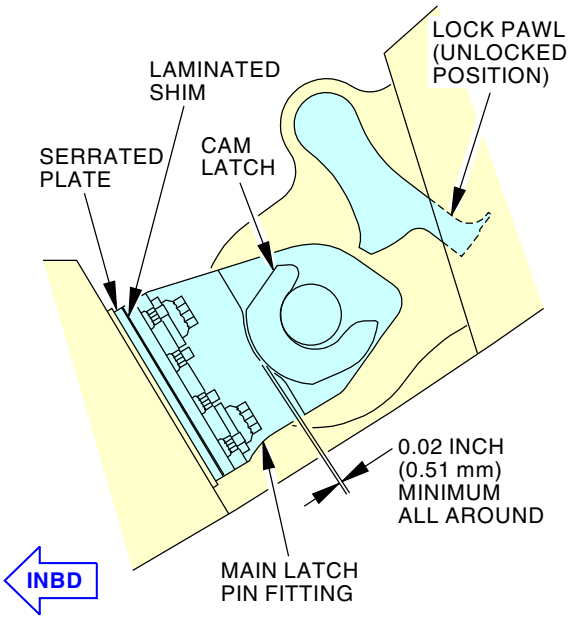
Main Latch Adjustment
Figure 509/52-34-00-990-812 (Sheet 1 of 2)

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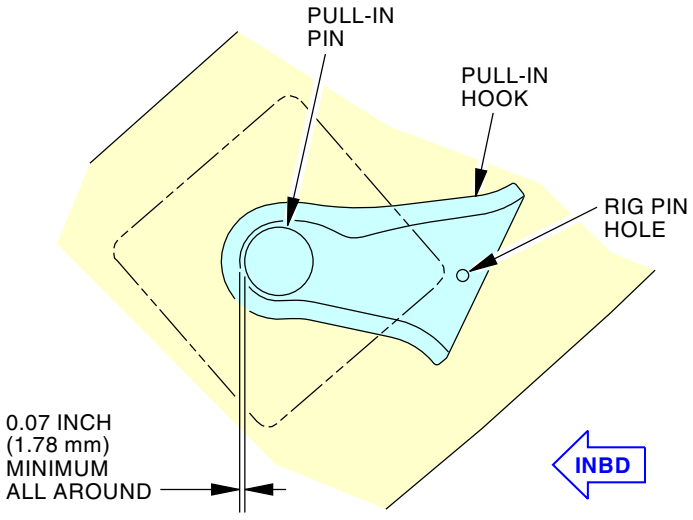
(UNLATCHED POSITION)

B-B



(LATCHED POSITION)

B-B



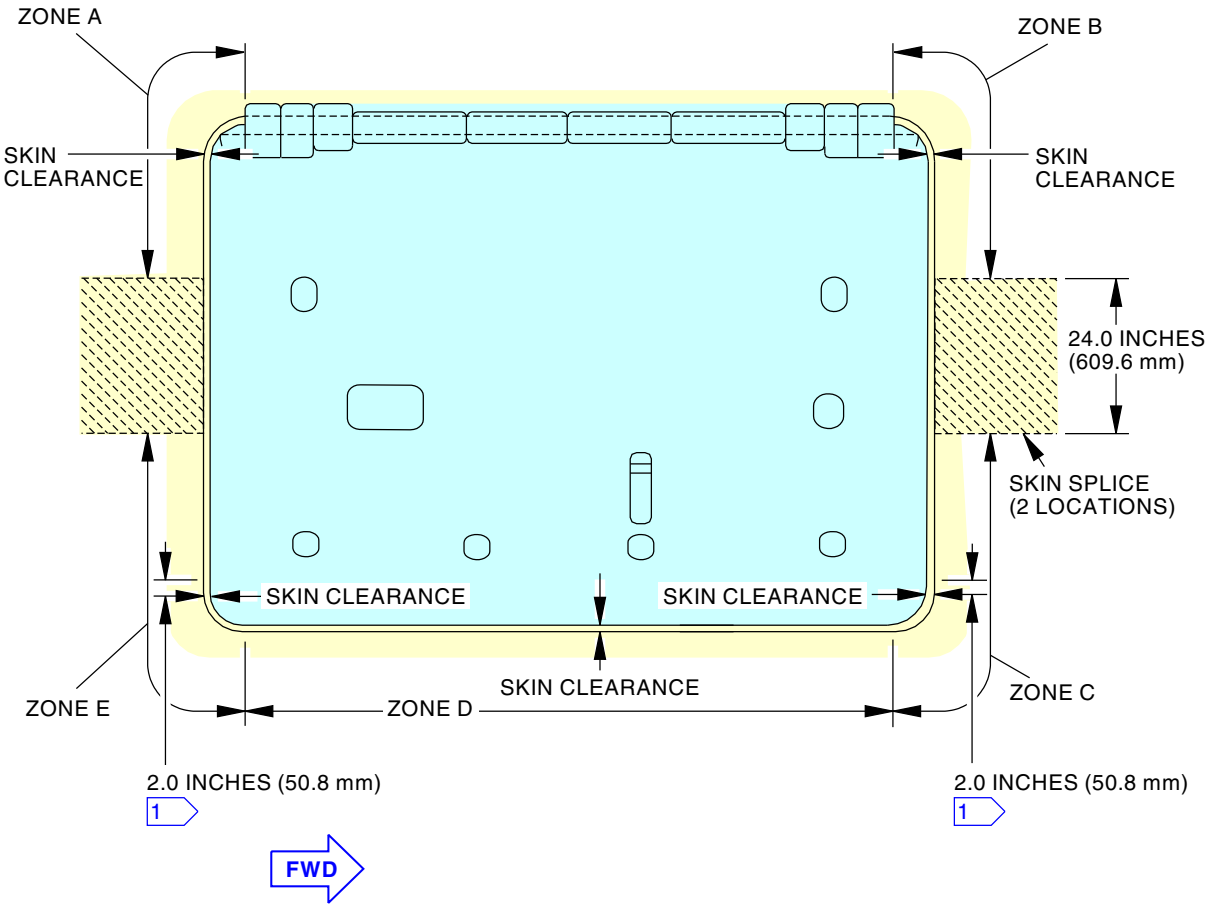
(EXAMPLE)

C-C

G87649 S0006425375_V4

Main Latch Adjustment
Figure 509/52-34-00-990-812 (Sheet 2 of 2)

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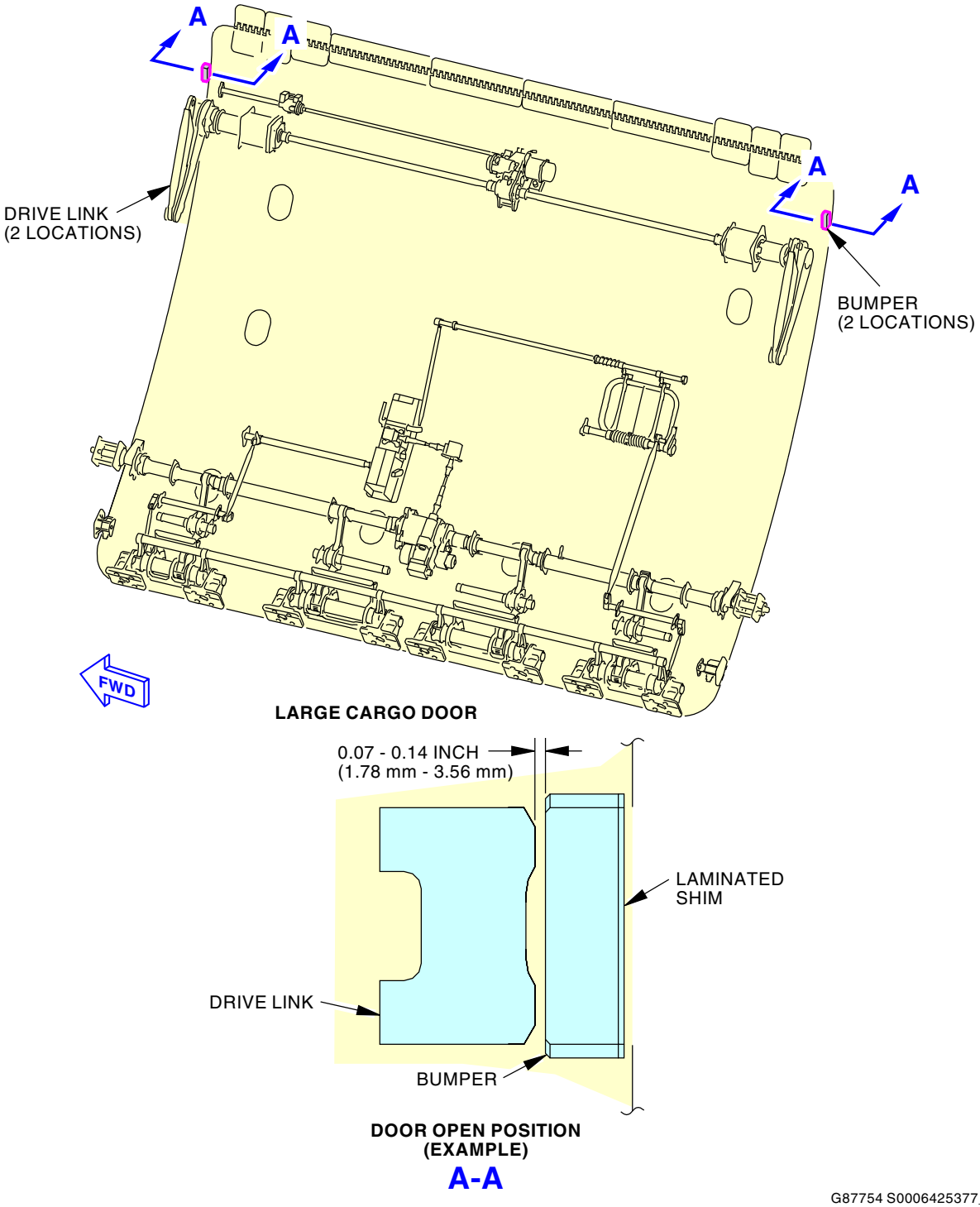
LARGE CARGO DOOR

1 FLUSHNESS TOLERANCES ARE APPLICABLE ONLY IN THESE AREAS. IN ALL OTHER AREAS WITHIN ZONES A, B, C, D, E, FLUSHNESS TO BE WITHIN ±0.20 INCH (±5.08 mm)

U66746 S0000212854_V2

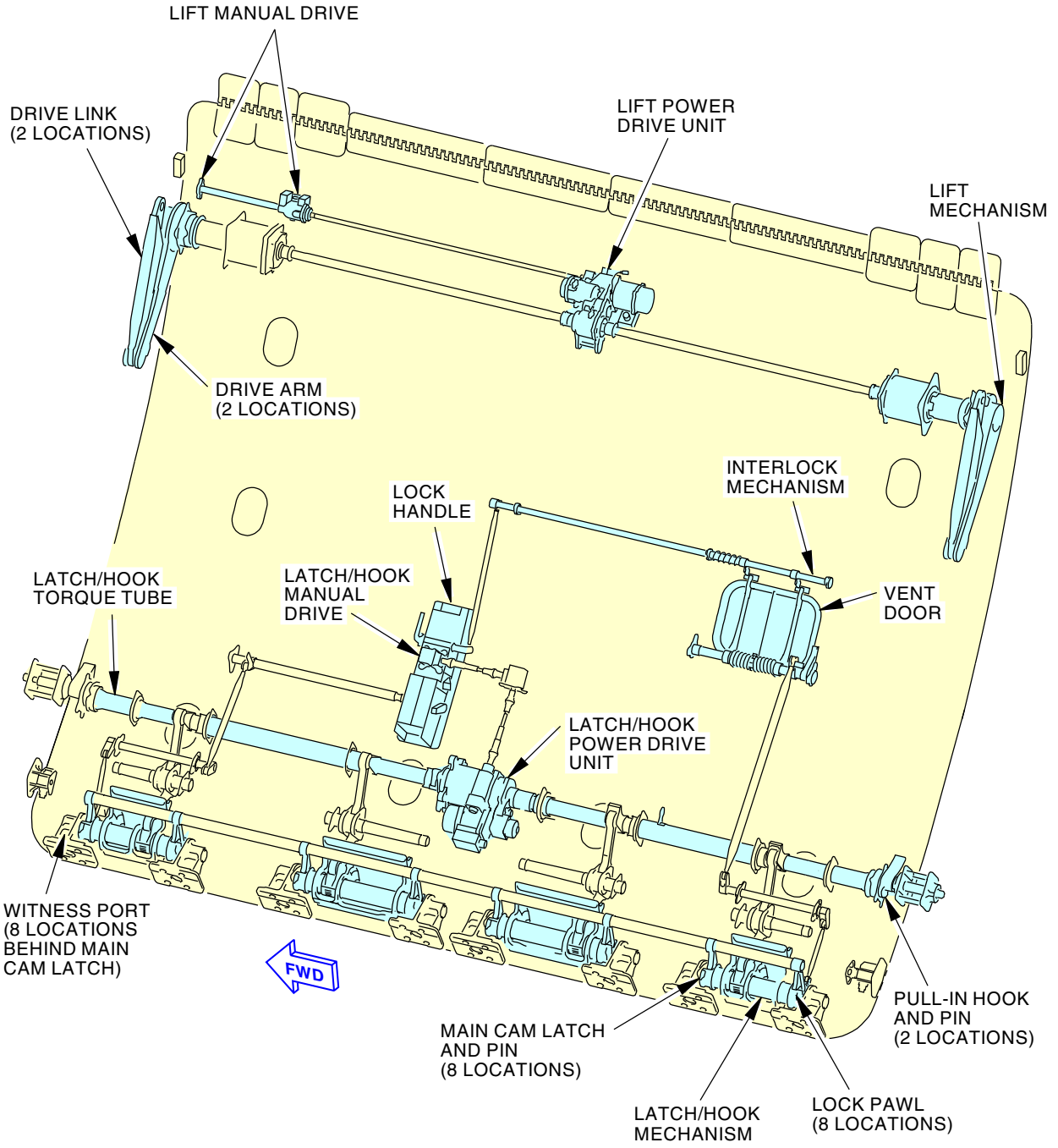
Skin Clearances and Flushness Zones
Figure 510/52-34-00-990-813

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Bumper Adjustment
Figure 511/52-34-00-990-814

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



Large Cargo Door Mechanisms
Figure 512/52-34-00-990-815

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FORWARD LARGE CARGO DOOR - INSPECTION/CHECK

1. General

A. This procedure has these tasks:

(1) A fast check of the large cargo door.

(2) An inspection of the large cargo door hinge pins.

TASK 52-34-00-200-801

2. Large Cargo Door Fast Check

(Figure 601, Figure 602, Figure 603)

A. General

(1) This procedure gives a fast check for the correct operation and rigging of the door systems. This procedure is not a full system test. For a full system test, do this task: Forward Large Cargo Door System Test, TASK 52-34-00-720-801

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
52-34-00-720-801	Forward Large Cargo Door System Test (P/B 501)
52-34-00-820-801	Forward Large Cargo Door Adjustment (P/B 501)
52-34-20-900-801	Latch Range Proximity Sensor Removal, Installation and Adjustment (P/B 201)
52-34-20-900-802	Unlatched and Latched Proximity Sensors Removal, Installation and Adjustment (P/B 201)
52-34-20-900-803	Door Up Proximity Sensor Removal, Installation and Adjustment (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1557	Gauge - Force Part #: DG-200 Supplier: 92456 Part #: FDIX 100 Supplier: 0BFD9 Part #: FDIX 50 Supplier: 0BFD9 Part #: LG-010 Supplier: 92456 Part #: LG-050 Supplier: 92456 Part #: LG-100 Supplier: 92456 Opt Part #: DPP-500G Supplier: 92456 Opt Part #: DPPH-150 Supplier: 92456 Opt Part #: DPPH-200 Supplier: 92456 Opt Part #: DPPH-50 Supplier: 92456 Opt Part #: FDI 100 Supplier: 0BFD9 Opt Part #: FDI 50 Supplier: 0BFD9 Opt Part #: FDV 100 Supplier: 0BFD9 Opt Part #: FDV 50 Supplier: 0BFD9

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D. Location Zones

Zone	Area
821	Forward Large Cargo Door

E. Procedure

SUBTASK 52-34-00-860-040

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-34-00-860-041

(2) Open the door to the fully open position. While the door opens, do this check:

(a) Make sure the door moves smoothly and continuously to the fully open position.

SUBTASK 52-34-00-210-013

(3) Make sure the EICAS message, DOOR FWD CARGO, shows on the top display.

NOTE: If two or more doors of any kind are not closed, latched and locked, the EICAS message DOORS will show and the individual message for this door will not show.

SUBTASK 52-34-00-220-001

(4) Make sure the two drive arms do not touch the door up overtravel stop bolts on the forward and aft sides of the door.

SUBTASK 52-34-00-820-014

(5) If the drive arms touch the overtravel stop bolts, do the steps that follow as necessary:

(a) Do this task: Door Up Proximity Sensor Removal, Installation and Adjustment, TASK 52-34-20-900-803.

NOTE: Only do the Adjustment.

(b) Adjust the stop bolts.

SUBTASK 52-34-00-860-042

(6) Close the door. Do not close the lock handle to the locked position.

SUBTASK 52-34-00-010-012

(7) Remove the door lining.

SUBTASK 52-34-00-220-003

(8) Make sure the overtravel coupling for the latch mechanism does not touch the latched overtravel stop.

SUBTASK 52-34-00-820-016

(9) If the overtravel coupling touches the latched overtravel stop, do this task: Unlatched and Latched Proximity Sensors Removal, Installation and Adjustment, TASK 52-34-20-900-802.

NOTE: Only do the Adjustment.

SUBTASK 52-34-00-860-043

(10) Open the door to the vertical, free-hang position. While the door opens, do this check:

(a) Make sure the pull in pins turn smoothly.

(b) Make sure the pull-in hooks disengage smoothly from the pull-in pins.

SUBTASK 52-34-00-820-017

(11) If the pull-in hooks and pins do not operate correctly, do the steps that follow as necessary:

(a) Do this task: Forward Large Cargo Door Adjustment, TASK 52-34-00-820-801.

NOTE: Only do the Pull-In Hook and Pin Adjustment

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(b) Do this task: Latch Range Proximity Sensor Removal, Installation and Adjustment, TASK 52-34-20-900-801.

NOTE: Only do the Adjustment.

SUBTASK 52-34-00-220-004

(12) Make sure the overtravel coupling for the latch mechanism does not touch the unlatched overtravel stop.

SUBTASK 52-34-00-820-018

(13) If the overtravel coupling touches the unlatched travel stop, do this task: Unlatched and Latched Proximity Sensors Removal, Installation and Adjustment, TASK 52-34-20-900-802.

NOTE: Only do the Adjustment.

SUBTASK 52-34-00-860-044

(14) Close the door.

SUBTASK 52-34-00-860-045

(15) Close the lock handle to the locked position.

SUBTASK 52-34-00-860-046

(16) Push the lock handle access cover in and pull the catch release lever, do this check:

(a) Make sure the lock handle fully extends and the word UNLOCKED shows on each side of the handle.

SUBTASK 52-34-00-210-014

(17) Make sure the vent door is in the fully open position.

SUBTASK 52-34-00-220-005

(18) Make sure all of the lock pawls are turned and are clear of the main cam latches.

SUBTASK 52-34-00-220-006

(19) Measure the maximum load necessary to move the lock handle to the locked position as follows:

(a) Use the force gauge, COM-1557 to put a load 0.50 inch from the top end of the handle in the close direction of the handle.

(b) Measure the load necessary to move the lock handle to the locked position.

NOTE: Keep the load at an angle of 90 degrees to the handle.

SUBTASK 52-34-00-820-019

(20) If the load is more than 20 pounds before the handle reaches 2 inches from the closed position, do this task: Forward Large Cargo Door Adjustment, TASK 52-34-00-820-801.

NOTE: Only do the applicable steps to adjust the lock handle.

SUBTASK 52-34-00-860-047

(21) Close the lock handle to the locked position.

SUBTASK 52-34-00-980-001

(22) Push the pressure vent door fully closed by hand.

NOTE: The vent door is adjusted slightly open.

SUBTASK 52-34-00-220-007

(23) Make sure the vent door fully touches the skin around the vent door.

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SUBTASK 52-34-00-820-020

(24) If the vent door does not operate correctly, do this task: Forward Large Cargo Door Adjustment, TASK 52-34-00-820-801.

NOTE: Only do the Interlock Mechanism Adjustment.

SUBTASK 52-34-00-710-005

(25) Make sure all 8 lock pawls engage all 8 main cam latches and will prevent the latches from turning open.

SUBTASK 52-34-00-710-006

(26) Move the lock handle open and closed 4 times.

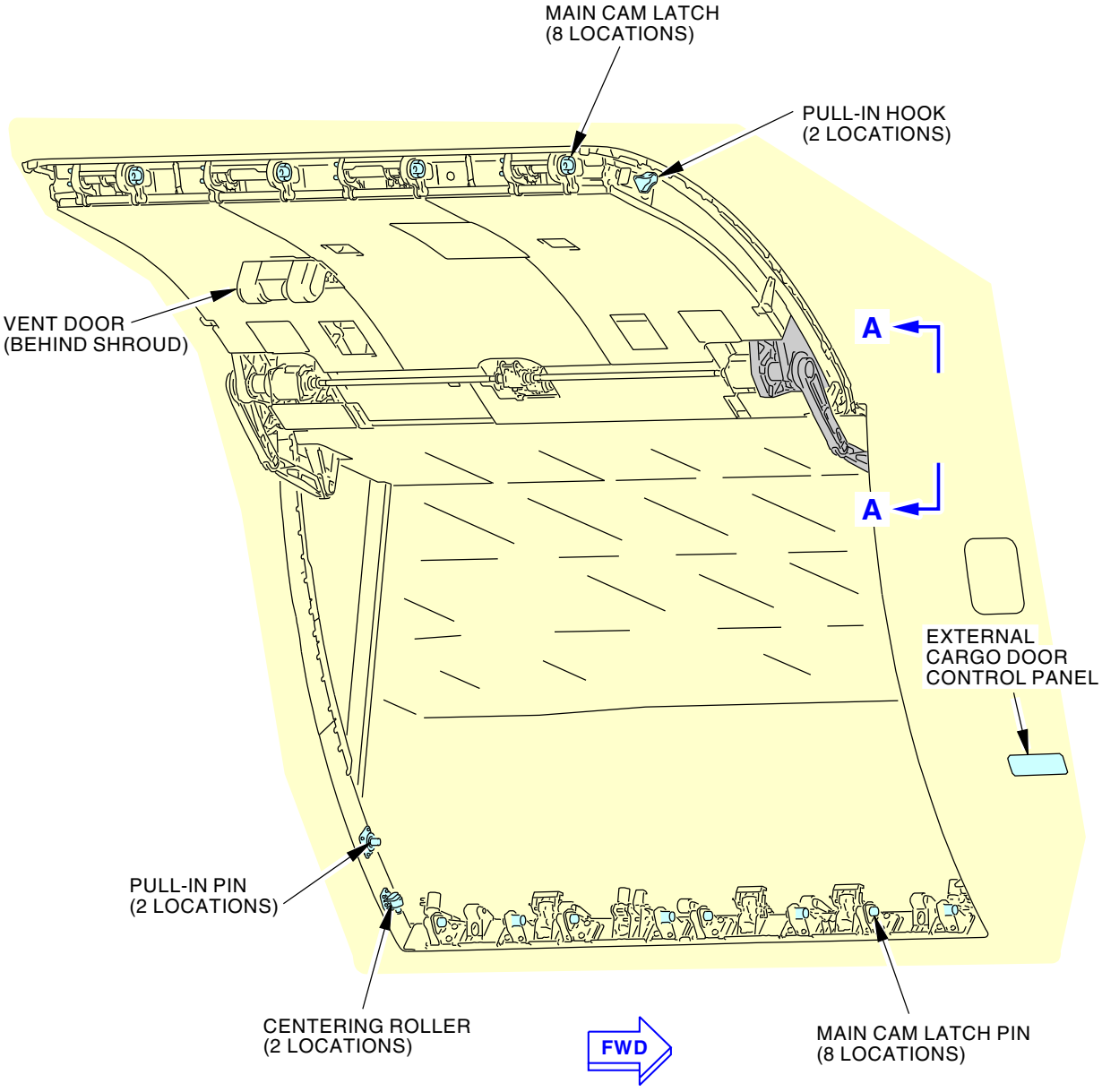
(a) Make sure the interlock pawls do not touch the pressure vent door when you move the handle.

(b) If the interlock pawls touch the vent door, do this task: Forward Large Cargo Door Adjustment, TASK 52-34-00-820-801.

NOTE: Only do the Interlock Mechanism Adjustment.

——— END OF TASK ———

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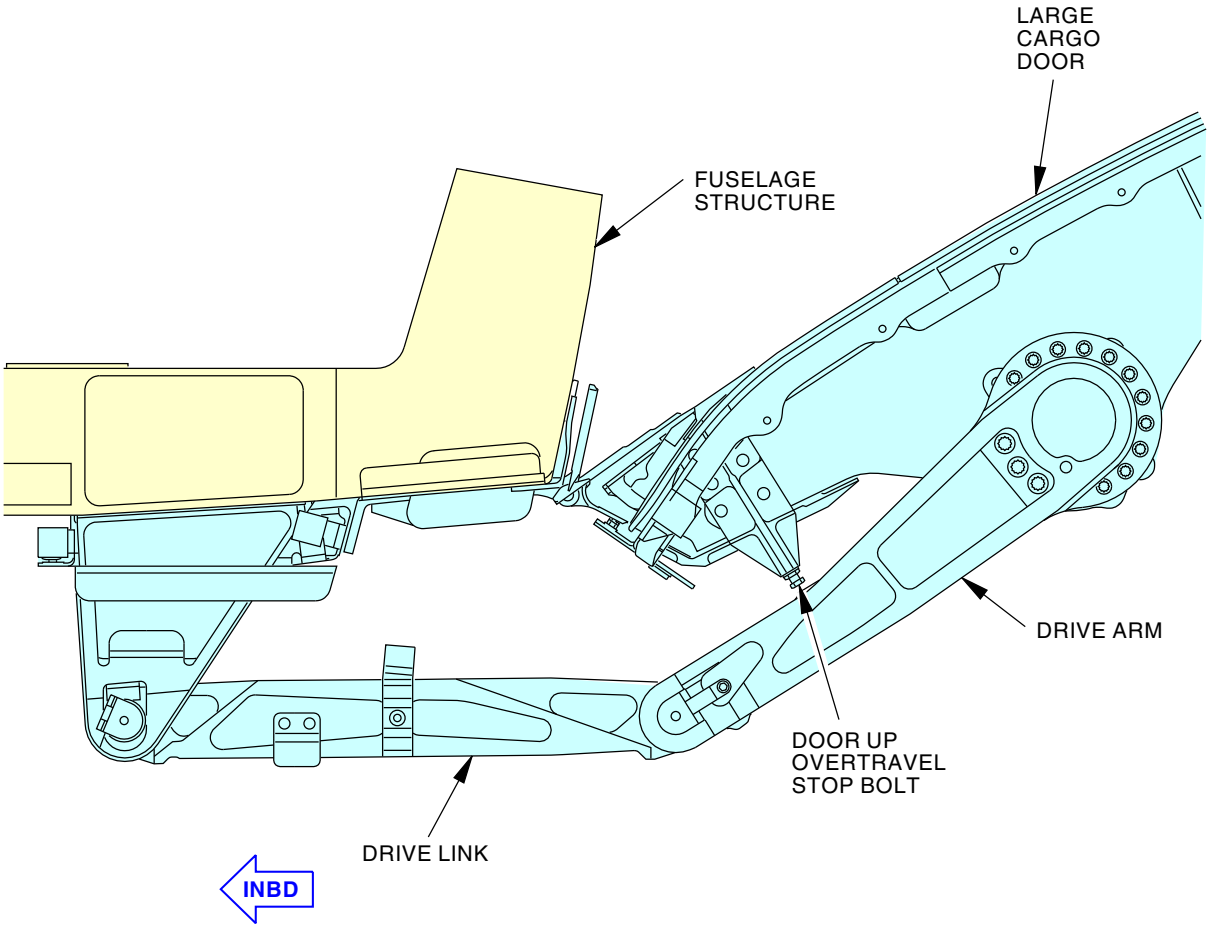


**LARGE CARGO DOOR
(EXTERNAL SIDE)**

G84824 S0006425383_V2

**Forward Large Cargo Door (Open Position)
Figure 601/52-34-00-990-818 (Sheet 1 of 2)**

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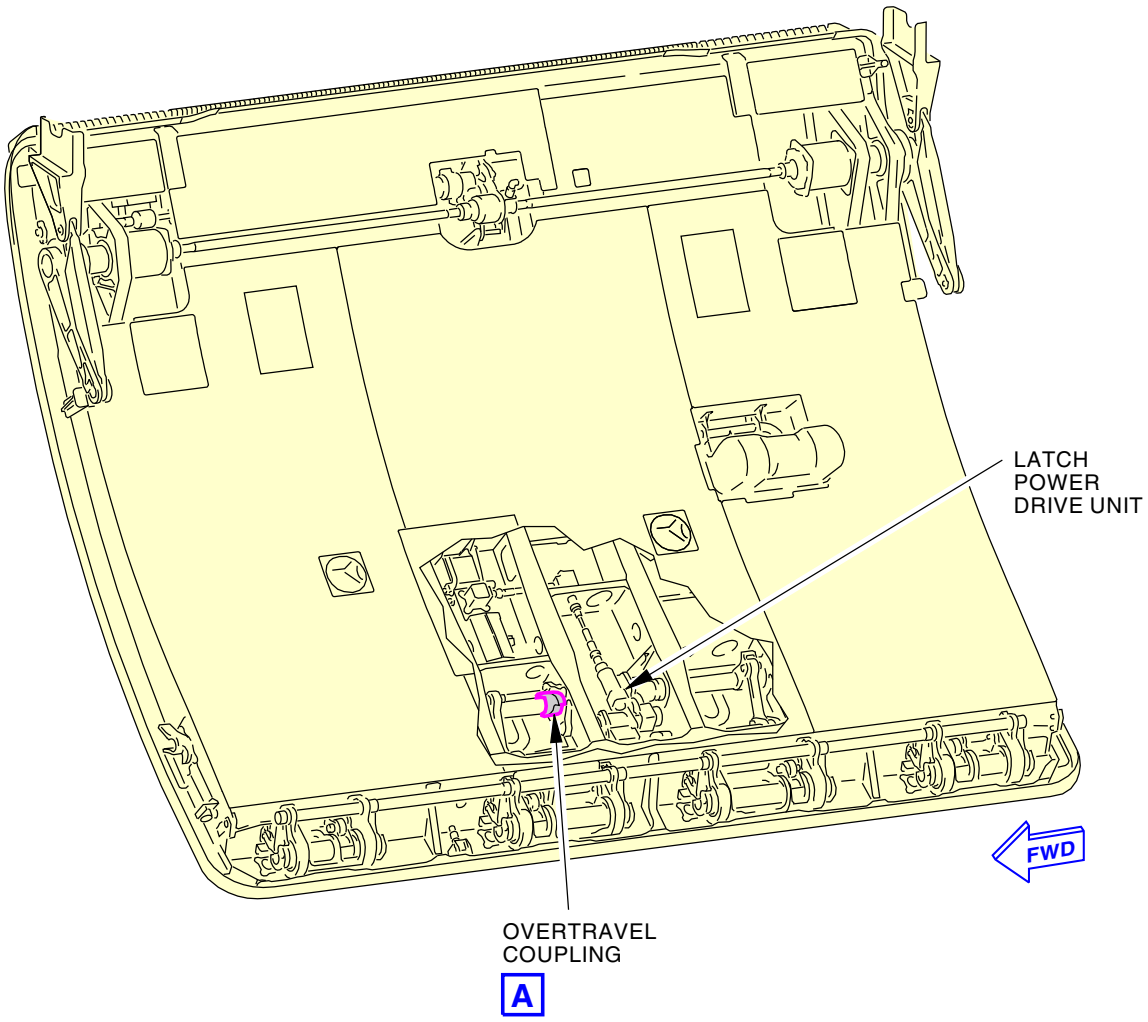


A-A

C50779 S0006425385_V2

Forward Large Cargo Door (Open Position)
Figure 601/52-34-00-990-818 (Sheet 2 of 2)

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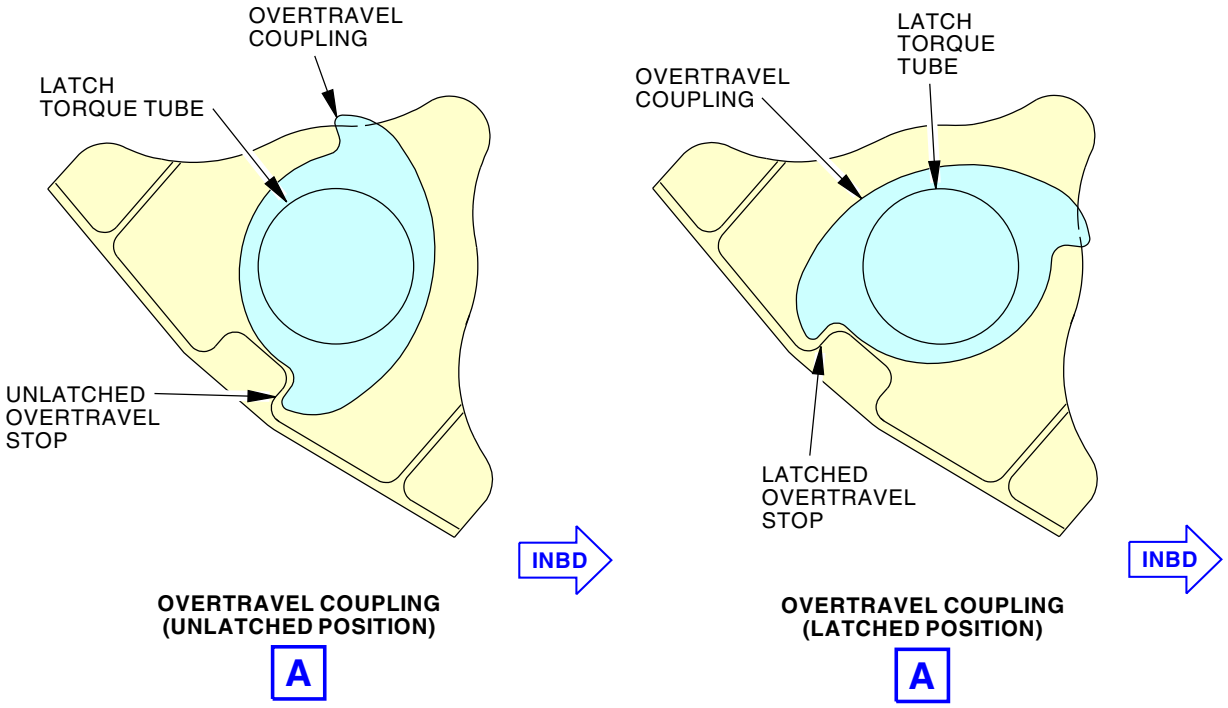


LARGE CARGO DOOR

G84826 S0006425386_V2

Forward Large Cargo Door (Closed Position, Internal Side)
Figure 602/52-34-00-990-819 (Sheet 1 of 2)

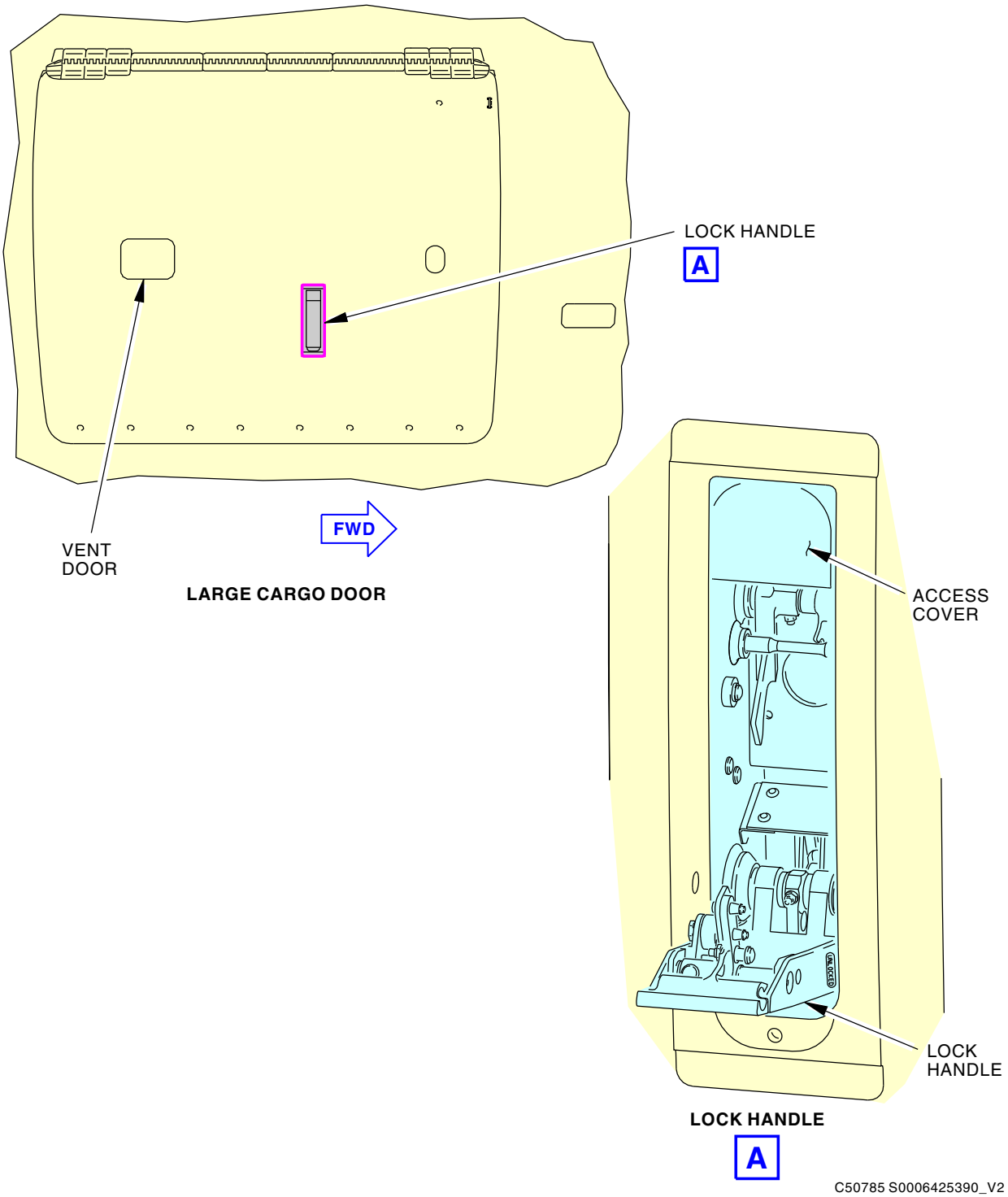
ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



G84830 S0006425388_V2

Forward Large Cargo Door (Closed Position, Internal Side)
Figure 602/52-34-00-990-819 (Sheet 2 of 2)

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Forward Large Cargo Door (Closed Position, External Side)
Figure 603/52-34-00-990-820

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TASK 52-34-00-200-802

3. Large Cargo Door Hinge Pin Inspection

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task performs an inspection of the large crago door hinge pins. The inspection of the hinge pins require that the hinge pins be removed from the large cargo door. It is important that you follow the correct sequence when removing and inspecting the hinge pins.

B. References

Reference	Title
52-34-01-220-801	Large Cargo Door Inspection (P/B 601)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1982	Driver Set - Hinge Pin, Main Cargo Door Part #: A52019-1 Supplier: 81205
SPL-1990	Equipment - Fitting, Forward And Aft Large Cargo Door Part #: A52004-101 Supplier: 81205 Opt Part #: A52004-45 Supplier: 81205
SPL-1993	Sling - Assembly, Forward And Aft Large Cargo Door And Small Cargo Door Part #: A52004-43 Supplier: 81205

D. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
A50343	Sealant - PPG Aerospace PR-1772 Class B Low Weight Fuselage Sealant	BMS5-142 Type II Class B
D00633	Grease - Aircraft General Purpose	BMS3-33
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38
G51249	Agent - Parting, Peelable	BAC5000

E. Location Zones

Zone	Area
821	Forward Large Cargo Door

F. Prepare for the Inspection

SUBTASK 52-34-00-860-048

(1) Put the door in its vertical, free-hang position.

NOTE: The door is in the free-hang position when the bottom of the door can be freely moved in the open and close directions.

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SUBTASK 52-34-00-860-051

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-34-00-860-049

(3) Turn the lift manual drive until the drive arms are approximately 90 degrees to the inner skin of the door at the lift mechanism.

SUBTASK 52-34-00-480-005

(4) Install the forward and aft large cargo door fitting equipment, SPL-1990 and forward and aft cargo door sling, SPL-1993 to hold the weight of the door.

G. Hinge Pin Inspection

SUBTASK 52-34-00-211-003

(1) Inspect the hinge pins [11,15] for the forward main hinge [12] and the forward closeout hinge [8] as follows:

(a) Remove the four bolts [9] and eight bolts [10] that attach the forward closeout hinge [8] to the door assembly.

(b) Remove the bolts [1], washers [2], nuts [3] at nine locations and the bolt [4], washer [5] and nut [6] that attach the forward closeout hinge [8] to the fuselage.

(c) Remove the forward closeout hinge [8].

1) Retain the shims.

(d) Remove the three bolts [13] that attach the hinge fairing plate [14] to the fuselage.

(e) Remove the hinge fairing plate [14].

(f) Remove the hinge pins [11, 15].

1) Attach tags to the hinge pins [11,15] to identify for subsequent installation.

2) If necessary, use the applicable hinge pin driver set, SPL-1982, to help push the hinge pins [11, 15] through and remove them.

(g) Perform a detail visual inspection of the hinge pins [11, 15], do this task: Large Cargo Door Inspection, TASK 52-34-01-220-801).

(h) Apply grease, D00633, to hinge pins [11, 15], the holes on the intermediate hinge and hinges [8, 12], and the faces of the holes on the intermediate hinge and hinges [8, 12].

(i) Install the forward main hinge pin [15] as follows:

1) Install the forward main hinge pin [15] from the outer edge of the door.

2) Push the forward main hinge pin [15] through the forward main hinge [12].

3) Apply corrosion inhibiting material, G50136, to the mating surface of the hinge fairing plate [14] and the fuselage.

4) Install the three bolts [13] to attach the hinge fairing plate [14] to the fuselage structure.

a) Tighten the three bolts [13] to 28 ±2 in-lb (3.2 ±0.3 N·m).

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5) Apply sealant, A00247, to make a fillet seal around the hinge fairing plate [14].

6) Check the torque on the three bolts [13] and tighten as necessary to ensure a torque of 28 ±2 in-lb (3.2 ±0.3 N·m).

(j) Install the intermediate hinge pin [11] in the intermediate hinge from the removed forward closeout hinge [8].

(k) Install the forward closeout hinge [8] as follows:

NOTE: You must install the forward closeout hinge [8] with the fuselage and door mating halves assembled and the forward main hinge pin [15] installed.

1) Apply sealant, A00247, on the mating surface of the shims to the door and fuselage structure.

2) Apply peelable parting agent, G51249, on the mating surface of the shims to the forward closeout hinge [8].

3) Install the bolts [1], washers [2], nuts [3] at nine locations and the bolt [4], washer [5], and nut [6] to attach the forward closeout hinge [8] to the fuselage.

a) Install the nine bolts [1] and bolt [4] with sealant, A00247, under the bolt heads.

b) Make sure that you do not apply sealant to the holes of the forward closeout hinge [8].

4) Install the bolts [10] at eight locations and the four bolts [9] to attach the forward closeout hinge [8] to the door.

a) Install the eight bolts [10] and the four bolts [9] with sealant, A00247, under the bolt heads.

b) Make sure that you do not apply sealant to the holes of the forward closeout hinge [8].

5) Tighten the nine nuts [3] to 155 ±25 in-lb (18 ±3 N·m).

6) Tighten the nut [6] to 290 ±70 in-lb (33 ±8 N·m).

7) Tighten the four bolts [9] and bolt [10] to 150 ±15 in-lb (17 ±2 N·m).

8) Apply sealant, A00247, to make a fillet seal around the forward closeout hinge [8].

9) Verify the torque on the bolts and nuts due to sealant squeeze-out, as follows:

a) Make sure that the torque on the nine nuts [3] is 155 ±25 in-lb (18 ±3 N·m).

b) Make sure that the torque on the nut [6] is 290 ±70 in-lb (33 ±8 N·m).

c) Make sure that the torque on the four bolts [9] and bolt [10] is 150 ±15 in-lb (17 ±2 N·m).

10) Apply a weather fillet seal to the intermediate hinge and forward closeout hinge [8] with PR-1772 Class B Sealant, A50343.

SUBTASK 52-34-00-211-004

(2) Inspect the hinge pins [21, 26] for the aft main hinge [25], the aft closeout hinge [19], and the intermediate hinge as follows:

(a) Remove the four bolts [22] and eight bolts [23] that attach the aft closeout hinge [19] to the door assembly.

(b) Remove the bolts [16], washers [17] and nuts [18] at 11 locations that attach the aft closeout hinge [19] to the fuselage.

(c) Remove the aft closeout hinge [19].

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1) Retain the shims.

(d) Remove the three bolts [24] that attach the hinge fairing plate [27] to the fuselage.

(e) Remove the hinge fairing plate [27].

(f) Remove the hinge pins [21, 26].

1) Attach tags to the hinge pins [21, 26] to identify for the subsequent installation.

2) 2) If necessary, use the applicable hinge pin driver set, SPL-1982, to help push the hinge pins [21, 26] through and remove them.

(g) Perform a detail visual inspection of the hinge pins [21, 26], do this task: Large Cargo Door Inspection, TASK 52-34-01-220-801.

(h) Apply grease, D00633, to hinge pins [21, 26], the holes on the intermediate hinge and hinges [19, 25] and the faces of the holes on the intermediate hinge and hinges [19, 25].

(i) Install the aft main hinge pin [26] as follows:

1) Install the aft main hinge pin [26] from the outer edge of the door.

2) Push the aft main hinge pin [26] through the aft main hinge [25].

3) Apply corrosion inhibiting material, G50136, to the mating surface of the hinge fairing plate [27] and the fuselage.

4) Install the three bolts [24] to attach the hinge fairing plate [27] to the fuselage structure.

a) Tighten the three bolts [24] to 28 ±2 in-lb (3.2 ±0.3 N·m).

5) Apply sealant, A00247, to make a fillet seal around the hinge fairing plate [27].

6) Check the torque on the three bolts [24] and tighten as necessary to ensure a torque of 28 ±2 in-lb (3.2 ±0.3 N·m).

(j) Install the intermediate hinge pin [21] into the intermediate hinge from the removed aft closeout hinge [19].

(k) Install the aft closeout hinge [19] as follows:

NOTE: You must install the aft closeout hinge [19] with the fuselage and door mating halves assembled and the aft main hinge pin [26] installed.

1) Apply sealant, A00247, on the mating surface of the shims to the door and fuselage structure.

2) Apply peelable parting agent, G51249, on the mating surface of the shims to the aft closeout hinge [19].

3) Install the bolts [16], washers [17], nuts [18] at 11 locations to attach the aft closeout hinge [19] to the fuselage.

a) Install the 11 bolts [16] with sealant, sealant, A00247, under the bolt heads.

b) Make sure that you do not apply sealant to the holes of the aft closeout hinge [19].

4) Install the bolts [23] at eight locations and the four bolts [22] to attach the aft closeout hinge [19] to the door.

a) Install the eight bolts [23] and the four bolts [22] with sealant, A00247, under the bolt heads.

b) Make sure that you do not apply sealant to the holes of the aft closeout hinge [19].

5) Tighten the 11 nuts [18] to 155 ±25 in-lb (18 ±3 N·m).

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6) Tighten the four bolts [22] and the eight bolts [23] to 150 ±15 in-lb (17 ±2 N·m).

7) Apply sealant, A00247, to make a fillet seal around the aft closeout hinge [19].

8) Verify the torque on the bolts and nuts due to sealant squeeze-out, as follows:

   a) Make sure that the torque on the 11 nut [18] is 155 ±25 in-lb (18 ±3 N·m).

   b) Make sure that the torque on the four bolts [22] and the eight bolts [23] is 150 ±15 in-lb (17 ±2 N·m).

9) Apply a weather fillet seal to the intermediate hinge and hinges [19, 25] with PR-1772 Class B Sealant, A50343.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-00-080-004

(1) Remove the forward and aft large cargo door fitting equipment, SPL-1990, and the forward and aft cargo door sling, SPL-1993, as follows:

   (a) Remove the forward and aft cargo door sling, SPL-1993, from the attach points on the door.

   (b) Install the bolts and tighten to 28.00 ±2.00 in-lb (3.16 ±0.23 N·m).

SUBTASK 52-34-00-860-050

(2) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

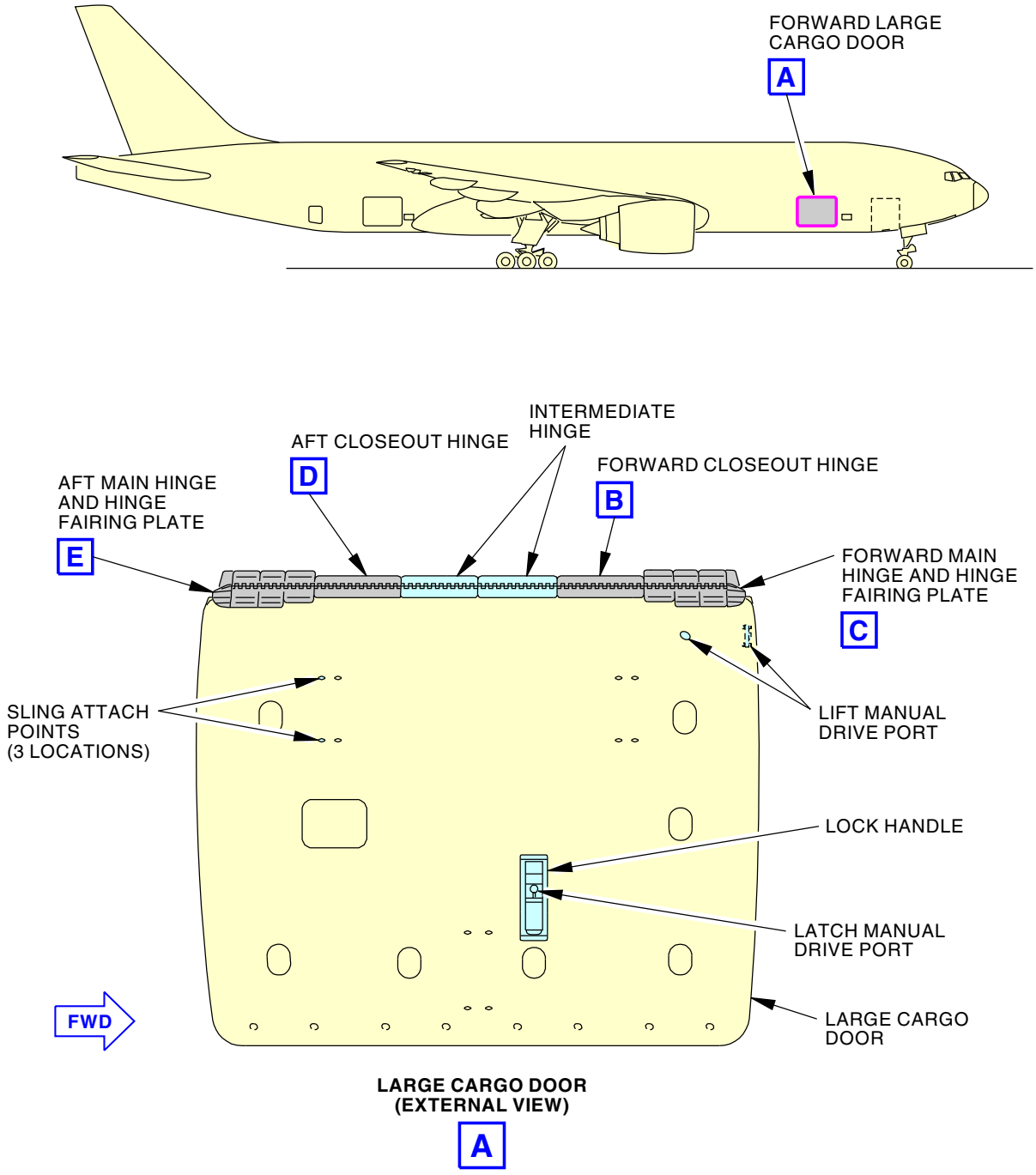
Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

——— END OF TASK ———

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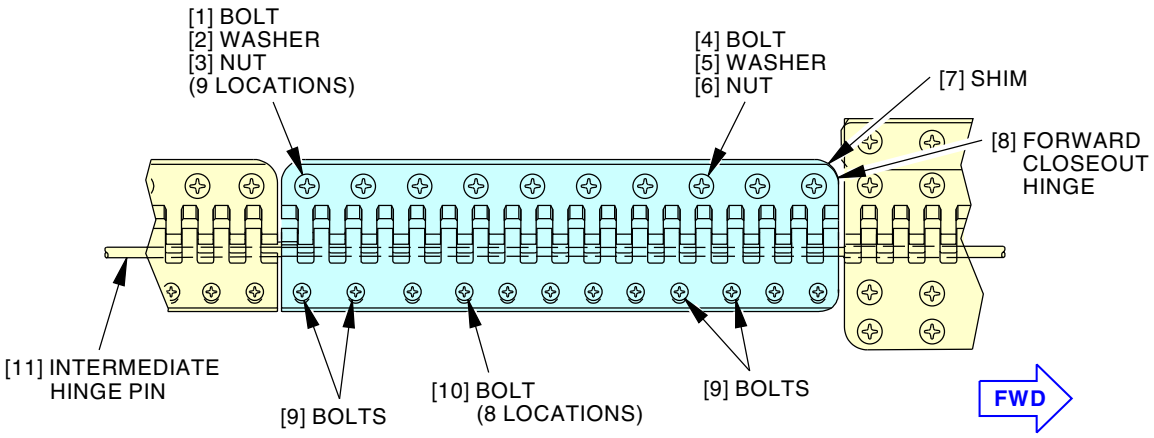
LARGE CARGO DOOR (EXTERNAL VIEW)

A

2231198 S0000497429_V2

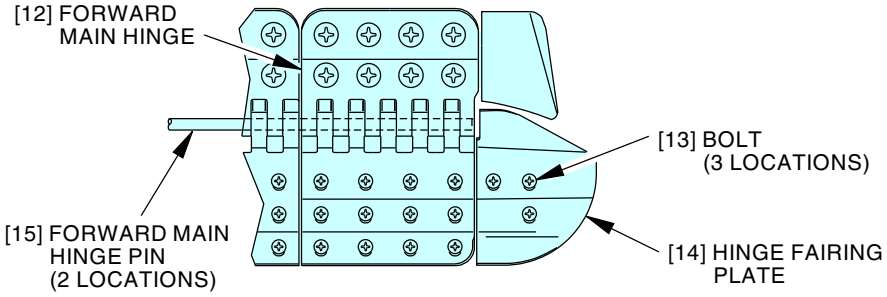
Large Cargo Door Hinge Pin Inspection
Figure 604/52-34-00-990-821 (Sheet 1 of 3)

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FORWARD CLOSEOUT HINGE

B



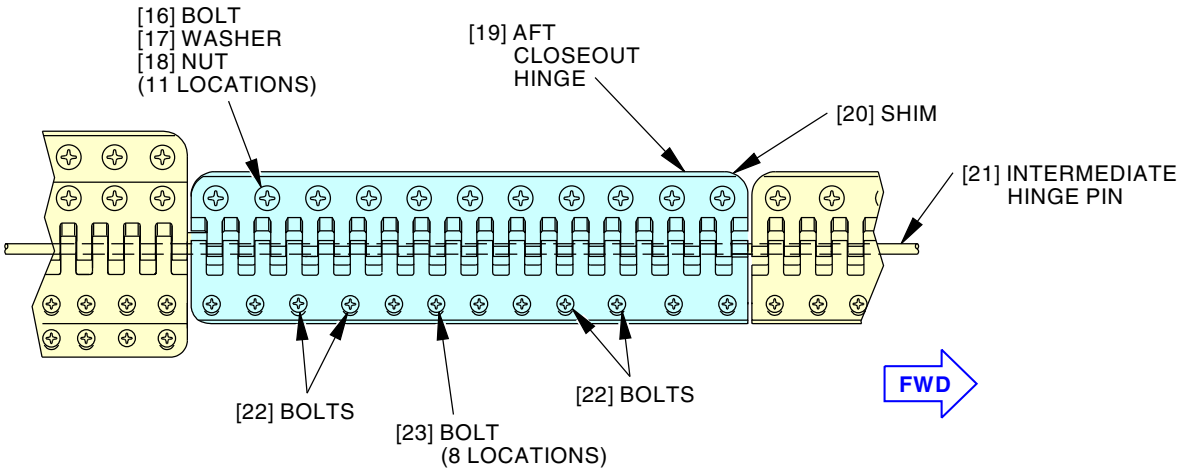
FORWARD MAIN HINGE AND HINGE FAIRING PLATE

C

2438828 S0000566121_V2

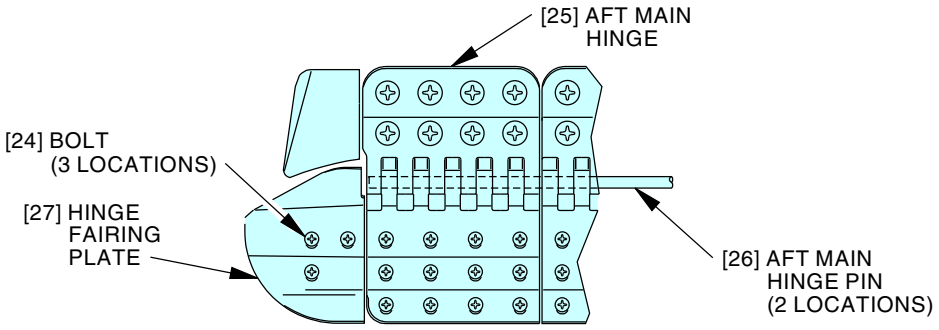
Large Cargo Door Hinge Pin Inspection
Figure 604/52-34-00-990-821 (Sheet 2 of 3)

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AFT CLOSEOUT HINGE

D



AFT MAIN HINGE AND HINGE FAIRING PLATE

E

2438834 S0000566124_V2

Large Cargo Door Hinge Pin Inspection
Figure 604/52-34-00-990-821 (Sheet 3 of 3)

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FORWARD LARGE CARGO DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the forward large cargo door.

(2) An installation of the forward large cargo door.

TASK 52-34-01-000-801

2. Forward Large Cargo Door Removal

(Figure 401)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1982	Driver Set - Hinge Pin, Main Cargo Door Part #: A52019-1 Supplier: 81205
SPL-1990	Equipment - Fitting, Forward And Aft Large Cargo Door Part #: A52004-101 Supplier: 81205 Opt Part #: A52004-45 Supplier: 81205
SPL-1993	Sling - Assembly, Forward And Aft Large Cargo Door And Small Cargo Door Part #: A52004-43 Supplier: 81205
SPL-2007	Barrier - Safety, Large Cargo Door Part #: J52011-1 Supplier: 81205

B. Location Zones

Zone	Area
821	Forward Large Cargo Door

C. Prepare for the Removal

SUBTASK 52-34-01-860-001

(1) Put the door in its vertical, free-hang position.

NOTE: The door is in the free-hang position when the bottom of the door can be freely moved in the open and close directions.

SUBTASK 52-34-01-860-002

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

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SUBTASK 52-34-01-860-003

(3) Turn the lift manual drive until the drive arms are approximately 90 degrees to the inner skin of the door at the lift mechanism.

SUBTASK 52-34-01-480-001

(4) Install the forward and aft large cargo door fitting equipment, SPL-1990 and forward and aft cargo door sling, SPL-1993 to hold the weight of the door.

D. Removal

SUBTASK 52-34-01-020-001

(1) Disconnect the bonding jumpers [2] from the door assembly [1].

SUBTASK 52-34-01-020-002

(2) Remove the hinge [10] as follows:

(a) Remove the bolts [12] and bolts [14] that attach the hinge [10] to the door assembly [1].

(b) Remove the bolts [7], washers [8], and nuts [9] that attach the hinge [10] to the fuselage.

(c) Remove the hinge [10].

SUBTASK 52-34-01-020-007

(3) Remove the hinge [22] as follows:

(a) Remove the bolts [23] and bolts [25] that attach the hinge [22] to the door assembly [1].

(b) Remove the bolts [16], washers [17], nuts [18], bolt [19], washer [20], nut [21], bolt [36], washer [37], and nut [38] that attach the hinge [22] to the fuselage.

(c) Remove the hinge [22].

SUBTASK 52-34-01-020-003

(4) Remove the pin [11] and pin [27] as follows:

(a) Use the hinge pin driver set, SPL-1982 to push the pin [11] and pin [27] through the intermediate hinges and out the other side.

(b) Attach tags to the pin [11] and pin [27] to identify for the subsequent installation.

SUBTASK 52-34-01-020-004

(5) Remove the pins [3] as follows:

(a) Remove the bolts [4] that attach the plates [6] to the fuselage.

(b) Remove the plates [6].

(c) Put the applicable hinge pin driver set, SPL-1982 against one of the pins [3] at the outer edge of the door.

(d) Use the hinge pin driver set, SPL-1982 to push the pins [3] through the hinges and out the other side of the main hinges.

(e) Do this procedure again to remove the pins [3] on the other main hinges at the other side of the door.

(f) Remove the pins [3]. Attach tags to the pins [3] to identify for the subsequent installation.

SUBTASK 52-34-01-020-005

(6) Disconnect the drive link [28] from the fuselage as follows:

(a) Remove the lockwire [30].

(b) Remove the bolt [32], pin [33], washers [35], and retainer [31] that attach the drive link [28] to the fuselage.

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SUBTASK 52-34-01-020-006

(7) Remove the door assembly [1] from the fuselage.

SUBTASK 52-34-01-480-002

(8) Install the cargo door safety barrier, SPL-2007 across the door opening.

——— END OF TASK ———

TASK 52-34-01-420-801

3. Forward Large Cargo Door Installation

(Figure 401)

A. General

(1) It is necessary to do the installation procedure for the door with the adjustment procedure. Refer to, do this task: Forward Large Cargo Door Adjustment, TASK 52-34-00-820-801

for the adjustment procedure.

(2) Do not let the door components hit the components on the door cutout. Make sure the door skin will not hit the fuselage skin. The components and skin clearances will be adjusted later.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
52-34-00-820-801	Forward Large Cargo Door Adjustment (P/B 501)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1990	Equipment - Fitting, Forward And Aft Large Cargo Door Part #: A52004-101 Supplier: 81205 Opt Part #: A52004-45 Supplier: 81205
SPL-1993	Sling - Assembly, Forward And Aft Large Cargo Door And Small Cargo Door Part #: A52004-43 Supplier: 81205
SPL-2007	Barrier - Safety, Large Cargo Door Part #: J52011-1 Supplier: 81205

D. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
A50343	Sealant - PPG Aerospace PR-1772 Class B Low Weight Fuselage Sealant	BMS5-142 Type II Class B
D00633	Grease - Aircraft General Purpose	BMS3-33
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38
G50961	Coating - Corrosion Inhibiting Epoxy Primer - (BAC 377 Yellow Color)	BMS10-11 Type I
G51249	Agent - Parting, Peelable	BAC5000

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E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
3	Pin	52-34-01-11A-005	ARO ALL
27	Pin	52-34-01-11A-015	ARO ALL
33	Pin	52-34-02-02-010	ARO ALL

F. Location Zones

Zone	Area
821	Forward Large Cargo Door

G. Installation

SUBTASK 52-34-01-480-003

(1) Install the forward and aft large cargo door fitting equipment, SPL-1990 and forward and aft cargo door sling, SPL-1993 to hold the weight of the door.

SUBTASK 52-34-01-080-001

(2) Remove the cargo door safety barrier, SPL-2007.

SUBTASK 52-34-01-860-004

(3) Put the door assembly [1] in its correct position near the fuselage structure.

SUBTASK 52-34-01-640-001

(4) Apply the grease, D00633 to the all hinge pins, holes in the hinges, and the faces of the holes in the hinges.

SUBTASK 52-34-01-420-001

(5) Install the pins [3] as follows:

(a) Install the pin [3] into the main hinges from the outer edge of the door.

(b) Push the pin [3] through the main hinges.

(c) Do this procedure again to install the pin [3] on the other main hinges at the other side of the door.

(d) Apply the corrosion inhibiting material, G50136 as follows:

1) Apply thecorrosion inhibiting material, G50136 to the mating surfaces of the plates [6] and the fuselage.

2) Apply thecorrosion inhibiting material, G50136 to the mating surfaces of the fasteners that attach the plates [6] to the fuselage.

(e) Install the bolts [4] to attach the plates [6] to the fuselage structure.

(f) Tighten the bolts [4] to 28 ±2 in-lb (3 ±0 N·m).

(g) Apply the sealant, A00247 to make a fillet seal around the plates [6].

(h) Make sure the torque on the bolts [4] is 28 ±2 in-lb (3 ±0 N·m).

SUBTASK 52-34-01-420-002

(6) Connect the drive link [28] to the fuselage as follows:

(a) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the bolt [32] that attaches the drive link [28] to the fuselage.

(b) Install the bolt [32], pin [33], washers [35], and retainer [31] that attach the drive link [28] to the fuselage.

NOTE: Install the bolt [32] with the head toward the center of the door assembly [1].

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(c) Tighten the bolt [32] to 15 in-lb (2 N·m) maximum. Make sure the drive link [28] moves freely.

(d) Install the lockwire [30].

(e) Apply the grease, D00633 through the fittings on the drive link to lubricate the bearings for the lift mechanism (2 locations).

SUBTASK 52-34-01-420-003

(7) Install the pin [11] and pin [27] as follows:

(a) Install the pin [11] into the intermediate hinge from the side of the removed hinge [10].

(b) Do this procedure again to install the pin [27] on the intermediate hinge at the other end of the door assembly [1].

SUBTASK 52-34-01-420-004

(8) Install the hinge [10] as follows:

NOTE: You must the install the hinge [10] with the fuselage and door mating halves assembled with the hinge pin installed.

(a) If new shims [39] are installed, do the following:

1) Make sure that the thickness of the shim [39] for the door hinge [10] is no more than 0.062 in. (1.575 mm).

2) Make sure that the thickness of the shim [39] for the fuselage hinge [10] is no more than 0.040 in. (1.016 mm).

a) Coat the shims [39] with coating, G50961 prior to installation.

(b) Apply the sealant, A00247 between the shim [39] and the door skin for the lower hinge [10] and the fuselage skin for the upper hinge [10].

(c) Apply the peelable parting agent, G51249 between shims and the hinge [10].

(d) Install the bolts [7], washers [8], and nuts [9] to attach the hinge [10] to the fuselage.

1) Install the bolt [7] with the sealant under the bolt heads. Do not apply the sealant to the holes.

(e) Install the bolts [12] and bolts [14] to attach the hinge [10] to the door.

1) Install the bolts [12] and bolts [14] with the sealant under the bolt heads. Do not apply the sealant to the holes.

(f) Tighten the nuts [9] to 155 ±25 in-lb (18 ±3 N·m).

(g) Tighten the bolts [12] and bolts [14] to 150 ±15 in-lb (17 ±2 N·m).

(h) Apply the sealant, A00247 to make a fillet seal around the hinge [10].

(i) Once the nuts are torqued, they should be re-torqued due to sealant squeeze out.

(j) Make sure the torque on the nuts [9] is 155 ±25 in-lb (18 ±3 N·m).

(k) Make sure the torque on the bolts [12] and bolts [14] is 150 ±15 in-lb (17 ±2 N·m).

(l) Weather fillet seal the hinges with PR-1772 Class B Sealant, A50343 (see Detail A-A, Figure 401).

SUBTASK 52-34-01-420-006

(9) Install the hinge [22] as follows:

NOTE: You must the install the hinge [22] with the fuselage and door mating halves assembled with the hinge pin installed.

(a) If new shims [40] are installed, do the following:

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1) Make sure that the thickness of the shim [40] for the door hinge [22] is no more than 0.062 in. (1.575 mm).

2) Make sure that the thickness of the shim [40] for the fuselage hinge [22] is no more than 0.040 in. (1.016 mm).

a) Coat the shims [40] with coating, G50961 prior to installation.

(b) Apply the sealant, A00247 between the shim [40] and the door skin for the lower hinge [22] and the fuselage skin for the upper hinge [22].

(c) Apply the peelable parting agent, G51249 between shims and the hinge [22].

(d) Install the bolts [16], washers [17], nuts [18], bolt [19], washer [20], nut [21], bolt [36], washer [37], and nut [38] to attach the hinge [22] to the fuselage.

1) Install the bolts [16], bolt [19], and bolt [36] with the sealant under the bolt heads. Do not apply the sealant to the holes.

(e) Install the bolts [23] and bolts [25] to attach the hinge [22] to the door assembly [1].

1) Install the bolts [23] and bolts [25] with the sealant under the bolt heads. Do not apply the sealant to the holes.

(f) Tighten the nuts [18] to 155 ±25 in-lb (18 ±3 N·m).

(g) Tighten the nut [21] and nut [38] to 290 ±70 in-lb (33 ±8 N·m).

(h) Tighten the bolts [23] and bolts [25] to 150 ±15 in-lb (17 ±2 N·m).

(i) Apply the sealant, A00247 to make a fillet seal around the hinge [22].

(j) Once the nuts are torqued, they should be re-torqued due to sealant squeeze out.

(k) Make sure the torque on the nuts [18] is 155 ±25 in-lb (18 ±3 N·m).

(l) Make sure the torque on the nut [21] and nut [38] is 290 ±70 in-lb (33 ±8 N·m).

(m) Make sure the torque on the bolts [23] and bolts [25] is 150 ±15 in-lb (17 ±2 N·m).

(n) Weather fillet seal the hinges with PR-1772 Class B Sealant, A50343 (see Detail A-A, Figure 401).

SUBTASK 52-34-01-420-005

(10) Connect the bonding jumpers [2] to the door assembly [1].

SUBTASK 52-34-01-080-002

(11) Remove the forward and aft large cargo door fitting equipment, SPL-1990 and forward and aft cargo door sling, SPL-1993 as follows:

(a) Remove the forward and aft cargo door sling, SPL-1993 from the attach points on the door.

(b) Install the bolts and tighten to 28 ±2 in-lb (3 ±0 N·m).

SUBTASK 52-34-01-640-002

ARO ALL; AIRPLANES WITHOUT MIDSPAN LATCHES

(12) Apply the grease, D00633 to the main latch cams and pins, pull-in hooks, and pins.

ARO ALL

SUBTASK 52-34-01-820-001

(13) Do this task: Forward Large Cargo Door Adjustment, TASK 52-34-00-820-801.

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H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-01-860-005

(1) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

I. Installation Test

SUBTASK 52-34-01-710-001

(1) Do a test on the door assembly [1] as follows:

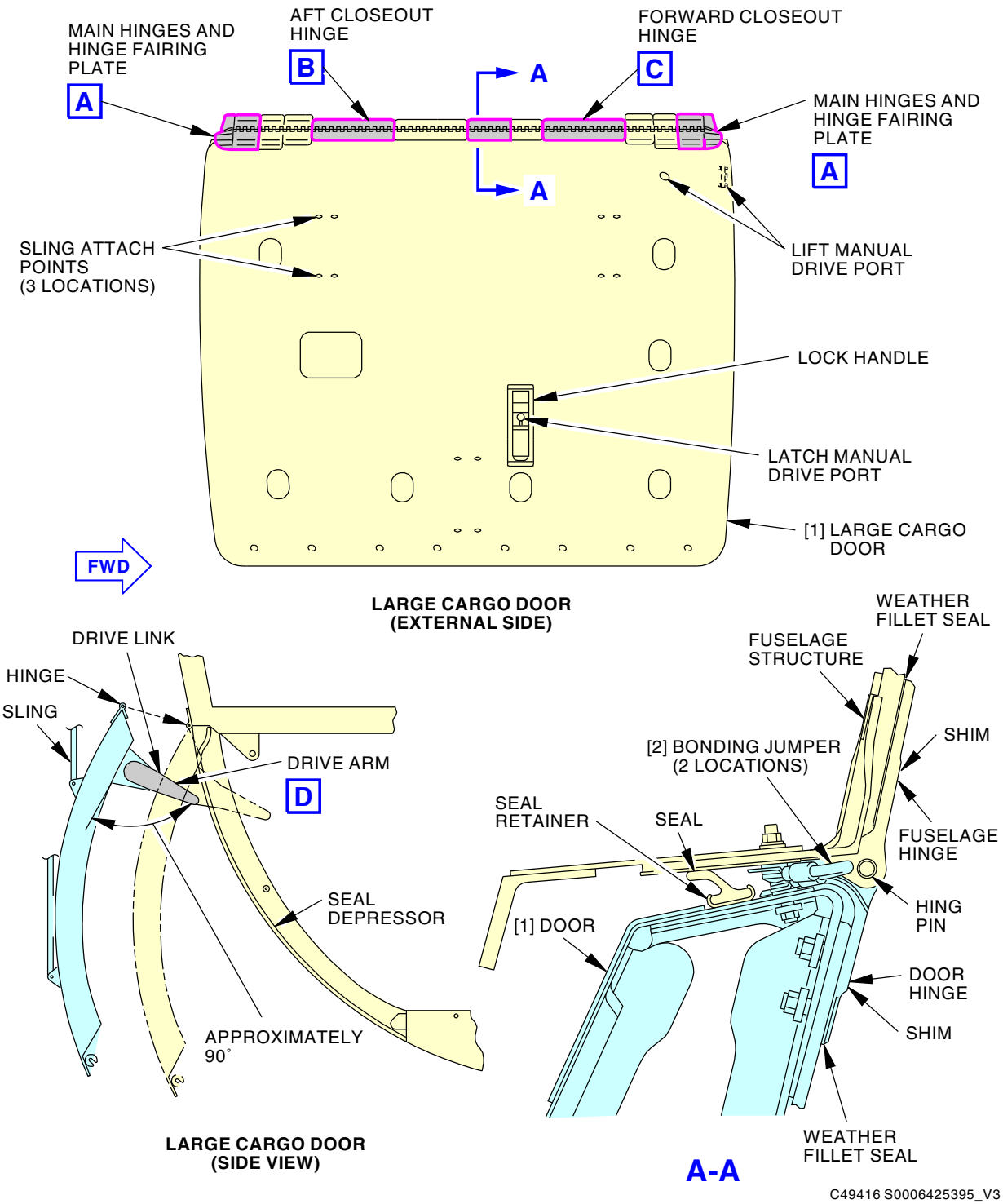
(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Operate the door electrically.

(c) Make sure the door opens and closes correctly.

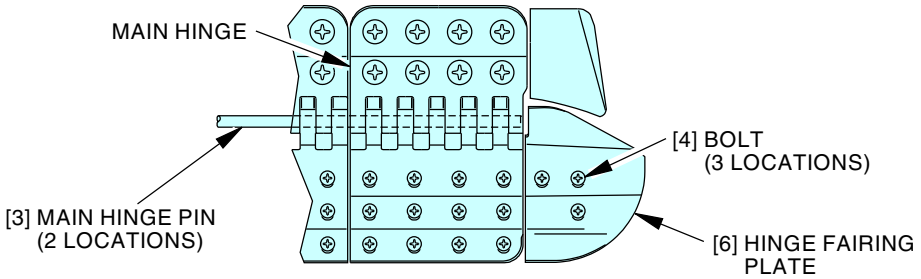
——— END OF TASK ———

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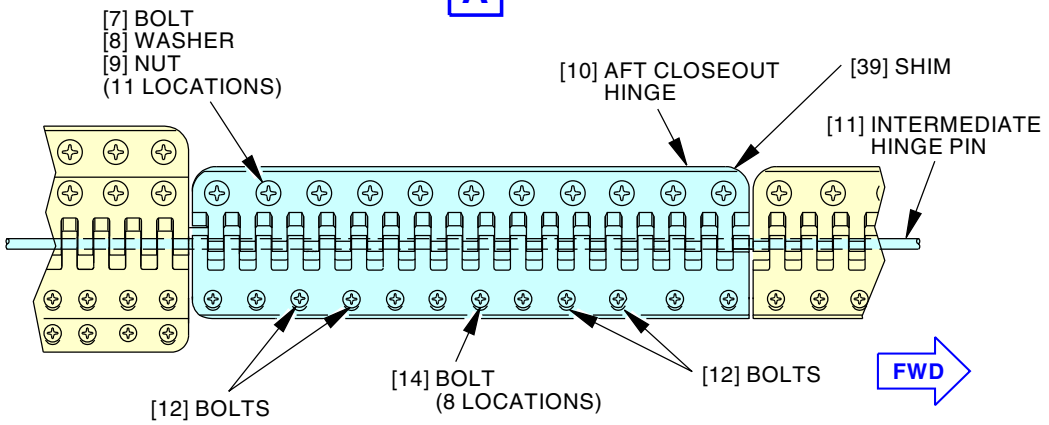
Large Cargo Door Installation
Figure 401/52-34-01-990-801 (Sheet 1 of 3)

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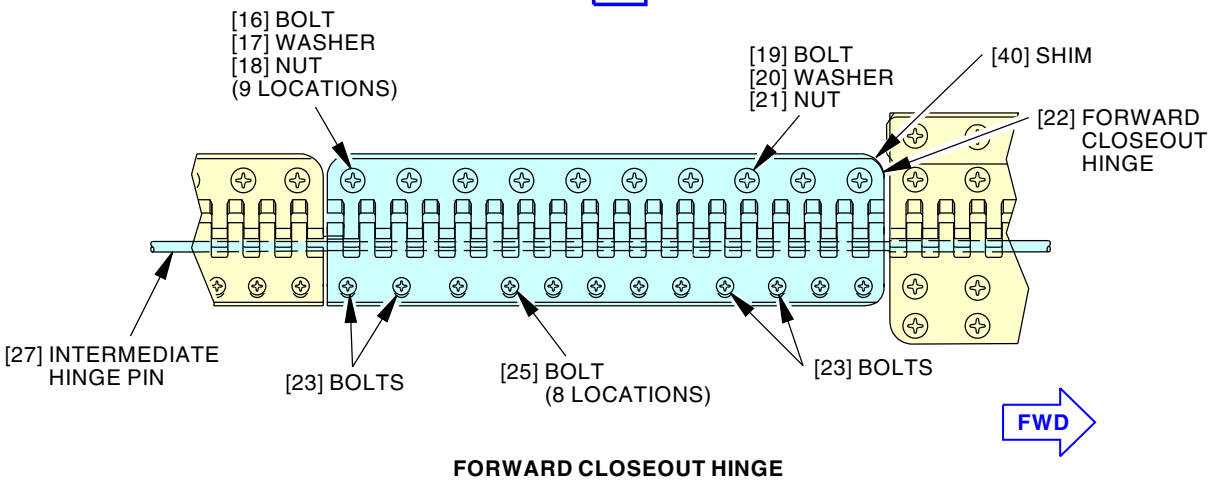
**MAIN HINGES AND HINGE FAIRING PLATE
(2 LOCATIONS)**

A



AFT CLOSEOUT HINGE

B



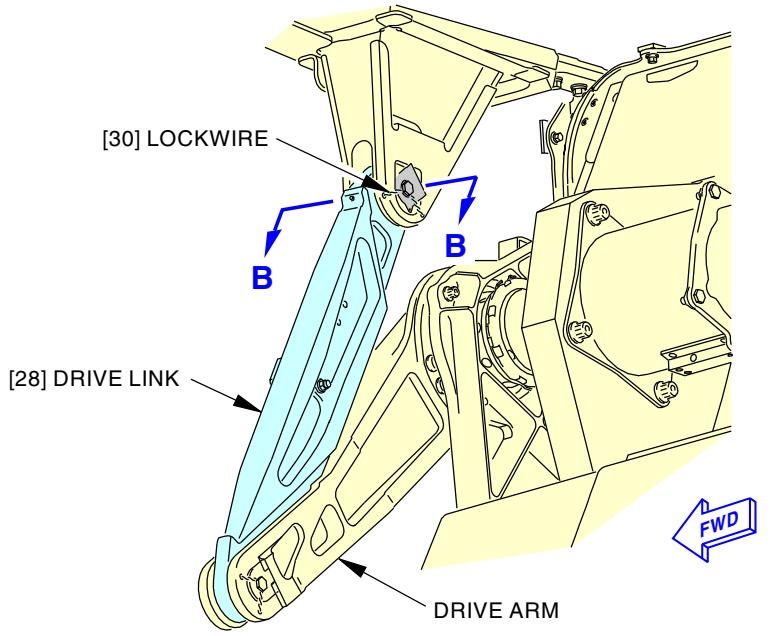
FORWARD CLOSEOUT HINGE

C

C49433 S0006425396_V3

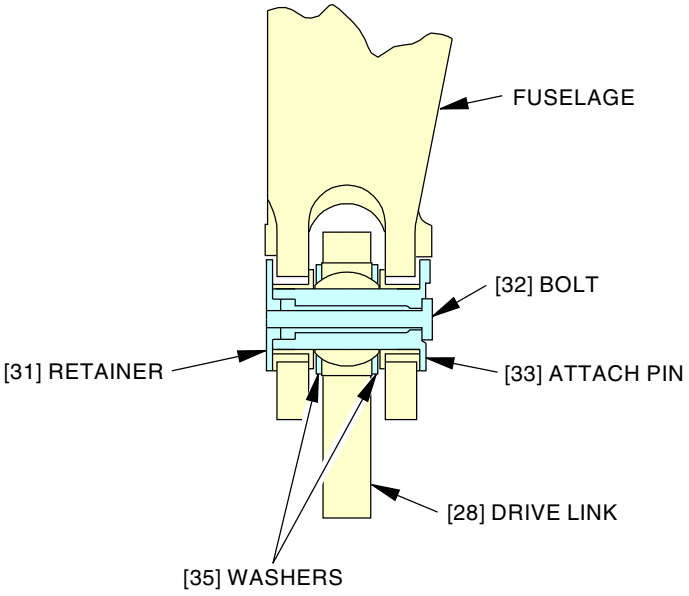
**Large Cargo Door Installation
Figure 401/52-34-01-990-801 (Sheet 2 of 3)**

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DRIVE LINK

D



B-B

C75124 S0006425397_V2

Large Cargo Door Installation
Figure 401/52-34-01-990-801 (Sheet 3 of 3)

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FORWARD LARGE CARGO DOOR - INSPECTION/CHECK

1. General

A. This procedure has these tasks:

(1) An inspection of the mechanisms on the large cargo door for wear.

TASK 52-34-01-220-801

2. Large Cargo Door Inspection

(Figure 601)

A. General

(1) This procedure has the wear limits for the large cargo door.

B. Location Zones

Zone	Area
821	Forward Large Cargo Door

C. Dimensions Examination

SUBTASK 52-34-01-860-007

(1) Put the door in its vertical, free-hang position.

NOTE: The door is in the free-hang position when the bottom of the door can be freely moved in the open and close directions.

SUBTASK 52-34-01-860-008

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-34-01-010-001

(3) Remove the door lining.

SUBTASK 52-34-01-220-001

(4) Examine the parts in (Table 601) that follows:

ARO ALL; AIRPLANES WITHOUT MIDSPAN LATCHES

Table 601/52-34-01-993-803 Large Cargo Door Wear Limits

INDEX NO.	PART NAME	DIM.	DESIGN LIMITS		WEAR LIMITS		ACTION
			DIAMETER		ALLOWED WEAR DIM.	MAX CLEARANCE	
			MIN	MAX			
1	BUSHING	ID	0.5000	0.5007	0.5035	0.0050	*[1]
	BOLT	OD	0.4985	0.4995	0.4957		*[1]
2	BEARING	ID	0.4995	0.5000	0.5035	0.0050	*[1]
	BOLT	OD	0.4985	0.4995	0.4950		*[1]

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ARO ALL; AIRPLANES WITHOUT MIDSPAN LATCHES (Continued)

Table 601/52-34-01-993-803 Large Cargo Door Wear Limits (Continued)

INDEX NO.	PART NAME	DIM.	DESIGN LIMITS		WEAR LIMITS		ACTION
			DIAMETER		ALLOWED WEAR DIM.	MAX CLEARANCE	
			MIN	MAX			
3	BUSHING	ID	0.6870	0.6877	0.6910	0.0050	*[1]
	BUSHING	OD	0.6860	0.6865	0.6827		*[1]
4	BUSHING	ID	0.5000	0.5005	0.5035	0.0050	*[1]
	BOLT	OD	0.4985	0.4995	0.4955		*[1]
5	BUSHING	ID	0.2500	0.2505	0.2535	0.0050	*[1]
	BOLT	OD	0.2485	0.2495	0.2455		*[1]
6	BUSHING	ID	0.3750	0.3756	0.3790	0.0050	*[1]
	BUSHING	OD	0.3740	0.3745	0.3706		*[1]
7	BUSHING	ID	0.2500	0.2505	0.2535	0.0050	*[1]
	BOLT	OD	0.2485	0.2495	0.2455		*[1]
8	BEARING	ID	0.2495	0.2500	0.2535	0.0050	*[1]
	BOLT	OD	0.2485	0.2495	0.2450		*[1]
9	BUSHING	ID	2.5010	2.5026	2.5035	0.0050	*[1]
	LATCH CAM	OD	2.4985	2.4990	2.4976		*[1]
10	HINGE BORE	ID	0.3750	0.3780	0.3800	0.0140	*[1]
	HINGE PIN	OD	0.3680	0.3690	0.3640		*[1]
11	HINGE BORE	ID	0.2520	0.2570	0.2590	0.0140	*[2]
	HINGE PIN	OD	0.2430	0.2450	0.2430		*[1]
12	HOLE	ID	0.2500	0.2520	0.2525	0.0040	*[2]
	BOLT	OD	0.2485	0.2495	NONE		*[1]
13	HOLE	ID	0.3120	0.3160	0.3165	0.0050	*[2]
	BOLT	OD	0.3115	0.3120	NONE		*[1]
14	BUSHING	ID	0.7493	0.7503	0.7535	0.0050	*[1]
	PIN	OD	0.7485	0.7490	0.7453		*[1]
15	BEARING	ID	3.0620	3.0625	3.0680	0.0050	*[1]
	SHAFT	OD	3.0610	3.0620	3.0575		*[1]
16	BEARING	ID	3.2495	3.2500	3.2530	0.0050	*[1]
	SHAFT	OD	3.2480	3.2490	3.2450		*[1]
17	BEARING	ID	1.4370	1.4375	1.4410	0.0070	*[1]
	SHAFT	OD	1.4340	1.4350	1.4305		*[1]

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ARO ALL; AIRPLANES WITHOUT MIDSPAN LATCHES (Continued)

Table 601/52-34-01-993-803 Large Cargo Door Wear Limits (Continued)

INDEX NO.	PART NAME	DIM.	DESIGN LIMITS		WEAR LIMITS		ACTION
			DIAMETER		ALLOWED WEAR DIM.	MAX CLEARANCE	
			MIN	MAX			
18	HOLE	ID	0.2500	0.2520	0.2540	0.0050	*[1]
	BOLT	OD	0.2490	0.2495	0.2470		*[1]
19	HOLE	ID	0.2495	0.2504	0.2535	0.0050	*[1]
	BOLT	OD	0.2485	0.2495	0.2454		*[1]
20	HOLE	ID	0.2495	0.2505	0.2535	0.0050	*[1]
	BOLT	OD	0.2485	0.2495	0.2455		*[1]
21	PULL-IN HOOK	ID	NONE	NONE	*[3]	NONE	*[2]
	PULL-IN PIN	OD	1.1216	1.1236	1.0836		*[2]
22	MAIN CAM LATCH	ID	1.5400	1.5600	*[4]	0.130	*[2]
	MAIN CAM LATCH PIN	OD	1.5000	1.5010	1.4800		*[1]
23	HOLE	ID	0.2495	0.2505	0.2510	0.0025	*[2]
	BOLT	OD	0.2485	0.2495	NONE		*[1]
24	HOLE	ID	0.2540	0.2590	0.2595	0.0110	*[2]
	BOLT	OD	0.2485	0.2495	NONE		*[1]
25	HOLE	ID	0.2495	0.2505	0.2510	0.0025	*[2]
	BOLT	OD	0.2485	0.2495	NONE		*[1]

*[1] REPLACE WHEN WORN
*[2] REPAIR WHEN WORN
*[3] DAMAGE THROUGH THE CHROME LAYER IS NOT SATISFACTORY
*[4] MAXIMUM WEAR IS 0.025 INCH

ARO ALL

D. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-01-410-001

(1) Install the door lining.

SUBTASK 52-34-01-860-009

(2) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

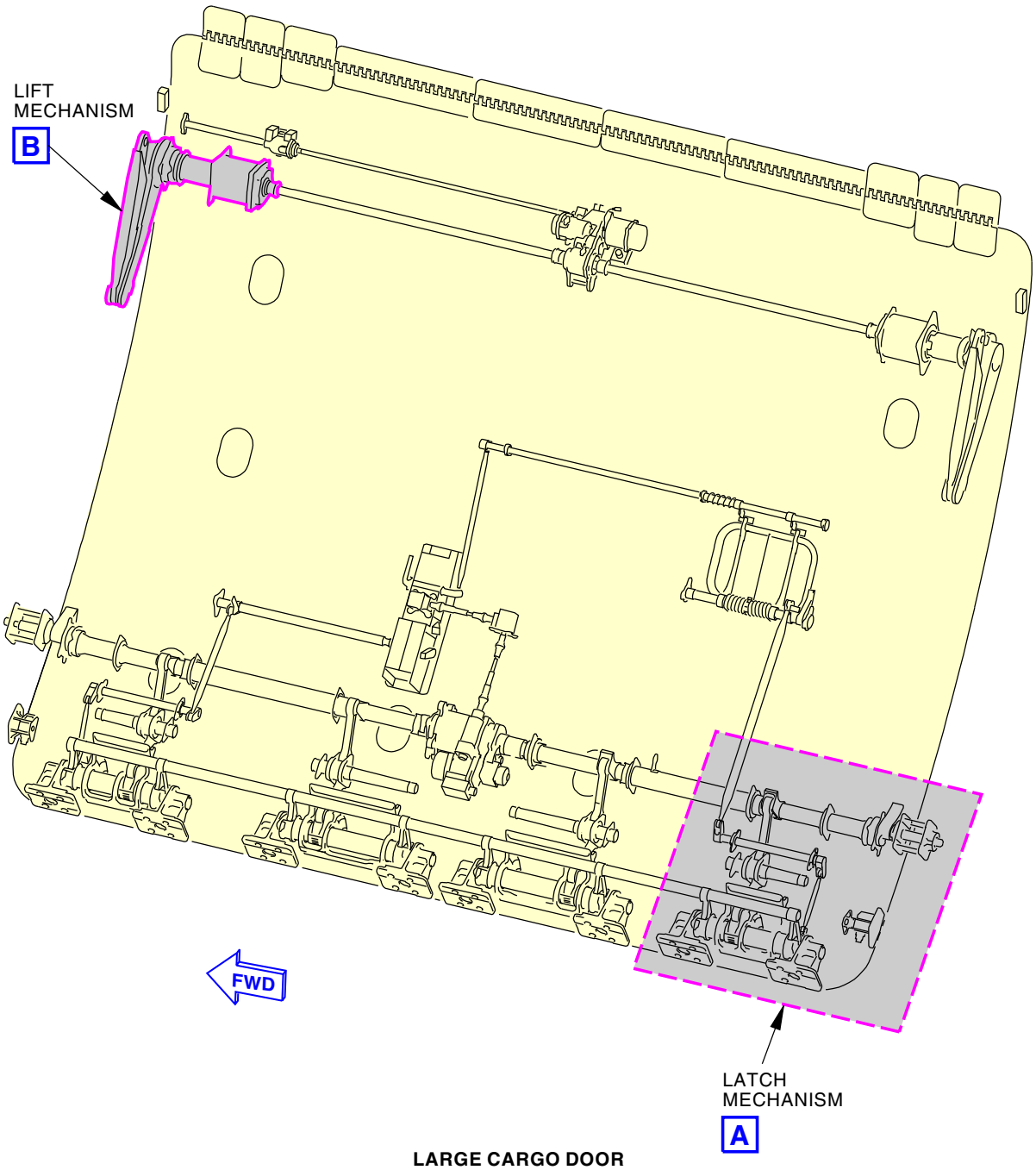
Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

END OF TASK

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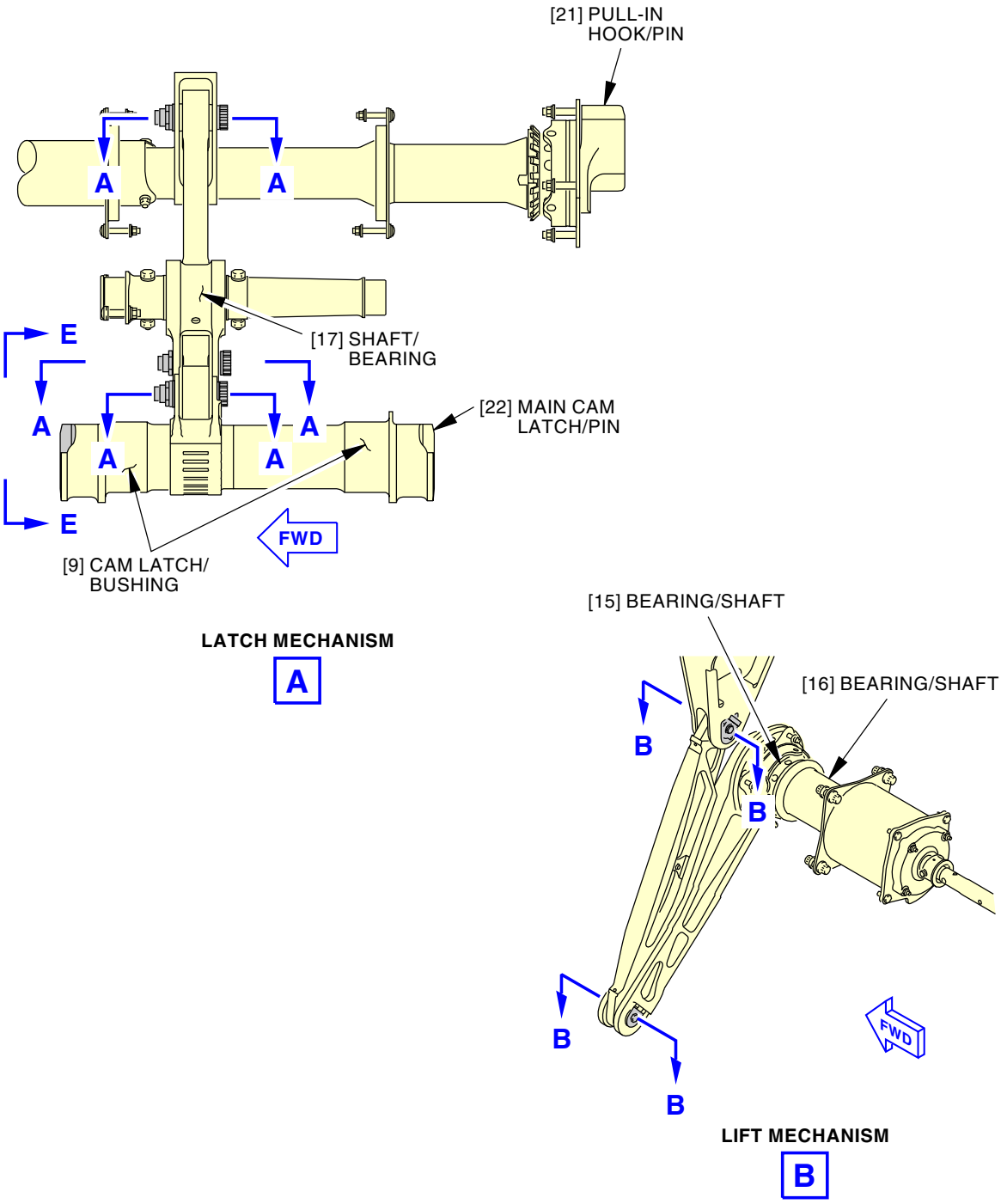


LARGE CARGO DOOR

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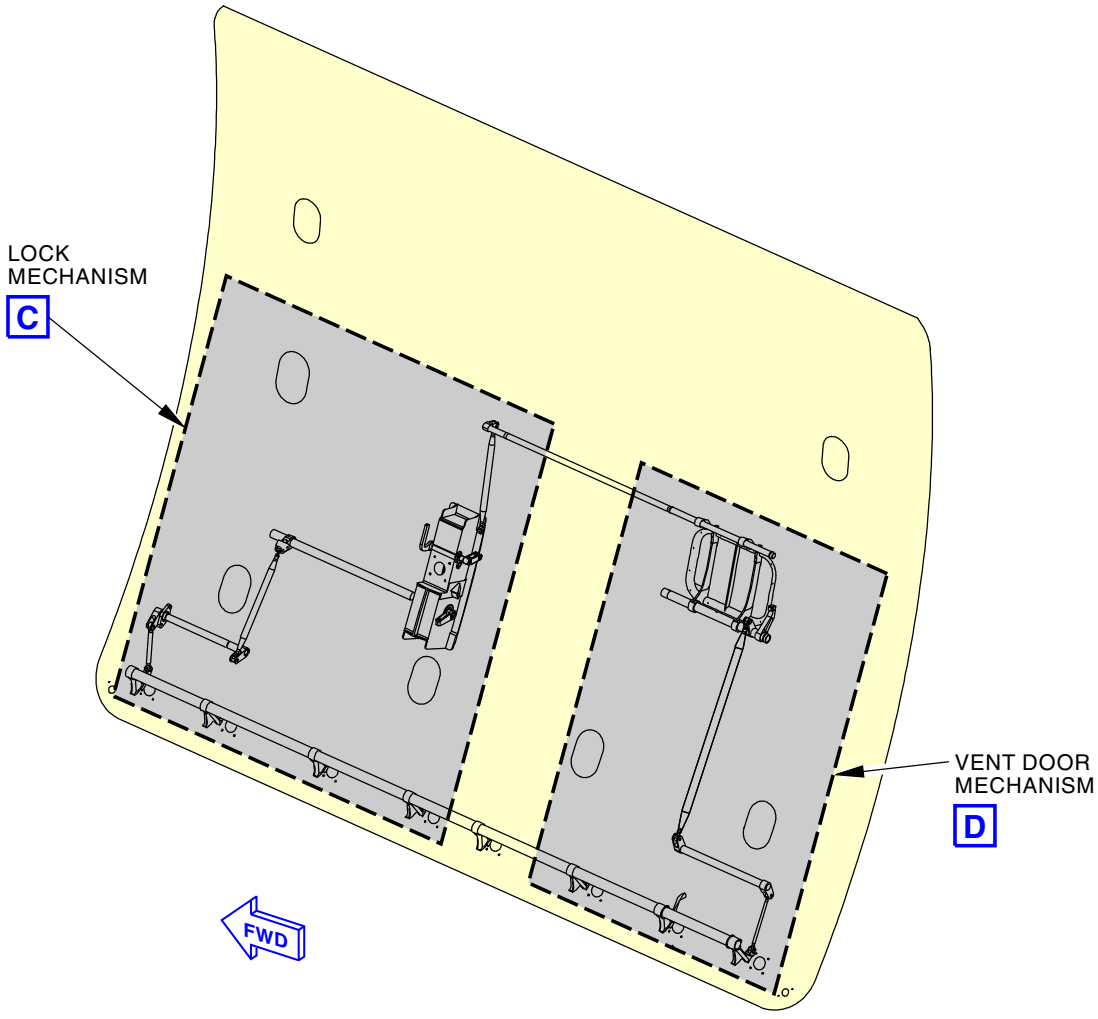
Large Cargo Door Wear Limits
Figure 601/52-34-01-990-802 (Sheet 1 of 7)

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Large Cargo Door Wear Limits
Figure 601/52-34-01-990-802 (Sheet 2 of 7)

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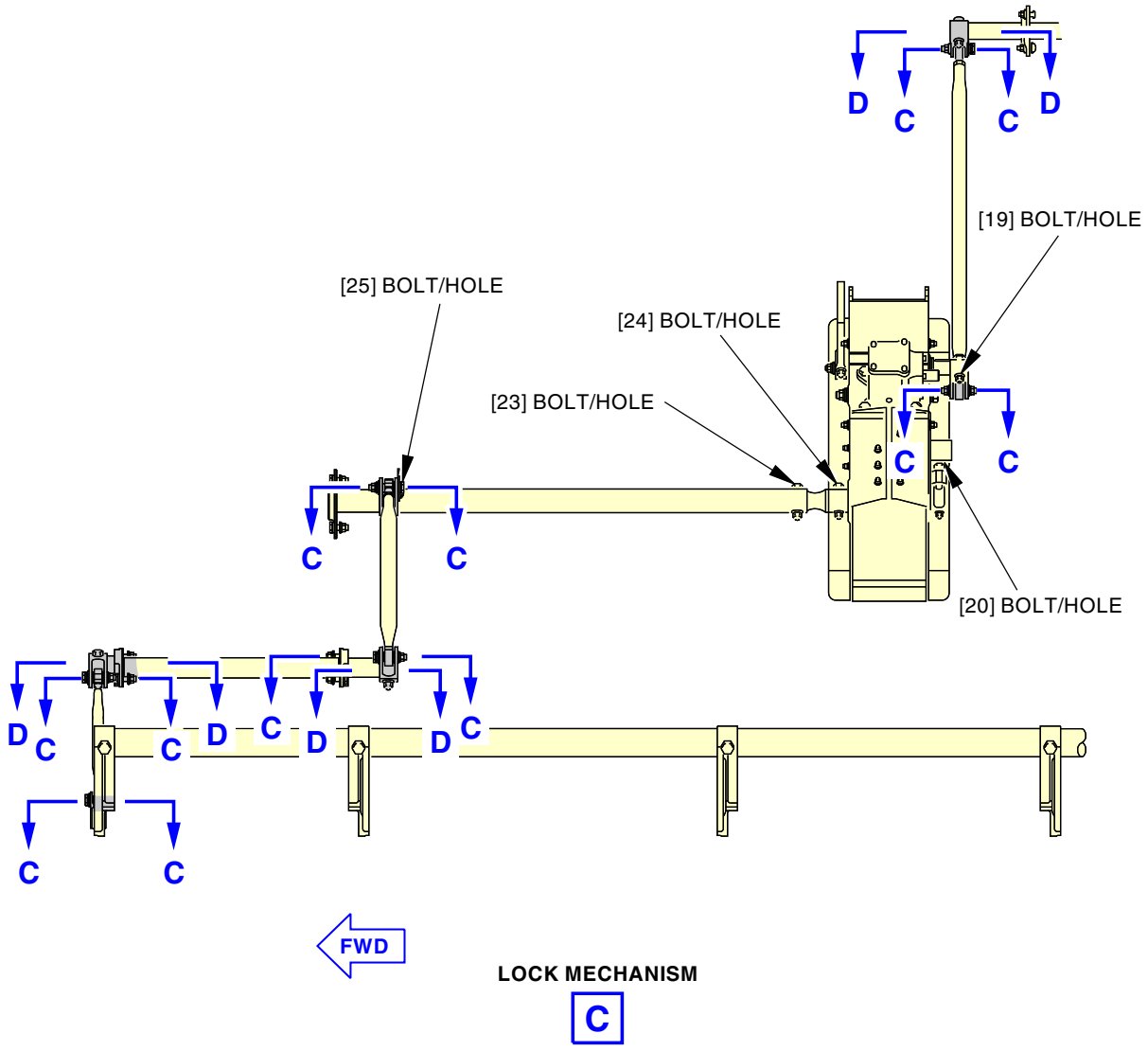


LARGE CARGO DOOR

C47026 S0006425405_V2

Large Cargo Door Wear Limits
Figure 601/52-34-01-990-802 (Sheet 3 of 7)

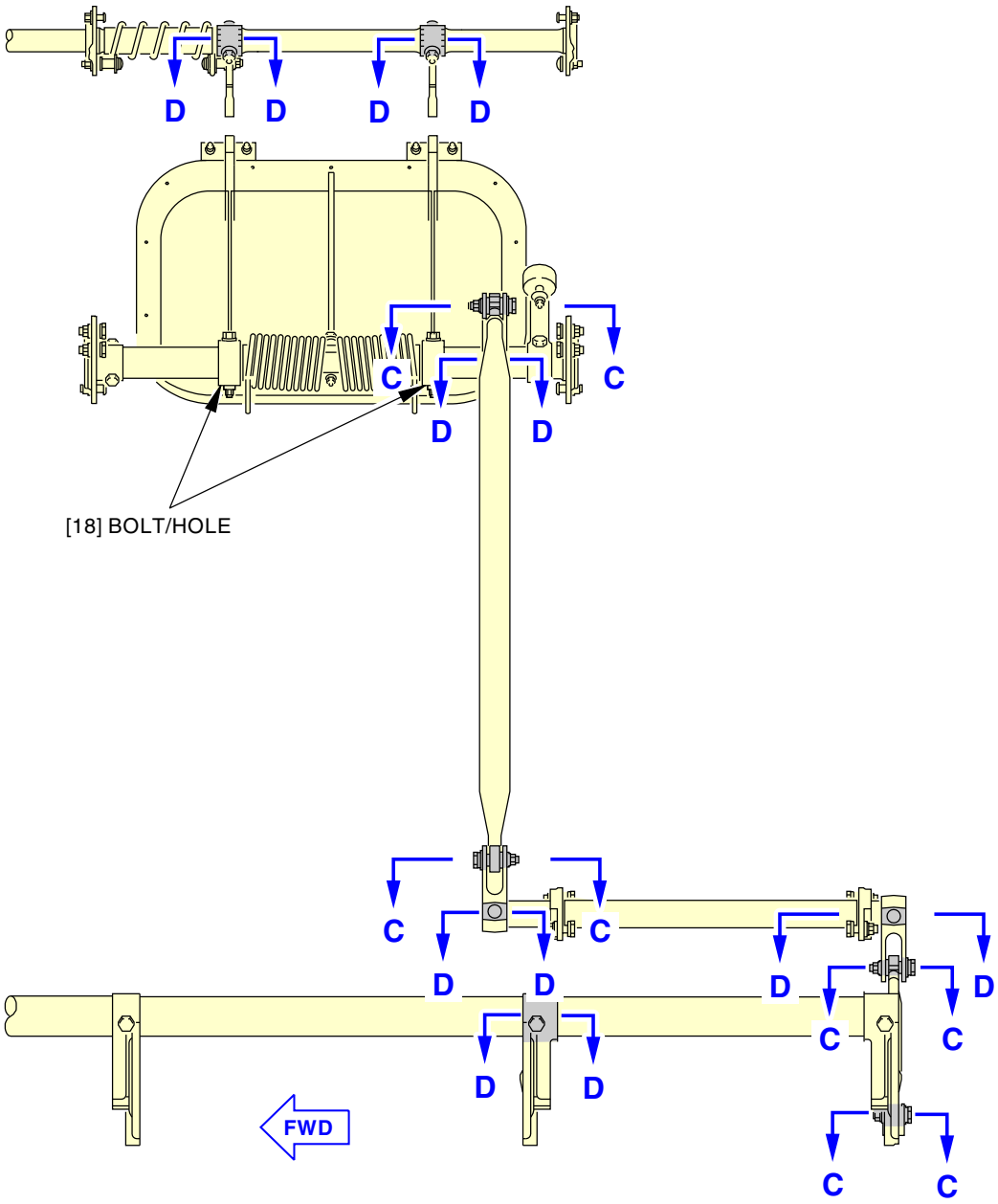
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G84850 S0006425407_V2

Large Cargo Door Wear Limits
Figure 601/52-34-01-990-802 (Sheet 4 of 7)

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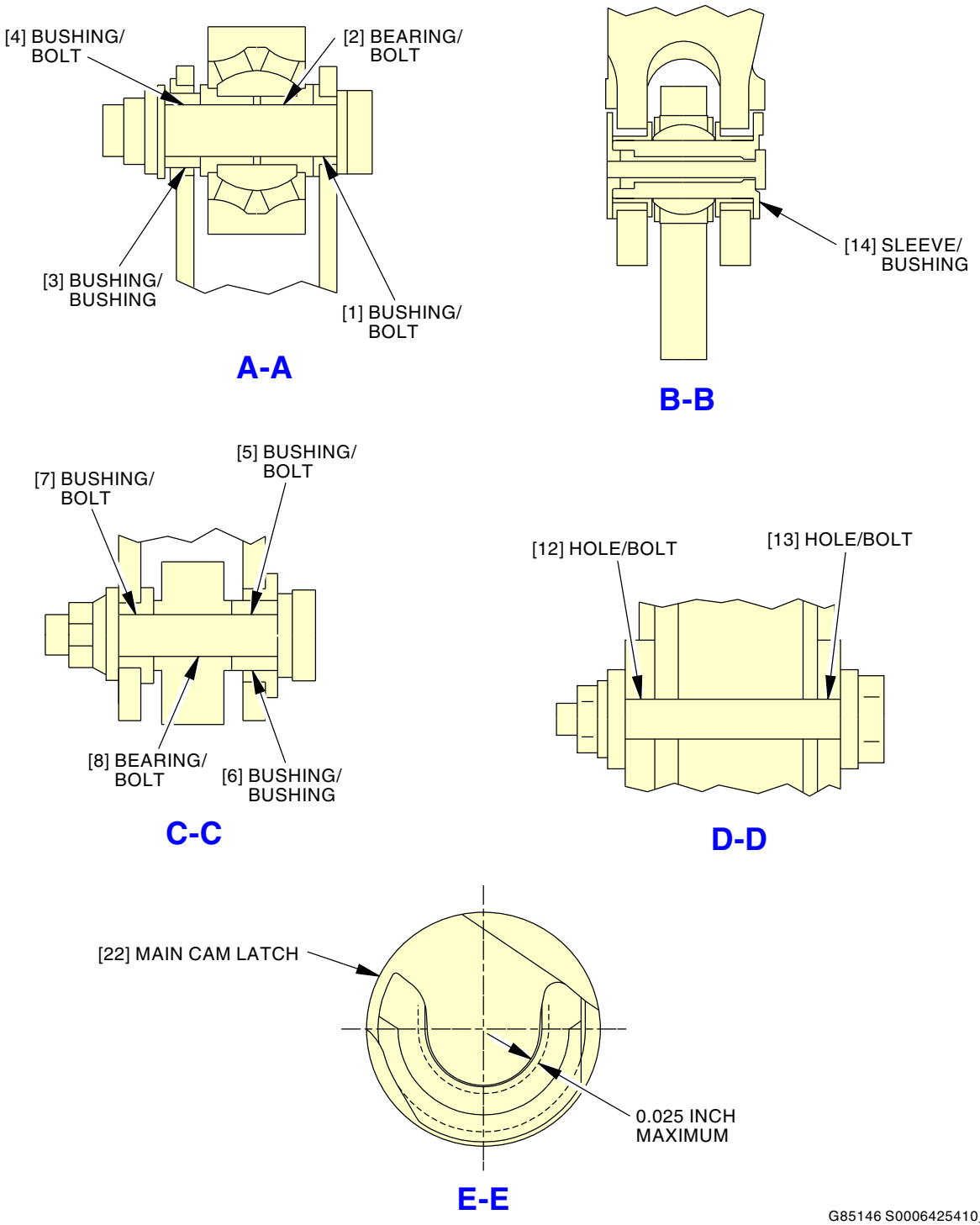
VENT DOOR MECHANISM

D

G85143 S0006425409_V2

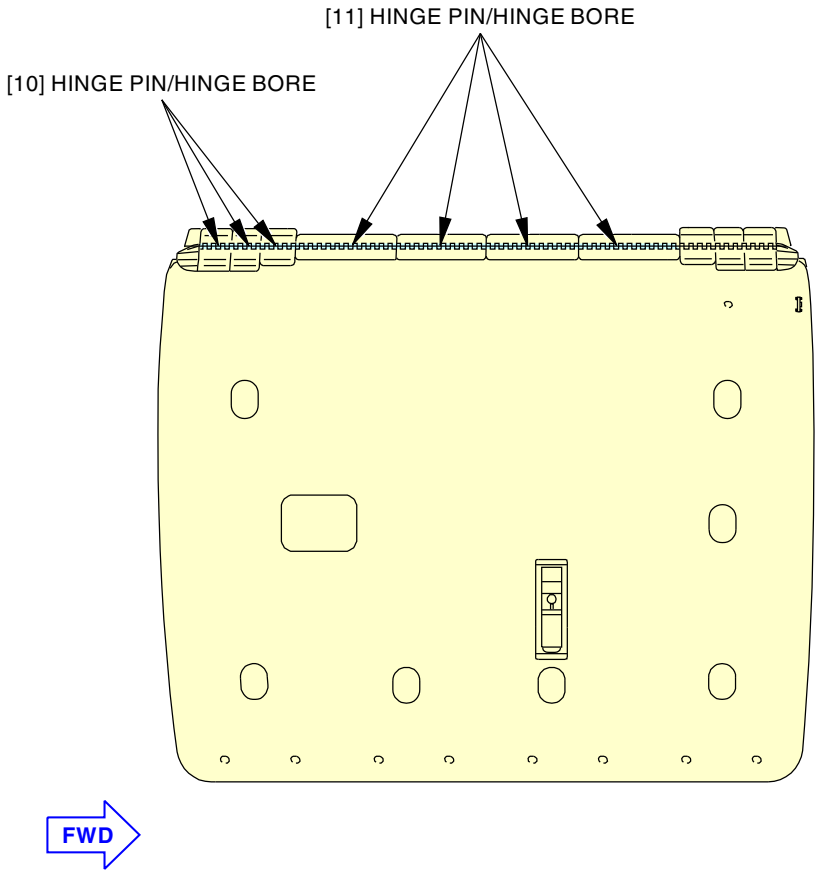
Large Cargo Door Wear Limits
Figure 601/52-34-01-990-802 (Sheet 5 of 7)

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Large Cargo Door Wear Limits
Figure 601/52-34-01-990-802 (Sheet 6 of 7)

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LARGE CARGO DOOR

G85159 S0006425413_V2

Large Cargo Door Wear Limits
Figure 601/52-34-01-990-802 (Sheet 7 of 7)

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LIFT POWER DRIVE UNIT (PDU) - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the lift power drive unit.

(2) An installation of the lift power drive unit.

TASK 52-34-02-000-801

2. Lift Power Drive Unit Removal

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Prepare for the Removal

SUBTASK 52-34-02-860-001

(1) Put the door in its vertical, free-hang position.

NOTE: The door is in the free-hang position when the bottom of the door can be freely moved in the open and close directions.

SUBTASK 52-34-02-860-002

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

C. Removal

SUBTASK 52-34-02-020-001

(1) Disengage the lift manual drive shaft [2] from the lift power drive unit [3] as follows:

(a) Remove the bolt [6], washer [7], washer [8], and nut [9] that attach the lift manual drive shaft [2] to the forward edge of the door.

(b) Remove the plate [5] and fitting [29] from the lift manual drive shaft [2].

(c) Pull the lift manual drive shaft [2] forward until the aft end of the shaft is out of the lift power drive unit [3] receptacle.

SUBTASK 52-34-02-020-002

(2) Disengage the torque tube [4] from each side of the lift power drive unit [3] as follows:

(a) Remove the lockwire [26] from the coupling [17] on the torque tube [4].

(b) Remove the screw [24] and washer [25] from the coupling [17] on the torque tube [4].

(c) Install support for the torque tube [4] so that the splines at the rotary actuator [1] are not damaged.

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(d) Hold the torque tube [4] and push the coupling [17] away from the lift power drive unit [3] along the tube.

(e) Remove the adapter [18] from the lift power drive unit [3] receptacle.

(f) Do these steps again for the other torque tube [4].

SUBTASK 52-34-02-020-003

(3) Remove the lift power drive unit [3] as follows:

(a) Disconnect the electrcal connector [16] from the lift power drive unit [3].

(b) Remove the bolt [31], washers [28], washer [30], and nut [32] to disconnect the bonding jumper [15] from the lift power drive unit [3].

(c) Remove the bolt [19], washer [20], washer [22], bushing [21], and nut [23] that attach the bottom of the lift power drive unit [3] to the door structure.

(d) Hold the lift power drive unit [3] and remove the bolt [10], washer [11], washer [13], bushing [12], and nut [14] that attach the top of the lift power drive unit [3] to the link [27].

(e) Remove the lift power drive unit [3] from the door.

——— END OF TASK ———

TASK 52-34-02-400-801

3. Lift Power Drive Unit Installation

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
52-34-00-820-801	Forward Large Cargo Door Adjustment (P/B 501)
SWPM 20-20-00	Standard Wiring Practices Manual

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in Class I, Divisions I & II hazardous (classified) locations. Outside these hazardous locations, COM-614 can be used in lieu of COM-1550). Part #: 620LK Supplier: 1CRL2 Part #: M1 Supplier: 3AD17 Part #: T477W Supplier: 01014 Opt Part #: M1B Supplier: 3AD17

C. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

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D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Lift manual drive shaft	52-34-04-01A-030	ARO ALL
3	Lift power drive unit	52-34-02-01A-090	ARO ALL
5	Plate	52-34-04-01A-005	ARO ALL
18	Adapter	52-34-03-01A-060	ARO ALL

E. Location Zones

Zone	Area
821	Forward Large Cargo Door

F. Installation

SUBTASK 52-34-02-860-003

(1) Make sure the door is in its vertical, free-hang position.

SUBTASK 52-34-02-420-001

(2) Install the lift power drive unit [3] as follows:

(a) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the fasteners that attach the lift power drive unit [3] to the door structure.

(b) Hold the lift power drive unit [3] in its correct position and install the bolt [10], washer [11], washer [13], bushing [12], and nut [14] to attach the top of the lift power drive unit [3] to the link [27].

(c) Install the bolt [19], washer [20], washer [22], bushing [21], and nut [23] to attach the bottom of the lift power drive unit [3] to the door structure.

(d) Install the bolt [31], washers [28], washer [30], and nut [32] to connect the bonding jumper [15] to the lift power drive unit [3]. Refer to Electrical Bonding and Grounding (SWPM 20-20-00).

(e) Measure the resistance between the lift power drive unit [3] and door structure with a intrinsically safe approved bonding meter, COM-1550. (SWPM 20-20-00)

NOTE: The maximum resistance across the surface bond must not be more than 0.5 milliohms.

(f) Connect the electrcal connector [16] to the lift power drive unit [3].

SUBTASK 52-34-02-420-002

(3) Engage the lift manual drive shaft [2] in the lift power drive unit [3] as follows:

(a) Apply the grease, D00633 to the square part of the aft end of the lift manual drive shaft [2].

(b) Apply the corrosion inhibiting material, G50136 to the mating surfaces of all parts and fasteners that attach the lift manual drive shaft [2] to the door structure.

(c) Put the aft end of the lift manual drive shaft [2] in the lift power drive unit [3] receptacle.

(d) Install the plate [5], fitting [29], bolt [6], washer [7], washer [8], and nut [9] to attach the lift manual drive shaft [2] to the forward edge of the door.

SUBTASK 52-34-02-420-003

(4) Engage the torque tube [4] in the lift power drive unit [3] as follows:

(a) If the torque tube [4] have been turned since the lift power drive unit [3] was removed, the lift mechanism must be adjusted as follows:

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1) Do this task: Forward Large Cargo Door Adjustment, TASK 52-34-00-820-801.

NOTE: Only do the Lift Mechanism Adjustment.

(b) Apply the grease, D00633 to the splines of the lift power drive unit [3], adapter [18], coupling [17], and torque tube [4].

(c) Move the coupling [17] on to the splines of the torque tube [4].

(d) Install the adapter [18] in the lift power drive unit [3] receptacle.

(e) Align the fastener holes in the adapter [18] and coupling [17].

(f) If it is necessary, turn the lift manual drive a maximum of one turn to align the coupling [17] and adapter [18] fastener holes.

(g) Move the coupling [17] on to the splines of the adapter [18].

(h) Install the screw [24], washer [25], and lockwire [26] on the coupling [17].

(i) Do these steps again for the other side.

(j) Remove the supports for the torque tube [4].

(k) Clean the unwanted grease from the torque tube [4] and the coupling [17] at the rotary actuator [1] and lift power drive unit [3].

(l) Move the door by hand and make sure the total displacement is more than 7.6 in. (193.0 mm) measured at the bottom edge of the door.

NOTE: This will make sure there is sufficient free play for the pull-in hooks and that the rotary actuators have equal loads.

(m) If the displacement is less than 7.6 in. (193.0 mm), the lift mechanism must be adjusted as follows:

1) Do this task: Forward Large Cargo Door Adjustment, TASK 52-34-00-820-801.

NOTE: Only do the Lift Mechanism Adjustment.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-02-860-004

(1) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

H. Installation Test

SUBTASK 52-34-02-710-001

(1) Do a test on the lift power drive unit [3] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

CAUTION DO NOT OPERATE THE DOOR MORE THAN TWO TIMES IN 5 MINUTES. IF YOU DO NOT OBEY THIS CAUTION, THE ELECTRIC MOTOR CAN BECOME TOO HOT. THIS CAN CAUSE DAMAGE TO THE ELECTRIC MOTOR.

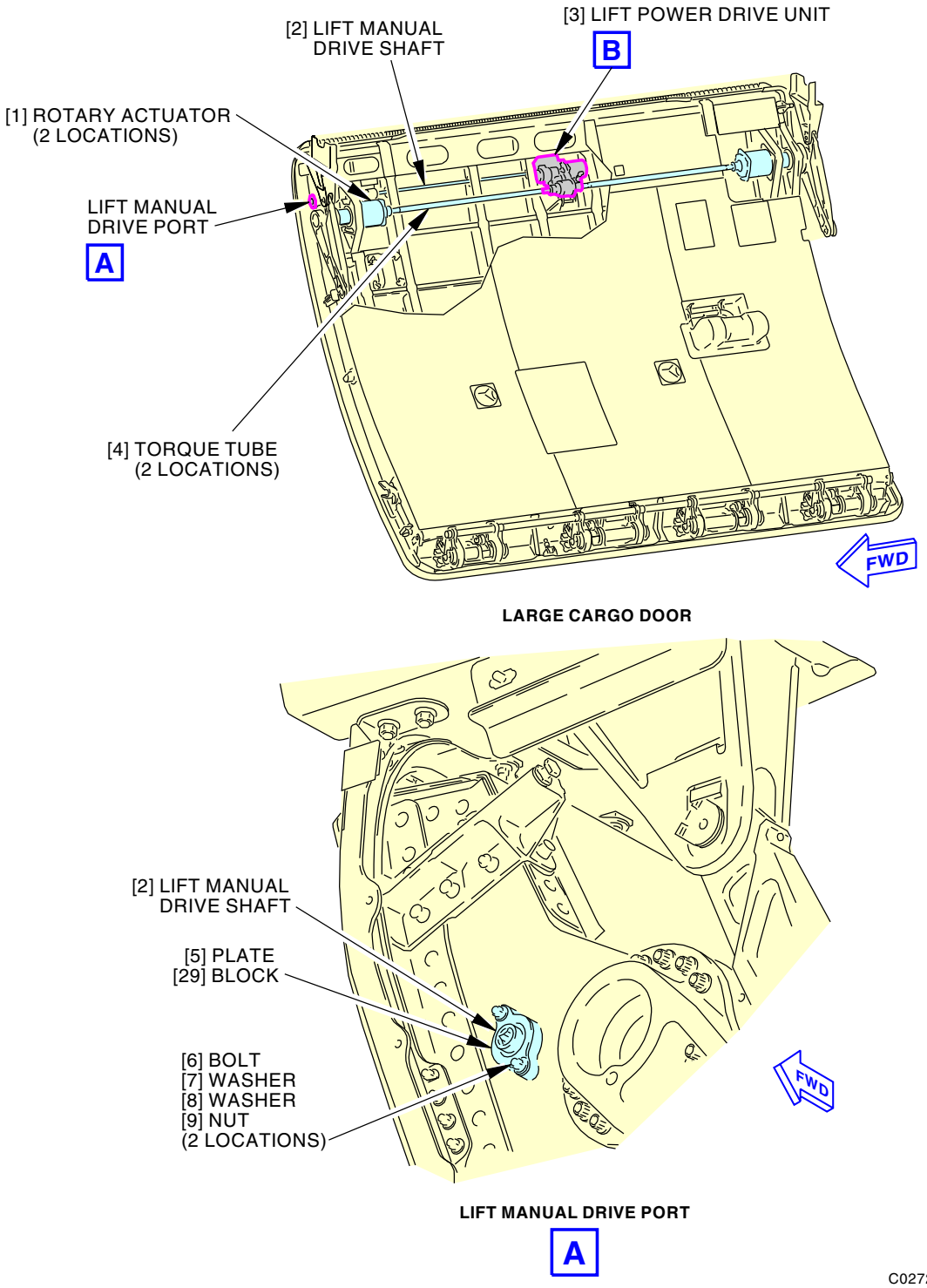
(b) Operate the door electrically.

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(c) Make sure the door opens and closes correctly.

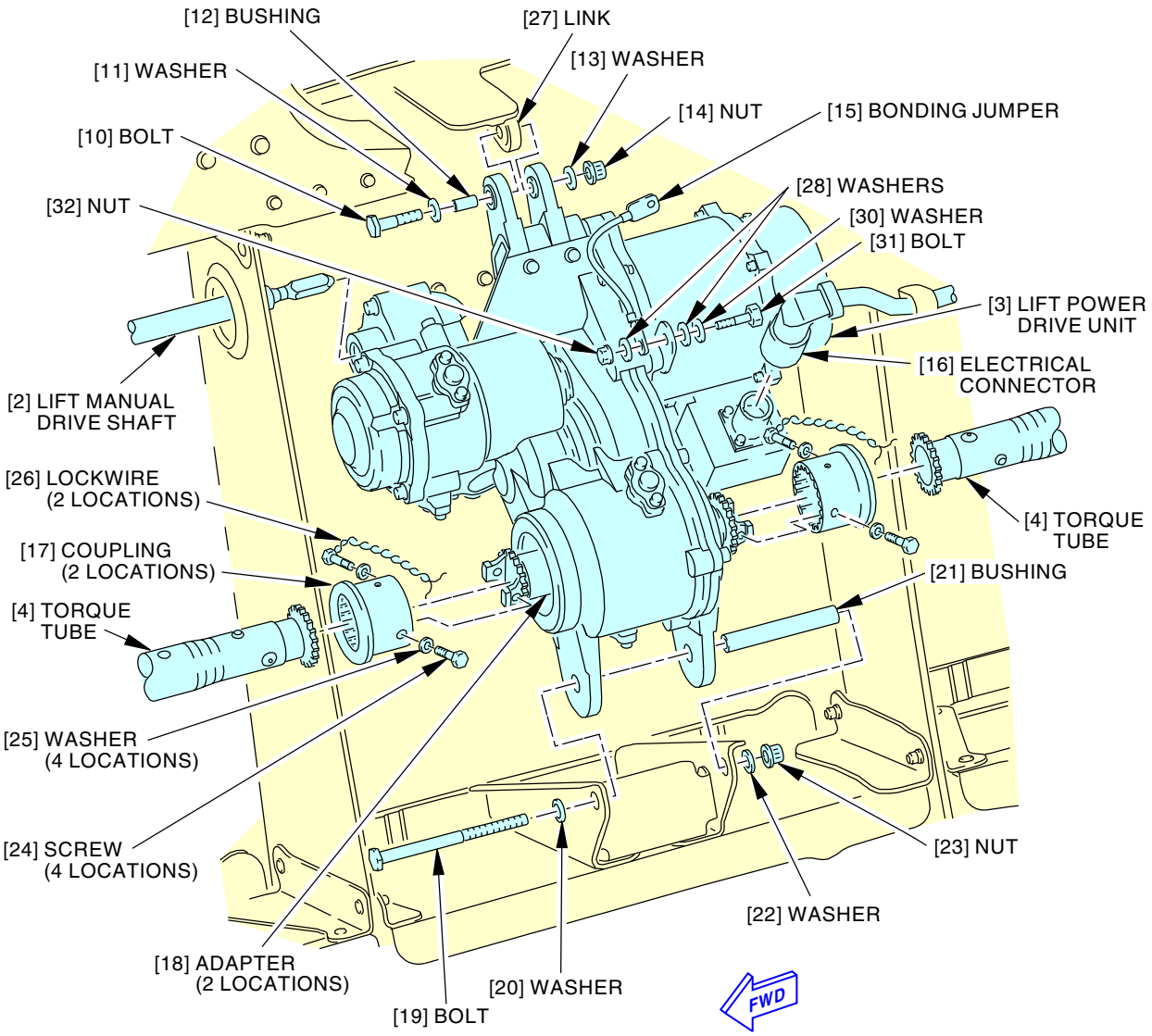
——— END OF TASK ———

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Lift Power Drive Unit Installation
Figure 401/52-34-02-990-801 (Sheet 1 of 2)

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LIFT POWER DRIVE UNIT

B

C03549 S0006425419_V2

Lift Power Drive Unit Installation
Figure 401/52-34-02-990-801 (Sheet 2 of 2)

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ROTARY ACTUATOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the rotary actuator.

(2) An installation of the rotary actuator.

NOTE: Ensure that rotary actuators are replaced in pairs when one fails. The two rotary actuators hold the same load. If one actuator does not operate correctly, its load will be put on the other actuator. This may cause damage to that actuator. Thus, if you replace an actuator because it does not operate, you must replace the other actuator.

(3) The torque tube is referred to as the torque assembly [2] in this procedure.

TASK 52-34-03-000-801

2. Rotary Actuator Removal

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Prepare for the Removal

SUBTASK 52-34-03-860-001

(1) Put the door in its vertical, free-hang position.

NOTE: The door is in the free-hang position when the bottom of the door can be freely moved in the open and close directions.

SUBTASK 52-34-03-860-002

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

C. Removal

SUBTASK 52-34-03-020-001

(1) Remove the torque assembly [2] from the rotary actuator [3] and lift power drive unit [1] as follows:

ARO 016-999; AIRPLANES WITHOUT VIBRATION DAMPER

(a) Remove the lockwire [5], screws [12], and washers [13] from the coupling [14] on the torque assembly [2].

ARO 001-015; AIRPLANES WITH VIBRATION DAMPER

(b) Remove the lockwire [5], screws [12], and washers [13] from the coupling [14] and vibration damper [15] on the torque assembly [2].

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ARO 016-999; AIRPLANES WITHOUT VIBRATION DAMPER

(c) Hold the torque assembly [2] and push the coupling [14] away from the rotary actuator [3] along the torque assembly [2].

ARO 001-015; AIRPLANES WITH VIBRATION DAMPER

(d) Hold the torque assembly [2] and push the coupling [14] and vibration damper [15] away from the rotary actuator [3] along the torque assembly [2].

ARO ALL

(e) Remove the lockwire [19], screw [16], and washer [17] that attach the coupling [18] to the torque assembly [2] and the lift power drive unit [1].

(f) Hold the torque assembly [2] and push the coupling [18] away from the lift power drive unit [1] along the torque assembly [2].

(g) Remove the torque assembly [2] from the door.

SUBTASK 52-34-03-020-002

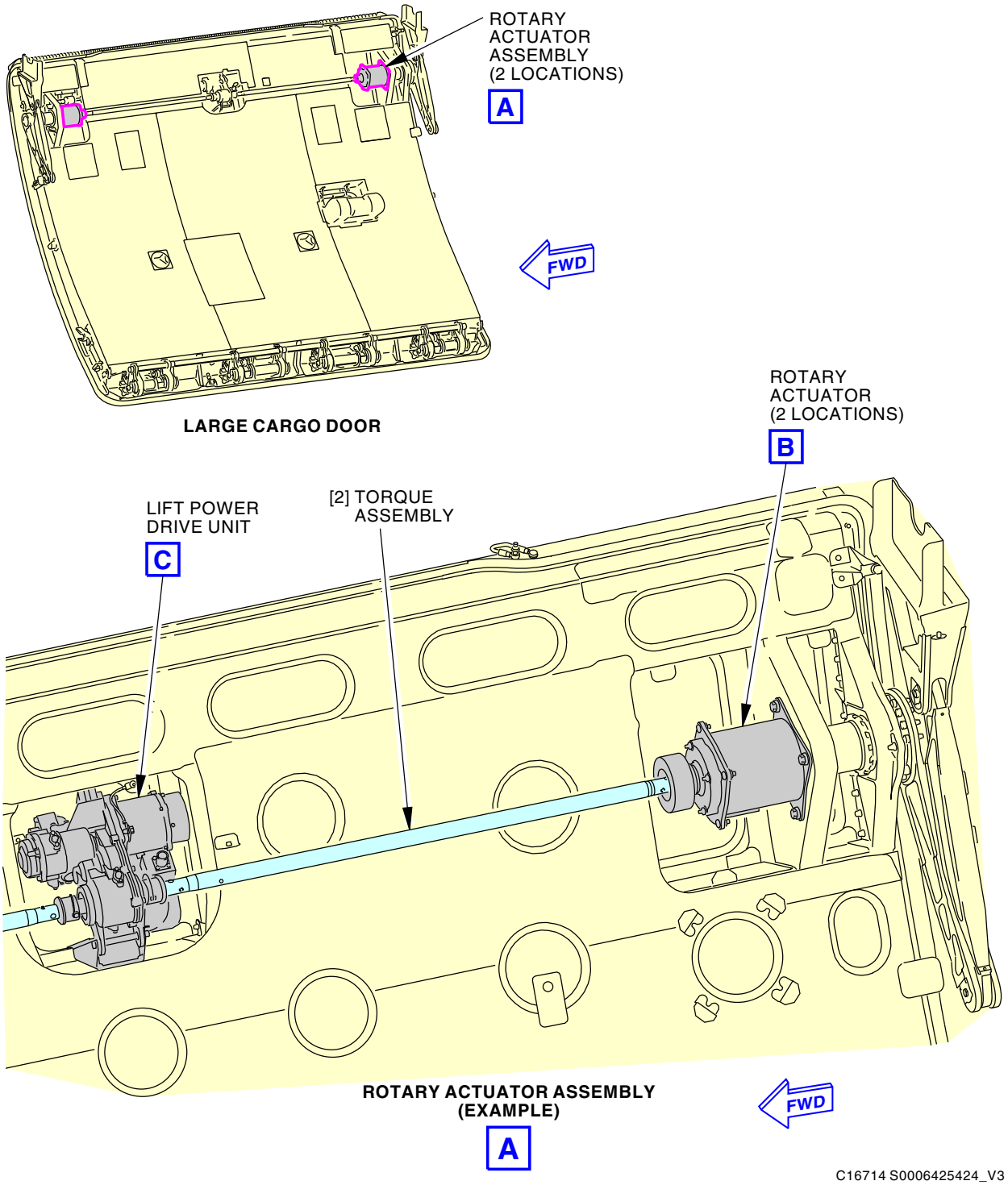
(2) Remove the rotary actuator [3] as follows:

(a) Hold the rotary actuator [3] and remove the bolts [8], washers [9], washers [10], and nuts [11] that attach the rotary actuator [3] to the door structure [6].

(b) Remove the rotary actuator [3] from the door.

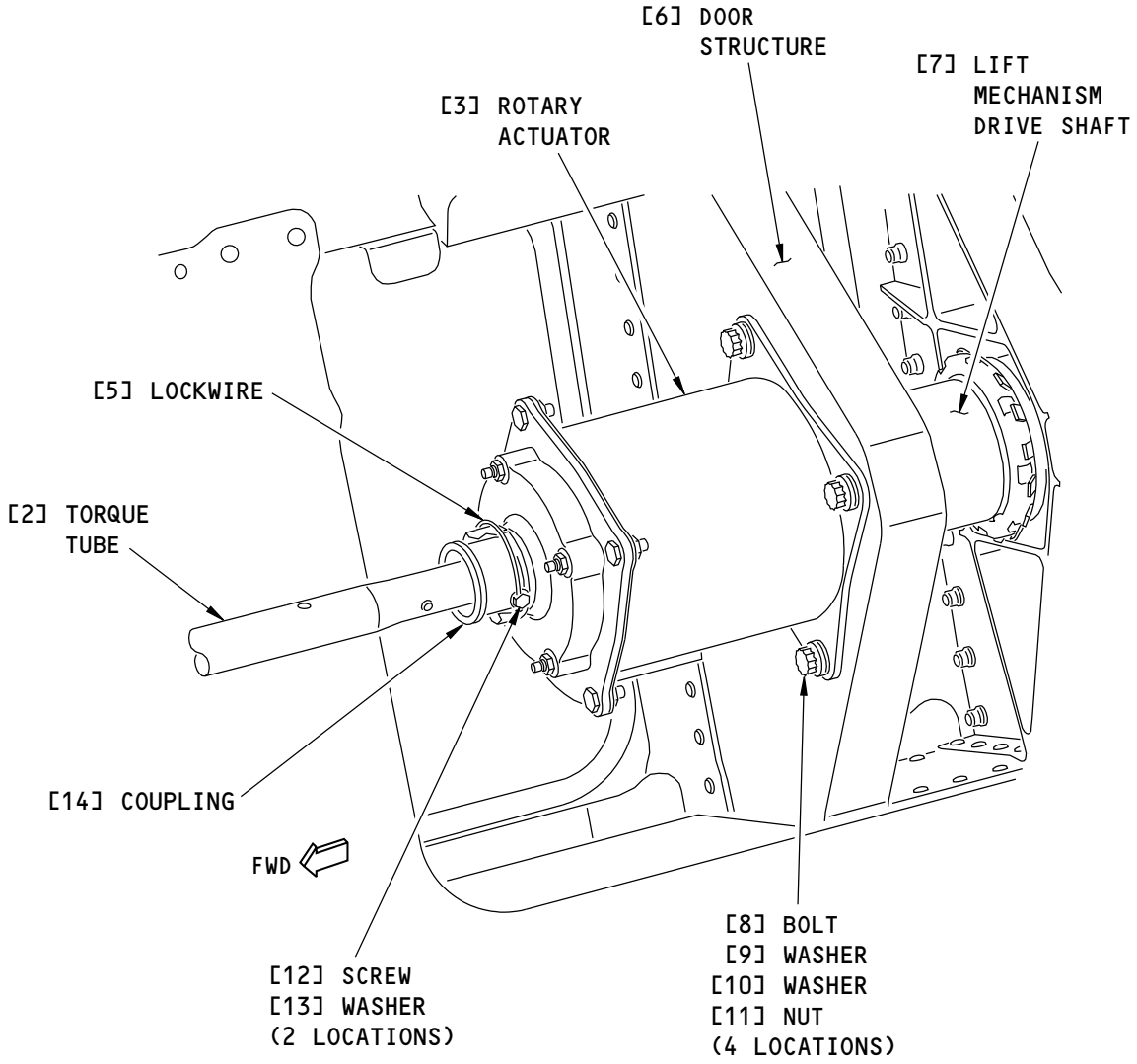
——— END OF TASK ———

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Rotary Actuator Installation
Figure 401/52-34-03-990-803 (Sheet 1 of 4)

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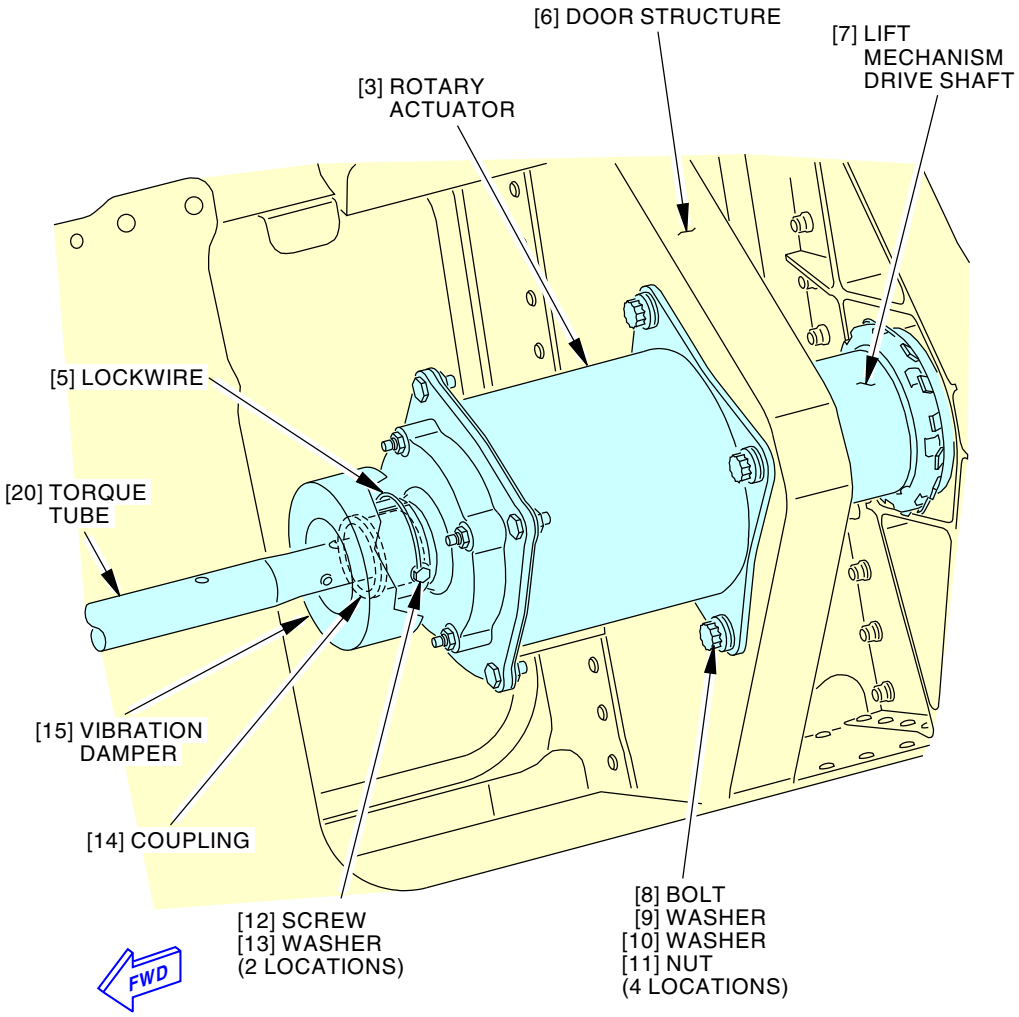
ROTARY ACTUATOR
(EXAMPLE)

B

N62811 S0006425425_V1

Rotary Actuator Installation
Figure 401/52-34-03-990-803 (Sheet 2 of 4)

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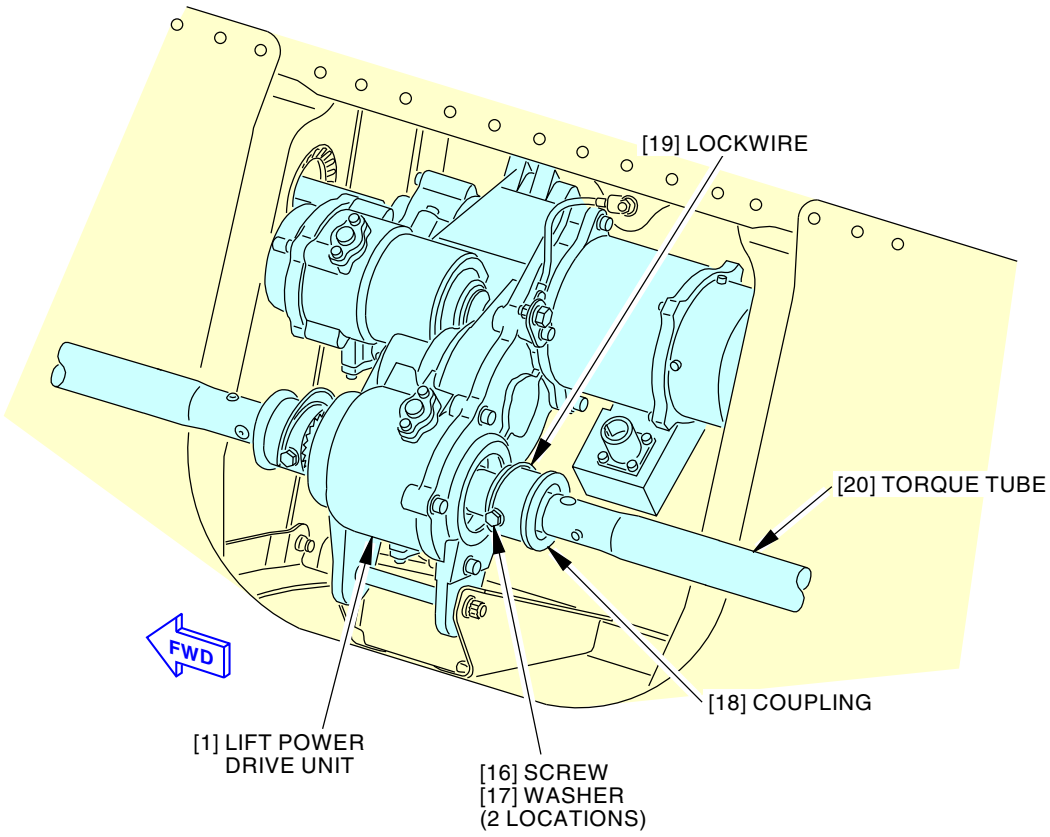
ROTARY ACTUATOR (EXAMPLE)

B

H62258 S0006425427_V3

Rotary Actuator Installation
Figure 401/52-34-03-990-803 (Sheet 3 of 4)

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LIFT POWER DRIVE UNIT

C

H62274 S0006425428_V3

Rotary Actuator Installation
Figure 401/52-34-03-990-803 (Sheet 4 of 4)

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TASK 52-34-03-400-801

3. Rotary Actuator Installation

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
52-34-00-820-801	Forward Large Cargo Door Adjustment (P/B 501)

B. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Torque assembly	52-34-03-01A-020	ARO 001-004
3	Actuator	52-34-03-01A-065	ARO ALL

D. Location Zones

Zone	Area
821	Forward Large Cargo Door

E. Installation

SUBTASK 52-34-03-860-003

(1) Make sure the door is in its vertical, free-hang position.

SUBTASK 52-34-03-420-001

CAUTION

ENSURE THAT ROTARY ACTUATORS ARE REPLACED IN PAIRS WHEN ONE FAILS. THE TWO ROTARY ACTUATORS HOLD THE SAME LOAD. IF ONE ACTUATOR DOES NOT OPERATE CORRECTLY, ITS LOAD WILL BE PUT ON THE OTHER ACTUATOR. THIS MAY CAUSE DAMAGE TO THAT ACTUATOR. THUS, IF YOU REPLACE AN ACTUATOR BECAUSE IT DOES NOT OPERATE, YOU MUST REPLACE THE OTHER ACTUATOR.

(2) Install the rotary actuator [3] as follows:

(a) Apply the grease, D00633 to the drive teeth on the rotary actuator [3] and the mating lift mechanism drive shaft [7] teeth.

(b) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the rotary actuator [3] and door structure [6].

(c) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the bolts [8], washers [9], washers [10], and nuts [11] that attach the rotary actuator [3] to the door structure [6].

(d) Hold the rotary actuator [3] in its correct position.

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(e) Turn the input splines to align the rotary actuator [3] drive teeth and fastener holes with the mating lift mechanism drive shaft [7] teeth and fastener holes on the door structure [6].

NOTE: The torque to turn the rotary actuator [3] input spline is approximately 30 in-lb (3 N·m). The fastener holes for the rotary actuator [3] are not symmetric.

(f) Install the bolts [8], washers [9], washers [10], and nuts [11] to attach the rotary actuator [3] to the door structure [6].

SUBTASK 52-34-03-420-002

(3) Install the torque assembly [2] in the rotary actuator [3] and lift power drive unit [1] as follows:

(a) Apply the grease, D00633 to the splines of the rotary actuator [3], coupling [14], and torque assembly [2].

(b) Apply the grease, D00633 to the splines of the lift power drive unit [1], coupling [18], and torque assembly [2].

(c) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the screw [12], washer [13], screw [16], and washer [17].

ARO 001-015; AIRPLANES WITH VIBRATION DAMPER

(d) Apply the grease, D00633 to the inner diameter of the vibration damper [15].

ARO ALL

(e) Install the torque assembly [2] in the rotary actuator [3].

ARO 016-999; AIRPLANES WITHOUT VIBRATION DAMPER

(f) Align the fastener holes in the coupling [14] and rotary actuator [3] input splines.

ARO 001-015; AIRPLANES WITH VIBRATION DAMPER

(g) Align the fastener holes in the coupling [14], vibration damper [15], and rotary actuator [3] input splines.

1) If it is necessary, turn the lift manual drive a maximum of one turn to align the fastener holes.

ARO ALL

(h) Slide the coupling [18] along the torque assembly [2] onto the splines of the lift power drive unit [1] while you align the fastener holes.

(i) Install the screw [16], washer [17], and lockwire [19].

(j) Install the screws [12], washers [13], and lockwire [5] on the coupling [14].

(k) Clean the unwanted grease from the parts you installed.

SUBTASK 52-34-03-820-001

(4) Only do the Lift Mechanism Adjustment, do this task: Forward Large Cargo Door Adjustment, TASK 52-34-00-820-801.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-03-860-004

(1) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

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Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

G. Installation Test

SUBTASK 52-34-03-710-001

(1) Do a test on the rotary actuator [3] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

CAUTION

DO NOT OPEN AND CLOSE THE DOOR MORE THAN 2 TIMES IN 5 MINUTES. IF YOU DO NOT OBEY THIS CAUTION, THE ELECTRIC MOTOR CAN BECOME TOO HOT. THIS CAN CAUSE DAMAGE TO THE ELECTRIC MOTOR.

(b) Operate the door electrically.

(c) Make sure the door opens and closes correctly.

END OF TASK

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ROTARY ACTUATOR - ADJUSTMENT/TEST

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) An operational test of the rotary actuator.

TASK 52-34-03-710-801

2. Large Cargo Door Rotary Actuator (Irreversible Function) Operational Test

(Figure 501)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an operational test of the large cargo door rotary actuator irreversible function.

B. Location Zones

Zone	Area
821	Forward Large Cargo Door

C. Procedure

SUBTASK 52-34-03-710-002

(1) Do a test on the rotary actuators as follows:

NOTE: Two persons are recommended to do this procedure: one person at the lift manual drive port found on the forward edge of the door and one person at the center of the door near the lift power drive unit.

CAUTION DO NOT OPEN AND CLOSE THE DOOR MORE THAN 2 TIMES IN 5 MINUTES. IF YOU DO NOT OBEY THIS CAUTION, THE ELECTRIC MOTOR CAN OVERHEAT. THIS CAN CAUSE DAMAGE TO THE ELECTRIC MOTOR.

(a) Electrically operate the door to the fully open position.

(b) Put a 3/8 inch square drive wrench in the lift manual drive port found on the forward edge of the door.

CAUTION DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(c) Slowly turn the lift manual drive in the close direction until one of the torque tubes between the lift power drive unit and the rotary actuators can be turned slightly by hand.

NOTE: When the torque tube can be turned slightly or moved forward or aft by hand, there is no load on the torque tube.

(d) Continue to turn the lift manual drive in the close direction and make sure that within two turns of the manual drive a position can be found where there is no load on the other torque tube.

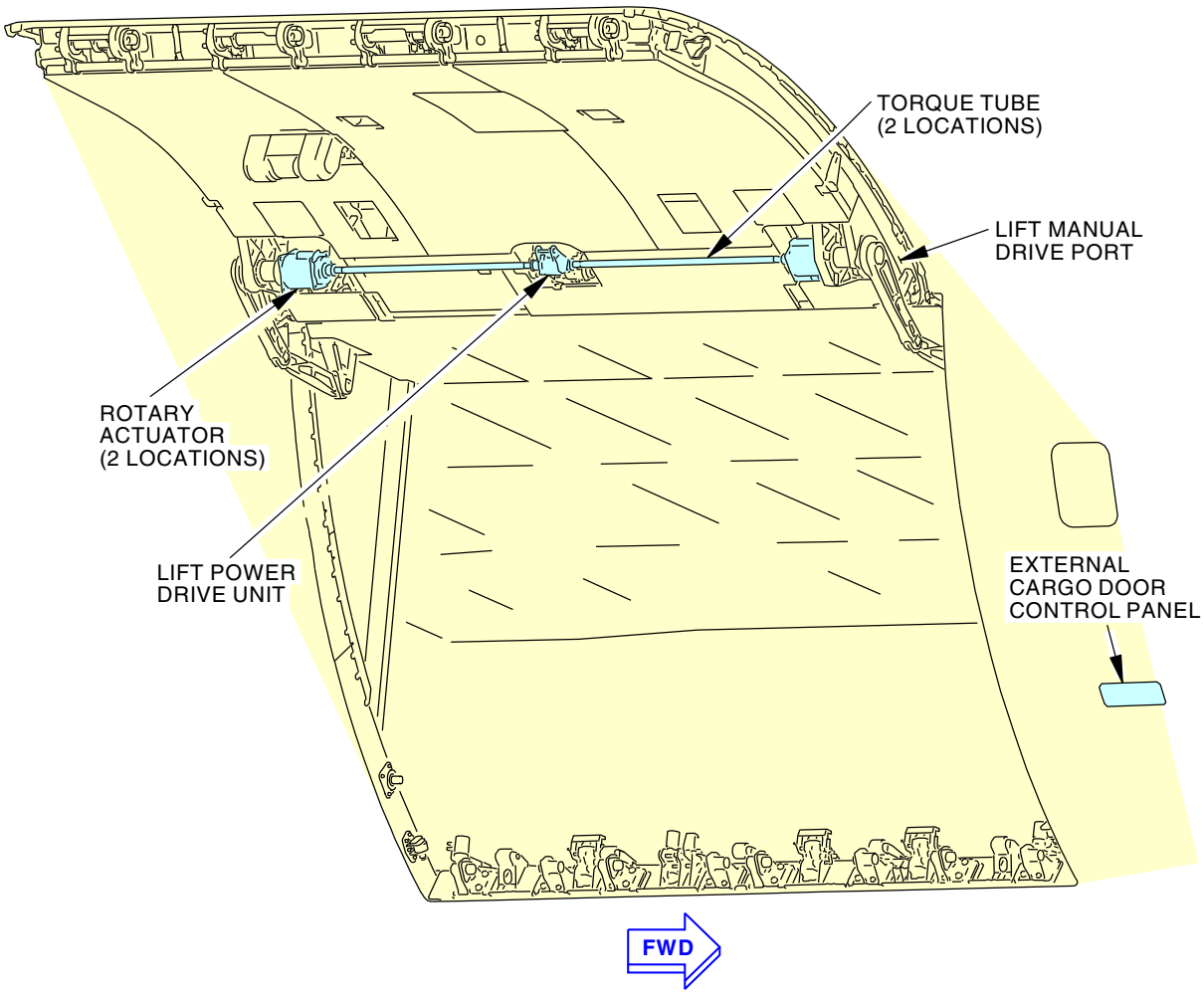
NOTE: You can turn the manual drive in the close and open directions within two turns to find this position.

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(e) If a position where there is no load on each torque tube within two turns of the lift manual drive is found, the rotary actuators hold the weight of the door and are serviceable.

——— END OF TASK ———

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LARGE CARGO DOOR
(FULLY OPEN POSITION)

G85235 S0006425431_V2

Large Cargo Door Rotary Actuator (Irreversible Function) Operational Test
Figure 501/52-34-03-990-802

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LIFT MANUAL DRIVE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the lift manual drive gearbox.

(2) An installation of the lift manual drive gearbox.

TASK 52-34-04-000-801

2. Lift Manual Drive Gearbox Removal

(Figure 401)

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Prepare for the Removal

SUBTASK 52-34-04-860-001

(1) Put the door in its vertical, free-hang position.

NOTE: The door is in the free-hang position when the bottom of the door can be freely moved in the open and close directions.

SUBTASK 52-34-04-010-001

(2) Remove the applicable door lining.

SUBTASK 52-34-04-860-002

(3) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

C. Removal

SUBTASK 52-34-04-020-001

(1) Disengage the shaft assembly [10] from the lift power drive unit [1] and gear box assembly [9] as follows:

(a) Remove the bolts [15], washers [14], washers [12], and nuts [11] that attach the shaft assembly [10] to the forward edge of the door.

(b) Remove the plate [13] and fitting [16] from the door structure [2].

(c) Pull the shaft assembly [10] forward until the aft end of the shaft assembly [10] is out of the lift power drive unit [1] receptacle.

(d) Continue to pull the shaft assembly [10] through the gear box assembly [9] and remove from the door.

SUBTASK 52-34-04-020-002

(2) Remove the gear box assembly [9] as follows:

(a) Hold the gear box assembly [9] and remove the bolts [3], washers [4], washers [5], and washers [6] that attach the gear box assembly [9] to the door structure [2].

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(b) Remove the gear box assembly [9] from the door.

(c) Remove the nuts [7] and retainers [8] from the gear box assembly [9] if it is necessary.

——— END OF TASK ———

TASK 52-34-04-400-801

3. Lift Manual Drive Gearbox Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
9	Gear box assembly	52-34-04-01A-170	ARO ALL
10	Shaft assembly	52-34-04-01A-030	ARO ALL

C. Location Zones

Zone	Area
821	Forward Large Cargo Door

D. Installation

SUBTASK 52-34-04-420-001

(1) Install the gear box assembly [9] as follows:

(a) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the gear box assembly [9] and the door structure [2].

(b) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the bolts [3], washers [4], washers [5], and washers [6].

(c) Apply the grease, D00633 to the square part of the adapter assembly [17] for the lift manual drive port on the outer door skin.

(d) Hold the gear box assembly [9] in its correct position and engage with the adapter assembly [17].

(e) Install the nuts [7] and retainers [8] (if necessary) and install the bolts [3], washers [4], washers [5], and washers [6] to attach the gear box assembly [9] to the door structure [2].

NOTE: The washers [4] and washers [5] fit together under the bolt head.

SUBTASK 52-34-04-420-002

(2) Engage the shaft assembly [10] with the gear box assembly [9] and the lift power drive unit [1] as follows:

(a) Make sure the gear box assembly [9] turns freely with your hand before you install the shaft assembly [10].

(b) Apply the grease, D00633 to the square part of the aft end of the shaft assembly [10].

(c) Put the shaft assembly [10] through the hole in the forward edge of the door.

(d) Push the shaft assembly [10] aft through the gear box assembly [9] and into the receptacle of the lift power drive unit [1].

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(e) Make sure the shaft assembly [10] moves freely through the gear box assembly [9] and into the receptacle of the lift power drive unit [1].

(f) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the plate [13], fitting [16], bolts [15], washers [14], washers [12], and nuts [11].

(g) Install the plate [13], fitting [16], bolts [15], washers [14], washers [12], and nuts [11] to attach the shaft assembly [10] to the forward edge of the door.

E. Installation Test

SUBTASK 52-34-04-710-001

(1) Do a test on the gear box assembly [9] as follows:

CAUTION

DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(a) Put a torque wrench with a 3/8-inch square drive in the lift manual drive port found on the forward edge of the door.

(b) Slowly turn counterclockwise and then clockwise and do this check:

1) Make sure the manual drive turns freely and smoothly with a torque of 14 ±6 in-lb (2 ±1 N·m) with no load on the lift mechanism.

NOTE: When the door moves from the vertical, free-hang position, the torque will increase.

(c) Move the torque wrench to the lift manual drive port found on the door skin near the forward side.

(d) Slowly turn counterclockwise and then clockwise and do this check:

1) Make sure the manual drive turns freely and smoothly with a torque of 14 ±6 in-lb (2 ±1 N·m) with no load on the lift mechanism.

NOTE: When the door moves from the vertical, free-hang position, the torque will increase.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-04-410-001

(1) Install the door lining.

SUBTASK 52-34-04-860-003

(2) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

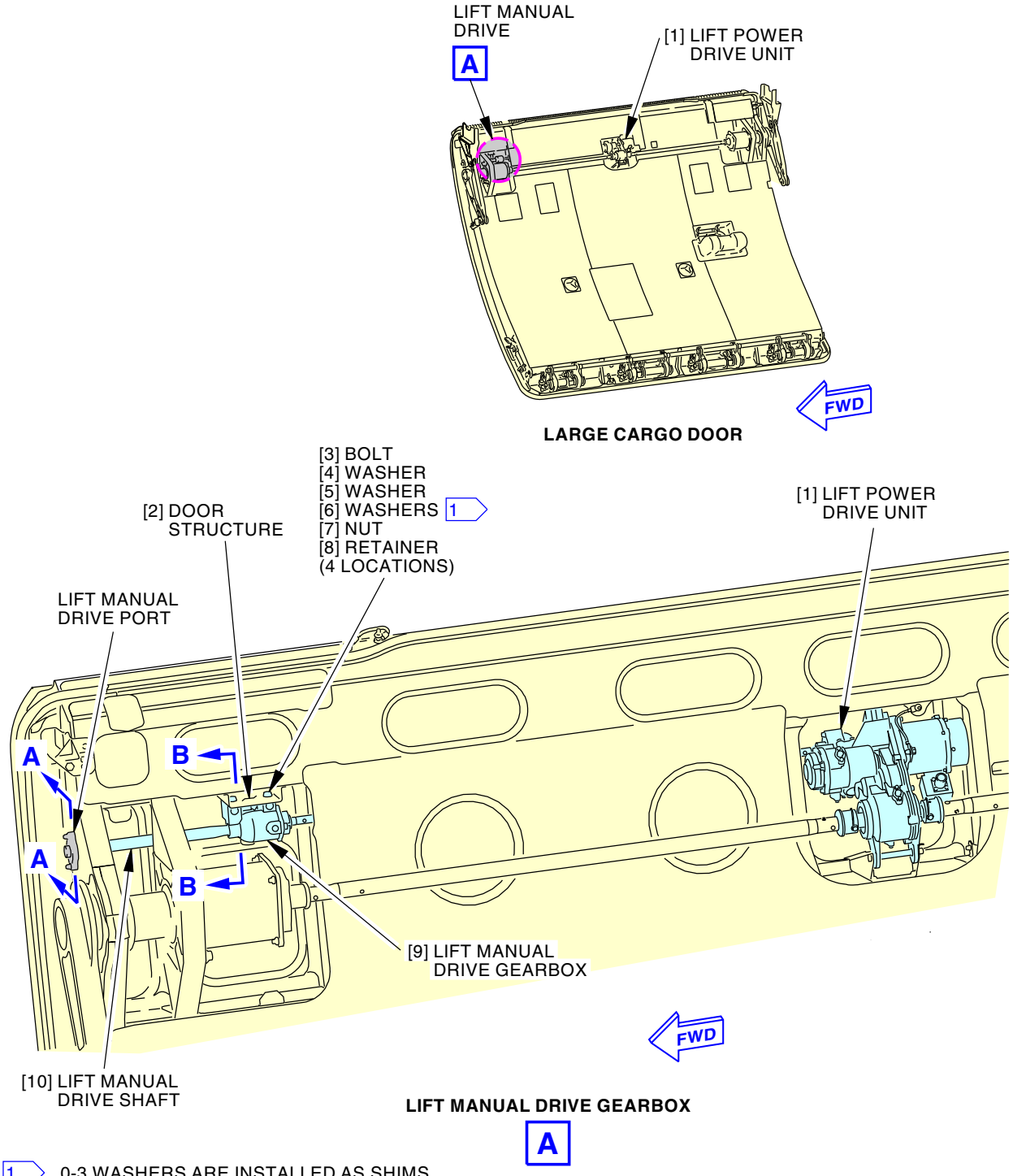
Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

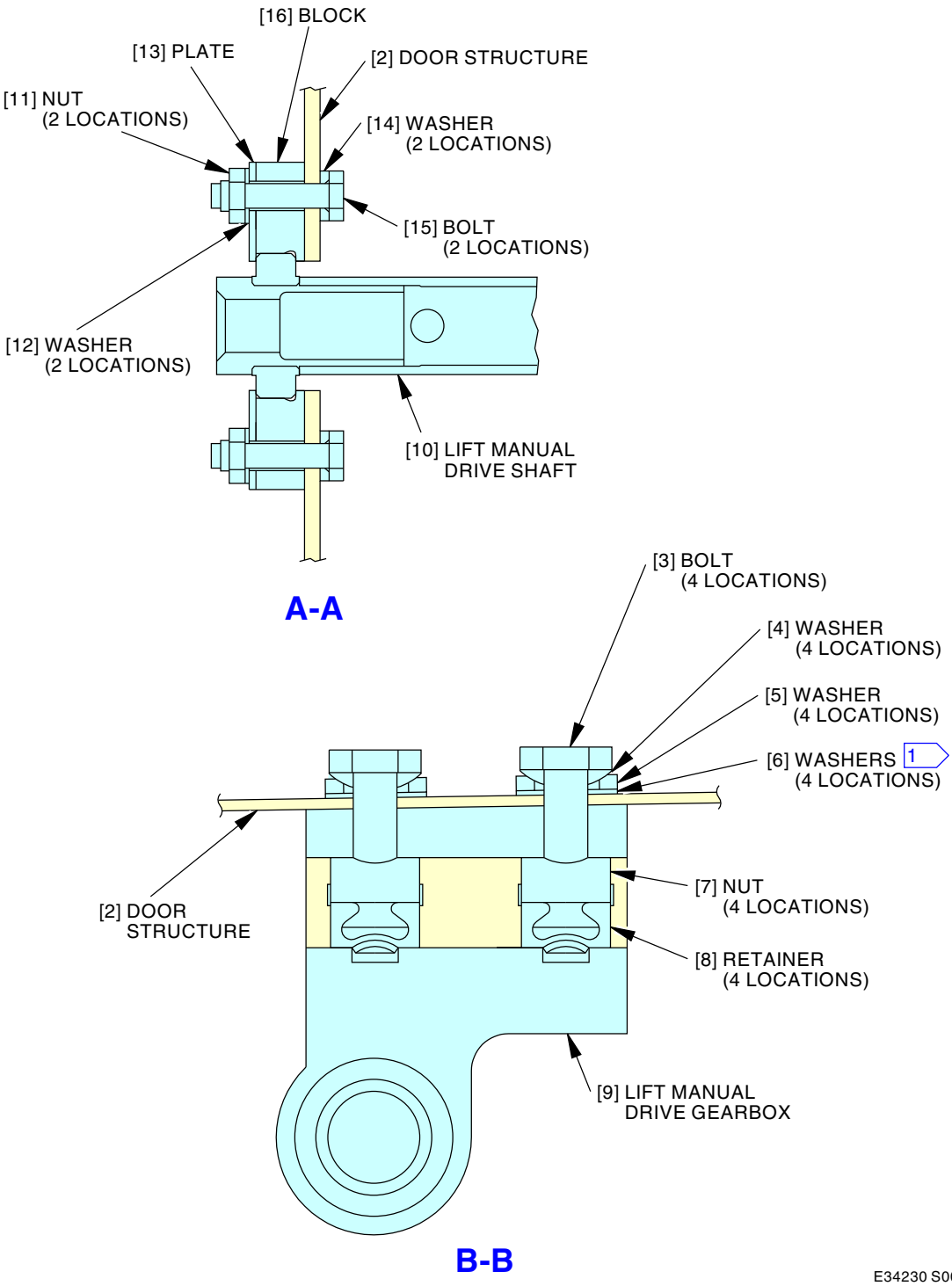
END OF TASK

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Lift Manual Drive Installation
Figure 401/52-34-04-990-801 (Sheet 1 of 2)

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Lift Manual Drive Installation
Figure 401/52-34-04-990-801 (Sheet 2 of 2)

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LIFT MANUAL DRIVE - ADJUSTMENT/TEST

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) An operational test of the large cargo door lift and latch/hook manual drives and lift power drive unit brake.

TASK 52-34-04-710-801

2. Large Cargo Door Lift and Latch/Hook Manual Drives and Lift Power Drive Unit Brake Operational Test

(Figure 501)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an operational test of the large cargo door lift and latch/hook manual drives and lift power drive unit brake.

(2) To operate the manual drives on the door you can use a speed wrench or a power tool that meets the specifications of J52017.

B. Location Zones

Zone	Area
821	Forward Large Cargo Door

C. Procedure

SUBTASK 52-34-04-710-002

(1) Latch/Hook Manual Drive Test - Open

(a) Make sure the door is closed, latched, and locked.

(b) Open the lock handle.

(c) Put a 3/8 inch squre drive speed wrench or power tool in the latch/hook manual drive port found under the lock handle.

CAUTION

DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(d) Turn counterclockwise to the fully not latched and not hooked position of the door. Stop when you feel a sudden increase in torque as the unlatched overtravel stop is touched. As the door opens, do these checks:

1) Make sure the latch/hook mechanism operates smoothly with no vibration or unusual noises.

ARO ALL; AIRPLANES WITHOUT MIDSPAN LATCHES

2) Make sure the main cam latches turn easily and freely disengage from the pins on the door cutout.

ARO ALL

3) Make sure the pull-in hooks turn smoothly and open the door.

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(e) At each witness port, make sure that you cannot see the yellow latch arrow on the main cam latch point to the yellow target on the main cam latch pin fitting.

(f) Remove the speed wrench or power tool.

SUBTASK 52-34-04-710-003

(2) Lift Manual Drive Test - Open

NOTE: The lift manual drive test also tests the lift power drive unit brake. When the lift manual drive is used to open the door, the lift power drive unit brake holds the door.

(a) Make sure the door is closed but not latched.

(b) Put the power tool in the lift manual drive port found on the door skin near the forward side.

CAUTION

DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(c) Turn counterclockwise until you can get access to the lift manual drive port found on the forward edge of the door. As the door opens, do this check:

1) Make sure the pull-in hooks move clear of the pins on each side of the door cutout.

(d) Move the power tool to the lift manual drive port found on the forward edge of the door.

(e) Turn counterclockwise until the door is in the fully open position. Stop when you feel a sudden increase in torque as the drive arm touches the overtravel stop bolt. As the door opens, do these checks:

1) Make sure the lift mechanism operates smoothly with no vibration or unusual noises.

NOTE: It is usual for the door to stop at the low point of its travel.

2) Make sure the drive arms and drive links on each side of the door are synchronized with no unusual movement.

(f) Remove the power tool.

SUBTASK 52-34-04-710-004

(3) Lift Manual Drive Test - Close

(a) Put the power tool in the lift manual drive port found on the forward edge of the door.

CAUTION

DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(b) Turn clockwise until the lower edge of the door is approximately 4 feet from the door cutout.

(c) Move the power tool to the lift manual drive port found on the door skin near the forward side.

(d) Turn clockwise until the pull-in hooks touch the pins. As the door closes, do these checks:

1) Make sure the lift mechanism operates smoothly with no vibration or unusual noises.

NOTE: It is usual for the door to stop at the low point of its travel.

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2) Make sure the drive arms and drive links on each side of the door are synchronized with no unusual movement.

(e) Remove the power tool.

SUBTASK 52-34-04-710-005

(4) Latch/Hook Manual Drive Test - Close

(a) Put a 3/8 inch square drive speed wrench or power tool in the latch/hook manual drive port found under the lock handle.

CAUTION

DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(b) Turn clockwise to the fully latched position of the door. Stop when you feel a sudden increase in torque as the latched overtravel stop is touched. As the door closes, do these checks:

1) Make sure the pull-in hooks smoothly engage the pull-in pins and the sides of the door close smoothly.

2) Make sure the latch/hook mechanism operates smoothly with no vibration or unusual noises.

ARO ALL; AIRPLANES WITHOUT MIDSPAN LATCHES

3) Make sure the main cam latches turn easily and freely engage the pins on the door cutout.

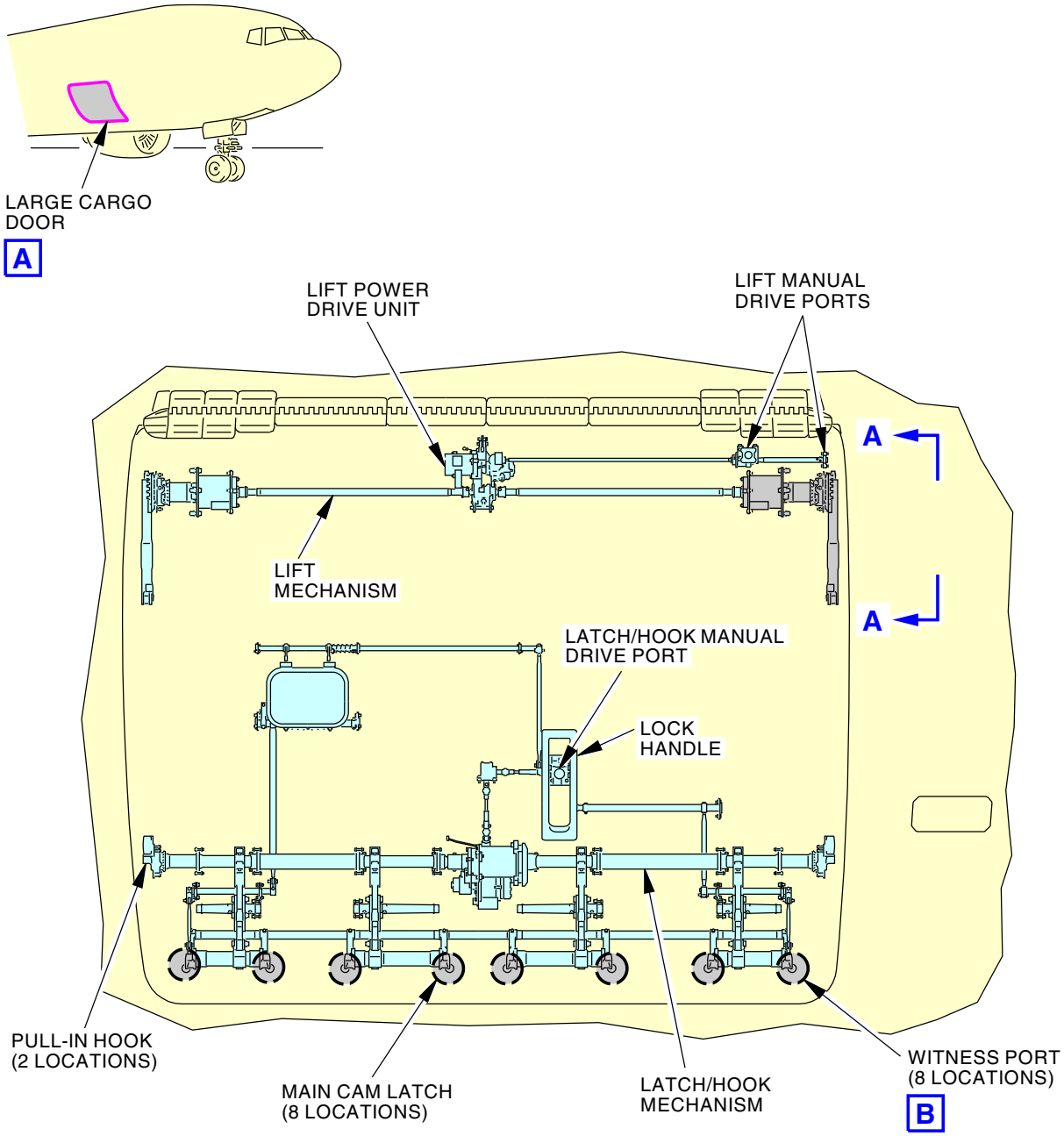
ARO ALL

4) At each witness port, make sure that you can see the yellow latch arrow on the main cam latch point to the yellow target on the main cam latch pin fitting.

(c) Remove the speed wrench or power tool.

END OF TASK

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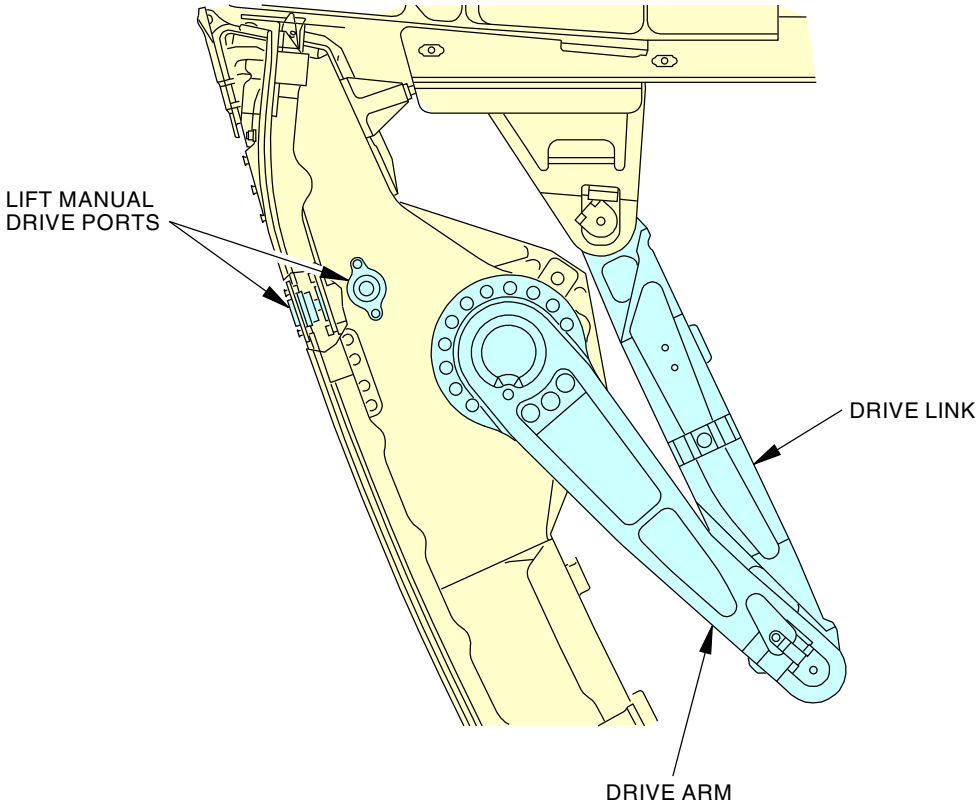
LARGE CARGO DOOR
(EXTERNAL SIDE, STRUCTURE NOT SHOWN)

A

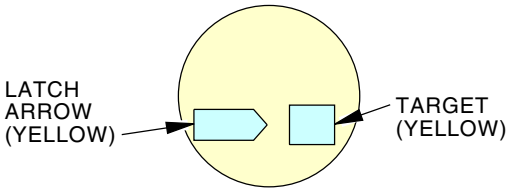
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Lift and Latch/Hook Manual Drives and Lift Power Drive Unit Brake Operational Test
Figure 501/52-34-04-990-802 (Sheet 1 of 2)

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A-A



**WITNESS PORT
(EXAMPLE)**

B

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**Lift and Latch/Hook Manual Drives and Lift Power Drive Unit Brake Operational Test
Figure 501/52-34-04-990-802 (Sheet 2 of 2)**

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LIFT MECHANISM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the drive link.

(2) An installation of the drive link.

(3) A removal of the drive arm.

(4) An installation of the drive arm.

B. The removal and installation procedures for the forward and aft drive links and the forward and aft drive arms are the same.

TASK 52-34-05-000-801

2. Drive Link Removal

(Figure 401)

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Prepare for the Removal

SUBTASK 52-34-05-010-001

(1) Put the door in its vertical, free-hang position.

NOTE: The door is in the free-hang position when the bottom of the door can be freely moved in the open and close directions.

SUBTASK 52-34-05-860-001

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

C. Removal

SUBTASK 52-34-05-020-001

(1) Disconnect the link assembly [6] from the fuselage structure [2] as follows:

(a) Remove the bolt [7], pin [9], washers [8], retainer [10], and lockwire [3] that attach the link assembly [6] to the fuselage structure [2].

SUBTASK 52-34-05-020-002

(2) Disconnect the link assembly [6] from the drive arm [4] as follows:

(a) Remove the bolt [11], pin [13], washers [12], retainer [14], and lockwire [5] that attach the link assembly [6] to the drive arm [4].

(b) Remove the link assembly [6].

END OF TASK

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TASK 52-34-05-400-801

3. Drive Link Installation

(Figure 401)

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

B. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
6	Link assembly	52-34-05-05-110	ARO ALL
9	Pin	52-34-02-02-010	ARO ALL
10	Retainer	52-34-02-02-020	ARO ALL
13	Pin	52-34-05-05-095	ARO ALL
14	Retainer	52-34-05-05-105	ARO ALL

D. Location Zones

Zone	Area
821	Forward Large Cargo Door

E. Installation

SUBTASK 52-34-05-420-001

(1) Connect the link assembly [6] to the drive arm [4] as follows:

(a) Install the bolt [11], pin [13], washers [12], and retainer [14] to attach the link assembly [6] to the drive arm [4].

NOTE: Install the bolt [11] with the head toward the center of the door. Install the retainer [14] under the retainer plate [15].

(b) Tighten the bolt [11] until the head touches the pin [13]. Do not tighten more than the run-on torque.

(c) Make sure the drive arm [4] and link assembly [6] move freely.

(d) Install the lockwire [5].

(e) Lubricate the bolt [11] with the grease, D00633 through the fitting on the link assembly [6].

SUBTASK 52-34-05-420-002

(2) Connect the link assembly [6] to the fuselage structure [2] as follows:

(a) Install the bolt [7], pin [9], washers [8], and retainer [10] to attach the link assembly [6] to the fuselage structure [2].

NOTE: Install the bolt [7] with the head toward the center of the door.

(b) Install the lockwire [3].

(c) Lubricate the bolt [7] with the grease, D00633 through the fitting on the link assembly [6].

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F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-05-860-002

(1) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

G. Installation Test

SUBTASK 52-34-05-710-001

(1) Do a test on the lift mechanism as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

CAUTION DO NOT OPEN AND CLOSE THE DOOR MORE THAN 2 TIMES IN 5 MINUTES. IF YOU DO NOT OBEY THIS CAUTION, THE ELECTRIC MOTOR CAN OVERHEAT. THIS CAN CAUSE DAMAGE TO THE ELECTRIC MOTOR.

(b) Operate the door electrically.

(c) Make sure the drive arms [4] and link assemblies [6] on each side of the door are synchronized with no unusual movement.

(d) Make sure the lift mechanism operates smoothly with no vibration or unusual noise.

——— END OF TASK ———

TASK 52-34-05-000-802

4. Drive Arm Removal

(Figure 401)

A. General

(1) This procedure removes the drive arm and the drive shaft.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1559	Set - Spanner Wrench, AN Standard Type Part #: F72959-XX Supplier: 81205
SPL-1990	Equipment - Fitting, Forward And Aft Large Cargo Door Part #: A52004-101 Supplier: 81205 Opt Part #: A52004-45 Supplier: 81205
SPL-1993	Sling - Assembly, Forward And Aft Large Cargo Door And Small Cargo Door Part #: A52004-43 Supplier: 81205

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C. Location Zones

Zone	Area
821	Forward Large Cargo Door

D. Prepare for the Removal

SUBTASK 52-34-05-010-002

(1) Put the door in its vertical, free-hang position.

NOTE: The door is in the free-hang position when the bottom of the door can be freely moved in the open and close directions.

SUBTASK 52-34-05-860-003

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-34-05-480-001

(3) Install the forward and aft large cargo door fitting equipment, SPL-1990 and forward and aft cargo door sling, SPL-1993 to hold the weight of the door.

E. Removal

SUBTASK 52-34-05-020-003

(1) Disconnect the drive link [6] from the arm assembly [4] as follows:

(a) Remove the bolt [11], pin [13], washers [12], retainer [14], and lockwire [5] that attach the drive link [6] to the arm assembly [4].

SUBTASK 52-34-05-020-004

(2) Remove the arm assembly [4] and shaft [19] as follows:

(a) Bend the tang [18] of the washer [17] away from the slot [20] in the nut [21].

(b) Loosen the nut [21] with the spanner wrench set, SPL-1559.

(c) Pull the arm assembly [4] and shaft [19] from the door structure.

(d) Remove the nut [21], washer [17], and spacer [16].

SUBTASK 52-34-05-020-005

(3) Disconnect the arm assembly [4] from the shaft [19] as follows:

(a) Remove the bolts [22], washers [23], washers [24], and nuts [25] that attach the arm assembly [4] to the shaft [19].

(b) Remove the bolts [26], washers [27], washers [28], and nuts [29] that attach the arm assembly [4] to the shaft [19].

(c) Remove the shaft [19] from the arm assembly [4].

——— END OF TASK ———

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TASK 52-34-05-400-802

5. Drive Arm Installation

(Figure 401)

A. General

(1) This procedure installs the drive arm and the drive shaft.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1559	Set - Spanner Wrench, AN Standard Type Part #: F72959-XX Supplier: 81205
SPL-1990	Equipment - Fitting, Forward And Aft Large Cargo Door Part #: A52004-101 Supplier: 81205 Opt Part #: A52004-45 Supplier: 81205
SPL-1993	Sling - Assembly, Forward And Aft Large Cargo Door And Small Cargo Door Part #: A52004-43 Supplier: 81205

D. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
D00633	Grease - Aircraft General Purpose	BMS3-33
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
4	Arm assembly	52-34-05-05-200	ARO ALL
		52-34-05-05-205	ARO ALL
13	Pin	52-34-05-05-095	ARO ALL
14	Retainer	52-34-05-05-105	ARO ALL
19	Shaft	52-34-05-05-140	ARO ALL

F. Location Zones

Zone	Area
821	Forward Large Cargo Door

G. Installation

SUBTASK 52-34-05-420-003

(1) Attach the arm assembly [4] to the shaft [19] as follows:

(a) Apply the sealant, A00247 to all mating surfaces between the arm assembly [4] and the shaft [19].

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(b) Apply the sealant, A00247 to all mating parts of the bolts [26], washers [27], washers [28], nuts [29], bolts [22], washers [23], washers [24], and nuts [25] that attach the arm assembly [4] to the shaft [19].

(c) Install the bolts [26], washers [27], washers [28], and nuts [29] to attach the arm assembly [4] to the shaft [19].

NOTE: Install the bolts [26] with the heads toward the shaft [19].

(d) Install the bolts [22], washers [23], washers [24], and nuts [25] to attach the arm assembly [4] to the shaft [19].

NOTE: Install the bolts [22] with the heads toward the shaft [19].

(e) Tighten the nuts [25] to 150 ±15 in-lb (17 ±2 N·m).

(f) Tighten the nuts [29] to 80 ±8 in-lb (9 ±1 N·m).

(g) Apply the sealant, A00247 to the ends of the bolts [26] and bolts [22] and their mating parts.

SUBTASK 52-34-05-420-004

(2) Install the arm assembly [4] and shaft [19] as follows:

(a) Move the arm assembly [4] and shaft [19] into the door structure. Do not install the shaft [19] into the rotary actuator [1].

(b) Put the spacer [16], washer [17], and nut [21] on the shaft [19].

(c) Apply the grease, D00633 to the dog teeth of the shaft [19].

(d) Engage the shaft [19] in the output shaft of the rotary actuator [1].

(e) Bend the internal tang of the washer [17] into the slot in the shaft [19] and put the nut [21] on the shaft [19].

(f) Tighten the nut [21] with your hand to prevent free play between the shaft [19] and the bearing inner race.

(g) Use the spanner wrench set, SPL-1559 to tighten the nut [21] to 400-3000 pound-inches.

(h) Tighten the nut [21] to a position that lets one external tang [18] of the washer [17] align with a slot [20] in the nut [21].

(i) Bend the tang [18] on the washer [17] into the slot [20] in the nut [21].

(j) Apply the corrosion inhibiting material, G50136 to the threads and mating surfaces between the nut [21] and washer [17].

SUBTASK 52-34-05-420-005

(3) Connect the drive link [6] to the arm assembly [4] as follows:

(a) Install the bolt [11], pin [13], washers [12], and retainer [14].

NOTE: Install the bolt [11] with the head toward the center of the door. Install the retainer [14] under the retainer plate [15].

(b) Tighten the bolt [11] until the head touches the pin [13]. Do not tighten more than the run-on torque.

(c) Make sure the arm assembly [4] and drive link [6] move freely.

(d) Install the lockwire [5].

(e) Lubricate the bolt [11] with the grease, D00633 through the fitting on the drive link [6].

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H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-05-080-001

(1) Remove the forward and aft large cargo door fitting equipment, SPL-1990 and forward and aft cargo door sling, SPL-1993 from the door.

SUBTASK 52-34-05-860-004

(2) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

I. Installation Test

SUBTASK 52-34-05-710-002

(1) Do a test on the lift mechanism as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

CAUTION DO NOT OPEN AND CLOSE THE DOOR MORE THAN 2 TIMES IN 5 MINUTES. IF YOU DO NOT OBEY THIS CAUTION, THE ELECTRIC MOTOR CAN OVERHEAT.

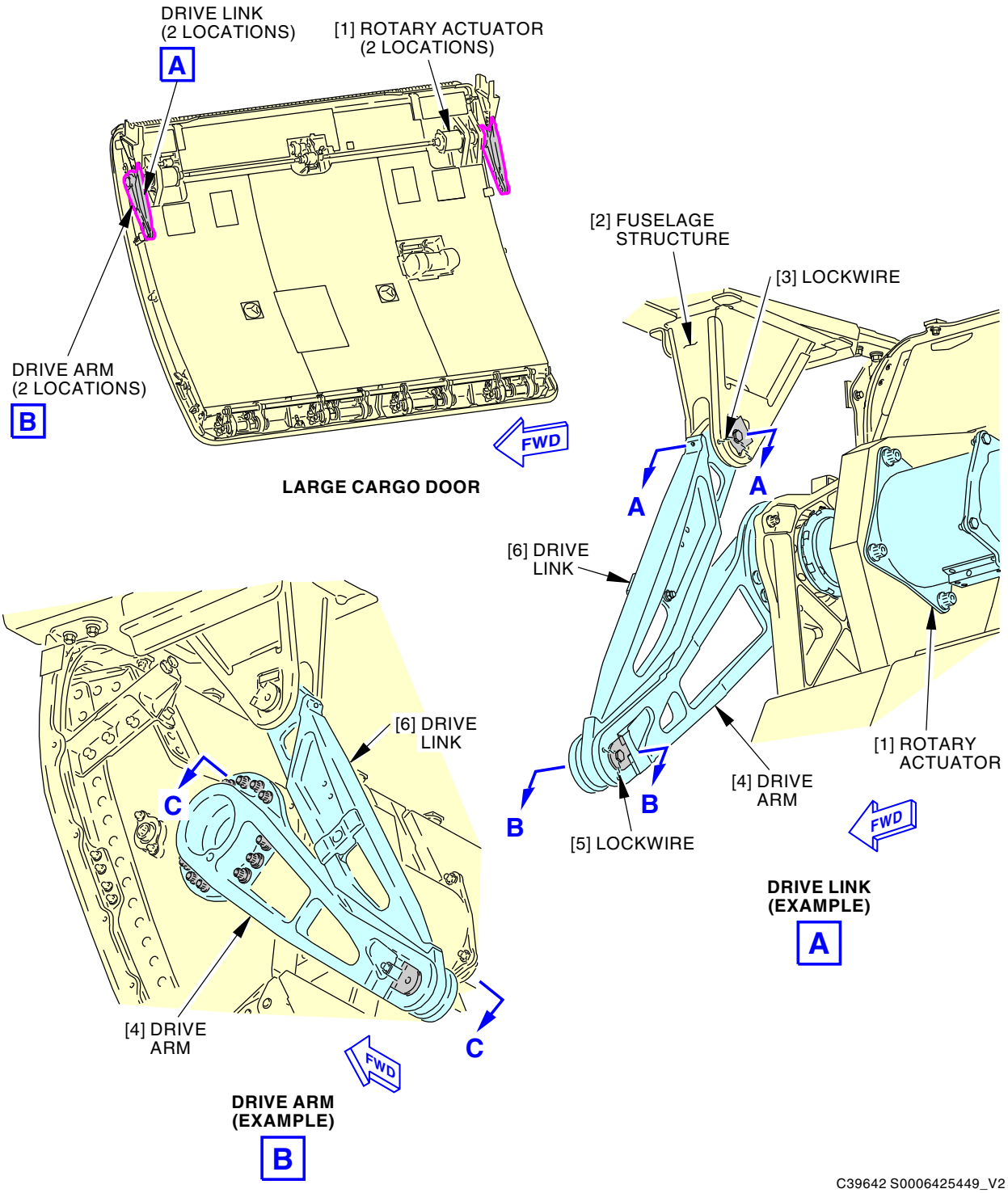
(b) Operate the door electrically.

(c) Make sure the arm assembly [4] and drive links [6] on each side of the door are synchronized with no unusual movement.

(d) Make sure the lift mechanism operates smoothly with no vibration or unusual noise.

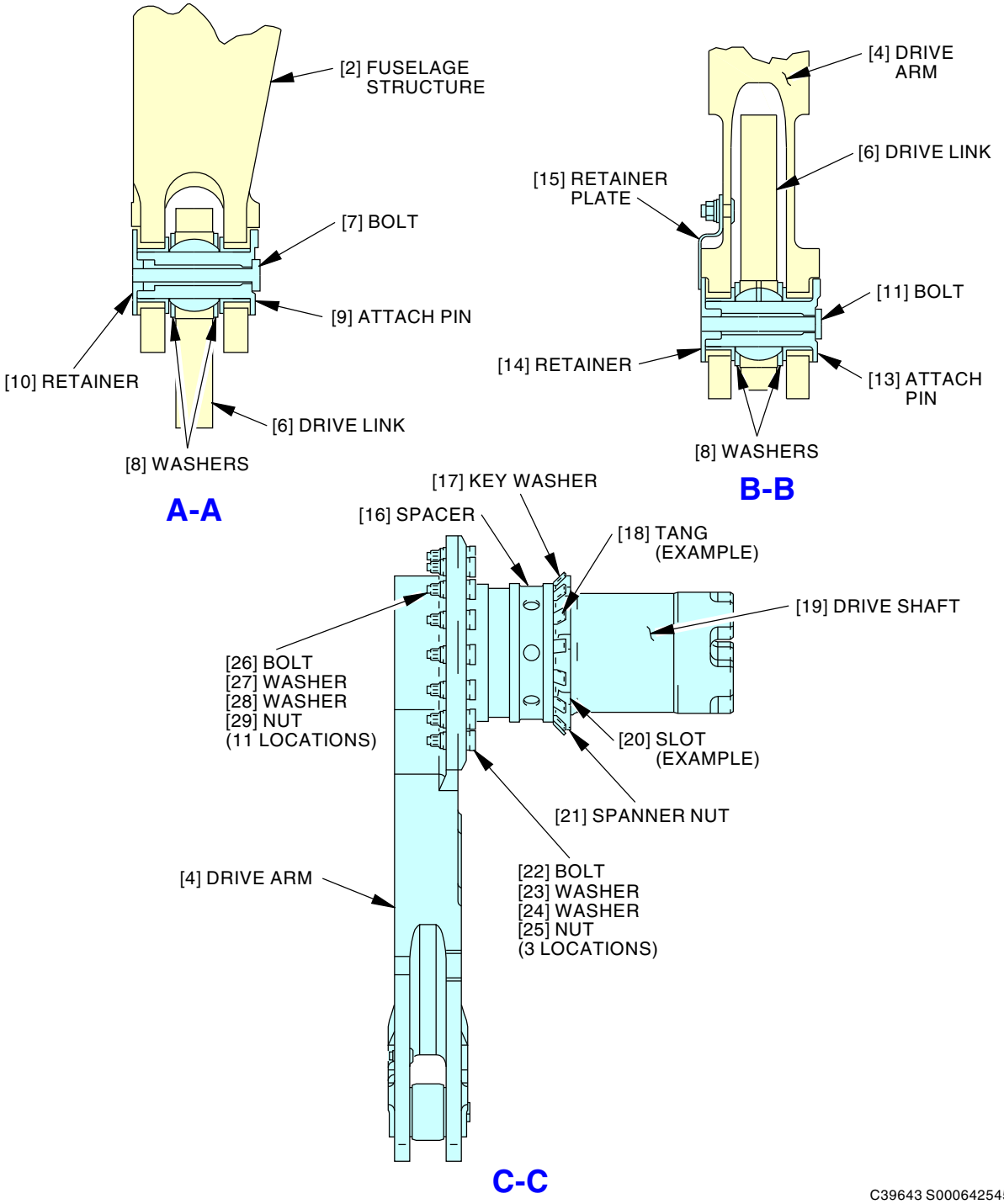
END OF TASK

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Lift Mechanism Installation
Figure 401/52-34-05-990-801 (Sheet 1 of 2)

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Lift Mechanism Installation
Figure 401/52-34-05-990-801 (Sheet 2 of 2)

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LOCK HANDLE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the lock handle.

(2) An installation of the lock handle.

TASK 52-34-06-000-801

2. Lock Handle Removal

(Figure 401)

A. General

(1) Two persons are necessary to do this task: one person on the interior side of the door and one person on the exterior side of the door.

B. Location Zones

Zone	Area
821	Forward Large Cargo Door

C. Prepare for the Removal

SUBTASK 52-34-06-860-001

(1) Put the door in its vertical, free-hang position.

NOTE: The door is in the free-hang position when the bottom of the door can be freely moved in the open and close directions.

SUBTASK 52-34-06-860-002

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-34-06-010-001

(3) Remove the applicable door lining.

D. Removal

SUBTASK 52-34-06-020-001

(1) Disengage the shaft assembly [2] from the shaft assembly [15], and housing [3] as follows:

(a) From the internal side of the door, remove the bolt [11], washer [12], washer [13], and nut [14], that connect the shaft assembly [15] to the shaft assembly [2].

(b) From the external side of the door, remove the bolt [7], washer [8], washer [9], and nut [10] that go through the shaft assembly [2] and the crank [6] on the handle assembly [1].

(c) From the external side of the door, let one person hold the handle assembly [1].

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(d) From the internal side of the door, let one person start to pull the shaft assembly [2] through the housing [3].

NOTE: Pull the shaft assembly [2] out by the stop crank [4]. It may be necessary for the external person to push on the load limiter pawl [5] to release the force on the spring as the shaft assembly [2] is pulled.

(e) From the external side of the door, remove the crank [6] on the handle assembly [1].

(f) From the internal side of the door, continue to pull the shaft assembly [2] out of the housing [3].

SUBTASK 52-34-06-020-002

(2) From the external side of the door, remove the handle assembly [1].

——— END OF TASK ———

TASK 52-34-06-400-801

3. Lock Handle Installation

(Figure 401)

A. General

(1) Two persons are necessary to do this task: one person on the interior side of the door and one person on the exterior side of the door.

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
D00062	Lubricant - Pneumatic System	SAE AMS-G-4343 (NATO G-392)

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
6	Crank	52-34-06-01-130	ARO ALL
15	Shaft assembly	52-34-09-02-155	ARO ALL
16	Crank assembly	52-34-09-02-160	ARO ALL

D. Location Zones

Zone	Area
821	Forward Large Cargo Door

E. Installation

SUBTASK 52-34-06-420-001

(1) Install the handle assembly [1] as follows:

(a) From the external side of the door, let one person hold the handle assembly [1] in its correct position.

(b) Lubricate the packings [21] of the shaft assembly [2] with the lubricant, D00062.

(c) From the internal side of the door, let one person push the shaft assembly [2] through the housing [3].

NOTE: Push the shaft assembly [2] in by the stop crank [4].

(d) From the external side of the door, install the crank [6] on the shaft assembly [2].

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(e) Align the mark and holes on the crank [6] with the mark and holes on the shaft assembly [2].

(f) Install the bolt [7], washer [8], washer [9], and nut [10] that go through the shaft assembly [2] and the crank [6] on the handle assembly [1].

(g) Tighten the nut [10] to 5-15 pound-inches more than the run-on torque.

SUBTASK 52-34-06-420-002

(2) Engage the shaft assembly [2] with the housing [3] and the shaft assembly [15] as follows:

(a) Remove the bolt [17], washer [18], washer [19], and nut [20] that attach the crank assembly [16] to the shaft assembly [15] at the forward end of the shaft assembly [15].

NOTE: This allows forward movement of the shaft assembly [15] to install the shaft assembly [2].

(b) Apply the sealant, A00247 to the mating surfaces of the bolt [11] and shaft assembly [15].

(c) Install the bolt [11], washer [12], washer [13], and nut [14] to connect the shaft assembly [15] to the shaft assembly [2].

(d) Apply the sealant, A00247 to the mating surfaces of the bolt [17] and crank assembly [16].

(e) Install the bolt [17], washer [18], washer [19], and nut [20] to attach the crank assembly [16] to the shaft assembly [15] at the forward end of the shaft assembly [15].

(f) Tighten the nut [14] and bolt [17] to 5-15 pound-inches more than the run-on torque.

F. Installation Test

SUBTASK 52-34-06-720-001

(1) Do a test on the lock handle as follows:

(a) Close, latch and lock the door.

(b) Open the lock handle and do this check:

1) Make sure the vent door opens when the lock handle opens.

(c) Make sure the UNLOCKED shows adjacent and parallel to the door skin on each side of the lock handle.

(d) At each witness port, make sure you cannot see the yellow circle on the lock pawl.

(e) Close the lock handle.

(f) Make sure the lock handle and catch release lever are flush with the door skin.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-06-410-001

(1) Install the door lining.

SUBTASK 52-34-06-860-003

(2) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

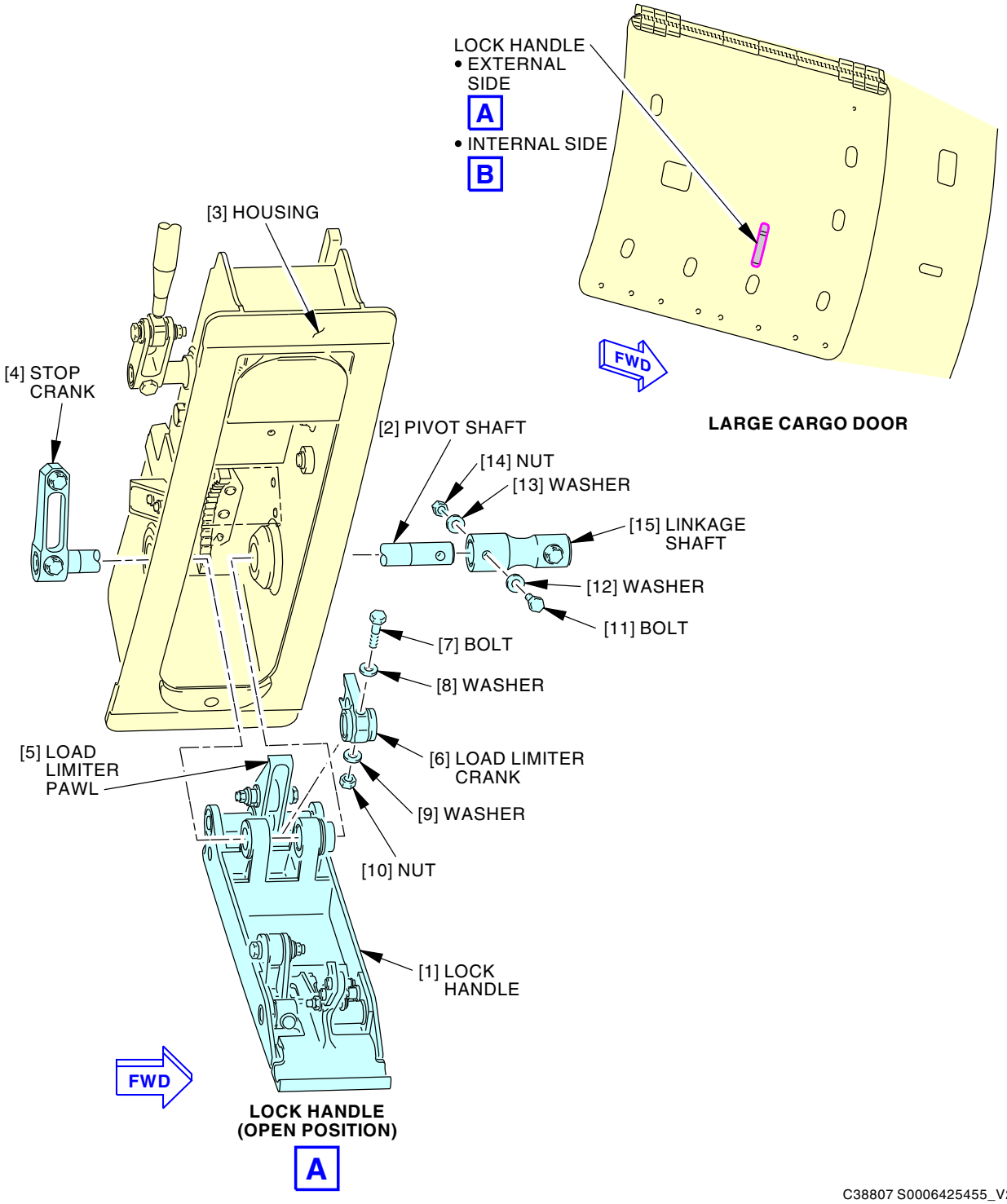
Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

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END OF TASK

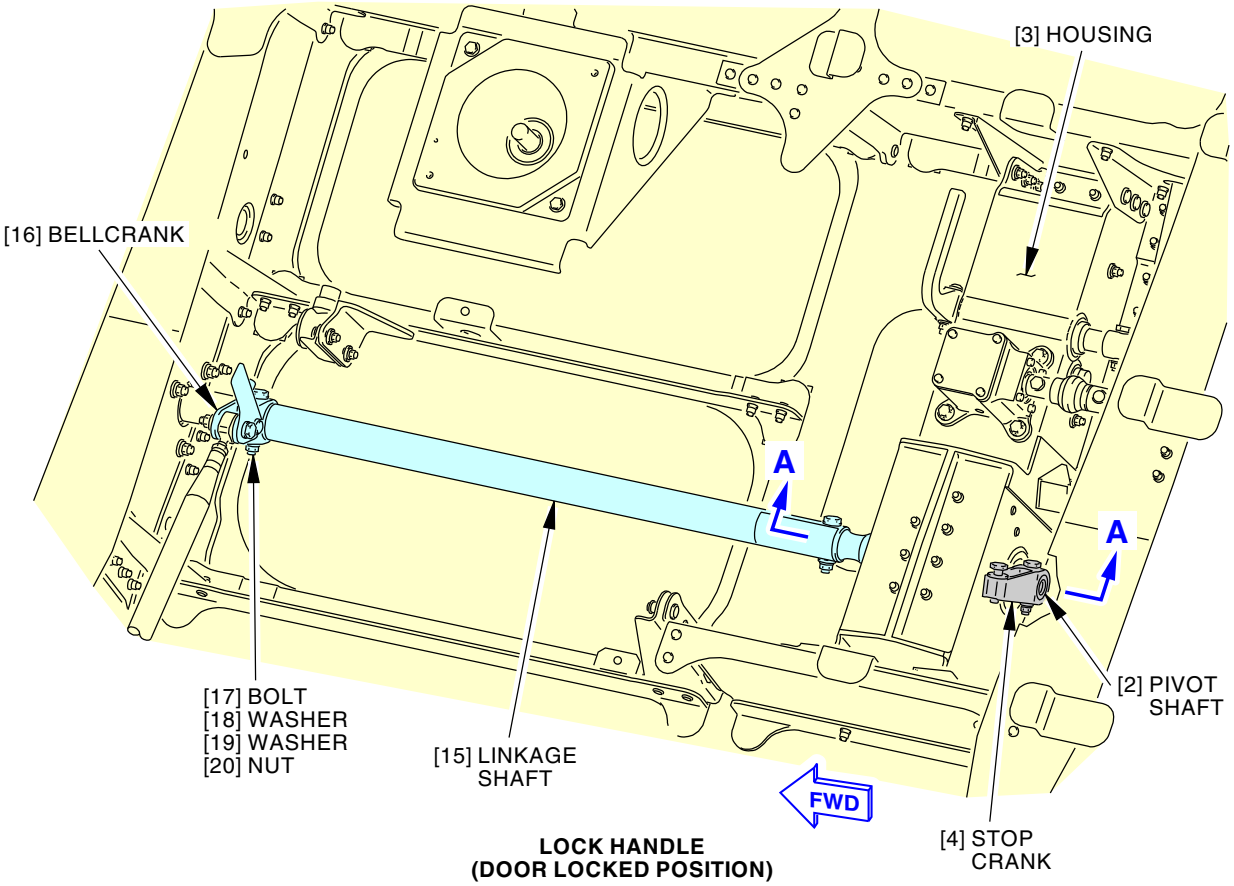
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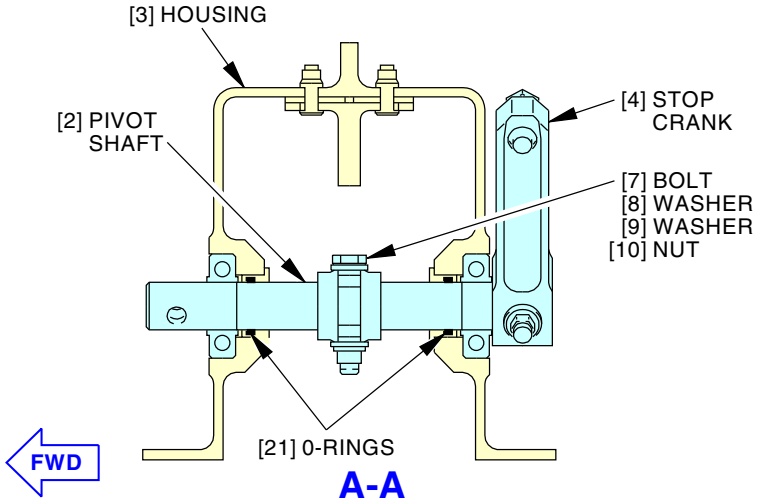
C38807 S0006425455_V2

Lock Handle Installation
Figure 401/52-34-06-990-801 (Sheet 1 of 2)

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LOCK HANDLE (DOOR LOCKED POSITION)



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Lock Handle Installation
Figure 401/52-34-06-990-801 (Sheet 2 of 2)

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LOCK HANDLE - ADJUSTMENT/TEST

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) An functional test of the large cargo door lock handle load limiter.

TASK 52-34-06-720-801

2. Large Cargo Door Lock Handle Load Limiter Functional Test

(Figure 501)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is a functional test of the large cargo door lock handle load limiter.

B. Tools/Equipment

Reference	Description
STD-756	Scale - Spring, 0 to 100 lbs. (0 to 45.36 kg), Compression
STD-1183	Restricter - Lock Pawl, Wood, 1.5 by 1.5 by 3.0 Inches
STD-1184	Scale - Spring, 0-100 Lbs, Tension

C. Location Zones

Zone	Area
821	Forward Large Cargo Door

D. Procedure

SUBTASK 52-34-06-720-002

(1) Load Limiter Test

(a) Open the door a small distance to get access to the bottom of the door.

(b) Turn the latch/hook manual drive to the fully latched position.

(c) Close the lock handle.

(d) Install the 1.5 by 1.5 by 3.0 Inches wood lock pawl restricter, STD-1183 at the No. 8 lock pawl between the outboard side of the lock pawl and the door structure Figure 502.

NOTE: You can hold the tool in this position with tape.

(e) Pull the lock handle slowly open until it stops.

(f) Make sure that the 1.5 by 1.5 by 3.0 Inches wood lock pawl restricter, STD-1183 is in the correct position.

(g) Put a spring scale (0-100 Lbs), STD-1184 on the catch release lever of the lock handle and pull the lock handle perpendicular to its surface in the open direction.

(h) Increase the force on the lock handle until the load limiter engages and jams the handle. Do these checks:

1) Make sure the load limiter jams at 35-60 pounds.

2) Make sure the pawl in the lock handle fully engages the mating teeth in the handle housing.

(i) Increase the force on the lock handle to 90 pounds. Do this check:

1) Make sure there is no lock handle movement.

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(j) Release the force and remove the spring scale (0-100 Lbs), STD-1184.

(k) Make sure the load limiter releases.

NOTE: You can tap the handle with your hand to release the load limiter pawl.

(l) Close the lock handle.

(m) Remove the 1.5 by 1.5 by 3.0 Inches wood lock pawl restricter, STD-1183 from the No. 8 lock pawl.

(n) Open the lock handle.

(o) Install the 1.5 by 1.5 by 3.0 Inches wood lock pawl restricter, STD-1183 on top of the No. 8 main cam latch and put fully forward against the step on the cam latch.

(p) Push the lock handle slowly closed until it stops.

(q) Make sure the lock pawl restricter is in the correct position.

(r) Put a compression spring scale (0 to 100 lbs. (0 to 45.36 kg), STD-756 0.50 inch from the top of the outer side of the lock handle and push the lock handle perpendicular to its surface in the close direction.

(s) Increase the force on the lock handle until the load limiter engages and jams the handle. Do these checks:

1) Make sure the load limiter jams at 40-65 pounds.

2) Make sure the pawl in the lock handle fully engages the mating teeth in the handle housing.

(t) Increase the force on the lock handle to 100 pounds. Do this check:

1) Make sure there is no lock handle movement.

(u) Release the force and remove the compression spring scale (0 to 100 lbs. (0 to 45.36 kg), STD-756.

(v) Make sure the load limiter releases.

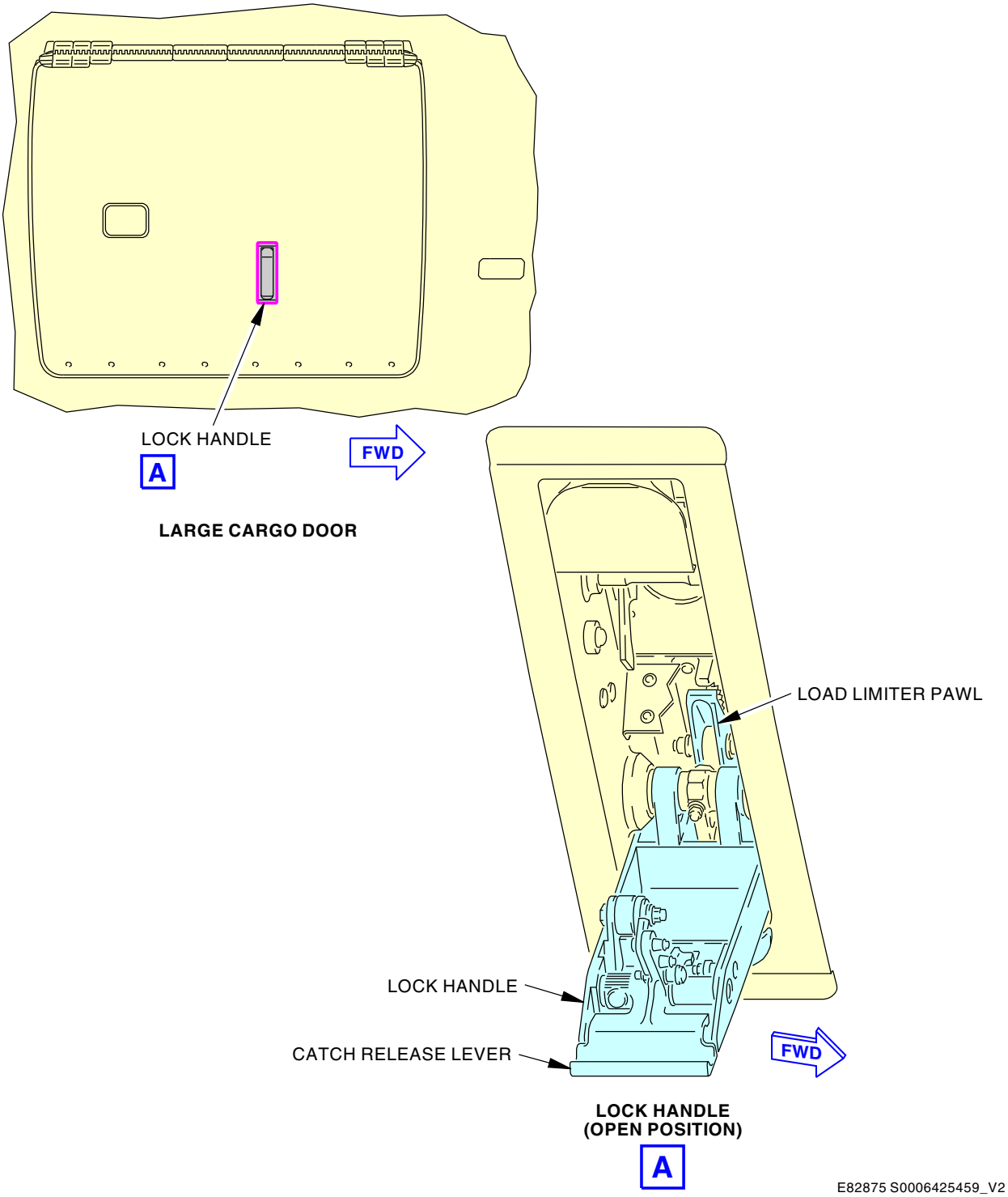
NOTE: You can tap the handle with your hand to release the load limiter pawl.

(w) Remove the 1.5 by 1.5 by 3.0 Inches wood lock pawl restricter, STD-1183 from the No. 8 main cam latch.

(x) Turn the latch/hook manual drive to the unlatched position.

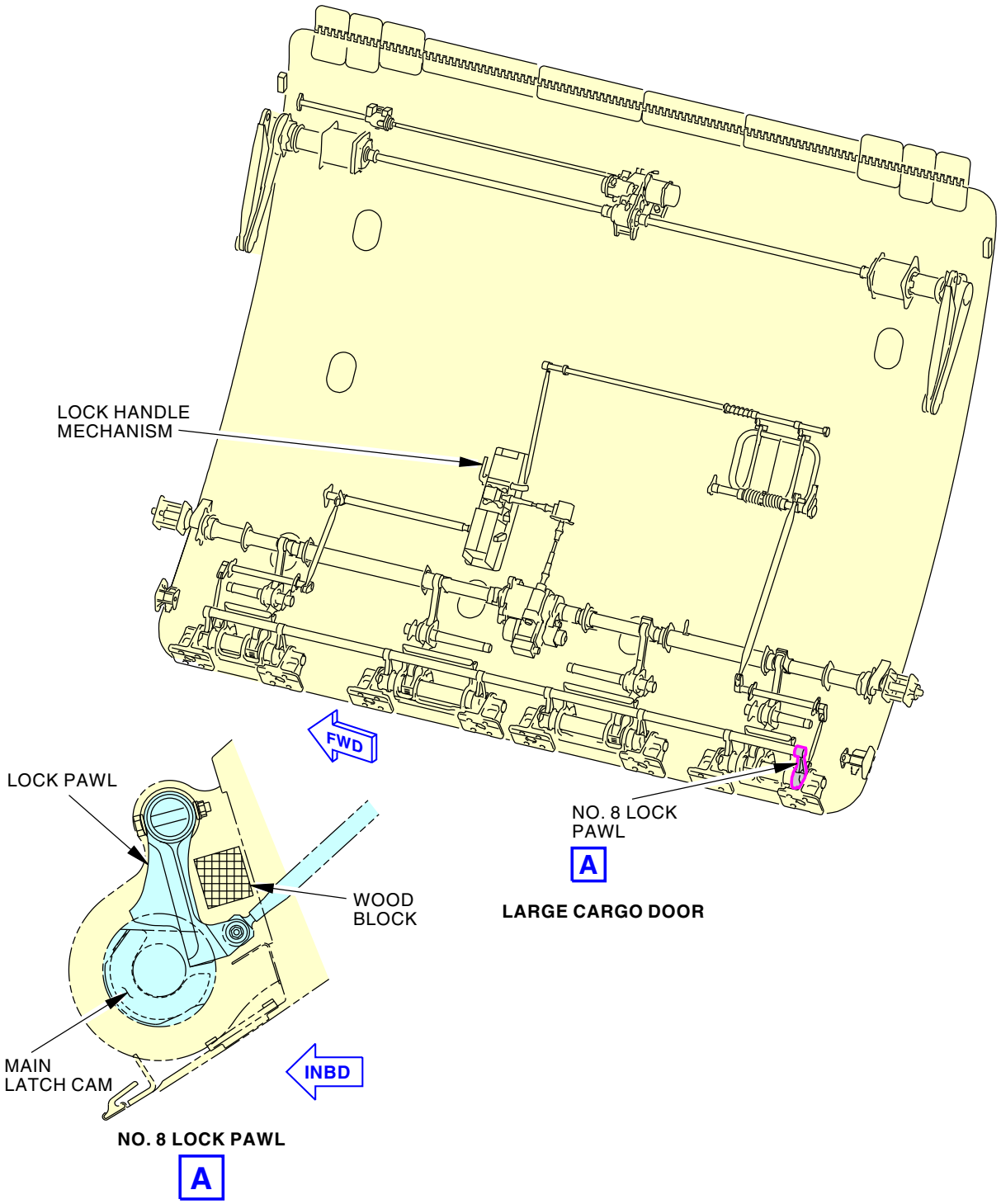
——— END OF TASK ———

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Lock Handle Load Limiter Functional Test
Figure 501/52-34-06-990-802

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Lock Handle Load Limiter - Wood Block Installation
Figure 502/52-34-06-990-803

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VENT DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the vent door.

(2) An installation of the vent door.

TASK 52-34-08-000-801

2. Vent Door Removal

(Figure 401)

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Prepare for the Removal

SUBTASK 52-34-08-010-001

(1) Open the door sufficiently to get access to the door assembly [2].

SUBTASK 52-34-08-860-001

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-34-08-010-002

(3) Get acess to the door assembly [2] as follows:

(a) Remove the applicable door lining.

CAUTION

ONLY REMOVE THE WASHERS AND NUTS THAT ATTACH THE SHROUD TO THE DOOR STRUCTURE. DO NOT REMOVE THE BOLTS. DAMAGE TO THE DOOR STRUCTURE CAN OCCUR.

(b) Remove the washers [4] and nuts [5] that attach the shroud [1] to the door structure.

(c) Remove the shroud [1].

C. Removal

SUBTASK 52-34-08-020-001

(1) Disconnect the pushrod [28] from the door assembly [2] as follows:

(a) Make sure the lock handle is unlocked and the door assembly [2] is open.

(b) Remove the bolt [16], washer [17], washer [19], bushing [18], and nut [20] that attach the pushrod [28] to the bellcrank [21].

(c) Remove the bolt [29], washer [30], washer [31], and nut [32] that attach the bellcrank [21] to the shaft [26].

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SUBTASK 52-34-08-020-002

(2) Disengage the shaft [26] from the door assembly [2] and door structure [37] as follows:

WARNING BE CAREFUL WHEN YOU REMOVE THE FASTENER THAT ATTACHES THE OPENING SPRING TO THE SHAFT. WHEN THE FASTENER IS REMOVED, THE OPENING SPRING WILL TURN AND INJURY CAN OCCUR.

(a) Remove the bolt [8], washer [9], washer [10], washer [48], washer [50], bushing [49], and nut [11] that attach the spring [43] to the shaft [26].

(b) Remove the bolt [22], washer [23], washer [24], and nut [25] that attach the stop crank [27] to the shaft [26].

(c) Remove the bolts [12], washers [13], washers [14], and nuts [15] that go through the shaft [26].

(d) Remove the bolt [33], washer [34], washer [35], and nut [36] that go through the shaft [26] at the forward end.

(e) Remove the bolts [38], bolts [51], washers [39], washers [40], washers [52], nuts [41], and nuts [53] that attach the bearing housings [42] to the forward and aft door structure [37].

(f) Pull the shaft [26] aft from the door assembly [2].

(g) Remove the spring [43] from the shaft [26].

(h) Remove the bellcrank [21] from the shaft [26].

(i) Remove the stop crank [27] from the shaft [26].

SUBTASK 52-34-08-020-003

(3) Remove the door assembly [2] from the door structure [37].

——— END OF TASK ———

TASK 52-34-08-400-801

3. Vent Door Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I
D00633	Grease - Aircraft General Purpose	BMS3-33
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Door assembly	52-34-08-03-200	ARO ALL

C. Location Zones

Zone	Area
821	Forward Large Cargo Door

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D. Installation

SUBTASK 52-34-08-210-001

(1) Do a check on the vent door seal as follows:

(a) Make sure there is no damage or deterioration of the seal and that it is tightly bonded to the door assembly [2].

(b) If you find damage to the seal, replace the seal.

SUBTASK 52-34-08-420-001

(2) Put the door assembly [2] in the center of the opening.

SUBTASK 52-34-08-420-002

(3) Engage the shaft [26] with the door assembly [2] and the door structure [37] as follows:

(a) Apply the grease, D00633 to the mating surfaces of the shaft [26] and the bearing [47] in the bearing housings [42].

(b) Push the shaft [26] forward through the aft opening in the door structure [37].

(c) Apply the corrosion inhibiting material, G50136 to the mating surfaces of shaft [26] and the stop crank [27] and bellcrank [21].

(d) Put the stop crank [27] on the shaft [26].

(e) Put the bellcrank [21] for the pushrod [28] on the shaft [26].

(f) Put the spring [43] on the shaft [26].

(g) Push the shaft [26] forward through the forward opening in the door structure [37].

(h) Apply the corrosion inhibiting material, G50136 to all the mating surfaces of the bolts [38], bolts [51], washers [39], washers [40], washers [52], nuts [41], and nuts [53] that attach the bearing housings [42] to the door structure [37].

(i) Install the bolts [38], bolts [51], washers [39], washers [40], washers [52], nuts [41], and nuts [53] to attach the bearing housings [42] to the door structure [37].

(j) Install the bolt [33], washer [34], washer [35], and nut [36] that go through the shaft [26] at the forward end.

(k) Apply the sealant, A00247 to the mating surfaces of the bolts [12] and door assembly [2].

(l) Install the bolts [12], washers [13], washers [14], and nuts [15] that go through the shaft [26].

(m) Apply the sealant, A00247 to the mating surfaces of the bolt [22] and stop crank [27].

(n) Install the bolt [22], washer [23], washer [24], and nut [25] to attach the stop crank [27] to the shaft [26].

(o) Install the bolt [8], washer [9], washer [10], washer [48], washer [50], bushing [49], and nut [11] to attach the spring [43] to the shaft [26].

(p) Tighten all the nut [11], nuts [15], nut [25], and nut [36] to10 ±5 in-lb (1 ±1 N·m) more than the run-on torque.

SUBTASK 52-34-08-420-003

(4) Connect the pushrod [28] to the door assembly [2] as follows:

(a) Apply the sealant, A00247 to the mating surfaces of the bolt [29] and bellcrank [21].

(b) Install the bolt [29], washer [30], washer [31], and nut [32] to attach the bellcrank [21] to the shaft [26].

(c) Tighten the nut [32] to 10 ±5 in-lb (1 ±1 N·m) more than the run-on torque.

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(d) Install the bolt [16], washer [17], washer [19], bushing [18], and nut [20] to attach the pushrod [28] to the bellcrank [21].

SUBTASK 52-34-08-820-001

(5) Adjust the door assembly [2] as follows:

(a) Make sure the door assembly [2] is in the center of the opening.

(b) Add or remove laminations of shim [44] to get a total clearance of 0.005-0.015 inch between the bearing [47] and shoulder [45] on the shaft [26] or between the bearing [47] and sleeve [46] on the shaft [26].

(c) Push the top of the door assembly [2] outboard against the intercostal [7] with your hand.

NOTE: This compresses the seal.

(d) Make sure the upper edge of the door assembly [2] is aligned with door skin ±0.01 inch. If it is necessary, adjust as follows:

1) Add or remove laminations of shim [6] on the intercostal [7] to align the upper edge of the door assembly [2] with the door skin.

(e) Apply one coat of the primer, C00259 to the bare laminations of shim [6] and shim [44] before you install.

E. Installation Test

SUBTASK 52-34-08-710-001

(1) Do a test on the door assembly [2] as follows:

(a) Close, latch and lock the door.

(b) Open the lock handle and do these checks:

1) Make sure the vent door and lock mechanism open quickly when the lock handle opens.

2) Make sure the interlock pawls do not interfere with the vent door as it opens.

(c) Make sure the vent door is fully open and the vent door stop bolt touches the stop.

(d) Close the lock handle.

(e) Push the vent door fully closed with your hand and do this check:

NOTE: The seal can cause the door to not fully close until the airplane is pressurized.

1) Make sure the vent door seal fully touches the door around the vent door.

(f) Release the vent door.

(g) Make sure the vent door is flush with the cargo door skin within 1.0 in. (25.4 mm).

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-08-410-001

(1) Close access to the door assembly [2] as follows:

(a) Install the washer [4] and nuts [5] to attach the shroud [1] to the door structure.

(b) Install the door lining.

SUBTASK 52-34-08-860-002

(2) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

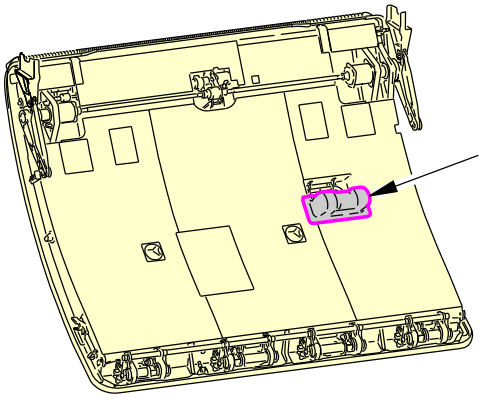
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Ground Service/Handling Power Panel, P320

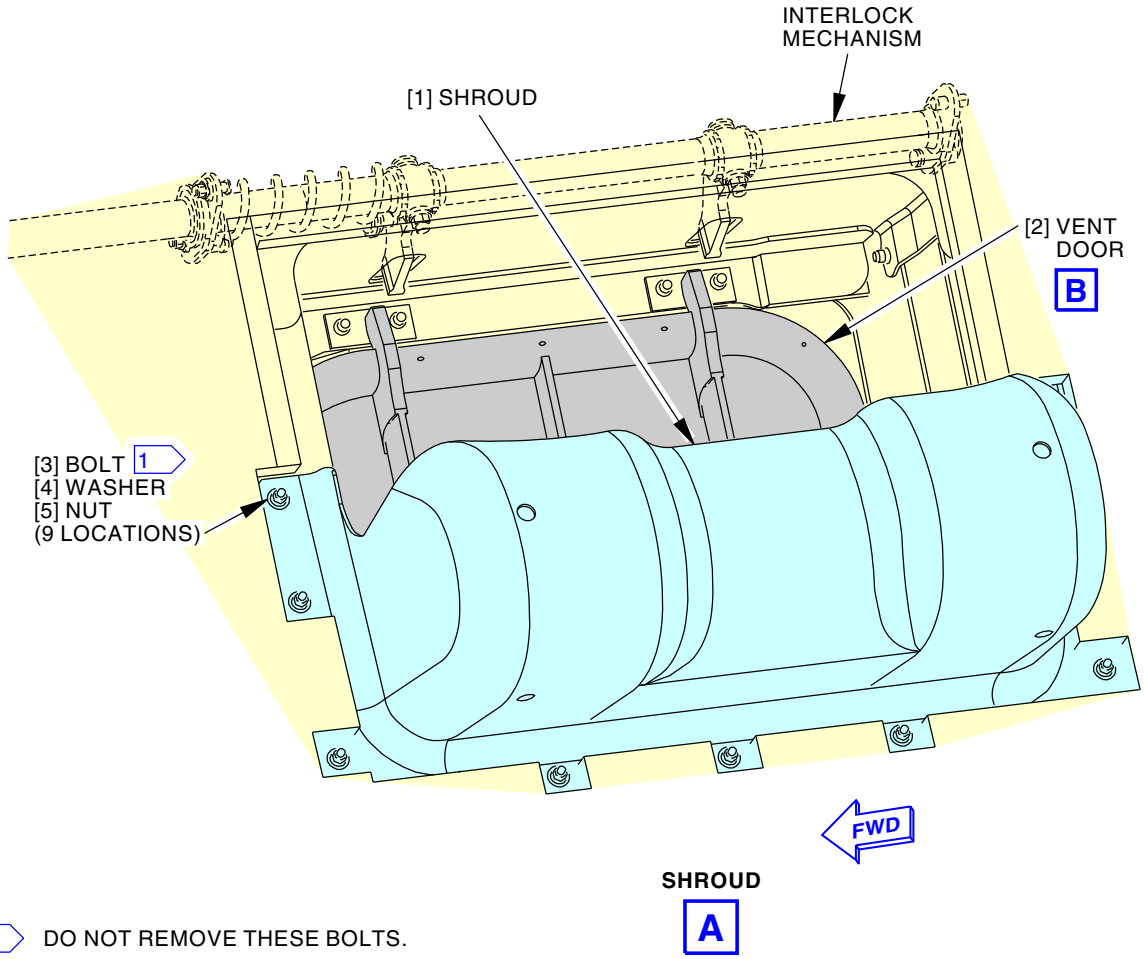
Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

END OF TASK

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LARGE CARGO DOOR



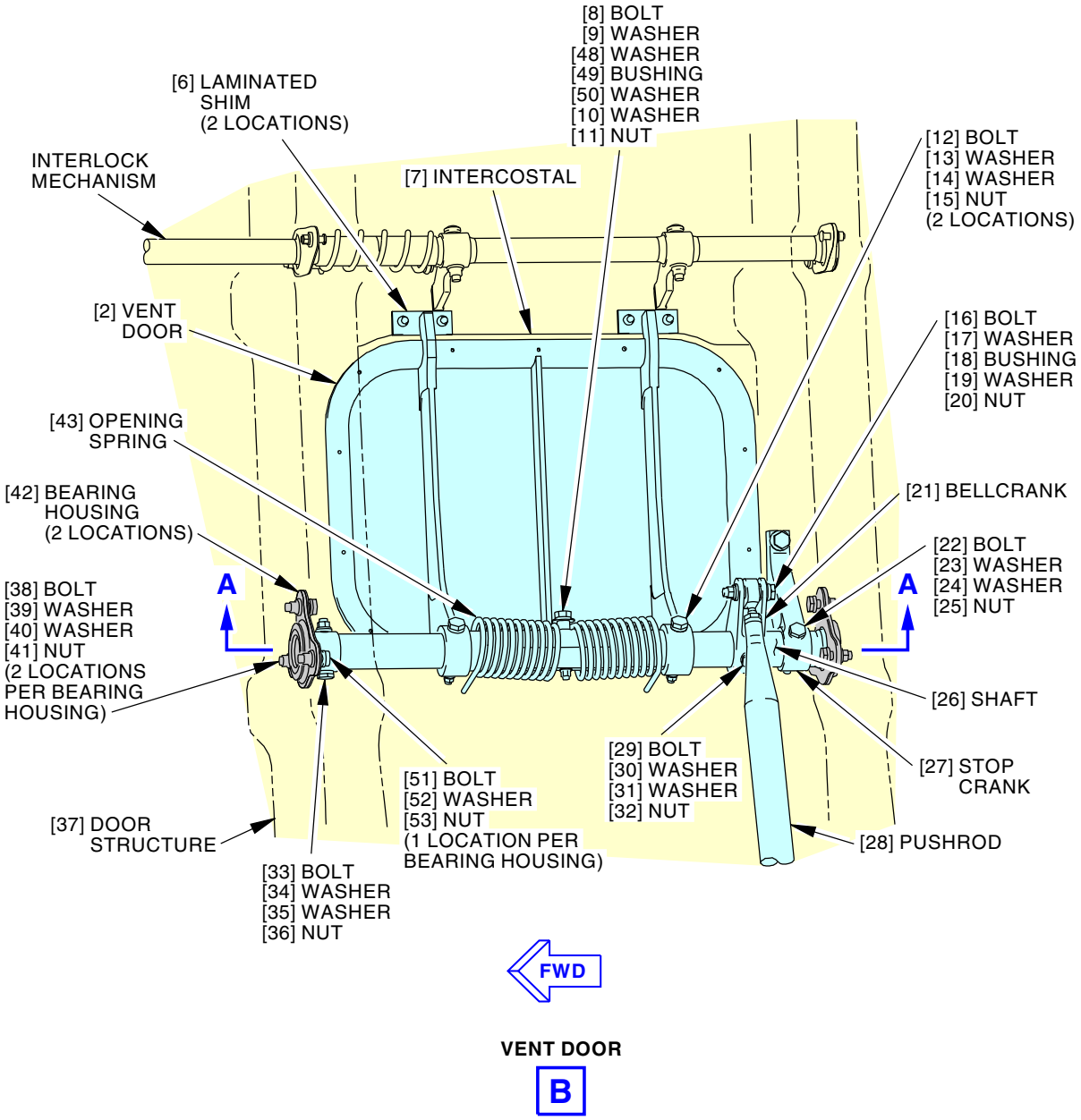
SHROUD
A

1 DO NOT REMOVE THESE BOLTS.

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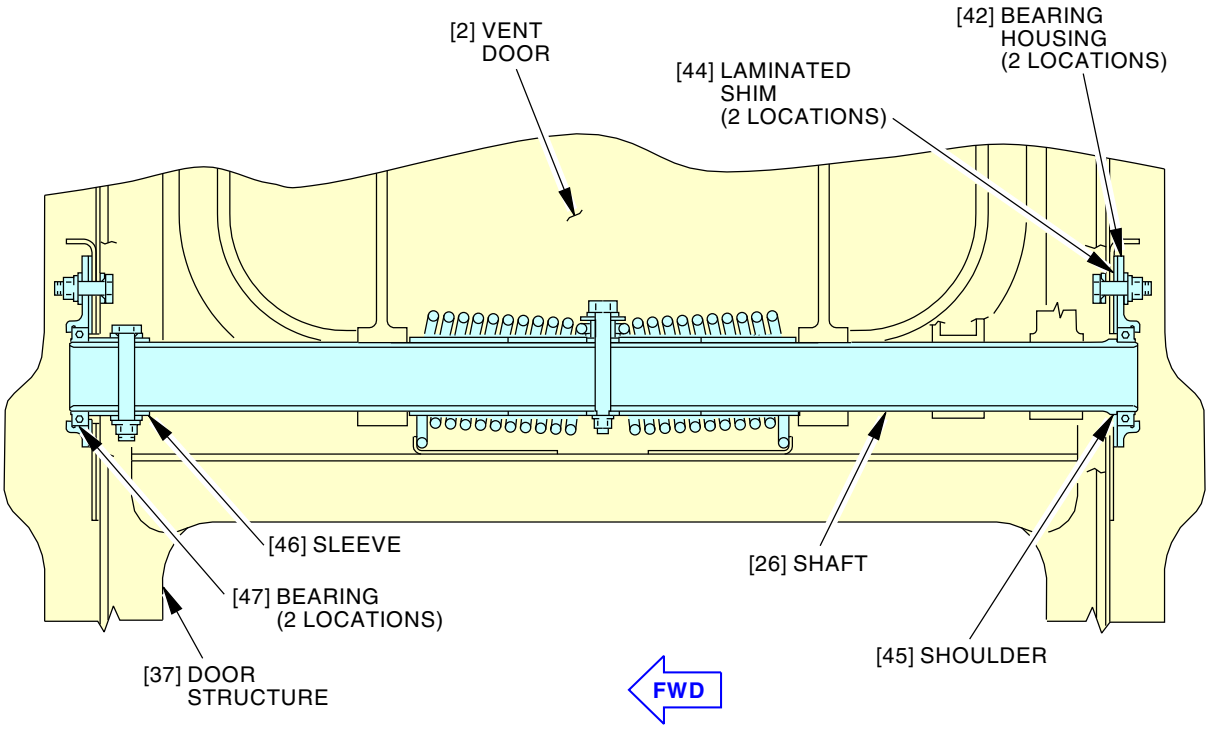
Vent Door Installation
Figure 401/52-34-08-990-801 (Sheet 1 of 3)

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Vent Door Installation
Figure 401/52-34-08-990-801 (Sheet 2 of 3)

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Vent Door Installation
Figure 401/52-34-08-990-801 (Sheet 3 of 3)

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VENT DOOR - ADJUSTMENT/TEST

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) An operational check of the vent door interlock mechanism.

(2) An operational check of the vent door seal.

TASK 52-34-08-710-801

2. Large Cargo Door Vent Door Interlock Mechanism Operational Test

(Figure 501)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an operational test of the large cargo door vent door interlock mechanism.

B. Location Zones

Zone	Area
821	Forward Large Cargo Door

C. Procedure

SUBTASK 52-34-08-720-001

(1) Interlock Mechanism Test

(a) Make sure the door is closed, latched and locked.

(b) Push on the top center of the outer side of the vent door perpendicular to its surface in the open direction. Do these checks:

1) Make sure the vent door touches the interlock pawls and its movement inboard is stopped (approximately 25 pounds).

2) Increase the force on the vent door.

3) Make sure the vent door does not move inboard (approximately 50 pounds).

(c) Release the force.

(d) Open the lock handle slowly and do these checks:

1) Make sure the vent door opens when the lock handle opens.

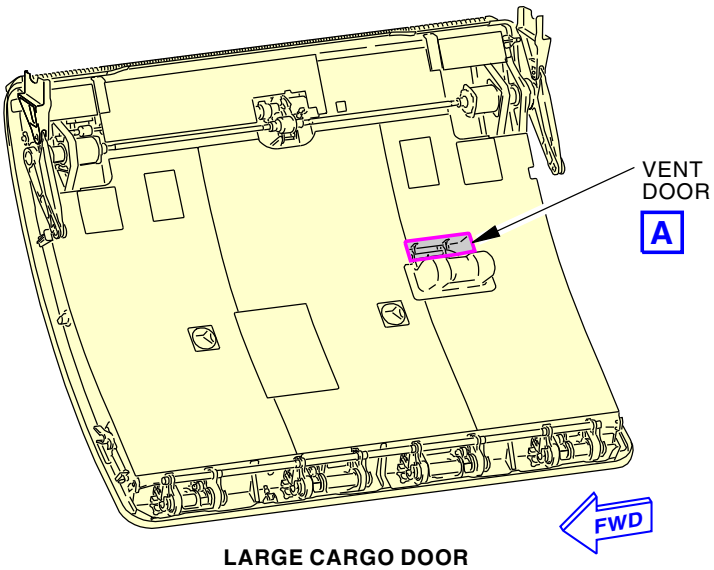
2) Make sure the interlock pawls do not touch the vent door.

3) Make sure the UNLOCKED shows adjacent and parallel to the door skin on each side of the lock handle.

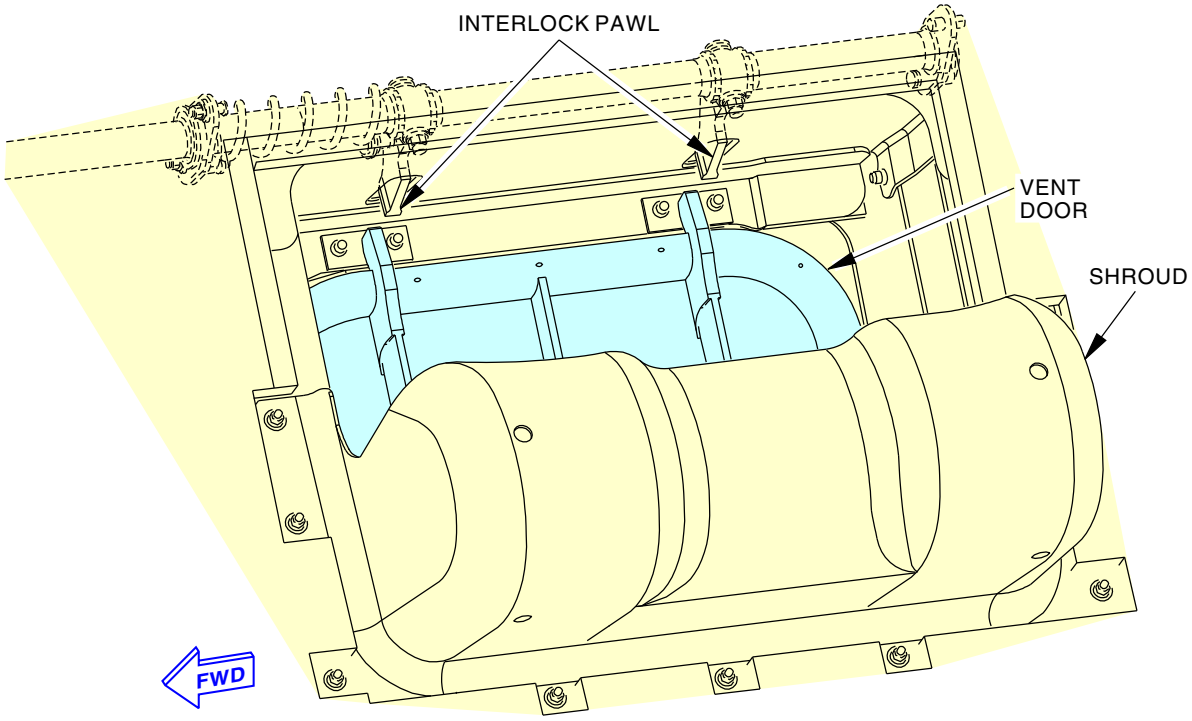
(e) Make sure the interlock cam lever in the lock handle housing turns freely inboard and outboard.

——— END OF TASK ———

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LARGE CARGO DOOR
(INTERNAL SIDE)

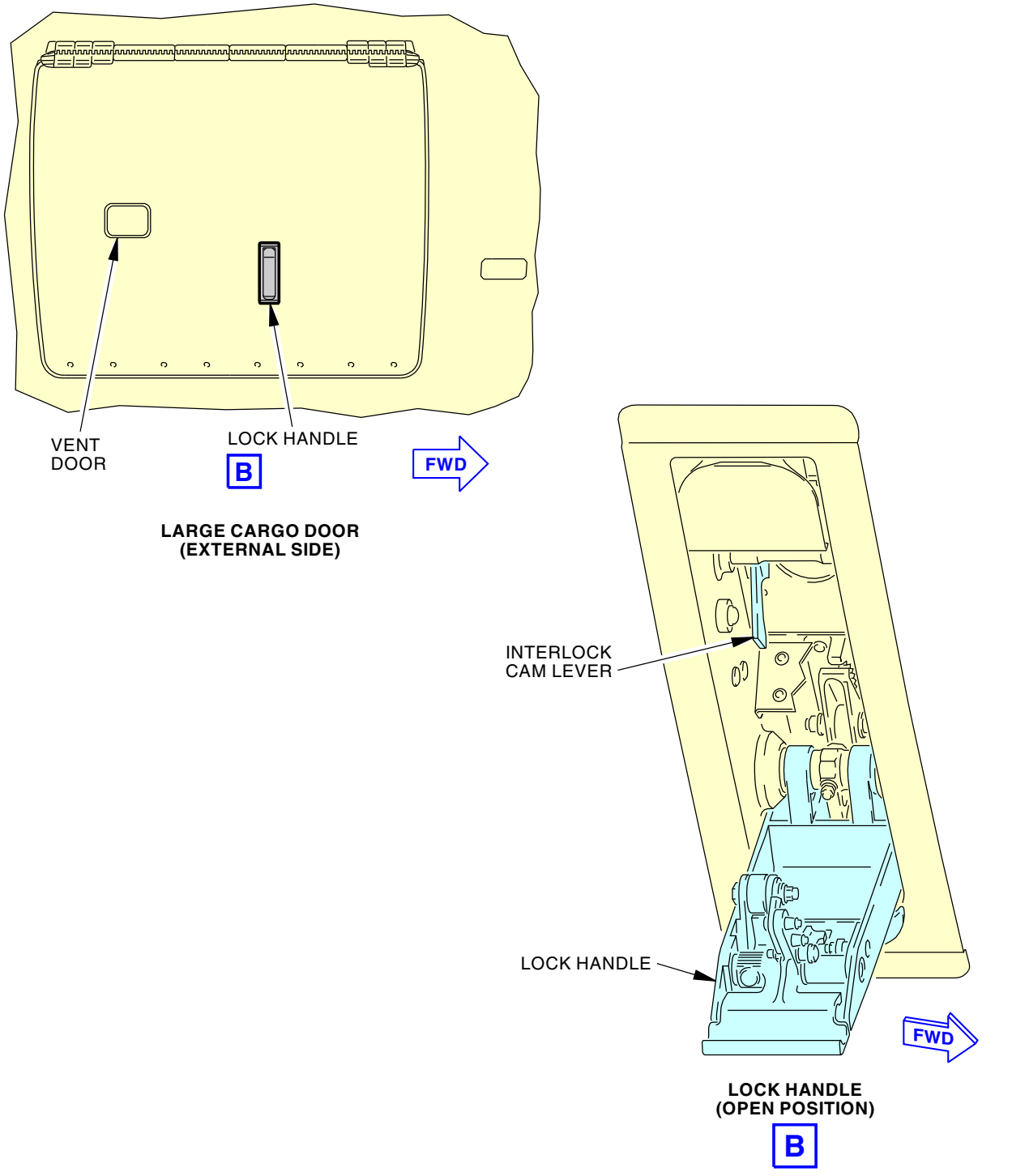


VENT DOOR
A

E82876 S0006425469_V2

Vent Door Operational Test
Figure 501/52-34-08-990-802 (Sheet 1 of 2)

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Vent Door Operational Test
Figure 501/52-34-08-990-802 (Sheet 2 of 2)

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TASK 52-34-08-710-802

3. Large Cargo Door Vent Seal Operational Test

Figure 501

A. General

(1) This task is an operational test of the vent door seal on the large cargo door.

B. Location Zones

Zone	Area
821	Forward Large Cargo Door

C. Procedure

SUBTASK 52-34-08-710-002

(1) Vent Door Seal Test

(a) Make sure that the door is closed, latched and locked.

(b) Push the vent door fully closed with your hand and do this check:

NOTE: The seal can cause the door to not fully close until the airplane is pressurized.

1) Make sure that the vent door seal fully touches the door around the vent door.

(c) Release the vent door.

(d) Make sure that the vent door is flush with the cargo door skin within 1.0 in. (25.4 mm).

——— END OF TASK ———

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LATCH/HOOK POWER DRIVE UNIT (PDU) - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the latch/hook power drive unit.

(2) An installation of the latch/hook power drive unit.

TASK 52-34-10-000-801

2. Latch/Hook Power Drive Unit Removal

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Prepare for the Removal

SUBTASK 52-34-10-010-001

(1) Open the door sufficiently to get access to the latch/hook PDU [4].

SUBTASK 52-34-10-860-001

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-34-10-010-002

(3) Remove the applicable door lining.

C. Removal

SUBTASK 52-34-10-020-001

(1) Disconnect the latch/hook manual drive shaft [5] as follows:

(a) Remove the bolt [12], washer [13], washer [14], and nut [15] that attach the latch/hook manual drive shaft [5] to the latch/hook PDU [4].

(b) Disengage the latch/hook manual drive shaft [5] from the splines of the latch/hook manual drive intermediate gearbox [6].

(c) Remove the latch/hook manual drive shaft [5].

SUBTASK 52-34-10-020-002

(2) Disconnect the latch/hook torque tubes [2] from the latch/hook PDU [4] as follows:

(a) Remove the bolt [17], washer [18], washer [19], and nut [20] that go through the latch/hook torque tube [2] on the aft side of the latch/hook PDU [4].

(b) Remove the bolt [24], washer [25], washer [26], washer [27], and nut [28] that go through the bellcrank [21] on the aft side of the latch/hook PDU [4].

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(c) Remove the bolt [30], washer [31], and nut [32] that go through the coupling [29] on the forward side of the latch/hook PDU [4].

(d) Move the coupling [29] forward on the latch/hook torque tube [2].

(e) Move the latch/hook torque tube [2] and coupling [22] on the aft side of the latch/hook PDU [4] aft.

(f) Pull the coupling [23] forward and remove it from the coupling [22].

(g) Keep the coupling [22] and coupling [29] and the latch/hook torque tubes [2] in these positions to make clearance for the latch/hook PDU [4] removal and subsequent installation.

SUBTASK 52-34-10-020-003

(3) Remove the latch/hook PDU [4] as follows:

(a) Disconnect the electrical connector [3] from the latch/hook PDU [4].

(b) Remove the bolt [33], washers [34], washer [35], and nut [36] to disconnect the jumper assembly [1] from the latch/hook PDU [4].

WARNING BE CAREFUL WHEN YOU MOVE THE LATCH/HOOK PDU. BECAUSE THE PDU WEIGHTS 30 POUNDS, INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(c) Hold the latch/hook PDU [4] and remove the bolts [7], bolts [9], and washers [8] that attach the latch/hook PDU [4] to the door structure.

(d) Remove the latch/hook PDU [4] from the door.

END OF TASK

TASK 52-34-10-400-801

3. Latch/Hook Power Drive Unit Installation

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
SWPM 20-20-00	Standard Wiring Practices Manual

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in Class I, Divisions I & II hazardous (classified) locations. Outside these hazardous locations, COM-614 can be used in lieu of COM-1550). Part #: 620LK Supplier: 1CRL2 Part #: M1 Supplier: 3AD17 Part #: T477W Supplier: 01014 Opt Part #: M1B Supplier: 3AD17

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C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
D00633	Grease - Aircraft General Purpose	BMS3-33
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
4	Latch/hook PDU	52-34-05-01A-030	ARO ALL

E. Location Zones

Zone	Area
821	Forward Large Cargo Door

F. Access Panels

Number	Name/Location
122AR	Forward Cargo Door Control Door

G. Installation

SUBTASK 52-34-10-420-001

(1) Install the latch/hook PDU [4] as follows:

(a) Make sure the splines [16] on the forward and aft sides of the latch/hook PDU [4] align. Align the missing tooth on the forward and aft sides of the latch/hook PDU [4].

(b) Apply the grease, D00633 to the splines [16] of the latch/hook PDU [4], latch/hook torque tubes [2], coupling [23], and coupling [29].

(c) Apply the corrosion inhibiting material, G50136 as follows:

1) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the bolts [7], bolts [9], and washers [8] that attach the latch/hook PDU [4] to the door structure.

2) Apply thecorrosion inhibiting material, G50136 on all of the latch/hook PDU [4] mating surfaces except the splines [16] and bonding jumper [1] mating areas.

(d) Hold the latch/hook PDU [4] in its correct position and install the bolts [7], bolts [9], and washers [8] to attach the latch/hook PDU [4] to the door structure. Do not tighten the bolts.

(e) Install the bolt [33], washers [34], washer [35], and nut [36] to connect the jumper assembly [1] to the latch/hook PDU [4]. Refer to Electrical Bonding and Grounding (SWPM 20-20-00).

(f) Measure the resistance between the latch/hook PDU [4] to the door structure with a intrinsically safe approved bonding meter, COM-1550. (SWPM 20-20-00)

NOTE: The maximum resistance across the surface bond must be less than 0.5 milliohms.

(g) Connect the electrical connector [3] to the latch/hook PDU [4].

SUBTASK 52-34-10-420-002

(2) Connect the latch/hook torque tubes [2] to the latch/hook PDU [4] as follows:

(a) If it is necessary, loosen the bolt [10] and nut [11] to install the latch/hook PDU [4] and connect the latch/hook torque tubes [2].

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(b) Move the coupling [29] aft on the latch/hook torque tube [2] to align and engage its splines with the latch/hook PDU splines [16].

(c) Install the coupling [23] and engage its splines with the coupling [22].

(d) Move the latch/hook torque tube [2] on the aft side of the latch/hook PDU [4] forward to align and engage the splines of the coupling [23] with the latch/hook PDU splines [16].

(e) Adjust the couplings [22], coupling [23], coupling [29], and the latch/hook torque tubes [2] until they are in the correct position on the latch/hook PDU [4] and their splines are aligned correctly.

(f) Install the bolt [30], washer [31], and nut [32] that go through the coupling [29] on the forward side of the latch/hook PDU [4].

(g) Install the bolt [24], washer [25], washer [26], washer [27], and nut [28] that go through the bellcrank [21] on the aft side of the latch/hook PDU [4].

(h) Install the bolt [17], washer [18], washer [19], and nut [20] that go through the latch/hook torque tube [2] on the aft side of the latch/hook PDU [4].

(i) Tighten the nut [20] and nut [32] to 5-15 pound-inches above run-on torque.

(j) Make a fillet seal on the bolt [17] and bolt [30] heads with the sealant, A00247 to limit the fasteners' movement.

(k) Tighten the bolts [7] and bolts [9] that attach the latch/hook PDU [4] to the door structure.

(l) Tighten the bolt [10] and nut [11] if it is necessary.

SUBTASK 52-34-10-420-003

(3) Connect the latch/hook manual drive shaft [5] as follows:

(a) Apply the grease, D00633 to the splines of the latch/hook manual drive shaft [5] and the latch manual drive intermediate gearbox [6].

(b) Engage the latch/hook manual drive shaft [5] splines with the latch manual drive intermediate gearbox [6] splines.

(c) Apply thecorrosion inhibiting material, G50136 to the mating surfaces of the bolt [12], washer [13], washer [14], and nut [15] that attach the latch/hook manual drive shaft [5] to the latch/hook PDU [4].

(d) Install the bolt [12], washer [13], washer [14], and nut [15] to attach the latch/hook manual drive shaft [5] to the latch/hook PDU [4].

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-10-860-002

(1) Make sure the latch mechanism is in the unlatched position.

SUBTASK 52-34-10-410-001

(2) Install the door lining.

SUBTASK 52-34-10-860-003

(3) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

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Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

I. Installation Test

SUBTASK 52-34-10-710-001

(1) Do a test on the latch/hook PDU as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Make sure that these circuit breakers are closed:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

Right Power Management Panel, P210

Row	Col	Number	Name
L	13	C32601	PSEU 2 PRI PWR

Standby Power Management Panel, P310

Row	Col	Number	Name
D	2	C32624	PSEU 2 ALTN PWR

(c) Open this access panel:

Number	Name/Location
122AR	Forward Cargo Door Control Door

(d) Make sure the external CARGO DOOR CONTROL switch is in the OFF position.

(e) Open the door to the fully open position.

(f) Make sure all persons and equipment are clear of the door.

(g) Hold the external CARGO DOOR CONTROL switch in the CLOSE position. While the door closes, do this check:

1) Make sure the door closes and latches smoothly with no vibration or unusual noises.

(h) Release the switch.

(i) Put the speed wrench in the latch/hook manual drive port found under the lock handle.

CAUTION

DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(j) Turn clockwise until the overtravel coupling touches the latched overtravel stop.

(k) Turn counterclockwise until the overtravel coupling touches the unlatched overtravel stop and do these checks:

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1) Make sure the number of turns to move the overtravel coupling from the latched overtravel stop to the unlatched overtravel stop is 122-135.

2) Make sure the latch mechanism operates smoothly with no vibration or unusual noises.

3) Make sure the torque to turn the latch/hook manual drive is not more than 30 in-lb (3 N·m).

CAUTION DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(l) Use the torque wrench to turn the latch/hook manual drive counterclockwise until the torque limiter slippage is felt, heard or the torque is 110 in-lb (12 N·m).

(m) Make sure there is no torque limiter slippage of the latch/hook manual drive at less than 80 in-lb (9 N·m).

(n) Put the speed wrench in the latch/hook manual drive port found under the lock handle.

CAUTION DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(o) Turn counterclockwise until the overtravel coupling touches the latched overtravel stop and do these checks:

1) Make sure the latch mechanism operates smoothly with no vibration or unusual noises.

2) Make sure the torque to turn the latch/hook manual drive is not more than 30 in-lb (3 N·m).

CAUTION DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(p) Use the torque wrench to turn the latch/hook manual drive counterclockwise until the torque limiter slippage is felt, heard or the torque is 110 in-lb (12 N·m).

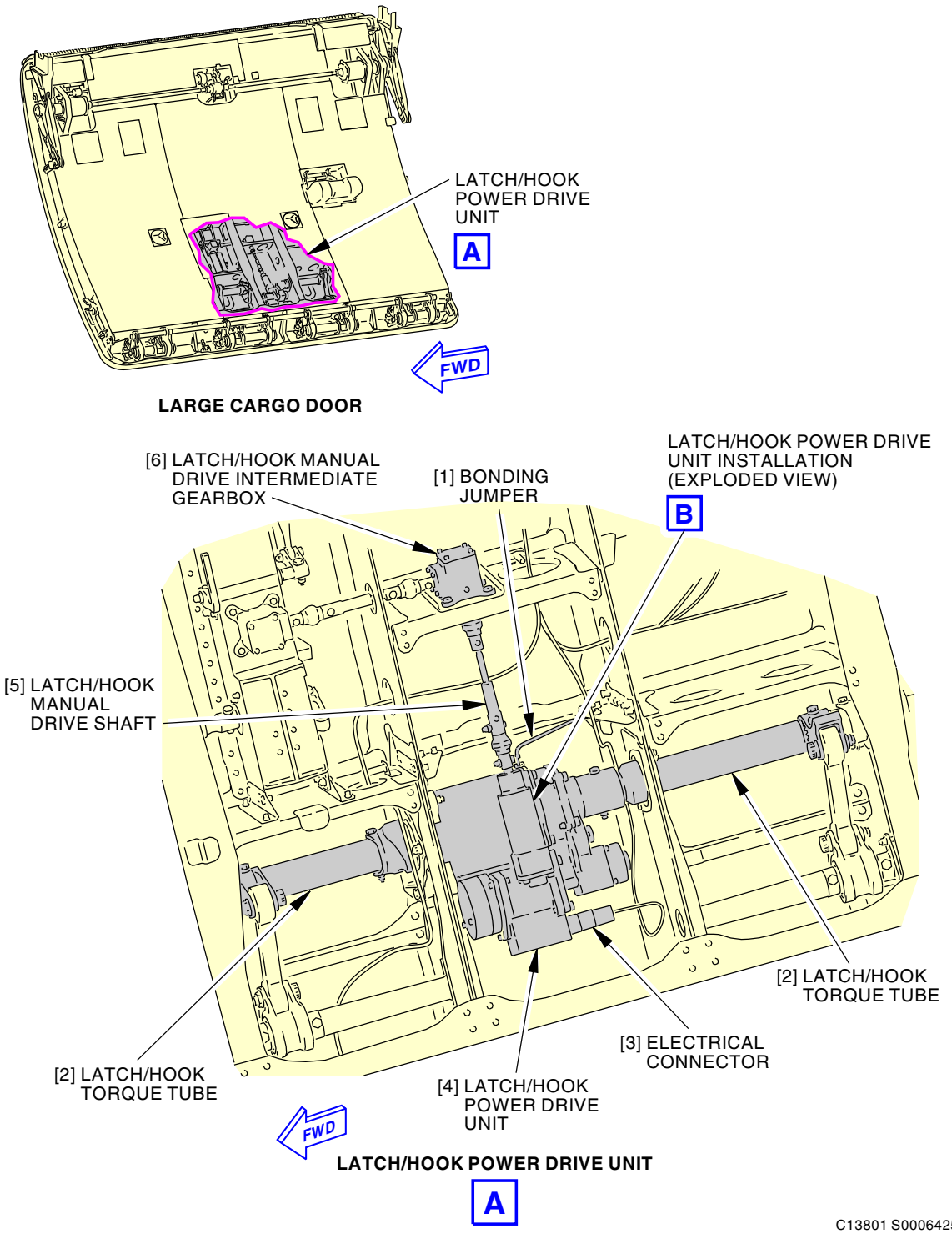
(q) Make sure there is no torque limiter slippage of the latch/hook manual drive at less than 80 in-lb (9 N·m).

(r) Close this access panel:

Number	Name/Location
122AR	Forward Cargo Door Control Door

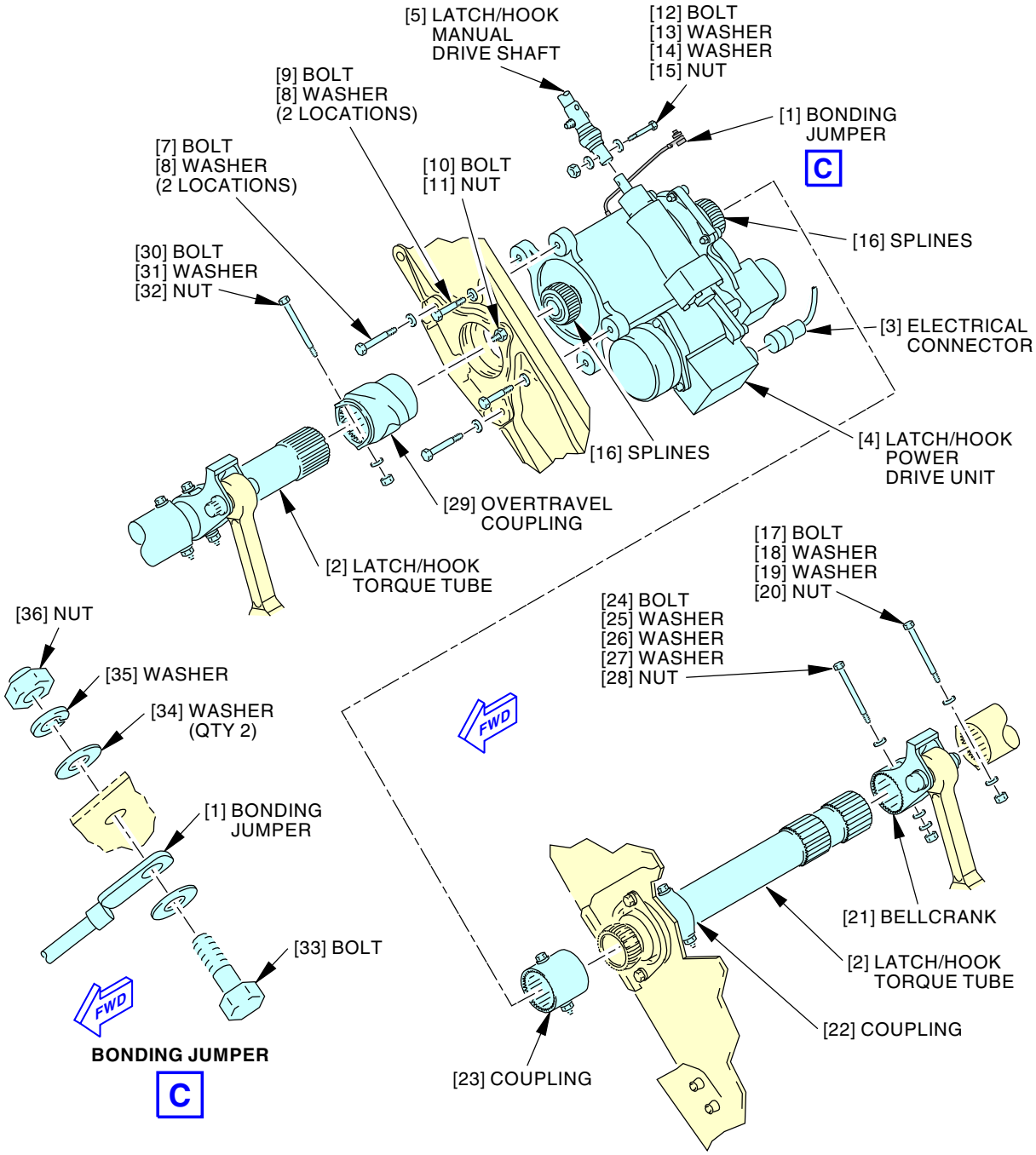
——— END OF TASK ———

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Latch/Hook Power Drive Unit Installation
Figure 401/52-34-10-990-801 (Sheet 1 of 2)

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Latch/Hook Power Drive Unit Installation
Figure 401/52-34-10-990-801 (Sheet 2 of 2)

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LATCH/HOOK MANUAL DRIVE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the lock handle gearbox and the intermediate gearbox.

(2) An installation of the lock handle gearbox and the intermediate gearbox.

TASK 52-34-11-000-801

2. Lock Handle Gearbox and Intermediate Gearbox Removal

(Figure 401)

A. General

(1) This procedure gives steps to remove the lock handle gearbox or the intermediate gearbox and the connecting drive shafts.

B. Location Zones

Zone	Area
821	Forward Large Cargo Door

C. Prepare for the Removal

SUBTASK 52-34-11-010-001

(1) Open the door sufficiently to get access to the latch manual drive.

SUBTASK 52-34-11-860-001

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-34-11-010-002

(3) Remove the applicable door lining.

D. Removal

SUBTASK 52-34-11-020-001

(1) Remove the gear box assembly [4] as follows:

(a) Remove the bolt [24], washer [25], washer [26], and nut [27] that connect the shaft assembly [5] to the gear box assembly [4].

(b) Disengage the shaft assembly [5] from the gear box assembly [4].

(c) Hold the gear box assembly [4] and remove the bolts [28], washers [29], washers [30], and nuts [31] that attach the gear box assembly [4] to the lock handle housing [3].

(d) Remove the gear box assembly [4].

SUBTASK 52-34-11-020-002

(2) Remove the gear box assembly [1] as follows:

(a) Remove the bolt [6], washer [7], washer [8], and nut [9] that connect the shaft assembly [5] to the gear box assembly [1].

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(b) Disengage the shaft assembly [5] from the gear box assembly [1] and remove.

(c) Remove the bolt [15], washer [16], washer [17], and nut [18] that connect the shaft assembly [19] to the gear box assembly [1].

(d) Disengage the shaft assembly [19] from the gear box assembly [1].

(e) Hold the gear box assembly [1] and remove the bolts [10], washers [11], washers [12], and nuts [13] that attach the gear box assembly [1] to the door structure [14].

(f) Remove the gear box assembly [1].

(g) Remove the bolt [20], washer [21], washer [22], and nut [23] that connect the shaft assembly [19] to the latch/hook power drive unit [2].

(h) Disengage the shaft assembly [19] from the latch/hook power drive unit [2] and remove.

——— END OF TASK ———

TASK 52-34-11-400-801

3. Lock Handle Gearbox and Intermediate Gearbox Installation

(Figure 401)

A. General

(1) This procedure gives steps to install the lock handle gearbox or the intermediate gearbox and the connecting drive shafts.

B. Consumable Materials

Reference	Description	Specification
A02315	Sealant - Low Density, Synthetic Rubber. 2 Part	BMS5-142 Type II
D00633	Grease - Aircraft General Purpose	BMS3-33
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Gear box assembly	52-34-11-02A-005	ARO ALL
4	Gear box assembly	52-34-11-02A-160	ARO ALL
5	Shaft assembly	52-34-11-02A-090	ARO ALL
		52-34-11-02A-110	ARO ALL
19	Shaft assembly	52-34-11-02A-060	ARO ALL
		52-34-11-02A-110	ARO ALL

D. Location Zones

Zone	Area
821	Forward Large Cargo Door

E. Installation

SUBTASK 52-34-11-420-001

(1) Install the gear box assembly [1] as follows:

(a) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the bolts [10], washers [11], washers [12], and nuts [13] that attach the gear box assembly [1] to the door structure [14].

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(b) Hold the gear box assembly [1] in its correct position and install the bolts [10], washers [11], washers [12], and nuts [13] to attach the gear box assembly [1] to the door structure [14].

(c) Apply the grease, D00633 to the splines of the shaft assembly [19].

(d) Engage the shaft assembly [19] with the latch/hook power drive unit [2].

(e) Apply thecorrosion inhibiting material, G50136 to the mating surfaces of the bolt [20], washer [21], washer [22], and nut [23] that attach the shaft assembly [19] to the latch/hook power drive unit [2] and gear box assembly [1].

(f) Install the bolt [20], washer [21], washer [22], and nut [23] to attach the shaft assembly [19] to the latch/hook power drive unit [2].

(g) Tighten the nut [23] to 10 in-lb (1 N·m) more than the run-on torque.

(h) Engage the shaft assembly [19] with the gear box assembly [1].

(i) Install the bolt [15], washer [16], washer [17], and nut [18] to connect the shaft assembly [19] to the gear box assembly [1].

(j) Tighten the nut [18] to 10 in-lb (1 N·m) more than the run-on torque.

(k) Apply the grease, D00633 to the splines of the shaft assembly [5].

(l) Engage the shaft assembly [5] with the gear box assembly [1].

(m) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the bolt [6], washer [7], washer [8], and nut [9] that attach the shaft assembly [5] to the gear box assembly [1].

(n) Install the bolt [6], washer [7], washer [8], and nut [9] to connect the shaft assembly [5] to the gear box assembly [1].

(o) Tighten the nut [9] to 10 in-lb (1 N·m) more than the run-on torque.

SUBTASK 52-34-11-420-002

(2) Install the gear box assembly [4] as follows:

(a) Apply thecorrosion inhibiting material, G50136 to the mating surfaces of the bolts [28], washers [29], washers [30], and nuts [31] that attach the gear box assembly [4] to the lock handle housing [3].

(b) Hold the gear box assembly [4] in its correct position and install the bolts [28], washers [29], washers [30], and nuts [31] to attach the gear box assembly [4] to the lock handle housing [3].

(c) Apply the sealant, A02315 to make weather and pressure fillet seals on the gear box assembly [4] as shown, View A-A (Figure 401).

(d) Apply the grease, D00633 to the splines of the shaft assembly [5].

(e) Engage the shaft assembly [5] with the gear box assembly [4].

(f) Apply thecorrosion inhibiting material, G50136 to the mating surfaces of the bolt [24], washer [25], washer [26], and nut [27] that attach the shaft assembly [5] to the gear box assembly [4].

(g) Install the bolt [24], washer [25], washer [26], and nut [27] to connect the shaft assembly [5] to the gear box assembly [4].

(h) Tighten the nut [27] to 10 in-lb (1 N·m) more than the run-on torque.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-11-410-001

(1) Install the door lining.

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SUBTASK 52-34-11-860-002

(2) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

G. Installation Test

SUBTASK 52-34-11-710-001

(1) Do a test on the latch manual drive as follows:

(a) Close but do not hook and latch the door.

CAUTION

DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM, A TORQUE OF MORE THAN 110 POUND-INCHES OR WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 15 TURNS. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(b) Put a 3/8-inch square drive speed wrench in the latch/hook manual drive port found under the lock handle.

(c) Slowly turn clockwise and then counterclockwise to latch/hook and unlatch/unhook the door.

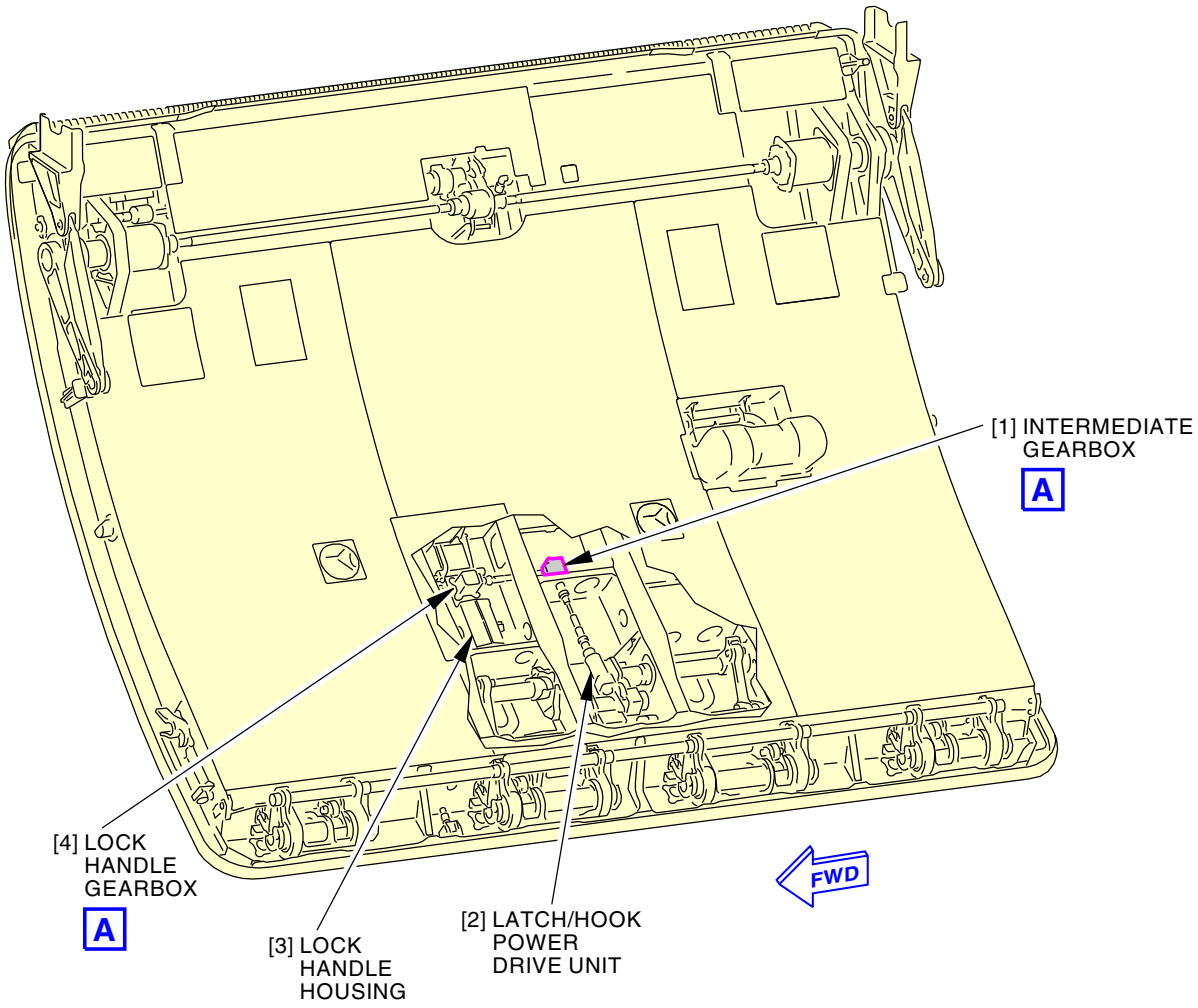
(d) Make sure the latch manual drive turns smoothly.

(e) Make sure the torque to turn the latch/hook manual drive is not more than 30 in-lb (3 N·m).

(f) Remove the speed wrench.

END OF TASK

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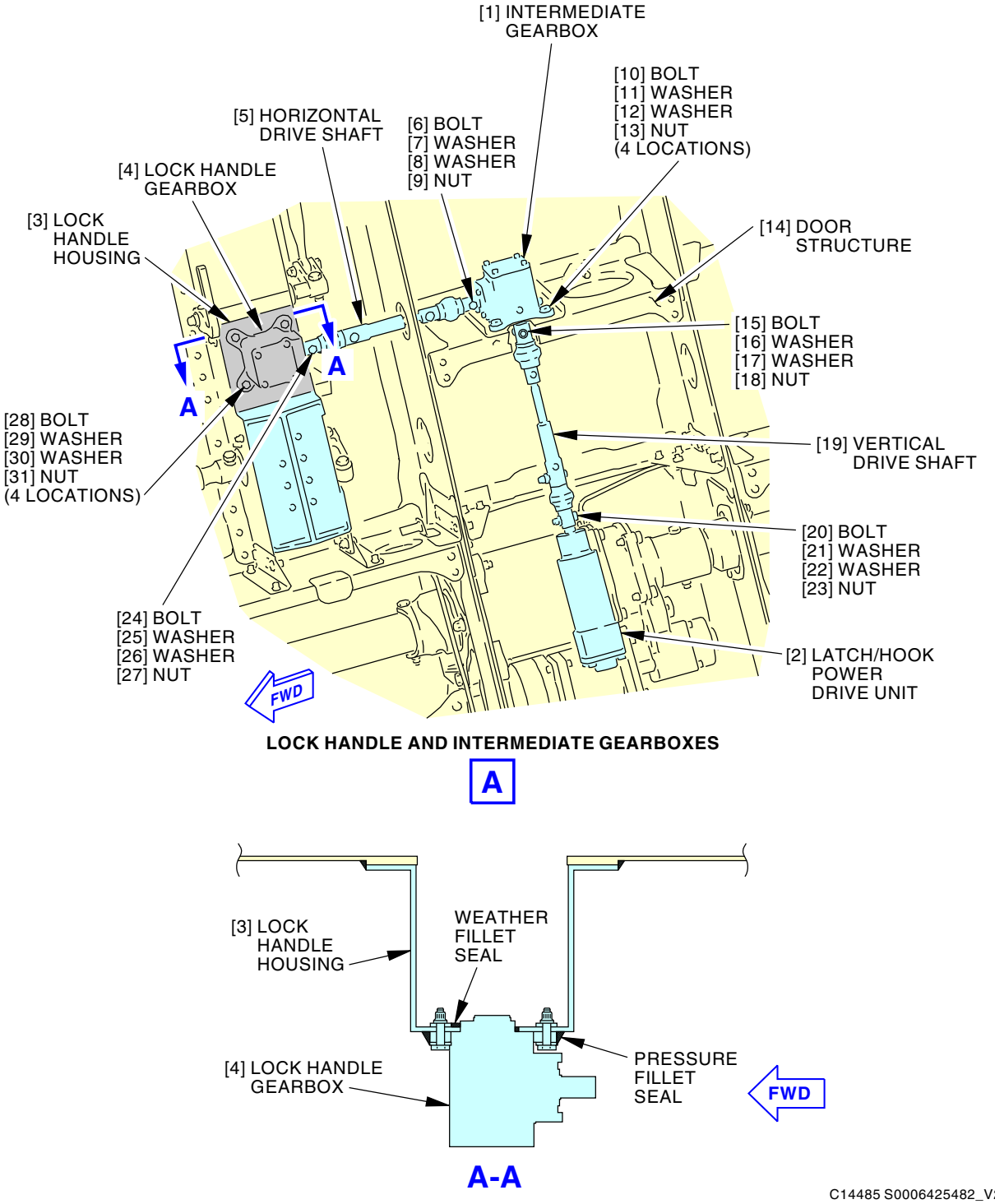


LARGE CARGO DOOR

E49933 S0006425481_V2

Latch Manual Drive Installation
Figure 401/52-34-11-990-801 (Sheet 1 of 2)

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Latch Manual Drive Installation
Figure 401/52-34-11-990-801 (Sheet 2 of 2)

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PULL-IN HOOKS AND PINS - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) A removal of the pull-in hook.

(2) An installation of the pull-in hook.

(3) A removal of the pull-in pin.

(4) An installation of the pull-in pin.

B. There are two pull-in hooks on the door and two pull-in pins on the door cutout. The removal and installation of the forward and aft pull-in hooks and pins are the same.

TASK 52-34-14-000-801

2. Pull-In Hook Removal

(Figure 201)

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Prepare for the Removal

SUBTASK 52-34-14-010-001

(1) Open the door sufficiently to get access to the pull-in hook [1].

SUBTASK 52-34-14-860-001

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-34-14-010-002

(3) Remove the applicable door lining to get access to the pull-in hook [1].

C. Removal

SUBTASK 52-34-14-020-001

(1) Remove the pull-in hook [1] as follows:

(a) Remove the bolts [4], washer [5], washers [6], washers [7], and nuts [8] that attach the bellcrank [14] and bellcrank [15] to the pull-in hook [1].

(b) Loosen the spanner nut [3].

(c) Remove the bolt [9], washer [10], washer [11], and nut [12] that attach the latch/hook torque tube [13] to the pull-in hook [1].

(d) Pull the pull-in hook [1] out through the bearing housing [16] and bearing housing [17] in the door structure [18].

(e) Disengage the splines of the pull-in hook [1] from the bellcrank [14], bellcrank [15] and the latch/hook torque tube [13].

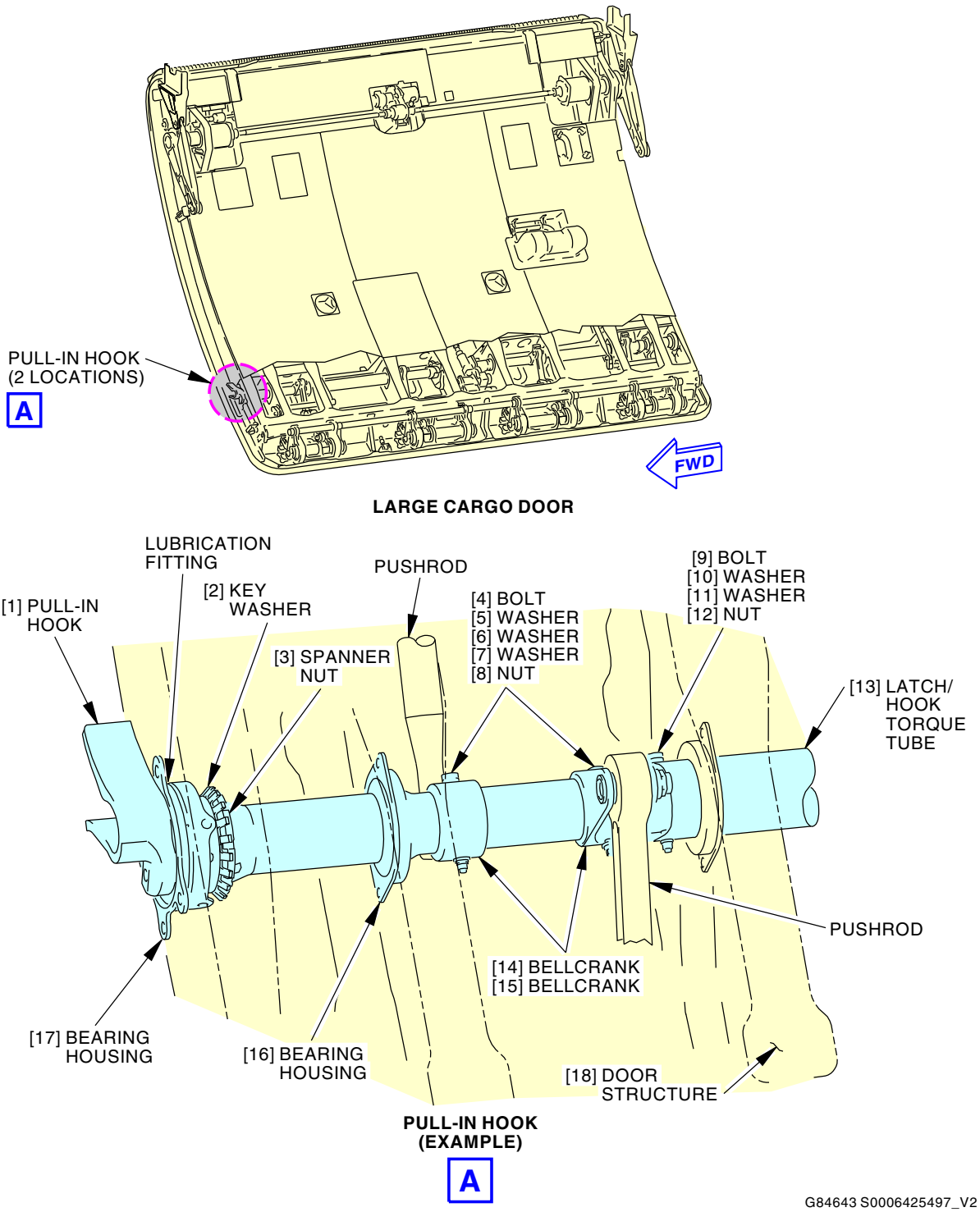
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(f) Continue to pull the pull-in hook [1] out through the bearing housing [16] in the door structure [18].

(g) Remove the key washer [2] and spanner nut [3] from the pull-in hook [1].

——— END OF TASK ———

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Pull-In Hook Installation
Figure 201/52-34-14-990-803

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TASK 52-34-14-400-801

3. Pull-In Hook Installation

(Figure 201)

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
52-34-00-820-801	Forward Large Cargo Door Adjustment (P/B 501)

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
D00633	Grease - Aircraft General Purpose	BMS3-33
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

C. Location Zones

Zone	Area
821	Forward Large Cargo Door

D. Installation

SUBTASK 52-34-14-420-001

(1) Install the pull-in hook [1] as follows:

(a) Apply the grease, D00633 to the mating splines of the pull-in hook [1], bellcrank [14], bellcrank [15] and latch/hook torque tube [13].

(b) Push the pull-in hook [1] through the bearing housing [17].

(c) Apply the corrosion inhibiting material, G50136 to the threads and mating surfaces of the key washer [2] and the spanner nut [3].

(d) Install the key washer [2] and spanner nut [3] on the pull-in hook [1].

(e) Continue to push the pull-in hook [1] through the bearing housing [16], bearing housing [17] and bellcrank [14], bellcrank [15].

(f) Align the splines on the pull-in hook [1] with the splines in the bellcrank [14], bellcrank [15] and the latch/hook torque tube [13].

(g) Install the bolt [9], washer [10], washer [11], and nut [12] that attach the latch/hook torque tube [13] to the pull-in hook [1].

(h) Install the bolts [4], washer [5], washers [6], washers [7], and nuts [8] that attach the bellcrank [14], bellcrank [15] to the pull-in hook [1].

(i) Tighten the nuts [8] and nut [12] to 5.0 in-lb (0.6 N·m)-15.0 in-lb (1.7 N·m) above run-on torque.

(j) Apply the sealant, A00247 to make a fillet seal on the heads of the bolts [4] and bolt [9].

(k) Use the spanner wrench to tighten the spanner nut [3] to 1325 ±675 in-lb (150 ±77 N·m) until one of the tangs on the key washer [2] aligns with a slot in the spanner nut [3].

(l) Bend the tang on the key washer [2] into the slot in the spanner nut [3].

(m) Lubricate the pull-in hook [1] bearings through the fitting on the bearing housing [17] with the grease, D00633.

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SUBTASK 52-34-14-820-001

(2) Do this task: Forward Large Cargo Door Adjustment, TASK 52-34-00-820-801.

(a) Do only do the Pull-In Hook and Pin Adjustment

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-14-410-001

(1) Install the door lining.

SUBTASK 52-34-14-860-002

(2) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

F. Installation Test

SUBTASK 52-34-14-710-001

(1) Do a test on the pull-in hook [1] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Operate the door electrically.

(c) Make sure the door opens and closes correctly.

——— END OF TASK ———

TASK 52-34-14-000-802

4. Pull-In Pin Removal

(Figure 202)

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Prepare for the Removal

SUBTASK 52-34-14-010-003

(1) Get access to the pull-in pin [32] as follows:

(a) Open the large cargo door sufficiently to get access to the pull-in pin [32].

(b) Remove the applicable cargo compartment lining to remove the pull-in pin [32].

C. Removal

SUBTASK 52-34-14-020-002

(1) Remove the pull-in pin [32] as follows:

(a) Put a screwdriver in the pull-in pin [32] so that it can not turn.

(b) Remove the nut [34] at the other end of the pull-in pin [32].

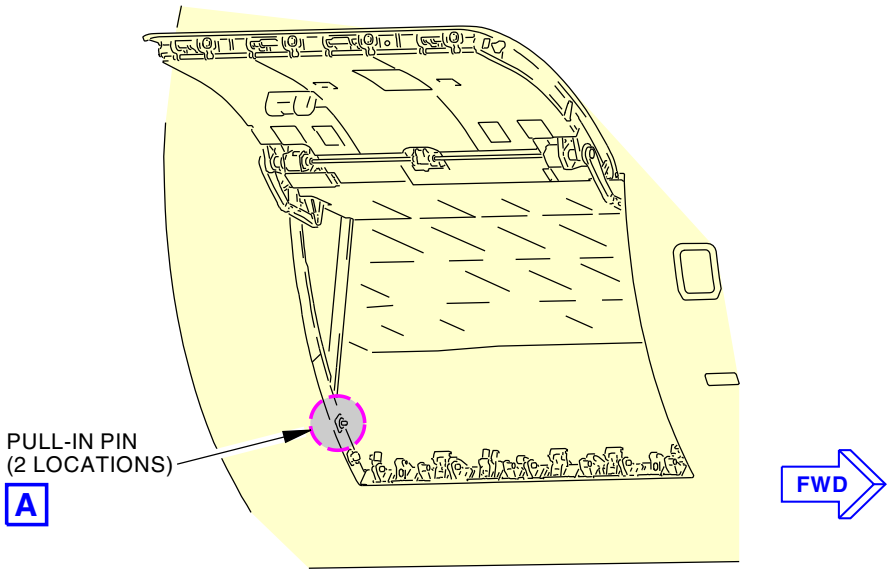
(c) Remove the spacers [33], spacer [35], and spacer [38] from the pull-in pin [32].

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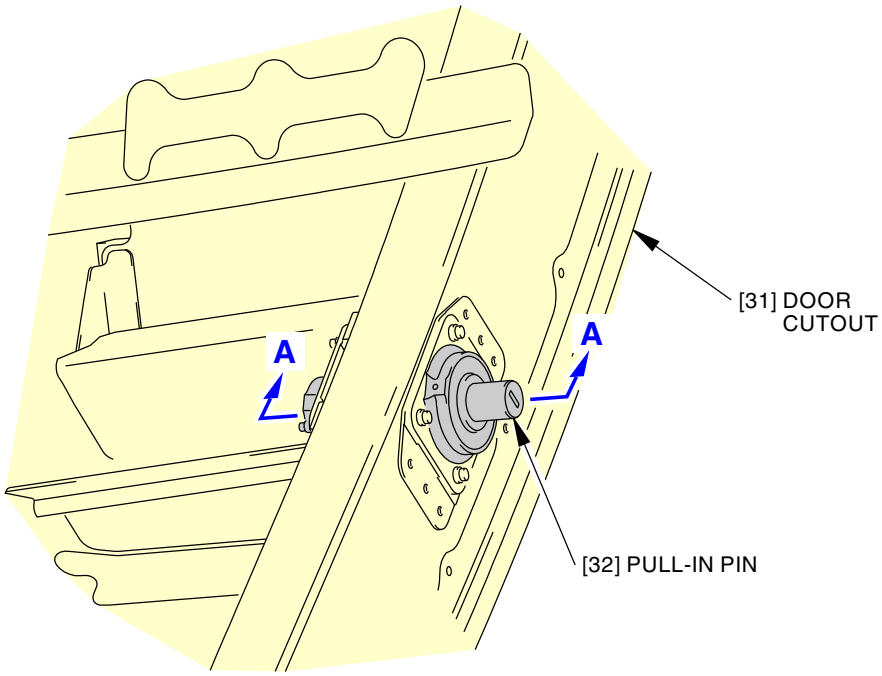
(d) Pull the pull-in pin [32] from the door cutout [31].

——— END OF TASK ———

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LARGE CARGO DOOR



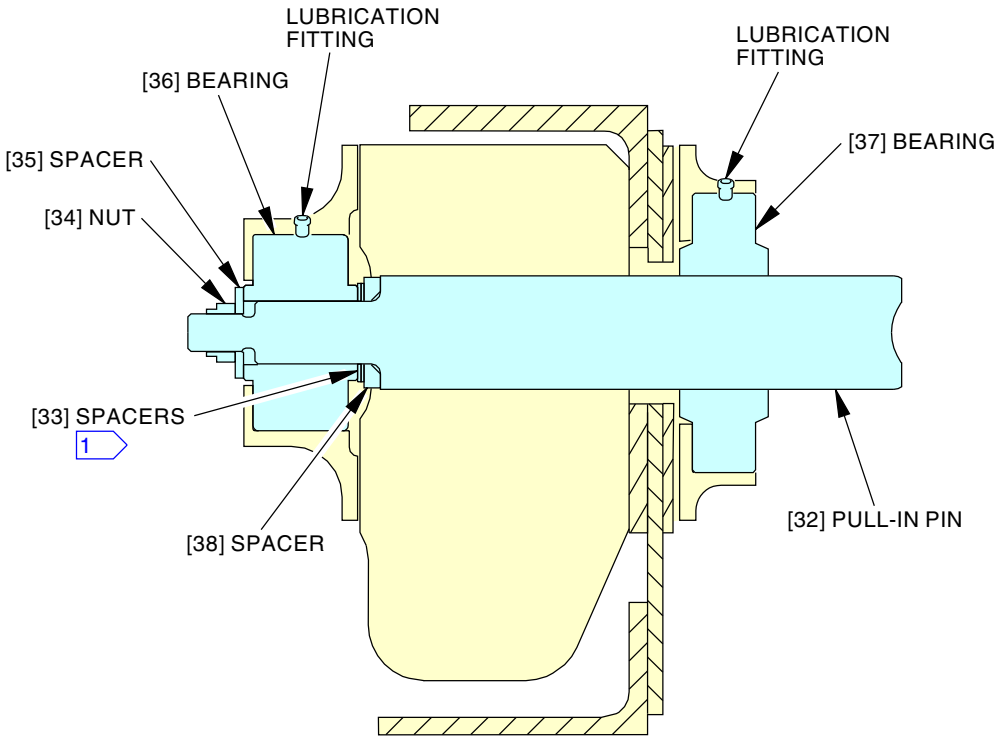
PULL-IN PIN
(EXAMPLE)

A

G84589 S0006425498_V2

Pull-In Pin Installation
Figure 202/52-34-14-990-804 (Sheet 1 of 2)

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A-A

1 0-4 SPACERS ARE INSTALLED.

E42722 S0006425499_V2

Pull-In Pin Installation
Figure 202/52-34-14-990-804 (Sheet 2 of 2)

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TASK 52-34-14-400-802

5. Pull-In Pin Installation

(Figure 202)

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
52-34-00-820-801	Forward Large Cargo Door Adjustment (P/B 501)

B. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33

C. Location Zones

Zone	Area
821	Forward Large Cargo Door

D. Installation

SUBTASK 52-34-14-420-002

(1) Install the pull-in pin [32] as follows:

(a) Install the spacers [33] and spacer [38] on the pull-in pin [32].

(b) Push the pull-in pin [32] through the bearing [36] and bearing [37].

(c) Install the spacer [35] and nut [34] on the end of the pull-in pin [32].

(d) Put a screwdriver in the pull-in pin [32] so that it can not turn.

(e) Tighten the nut [34] to 200 ±40 in-lb (23 ±5 N·m).

(f) Lubricate the bearing [36] and bearing [37] through the fittings with the grease, D00633.

SUBTASK 52-34-14-820-002

(2) Do this task: Forward Large Cargo Door Adjustment, TASK 52-34-00-820-801.

(a) Do only do the Pull-In Hook and Pin Adjustment.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-14-410-002

(1) Install the cargo compartment lining.

F. Installation Test

SUBTASK 52-34-14-710-002

(1) Do a test on the pull-in pin [32] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Operate the door electrically.

(c) Make sure the door opens and closes correctly.

——— END OF TASK ———

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MAIN CAM LATCHES AND PINS - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) A removal of the main cam latch.

(2) An installation of the main cam latch.

(3) A removal of the main latch pin.

(4) An installation of the main latch pin.

(5) A repair of the main latch pin fitting target.

B. There are eight main cam latches on the door and eight main latch pins on the door cutout. The main cam latches are installed in pairs. The removal and installation of each pair is the same.

TASK 52-34-15-000-801

2. Main Cam Latches Removal

(Figure 201)

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Prepare for the Removal

SUBTASK 52-34-15-010-001

(1) Open the door sufficiently to get access to the main cam latch [4].

SUBTASK 52-34-15-860-001

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

C. Removal

SUBTASK 52-34-15-020-001

(1) Remove the bolt [7], washer [8], bushing [9], washer [10], and nut [11] that attach the pushrod [2] to the bellcrank assembly [3] on the cam latch [12].

SUBTASK 52-34-15-020-002

(2) Remove the main cam latch [4] as follows:

(a) Remove the spring [5] and the retainer [6].

(b) Pull the bolt [13] out through the cam latch [12] and cam latch [15].

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CAUTION

BE CAREFUL WHEN YOU REMOVE OR INSTALL THE CAM LATCHES. DAMAGE TO THE SPLINES ON THE CAM LATCHES AND THE BELLCRANK CAN EASILY OCCUR.

(c) Carefully remove the cam latch [12] and cam latch [15] from the bellcrank assembly [3], latch frames [1], and shaft [14].

(d) Remove the bellcrank assembly [3] and shaft [14].

END OF TASK

TASK 52-34-15-400-801

3. Main Cam Latches Installation

(Figure 201)

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
52-34-00-820-801	Forward Large Cargo Door Adjustment (P/B 501)

B. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
12	Cam latch	52-34-15-01-025	ARO ALL
		52-34-15-01-030	ARO ALL
		52-34-15-01-035	ARO ALL
		52-34-15-01-040	ARO ALL
		52-34-15-01-045	ARO ALL
		52-34-15-01-050	ARO ALL
		52-34-15-01-055	ARO ALL
		52-34-15-01-060	ARO ALL
15	Cam latch	52-34-15-01-025	ARO ALL
		52-34-15-01-030	ARO ALL
		52-34-15-01-035	ARO ALL
		52-34-15-01-040	ARO ALL
		52-34-15-01-045	ARO ALL
		52-34-15-01-050	ARO ALL
		52-34-15-01-055	ARO ALL
		52-34-15-01-060	ARO ALL

D. Location Zones

Zone	Area
821	Forward Large Cargo Door

E. Installation

SUBTASK 52-34-15-640-001

(1) Apply the grease, D00633 as follows:

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(a) Fully fill the inner parts of the cam latch [12] and cam latch [15] with the grease, D00633.

(b) Apply the grease, D00633 to the mating surfaces of the cam latch [12], cam latch [15], latch frames [1], bellcrank assembly [3], and shaft [14].

(c) Apply the grease, D00633 to the pushrod [2] bearings.

SUBTASK 52-34-15-420-001

(2) Install the cam latch [12] and cam latch [15] as follows:

(a) Put the shaft [14] into the cam latch [12].

CAUTION

BE CAREFUL WHEN YOU REMOVE OR INSTALL THE CAM LATCHES. DAMAGE TO THE SPLINES ON THE CAM LATCHES AND THE BELLCRANK CAN EASILY OCCUR.

(b) Install the cam latch [12] and shaft [14] through the latch frame [1] and bellcrank assembly [3] and align the splines in the bellcrank assembly [3] with the splines on the cam latch [12].

(c) Install the cam latch [15] on the shaft [14] through the latch frame [1] and align the splines in the cam latch [15] with the shaft [14].

(d) Put the bolt [13] through the cam latch [12] and cam latch [15] in the direction of the center of the door.

(e) Install the retainer [6].

(f) Make sure the clearance between the bushing and cam latch [12] is as shown, View A-A (Figure 201) when the clearance between the other bushing and cam latch [15] is zero.

(g) Tighten the retainer [6], but do not tighten too much.

(h) Install the spring [5].

SUBTASK 52-34-15-420-002

(3) Install the bolt [7], washer [8], bushing [9], washer [10], and nut [11] to attach the pushrod [2] to the bellcrank assembly [3].

SUBTASK 52-34-15-640-002

(4) Lubricate the bearings in the latch frames [1] through the lubrication fittings with the grease, D00633.

SUBTASK 52-34-15-820-001

(5) Do this task: Forward Large Cargo Door Adjustment, TASK 52-34-00-820-801.

Only do the Main Latch Adjustment.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-15-860-002

(1) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

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G. Installation Test

SUBTASK 52-34-15-710-001

(1) Do a test on the main cam latch [4] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Close and latch the door.

(c) Close the lock handle.

(d) Make sure the lock pawls engage the cam latch [12] and cam latch [15] correctly.

(e) Open the lock handle.

(f) Operate the door electrically.

(g) Make sure the cam latch [12] and cam latch [15] turn freely and disengage and engage the main latch pins correctly.

——— END OF TASK ———

TASK 52-34-15-000-802

4. Main Latch Pin Removal

(Figure 202)

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Prepare for the Removal

SUBTASK 52-34-15-010-002

(1) Open the door sufficiently to get access to the fitting [37].

C. Removal

SUBTASK 52-34-15-020-003

(1) Remove the pin [31] from the fitting [37] as follows:

CAUTION KEEP THE DRY-FILM-LUBRICATED SURFACES OF THE LATCH PIN AND THE BEARING PLATE CLEAN AND BE CAREFUL NOT TO DAMAGE THE SURFACES. DAMAGE TO THE SURFACES CAN EASILY OCCUR.

(a) Remove the bolt [34], washer [35], and nut [36] that go through the fitting [37] and the pin [31].

(b) Push the pin [31] out of the fitting [37].

——— END OF TASK ———

TASK 52-34-15-400-802

5. Main Cam Latch Pin Installation

(Figure 202)

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

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B. Consumable Materials

Reference	Description	Specification
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

C. Location Zones

Zone	Area
821	Forward Large Cargo Door

D. Installation

SUBTASK 52-34-15-420-003

(1) Apply the corrosion inhibiting material, G50136 to the pin [31] and into the bore of the fitting [37].

(2) Install the pin [31] into the fitting [37] as follows:

(a) Push the pin [31] into the fitting [37].

(b) Apply the corrosion inhibiting material, G50136 on the threads and shank of the bolt [34] and the washer-to-nut interface.

(c) Install the bolt [34], washer [35], and nut [36] that go through the pin [31] and the fitting [37].

(d) Tighten the nut [36] to 25 ±2 in-lb (2.8246 ±0.2260 N·m).

E. Installation Test

SUBTASK 52-34-15-710-002

(1) Do a test on the pin [31] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Operate the door electrically.

(c) Make sure the main cam latches turn freely and engage and disengage the pin [31] correctly.

——— END OF TASK ———

TASK 52-34-15-350-801

6. Main Latch Pin Fitting Target Repair

(Figure 202)

A. References

Reference	Title
51-21-02-370-801	Prepare the Surface to be Painted (P/B 701)
SOPM 20-30-03	General Cleaning Procedures

B. Consumable Materials

Reference	Description	Specification
A50250	Sealant - P/S 870 Class B-1/2 Corrosion Inhibitive Sealant	BMS5-95 Class B-1/2
A50479	Sealant - P/S 870 Class B-2 Corrosion Inhibitive Sealant	BMS5-95 Class B-2
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

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(Continued)

Reference	Description	Specification
C00260	Coating - Chemical And Solvent Resistant Finish, Epoxy Resin Enamel	BMS10-11 Type II
G50237	Compound - Corrosion Inhibiting, Non-drying - Cor-Ban 27L	BMS3-38

C. Location Zones

Zone	Area
821	Forward Large Cargo Door

D. Procedure

SUBTASK 52-34-15-350-001

(1) Prepare the target groove on the main latch pin fitting as follows:

(a) (TASK 51-21-02-370-801)

SUBTASK 52-34-15-370-001

(2) Apply one coat of the coating, C00260 (color number 3145) or the primer, C00259 (yellow) to the target groove as shown (Figure 202).

SUBTASK 52-34-15-390-001

WARNING

KEEP THE SOLVENTS AWAY FROM SOURCES OF HEAT, FIRE, OR SPARKS. IF YOU DO NOT OBEY, AN EXPLOSION CAN OCCUR. DO NOT LET THE SOLVENTS GET IN YOUR EYES, ON YOUR SKIN OR ON YOUR CLOTHING. USE EYE PROTECTION. USE RESPIRATORY PROTECTION EQUIPMENT WHEN YOU WORK IN A CONFINED SPACE. IF YOU DO NOT OBEY, INJURY TO PERSONS CAN BE THE RESULT.

(3) Apply the Cor-Ban 27L Compound, G50237 and P/S 870 Class B-1/2 sealant, A50250 or P/S 870 Class B-2 sealant, A50479 in the main latch fitting cavity (Figure 202).

(a) Solvent clean the cavity in the main latch fitting. Refer to SOPM 20-30-03.

(b) Lightly sand/abrade the area to remove the glossy surface.

NOTE: Sand only the area where the sealant (P/S 870 Class B-1/2 sealant, A50250 or P/S 870 Class B-2 sealant, A50479) touches.

(c) Solvent clean the cavity in the main latch fitting. Refer to SOPM 20-30-03.

(d) Mask off the abraded area where the sealant (P/S 870 Class B-1/2 sealant, A50250 or P/S 870 Class B-2 sealant, A50479) touches.

(e) Apply the Cor-Ban 27L Compound, G50237, non-curing corrosion inhibiting paste in the cavity.

NOTE: Fill the cavity 80 to 90 percent full and flat.

Keep only sufficient space in the cavity to apply a 0.125 in. (3.175 mm) cap of P/S 870 Class B-1/2 sealant, A50250 or P/S 870 Class B-2 sealant, A50479 polysulfide.

(f) Apply the P/S 870 Class B-1/2 sealant, A50250 or P/S 870 Class B-2 sealant, A50479 on top of the Cor-Ban 27L Compound, G50237.

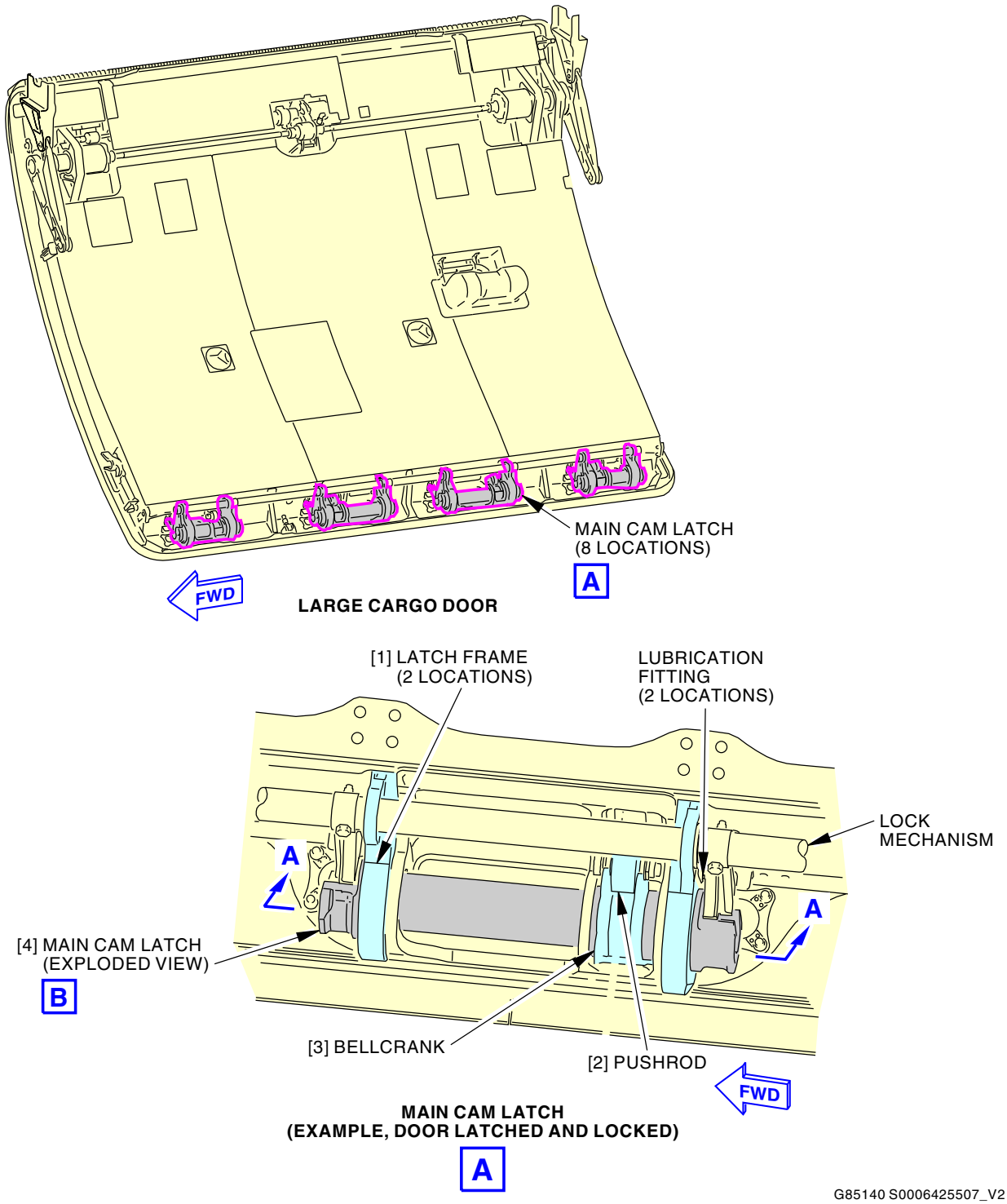
NOTE: The sealant must touch the main latch fitting material around the full cavity.

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(g) Let the P/S 870 Class B-1/2 sealant, A50250 or P/S 870 Class B-2 sealant, A50479 dry before flight.

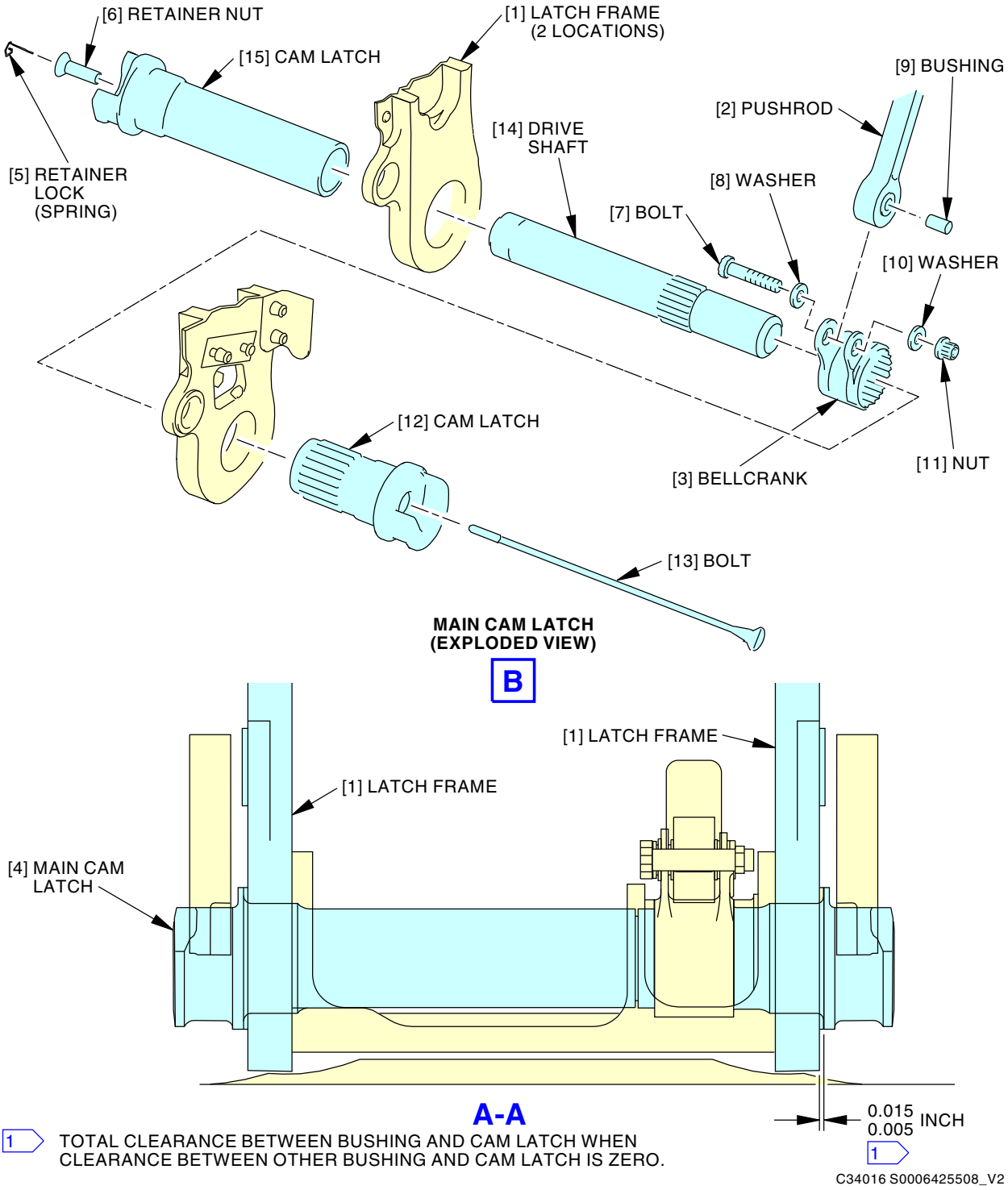
——— END OF TASK ———

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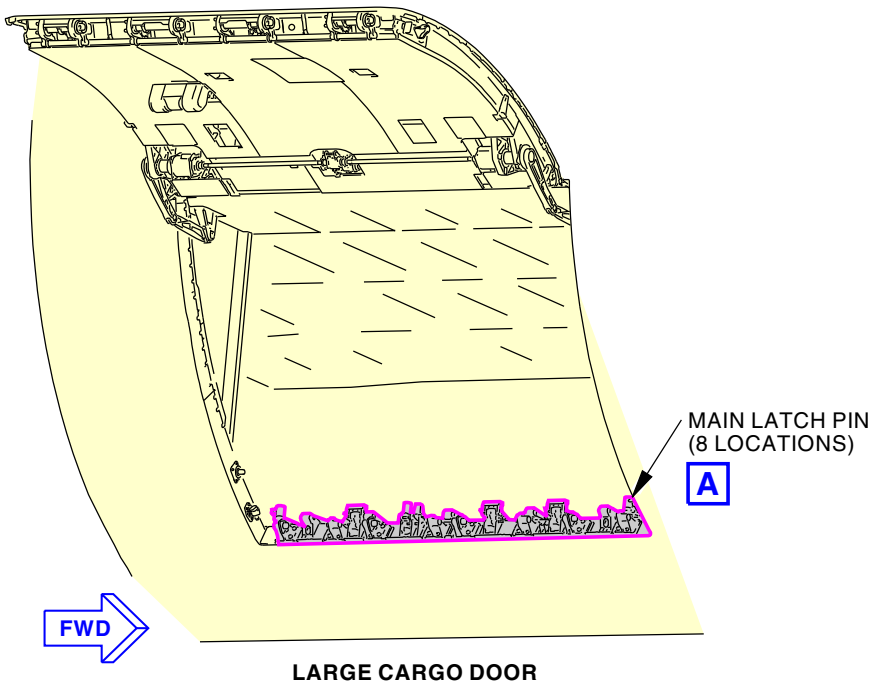
Main Cam Latch Installation
Figure 201/52-34-15-990-801 (Sheet 1 of 2)

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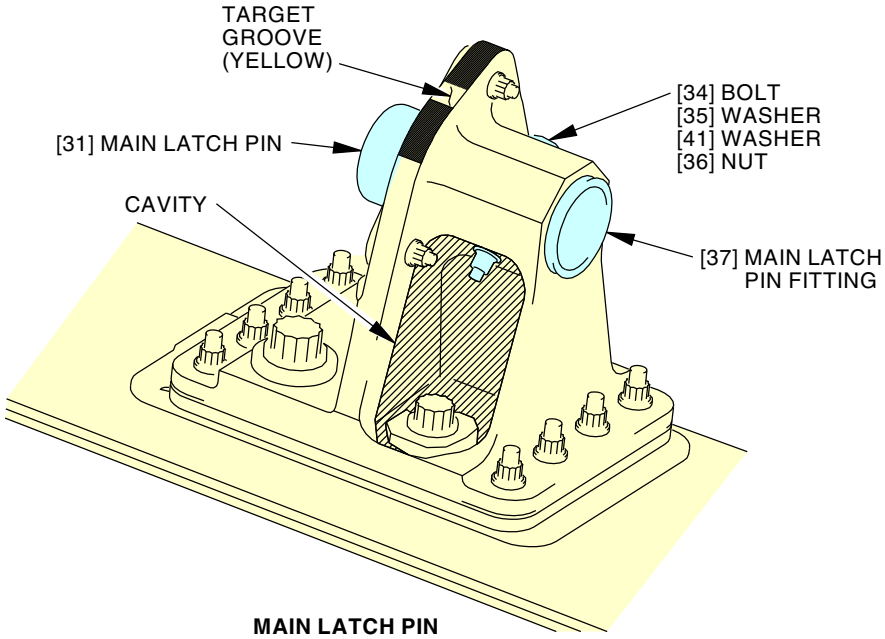


Main Cam Latch Installation
Figure 201/52-34-15-990-801 (Sheet 2 of 2)

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LARGE CARGO DOOR



MAIN LATCH PIN
(EXAMPLE)

A

APPLY SEALANTS IN THE CAVITY

G85145 S0006425509_V3

Main Latch Pin Installation
Figure 202/52-34-15-990-802

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DOOR CONTROL PROXIMITY SENSORS - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) A removal, installation and adjustment of the door control proximity sensors.

Table 201/52-34-20-993-801

DOOR CONTROL PROXIMITY SENSORS	
PROXIMITY SENSOR	**NAME**
S52001	Latch Range
S52002	Unlatched
S52003	Door Up
S52004	Handle Unlocked
S52005	Latched

B. Refer to the applicable task for the removal, installation and adjustment of the door indication sensors.

(1) Closed Proximity Sensor Removal, Installation and Adjustment (TASK 52-71-02-900-801).

(2) Latched Proximity Sensor Removal, Installation and Adjustment (TASK 52-71-02-900-802).

(3) Locked Proximity Sensor Removal, Installation and Adjustment (TASK 52-71-02-900-803).

TASK 52-34-20-900-801

2. Latch Range Proximity Sensor Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The latch range proximity sensor is found on the lower, forward edge of the door and the target is found on the cutout.

(2) When the door closes, this sensor detects that the door is lowered, removes power from the lift power drive unit and gives power to the latch/hook power drive unit.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Sensor	52-34-20-04-025	ARO ALL

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E. Location Zones

Zone	Area
821	Forward Large Cargo Door

F. Prepare for the Removal

SUBTASK 52-34-20-010-001

(1) Open the door sufficiently to get access to the sensor [2].

SUBTASK 52-34-20-860-001

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

G. Removal

SUBTASK 52-34-20-020-001

(1) Remove the sensor [2] as follows:

(a) Disconnect the wiring [3] from the sensor [2].

(b) Make marks on the serrated plate [4] to show the location of the sensor [2] for the subsequent installation.

(c) Remove the bolts [7], washers [8], washers [9], and nuts [10] that attach the sensor [2] to its bracket [1].

(d) Remove the sensor [2].

H. Installation

SUBTASK 52-34-20-420-001

(1) Install the sensor [2] as follows:

(a) Apply the corrosion inhibiting material, G50136 to the bolts [7] that attach the sensor [2] to its bracket [1].

(b) Hold the sensor [2] in its correct position and install the bolts [7], washers [8], washers [9], and nuts [10] to attach the sensor [2] to its bracket [1].

(c) Connect the wiring [3] to the sensor [2].

I. Adjustment

SUBTASK 52-34-20-820-001

(1) Adjust the sensor [2] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Turn the latch/hook manual drive to the fully unlatched position.

NOTE: When the overtravel coupling at the latch/hook torque tube touches the unlatched overtravel stop the door is in the fully unlatched position.

(c) Manually close and latch the door.

(d) Make sure the clearance between the sensor [2] and the target [6] is as shown on View A-A, Figure 201.

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(e) Manually open the door at least 3 ft (0.9 m).

(f) Disconnect the electrical connector from the latch/hook power drive unit.

(g) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(h) Close the door electrically.

(i) Make sure the power is removed from the lift power drive unit when the bottom of the door is in the position as shown on View B-B, Figure 201.

NOTE: Measure the distance between the door skin and the fuselage skin at the bottom of each side of the door.

(j) Make sure the pull-in hooks do not touch the pull-in pins.

(k) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(l) Adjust the clearance or the alignment of the sensor [2] as follows:

1) Remove the bolts [7], washers [8], washers [9], and nuts [10] that attach the sensor [2] to its bracket [1].
2) Add or remove laminations of shim [5] to get the correct clearance.
3) Move the serrated plate [4] to get the correct alignment.

   NOTE: The serrations on the serrated plate are 0.036 in. (0.914 mm) apart.
4) Apply the primer, C00259 to the bare laminations of shim [5].
5) Bond the shim [5] to the serrated plate [4] with the sealant, A00247.
   a) Do not get the material on the serrations of the serrated plate.
6) Apply the corrosion inhibiting material, G50136 to the serrations of the serrated plate [4].
7) Apply the corrosion inhibiting material, G50136 to the bolts [7] that attach the sensor [2] to its bracket [1].
8) Hold the sensor [2] in its correct position and install the bolts [7], washers [8], washers [9], and nuts [10] to attach the sensor [2] to its bracket [1].

(m) Connect the electrical connector to the latch/hook power drive unit.

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J. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-20-860-002

(1) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

K. Installation Test

SUBTASK 52-34-20-710-001

(1) Do a test on the sensor [2] as follows:

(a) Operate the door electrically.

(b) Make sure the door opens and closes correctly.

——— END OF TASK ———

TASK 52-34-20-900-802

3. Unlatched and Latched Proximity Sensors Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The unlatched and latched proximity sensors are attached to the door structure and the target is attached to the latch/hook torque tube.

(2) The sensors detect that the door is unlatched or latched and remove power to the latch/hook power drive unit.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
22	Latched proximity sensor	52-34-20-05-035	ARO ALL

E. Location Zones

Zone	Area
821	Forward Large Cargo Door

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F. Prepare for the Removal

SUBTASK 52-34-20-860-003

(1) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-34-20-010-002

(2) Get access to the latched proximity sensor [22] as follows:

(a) Open the door sufficiently to get access to the latched proximity sensor [22].

(b) Remove the applicable door lining.

G. Removal

SUBTASK 52-34-20-020-002

(1) Remove the latched proximity sensor [22] as follows:

(a) Disconnect the wiring [29] from the latched proximity sensor [22].

(b) Make marks on the serrated plate [35] to show the location of the latched proximity sensor [22] for the subsequent installation.

(c) Remove the bolts [25], washers [26], washers [27], and nuts [28] that attach the latched proximity sensor [22] to the serrated plate [35].

(d) Remove the latched proximity sensor [22].

H. Installation

SUBTASK 52-34-20-420-002

(1) Install the latched proximity sensor [22] as follows:

(a) Apply the corrosion inhibiting material, G50136 to the bolts [25] that attaches the latched proximity sensor [22] to the serrated plate [35].

(b) Hold the latched proximity sensor [22] in its correct position and install the bolts [25], washers [26], washers [27], and nuts [28] to attach the latched proximity sensor [22] to the serrated plate [35].

(c) Connect the wiring [29] to the latched proximity sensor [22].

I. Adjustment

SUBTASK 52-34-20-820-002

(1) Adjust the latched proximity sensor [22] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Turn the latch/hook manual drive to the fully latched position.

NOTE: When the overtravel coupling at the latch/hook torque tube touches the latched overtravel stop the door is in the fully latched position.

(c) Make sure the clearance between the latched proximity sensor [22] and the target [21] is as shown on View E-E, Figure 201.

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(d) Turn the latch/hook manual drive to the fully unlatched position.

NOTE: When the overtravel coupling at the latch/hook torque tube touches the unlatched overtravel stop the door is in the fully unlatched position.

(e) Make sure the clearance between the latched proximity sensor [22] and the target [21] is as shown on View D-D, Figure 201.

(f) Disconnect the electrical connector from the lift power drive unit.

(g) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(h) Unlatch and latch the door electrically.

(i) Make sure the power is removed from the latch/hook power drive unit when the overtravel coupling is in the positions as shown on View C, Figure 201.

(j) Make sure the overtravel coupling does not touch the overtravel stops.

(k) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(l) Adjust the clearance or the alignment of the latched proximity sensor [22] as follows:

1) Remove the bolts [25], washers [26], washers [27], and nuts [28] that attach the latched proximity sensor [22] to the serrated plate [35].
2) Remove the bolts [30], washers [31], washers [32], and nuts [33] that attach the serrated plate [35] to the bracket [24].
3) Add or remove laminations of laminated shim [34] to get the correct clearance.
4) Move the serrated plate [35] to get the correct alignment.

   NOTE: The serrations on the serrated plate are 0.036 in. (0.914 mm) apart.
5) Apply the primer, C00259 to the bare laminations of laminated shim [34].
6) Bond the laminated shim [34] to the serrated plate [35] with the sealant, A00247.
   a) Do not get the material on the serrations of the serrated plate.
7) Apply the corrosion inhibiting material, G50136 to the serrations of the serrated plate [35].
8) Apply the corrosion inhibiting material, G50136 to the bolts [30] that attach the serrated plate [35] to the bracket [24].
9) Install the bolts [30], washers [31], washers [32], and nuts [33] to attach the serrated plate [35] to the bracket [24].

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10) Apply the sealant, A00247 to the bolts [25] that attach the latched proximity sensor [22] to the serrated plate [35].

11) Hold the latched proximity sensor [22] in its correct position and install the bolts [25], washers [26], washers [27], and nuts [28] to attach the latched proximity sensor [22] to the serrated plate [35].

(m) Connect the electrical connector to the lift power drive unit.

J. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-20-410-001

(1) Install the door lining.

SUBTASK 52-34-20-860-004

(2) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

K. Installation Test

SUBTASK 52-34-20-710-002

(1) Do a test on the latched proximity sensor [22] as follows:

(a) Operate the door electrically.

(b) Make sure the door opens and closes correctly.

——— END OF TASK ———

TASK 52-34-20-900-803

4. Door Up Proximity Sensor Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The door up proximity sensor is found on the upper, aft edge of the cutout and the target is found on the drive arm.

(2) The sensor detects that the door is fully open and removes power to the lift power drive unit.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

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D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
41	Sensor	52-34-20-08-025	ARO ALL

E. Location Zones

Zone	Area
821	Forward Large Cargo Door

F. Prepare for the Removal

SUBTASK 52-34-20-010-003

(1) Open the door sufficiently to get access to the sensor [41].

SUBTASK 52-34-20-860-005

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

G. Removal

SUBTASK 52-34-20-020-003

(1) Remove the sensor [41] as follows:

(a) Disconnect the wiring [42] from the sensor [41].

(b) Make marks on the serrated plate [50] to show the location of the sensor [41] for the subsequent installation.

(c) Remove the bolts [45], washers [46], washers [47], and nuts [48] that attach the sensor [41] to its bracket [43].

(d) Remove the sensor [41].

H. Installation

SUBTASK 52-34-20-420-003

(1) Install the sensor [41] as follows:

(a) Apply the corrosion inhibiting material, G50136 to the bolts [45] that attach the sensor [41] to its bracket [43].

(b) Hold the sensor [41] in its correct position and install the bolts [45], washers [46], washers [47], and nuts [48] to attach the sensor [41] to its bracket [43].

(c) Connect the wiring [42] to the sensor [41].

I. Adjustment

SUBTASK 52-34-20-820-003

(1) Adjust the sensor [41] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

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(b) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(c) Open the door electrically.

(d) Make sure that the clearance between the sensor [41] and the target [44] is as shown on View F-F, Figure 201.

(e) Close the door electrically for at least 5 seconds.

(f) Open the door electrically.

(g) Make sure that the door stops automatically when the drive arm bumper is as shown on View G-G, Figure 201.

(h) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(i) Adjust the clearance or the alignment of the sensor [41] as follows:

1) Remove the bolts [45], washers [46], washers [47], and nuts [48] that attach the sensor [41] to its bracket [43].
2) Add or remove laminations of shim [49] to get the correct clearance.
3) Move the serrated plate [50] to get the correct alignment.

   NOTE: The serrations on the serrated plate are 0.036 in. (0.914 mm) apart.
4) Apply the primer, C00259 to the bare laminations of shim [49].
5) Bond the shim [49] to the serrated plate [50] with the sealant, A00247.
   a) Do not get the material on the serrations of the serrated plate.
6) Apply the corrosion inhibiting material, G50136 to the serrations of the serrated plate [50].
7) Apply the corrosion inhibiting material, G50136 to the bolts [45] that attach the sensor [41] to its bracket [43].
8) Hold the sensor [41] in its correct position and install the bolts [45], washers [46], washers [47], and nuts [48] to attach the sensor [41] to its bracket [43].

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J. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-20-860-006

(1) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

K. Installation Test

SUBTASK 52-34-20-710-003

(1) Do a test on the sensor [41] as follows:

(a) Operate the door electrically.

(b) Make sure the door opens and closes correctly.

——— END OF TASK ———

TASK 52-34-20-900-804

5. Handle Unlocked Proximity Sensor Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The handle unlocked proximity sensor is attached to the door structure and the target is attached to the lock handle bellcrank.

(2) The sensor detects that the handle is unlocked and gives power to the door.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1690	Actuators/Deactuators Set - Proximity Sensor Part #: 8-758-01 Supplier: 08748 Part #: A27092-70 Supplier: 81205 Opt Part #: A32102-25 Supplier: 81205 Opt Part #: KHT8-758-01 Supplier: 08748

D. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

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(Continued)

Reference	Description	Specification
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
63	Sensor	52-34-20-07-025	ARO ALL

F. Location Zones

Zone	Area
821	Forward Large Cargo Door

G. Prepare for the Removal

SUBTASK 52-34-20-010-004

(1) Open the door sufficiently to get access to the sensor [63].

SUBTASK 52-34-20-860-007

(2) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

H. Removal

SUBTASK 52-34-20-020-004

(1) Remove the sensor [63] as follows:

(a) Disconnect the wiring [62] from the sensor [63].

(b) Make marks on the serrated plate [69] to show the location of the sensor [63] for the subsequent installation.

(c) Remove the bolts [65], washers [66], washers [67], and nuts [68] that attach the sensor [63] to its bracket [64].

(d) Remove the sensor [63].

I. Installation

SUBTASK 52-34-20-420-004

(1) Install the sensor [63] as follows:

(a) Apply the corrosion inhibiting material, G50136 to the bolts [65] that attach the sensor [63] to its bracket [64].

(b) Hold the sensor [63] in its correct position and install the bolts [65], washers [66], washers [67], and nuts [68] to attach the sensor [63] to its bracket [64].

(c) Connect the wiring [62] to the sensor [63].

J. Adjustment

SUBTASK 52-34-20-820-004

(1) Adjust the sensor [63] as follows:

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(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(c) Open the door.

(d) Make sure that the clearance between the sensor [63] and target [61] is as shown on View E, Figure 201.

(e) Put the proximity sensor test set, SPL-1690 against the latch range and latched proximity sensors.

(f) Push the lock handle in the close direction to remove backlash in the mechanism between lock pawl No. 1 and the sensor [63].

(g) Make sure the green DOOR LATCHED light on the control panel goes off when lock pawl No. 1 is in the position shown on View F, Figure 201.

NOTE: The light is on when the sensor [63] gives the signal target near.

(h) Remove the proximity sensor test set, SPL-1690 from the latch range and the latched proximity sensors.

(i) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(j) Adjust the clearance or the alignment of the sensor [63] as follows:

1) Remove the bolts [65], washers [66], washers [67], and nuts [68] that attach the sensor [63] to its bracket [64].

2) Add or remove laminations of laminated shim [70] to get the correct clearance.

3) Move the serrated plate [69] to get the correct alignment.

NOTE: The serrations on the serrated plate are 0.036 in. (0.914 mm) apart. If you move the serrated plate one serration, the clearance between lock pawl No. 1 and main the cam latch will change by 0.010 in. (0.254 mm). An outboard move of the serrated plate makes the clearance smaller.

4) Apply the primer, C00259 to the bare laminations of laminated shim [70].

5) Bond the laminated shim [70] to the serrated plate [69] with the sealant, A00247.

a) Do not get the material on the serrations of the serrated plate.

6) Apply the corrosion inhibiting material, G50136 to the serrations of the serrated plate [69].

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7) Apply the corrosion inhibiting material, G50136 to the bolts [65] that attach the sensor [63] to its bracket [64].

8) Hold the sensor [63] in its correct position and install the bolts [65], washers [66], washers [67], and nuts [68] to attach the sensor [63] to its bracket [64].

K. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-20-860-008

(1) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

L. Installation Test

SUBTASK 52-34-20-710-004

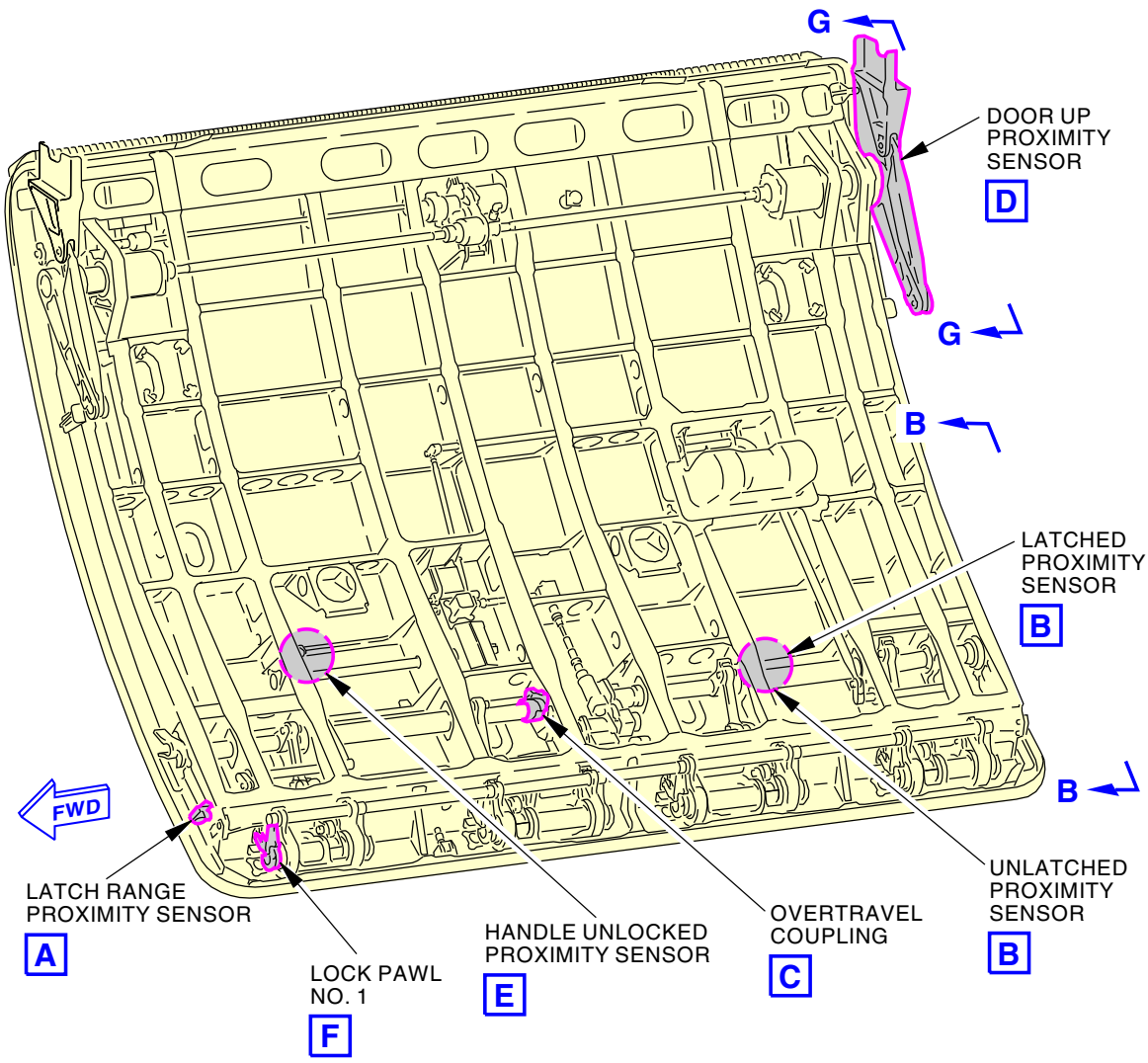
(1) Do a test on the sensor [63] as follows:

(a) Operate the door electrically.

(b) Make sure the door opens and closes correctly.

——— END OF TASK ———

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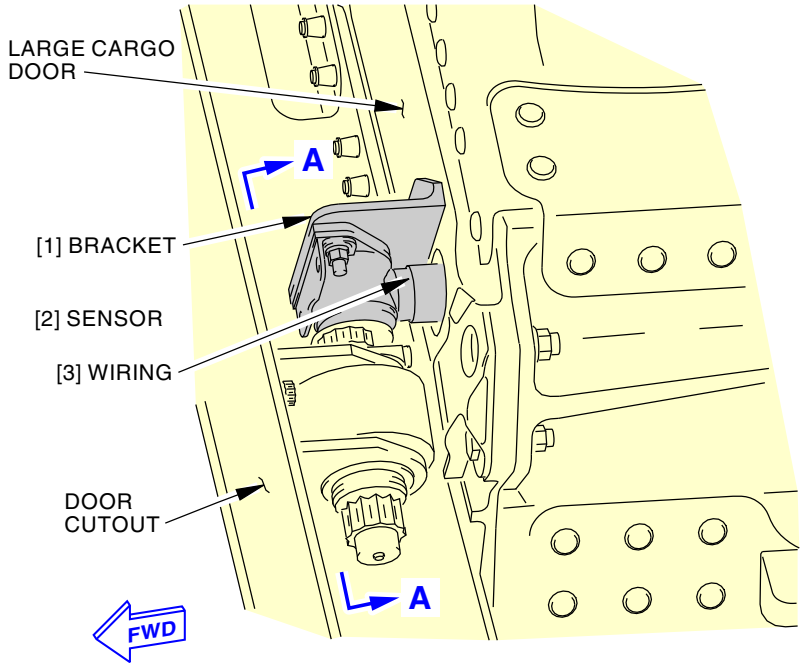


LARGE CARGO DOOR

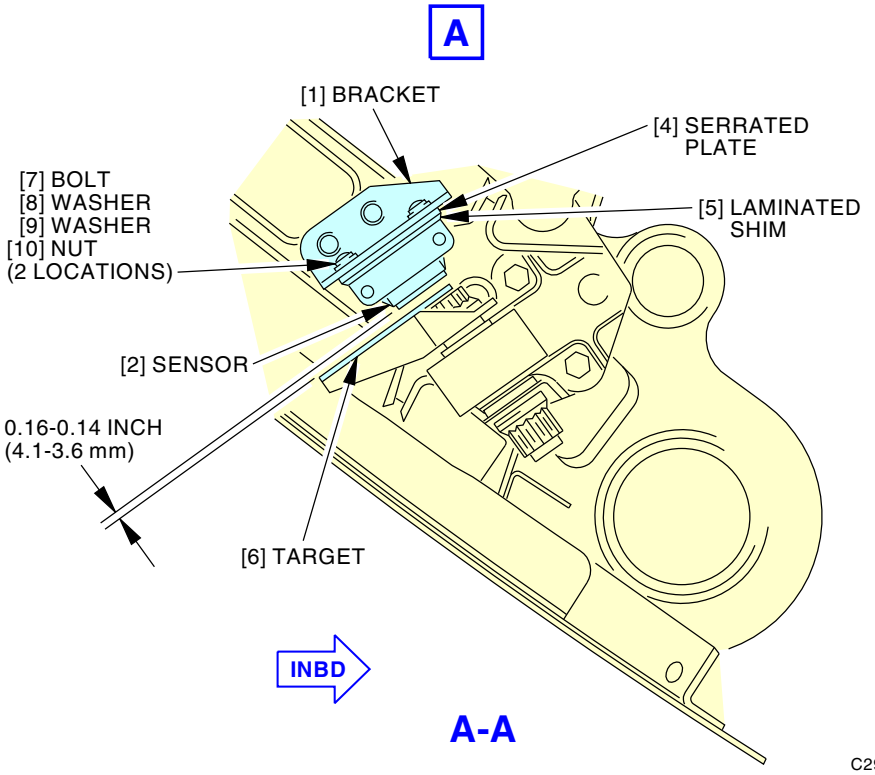
G85504 S0006425517_V2

Door Control Proximity Sensors
Figure 201/52-34-20-990-801 (Sheet 1 of 8)

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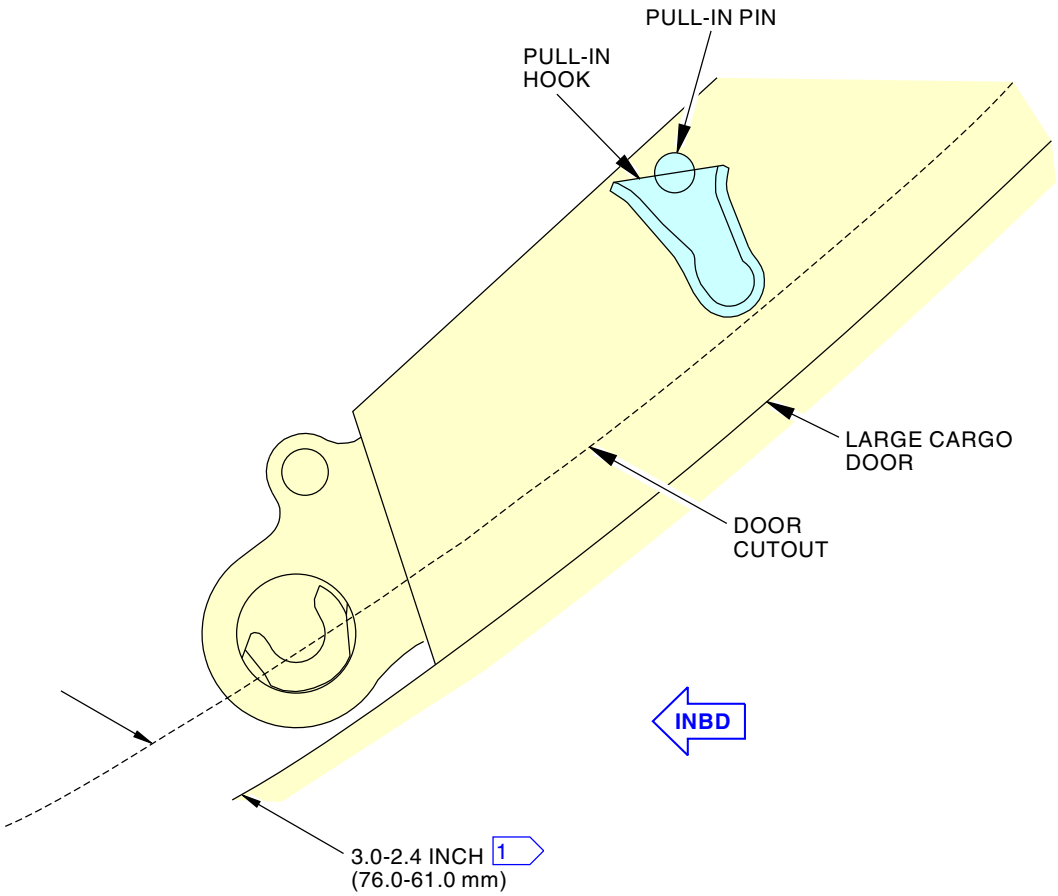
LATCH RANGE PROXIMITY SENSOR



C29731 S0006425518_V3

Door Control Proximity Sensors
Figure 201/52-34-20-990-801 (Sheet 2 of 8)

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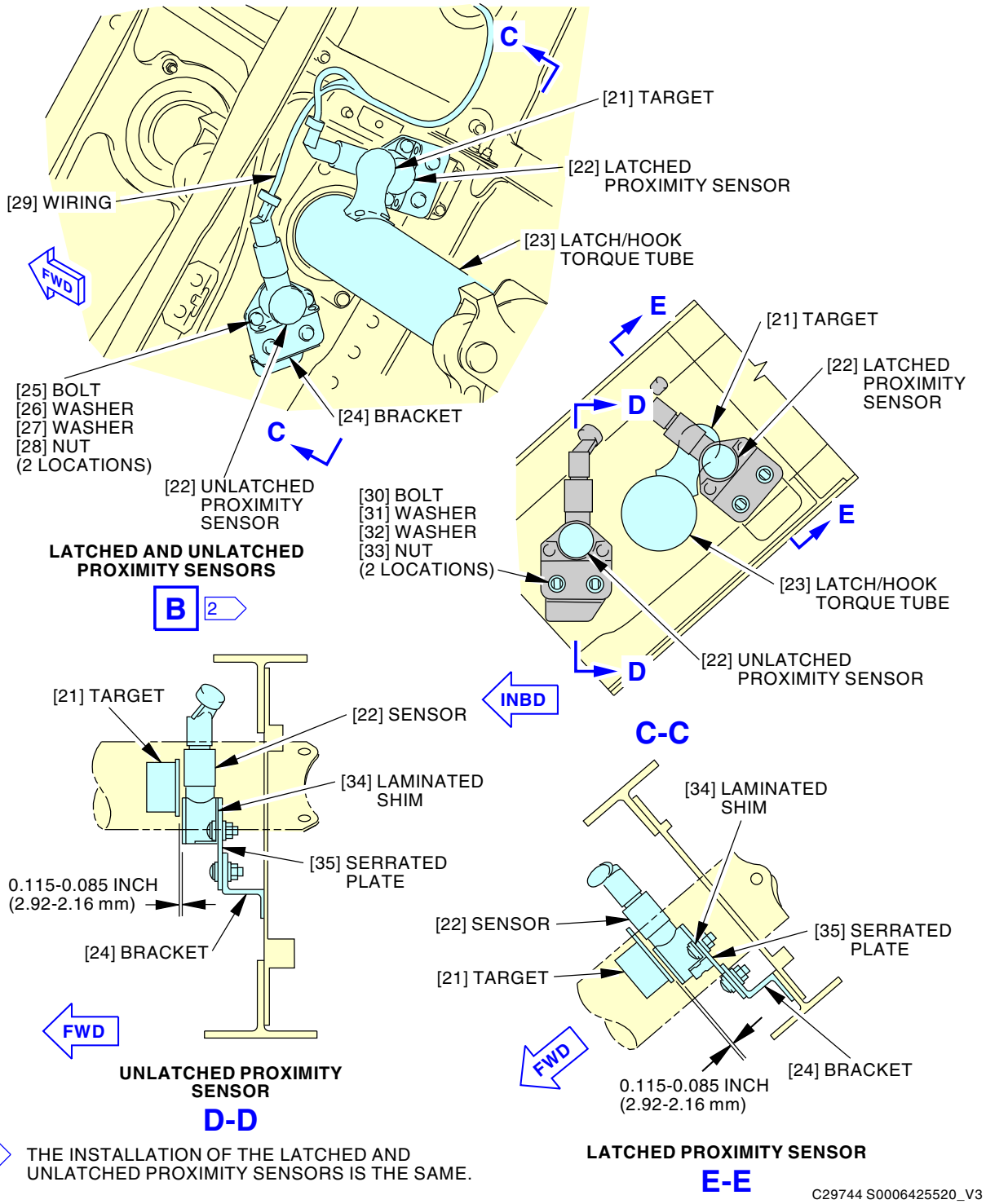
B-B

1 MAKE SURE THE POWER TO THE LIFT POWER DRIVE UNIT IS REMOVED WHEN THE DOOR IS IN THIS POSITION.

E19138 S0006425519_V3

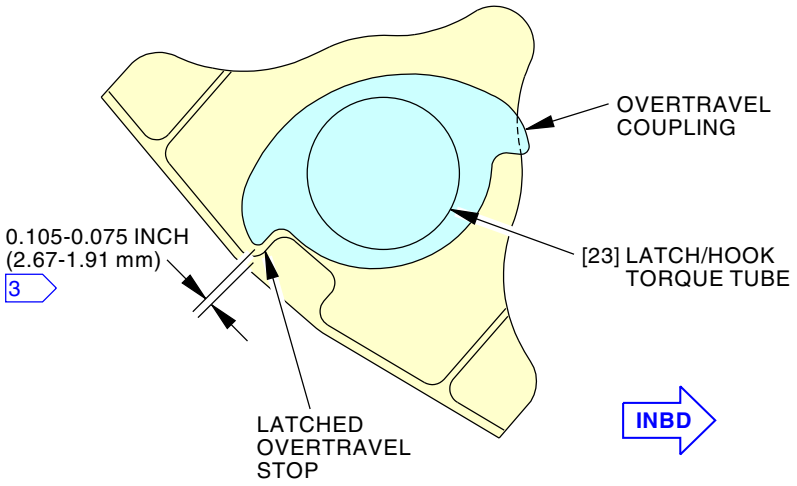
Door Control Proximity Sensors
Figure 201/52-34-20-990-801 (Sheet 3 of 8)

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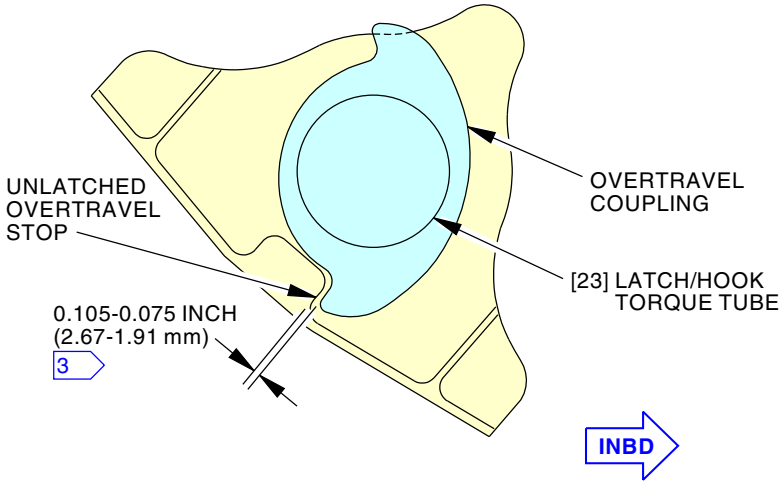
Door Control Proximity Sensors
Figure 201/52-34-20-990-801 (Sheet 4 of 8)

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OVERTRAVEL COUPLING
(LATCHED POSITION)

C



OVERTRAVEL COUPLING
(UNLATCHED POSITION)

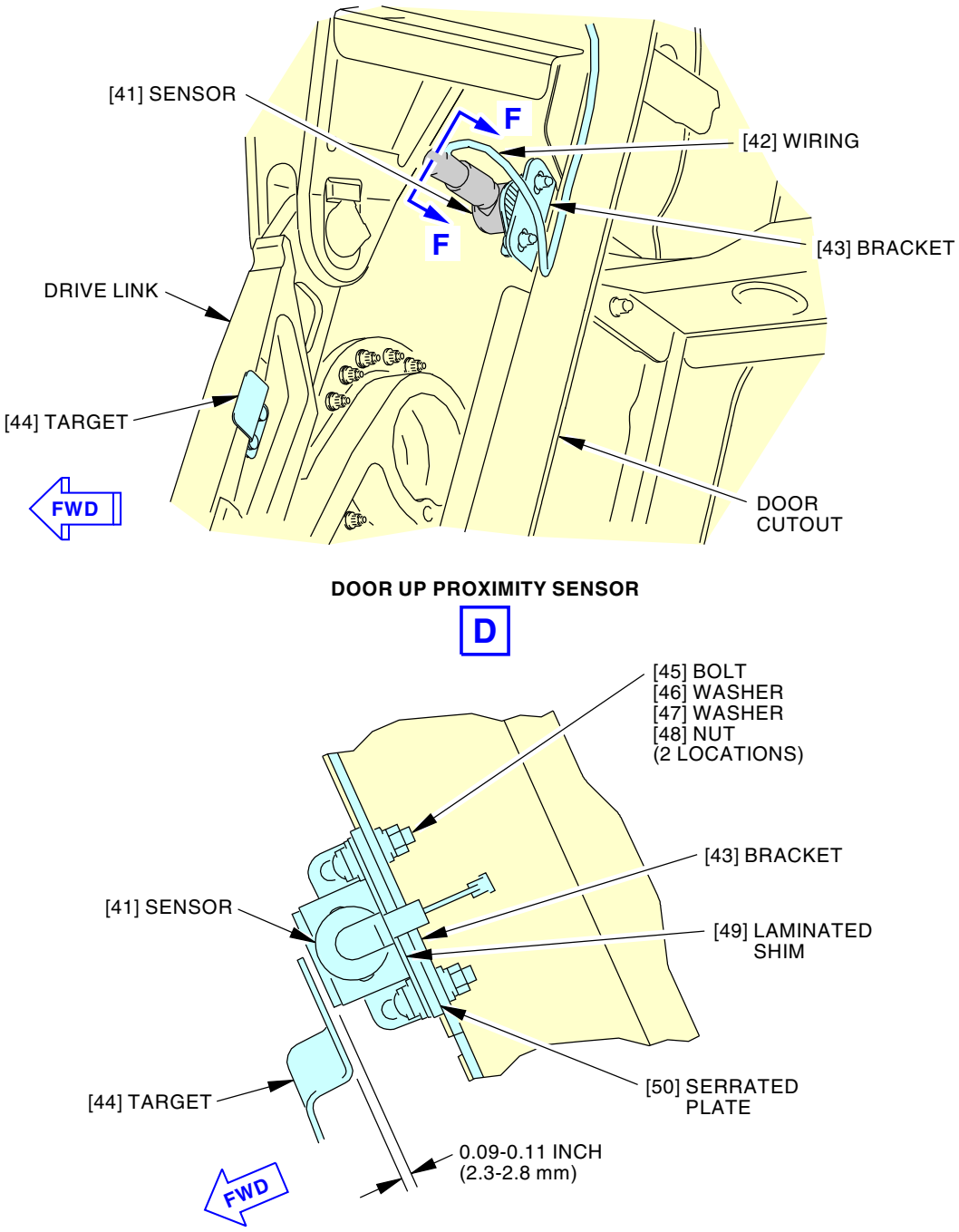
C

3 MAKE SURE THE POWER TO THE LATCH/HOOK POWER DRIVE UNIT IS REMOVED WHEN THE OVERTRAVEL COUPLING IS IN THESE POSITIONS.

C52323 S0006425521_V3

Door Control Proximity Sensors
Figure 201/52-34-20-990-801 (Sheet 5 of 8)

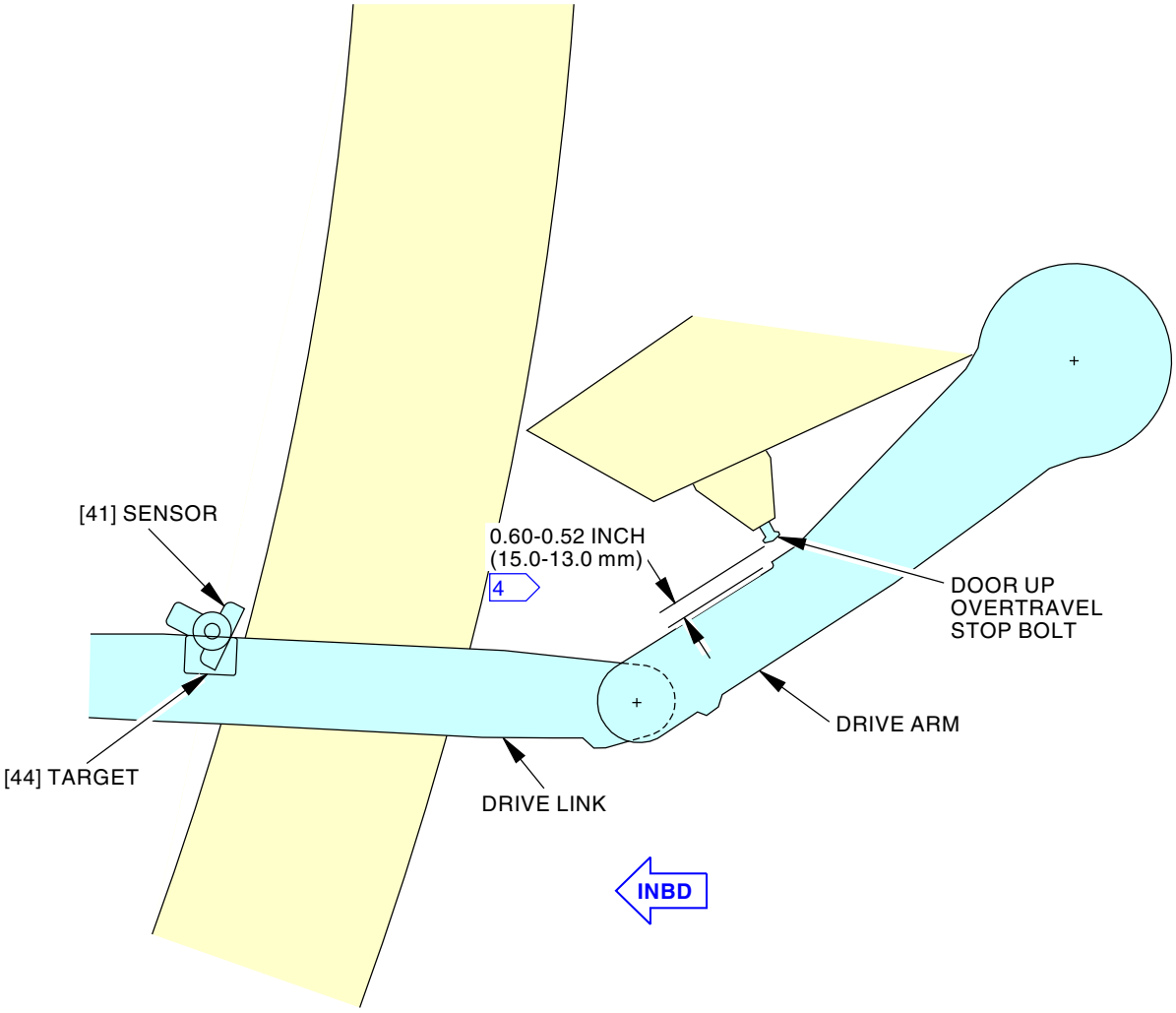
ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



C30205 S0006425522_V3

Door Control Proximity Sensors
Figure 201/52-34-20-990-801 (Sheet 6 of 8)

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(DOOR FULLY OPEN POSITION)

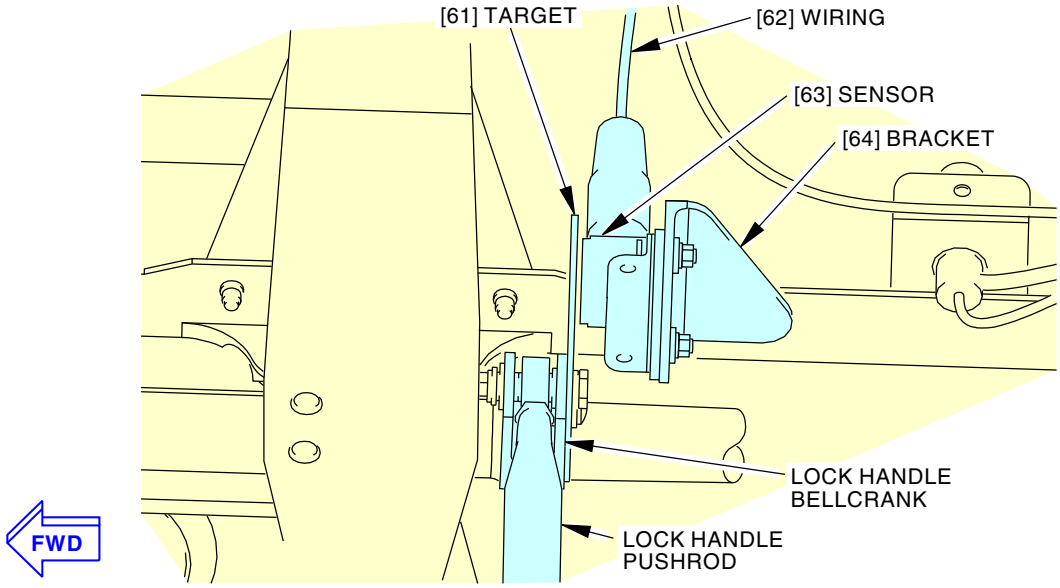
G-G

4 MAKE SURE THE POWER TO THE LIFT POWER DRIVE UNIT IS REMOVED WHEN THE DRIVE ARM IS IN THIS POSITION.

E19187 S0006425523_V3

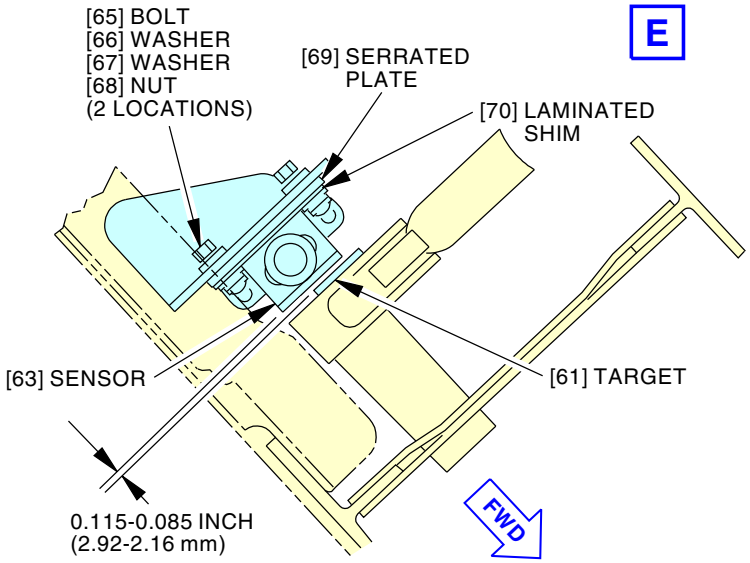
Door Control Proximity Sensors
Figure 201/52-34-20-990-801 (Sheet 7 of 8)

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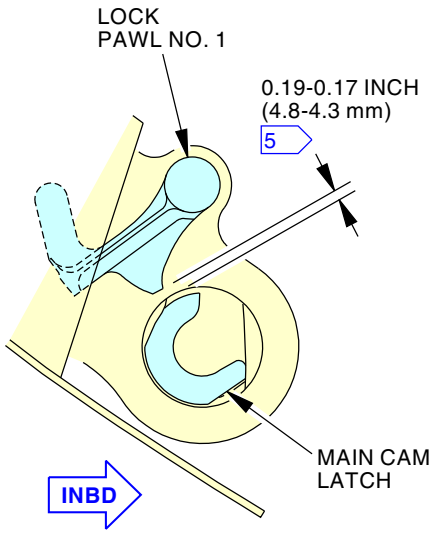
HANDLE UNLOCKED PROXIMITY SENSOR (OUTBOARD SIDE)

E



HANDLE UNLOCKED PROXIMITY SENSOR (INBOARD SIDE)

E



LOCK PAWL NO. 1 (NEARLY UNLOCKED POSITION)

F

5 MAKE SURE THE SENSOR CHANGES ITS SIGNAL TO TARGET FAR AT THIS POSITION OF LOCK PAWL NO. 1.

C30198 S0006425524_V3

Door Control Proximity Sensors
Figure 201/52-34-20-990-801 (Sheet 8 of 8)

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DOOR CONTROL SWITCH - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the external cargo door control switch.

(2) An installation of the external cargo door control switch.

B. The external cargo door control switch is found on the external cargo door control panel, P43.

Table 401/52-34-22-993-801

EXTERNAL CARGO DOOR CONTROL SWITCH	
SWITCH	**NAME**
S52006	External Cargo Door Control Switch

TASK 52-34-22-000-801

2. External Cargo Door Control Switch Removal

(Figure 401)

A. Location Zones

Zone	Area
821	Forward Large Cargo Door

B. Access Panels

Number	Name/Location
122AR	Forward Cargo Door Control Door

C. Prepare for the Removal

SUBTASK 52-34-22-860-001

(1) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-34-22-010-001

(2) Open this access door (7):

Number	Name/Location
122AR	Forward Cargo Door Control Door

D. Removal

SUBTASK 52-34-22-020-001

(1) Remove the switch [8] as follows:

(a) Remove the screws [2], washers [3], and nuts [4] that attach the panel assembly [1] to the pan [5].

(b) Pull the panel assembly [1] from the pan [5] to get access to the switch [8].

(c) Disconnect the wiring [9] from the switch [8].

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(d) Loosen and remove the locknut [6] from the front of the switch [8].

(e) Pull the switch [8] out from the rear of the panel assembly [1].

——— END OF TASK ———

TASK 52-34-22-400-801

3. External Cargo Door Control Switch Installation

(Figure 401)

A. References

Reference	Title
52-34-00-720-801	Forward Large Cargo Door System Test (P/B 501)
SWPM 20-20-00	Standard Wiring Practices Manual

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in Class I, Divisions I & II hazardous (classified) locations. Outside these hazardous locations, COM-614 can be used in lieu of COM-1550). Part #: 620LK Supplier: 1CRL2 Part #: M1 Supplier: 3AD17 Part #: T477W Supplier: 01014 Opt Part #: M1B Supplier: 3AD17

C. Consumable Materials

Reference	Description	Specification
A00230	Compound - Electrical Insulating Coating	BMS5-37
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00064	Coating - Aluminum Chemical Conversion	BAC5719 Type II Class A (MIL-DTL-5541 Class 1A)

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Panel assembly	52-34-22-02-030	ARO 001-016
8	Switch	Not Specified	

E. Location Zones

Zone	Area
821	Forward Large Cargo Door

F. Access Panels

Number	Name/Location
122AR	Forward Cargo Door Control Door

G. Installation

SUBTASK 52-34-22-420-001

(1) Install the switch [8] in the panel assembly [1] as follows:

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(a) Put the switch [8] through the panel assembly [1] in its correct position.

(b) Install the locknut [6] on the switch [8] from the front of the panel assembly [1].

(c) Tighten the locknut [6].

(d) Connect the wiring [9] to the switch [8].

(e) Apply compound, A00230 to the switch [8] terminals.

SUBTASK 52-34-22-420-002

(2) Install the panel assembly [1] on the pan [5] as follows:

(a) Clean the pan [5] and the panel assembly [1] of all unwanted material.

(b) Apply the coating, C00064 to the mating surfaces between the washers [3] and panel assembly [1].

(c) Put the panel assembly [1] in its correct position on the pan [5].

(d) Install the screws [2], washers [3], and nuts [4] to attach the panel assembly [1] to the pan [5].

(e) Use the intrinsically safe approved bonding meter, COM-1550 to do a resistance check between the panel assembly [1] and the pan [5].

1) Make sure the resistance is not more than 0.0025 ohm. Refer to Electrical Bonding and Grounding (SWPM 20-20-00).

(f) Make a fillet seal on the screws [2] and washers [3] with the sealant, A00247.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-22-860-002

(1) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

I. Installation Test

SUBTASK 52-34-22-710-001

(1) Do a test on the external cargo door control switch as follows:

(a) Do this task: Forward Large Cargo Door System Test, TASK 52-34-00-720-801.

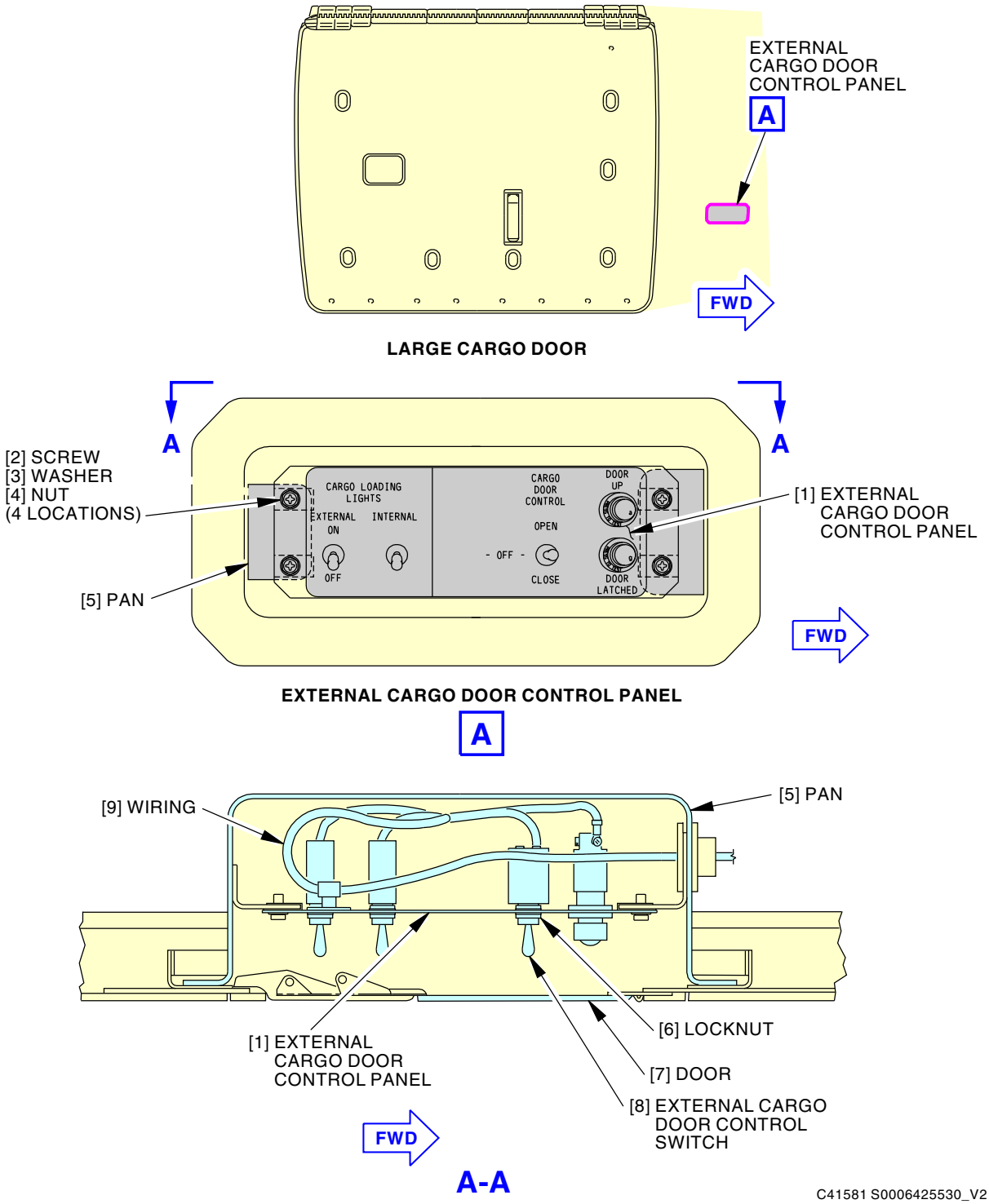
Only do the External Cargo Door Control Switch Test.

(b) Close this control door (7):

Number	Name/Location
122AR	Forward Cargo Door Control Door

END OF TASK

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External Cargo Door Control Switch Installation
Figure 401/52-34-22-990-801

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FORWARD LARGE CARGO DOOR WIRE BUNDLE - MAINTENANCE PRACTICES

1. General

A. This procedure has this task:

(1) Removal, installation and adjustment of the forward large cargo door wire bundle.

TASK 52-34-23-900-801

2. Forward Large Cargo Door Wire Bundle - Removal, Installation and Adjustment

Figure 201

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
24-22-00-860-806	Remove Electrical Power (P/B 201)
25-52-09-000-801	Ceiling Liner Removal (P/B 401)
25-52-09-400-801	Ceiling Liner - Installation (P/B 401)
52-34-00-860-801	Open the Door Electrically with the External Cargo Door Control Switch (P/B 201)
52-34-00-860-803	Close the Door Electrically with the External Cargo Door Control Switch (P/B 201)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Wire bundle	52-34-22-02-105	ARO ALL
		52-34-51-11-139	ARO ALL
24	Strap	52-34-51-11-041	ARO 010-013

C. Location Zones

Zone	Area
821	Forward Large Cargo Door

D. Prepare for the Removal

SUBTASK 52-34-23-010-001

(1) Get access to the wire bundle [1]. Do this task: Ceiling Liner Removal, TASK 25-52-09-000-801.

SUBTASK 52-34-23-010-002

(2) Do this task: Open the Door Electrically with the External Cargo Door Control Switch, TASK 52-34-00-860-801.

SUBTASK 52-34-23-860-001

(3) Do this task: Remove Electrical Power, TASK 24-22-00-860-806.

E. Removal

SUBTASK 52-34-23-020-001

(1) Remove the wire bundle [1] as follows:

NOTE: Make sure that you tag and keep the removed parts. The parts will be necessary for the installation.

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ARO 001-009, 014-999

(a) Remove the screw [12], screws [14], screws [16], screws [21] and washers [13], washers [15], washers [17] that attach the wire bundle [1], wire harness sleeve [18] and support bracket [19] to the door structure.

ARO 010-013

(b) Remove the screw [12], screws [14], screws [21] and washers [13], washers [15] that attach the wire bundle [1], wire harness sleeve [18] and support bracket [19] to the door structure.

ARO ALL

(c) Disconnect the electrical connector [20].

(d) Remove the bolt [5], bolts [10], washers [6], spacer [7], spacers [11], and nuts [8] that attach bracket [4] and bracket [9] to the rubber clamp blocks [22].

(e) Remove the rubber clamp blocks [22].

ARO 001-009, 014-999

(f) Remove the bolt [3] from the p-clamp [2].

ARO 010-013

(g) Remove the strap [24] from the ringpost.

ARO ALL

(h) Disconnect the electrical connector [23].

(i) Remove the end of the wire harness sleeve [18] that is attached to the bottom of the door sill.

(j) Carefully remove the wire bundle [1].

F. Installation

SUBTASK 52-34-23-420-001

(1) Install the wire bundle [1] as follows:

NOTE: As a precautionary measure, Corrosion Inhibiting Compound (CIC) may be applied to connectors' D7703 and D7704 engaging face and external surface. Please use SWPM 20-60-03 Special Protection of Electrical Connector, section 5 “Other Connectors” as a guidance.

(a) Carefully put the wire bundle [1] in its position.

1) Make sure the wire bundle [1] is installed in the wire harness sleeve [18].

(b) Install one end of the wire harness sleeve [18] to the bottom of the door sill.

(c) Install the rubber clamp blocks [22] and bracket [4], bracket [9] with bolt [5], bolts [10], washers [6], spacer [7], spacers [11], and nuts [8].

NOTE: Do not tighten the bracket fasteners at this time.

1) Connect the electrical connector [23].

(d) Install the other end of the wire harness sleeve [18], the wire bundle [1] and the support bracket [19] to the door structure.

NOTE: Do not tighten the fasteners to the support bracket [19] at this time.

1) Connect the electrical connector [20].

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G. Adjustment

SUBTASK 52-34-23-820-001

(1) Adjust the position of the wire bundle [1] in the door sill as follows:

(a) Pull excess slack in the wire bundle [1] from the connector [23] through the rubber clamp blocks [22].

NOTE: The wire bundle must measure no more than 9 in. (228.6 mm) between the back shell of the connector [23] and the top surface of the rubber blocks [22].

ARO 001-009, 014-999

(b) Tighten the bolt [3] for the p-clamp [2] to hold the wire bundle [1] in position.

ARO 010-013

(c) Install the strap [24] on the ringpost to hold the wire bundle [1] in position.

ARO ALL

(d) Visually inspect to make sure that the cable assembly loop has no slack.

(e) Tighten the nuts [8].

SUBTASK 52-34-23-820-002

(2) Adjust the position of the wire bundle on the door structure as follows:

(a) Make sure the door is in the full open position.

(b) Make sure the cable is flat inside the Kevlar wire harness sleeve [18].

(c) Observe that the gap between the Kevlar wire harness sleeve [18] and door beam is at an acceptable distance of 0.25 ±0.25 in. (6.35 ±6.35 mm).

(d) Move the support bracket [19] outboard to reduce wire bundle slack, if necessary.

(e) Tighten the support bracket screws [14].

NOTE: Sufficient slack must be observed between the clamp blocks [22] and door to allow the cargo door to fully open without straining the cable assembly.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-34-23-860-002

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-34-23-410-001

(2) Do this task: Close the Door Electrically with the External Cargo Door Control Switch, TASK 52-34-00-860-803.

SUBTASK 52-34-23-410-002

(3) Do this task: Ceiling Liner - Installation, TASK 25-52-09-400-801.

I. Operational Test

SUBTASK 52-34-23-710-001

(1) Do a test on the forward large cargo door as follows:

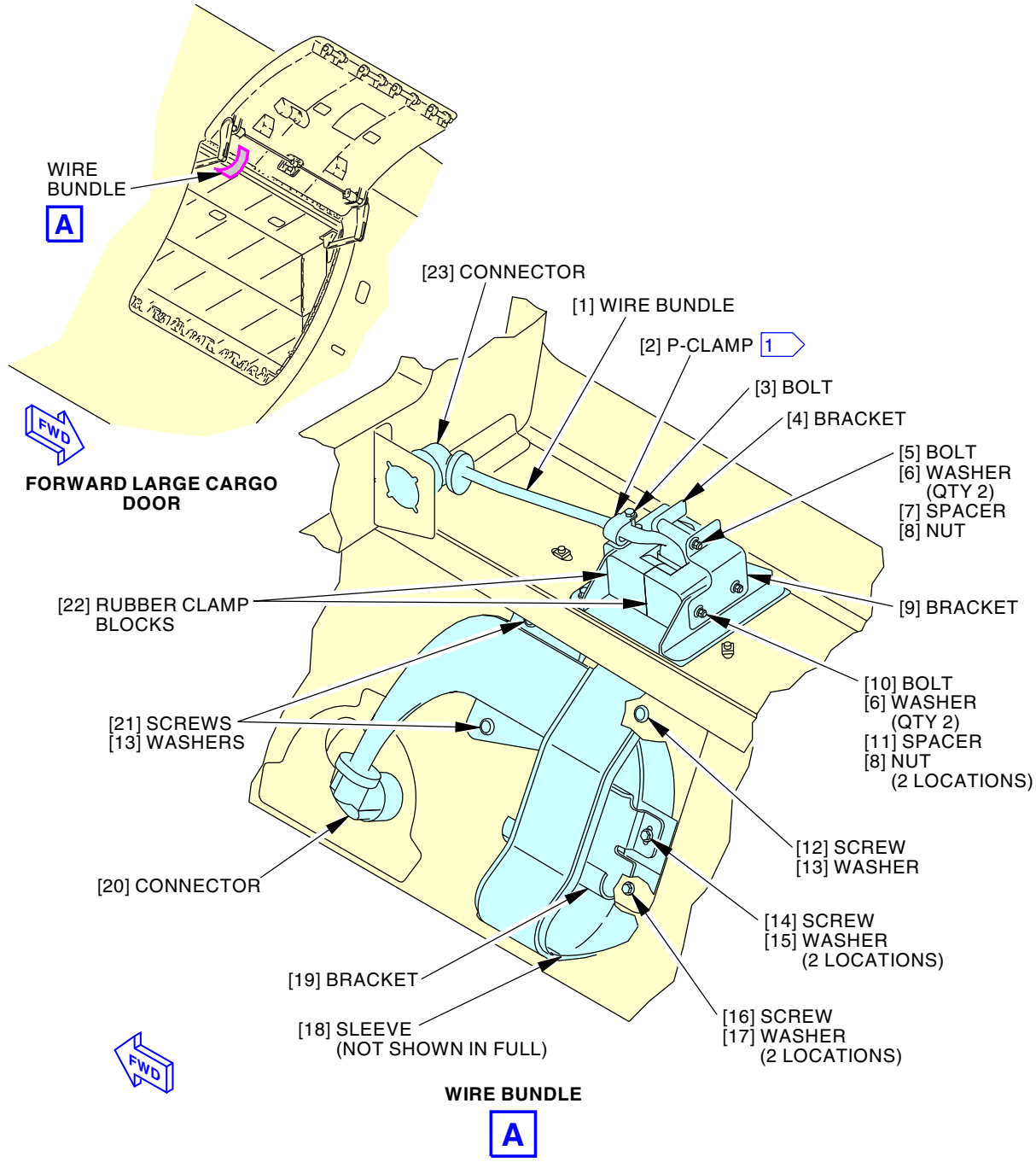
(a) Make sure the Forward Large Cargo Door opens and closes properly.

1) Open the Door Electrically with the External Cargo Door Control Switch, TASK 52-34-00-860-801.

2) Close the Door Electrically with the External Cargo Door Control Switch, TASK 52-34-00-860-803.

END OF TASK

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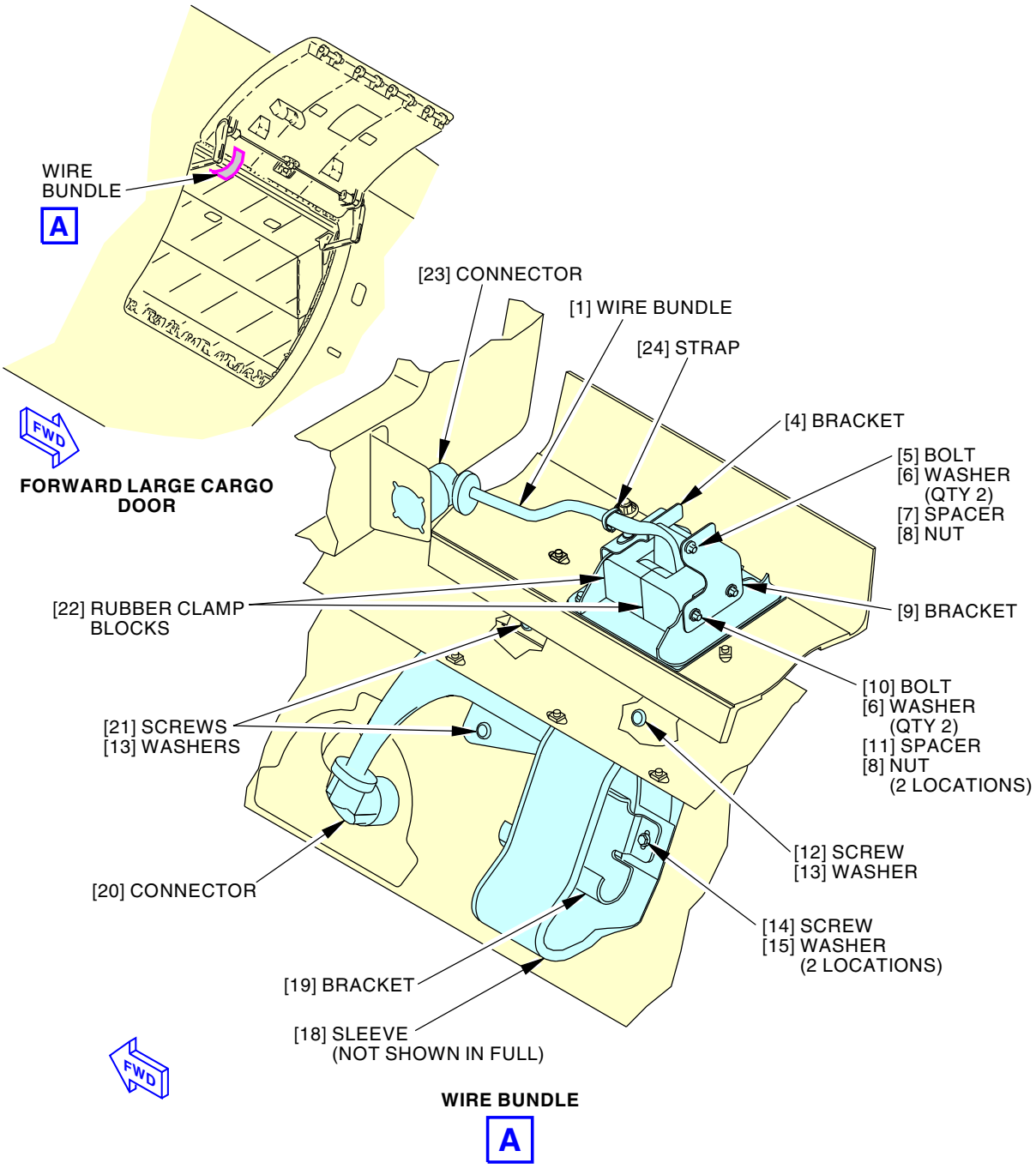


1 OLDER CONFIGURATIONS MAY USE THE P-CLAMP AND BOLT.
NEWER CONFIGURATIONS MAY USE THE RINGPOST AND STRAP.

J89333 S0000184299_V2

Forward Large Cargo Door Wire Bundle
Figure 201/52-34-23-990-801 (Sheet 1 of 2)

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2522931 S0000592444_V1

Forward Large Cargo Door Wire Bundle
Figure 201/52-34-23-990-801 (Sheet 2 of 2)

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AFT SMALL CARGO DOOR - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) Aft Small Cargo Door Deactivation.

(2) Aft Small Cargo Door Activation.

(3) Open the aft small cargo door

(4) Close the aft small cargo door

(5) Open the aft small cargo door electrically

(6) Close the aft small cargo door electrically

(7) Open the aft small cargo door manually

(8) Close the aft small cargo door manually

(9) Open the aft small cargo door with failure of the lift/latch power drive unit (PDU).

(10) Open the aft small cargo door with failure of the hinge power drive unit (PDU) or rotary actuator (jammed).

B. The aft small cargo door is referred to as the door in this procedure.

TASK 52-35-00-040-801

2. Aft Small Cargo Door - Deactivation

(Figure 201)

A. General

(1) This task will deactivate the Aft Small Cargo Door.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1992	Equipment - Fitting, Small Cargo Door Part #: A52004-100 Supplier: 81205 Opt Part #: A52004-47 Supplier: 81205
SPL-1993	Sling - Assembly, Forward And Aft Large Cargo Door And Small Cargo Door Part #: A52004-43 Supplier: 81205
SPL-2006	Barrier - Safety, Aft Small Cargo Door Part #: J52011-2 Supplier: 81205
STD-1095	Crane - Lift, 2000 lb Capacity, 30 Foot Height

C. Location Zones

Zone	Area
117	Main Equipment Center, Left
154	Area Below Aft Cargo Compartment, Right
823	Aft Small Cargo Door

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D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door
825	Bulk Cargo Door

E. Procedure

WARNING DO NOT OPERATE THE DOOR IN WINDS THAT ARE MORE THAN 40 KNOTS (74 KM/HOUR). DO NOT KEEP THE DOOR OPEN IN WINDS THAT ARE MORE THAN 65 KNOTS (120 KM/HOUR). INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT CAN OCCUR.

WARNING INSTALL THE HIGH VISIBILITY WARNING STRAP CORRECTLY WHEN THE CARGO DOOR IS OPEN. IF YOU DO NOT CORRECTLY INSTALL THE HIGH VISIBILITY WARNING STRAP, PERSONS CAN FALL OUT OF THE CARGO COMPARTMENT AND INJURY CAN OCCUR.

SUBTASK 52-35-00-860-018

(1) Make sure that clearance zones are established around the area of the Aft Small Cargo Door.

SUBTASK 52-35-00-480-005

WARNING MAKE SURE YOU INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER, PERSONS CAN FALL OUT OF THE CARGO COMPARTMENT AND INJURY CAN OCCUR.

(2) If a suitable work stand is not available, install the safety barrier, SPL-2006 in the door opening.

SUBTASK 52-35-00-860-019

(3) Unlatch and open the cargo door until the hinge arms are perpendicular to the ground.

NOTE: The latch crank will be in the lifted position.

SUBTASK 52-35-00-860-020

(4) Make sure the cargo door is opened sufficiently to get access to the hinge mechanism attach points.

SUBTASK 52-35-00-010-016

(5) Open this access panel:

Number	Name/Location
825	Bulk Cargo Door

NOTE: This is to enter and gain access to the aft cargo compartment.

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SUBTASK 52-35-00-860-021

WARNING BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(6) Open this circuit breaker and install safety tag:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

SUBTASK 52-35-00-010-017

(7) Open this access panel:

Number	Name/Location
117AL	Main Equipment Center Access Door

SUBTASK 52-35-00-860-022

WARNING BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(8) Open this circuit breaker and install safety tag:

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-35-00-710-004

(9) Do the following steps to make sure the Aft Small Cargo Door is deactivated:

(a) Hold the arming switch on the control panel to ARM position and hold the CARGO DOOR CONTROL switch to the CLOSE position.

(b) Release the CARGO DOOR CONTROL switch.

(10) If the door does not move then the Aft Small Cargo Door is deactivated.

SUBTASK 52-35-00-020-004

(11) Remove the four bolts at each of the two sling attach points on the cargo door.

SUBTASK 52-35-00-480-006

CAUTION MAKE SURE THAT THE SLING IS INSTALLED CORRECTLY AND HOLDS THE WEIGHT OF THE CARGO DOOR. IF THE SLING IS NOT INSTALLED CORRECTLY, DAMAGE TO THE HINGE MECHANISM CAN OCCUR.

(12) Install the small cargo door fitting equipment, SPL-1992 and forward and aft cargo door sling, SPL-1993 to hold the weight of the door.

SUBTASK 52-35-00-480-007

(13) Make sure that the Aft Small Cargo Door is supported using a 30 foot height (2000 lb capacity) lift crane, STD-1095.

(14) Put a sufficient tension load on the forward and aft cargo door sling, SPL-1993 to hold the weight of the cargo door off of the hinges.

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F. Aft Small Cargo Door - Tryout

WARNING DO NOT OPERATE THE DOOR IN WINDS THAT ARE MORE THAN 40 KNOTS (74 KM/HOUR). DO NOT KEEP THE DOOR OPEN IN WINDS THAT ARE MORE THAN 65 KNOTS (120 KM/HOUR). INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT CAN OCCUR.

WARNING INSTALL THE HIGH VISIBILITY WARNING STRAP CORRECTLY WHEN THE CARGO DOOR IS OPEN. IF YOU DO NOT CORRECTLY INSTALL THE HIGH VISIBILITY WARNING STRAP, PERSONS CAN FALL OUT OF THE CARGO COMPARTMENT AND INJURY CAN OCCUR.

NOTE: This tryout is to make sure that the Aft Small Cargo Door is in a zero energy state.

SUBTASK 52-35-00-860-024

(1) Make sure clearance zones are established around the areas of the passenger and cargo doors.

SUBTASK 52-35-00-480-008

WARNING MAKE SURE YOU INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER, PERSONS CAN FALL OUT OF THE CARGO COMPARTMENT AND INJURY CAN OCCUR.

(2) Make sure that a suitable work stand is used, or a safety barrier, SPL-2006 is installed in door opening.

SUBTASK 52-35-00-860-025

WARNING BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(3) Make sure that these circuit breakers are open and have safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

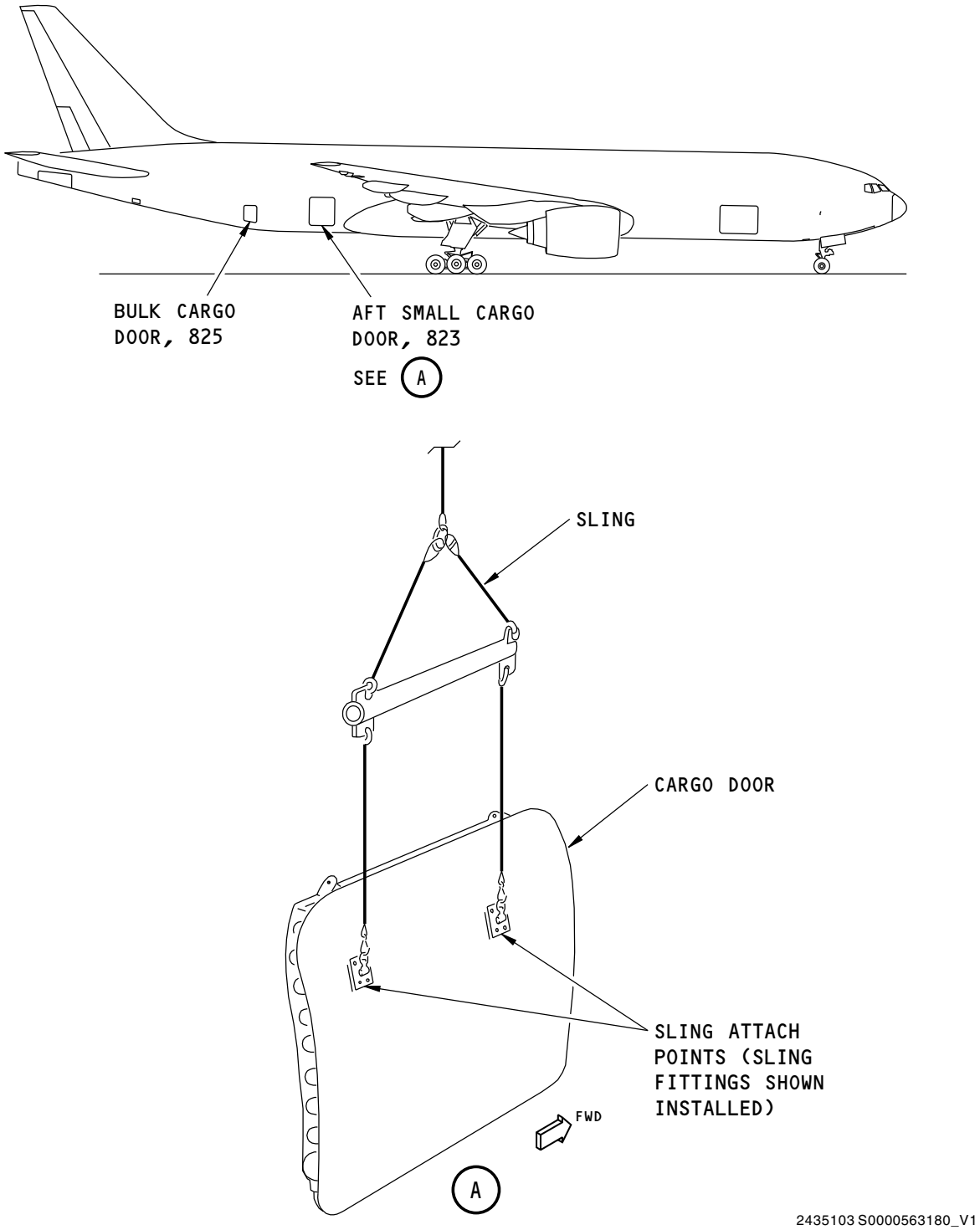
SUBTASK 52-35-00-480-009

CAUTION MAKE SURE THAT THE SLING IS INSTALLED CORRECTLY AND HOLDS THE WEIGHT OF THE CARGO DOOR. IF THE SLING IS NOT INSTALLED CORRECTLY, DAMAGE TO THE HINGE MECHANISM CAN OCCUR.

(4) Make sure that the Aft Small Cargo Door is supported by a 30 foot height (2000 lb capacity) lift crane, STD-1095 and the small cargo door fitting equipment, SPL-1992 and the forward and aft cargo door sling, SPL-1993.

END OF TASK

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Aft Small Cargo Door and Bulk Cargo Door Location
Figure 201/52-35-00-990-815

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TASK 52-35-00-440-801

3. Aft Small Cargo Door - Activation

(Figure 201)

A. General

(1) This task will activate the Aft Small Cargo Door.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1992	Equipment - Fitting, Small Cargo Door Part #: A52004-100 Supplier: 81205 Opt Part #: A52004-47 Supplier: 81205
SPL-1993	Sling - Assembly, Forward And Aft Large Cargo Door And Small Cargo Door Part #: A52004-43 Supplier: 81205

C. Location Zones

Zone	Area
117	Main Equipment Center, Left
154	Area Below Aft Cargo Compartment, Right
823	Aft Small Cargo Door

D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door
825	Bulk Cargo Door

E. Procedure

WARNING DO NOT OPERATE THE DOOR IN WINDS THAT ARE MORE THAN 40 KNOTS (74 KM/HOUR). DO NOT KEEP THE DOOR OPEN IN WINDS THAT ARE MORE THAN 65 KNOTS (120 KM/HOUR). INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT CAN OCCUR.

WARNING INSTALL THE HIGH VISIBILITY WARNING STRAP CORRECTLY WHEN THE CARGO DOOR IS OPEN. IF YOU DO NOT CORRECTLY INSTALL THE HIGH VISIBILITY WARNING STRAP, PERSONS CAN FALL OUT OF THE CARGO COMPARTMENT AND INJURY CAN OCCUR.

SUBTASK 52-35-00-860-026

(1) Make sure that clearance zones are established around the area of the Aft Small Cargo Door.

SUBTASK 52-35-00-480-010

(2) Make sure that the Aft Small Cargo Door is installed and connected to the airplane hinges and lift system.

SUBTASK 52-35-00-080-001

(3) Make sure that the small cargo door fitting equipment, SPL-1992 and the forward and aft cargo door sling, SPL-1993 are removed from the door.

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SUBTASK 52-35-00-080-002

(4) Make sure that the four bolts in the cargo door skin at the two sling attach points are installed.

SUBTASK 52-35-00-860-028

WARNING

BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(5) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-35-00-410-005

(6) Close this access panel:

Number	Name/Location
117AL	Main Equipment Center Access Door

SUBTASK 52-35-00-410-006

(7) Close this access panel:

Number	Name/Location
825	Bulk Cargo Door

END OF TASK

TASK 52-35-00-860-805

4. Open the Aft Small Cargo Door

A. Location Zones

Zone	Area
823	Aft Small Cargo Door

B. Procedure

SUBTASK 52-35-00-860-013

(1) Do one of these tasks to open the door:

(a) Do this task: Open the Aft Small Cargo Door Electrically, TASK 52-35-00-860-801.

(b) Do this task: Open the Aft Small Cargo Door Manually, TASK 52-35-00-860-803.

END OF TASK

TASK 52-35-00-860-806

5. Close the Aft Small Cargo Door

A. Location Zones

Zone	Area
823	Aft Small Cargo Door

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B. Procedure

SUBTASK 52-35-00-860-014

(1) Do one of these tasks to close the door:

(a) Do this task: Close the Aft Small Cargo Door Electrically, TASK 52-35-00-860-802.

(b) Do this task: Close the Aft Small Cargo Door Manually, TASK 52-35-00-860-804.

——— END OF TASK ———

TASK 52-35-00-860-801

6. Open the Aft Small Cargo Door Electrically

(Figure 202)

A. General

WARNING: DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do not operate the door in high winds.

WARNING: DO NOT OPEN THE DOOR WHEN THE AIRPLANE IS PRESSURIZED. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Do not open the door when the airplane is pressurized.

CAUTION: DO NOT OPERATE THE DOOR ELECTRICALLY MORE THAN 2 FULL OPEN/CLOSE CYCLES WITHIN 5 MINUTES. DAMAGE TO HINGE MECHANISM CAN OCCUR.

(3) Do not operate the door electrically more than 2 full open/close cycles within 5 minutes.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2006	Barrier - Safety, Aft Small Cargo Door Part #: J52011-2 Supplier: 81205

D. Location Zones

Zone	Area
823	Aft Small Cargo Door

E. Access Panels

Number	Name/Location
152AR	Aft Cargo Door Control Door

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F. Procedure

SUBTASK 52-35-00-860-001

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-35-00-010-001

(2) Open this access panel:

Number	Name/Location
152AR	Aft Cargo Door Control Door

SUBTASK 52-35-00-210-001

(3) Make sure all persons and equipment are clear of the door.

SUBTASK 52-35-00-860-002

(4) Open the door as follows:

(a) Hold the external or internal CARGO DOOR CONTROL ARMING switch up in the ARM position.

(b) Hold the external or internal CARGO DOOR CONTROL switch in the OPEN position.

(c) Release the switches when the door is fully open and the yellow DOOR UP light on the control panel comes on.

SUBTASK 52-35-00-480-001

(5) Install the safety barrier, SPL-2006 across the door opening if you do work near the open door.

SUBTASK 52-35-00-410-001

(6) Close this access panel:

Number	Name/Location
152AR	Aft Cargo Door Control Door

——— END OF TASK ———

TASK 52-35-00-860-802

7. Close the Aft Small Cargo Door Electrically

(Figure 202)

A. General

WARNING DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do not operate the door in high winds.

CAUTION DO NOT OPERATE THE DOOR ELECTRICALLY MORE THAN 2 FULL OPEN/CLOSE CYCLES WITHIN 5 MINUTES. DAMAGE TO HINGE MECHANISM CAN OCCUR.

(2) Do not operate the door electrically more than 2 full open/close cycles within 5 minutes.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

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C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2006	Barrier - Safety, Aft Small Cargo Door Part #: J52011-2 Supplier: 81205

D. Location Zones

Zone	Area
823	Aft Small Cargo Door

E. Access Panels

Number	Name/Location
152AR	Aft Cargo Door Control Door

F. Procedure

SUBTASK 52-35-00-860-003

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-35-00-480-002

(2) Remove the safety barrier, SPL-2006 if it is installed.

SUBTASK 52-35-00-010-002

(3) Open this access panel:

Number	Name/Location
152AR	Aft Cargo Door Control Door

SUBTASK 52-35-00-210-003



CAUTION

MAKE SURE THE E/E EQUIPMENT DOORS ARE CLOSED ON THE SIDES OF THE DOOR CUTOUT BEFORE YOU CLOSE THE CARGO DOOR. THE CARGO DOOR CAN CAUSE DAMAGE TO OPEN E/E EQUIPMENT DOORS WHEN IT CLOSES.

(4) Make sure the E/E equipment doors are closed on the sides of the door cutout.

SUBTASK 52-35-00-210-002



WARNING

MAKE SURE ALL PERSONS AND EQUIPMENT ARE CLEAR OF THE PATH OF THE DOOR. THE MOVEMENT OF THE DOOR CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

(5) Make sure all persons and equipment are clear of the door.

SUBTASK 52-35-00-860-004

(6) Close the door as follows:

(a) Make sure the vent door is open.

(b) Hold the external or internal CARGO DOOR CONTROL ARMING switch down in the ARM position.

(c) Hold the external or internal CARGO DOOR CONTROL switch in the CLOSE position.

(d) Make sure the green DOOR LATCHED light on the control panel comes on when the door is fully closed and latched.

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(e) Release the switches.

(f) Make sure the green DOOR LATCHED light on the control panel goes off when the CARGO DOOR CONTROL ARMING switch is released.

(g) Make sure the vent door is closed.

SUBTASK 52-35-00-410-002

(7) Close this access panel:

Number	Name/Location
152AR	Aft Cargo Door Control Door

——— END OF TASK ———

TASK 52-35-00-860-803

8. Open the Aft Small Cargo Door Manually

(Figure 202, Figure 203)

A. General

WARNING

DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do not operate the door in high winds.

WARNING

DO NOT OPEN THE DOOR WHEN THE AIRPLANE IS PRESSURIZED. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Do not open the door when the airplane is pressurized.

(3) To operate the manual drives on the door you can use a speed wrench or a power tool with a 3/8 inch square drive.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2006	Barrier - Safety, Aft Small Cargo Door Part #: J52011-2 Supplier: 81205

C. Location Zones

Zone	Area
823	Aft Small Cargo Door

D. Procedure

SUBTASK 52-35-00-980-002

(1) Open the door as follows:

(a) Put the speed wrench or power tool in the lift/latch manual drive port found on the door skin in the middle of the door.

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CAUTION

DO NOT LET THE LIFT/LATCH POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 1 SECOND. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR. DO NOT OPERATE THE HINGE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(b) Turn counterclockwise until the door is in the lifted position. Stop when the door stops moving and is lifted vertically two inches fron the latched position.

NOTE: The door is in the lifted position when it is lifted vertically two inches from the latched position.

It takes approximately 60 full turns of the manual drive to move the door from the latched position to the lifted position.

(c) Move the speed wrench or power tool to the hinge manual drive port found on the fuselage skin forward of the door.

CAUTION

DO NOT LET THE HINGE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR. DO NOT OPERATE THE HINGE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 110 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(d) Turn clockwise to open the door to the fully open position. Stop when you feel a sudden increase in torque as the overtravel stop is touched.

NOTE: It takes approximately 1360 full turns of the manual drive to move the door from the lifted position to the fully open position.

(e) Remove the speed wrench or power tool.

SUBTASK 52-35-00-480-003

(2) Install a safety barrier, SPL-2006 across the door opening if you do work near the open door.

——— END OF TASK ———

TASK 52-35-00-860-804

9. Close the Aft Small Cargo Door Manually

(Figure 202, Figure 203)

A. General

WARNING

DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do not operate the door in high winds.

(2) To operate the manual drives on the door you can use a speed wrench or a power tool with a 3/8 inch square drive.

NOTE: If at any time during this procedure the door is not functioning correctly, the door may be out of sequence. If the door is out of sequence, do the Small Cargo Door Out-of-Sequence Recovery Procedure (TASK 52-35-00-980-801).

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B. References

Reference	Title
52-35-00-980-801	Small Cargo Door Out-Of-Sequence Recovery Procedure (P/B 501)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2006	Barrier - Safety, Aft Small Cargo Door Part #: J52011-2 Supplier: 81205

D. Location Zones

Zone	Area
823	Aft Small Cargo Door

E. Procedure

SUBTASK 52-35-00-480-004

(1) Remove the safety barrier, SPL-2006 if it is installed.

SUBTASK 52-35-00-980-001

(2) Close the door as follows:

(a) Put the speed wrench or power tool in the hinge manual drive port found on the fuselage skin forward of the door.

CAUTION

DO NOT LET THE HINGE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR. DO NOT OPERATE THE HINGE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 110 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(b) Turn counterclockwise to close the door. Stop when you feel a sudden increase in torque as the overtravel stop is touched.

NOTE: When the overtravel stop is touched, the door should be recessed at the lower edge of the door cutout. Approximately 1360 turns are required.

CAUTION

DO NOT OPERATE THE LIFT/LATCH MANUAL DRIVE PORT FOUND ON THE DOOR SKIN UNTIL THE DOOR IS RECESSED AT THE LOWER EDGE OF THE DOOR CUTOUT. IF THE LIFT/LATCH MANUAL DRIVE ON THE DOOR IS OPERATED BEFORE THE DOOR IS RECESSED AT THE LOWER EDGE OF THE DOOR CUTOUT, THE DOOR CAN BE DRIVEN OUT OF SEQUENCE CAUSING DAMAGE AND INJURY TO PERSONNEL.

(c) Make sure the door is recessed at the lower edge of the door cutout before operating the lift/latch manual drive on the door skin.

(d) Move the speed wrench or power tool to the lift/latch manual drive port found on the door skin in the middle of the door.

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CAUTION

DO NOT LET THE LIFT/LATCH POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 1 SECOND. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR. DO NOT OPERATE THE HINGE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(e) Turn clockwise to the fully latched and locked position of the door. Stop when the door stops moving, is flush with the fuselage, and the vent door is fully closed.

NOTE: It takes approximately 60 full turns of the manual drive to lower the door from the lifted position. If a torque rise due to stop contact cannot be readily felt, the latched position can be assured by adding two (2) additional clockwise turns past full vent door closure.

(f) Remove the speed wrench or power tool.

(g) Make sure the vent door is fully closed and that the cargo door is flush with the fuselage.

——— END OF TASK ———

TASK 52-35-00-010-801

10. Open the Aft Small Cargo Door with Failure of the Lift/Latch Power Drive Unit (PDU)
(Figure 203)

A. References

Reference	Title
52-35-05-000-801	Lift/Latch Power Drive Unit Removal (P/B 401)
52-35-05-400-801	Lift/Latch Power Drive Unit Installation (P/B 401)

B. Location Zones

Zone	Area
823	Aft Small Cargo Door

C. Access Panels

Number	Name/Location
823AR	Panel
823CR	Panel
823DR	Panel
823FR	Panel
823GR	Panel
823HR	Panel

D. Prepare for the Procedure

SUBTASK 52-35-00-860-009

(1) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

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SUBTASK 52-35-00-010-007

(2) Open these door panels to get access to the lift/latch PDU and the lift/latch torque tube:

Number	Name/Location
823AR	Panel
823CR	Panel
823DR	Panel
823FR	Panel
823GR	Panel
823HR	Panel

E. Procedure

SUBTASK 52-35-00-020-001

(1) Disconnect the lift/latch PDU from the door structure (TASK 52-35-05-000-801).

SUBTASK 52-35-00-010-008

(2) Move the door to the lifted position as follows:

(a) Put a strap wrench around the lift/latch torque tube.

NOTE: You can put abrasive cloth around the torque tube so the strap wrench holds it better.

(b) Push the door up manually while you turn the strap wrench to turn the latch cranks and lift the door.

NOTE: You can put pieces of wood under the door to hold it while you move the strap wrench to a new position.

SUBTASK 52-35-00-010-009

(3) Do this task: Open the Aft Small Cargo Door Manually, TASK 52-35-00-860-803.

NOTE: Do not do the steps to move the door to the lifted position.

SUBTASK 52-35-00-960-001

(4) Replace the lift latch power drive unit.

These are the tasks:

Lift/Latch Power Drive Unit Removal, TASK 52-35-05-000-801,

Lift/Latch Power Drive Unit Installation, TASK 52-35-05-400-801.

F. Put the Airplane Back to its Usual Condition

SUBTASK 52-35-00-010-010

(1) Close these door panels:

Number	Name/Location
823AR	Panel
823CR	Panel
823DR	Panel
823FR	Panel
823GR	Panel
823HR	Panel

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SUBTASK 52-35-00-860-010

(2) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

END OF TASK

TASK 52-35-00-010-802

11. Open the Aft Small Cargo Door with Failure of the Hinge Power Drive Unit (PDU) or Rotary Actuator (Jammed)

(Figure 203)

A. References

Reference	Title
52-35-01-000-801	Small Cargo Door Removal (P/B 401)
52-35-02-000-801	Hinge Power Drive Unit Removal (P/B 401)
52-35-02-400-801	Hinge Power Drive Unit Installation (P/B 401)
52-35-03-000-801	Rotary Actuator Removal (P/B 401)
52-35-03-400-801	Rotary Actuator Installation (P/B 401)
52-35-04-000-801	Hinge Arm Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1993	Sling - Assembly, Forward And Aft Large Cargo Door And Small Cargo Door Part #: A52004-43 Supplier: 81205

C. Location Zones

Zone	Area
823	Aft Small Cargo Door

D. Access Panels

Number	Name/Location
823BR	Panel
823ER	Panel

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E. Prepare for the Procedure

SUBTASK 52-35-00-860-011

(1) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-35-00-010-011

(2) Open these door panels to get access to the hinge arms:

Number	Name/Location
823BR	Panel
823ER	Panel

F. Procedure

SUBTASK 52-35-00-010-012

(1) Disconnect the hinge arms from the rotary actuators (TASK 52-35-04-000-801).

SUBTASK 52-35-00-980-003

(2) Do this task: Open the Aft Small Cargo Door Manually, TASK 52-35-00-860-803.

NOTE: Only do the steps to move the door to the lifted position.

SUBTASK 52-35-00-010-013

(3) Use the forward and aft cargo door sling, SPL-1993 to open the door, do this task: Small Cargo Door Removal, TASK 52-35-01-000-801.

SUBTASK 52-35-00-900-001

(4) Replace the applicable mechanism:

(a) These are the tasks:

Rotary Actuator Removal, TASK 52-35-03-000-801,

Rotary Actuator Installation, TASK 52-35-03-400-801.

(b) These are the tasks:

Hinge Power Drive Unit Removal, TASK 52-35-02-000-801,

Hinge Power Drive Unit Installation, TASK 52-35-02-400-801.

G. Put the Airplane Back to its Usual Condition

SUBTASK 52-35-00-010-014

(1) Close these door panels:

Number	Name/Location
823BR	Panel
823ER	Panel

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SUBTASK 52-35-00-860-012

(2) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

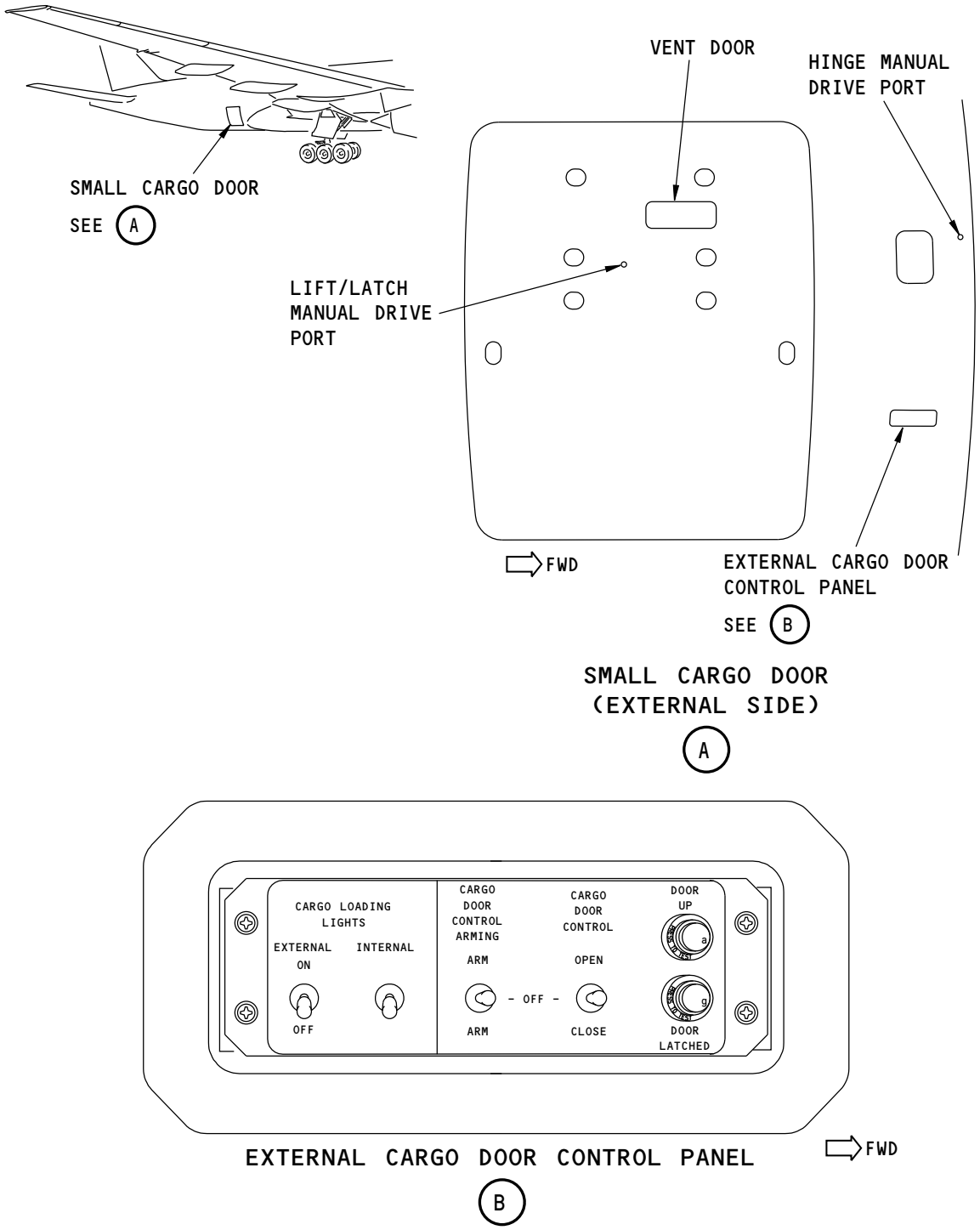
Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

END OF TASK

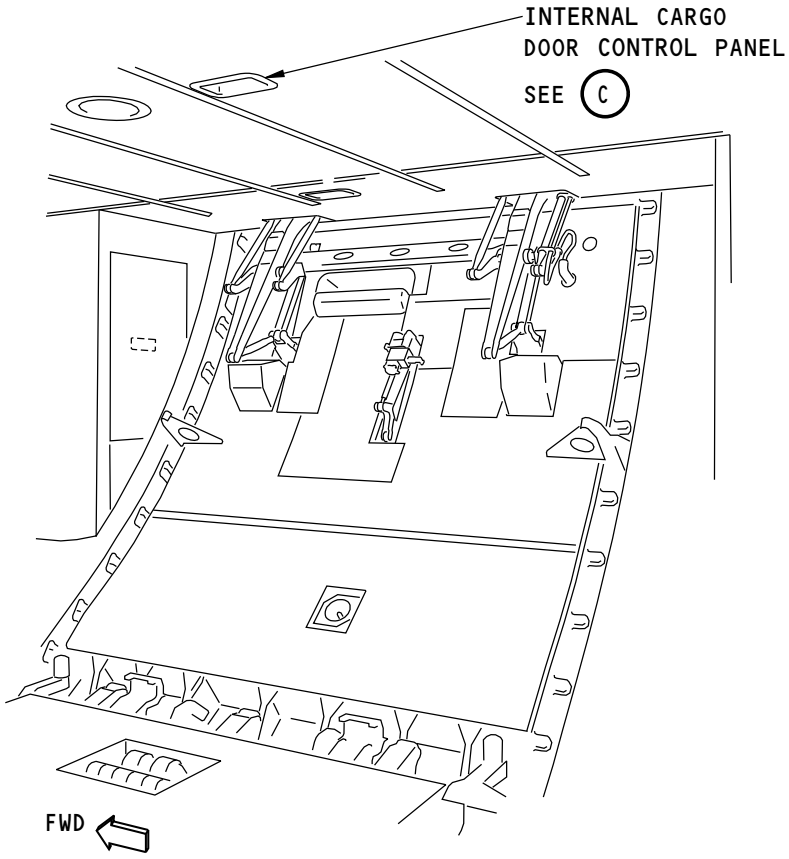
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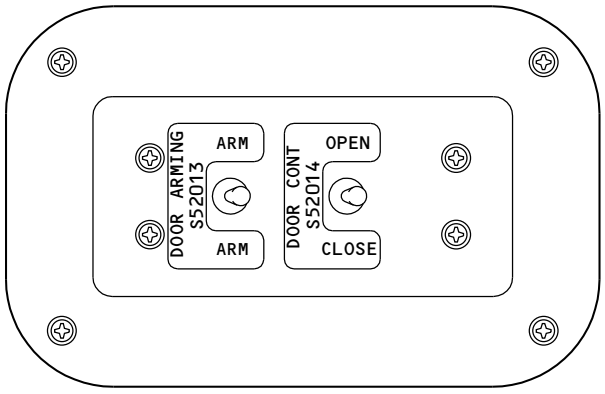
E81935 S0006425542_V1

Small Cargo Door Operation
Figure 202/52-35-00-990-801 (Sheet 1 of 2)

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SMALL CARGO DOOR
(INTERNAL SIDE)
A

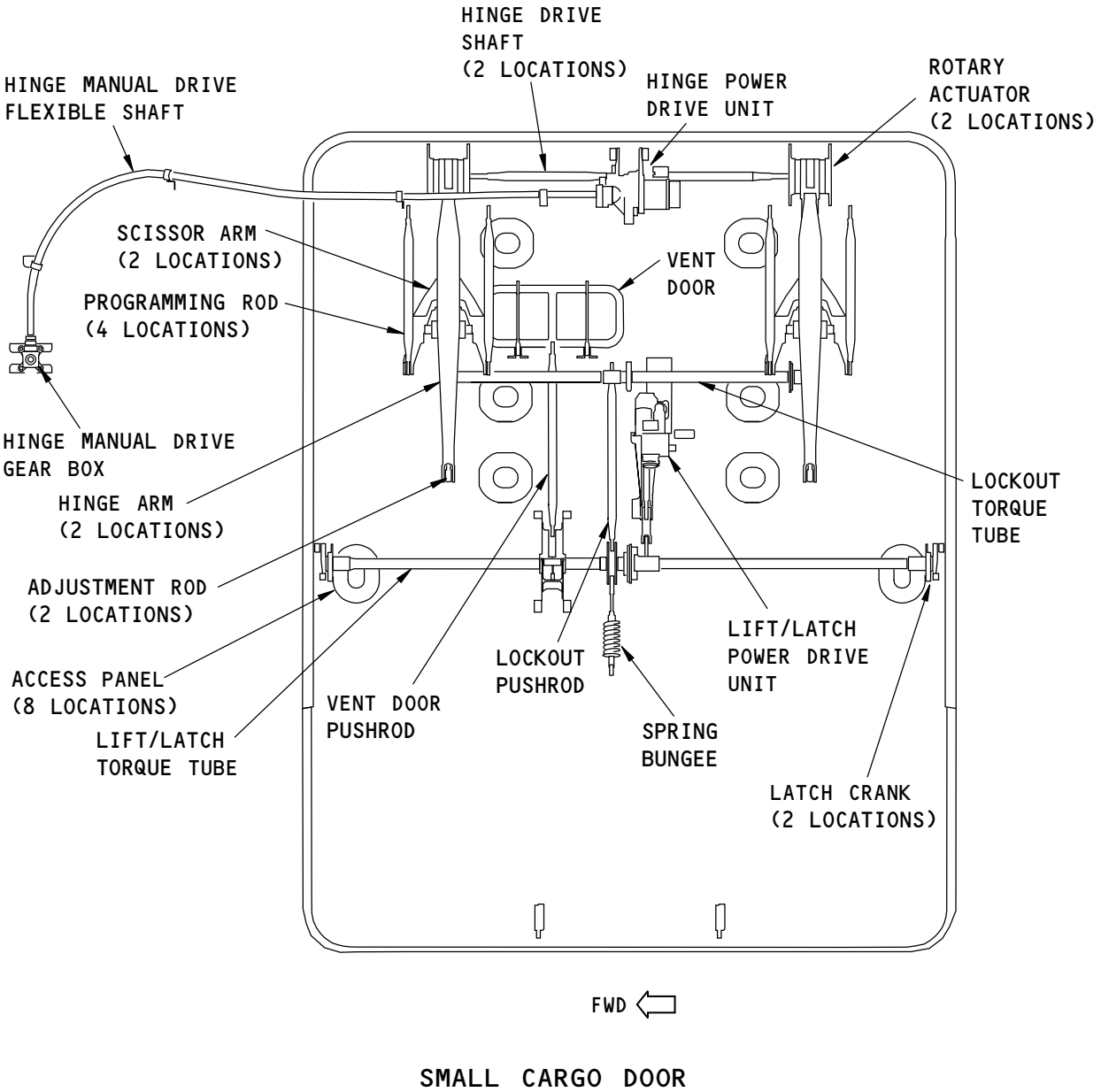


INTERNAL CARGO DOOR CONTROL PANEL
C

E81941 S0006425543_V1

Small Cargo Door Operation
Figure 202/52-35-00-990-801 (Sheet 2 of 2)

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E87767 S0006425544_V1

Small Cargo Door Mechanisms
Figure 203/52-35-00-990-802

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AFT SMALL CARGO DOOR - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

(1) An operational test of the aft small cargo door.

(2) An adjustment of the aft small cargo door.

(3) A system test of the aft small cargo door.

(4) A special recovery procedure to correct an out-of-sequence condition with the cargo door.

TASK 52-35-00-710-801

2. Aft Small Cargo Door Operational Test

A. General

(1) The operational test is a check of the door operation to make sure the door movement is smooth and the hinge and lift/latch mechanisms operate correctly. It is also a check of the correct indication of the position of the door at the control panels and the flight compartment.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
31-61-00-800-813	Showing Status Messages (P/B 201)
31-61-00-800-814	Showing Alert Messages (P/B 201)
31-61-00-800-816	Showing a System Synoptic Page (P/B 201)

C. Location Zones

Zone	Area
823	Aft Small Cargo Door

D. Access Panels

Number	Name/Location
152AR	Aft Cargo Door Control Door

E. Operational Test

SUBTASK 52-35-00-860-005

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-35-00-010-003

(2) Open this access panel:

Number	Name/Location
152AR	Aft Cargo Door Control Door

SUBTASK 52-35-00-710-001

(3) Open the door and do these checks:

(a) Make sure all persons and equipment are clear of the door.

(b) Hold the external CARGO DOOR CONTROL ARMING switch in the ARM position.

(c) Hold the external CARGO DOOR CONTROL switch in the OPEN position. While the door opens, do these checks:

1) Make sure the vent door opens.

2) Make sure the green DOOR LATCHED light on the control panel goes off immediately after the door starts to lift.

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3) Make sure the door moves smoothly and continuously to the fully open position.

4) Make sure the yellow DOOR UP light on the control panel comes on when the door is fully open.

(d) Release the switches.

(e) Make sure this EICAS alert message, DOOR AFT CARGO, shows. To show the message, do this task: Showing Alert Messages, TASK 31-61-00-800-814.

NOTE: If two or more doors of any kind are not closed, latched and locked, the EICAS alert message DOORS will show and the individual message for the door will not show.

(f) Make sure the door shows on the DOOR system synoptic page. To show the page, do this task: Showing a System Synoptic Page, TASK 31-61-00-800-816.

SUBTASK 52-35-00-710-002

(4) Close the door and do these checks:

(a) Make sure all persons and equipment are clear of the door.

(b) Hold the external CARGO DOOR CONTROL ARMING switch in the ARM position.

(c) Hold the external CARGO DOOR CONTROL switch in the CLOSE position. While the door closes, do these checks:

1) Make sure the vent door is open.

2) Make sure the yellow DOOR UP light on the control panel goes off when the door starts to move down.

3) Make sure the door moves smoothly and continuously to the fully latched position.

4) Make sure the green DOOR LATCHED light on the control panel comes on when the door is fully closed and latched.

(d) Release the switches.

(e) Make sure the vent door is closed.

(f) Make sure this EICAS alert message, DOOR AFT CARGO, does not show.

(g) Make sure this EICAS status message, DOOR AFT CARGO IND, does not show. To show the message, do this task: Showing Status Messages, TASK 31-61-00-800-813.

(h) Make sure the door does not show on the DOOR synoptic page.

SUBTASK 52-35-00-010-004

(5) Close this access panel:

Number	Name/Location
152AR	Aft Cargo Door Control Door

——— END OF TASK ———

TASK 52-35-00-820-801

3. Aft Small Cargo Door Adjustment

(Figure 501, Figure 502, Figure 503, Figure 504, Figure 505, Figure 506, Figure 507, Figure 508, Figure 509, Figure 510, Figure 511, Figure 512)

A. General

(1) Do the rigging procedure with no load on the door or the fuselage cutout. Do the procedure with the airplane operating weight empty and the airplane supported on its landing gear.

(2) Do not operate the door electrically until the installation and sensor rigging are complete.

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B. References

Reference	Title
52-35-10-900-801	Door Up Proximity Sensor Removal, Installation and Adjustment (P/B 201)
52-35-10-900-802	Door Lifted Proximity Sensor Removal, Installation and Adjustment (P/B 201)
52-35-10-900-803	Door Latched Proximity Sensor Removal, Installation and Adjustment (P/B 201)
52-35-10-900-804	Door Down Proximity Sensor Removal, Installation and Adjustment (P/B 201)
52-71-03-900-801	Closed Proximity Sensor Removal, Installation and Adjustment (P/B 201)
52-71-03-900-802	Latched and Locked Proximity Sensor Removal, Installation and Adjustment (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1557	Gauge - Force Part #: DG-200 Supplier: 92456 Part #: FDIX 100 Supplier: 0BFD9 Part #: FDIX 50 Supplier: 0BFD9 Part #: LG-010 Supplier: 92456 Part #: LG-050 Supplier: 92456 Part #: LG-100 Supplier: 92456 Opt Part #: DPP-500G Supplier: 92456 Opt Part #: DPPH-150 Supplier: 92456 Opt Part #: DPPH-200 Supplier: 92456 Opt Part #: DPPH-50 Supplier: 92456 Opt Part #: FDI 100 Supplier: 0BFD9 Opt Part #: FDI 50 Supplier: 0BFD9 Opt Part #: FDV 100 Supplier: 0BFD9 Opt Part #: FDV 50 Supplier: 0BFD9
STD-1072	Scale - Spring, Push Type, 0 - 150 Lb Capacity

D. Prepare for the Adjustment

SUBTASK 52-35-00-860-006

(1) Make sure the door is closed and latched.

SUBTASK 52-35-00-860-007

(2) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

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SUBTASK 52-35-00-010-005

(3) Get access to the door mechanisms as follows:

(a) Remove the door lining.

(b) Remove the shroud on the vent door.

SUBTASK 52-35-00-820-001

(4) New Door Preliminary Checks and Adjustments.

NOTE: These steps are for a new, replacement door.

(a) Turn all of the stop pins fully inboard.

(b) Put a 3/8 inch square drive speed wrench or power tool in the hinge manual drive port found on the fuselage skin forward of the door.

CAUTION DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR.

CAUTION DO NOT OPERATE THE HINGE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(c) Turn the hinge manual drive in the close direction until the door is in the fully closed position and torque limiter slippage can be felt or heard.

(d) Put the speed wrench or power tool in the lift/latch manual drive port found on the door skin in the middle of the door.

CAUTION DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR.

CAUTION DO NOT OPERATE THE LIFT/LATCH MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(e) Turn the lift/latch manual drive in the latch direction until the door is in the fully latched position and torque limiter slippage can be felt or heard.

1) Make sure there is clearance between the upper and lower hook stops and they did not interfere as the door lowers.

2) Make sure there is clearance between the door and the cutout as the door lowers.

SUBTASK 52-35-00-820-002

(5) Door Fully Latched Position (Figure 501).

NOTE: These steps put the door in the fully latched position for door alignment and describe use of the wedge tools.

(a) Make sure the door is closed and latched.

(b) Put three 5/16 inch diameter rig pins in the rig pin holes (Figure 501).

NOTE: A slightly tight fit of the rig pins is permitted (finger pressure only).

(c) Make sure the weight of the door is on the latch tracks as follows:

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1) Make sure the latch rollers are not free to turn and are tight against the lower latch track surface.

a) Apply weight down on the door to remove frictional forces, remove and do the check again.

b) Do the Lockout/Upstop Cam Adjustment.

(d) Make four wedge tools from 0.16 in. (4.06 mm) x 0.02 in. (0.51 mm) x 6.0 in. (152.4 mm) tapered shim stock to be used as shown Figure 501.

NOTE: The wedge tools push the door inboard and make the guide rollers touch the inboard surface of the guide tracks.

(e) Lightly hit each wedge into the clearance between the forward and aft No. 2 and 8 stop pins and stop pads until the guide roller nearest the wedge cannot be manually turned.

(f) Try to put a 0.005 in. (0.127 mm) shim between the guide roller and the inboard surface of the guide track to make sure the guide roller is against the guide track.

E. Door Alignment Rigging

SUBTASK 52-35-00-820-003

(1) Door Flushness Adjustment (Figure 501, Figure 502, Figure 503).

(a) Make sure the door is in the fully latched position with the wedge tools installed (Figure 501).

(b) Make sure the flushness of the door is as shown Figure 502, Table 501.

1) Operate the lift/latch and hinge manual drives to put the door in a position closest to the flushness.

2) Temporarily loosen the nuts that hold the upper and lower guide tracks to the fuselage structure.

3) Make sure the slots in each guide track are pushed inboard against the bolts (View A-A, Figure 503).

NOTE: This is an initial position for subsequent adjustments.

4) Move the upper guide roller fittings on their serrated plates inboard or outboard to make the guide rollers touch the inboard surface of the guide tracks, when the door has the correct flushness at the upper edge and sides (View B-B, Figure 503).

NOTE: The serrations on the serrated plate are 0.036 in. (0.914 mm) apart. If you move the guide roller fitting outboard one serration, the door will move inboard 0.036 in. (0.914 mm).

5) Move the lower guide roller fittings on their serrated plates inboard or outboard to make the guide rollers touch the inboard surface of the guide tracks, when the door has the correct flushness at the lower edge and sides (View C-C, Figure 503).

(c) Remove the wedge tools.

SUBTASK 52-35-00-820-004

(2) Door Rotation Adjustment (Figure 504).

NOTE: This adjusts the adjustment rod to prevent pre-loading of the hinge mechanism when the door is latched. For coarse adjustment of the adjustment rod, turn the rod end bearing in 1/2 turn increments. For fine adjustment, turn the adjustment rod without removing the rod end bolts.

(a) Put the speed wrench or power tool in the lift/latch manual drive port found on the door skin in the middle of the door.

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CAUTION DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR.

CAUTION DO NOT OPERATE THE LIFT/LATCH MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(b) Turn the lift/latch manual drive in the open direction until the door is in the fully lifted position and torque limiter slippage can be felt or heard.

(c) Put the speed wrench or power tool in the hinge manual drive port found on the fuselage skin forward of the door.

CAUTION DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR.

CAUTION DO NOT OPERATE THE HINGE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(d) Turn the hinge manual drive in the close direction until torque limiter slippage can be felt or heard or until the two upper guide rollers are the same distance from the upper guide track inboard surface.

(e) Slowly turn the hinge manual drive in the open direction until the outboard surface of the two upper guide rollers align with the fuselage skin as shown View B, Figure 504.

(f) Change the length of the adjustment rod to make the distance between the outboard surface of the two lower guide rollers from the fuselage skin is as shown View C, Figure 504.

(g) Turn the hinge manual drive in the close direction until one of the guide rollers touches the inboard surface of its guide track.

(h) Make sure the clearance between each upper guide roller and the inboard surface of the guide track is as shown View B, Figure 504.

1) If it is necessary, do the Door Rotation Adjustment again.

(i) Make sure the clearance between each lower guide roller and the inboard surface of the guide track is as shown View C, Figure 504.

(j) After the adjustment, do these steps:

1) Make sure the rod end bearing covers at least 50 percent of the inspection hole of the adjustment rod.

2) Tighten the jamnuts to 400 in-lb (45.2 N·m) - 510 in-lb (57.6 N·m), but make sure the adjustment rod does not turn and lose its adjustment.

SUBTASK 52-35-00-820-005

(3) Door Centering Adjustment (Figure 501, Figure 505)

(a) Make sure the door is in the fully latched position with the wedge tools installed (Figure 501).

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(b) Make sure the stop pin to stop pad alignment is as shown View A-A, Figure 505. If it is necessary, adjust as follows:

1) Vertical Centering

a) Move the forward and aft latch tracks on their serrated plates to get the correct vertical alignment between the No. 1 and 10 stop pins and stop pads (View A-A, Figure 505).

NOTE: The serrations on the serrated plate are 0.036 in. (0.914 mm) apart.

b) Make sure the forward stop pins are not more than 0.05 in. (1.27 mm) higher or lower on their mating stop pads than the corresponding aft stop pins on their mating stop pads.

c) Make sure the stop pin to stop pad alignment of No. 2-9 stops is as shown View A-A Figure 505.

2) Lateral Centering

a) Release the two pip pins from the hinge arms and move the door forward or aft by hand to get the correct lateral alignment between the No. 1 and 10 stop pins and stop pads.

b) Turn the scissors arm positioning tube bolt 60 degrees to move the door with the scissors arm 0.07 in. (1.78 mm) and align the next positioning tube hole with the pip pin.

NOTE: Turn the positioning tube bolt counterclockwise (looking forward) to move the door aft or turn the positioning tube bolt clockwise to move the door forward.

c) Turn the scissors arm positioning tube until the pip pins go into the holes in the new location.

d) Make sure the stop pin to stop pad alignment of all the stops is as shown View A-A, Figure 505.

(c) Move the door to the vertical, free-hang position.

(d) Make sure the forward hinge mechanism centerline is parallel to the aft hinge mechanism centerline within -0.03 in. (-0.762 mm) - 0.03 in. (0.762 mm).

(e) Lightly hit the hinge arm to scissors arm joint. If there is any movement more than 0.05 in. (1.27 mm) there is a pre-load on the hinge arms. If it is necessary, adjust as follows:

1) Turn the scissors arm positioning tube and install the pip pin in a hole that minimizes pre-load.

2) Do this step again for the aft hinge mechanism.

3) Make sure the forward hinge mechanism centerline is parallel to the aft hinge mechanism centerline within -0.03 in. (-0.762 mm) - 0.03 in. (0.762 mm).

4) Make sure the Lateral Centering is correct.

F. Door-to-Cutout Rigging

SUBTASK 52-35-00-820-006

(1) Latch Track Adjustment (Figure 501, Figure 505, Figure 506)

NOTE: This adjusts the lateral position of the latch tracks.

(a) Make sure the door is in the fully latched position with the wedge tools installed (Figure 501).

(b) Make sure the door is centered in the cutout (Figure 505).

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(c) Make sure the clearance between the latch track and latch crank is as shown View A, Figure 506. If it is necessary, adjust as follows:

1) Before you loosen any fasteners, carefully make marks to show vertical position of each latch track.

2) Add or remove shims under each latch track serrated plate to get the correct lateral clearance.

3) Make sure the door is vertically centered in the cutout (Figure 505).

SUBTASK 52-35-00-820-007

(2) Guide Track Adjustment (Figure 501, Figure 505, Figure 507)

NOTE: This adjusts the lateral and vertical position of the guide tracks and adjusts lateral stops.

(a) Make sure the door is in the fully latched position with the wedge tools installed (Figure 501).

(b) Make sure the door is centered in the cutout (Figure 505).

(c) Make sure the clearance between the upper and lower guide rollers and guide tracks is as shown Views A-A and B-B, Figure 507. If it is necessary, adjust as follows:

1) Add or remove shims under each guide track serrated plate to get the correct lateral clearance. Do not change the guide track inboard adjustment.

(d) Make sure the distance from the upper guide rollers to the guide tracks is as shown View A-A ,Figure 507. If it is necessary, adjust as follows:

1) Move the upper guide roller fittings up or down on their serrated plates to get the correct distance. Do not change the inboard adjustment of the guide tracks.

(e) Make sure the distance from the lower guide rollers to the guide tracks is as shown View B-B, Figure 507. If it is necessary, adjust as follows:

1) Move the lower guide roller fittings up or down on their serrated plates to get the correct distance. Do not change the inboard adjustment of the guide tracks.

(f) Make sure the lateral stop clearances are as shown View B, Figure 507. If it is necessary, adjust as follows:

1) Add or remove shims under the lateral stop pads to get the correct clearance.

SUBTASK 52-35-00-820-008

(3) Hook and Stop Fitting Adjustment (Figure 501, Figure 505, Figure 508)

(a) Make sure the door is in the fully latched position with the wedge tools installed (Figure 501).

(b) Make sure the door is centered in the cutout (Figure 505).

(c) Make sure the clearance between the upper hook and stop is as shown View A-A, Figure 508. If it is necessary, adjust as follows:

1) Move the upper stop fittings inboard or outboard on their serrated plates to get the correct clearance.

(d) Make sure the clearance between the lower hook and stop is as shown View B-B, Figure 508. If it is necessary, adjust as follows:

1) Move the lower stop fittings inboard or outboard on their serrated plates to get the correct clearance.

SUBTASK 52-35-00-820-009

(4) Stop Pin and Stop Pad Adjustment (Figure 501, Figure 505, Figure 509)

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(a) Make sure the door is in the fully latched position with the wedge tools installed (Figure 501).

NOTE: To measure No. 2 and 8 stops, you can move the wedge tools to No. 3 and 9 stops.

(b) Make sure the door is centered in the cutout (Figure 505).

(c) Make sure the clearance between the stop pins and stop pads is as shown View A-A, Figure 509. If it is necessary, adjust as follows:

1) Install a 0.056 in. (1.422 mm) spacer on the stop pad you will adjust View A-A, Figure 509.

2) Turn the stop pin outboard to just touch the spacer, then turn the stop pin back to the first alignment slot in the pin and bushing (View B-B, Figure 509).

NOTE: 60 degree rotation of stop pin changes the clearance by 0.008 in. (0.203 mm).

3) Install the retainer spring through the hole in the stop pin and bushing.

4) Remove the spacer.

SUBTASK 52-35-00-820-010

(5) Centering Guide Adjustment (Figure 510)

(a) Make sure the door is in the closed and fully lifted position.

(b) Make sure the clearance between the forward and aft centering guide and latch track as shown View A Figure 510. If it is necessary, adjust as follows:

1) Add or remove washers from the nylon centering guide of the latch track to get the correct clearance.

G. Lift/Latch Mechanism Rigging

SUBTASK 52-35-00-820-011

(1) Lockout/Upstop Cam Adjustment (Figure 511)

(a) Make sure the door is in the fully latched position. It is not necessary to install the wedge tools or rig pins.

(b) Turn back each jamnut on the lockout/upstop cam adjustable clevis at least 2 full turns so that the cam roller is loose in the cam.

(c) Partially lift the door to adjust the lockout pushrod, but keep the door in its cutout held by the latch rollers in their latch tracks.

(d) Adjust the lockout pushrod in 1/2 turn increments of the upper rod end turning the cam until the initial clearance between the cam roller and the upper surface of the lockout/upstop cam is as shown View A-A, Figure 511.

NOTE: A 1/2 turn of the lockout pushrod will change the clearance by approximately 0.015 in. (0.381 mm). If you lengthen the pushrod the clearance decreases.

(e) Adjust the adjustable clevis jamnuts until the clearance between the cam roller and inboard surface of the lockout/upstop cam is as shown View A-A, Figure 511.

(f) Make sure the cam roller is free to turn.

(g) Tighten the jamnuts.

(h) Install lock-wire from the jamnut, around the pivot pin, and back to the jam nut (Figure 511).

(i) Do the Door Lift Adjustment.

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SUBTASK 52-35-00-820-012

(2) Door Lift Adjustment (Figure 511)

(a) Make sure the door is in the fully latched position. It is not necessary to install the wedge tools or rig pins.

(b) Turn the lift/latch manual drive in the open direction to lift the door 1.97 in. (50.04 mm) - 2.03 in. (51.56 mm) measured at the forward guide track or latch track.

(c) Make sure the door lift measurement at the aft latch track is not more than 0.08 in. (2.03 mm) different from the measurement at the forward latch track.

(d) Make sure that all of the guide rollers are free to turn. If it is necessary, adjust as follows:

1) Turn the hinge manual drive in the open direction a minimum amount to make the guide rollers free to turn.

(e) Make sure the clearance between the latch roller and the lower surface of the forward latch track is as shown View C-C, Figure 511. If it is necessary, adjust as follows:

1) Turn back each jamnut on the lockout cam adjustable clevis at least 2 full turns.

2) Partially lower the door to adjust the lockout pushrod until the lockout/upstop cam roller is free to turn, but keep the door in its cutout held by the latch rollers in their latch tracks.

3) Adjust the lockout pushrod in 1/2 turn increments of the upper rod end to get the correct clearance.

NOTE: A 1/2 turn of the lockout pushrod will change the clearance by approximately 0.028 in. (0.711 mm). If you lengthen the pushrod the door will lower.

4) Make sure the rod end bearing covers at least 50 percent of the inspection hole of the lockout pushrod.

(f) Make sure the clearance between the latch roller and the lower surface of the aft latch track is as shown View C-C, Figure 511. If it is necessary, adjust as follows:

1) Adjust the adjustable clevis jamnuts until the cam roller pushes against the outboard surface of the lockout cam.

NOTE: One full turn of the jamnuts will lift or lower the door approximately 0.046 in. (1.168 mm).

2) Continue to adjust the jamnuts in the same direction until the clearance between aft latch roller and latch track is correct.

3) Make sure the cam roller pushes against the outboard surface of the lockout cam

(g) Make sure the cam roller is free to turn.

(h) Make sure the clearance between the cam roller and the lower surface of the lockout cam is as shown View B-B, Figure 511.

(i) Make sure the forward latch roller is free to turn. If it is necessary, adjust as follows:

1) Start the Door Lift Adjustment again.

(j) Turn the lift/latch manual drive in the close direction until the door is in the latched position.

(k) Install rig pins No. 1 and No. 2.

(l) Push down on the door to overcome the seal friction force and make sure the latch rollers touch the lower surfaces of their latch tracks and are not free to turn as shown View C-C, Figure 511.

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(m) Remove the rig pins.

(n) Make sure the final clearance between the cam roller and inboard surface of the lockout/upstop cam is as shown View A-A, Figure 511.

SUBTASK 52-35-00-820-013

(3) Lift/Latch Torque Tube Adjustment (Figure 501, Figure 511)

(a) Make sure the door is in the fully latched position with the wedge tools installed (Figure 501).

(b) Make sure the clearance between the drive crank and travel stop is as shown View D-D, Figure 511.

(c) Turn the lift/latch manual drive in the open direction until the door is in the fully lifted position.

(d) Make sure the clearance between the drive crank and travel stop is as shown View D-D, Figure 511.

H. Vent Door Rigging

SUBTASK 52-35-00-820-014

(1) Vent Door Pushrod (Figure 501, Figure 512)

(a) Make sure the door is in the fully latched position (Figure 501). It is not necessary to install the wedge tools.

(b) Install rig pin No. 3 through the vent door cam.

(c) Adjust the length of the pushrod for the vent door for these conditions:

1) Make sure the vent door crank upper roller touches the vent door cam surface and cannot turn freely.

2) Make sure the clearance between the vent door and its stops is as shown View B-B, Figure 512.

(d) Make sure the adjustable rod end bearing for the vent door pushrod covers at least 50 percent of the inspection hole of the pushrod.

(e) Tighten the jamnut at the adjustable rod end for the vent door pushrod.

(f) Remove the rig pin No. 3.

(g) Turn the lift/latch torque tube through its full movement from stop to stop and make sure that the vent door crank roller bearings do not touch the vent door cam at the same time.

SUBTASK 52-35-00-820-015

(2) Vent Door Negative Pressure Force Check (Figure 512)

(a) Make sure the door is in the fully latched position. It is not necessary to install the rig pins or wedge tools.

(b) Apply a 26 lbf (115.7 N) - 36 lbf (160.1 N) directed inboard at approximately the center of one of the vent door stops as shown View B-B, Figure 512, with the force gauge, COM-1557. Do this check:

1) Make sure the latch crank does not turn.

(c) Release the force.

SUBTASK 52-35-00-820-016

(3) Vent Door Positive Pressure Force Check (Figure 501, Figure 512)

(a) Put the door in the fully latched position. It is not necessary to install the rig pins or wedge tools.

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(b) Apply a 34 lbf (151.2 N) - 60 lbf (266.9 N) directed outboard at the top center of the vent door as shown View B-B, Figure 512, with the scale, STD-1072.

CAUTION DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR.

CAUTION DO NOT OPERATE THE LIFT/LATCH MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(c) Keep the force on the vent door and turn the lift/latch manual drive in the open direction until there is torque limiter slippage in the lift/latch power drive unit. Do these checks:

NOTE: The latch cranks will turn until there is torque limiter slippage.

1) Make sure the door moves 0.03 in. (0.76 mm) maximum from the latch crank rotation.

2) Make sure the torque during the lift/latch power drive unit torque limiter slippage is not less than 22 in-lb (2.5 N·m).

NOTE: During the torque limiter slippage of the lift/latch power drive unit, it is permitted to increase the force to keep the vent door closed by 3 lb (1.36 kg) maximum.

(d) Release the force.

SUBTASK 52-35-00-820-017

(4) Vent Door Angular Travel (Figure 512)

(a) Turn the lift/latch manual drive until the door is in the fully lifted position and do this check:

1) Make sure the vent door opens smoothly in both directions without binding or scraping noises.

(b) Make sure the vent door is open the angular distance shown View A-A, Figure 512.

(c) Make sure the distance between the vent door and beam No. 3 is as shown View A-A, Figure 512.

(d) Turn the lift/latch manual drive until the door is in the fully latched position.

SUBTASK 52-35-00-820-018

(5) Vent Door Flushness (Figure 512)

(a) Put the door in the fully latched position. Do not install the rig pins or wedge tools.

(b) Push the vent door against its stops.

(c) Make sure the flushness between the vent door and the door skin is as shown View B-B, Figure 512.

(d) Release the vent door.

I. Skin Clearance Adjustment

SUBTASK 52-35-00-820-019

(1) Skin Clearances (Figure 502)

(a) Make sure the door is in the fully latched position with the wedge tools installed (Figure 501).

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(b) Make sure the clearances between the door skin and the fuselage skin are as shown (Figure 502, Table 501).

Table 501/52-35-00-993-801

ZONE	CLEARANCE TOLERANCE inch (mm)*[1]*[2]	FLUSHNESS TOLERANCE inch (mm)*[3]*[4]
A	0.35 ±0.05 in. (8.89 ±1.27 mm)	-0.08 +0.03 / -0.06 in. (-2.03 +0.76 / -1.53 mm)*[5]
B	0.55 ±0.05 in. (13.97 ±1.27 mm)	-0.13 ±0.10 in. (-3.30 ±2.54 mm)
ARO 008		
EXCEPT B:	0.05 ±0.01 in. (1.27 ±0.25 mm)	
ARO ALL		
C	0.35 ±0.05 in. (8.89 ±1.27 mm)	-0.08 +0.03 / -0.06 in. (-2.03 +0.76 / -1.53 mm)*[6]
ARO 003		
EXCEPT C:	0.350 +0.050 / -0.062 in. (8.890 +1.270 / -1.575 mm)	
ARO 015		
EXCEPT C:	0.350 +0.050 / -0.072 in. (8.890 +1.270 / -1.829 mm)	
ARO ALL		
D	0.25 ±0.05 in. (6.35 ±1.27 mm)	-0.12 +0.04 / -0.11 in. (-3.05 +1.02 / -2.80 mm)

*[1] Skin clearance gradually changes around the corner from the lower to the higher skin clearance.

*[2] 10.0 in. (254 mm) of door edge can have a skin clearance of 0.03 in. (0.76 mm) more than shown.

*[3] A negative flushness shows the door is inboard of the fuselage cutout.

*[4] Flushness tolerances are not applicable in the skin splice.

*[5] 20-percent of aft edge can have a flushness of -0.03 in. (-0.76 mm).

*[6] 20-percent of forward edge can have a flushness of -0.16 in. (-4.06 mm).

(c) If you install a new, replacement door, do these steps:

1) Trim the door skin to get the correct skin clearances.

(d) Remove the wedge tools.

SUBTASK 52-35-00-820-020

(2) Door Opening Clearance (Figure 502)

(a) Put the door in the partially lifted position to get the position in which the clearance between the door and the upper edge of the cutout is a minimum.

(b) Make sure the clearance between the door and upper edge of the cutout is as shown View A-A, Figure 502. If it is necessary, adjust as follows:

1) Do the Door Alignment Rigging again and move the door outboard as far as the adjustment permits.

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J. Manual Drives Adjustment

SUBTASK 52-35-00-820-021

(1) Manual Drives Adjustment (Figure 504)

NOTE: This checks the lift/latch manual drive and the hinge manual drive flexible shafts.

(a) Lift/Latch Manual Drive Check

CAUTION DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR.

CAUTION DO NOT OPERATE THE LIFT/LATCH MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

1) Turn the lift/latch manual drive in the door lift direction until the vertical travel of the door stops and there is torque limiter slippage of the lift/latch power drive unit. Do these checks:
   a) Make sure there is no vibration or deflection in the lift/latch manual drive flexible shaft.
   b) Make sure the flexible shaft does not twist when the lift/latch power drive unit operates with torque limiter slippage.
2) If the flexible shaft twists, do a check of the applied torque against the allowable slippage torque for the power drive unit.

(b) Hinge Manual Drive Check

CAUTION DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR.

CAUTION DO NOT OPERATE THE HINGE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

1) Turn the hinge manual drive in the door open direction until the door is in the fully open position and there is torque limiter slippage of the hinge power drive unit. Do these checks:
   a) Make sure there is no vibration or deflection in the hinge manual drive flexible shaft.
   b) Make sure the flexible shaft does not twist when the hinge power drive unit operates with torque limiter slippage.
2) If the flexible shaft twists, do a check of the applied torque against the allowable slippage torque for the power drive unit.

K. Sensor Rigging

SUBTASK 52-35-00-820-022

(1) Door Control and Indication Proximity Sensor Adjustment

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(a) Do the adjustment procedure for S52011: Door Latched Proximity Sensor Removal, Installation and Adjustment, TASK 52-35-10-900-803.

Only do the Adjustment.

(b) Do the adjustment for S52023: Door Up Proximity Sensor Removal, Installation and Adjustment, TASK 52-35-10-900-801.

Only do the Adjustment.

(c) Do the adjustment of S52024: Latched and Locked Proximity Sensor Removal, Installation and Adjustment, TASK 52-71-03-900-802.

Only do the Adjustment.

(d) Do the adjustment of S52009: Door Lifted Proximity Sensor Removal, Installation and Adjustment, TASK 52-35-10-900-802.

Only do the Adjustment.

(e) Do the adjustment of S52012: Door Down Proximity Sensor Removal, Installation and Adjustment, TASK 52-35-10-900-804.

Only do the Adjustment.

(f) Do the adjustment of S52008: Closed Proximity Sensor Removal, Installation and Adjustment, TASK 52-71-03-900-801.

Only do the Adjustment.

L. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-00-410-003

(1) Close access to the door mechanisms as follows:

(a) Install the shroud on the vent door.

(b) Install the door lining.

——— END OF TASK ———

TASK 52-35-00-720-801

4. Aft Small Cargo Door System Test

A. General

(1) The system test is a check that the door is installed and adjusted correctly and that the mechanical and electrical systems operate correctly.

(2) Make sure the airplane is at operating weight empty and is fully supported by its landing gear.

(3) Make sure the installation and adjustment of the door is done. Make sure the door seals and door liners are installed. If it is necessary, remove the applicable door liners to make measurements and watch movement during the test.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
52-71-03-700-801	Small Cargo Door Indication Proximity Sensor Test (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

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Reference	Description
COM-1557	Gauge - Force Part #: DG-200 Supplier: 92456 Part #: FDIX 100 Supplier: 0BFD9 Part #: FDIX 50 Supplier: 0BFD9 Part #: LG-010 Supplier: 92456 Part #: LG-050 Supplier: 92456 Part #: LG-100 Supplier: 92456 Opt Part #: DPP-500G Supplier: 92456 Opt Part #: DPPH-150 Supplier: 92456 Opt Part #: DPPH-200 Supplier: 92456 Opt Part #: DPPH-50 Supplier: 92456 Opt Part #: FDI 100 Supplier: 0BFD9 Opt Part #: FDI 50 Supplier: 0BFD9 Opt Part #: FDV 100 Supplier: 0BFD9 Opt Part #: FDV 50 Supplier: 0BFD9
STD-756	Scale - Spring, 0 to 100 lbs. (0 to 45.36 kg), Compression

D. Location Zones

Zone	Area
823	Aft Small Cargo Door

E. Access Panels

Number	Name/Location
152AR	Aft Cargo Door Control Door

F. Prepare for the Test

SUBTASK 52-35-00-860-008

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-35-00-010-006

(2) Open this access panel:

Number	Name/Location
152AR	Aft Cargo Door Control Door

G. System Test

SUBTASK 52-35-00-720-001

(1) Vent Door Negative Pressure Test

(a) Make sure the door is closed and latched.

(b) Put the force gauge, COM-1557 at the inner side of the vent door at the center of either door stop and pull the vent door inboard perpendicular to its surface. Do this check:

1) Make sure the latch cranks do not start to turn when you apply 26 lb (11.8 kg) - 36 lb (16.3 kg).

(c) Release the force and remove the force gauge, COM-1557.

SUBTASK 52-35-00-720-002

(2) Vent Door Positive Pressure Test with Manual Operation

(a) Make sure the door is closed and latched.

(b) Put the force gauge, COM-1557 at the top center of the inner side of the vent door and push the vent door outboard perpendicular to its surface.

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(c) Put the speed wrench or power tool in the lift/latch manual drive port found on the door skin in the middle of the door.

CAUTION DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR.

CAUTION DO NOT OPERATE THE LIFT/LATCH MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(d) Keep the force on the vent door and turn the lift/latch manual drive in the open direction until the door lifts 1.97 in. (50.04 mm) - 2.00 in. (50.80 mm). As the door lifts, do these checks:

1) Make sure clearance at the upper edge of the door as it moves past the fuselage skin is 0.05 in. (1.27 mm) minimum.
2) Make sure there is no binding or sudden change in the applied torque in the manual drive.
3) Make sure there are no unusual noises (cracking or popping) when the door starts or stops.
4) Make sure there is no unusual noise (squealing) as the door opens.
5) Make sure there is no vibration or deflection in the manual drive flexible shaft.

(e) Release the force and remove the force gauge, COM-1557.

(f) Make sure the vent door opens fully (approximately 17 degrees).

(g) Make sure on the aft side of the door that the roller on the lift link clevis touches the outboard surface of the lockout cam and that the roller cannot be turned manually.

(h) Make sure there is no excessive wear, collapse, or interference of the seal on any of the door or cutout structure.

SUBTASK 52-35-00-720-003

(3) Door Open Manual Operation Test

(a) Make sure the door is in the lifted position.

(b) Put the speed wrench or power tool in the hinge manual drive port found on the fuselage skin forward of the door.

CAUTION DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR.

CAUTION DO NOT OPERATE THE HINGE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(c) Turn the hinge manual drive in the open direction until the door is in the fully open position. Do these checks:

1) Make sure the two rotary actuator drive shafts start to move at the same time.

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2) Make sure there is clearance between the door and cutout on the upper, lower, forward and aft sides of the door as it moves open.

3) Make sure the upper and lower guide rollers smoothly leave the guide tracks and the door does not fall.

4) Make sure there is no vibration or deflection in the manual drive flexible shaft.

5) Make sure the flexible shaft does not twist when the power drive unit operates with torque limiter slippage.

6) Make sure the two rotary actuator drive shafts are synchronized.

7) Make sure there is no binding or sudden change in the applied torque in the manual drive.

(d) Make sure all the stop pin retainer springs are installed correctly.

(e) Make sure the rotary actuators touch the open stops.

(f) Make sure the forward and aft hinge arms do not touch the fuselage structure.

(g) Make sure the hinge arms are even and the door is not at an angle.

(h) Turn the hinge manual drive back toward the close position slightly and make sure you can turn the drive shafts easily forward and aft by hand to do a check for free play.

SUBTASK 52-35-00-720-004

(4) Door Close Manual Operation Test

(a) Make sure the door is in the fully open position.

(b) Put the speed wrench or power tool in the hinge manual drive port found on the fuselage skin forward of the door.

CAUTION DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR.

CAUTION DO NOT OPERATE THE HINGE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(c) Turn the hinge manual drive in the close direction until the door is in the fully closed position and torque limiter slippage can be felt or heard. Do these checks:

1) Make sure the two rotary actuator drive shafts start to move at the same time.

2) Make sure there is no vibration or deflection in the manual drive flexible shaft.

3) Make sure the flexible shaft does not twist when the power drive unit operates with torque limiter slippage.

4) Make sure the two rotary actuator drive shafts are synchronized.

5) Make sure there are no unusual noises (squealing, popping or cracking) as the door closes.

6) Make sure there is no binding or sudden change in the applied torque in the manual drive.

7) Make sure the door moves freely into the cutout and does not touch the fuselage structure except at the guide tracks and latch tracks.

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8) Make sure the upper and lower guide rollers smoothly go into the guide tracks and the door is not lifted by the guide rollers in the guide tracks.

9) Make sure the latch rollers smoothly go into the latch tracks and the door is not lifted or lowered by the latch rollers in the latch tracks.

10) Make sure there is clearance between the upper and lower edges of the door as it moves into the opening.

CAUTION

DO NOT TURN THE MANUAL DRIVE IN THE OPEN DIRECTION MORE THAN 1.5 TURNS. IF YOU TURN MORE THAN 1.5 TURNS AFTER THE DOOR IS CLOSED, THE HINGE ARMS CAN BE PRE-LOADED WHEN THE DOOR IS LATCHED AND DAMAGE CAN OCCUR.

(d) Turn the hinge manual drive back toward the open position 1.5 turns.

SUBTASK 52-35-00-720-005

(5) Door Latch Manual Operation Test

(a) Make sure the door is in the closed but not latched position.

(b) Put the speed wrench or power tool in the lift/latch manual drive port found on the door skin in the middle of the door.

CAUTION

DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR.

CAUTION

DO NOT OPERATE THE LIFT/LATCH MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(c) Turn the lift/latch manual drive in the close direction until the door is in the fully latched position and torque limiter slippage can be felt or heard. Do these checks:

1) Make sure there is no binding or sudden change in the applied torque in the manual drive.

2) Make sure the door moves freely and does not touch the fuselage structure except at the guide tracks and latch tracks.

3) Make sure there are no unusual noises (cracking or popping) when the door starts or stops.

4) Make sure there is no unusual noise (squealing) as the door closes.

5) Make sure there is no vibration or deflection in the manual drive flexible shaft.

6) Make sure there is clearance between the upper and lower edges of the door as it moves into the opening.

(d) Make sure the vent door is fully closed.

(e) Make sure the lower hook rollers on the fuselage structure are free to turn.

(f) Make sure the upper hook rollers on the door are free to turn.

SUBTASK 52-35-00-720-006

(6) Electrical Operation Test

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(a) Make sure that these circuit breakers are closed:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(b) Hold the external CARGO DOOR CONTROL ARMING switch down in the ARM position. Do these checks:

1) Make sure the green DOOR LATCHED light on the control panel comes on.

2) Open this circuit breaker:

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

3) Make sure the green DOOR LATCHED light goes off.

4) Close this circuit breaker:

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(c) Release the switch.

(d) Hold the internal CARGO DOOR CONTROL ARM switch outboard in the ARM position. Do this check:

1) Make sure the door does not open.

(e) Release the switch.

(f) Hold the internal CARGO DOOR CONTROL switch in the OPEN position. Do this check:

1) Make sure the door does not open.

(g) Release the switch.

SUBTASK 52-35-00-720-007

(7) Vent Door Positive Pressure Test with Electrical Operation

(a) Make sure the door is closed and latched.

WARNING BE CAREFUL OF DOOR MOVEMENT. IF THE VENT DOOR OPENS, THE DOOR WILL LIFT AND OPEN OUTBOARD AND INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(b) Put the compression spring scale (0 to 100 lbs. (0 to 45.36 kg), STD-756 at the top center of the inner side of the vent door and apply an outboard 34-60 pound force to the vent door perpendicular to its surface.

(c) Hold the internal CARGO DOOR CONTROL ARM switch outboard in the ARM position.

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CAUTION

DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR.

(d) Hold the internal CARGO DOOR CONTROL switch in the OPEN position. Do these checks:

NOTE: The latch cranks will turn until the lift/latch power drive unit torque limiter actuates.

1) Make sure the vertical distance the door moves is not more than 0.03 in. (0.76 mm).
2) Make sure the lift/latch power drive unit has torque limiter slippage with door movement.
3) Make sure the vent door stays closed while the lift/latch power drive unit has torque limiter slippage.

(e) Release the switches.

(f) Release the force and remove the compression spring scale (0 to 100 lbs. (0 to 45.36 kg), STD-756.

(g) Make sure the green DOOR LATCHED light on the control panel stays off.

(h) Hold the internal CARGO DOOR CONTROL ARM switch inboard in the ARM position.

(i) Hold the internal CARGO DOOR CONTROL switch in the CLOSE position. Do these checks:

1) Make sure the latch cranks turn to the fully latched position.
2) Make sure the lift/latch power drive unit stops.
3) Make sure the green DOOR LATCHED light on the control panel comes on.

(j) Release the switches.

(k) Make sure the lift/latch power drive unit stops when the clearance between the lift/latch travel stop and the drive crank is 0.05 in. (1.27 mm) - 0.20 in. (5.08 mm).

(l) Make sure the green DOOR LATCHED light on the control panel goes off.

SUBTASK 52-35-00-720-008

(8) Door Lift with Internal Switch Test

(a) Hold the internal CARGO DOOR CONTROL ARM switch in the ARM position.

(b) Hold the internal CARGO DOOR CONTROL switch in the OPEN position. Do these checks:

1) Make sure there is no binding or sudden change in the manual drive.
2) Make sure the door moves freely and does not touch the fuselage structure except at the guide tracks and latch tracks.
3) Make sure there are no unusual noises (cracking or popping) when the door starts or stops.
4) Make sure there is no unusual noise (squealing) as the door opens.

(c) Release the switches when the power has moved to the hinge power drive unit and the lower edge of the door has moved 6 in. (152.4 mm) - 18 in. (457.2 mm) away from the cutout.

SUBTASK 52-35-00-720-009

(9) Door Latch with Internal Switch Test

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(a) Hold the internal CARGO DOOR CONTROL ARM switch outboard in the ARM position. Do this check:

1) Make sure the door does not move.

(b) Hold the internal CARGO DOOR CONTROL ARM switch inboard in the ARM position. Do this check:

1) Make sure the door does not move.

(c) Release the switch.

(d) Hold the internal CARGO DOOR CONTROL switch in the CLOSE position and then in the OPEN position. Do this check:

1) Make sure the door does not move.

(e) Release the switch.

(f) Hold the internal CARGO DOOR CONTROL ARM switch inboard in the ARM position.

(g) Hold the internal CARGO DOOR CONTROL switch in the CLOSE position. Do these checks:

1) Make sure there is no binding or sudden change in the manual drive.

2) Make sure the door moves freely and does not touch the fuselage structure except at the guide tracks and latch tracks.

3) Make sure there are no unusual noises (cracking or popping) when the door starts or stops.

4) Make sure there is no unusual noise (squealing) as the door opens.

5) Make sure the lift/latch power drive unit stops when the latch cranks stop turning.

6) Make sure the green DOOR LATCHED light on the control panel comes on when the latch cranks stop turning.

(h) Release the switches.

(i) Make sure the green DOOR LATCHED light on the control panel goes off.

(j) Make sure the vent door is fully closed.

SUBTASK 52-35-00-720-010

(10) Door Open with Internal Switch Test

(a) Hold the internal CARGO DOOR CONTROL ARM switch outboard in the ARM position.

(b) Hold the internal CARGO DOOR CONTROL switch in the OPEN position. Do these checks:

1) Make sure there is no binding or sudden change in the manual drive.

2) Make sure the door moves freely and does not touch the fuselage structure except at the guide tracks and latch tracks.

3) Make sure there are no unusual noises (cracking or popping) when the door starts or stops.

4) Make sure there is no unusual noise (squealing) as the door opens.

5) While the door moves, do these checks:

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a) Open this circuit breaker:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

b) Make sure the door stops and stays stopped.

NOTE: Measure the stopped position of the door at the edge of the door farthest away from the fuselage.

c) Release the switches.

d) Make sure that after two minutes the door does not change position.

e) Hold the internal CARGO DOOR CONTROL ARM switch outboard in the ARM position.

f) Hold the internal CARGO DOOR CONTROL switch in the OPEN position.

g) Close this circuit breaker:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

h) Make sure the door moves up.

i) Make sure the yellow DOOR UP light on the control panel shows.

j) Release the switches.

k) Make sure the yellow DOOR UP light on the control panel stays on.

l) Make sure the smallest of the clearances between the rotary actuators and the open stops is 0.02 in. (0.51 mm) - 0.05 in. (1.27 mm).

SUBTASK 52-35-00-720-011

(11) Door Close with Internal Switch Test

(a) Open this circuit breaker:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

(b) Disconnect the electrical connector from the lift/latch power drive unit.

(c) Close this circuit breaker:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

(d) Hold the internal CARGO DOOR CONTROL ARM switch inboard in the ARM position.

(e) Hold the internal CARGO DOOR CONTROL switch in the CLOSE position. Do these checks:

1) Make sure the door moves toward the close position.

2) Make sure the yellow DOOR UP light on the control panel goes off.

3) Close the door until it is approximately parallel to the ground.

4) While the door moves, do these checks:

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a) Open this circuit breaker:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

b) Make sure the door stops and stays stopped.

NOTE: Measure the stopped position of the door at the edge of the door farthest away from the fuselage.

c) Release the switches.

d) Make sure that after two minutes the door does not change position.

e) Hold the internal CARGO DOOR CONTROL ARM switch inboard in the ARM position.

f) Hold the internal CARGO DOOR CONTROL switch in the CLOSE position.

g) Close this circuit breaker:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

h) Make sure the door moves toward the closed position.

5) Make sure the door does not pause when it goes into the cutout.

NOTE: A door seal problem could cause the door to pause when it goes into the cutout.

6) Make sure there is no binding or sudden change in the manual drive.

7) Make sure the door moves freely and does not touch the fuselage structure except at the guide tracks and latch tracks.

8) Make sure there are no unusual noises (cracking or popping) when the door starts or stops.

9) Make sure there is no unusual noise (squealing) as the door opens.

10) Listen for torque limiter slippage in the hinge power drive unit and make sure the door movement stops at the same time as the hinge power drive unit.

11) Release the switches.

12) Make sure the clearances between the rotary actuators and the closed stops is 0.05 in. (1.27 mm) minimum.

(f) Open this circuit breaker:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

(g) Connect the electrical connector to the lift/latch power drive unit.

(h) Close this circuit breaker:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

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SUBTASK 52-35-00-720-012

(12) Door Latch with Internal Switch Test

(a) Hold the internal CARGO DOOR CONTROL ARM switch inboard in the ARM position.

(b) Hold the internal CARGO DOOR CONTROL switch in the CLOSE position. Do these checks:

1) Make sure the door moves down.

2) Make sure there is no binding or sudden change in the manual drive.

3) Make sure the door moves freely and does not touch the fuselage structure except at the guide tracks and latch tracks.

4) Make sure there are no unusual noises (cracking or popping) when the door starts or stops.

5) Make sure there is no unusual noise (squealing) as the door opens.

6) Make sure the lift/latch power drive unit stops when the latch cranks stop turning.

(c) Release the switches.

(d) Hold the internal CARGO DOOR CONTROL ARM switch outboard in the ARM position.

(e) Hold the internal CARGO DOOR CONTROL switch in the OPEN position. Do this check:

1) Make sure the door moves to the fully open position.

(f) Release the switches.

(g) Hold the internal CARGO DOOR CONTROL ARM switch inboard in the ARM position.

(h) Hold the internal CARGO DOOR CONTROL switch in the CLOSE position. Do this check:

1) Make sure the door moves to the closed and latched position.

(i) Release the switches.

SUBTASK 52-35-00-720-013

(13) Door Close with External Switch Test

(a) Push the yellow DOOR UP light on the control panel and do this check:

1) Make sure the DOOR UP light comes on.

(b) Release the light.

(c) Hold the external CARGO DOOR CONTROL ARM switch up in the ARM position. Do this check:

1) Make sure the door does not open.

(d) Hold the external CARGO DOOR CONTROL ARM switch down in the ARM position. Do this check:

1) Make sure the door does not open.

(e) Release the switch.

(f) Hold the external CARGO DOOR CONTROL switch in the OPEN position and then in the CLOSE position. Do this check:

1) Make sure the door does not move.

(g) Release the switch.

(h) Hold the external CARGO DOOR CONTROL ARM switch up in the ARM position.

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(i) Hold the internal CARGO DOOR CONTROL switch in the OPEN position. Do these checks:

1) Make sure the time for the door to stop in the fully open position is 45 seconds maximum.
2) Make sure there is no binding or sudden change in the manual drive.
3) Make sure the door moves freely and does not touch the fuselage structure except at the guide tracks and latch tracks.
4) Make sure there are no unusual noises (cracking or popping) when the door starts or stops.
5) Make sure there is no unusual noise (squealing) as the door opens.

(j) Release the switches.

SUBTASK 52-35-00-720-014

(14) Door Close with External Switch Test

(a) Push the green DOOR LATCHED light on the control panel.

(b) Hold the external CARGO DOOR CONTROL ARM switch down in the ARM position. Do this check:

1) Make sure the DOOR LATCHED light comes on.

(c) Release the light and switch.

(d) Hold the external CARGO DOOR CONTROL ARM switch up in the ARM position. Do this check:

1) Make sure the door does not close.

(e) Release the switch.

(f) Hold the external CARGO DOOR CONTROL switch in the CLOSE position and then in the OPEN position. Do this check:

1) Make sure the door does not move.

(g) Release the switch.

(h) Hold the external CARGO DOOR CONTROL ARM switch down in the ARM position.

(i) Hold the external CARGO DOOR CONTROL switch in the CLOSE position. Do these checks:

1) Make sure the time for the door to stop in the fully closed and latched position with the latch cranks fully turned and stopped is 45 seconds maximum.
2) Make sure there is no binding or sudden change in the manual drive.
3) Make sure the door moves freely and does not touch the fuselage structure except at the guide tracks and latch tracks.
4) Make sure there are no unusual noises (cracking or popping) when the door starts or stops.
5) Make sure there is no unusual noise (squealing) as the door opens.
6) Make sure the vent door is fully closed.
7) Make sure the green DOOR LATCHED light on the control panel is on.

(j) Release the switches. Do this check:

1) Make sure the green DOOR LATCHED light on the control panel goes off.

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SUBTASK 52-35-00-720-015

(15) Reversibility with External Switch Test

NOTE: In this test you will move the door control switches while the door is moving. Read ahead in the test to anticipate the subsequent steps.

(a) Hold the external CARGO DOOR CONTROL ARM switch up in the ARM position.

(b) Hold the external CARGO DOOR CONTROL switch in the OPEN position. Do this check:

1) Make sure the door moves open.

(c) After the door moves 1.5 in. (38.1 mm), before the hinge power drive unit starts and while the door moves, do this check:

1) Hold the external CARGO DOOR CONTROL ARM switch down in the ARM position.

2) Hold the external CARGO DOOR CONTROL switch in the CLOSE position.

3) Make sure the door changes direction and moves down.

(d) Immediately after the door moves down, do this check:

1) Hold the external CARGO DOOR CONTROL ARM switch up in the ARM position.

2) Hold the external CARGO DOOR CONTROL switch in the OPEN position.

3) Make sure the door changes direction and moves up.

(e) Let the lower edge of the door move a minimum of 4 ft (121.92 cm) away from the lower edge of the cutout and do this check:

1) Hold the external CARGO DOOR CONTROL ARM switch down in the ARM position.

2) Hold the external CARGO DOOR CONTROL switch in the CLOSE position.

3) Make sure the door changes direction and moves down.

(f) Let the lower edge of the door move a minimum of 1 ft (30.48 cm) away from the lower edge of the cutout and do this check:

1) Hold the external CARGO DOOR CONTROL ARM switch up in the ARM position.

2) Hold the external CARGO DOOR CONTROL switch in the OPEN position.

3) Make sure the door changes direction and moves up.

(g) Hold the external CARGO DOOR CONTROL ARM switch down in the ARM position.

(h) Hold the external CARGO DOOR CONTROL switch in the CLOSE position.

(i) Make sure the door closes and latches.

(j) Release the switches.

SUBTASK 52-35-00-720-016

(16) Override Door Control Test

(a) Do these steps at the same time:

1) Hold the internal CARGO DOOR CONTROL ARM switch inboard in the ARM position.

2) Hold the internal CARGO DOOR CONTROL switch in the CLOSE position.

3) Hold the external CARGO DOOR CONTROL ARM switch up in the ARM position.

4) Hold the external CARGO DOOR CONTROL switch in the OPEN position.

5) Make sure the door does not move.

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6) Release the switches.

(b) Do these steps at the same time:

1) Hold the external CARGO DOOR CONTROL ARM switch down in the ARM position.

2) Hold the external CARGO DOOR CONTROL switch in the CLOSE position.

3) Hold the internal CARGO DOOR CONTROL ARM switch outboard in the ARM position.

4) Hold the internal CARGO DOOR CONTROL switch in the OPEN position.

5) Make sure the door moves open.

6) Release the internal CARGO DOOR CONTROL switches.

7) Make sure the door closes and latches.

8) Release the external CARGO DOOR CONTROL switches.

SUBTASK 52-35-00-720-017

(17) Do this task: Small Cargo Door Indication Proximity Sensor Test, TASK 52-71-03-700-801.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-00-410-004

(1) Close this access panel:

Number	Name/Location
152AR	Aft Cargo Door Control Door

——— END OF TASK ———

TASK 52-35-00-980-801

5. Small Cargo Door Out-Of-Sequence Recovery Procedure

A. General

(1) When manually closing the small cargo door, it is possible to get the door out of sequence if it is not operated correctly. If the manual drive ports on the fuselage and cargo door are not operated properly and in the correct order, the forward cam roller on the forward lift link will enter a detent in the forward lockout/upstop cam (View A-A, Figure 511). This will cause the lift/latch mechanism actuator to stop at mid-travel, leaving the door inoperable.

(2) This procedure provides the steps to correct this out-of-sequence condition with the small cargo door.

(3) If the door has been put out of sequence, these conditions, or any combination of these conditions might be seen:

(a) The aft side of the door will be lower and not aligned with the door cutout while trying to close the door.

(b) The door will make a "popping" sound while trying to close.

(c) The door will not be recessed in the lower edge of the door cutout when finished with the manual drive port operation on the fuselage skin.

(d) When attempting to finish closing the door manually, the door will not be completely closed and flush with the fuselage when finished with the manual drive port operation on the door skin. (TASK 52-35-00-860-804)

(e) The pressure vent door will not be completely closed and flush with the door skin.

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B. References

Reference	Title
52-35-00-860-804	Close the Aft Small Cargo Door Manually (P/B 201)

C. Small Cargo Door Out-Of-Sequence Recovery

SUBTASK 52-35-00-980-004

WARNING THE CARGO DOOR IS VERY HEAVY. USE SEVERAL MECHANICS, OR A LEVERAGE TOOL (SUCH AS A LONG PIECE OF WOOD OR SIMILAR). IF SEVERAL MECHANICS OR A LEVERAGING TOOL ARE NOT USED TO LIFT THE DOOR, INJURY TO PERSONNEL CAN OCCUR.

(1) Using the leveraging tool or several mechanics, lift the door up to take the door weight from the forward lockout/upstop cam. This will allow the forward cam roller to exit the detent in the forward cam.

NOTE: When using a piece of wood or equivalent leveraging tool to lift the door, brace one edge of the tool against an external platform and lift upward at the lower edge of the door skin. The piece of wood or equivalent leveraging tool can also be used the other direction by bracing it against the cargo compartment floor and lifting from the opposite end.

SUBTASK 52-35-00-980-005

(2) While continuing to support the door, operate the manual drive port located on the door skin counterclockwise to engage the cam rollers with the lockout cams. This allows the weight of the door to be supported by the hinge mechanism, restoring the door to the unlatched position.

NOTE: When cycling the lift/latch back to the unlatched position, rotate the manual drive port on the door skin until the overtravel stops have contacted. This is indicated by a rapid torque rise, not to exceed 50 inch pounds (5.65 newton meters).

SUBTASK 52-35-00-980-006

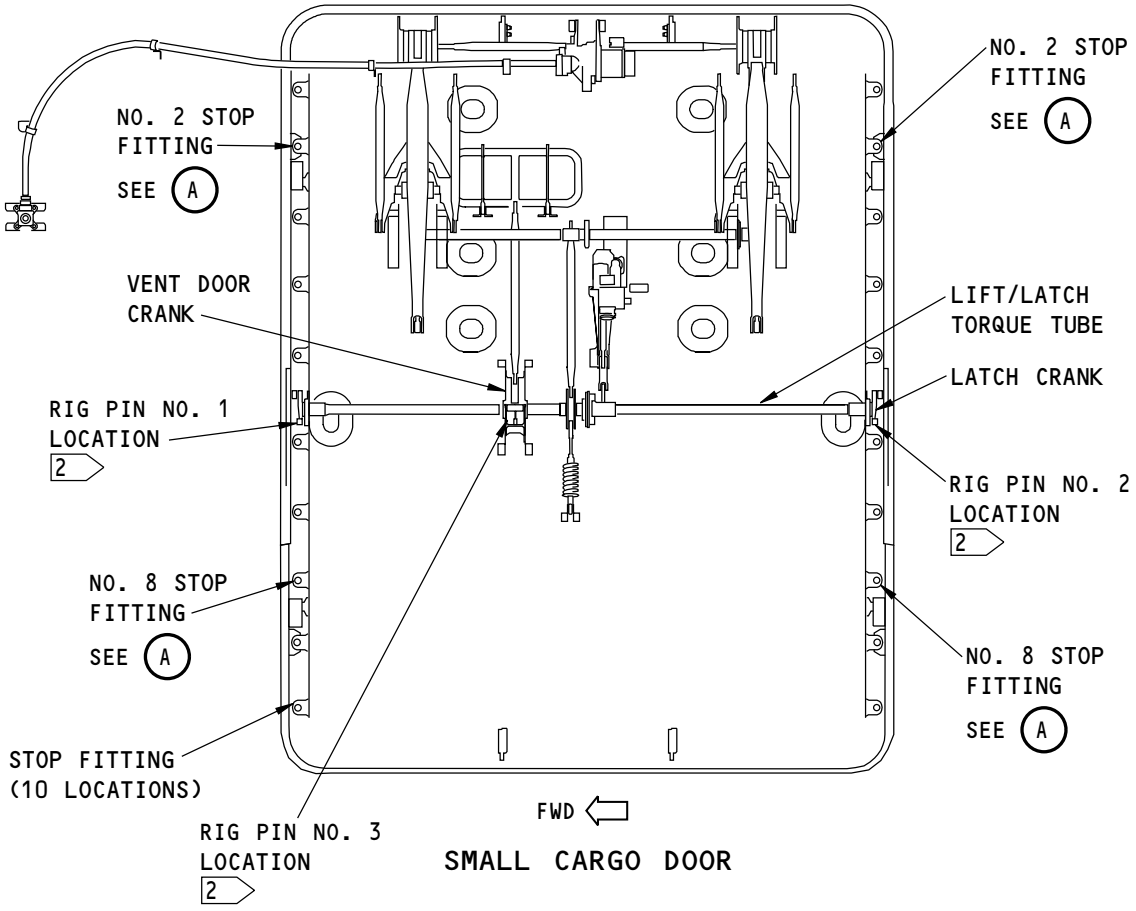
(3) Once the lockout cams have engaged the cam rollers on the lift links, it is not necessary to hold the door up any more. The lockout cam on the aft lift link and the lockout/upstop cam on the fwd lift link will now support the door.

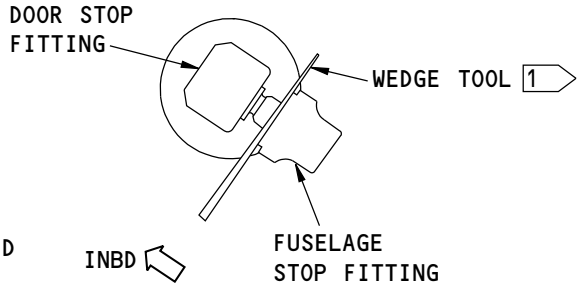
SUBTASK 52-35-00-980-007

(4) Continue to close the door manually using the following procedure (TASK 52-35-00-860-804).

END OF TASK

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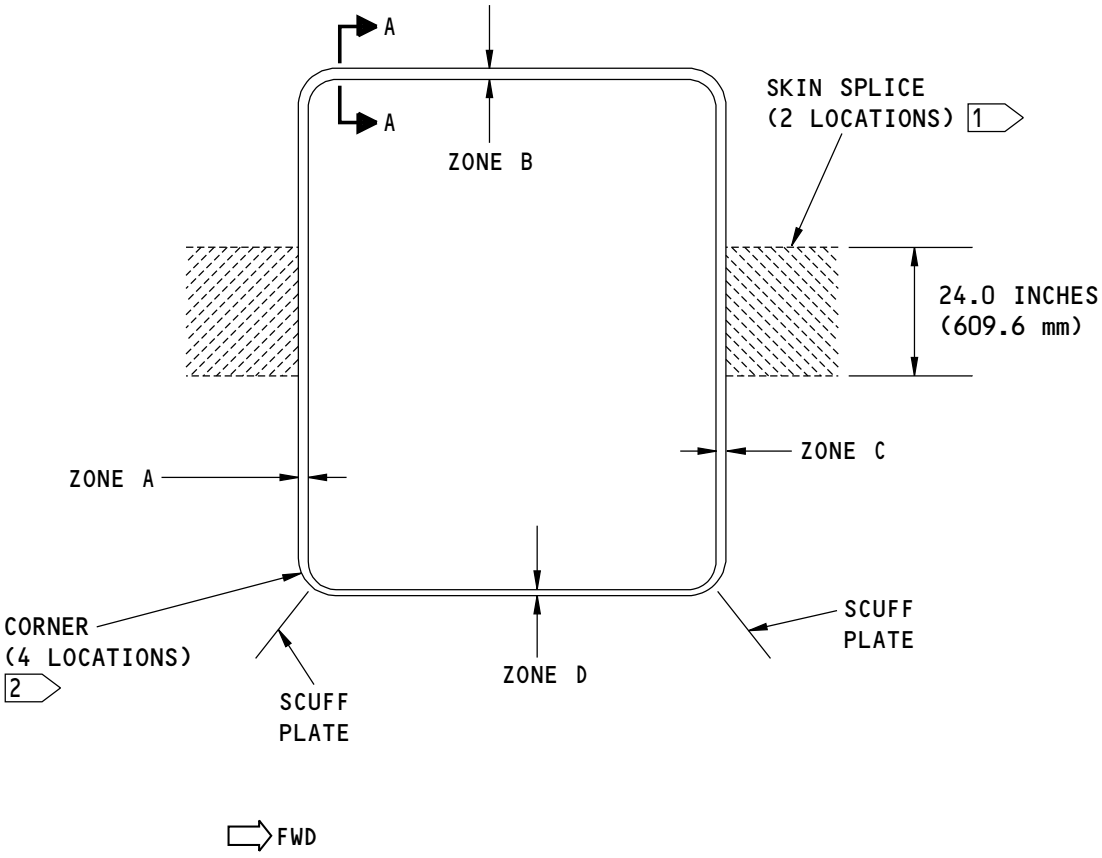
1 INSTALL WEDGE TOOLS IN NO. 2 AND NO. 8 STOP FITTINGS ALONG THE FORWARD AND AFT EDGES OF THE DOOR TO CHECK THE DOOR IN THE FULLY LATCHED POSITION

2 THE DOOR IS IN THE FULLY LATCHED POSITION WHEN THE RIG PINS ARE INSTALLED IN THE LOCATIONS SHOWN.

E97859 S0006425550_V1

Small Cargo Door Fully latched Position
Figure 501/52-35-00-990-803

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SMALL CARGO DOOR

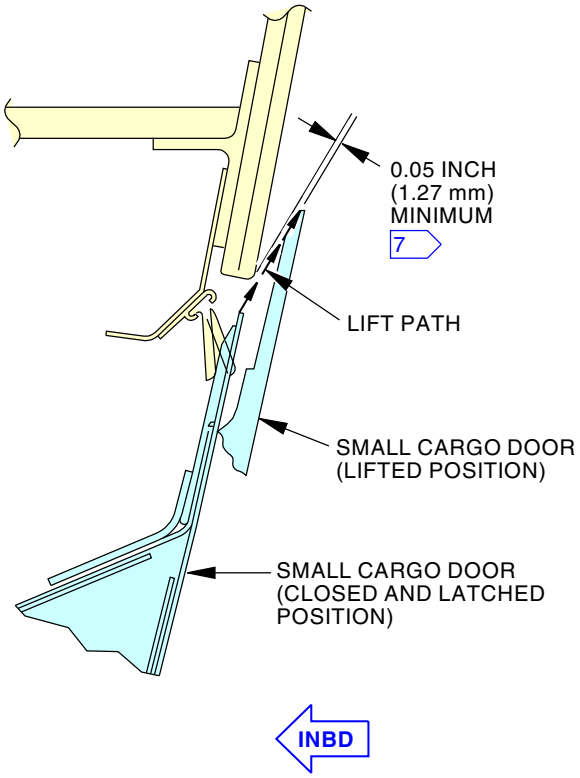
1 FLUSHNESS TOLERANCES ARE NOT APPLICABLE IN THE SKIN SPLICE

2 SKIN CLEARANCE GRADUALLY CHANGES AROUND THE CORNER FROM THE LOWER TO THE HIGHER SKIN CLEARANCE

E97935 S0006425551_V3

Skin Clearances and Flushness
Figure 502/52-35-00-990-811 (Sheet 1 of 5)

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DOOR OPENING CLEARANCE

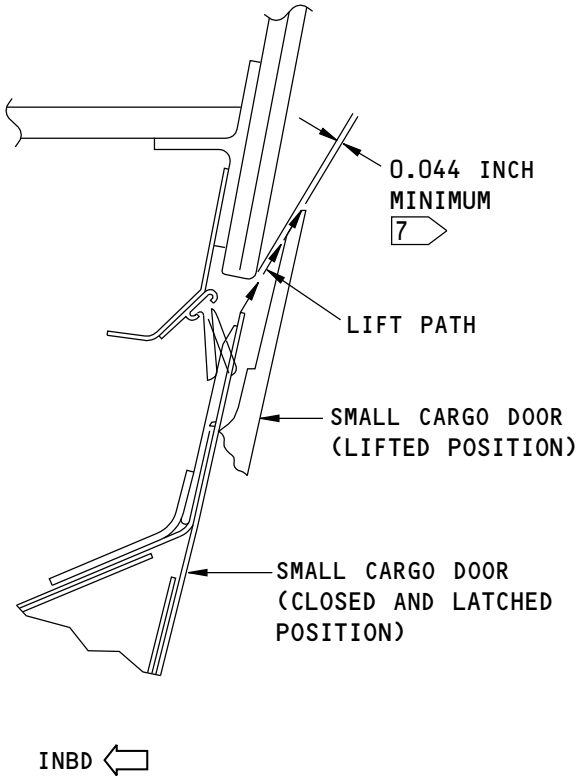
A-A

7 CLEARANCE DURING DOOR LIFT

F01557 S0006425554_V2

Skin Clearances and Flushness
Figure 502/52-35-00-990-811 (Sheet 2 of 5)

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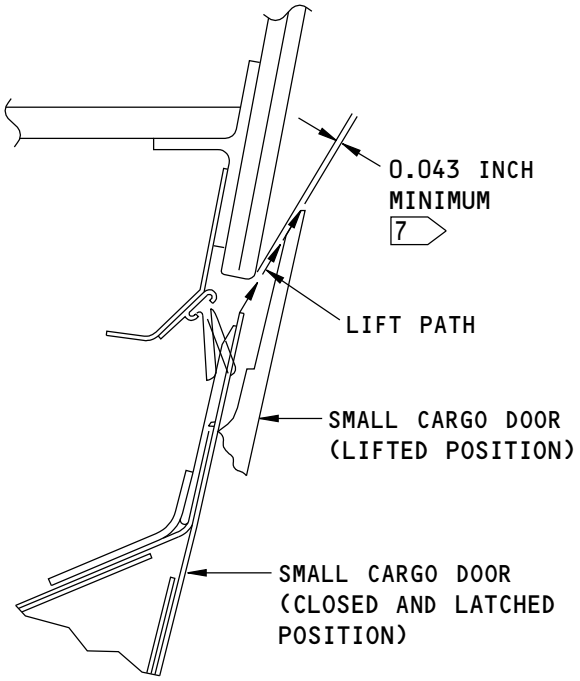
DOOR OPENING CLEARANCE
A-A

7 CLEARANCE DURING DOOR LIFT

2419499 S0000559221_V1

Skin Clearances and Flushness
Figure 502/52-35-00-990-811 (Sheet 3 of 5)

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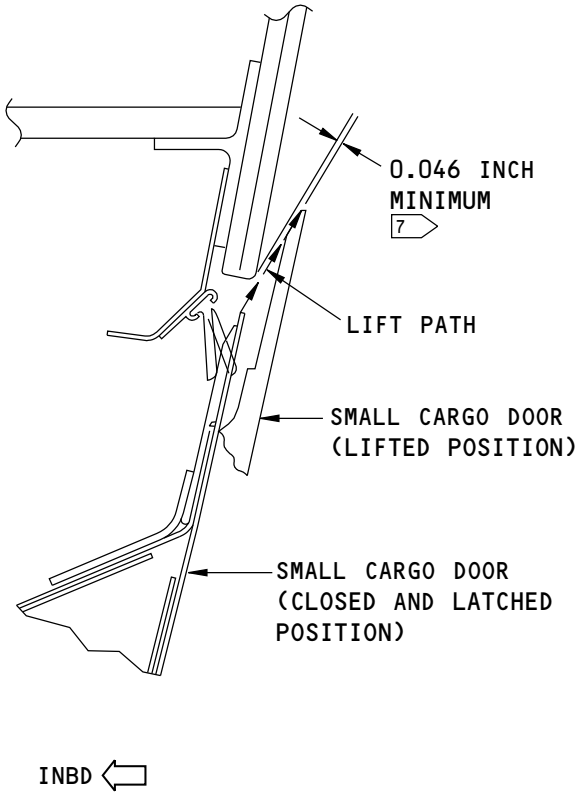
DOOR OPENING CLEARANCE
A–A

7 CLEARANCE DURING DOOR LIFT

2420878 S0000559367_V1

Skin Clearances and Flushness
Figure 502/52-35-00-990-811 (Sheet 4 of 5)

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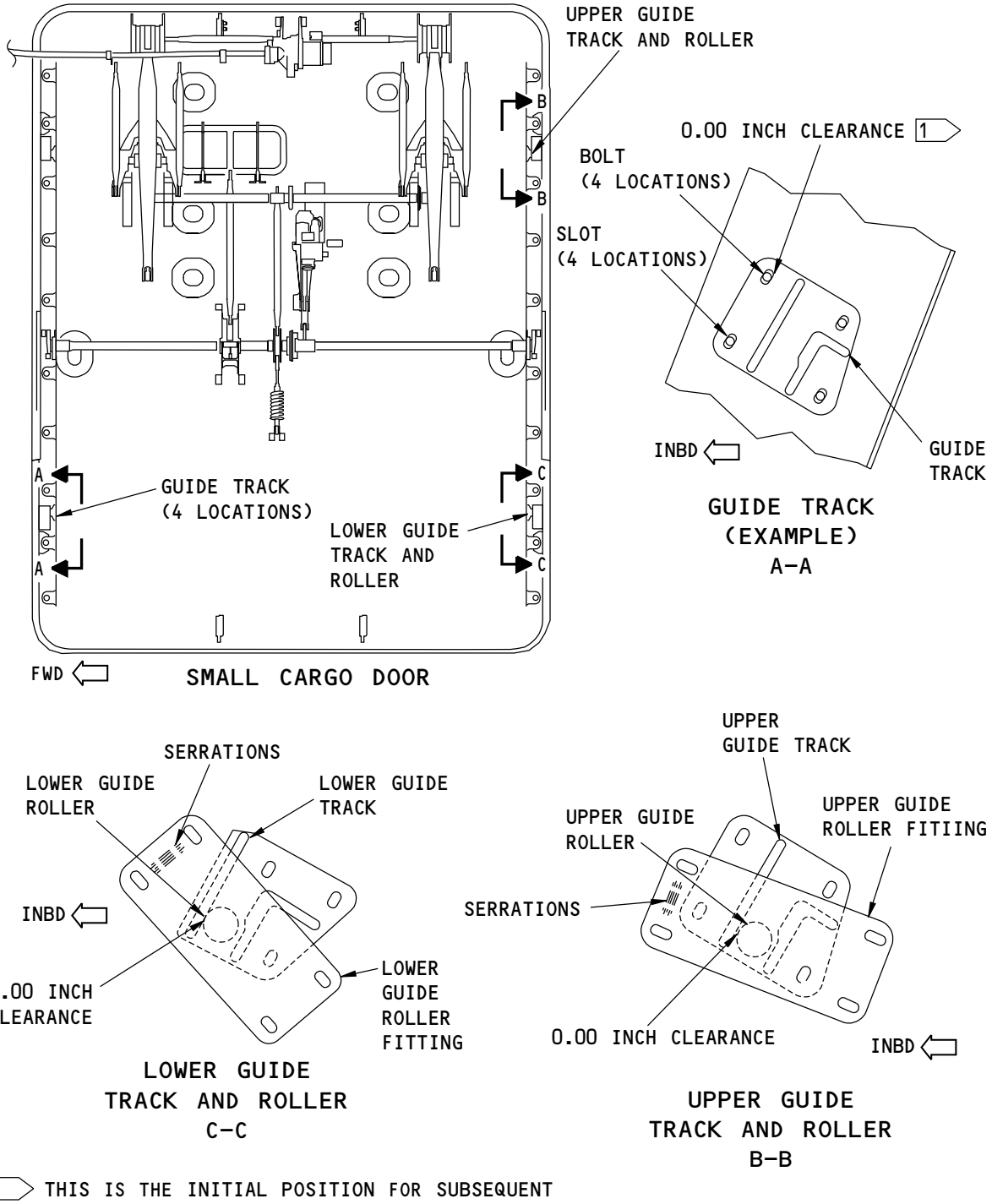
DOOR OPENING CLEARANCE
A–A

7 CLEARANCE DURING DOOR LIFT

2424566 S0000560783_V1

Skin Clearances and Flushness
Figure 502/52-35-00-990-811 (Sheet 5 of 5)

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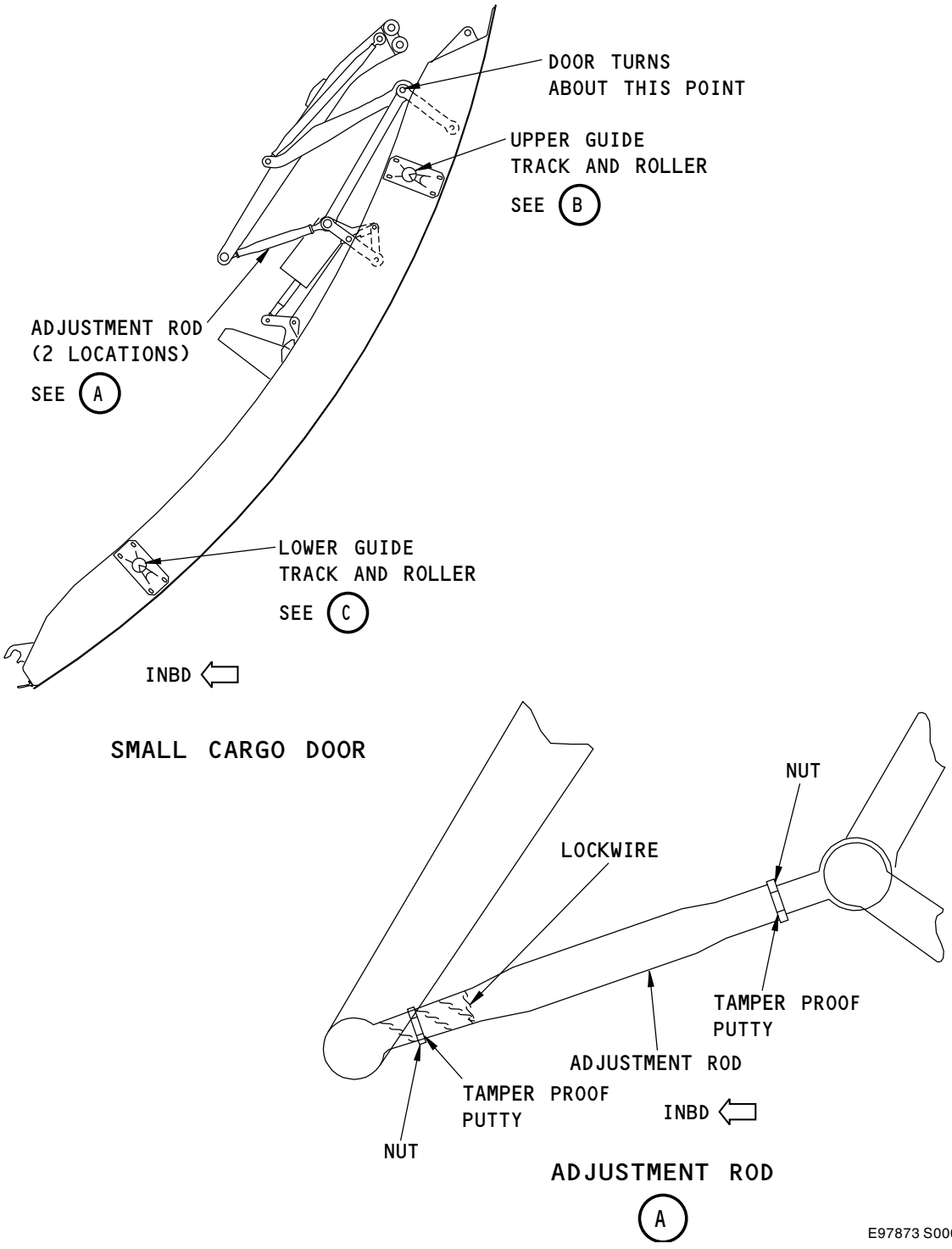


1 THIS IS THE INITIAL POSITION FOR SUBSEQUENT ADJUSTMENTS

E98003 S0006425555_V1

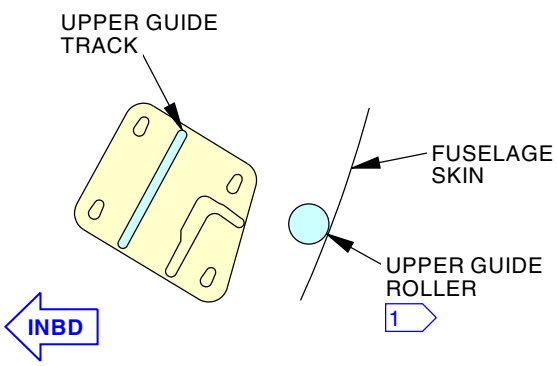
Door Flushness Adjustment
Figure 503/52-35-00-990-804

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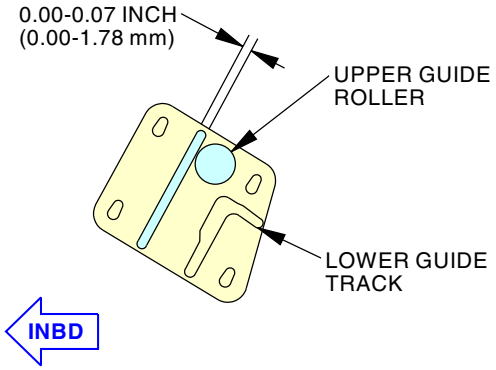
Door Rotation Adjustment
Figure 504/52-35-00-990-812 (Sheet 1 of 2)

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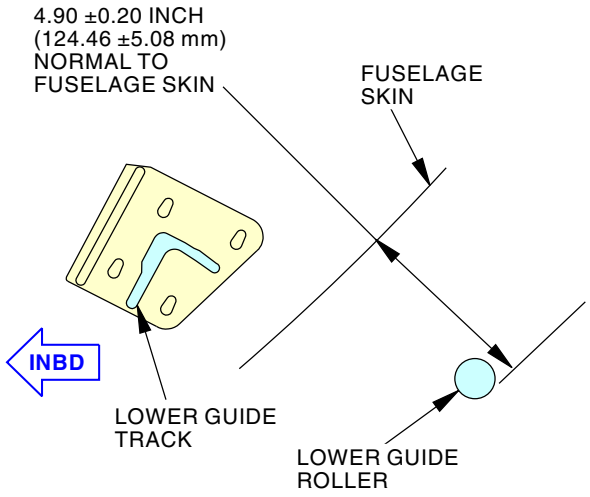
UPPER GUIDE TRACK AND ROLLER (DOOR OPEN POSITION)

B



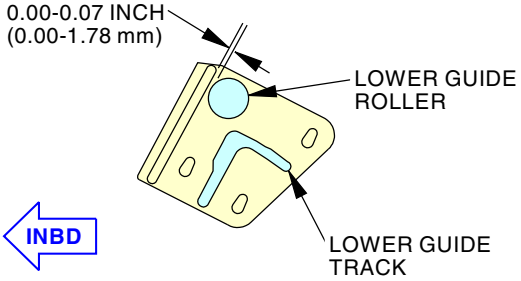
UPPER GUIDE TRACK AND ROLLER (DOOR LIFTED POSITION)

B



LOWER GUIDE TRACK AND ROLLER (DOOR OPEN POSITION)

C



LOWER GUIDE TRACK AND ROLLER (DOOR LIFTED POSITION)

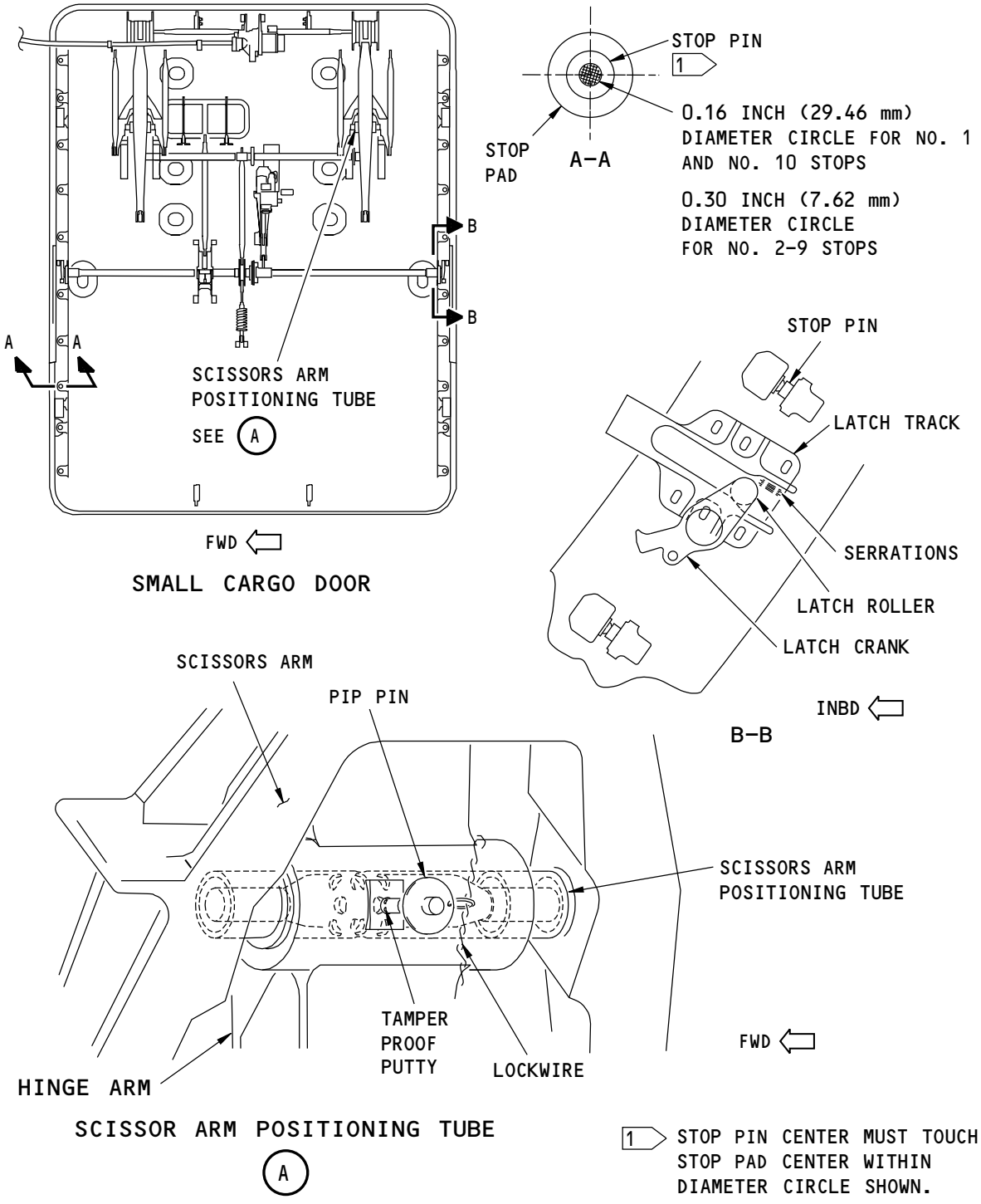
C

1 ALIGN UPPER GUIDE ROLLERS WITH FUSELAGE SKIN ±0.06 INCH (±1.52 mm).

E97912 S0006425557_V2

Door Rotation Adjustment
Figure 504/52-35-00-990-812 (Sheet 2 of 2)

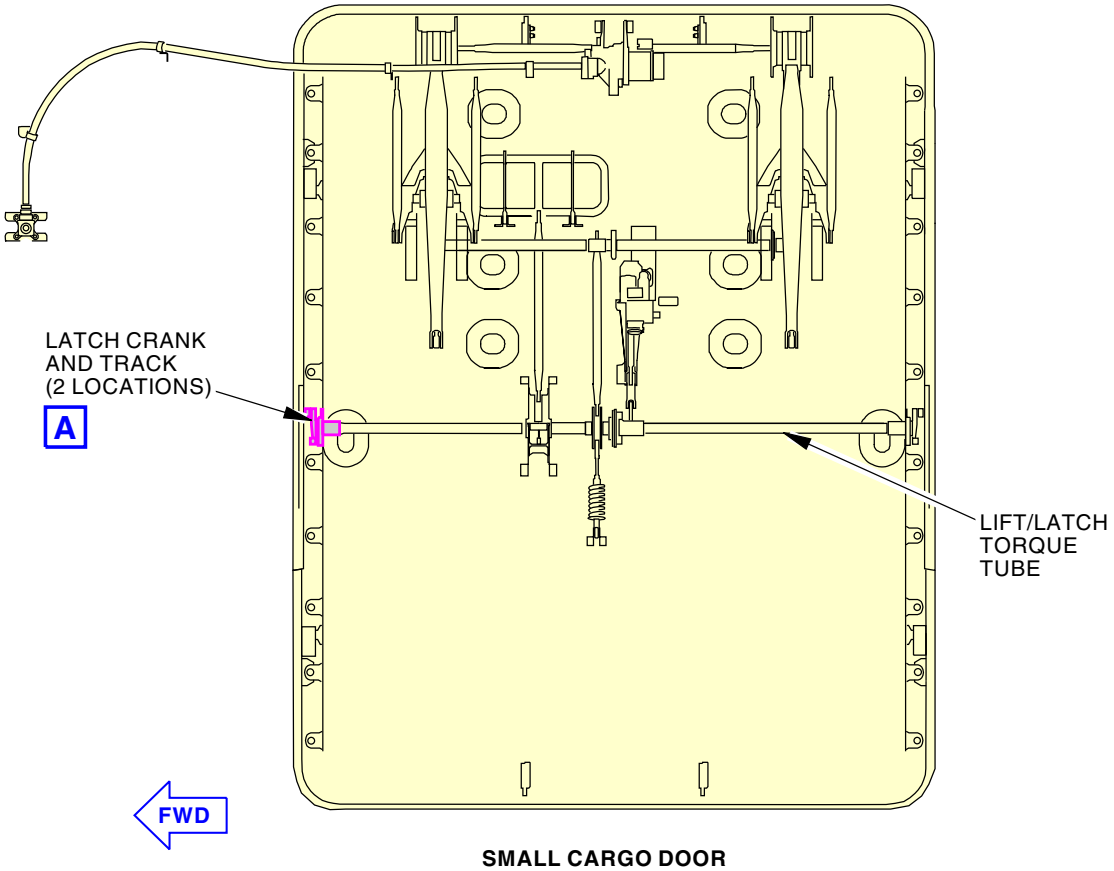
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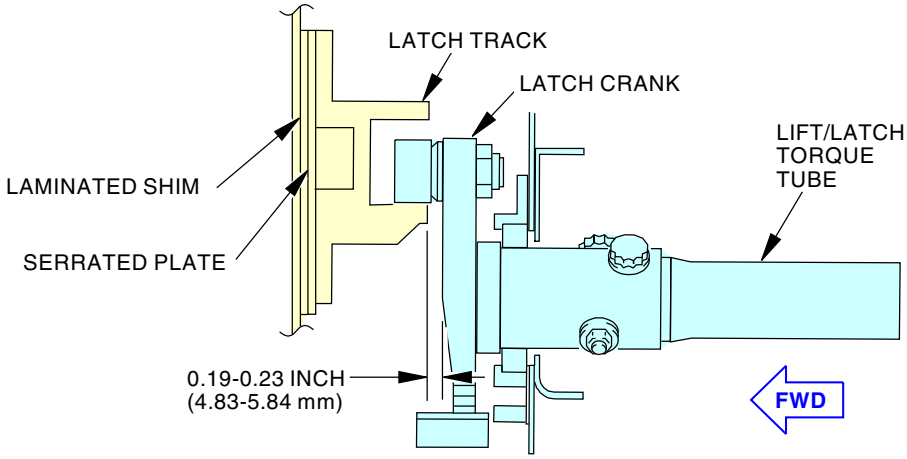
E98075 S0006425558_V1

Door Centering Adjustment
Figure 505/52-35-00-990-805

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SMALL CARGO DOOR



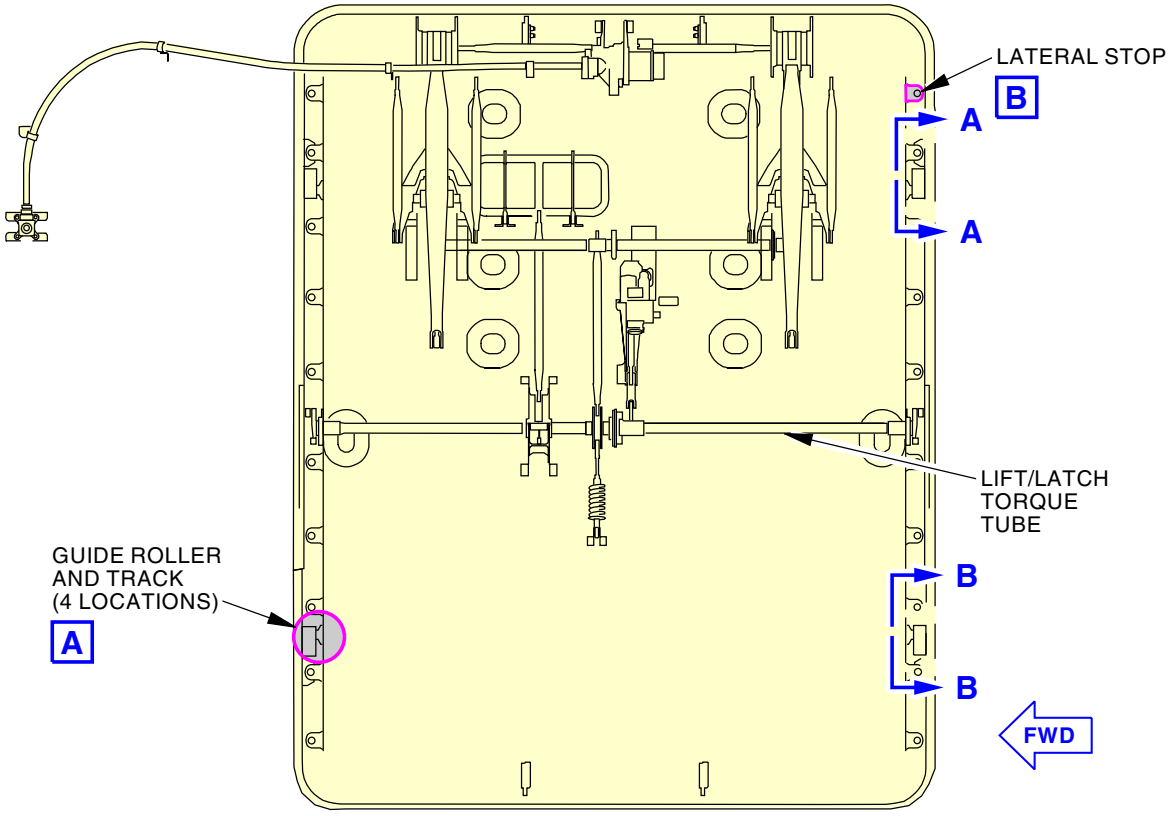
LATCH CRANK AND TRACK
(EXAMPLE)

A

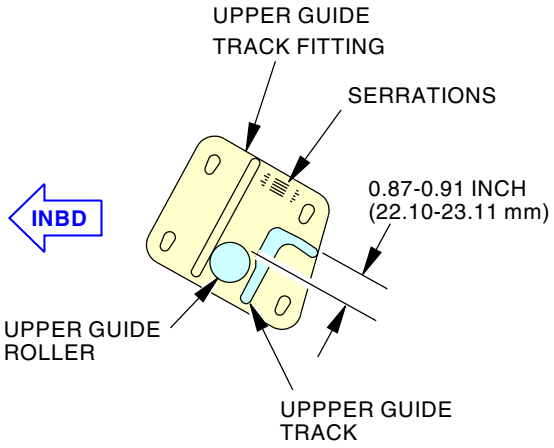
E97872 S0006425559_V2

Latch Track Adjustment
Figure 506/52-35-00-990-806

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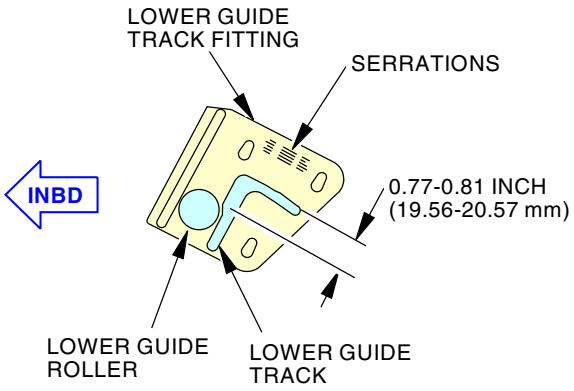


SMALL CARGO DOOR



UPPER GUIDE ROLLER AND TRACK (EXAMPLE)

A-A



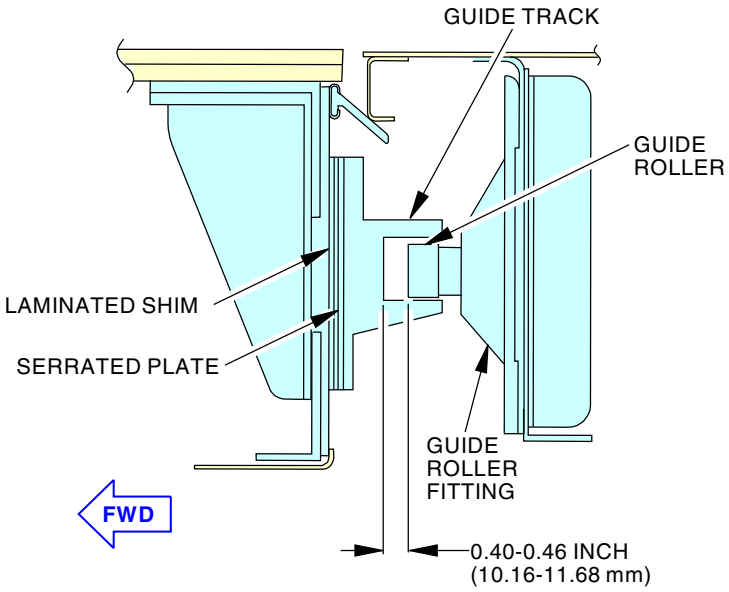
LOWER GUIDE ROLLER AND TRACK (EXAMPLE)

B-B

F01746 S0006425560_V2

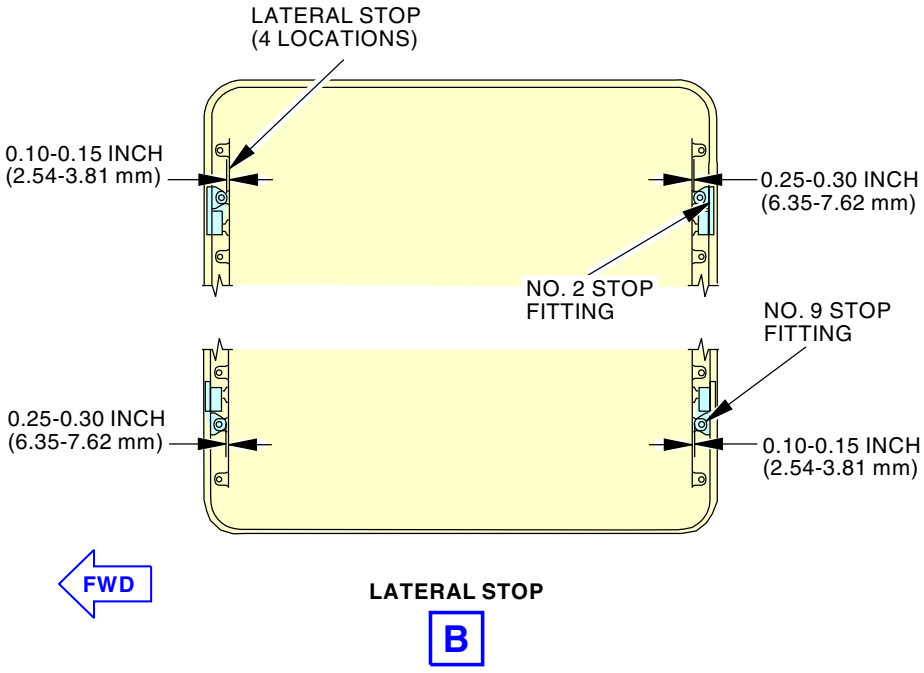
Guide Track and Lateral Stop Adjustment
Figure 507/52-35-00-990-813 (Sheet 1 of 2)

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GUIDE ROLLERAND TRACK (EXAMPLE)

A



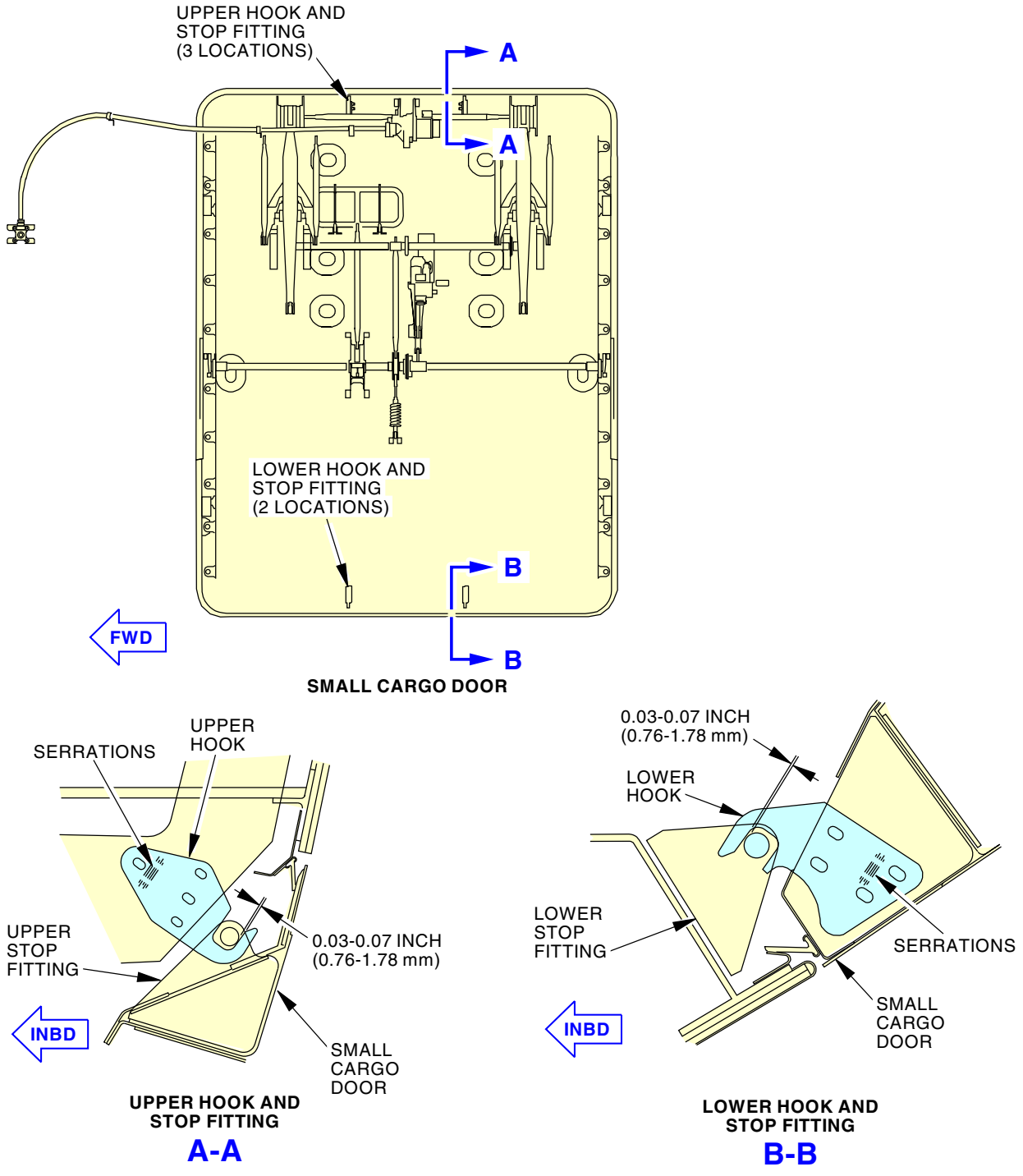
LATERAL STOP

B

F01751 S0006425561_V2

Guide Track and Lateral Stop Adjustment
Figure 507/52-35-00-990-813 (Sheet 2 of 2)

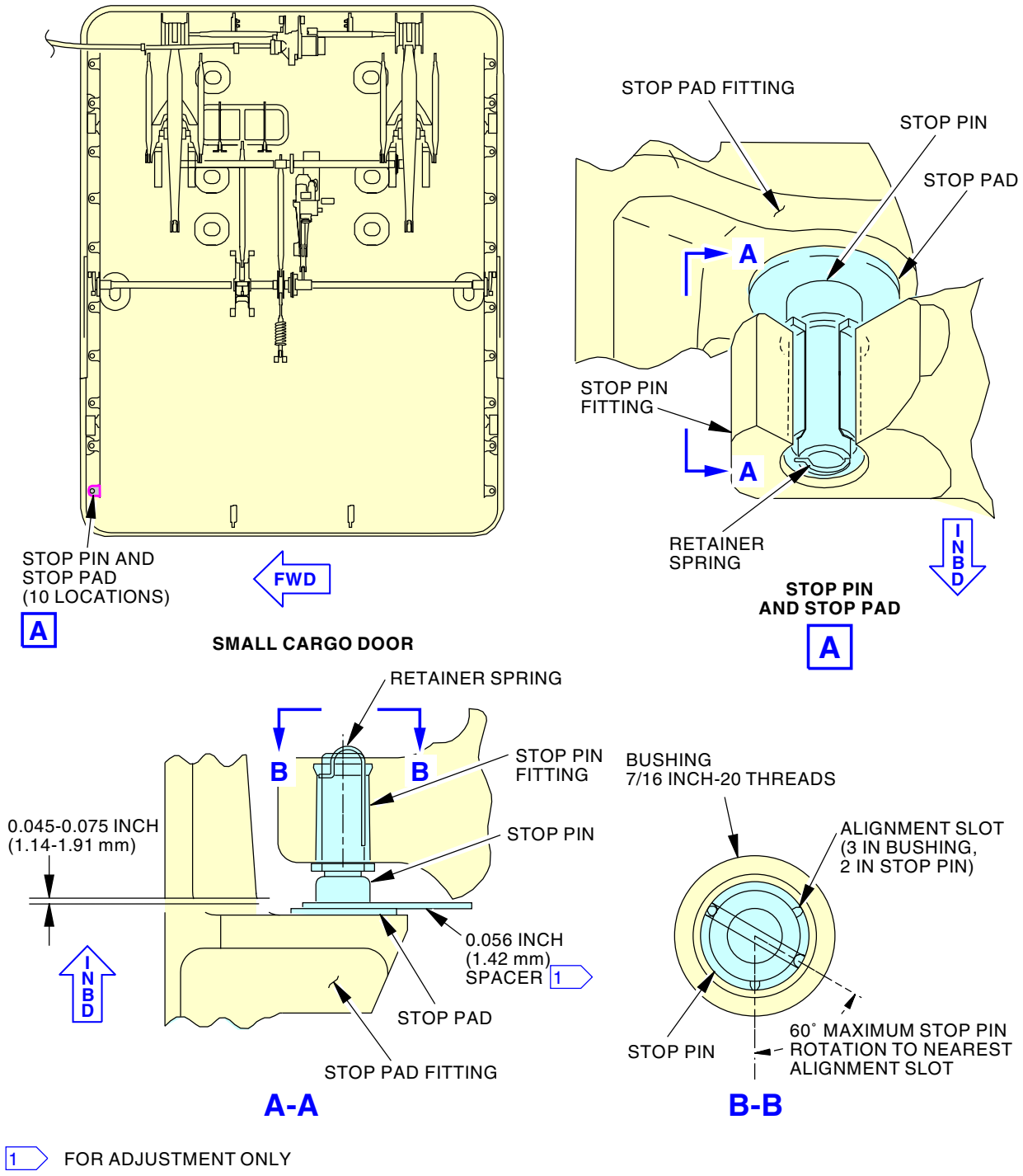
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Hook and Stop Fitting Adjustment
Figure 508/52-35-00-990-807

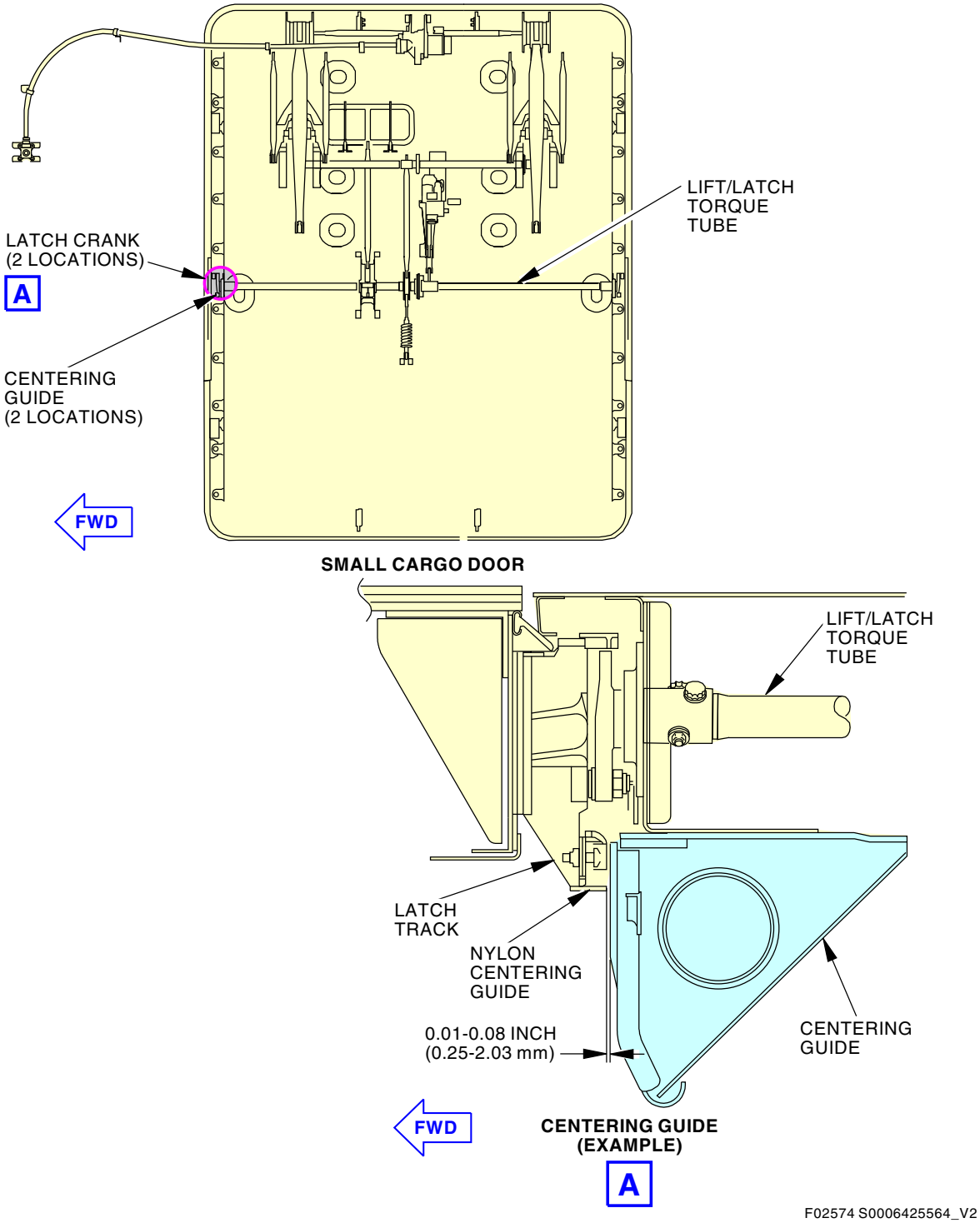
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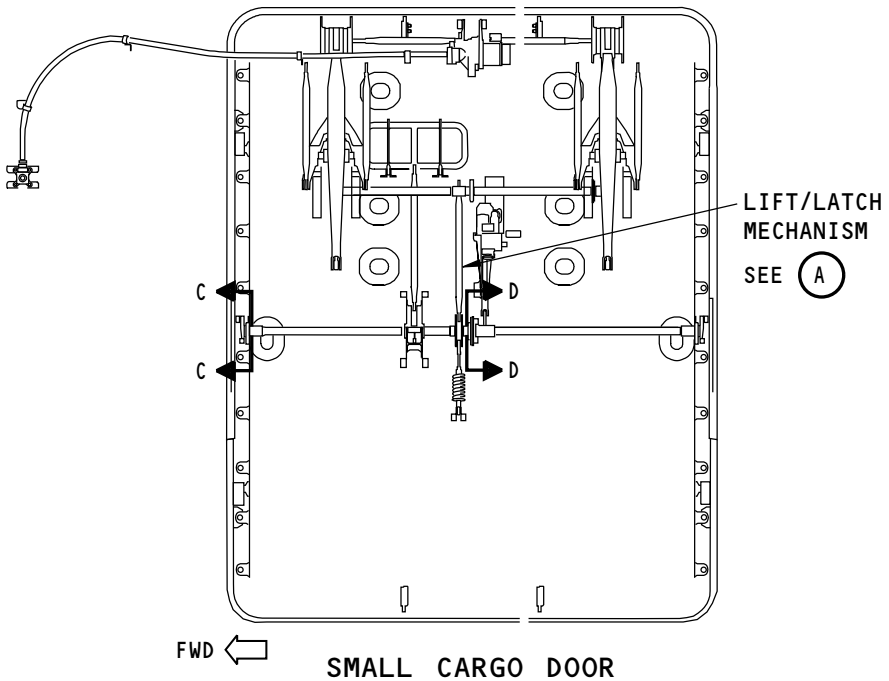
Stop Pin and Stop Pad Adjustment
Figure 509/52-35-00-990-808

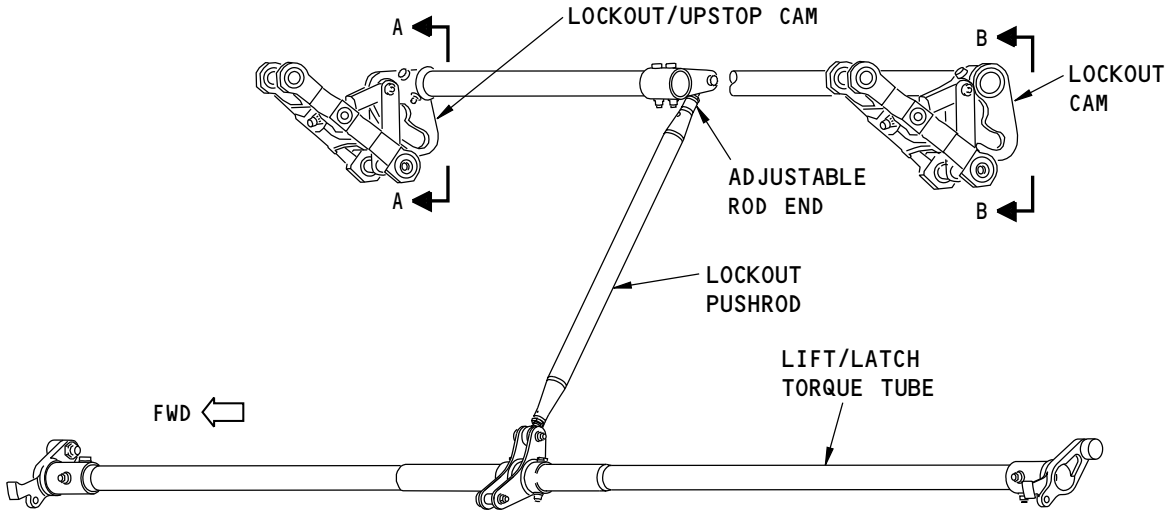
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Centering Guide Adjustment
Figure 510/52-35-00-990-809

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



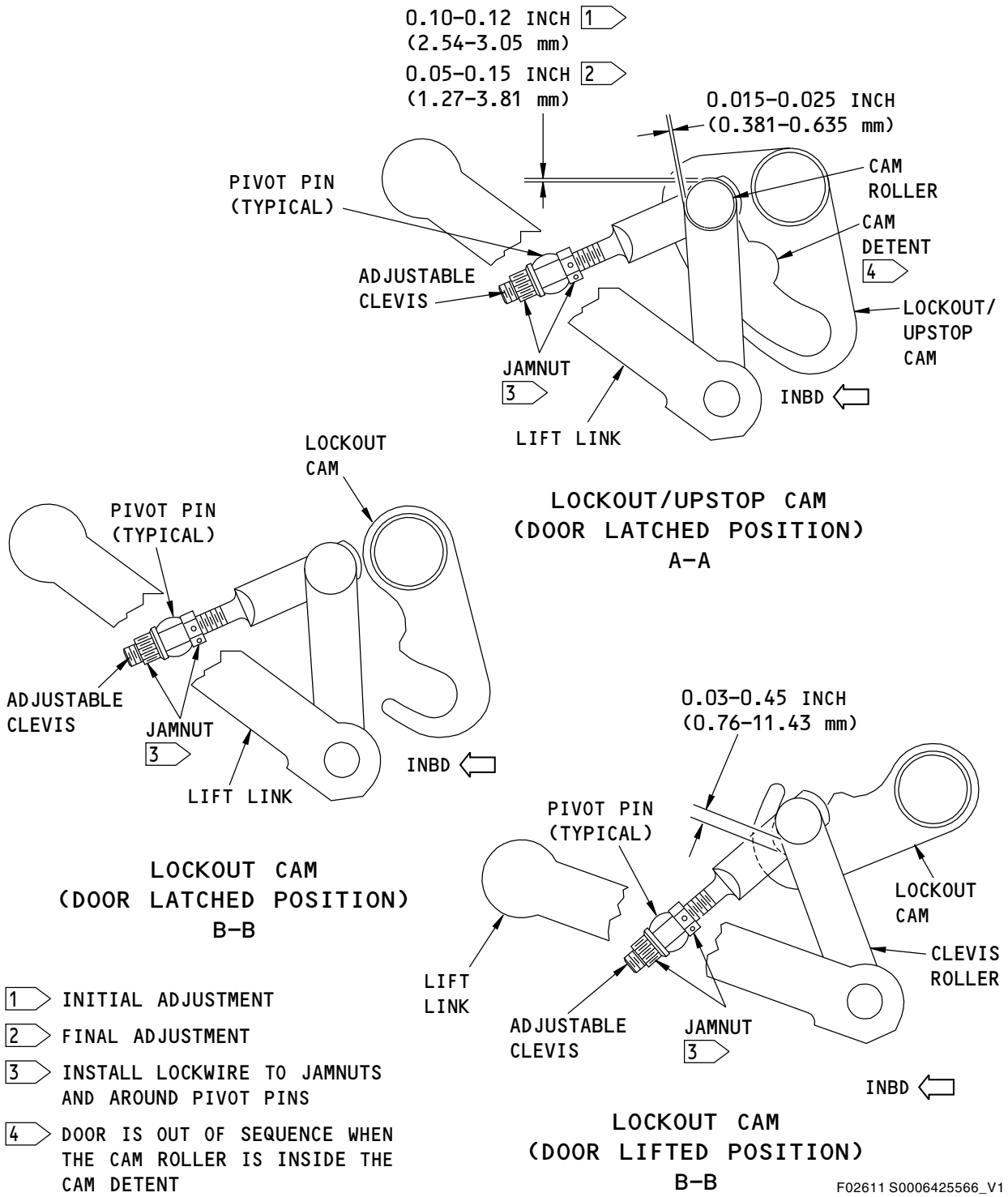


LIFT/LATCH MECHANISM
A

F02608 S0006425565_V1

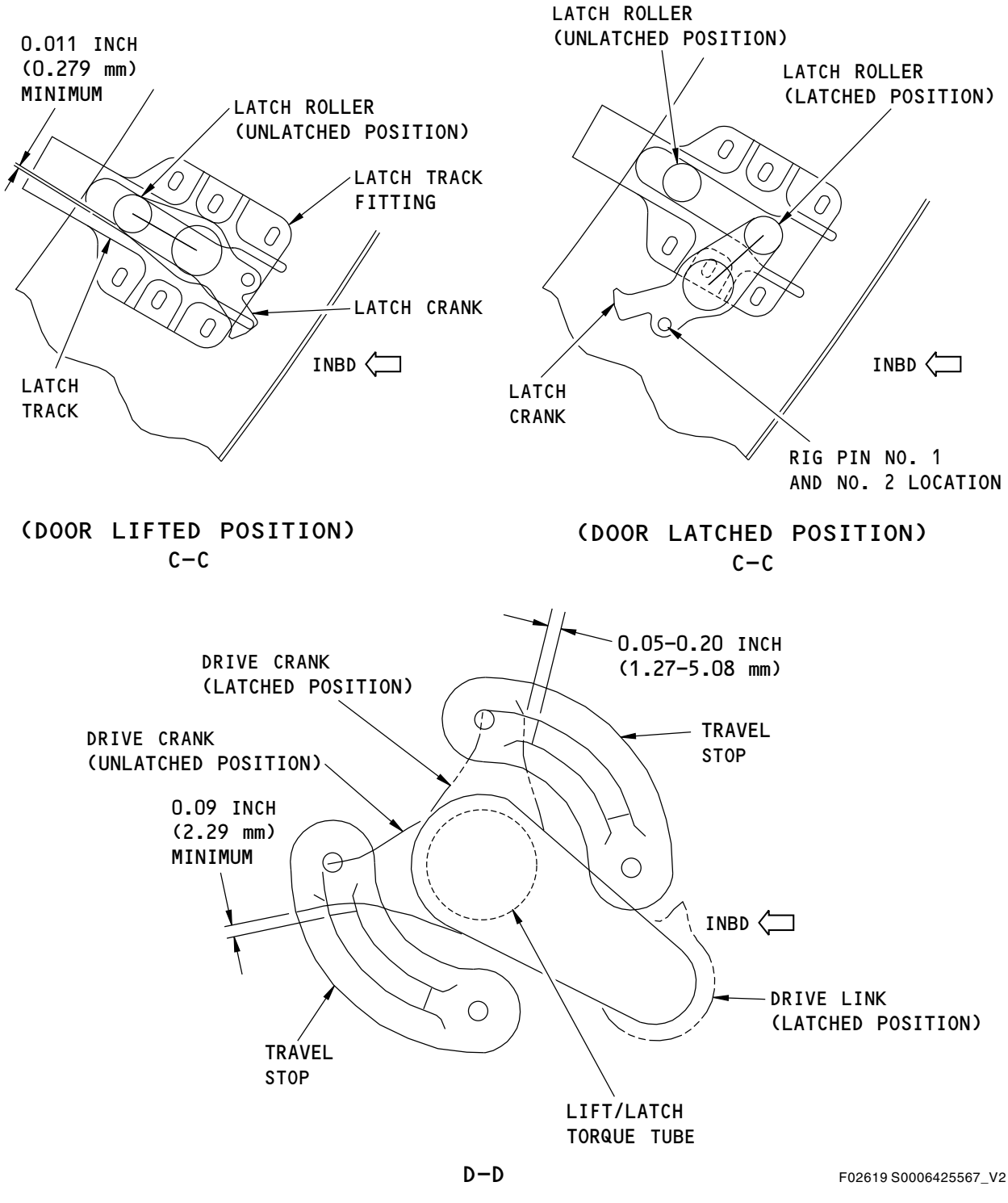
Lift/Latch Mechanism Adjustment
Figure 511/52-35-00-990-814 (Sheet 1 of 3)

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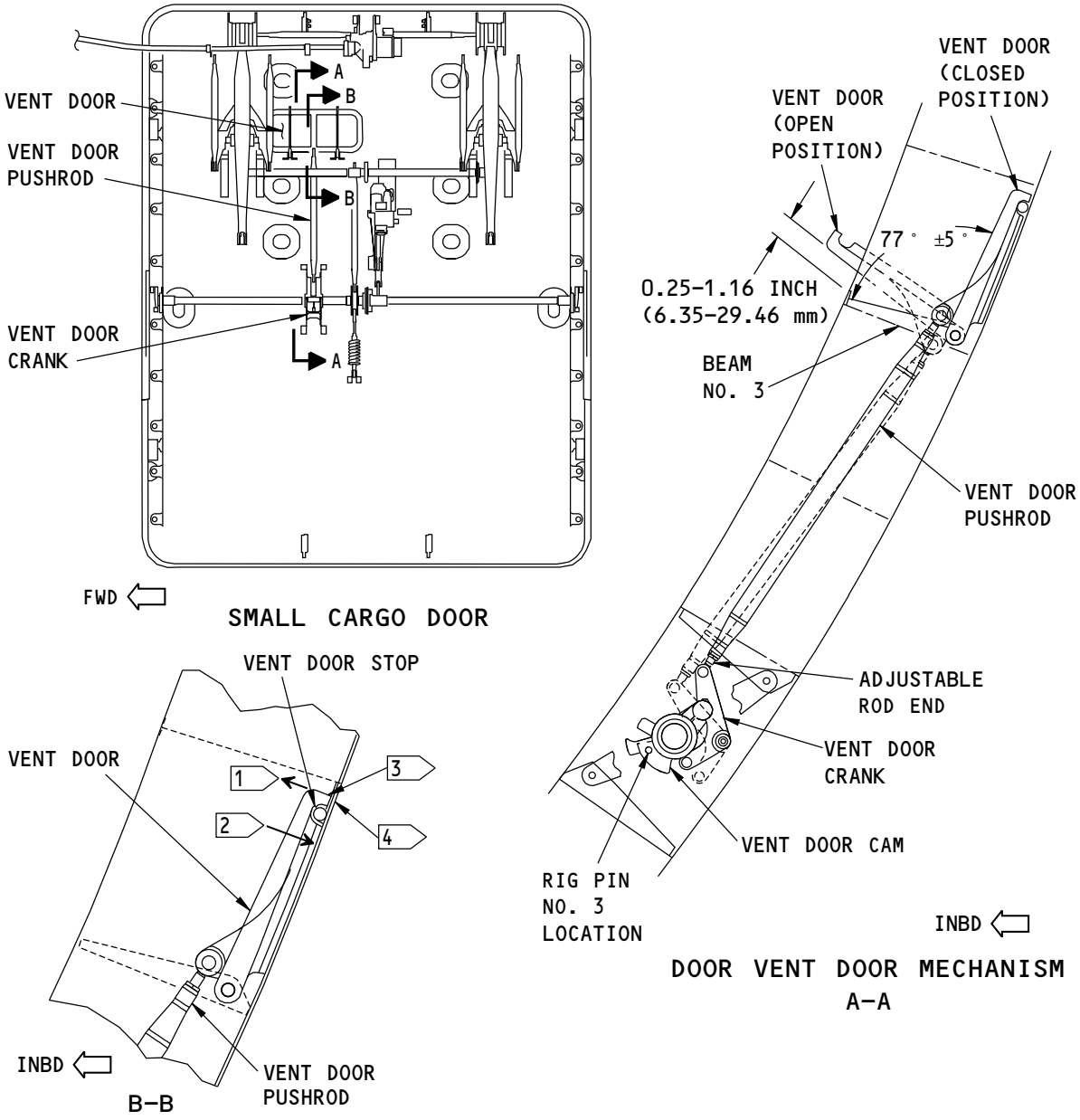
Lift/Latch Mechanism Adjustment
Figure 511/52-35-00-990-814 (Sheet 2 of 3)

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Lift/Latch Mechanism Adjustment
Figure 511/52-35-00-990-814 (Sheet 3 of 3)

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1 APPLY 26-36 POUND (115.7-160.1 NEWTONS) FORCE HERE FOR NEGATIVE PRESSURE TEST

2 APPLY 34-60 POUND (151.2-266.9 NEWTONS) FORCE HERE FOR POSITIVE PRESSURE TEST

3 -0.06 TO +0.03 INCH (-1.52 TO +0.76 mm) FLUSHNESS ALL AROUND VENT DOOR

4 0.12-0.25 INCH (3.05-6.35 mm) CLEARANCE BETWEEN VENT DOOR AND STOPS

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Vent Door Adjustment
Figure 512/52-35-00-990-810

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AFT SMALL CARGO DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the aft small cargo door.

(2) An installation of the aft small cargo door.

TASK 52-35-01-000-801

2. Small Cargo Door Removal

(Figure 401)

A. References

Reference	Title
25-52-09-000-801	Ceiling Liner Removal (P/B 401)
52-35-04-000-801	Hinge Arm Removal (P/B 401)
52-35-23-900-801	Small Aft Cargo Door Wire Bundle - Removal, Installation, and Adjustment (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1992	Equipment - Fitting, Small Cargo Door Part #: A52004-100 Supplier: 81205 Opt Part #: A52004-47 Supplier: 81205
SPL-1993	Sling - Assembly, Forward And Aft Large Cargo Door And Small Cargo Door Part #: A52004-43 Supplier: 81205
SPL-2006	Barrier - Safety, Aft Small Cargo Door Part #: J52011-2 Supplier: 81205

C. Location Zones

Zone	Area
823	Aft Small Cargo Door

D. Prepare for the Removal

SUBTASK 52-35-01-010-001

(1) Remove the door lining on the cargo door [1].

SUBTASK 52-35-01-010-002

(2) Remove the ceiling panels from above the opening of the cargo door [1]. To remove them, do this task: Ceiling Liner Removal, TASK 25-52-09-000-801.

SUBTASK 52-35-01-820-001

(3) Unlatch and open the cargo door until the hinge arms are perpendicular to the ground.

NOTE: The latch crank will be in the lifted position.

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E. Removal

SUBTASK 52-35-01-860-001

(1) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-35-01-020-003

(2) Remove the wire bundle. To remove it, do this task: Small Aft Cargo Door Wire Bundle - Removal, Installation, and Adjustment, TASK 52-35-23-900-801.

SUBTASK 52-35-01-020-004

(3) Remove the four bolts at each of the two sling attach points on the cargo door [1].

SUBTASK 52-35-01-480-001

CAUTION MAKE SURE THE SLING IS INSTALLED CORRECTLY AND HOLDS THE WEIGHT OF THE CARGO DOOR. IF THE SLING IS NOT INSTALLED CORRECTLY, DAMAGE TO THE HINGE MECHANISM CAN OCCUR.

(4) Install the small cargo door fitting equipment, SPL-1992 on the cargo door [1].

SUBTASK 52-35-01-860-002

(5) Put a sufficient tension load on the forward and aft cargo door sling, SPL-1993 to hold the weight of the cargo door [1] off of the hinges.

SUBTASK 52-35-01-020-005

(6) Remove the bolts [6], washers [7] [10], bushings [8], and nuts [11] at point G to disconnect the programming rod [9].

SUBTASK 52-35-01-020-006

(7) Remove the bolts [22], washers [21] [25], bushings [26], and nuts [24] at point C to disconnect the adjustment rod [23] from the hinge arm [4].

SUBTASK 52-35-01-020-007

(8) Remove the bolts [14], washers [15] [19], and nuts [18] at point D to disconnect the scissor arm [13] from the hinge arm [4].

SUBTASK 52-35-01-020-001

(9) Remove the cargo door [1] from the airplane and put it on the transportation stand.

SUBTASK 52-35-01-020-008

(10) If it is necessary, remove the hinge arm [4] from the airplane structure (TASK 52-35-04-000-801).

SUBTASK 52-35-01-480-002

(11) Install the safety barrier, SPL-2006 across the door opening if you do not immediately install a new door.

END OF TASK

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TASK 52-35-01-400-801

3. Small Cargo Door Installation

(Figure 401)

A. General

(1) The cargo door can be installed with the airplane on the landing gear or on jacks.

(2) If you install a new door, do the steps to remove the unwanted skin around the door edges. If you install an old door, do not do the steps to remove the unwanted skin around the door edges.

B. References

Reference	Title
25-52-09-400-801	Ceiling Liner - Installation (P/B 401)
52-35-00-820-801	Aft Small Cargo Door Adjustment (P/B 501)
52-35-00-860-801	Open the Aft Small Cargo Door Electrically (P/B 201)
52-35-00-860-802	Close the Aft Small Cargo Door Electrically (P/B 201)
52-35-04-400-801	Hinge Arm Installation (P/B 401)
52-35-05-400-801	Lift/Latch Power Drive Unit Installation (P/B 401)
52-35-23-900-801	Small Aft Cargo Door Wire Bundle - Removal, Installation, and Adjustment (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1992	Equipment - Fitting, Small Cargo Door Part #: A52004-100 Supplier: 81205 Opt Part #: A52004-47 Supplier: 81205
SPL-2006	Barrier - Safety, Aft Small Cargo Door Part #: J52011-2 Supplier: 81205

D. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33

E. Location Zones

Zone	Area
823	Aft Small Cargo Door

F. Installation

SUBTASK 52-35-01-080-001

(1) Remove the safety barrier, SPL-2006.

SUBTASK 52-35-01-420-003

(2) Make sure the hinge mechanism is installed:

(a) Make sure the hinge arms [4] are installed on the airplane structure (TASK 52-35-04-400-801).

(b) Make sure the programming rods [9], scissor arms [13], and adjustment rods [23] are installed correctly on the cargo door [1].

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SUBTASK 52-35-01-420-004

(3) Make sure the lift/latch mechanism is installed on the cargo door.

SUBTASK 52-35-01-980-001

(4) Make sure the hinge arms [4] are positioned so that the arms are perpendicular to the ground.

SUBTASK 52-35-01-420-001

(5) Hold the replacement cargo door [1] with the hoist and the small cargo door fitting equipment, SPL-1992 and move the door into position in the door cutout.

SUBTASK 52-35-01-640-001

(6) Install the bolts [22], washers [21] [25], bushings [26], and nuts [24] at point C to connect the adjustment rod [23] to the hinge arm [4].

SUBTASK 52-35-01-640-002

(7) Install the bolts [14], washers [15] [19], and nuts [18] at point D to connect the scissor arm [13] to the hinge arm [4].

SUBTASK 52-35-01-640-003

(8) Apply the grease, D00633 through the zerk fitting at point D.

SUBTASK 52-35-01-640-004

(9) Install the bolts [6], washers [7] [10], bushings [8], and nuts [11] at point G to connect the programming rod [9].

SUBTASK 52-35-01-420-002

(10) If the lift/latch power drive unit has not been installed on the door, install the lift/latch power drive unit. To install it, do this task: Lift/Latch Power Drive Unit Installation, TASK 52-35-05-400-801.

SUBTASK 52-35-01-980-002

(11) Manually operate the lift/latch manual drive to turn the latch crank to the door fully lifted position to let the latch crank roller [2] align with the latch tracks [3] on the of the door cutout.

NOTE: The weight of the door must be supported while you operate the lift/latch manual drive so that the lockout/upstop cam roller will not move into the cam detent and prevent full door lift.

SUBTASK 52-35-01-420-005

(12) Install the wire bundle. To install it, do this task: Small Aft Cargo Door Wire Bundle - Removal, Installation, and Adjustment, TASK 52-35-23-900-801.

SUBTASK 52-35-01-080-002

(13) Remove the small cargo door fitting equipment, SPL-1992.

SUBTASK 52-35-01-080-003

CAUTION

MAKE SURE YOU REINSTALL THE BOLTS AT THE SLING ATTACH POINTS. IF THE BOLTS ARE NOT INSTALLED, PRESSURIZATION LEAKAGE CAN OCCUR.

(14) Install the four bolts in the cargo door skin at the two sling attach points.

SUBTASK 52-35-01-860-003

(15) Turn all the stop pins inboard to make sure there is sufficient clearance between the stop pins and the stop pads to adjust the cargo door.

SUBTASK 52-35-01-820-002

(16) Do this task: Aft Small Cargo Door Adjustment, TASK 52-35-00-820-801.

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G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-01-440-001

(1) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-35-01-410-001

(2) Install the ceiling panels above the door cutout. To install them, (TASK 25-52-09-400-801).

SUBTASK 52-35-01-410-002

(3) Install the door lining on the cargo door.

H. Installation Test

SUBTASK 52-35-01-710-001

(1) Do a test on the small cargo door as follows:

(a) These are the tasks:

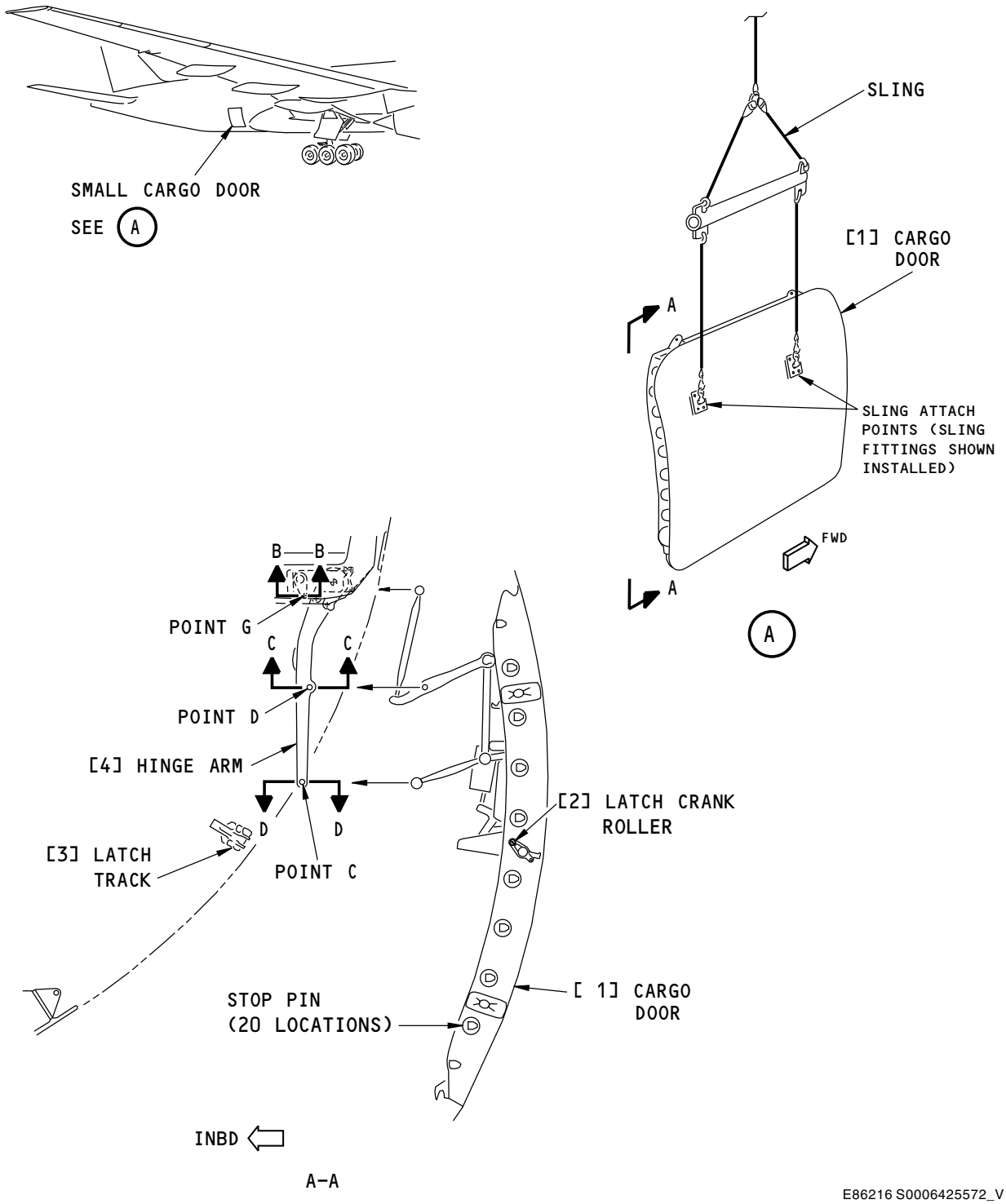
Open the Aft Small Cargo Door Electrically, TASK 52-35-00-860-801,

Close the Aft Small Cargo Door Electrically, TASK 52-35-00-860-802.

(b) Make sure the door opens and closes correctly.

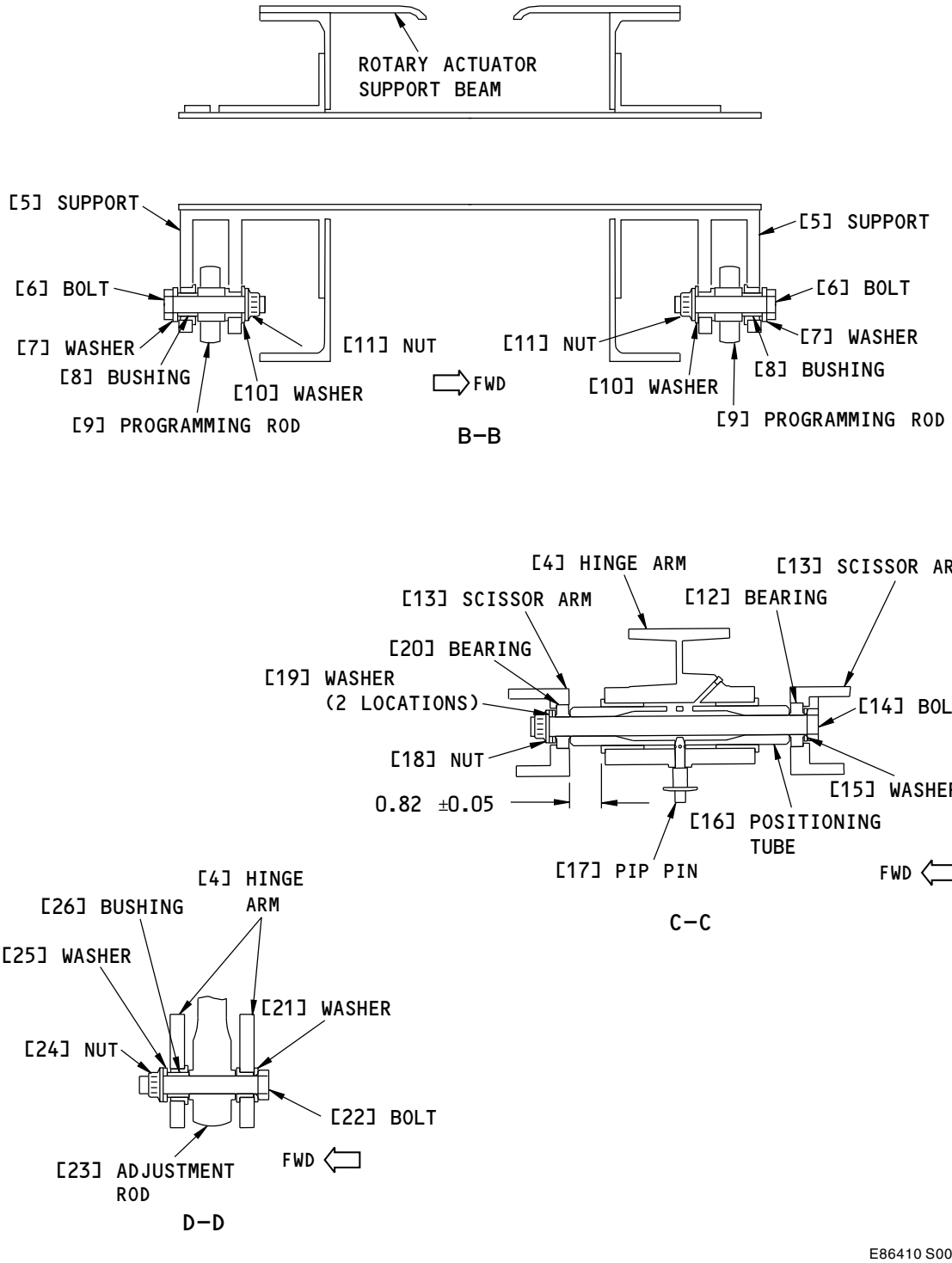
END OF TASK

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Small Cargo Door Installation
Figure 401/52-35-01-990-801 (Sheet 1 of 2)

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Small Cargo Door Installation
Figure 401/52-35-01-990-801 (Sheet 2 of 2)

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HINGE POWER DRIVE UNIT - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the hinge power drive unit.

(2) An installation of the hinge power drive unit.

TASK 52-35-02-000-801

2. Hinge Power Drive Unit Removal

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1992	Equipment - Fitting, Small Cargo Door Part #: A52004-100 Supplier: 81205 Opt Part #: A52004-47 Supplier: 81205
SPL-1993	Sling - Assembly, Forward And Aft Large Cargo Door And Small Cargo Door Part #: A52004-43 Supplier: 81205
SPL-2006	Barrier - Safety, Aft Small Cargo Door Part #: J52011-2 Supplier: 81205

B. Location Zones

Zone	Area
823	Aft Small Cargo Door

C. Prepare for the Removal

SUBTASK 52-35-02-010-001

(1) Get access to the hinge power drive unit [4] as follows:

(a) Open the door sufficiently to get access to the hinge power drive unit [4].

NOTE: The best position to get access to the hinge power drive unit [4] for its removal is with the cargo door in the almost fully open (cantilevered) position.

(b) Install the safety barrier, SPL-2006 across the door opening.

(c) Remove the applicable cargo compartment ceiling panels above the door.

SUBTASK 52-35-02-020-007

(2) Remove the four bolts at each of the two sling attach points on the cargo door.

SUBTASK 52-35-02-480-001

CAUTION MAKE SURE THAT THE SLING IS INSTALLED CORRECTLY AND HOLDS THE WEIGHT OF THE CARGO DOOR. IF THE SLING IS NOT INSTALLED CORRECTLY, DAMAGE TO THE HINGE MECHANISM CAN OCCUR.

(3) Install the small cargo door fitting equipment, SPL-1992 and forward and aft cargo door sling, SPL-1993 to hold the weight of the door.

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SUBTASK 52-35-02-860-001

(4) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

D. Removal

SUBTASK 52-35-02-030-002

(1) Disconnect the drive shaft [2] and drive shaft [3] from the hinge power drive unit [4] and rotary actuators [30] as follows:

(a) Hold the drive shaft [2] and drive shaft [3], and remove the bolts [13], washers [14], and nuts [15] that attach the spline fittings [16] to the tubes [31].

(b) Hold the drive shaft [2] and drive shaft [3] and push the spline fittings [16] into the tubes [31].

(c) Remove the drive shaft [2] and drive shaft [3] from the rotary actuator [30].

NOTE: The drive shaft [2] or drive shaft [3] are matched drilled assemblies. Identify the components and keep them together as a matched set.

(d) Remove the spline fittings [16] from the tubes [31].

SUBTASK 52-35-02-030-004

(2) Disconnect the hinge manual drive flexible shaft [1] from the hinge power drive unit [4] as follows:

(a) Remove the lockwire [29] from the nut [28] and hinge power drive unit [4].

(b) Loosen the nut [28] and pull the hinge manual drive flexible shaft [1] from the hinge power drive unit [4].

SUBTASK 52-35-02-020-006

(3) Remove the hinge power drive unit [4] as follows:

(a) Disconnect the electrical connector [5] from the hinge power drive unit [4].

(b) Remove the bolt [17], washer [18], washer [19], washer [20], and nut [21] to disconnect the bonding jumper [6] from the hinge power drive unit [4].

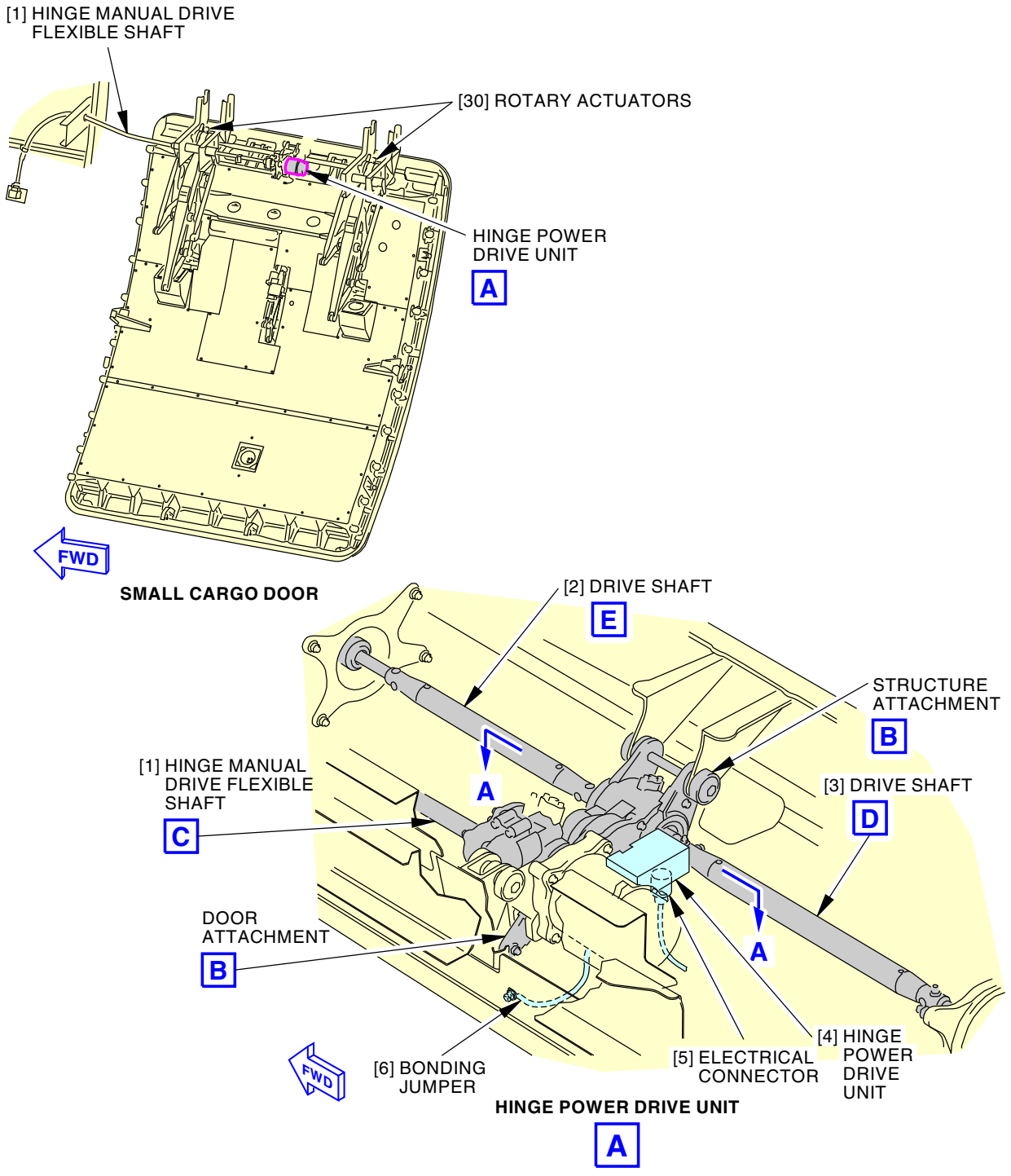
(c) Remove the bolt [26], washer [25], bushing [24], washer [23], and nut [22] that attach the bottom of the hinge power drive unit [4] to the fuselage structure.

(d) Hold the hinge power drive unit [4] and remove the bolt [11], bushing [12], isolator rings [10], isolator bushings [7], washers [9], and nut [8] that attach the top of the hinge power drive unit [4] to the fuselage structure.

(e) Remove the hinge power drive unit [4] from the fuselage structure.

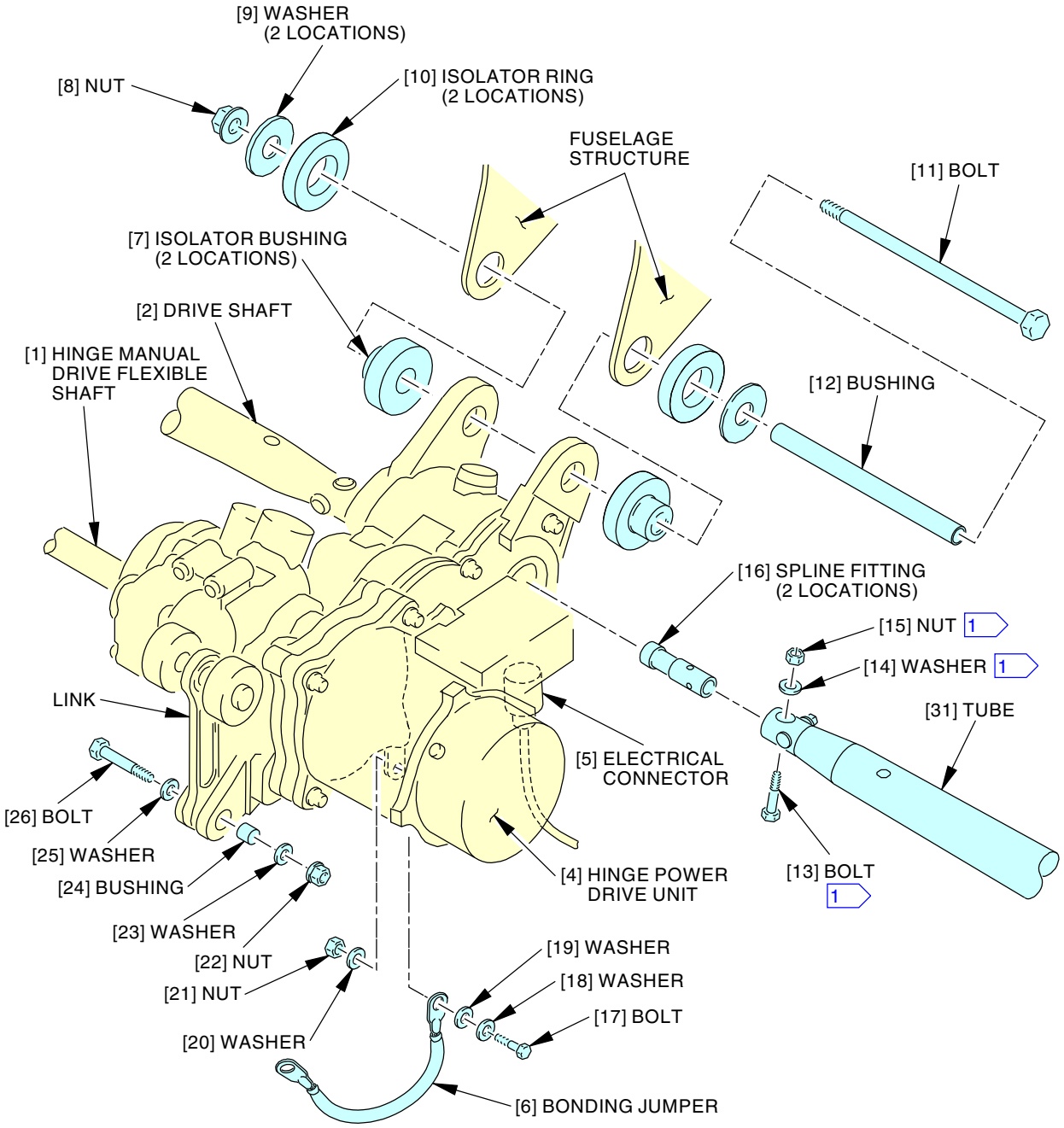
END OF TASK

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Hinge Power Drive Unit Installation
Figure 401/52-35-02-990-802 (Sheet 1 of 4)

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HINGE POWER DRIVE UNIT
(EXPLODED VIEW)

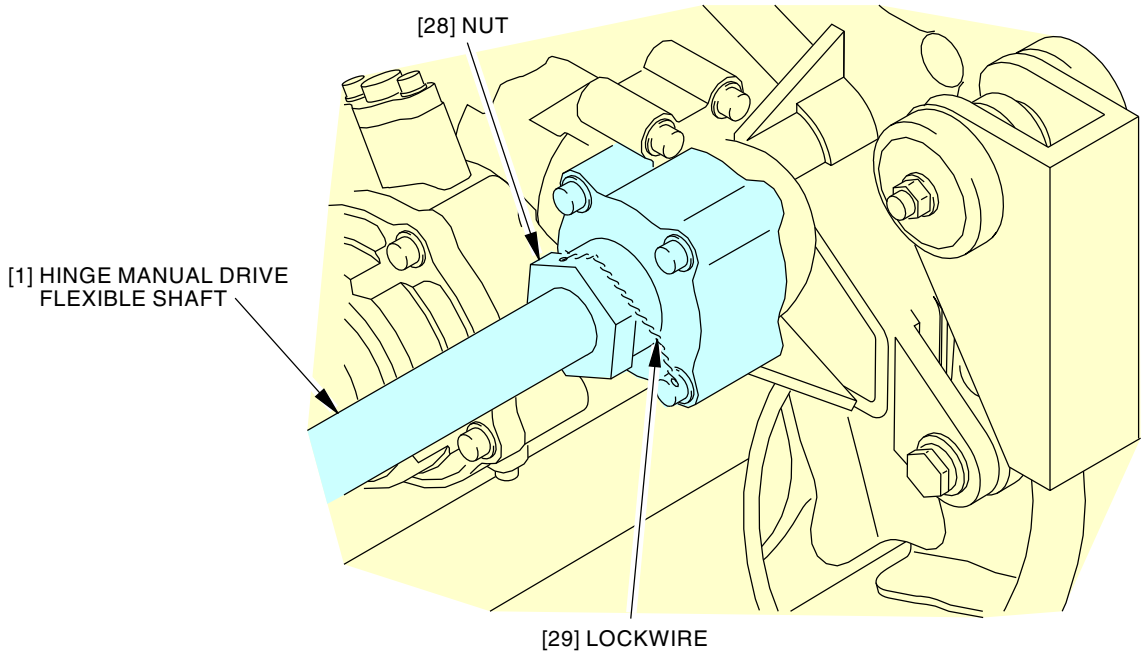
B

1 2 LOCATIONS ON EACH DRIVE SHAFT

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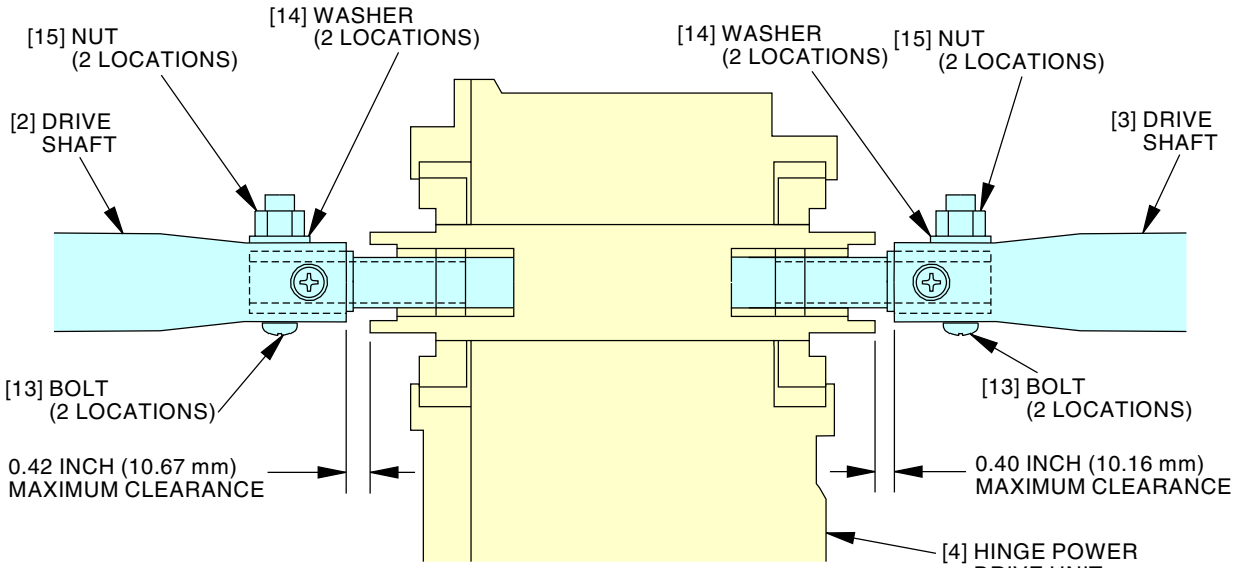
Hinge Power Drive Unit Installation
Figure 401/52-35-02-990-802 (Sheet 2 of 4)

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HINGE MANUAL DRIVE FLEXIBLE SHAFT

C

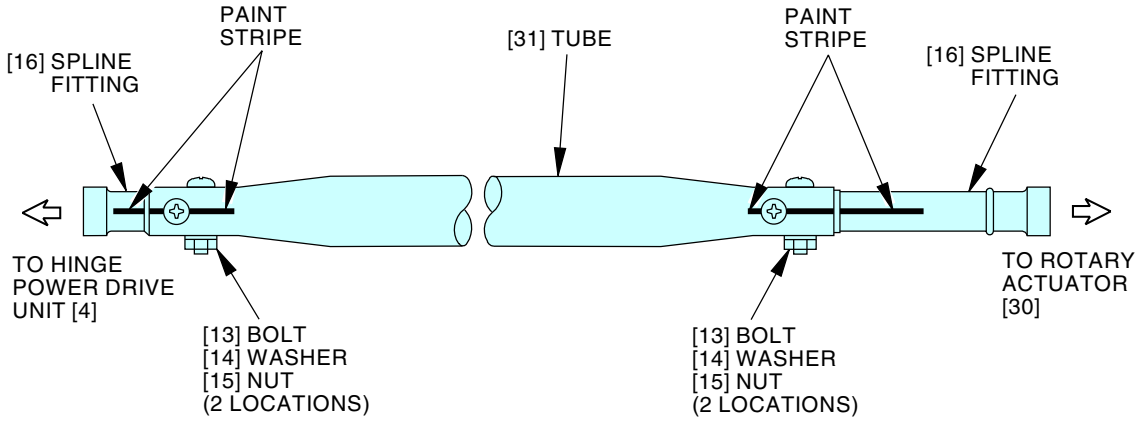


A-A

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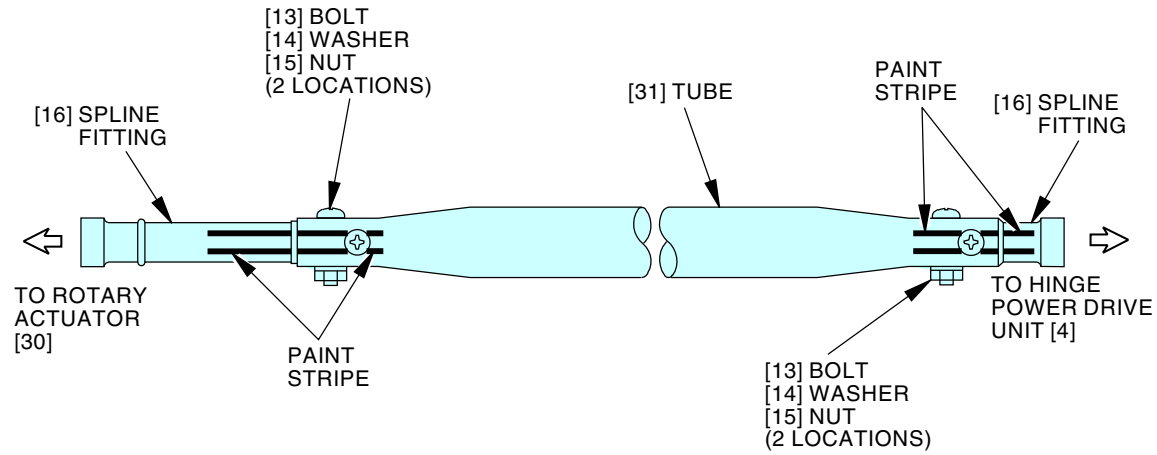
Hinge Power Drive Unit Installation
Figure 401/52-35-02-990-802 (Sheet 3 of 4)

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DRIVE SHAFT

D



DRIVE SHAFT

E

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Hinge Power Drive Unit Installation
Figure 401/52-35-02-990-802 (Sheet 4 of 4)

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TASK 52-35-02-400-801

3. Hinge Power Drive Unit Installation

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1992	Equipment - Fitting, Small Cargo Door Part #: A52004-100 Supplier: 81205 Opt Part #: A52004-47 Supplier: 81205
SPL-1993	Sling - Assembly, Forward And Aft Large Cargo Door And Small Cargo Door Part #: A52004-43 Supplier: 81205
SPL-2006	Barrier - Safety, Aft Small Cargo Door Part #: J52011-2 Supplier: 81205

C. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
4	Hinge power drive unit	52-35-02-02-240	ARO ALL

E. Location Zones

Zone	Area
823	Aft Small Cargo Door

F. Installation

SUBTASK 52-35-02-820-001

(1) Install the hinge power drive unit [4] as follows:

(a) Hold the hinge power drive unit [4] and install the bolt [11], bushing [12], isolator rings [10], isolator bushings [7], washers [9], and nut [8] to attach the top of the hinge power drive unit [4] to the fuselage structure.

(b) Install the bolt [26], washer [25], bushing [24], washer [23], and nut [22] to attach the bottom of the hinge power drive unit [4] to the fuselage structure.

(c) Install the bolt [17], washer [18], washer [19], washer [20], and nut [21] to connect the bonding jumper [6] from the hinge power drive unit [4].

(d) Connect the electrical connector [5] to the hinge power drive unit [4].

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SUBTASK 52-35-02-420-001

(2) Connect the hinge manual drive flexible shaft [1] to the hinge power drive unit [4].

(a) Apply grease, D00633, on the square drive mating surfaces of the nut [28] and hinge power drive unit [4].

(b) Turn the nut [28] to attach the hinge manual drive flexible shaft [1] to the hinge power drive unit [4].

(c) Tighten the nut [28] to 200 ±50 in-lb (23 ±6 N·m).

(d) Install the lockwire [29] from the nut [28] to the hinge power drive unit [4].

SUBTASK 52-35-02-030-005

(3) Connect the drive shaft [2] and drive shaft [3] to the hinge power drive unit [4] and rotary actuators [30] as follows:

(a) Apply the corrosion inhibiting material, G50136 on the mating surfaces of the spline fittings [16] and tubes [31].

(b) Push the spline fittings [16] into the tubes [31].

(c) Install the drive shaft [2] and drive shaft [3] in the rotary actuators [30].

(d) Hold the drive shaft [2] and drive shaft [3] in position between the hinge power drive unit [4] and the rotary actuators [30].

(e) Pull the spline fittings [16] from the tubes [31] and install in the hinge power drive unit [4].

(f) Make sure the splines of the spline fittings [16] and drive shaft [2] and drive shaft [3] are engaged in the hinge power drive unit [4] and rotary actuators [30].

(g) Align the paint stripes on the spline fittings [16] with the paint stripes on the tubes [31].

(h) Install the bolts [13], washers [14], and nuts [15] to attach the spline fittings [16] to the tubes [31].

(i) Tighten the nuts [15] to 15.0 in-lb (1.7 N·m) above the run-on torque.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-02-410-001

(1) Install the cargo compartment ceiling panels.

SUBTASK 52-35-02-860-002

(2) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-35-02-080-001

(3) Remove the safety barrier, SPL-2006 from the door opening.

SUBTASK 52-35-02-860-003

(4) Remove the small cargo door fitting equipment, SPL-1992 and the forward and aft cargo door sling, SPL-1993 from the door.

SUBTASK 52-35-02-080-002

(5) Make sure that the four bolts in the cargo door skin at the two sling attach points are installed.

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H. Installation Test

SUBTASK 52-35-02-710-003

(1) Do a test on the hinge power drive unit [4] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Operate the door electrically.

(c) Make sure the door opens and closes correctly.

——— END OF TASK ———

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ROTARY ACTUATOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the rotary actuator.

(2) An installation of the rotary actuator.

TASK 52-35-03-000-801

2. Rotary Actuator Removal

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
52-35-01-000-801	Small Cargo Door Removal (P/B 401)
52-35-04-000-801	Hinge Arm Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2006	Barrier - Safety, Aft Small Cargo Door Part #: J52011-2 Supplier: 81205

C. Location Zones

Zone	Area
823	Aft Small Cargo Door

D. Prepare for the Removal

SUBTASK 52-35-03-000-001

(1) Do this task: Small Cargo Door Removal, TASK 52-35-01-000-801.

SUBTASK 52-35-03-480-001

(2) Install the safety barrier, SPL-2006 across the door opening.

E. Removal

SUBTASK 52-35-03-020-004

(1) Do this task: Hinge Arm Removal, TASK 52-35-04-000-801.

SUBTASK 52-35-03-020-005

(2) Disconnect the drive shaft [2] or drive shaft [4] from the actuator assembly [1] and hinge power drive unit [3] as follows:

(a) Hold the drive shaft [2] or drive shaft [4] and remove the bolts [11], washers [12], and nuts [13] that attach the fitting [10] to the tube [14].

(b) Hold the drive shaft [2] or drive shaft [4] and push the fitting [10] into the tube [14].

(c) Remove the drive shaft [2] or drive shaft [4] from the hinge power drive unit [3].

NOTE: The drive shaft [2] or drive shaft [4] are matched drilled assemblies. Identify the components and keep them together as a matched set.

(d) Remove the fitting [10] from the tube [14].

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SUBTASK 52-35-03-030-001

(3) Remove the actuator assembly [1] as follows:

(a) Hold the actuator assembly [1] and remove the bolts [5], washers [6], washers [7], and nuts [8] that attach the actuator assembly [1] to the fuselage structure.

(b) Remove the shims [9] from between the actuator assembly [1] and the fuselage structure.

(c) Remove the actuator assembly [1] from the fuselage structure.

——— END OF TASK ———

TASK 52-35-03-400-801

3. Rotary Actuator Installation

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
52-35-01-400-801	Small Cargo Door Installation (P/B 401)
52-35-04-400-801	Hinge Arm Installation (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2006	Barrier - Safety, Aft Small Cargo Door Part #: J52011-2 Supplier: 81205

C. Consumable Materials

Reference	Description	Specification
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Actuator assembly	52-35-03-01-050	ARO ALL
9	Shim	52-35-03-01-040	ARO ALL
10	Fitting	52-35-02-02-035	ARO ALL
14	Tube	52-35-02-02-045	ARO ALL
		52-35-02-02-050	ARO ALL

E. Location Zones

Zone	Area
823	Aft Small Cargo Door

F. Installation

SUBTASK 52-35-03-430-001

(1) Install the actuator assembly [1] as follows:

(a) Apply the corrosion inhibiting material, G50136 to the mating surfaces between the actuator assembly [1] and shims [9].

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(b) Install the shims [9] between the actuator assembly [1] and the fuselage structure.

(c) Apply thecorrosion inhibiting material, G50136 to the bolts [5], washers [6], washers [7], and nuts [8] that attach the actuator assembly [1] to the fuselage structure.

(d) Put the actuator assembly [1] in its correct position on the fuselage structure and hold in this position.

(e) Install the bolts [5], washers [6], washers [7], and nuts [8] to attach the actuator assembly [1] to the fuselage structure.

(f) Add or remove the laminations of shims [9] equally ±3 laminations to each side of the actuator assembly [1] to get the pull-up shown, View A (Figure 401).

SUBTASK 52-35-03-030-003

(2) Connect the drive shaft [2] or drive shaft [4] to the actuator assembly [1] and hinge power drive unit [3] as follows:

(a) Apply the corrosion inhibiting material, G50136 on the mating surfaces of the fitting [10] and tube [14].

(b) Push the fitting [10] into the tube [14].

(c) Install the drive shaft [2] or drive shaft [4] in the hinge power drive unit [3].

(d) Hold the drive shaft [2] or drive shaft [4] in position between the actuator assembly [1] and the hinge power drive unit [3].

(e) Pull the fitting [10] from the tube [14] and install in the actuator assembly [1].

(f) Make sure the splines of the fitting [10] and drive shaft [2] or drive shaft [4] are engaged in the actuator assembly [1] and hinge power drive unit [3].

(g) Align the paint stripes on the fitting [10] with the paint stripes on the tube [14].

(h) Install the bolts [11], washers [12], and nuts [13] to attach the fitting [10] to the tube [14].

(i) Tighten the nuts [13] to 15.0 in-lb (1.7 N·m) above the run-on torque.

SUBTASK 52-35-03-420-004

(3) Do this task: Hinge Arm Installation, TASK 52-35-04-400-801.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-03-080-001

(1) Remove the safety barrier, SPL-2006.

SUBTASK 52-35-03-400-001

(2) Do this task: Small Cargo Door Installation, TASK 52-35-01-400-801.

H. Installation Test

SUBTASK 52-35-03-710-001

(1) Do a test on the actuator assembly [1] as follows:

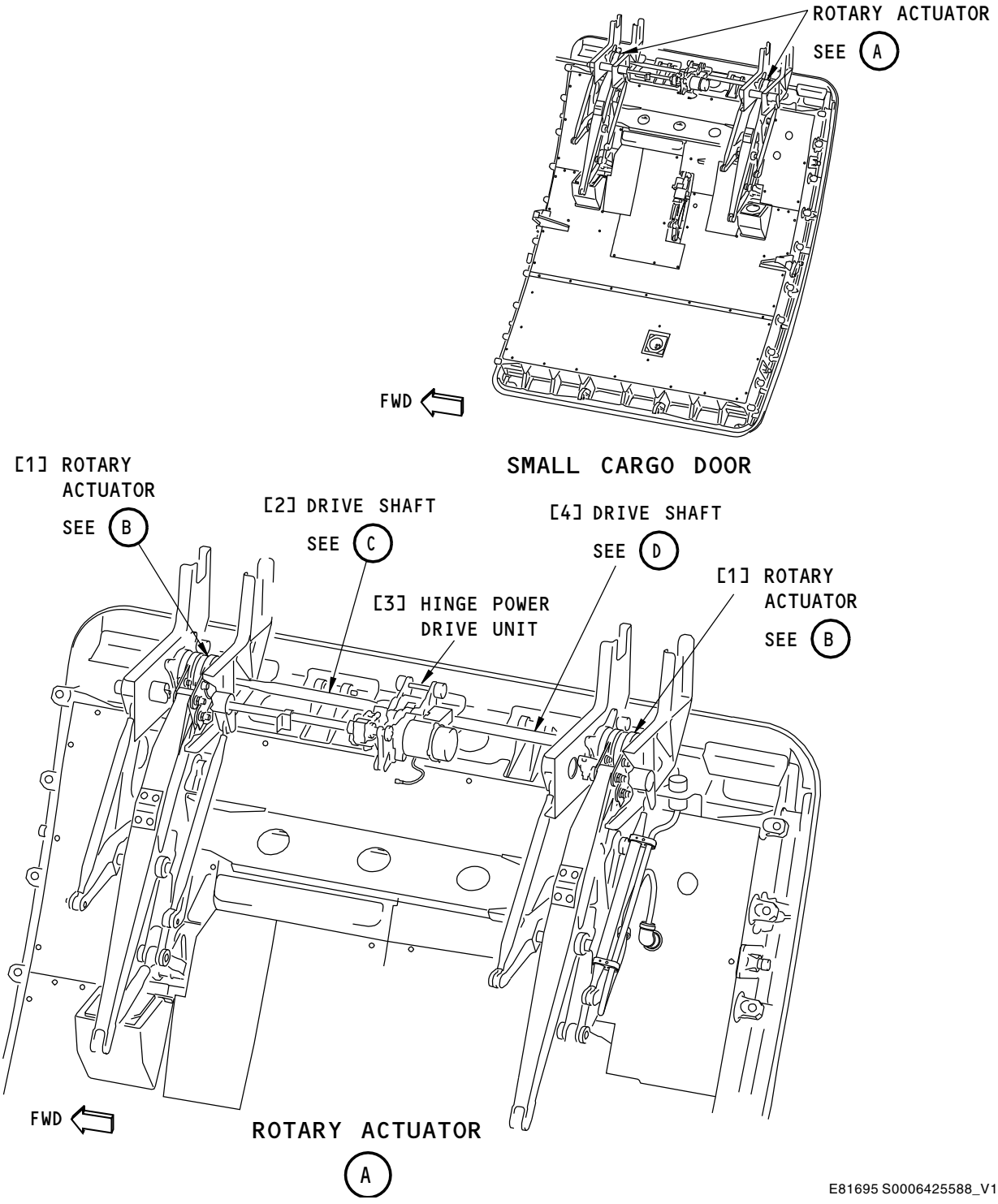
(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Operate the door electrically.

(c) Make sure the door opens and closes correctly.

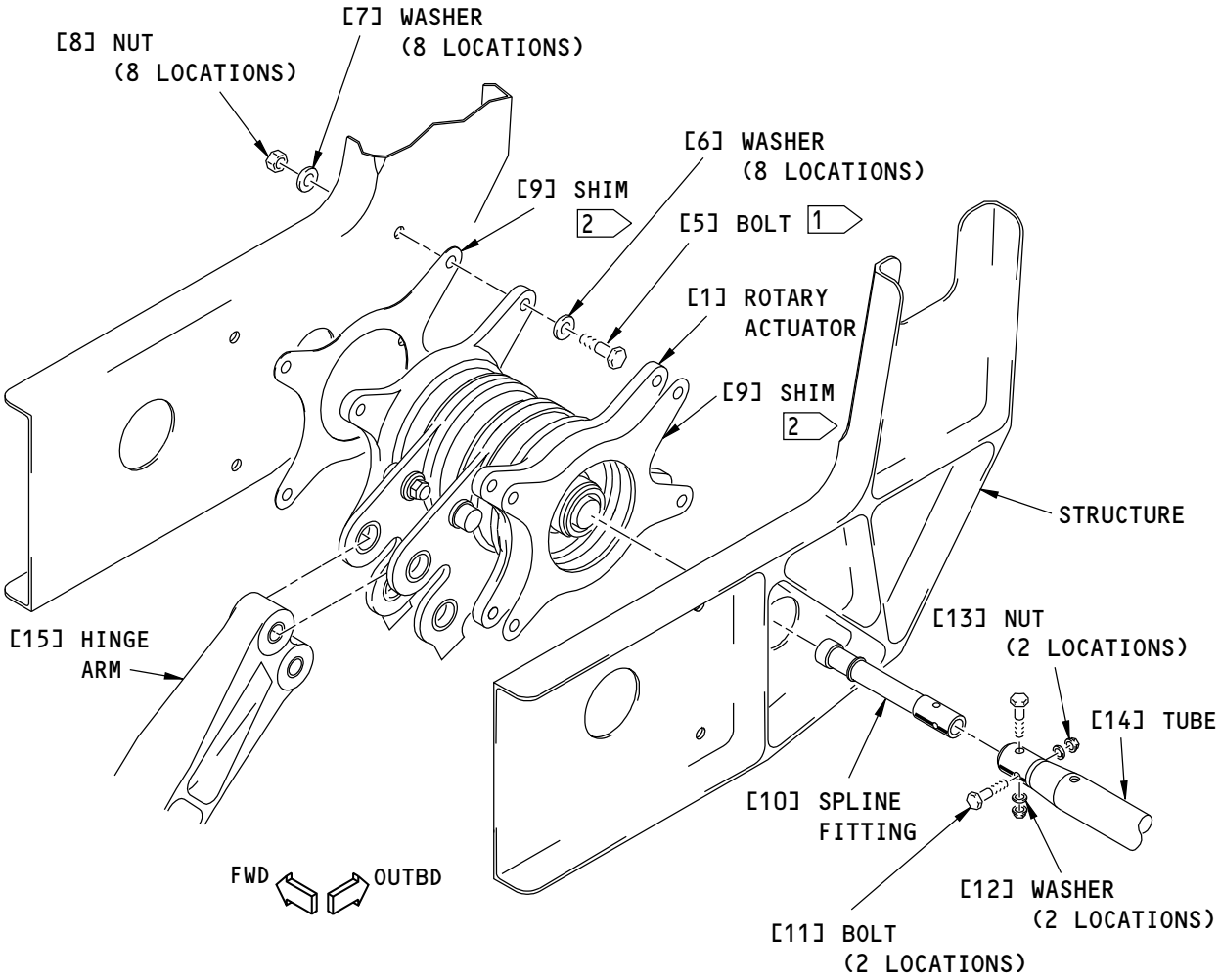
END OF TASK

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Rotary Actuator Installation
Figure 401/52-35-03-990-801 (Sheet 1 of 3)

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ROTARY ACTUATOR
(FORWARD ROTARY ACTUATOR SHOWN,
AFT ROTARY ACTUATOR OPPOSITE)

B

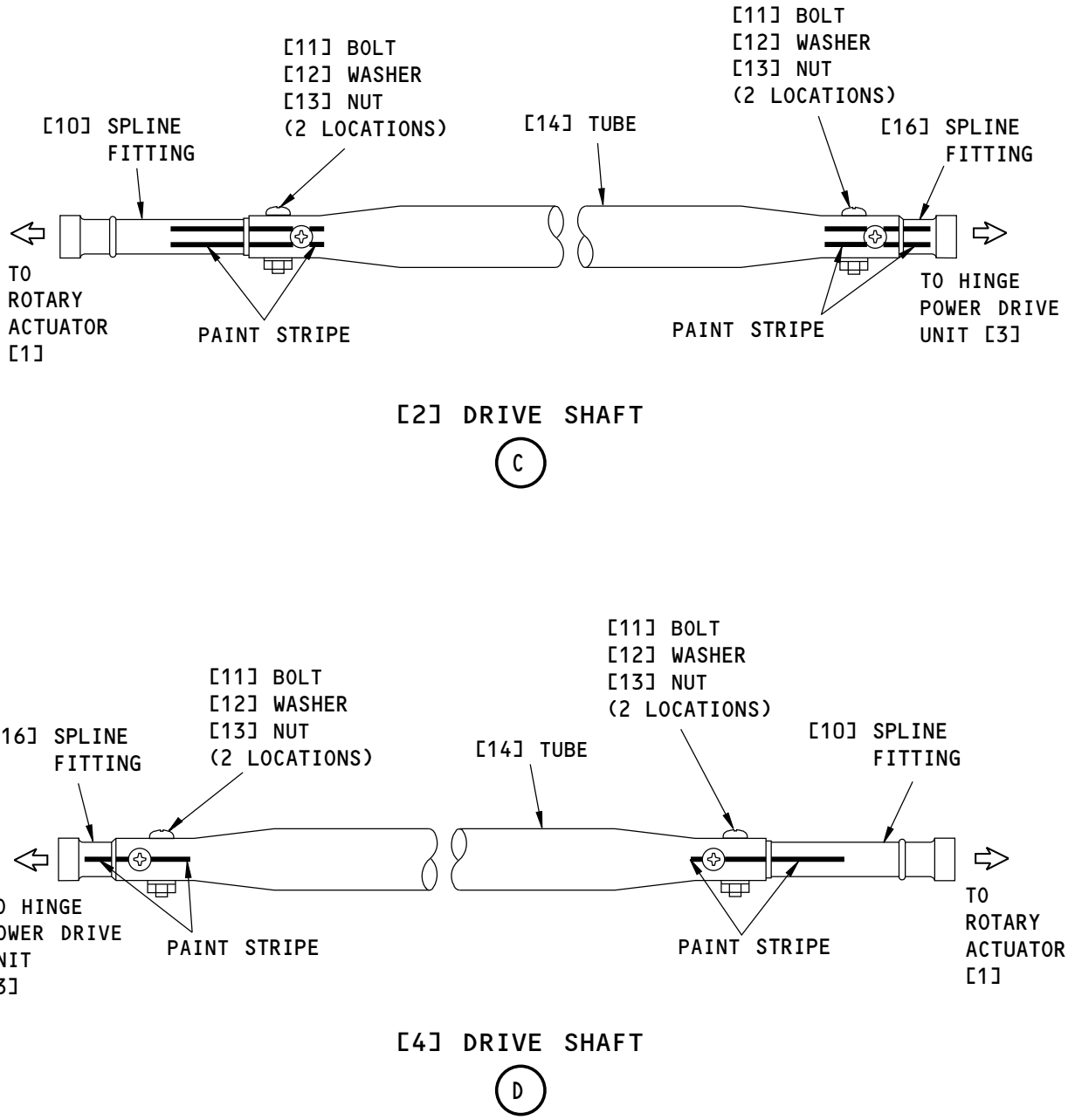
1 YOU CAN INSTALL THE OUTBOARD FASTENERS IN THE OPPOSITE DIRECTION IF ACCESS IS EASIER.

2 MAXIMUM PULL-UP AFTER SHIM IS 0.005 INCH.

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Rotary Actuator Installation
Figure 401/52-35-03-990-801 (Sheet 2 of 3)

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Rotary Actuator Installation
Figure 401/52-35-03-990-801 (Sheet 3 of 3)

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ROTARY ACTUATOR - ADJUSTMENT/TEST

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) An operational test of the rotary actuator.

TASK 52-35-03-710-801

2. Small Cargo Door Rotary Actuator (Irreversible Function) Operational Test

(Figure 501)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an operational test of the small cargo door rotary actuator irreversible function.

B. Location Zones

Zone	Area
823	Aft Small Cargo Door

C. Procedure

SUBTASK 52-35-03-710-002

(1) Do a test on the rotary actuator as follows:

NOTE: Two persons are recommended to do this procedure: one person at the hinge manual drive port found on the fuselage skin forward of the door and one person at the center of the door near the hinge power drive unit.

(a) Electrically operate the door to the fully open position.

(b) Remove the applicable cargo compartment ceiling panel to get access to the drive shafts between the hinge power drive unit and the rotary actuators.

(c) Put a 3/8 inch square drive wrench in the hinge manual drive port found on the fuselage skin forward of the door.

CAUTION

DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR. DO NOT OPERATE THE HINGE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 110 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(d) Slowly turn the hinge manual drive in the close direction until one of the drive shafts between the hinge power drive unit and the rotary actuators can be turned slightly by hand.

NOTE: When the drive shaft can be turned slightly or moved forward or aft by hand, there is no load on the drive shaft.

(e) Continue to turn the hinge manual drive in the close direction and make sure that within two turns of the manual drive a position can be found where there is no load on the other drive shaft.

NOTE: You can turn the manual drive in the close and open directions within two turns to find the position.

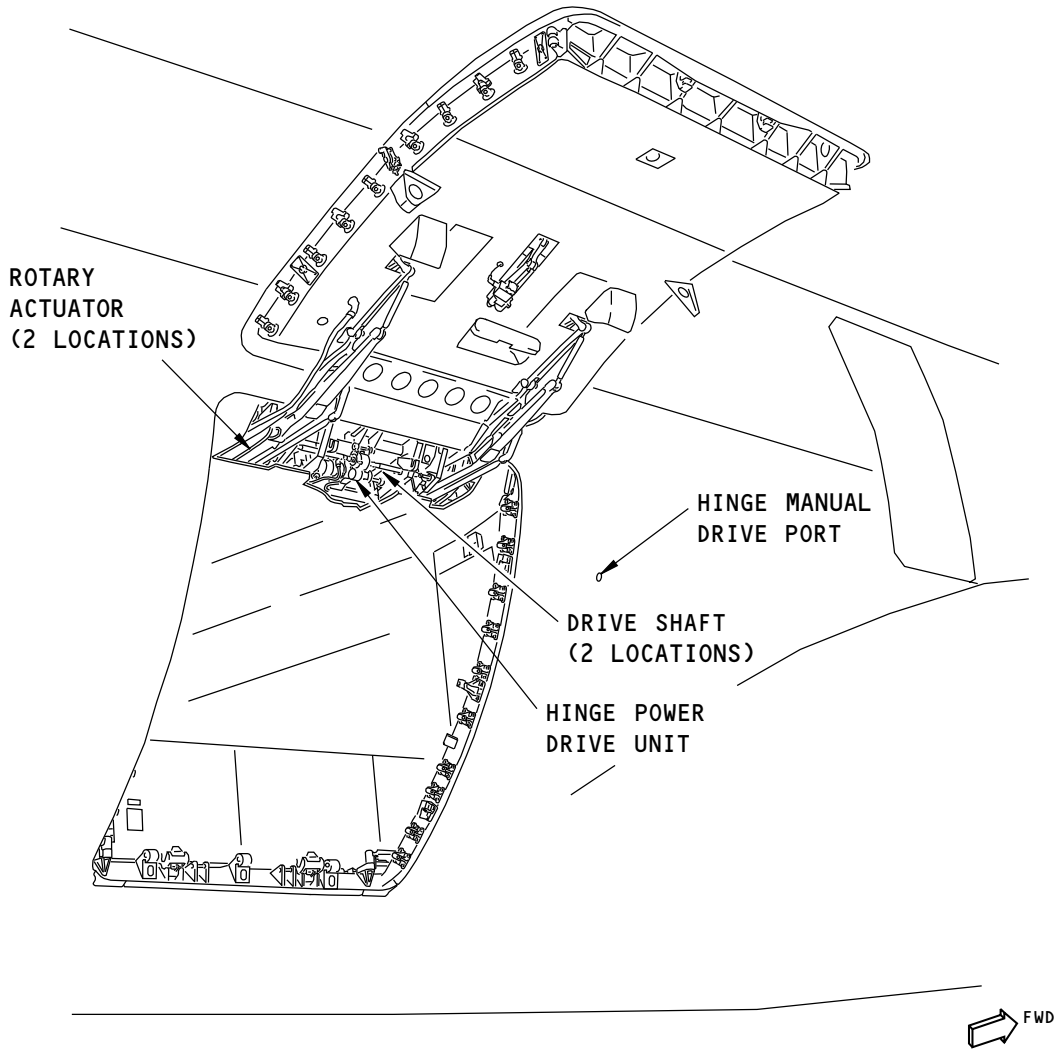
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(f) If a position where there is no load on each drive shaft within two turns of the hinge manual drive is found, the rotary actuators hold the weight of the door and are serviceable.

(g) Install the cargo compartment ceiling panel.

——— END OF TASK ———

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SMALL CARGO DOOR
(FULLY OPEN POSITION)

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Small Cargo Door Rotary Actuator (Irreversible Function) Operational Test
Figure 501/52-35-03-990-802

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HINGE ARM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the hinge arm.

(2) An installation of the hinge arm.

TASK 52-35-04-000-801

2. Hinge Arm Removal

(Figure 401)

A. References

Reference	Title
52-35-01-000-801	Small Cargo Door Removal (P/B 401)

B. Location Zones

Zone	Area
823	Aft Small Cargo Door

C. Prepare for the Removal

SUBTASK 52-35-04-010-001

(1) Do this task: Small Cargo Door Removal, TASK 52-35-01-000-801.

D. Removal

SUBTASK 52-35-04-030-001

(1) Remove the bolts [2], nuts [4], and washers [3] that attach the arm assemblies [1] to the forward rotary actuator.

SUBTASK 52-35-04-030-002

(2) Remove the targets [5], nuts [8], washers [6], and washers [7] that attach the arm assemblies [1] to the aft rotary actuator.

SUBTASK 52-35-04-020-001

(3) Remove the arm assemblies [1] from the rotary actuator.

——— END OF TASK ———

TASK 52-35-04-400-801

3. Hinge Arm Installation

(Figure 401)

A. References

Reference	Title
52-35-01-400-801	Small Cargo Door Installation (P/B 401)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Arm assembly	52-35-02-01-100	ARO ALL
5	Target	52-35-00-01-070	ARO ALL

C. Location Zones

Zone	Area
823	Aft Small Cargo Door

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D. Installation

SUBTASK 52-35-04-420-001

(1) Hold the arm assemblies [1] in the correct position to attach the arm assemblies [1] to the applicable rotary actuator.

SUBTASK 52-35-04-420-002

(2) Install the bolts [2], nuts [4], and washers [3] that attach the arm assemblies [1] to the forward rotary actuator.

SUBTASK 52-35-04-420-003

(3) Install the targets [5], nuts [8], washers [6], and washers [7] to attach the arm assemblies [1] to the aft rotary actuator.

(a) Add or remove washers [6] to make sure the clearance between the rotary actuator bushing [9] and the washers [7] is 0.001 inch to 0.020 inch.

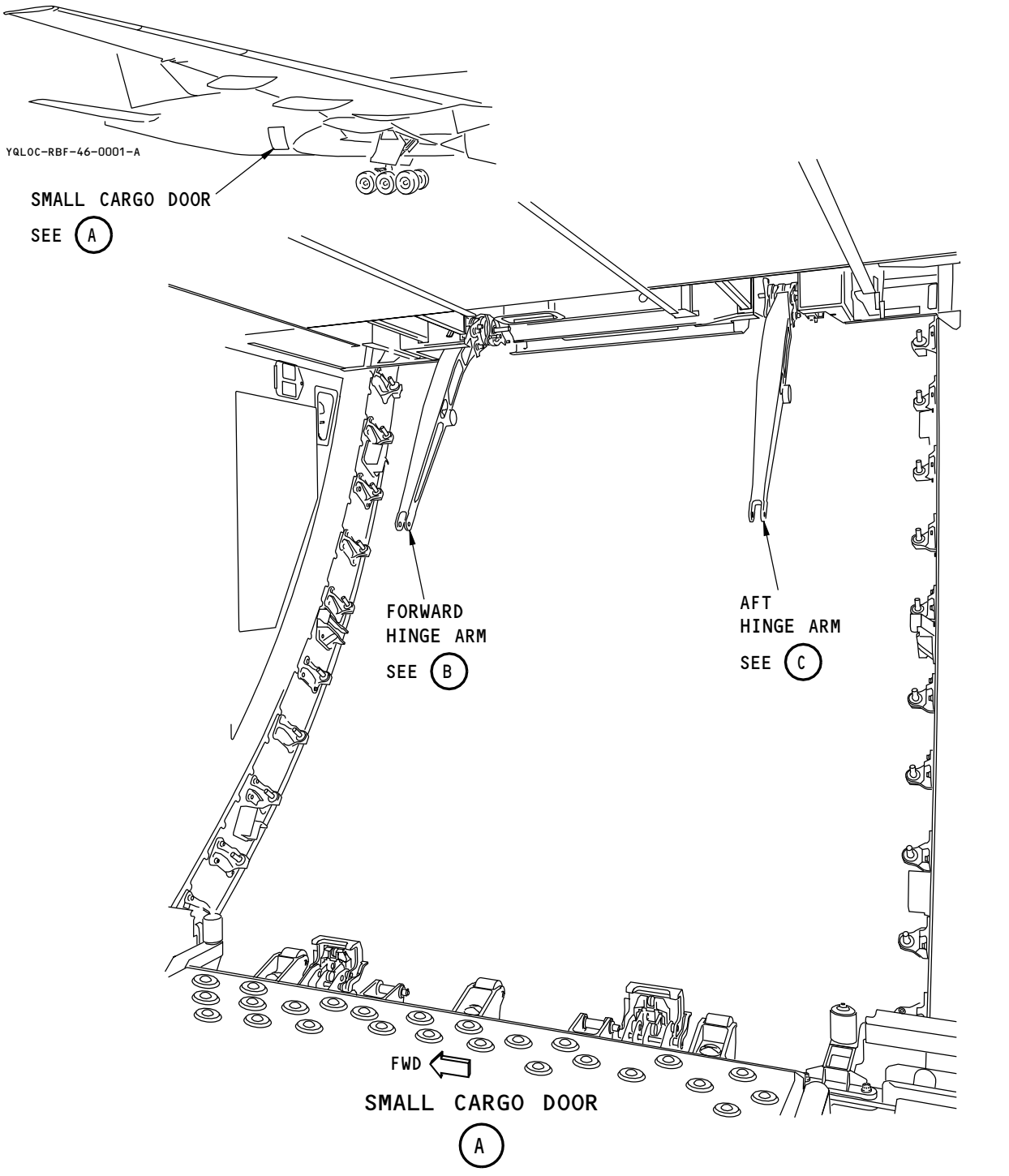
E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-04-410-001

(1) Do this task: Small Cargo Door Installation, TASK 52-35-01-400-801.

——— END OF TASK ———

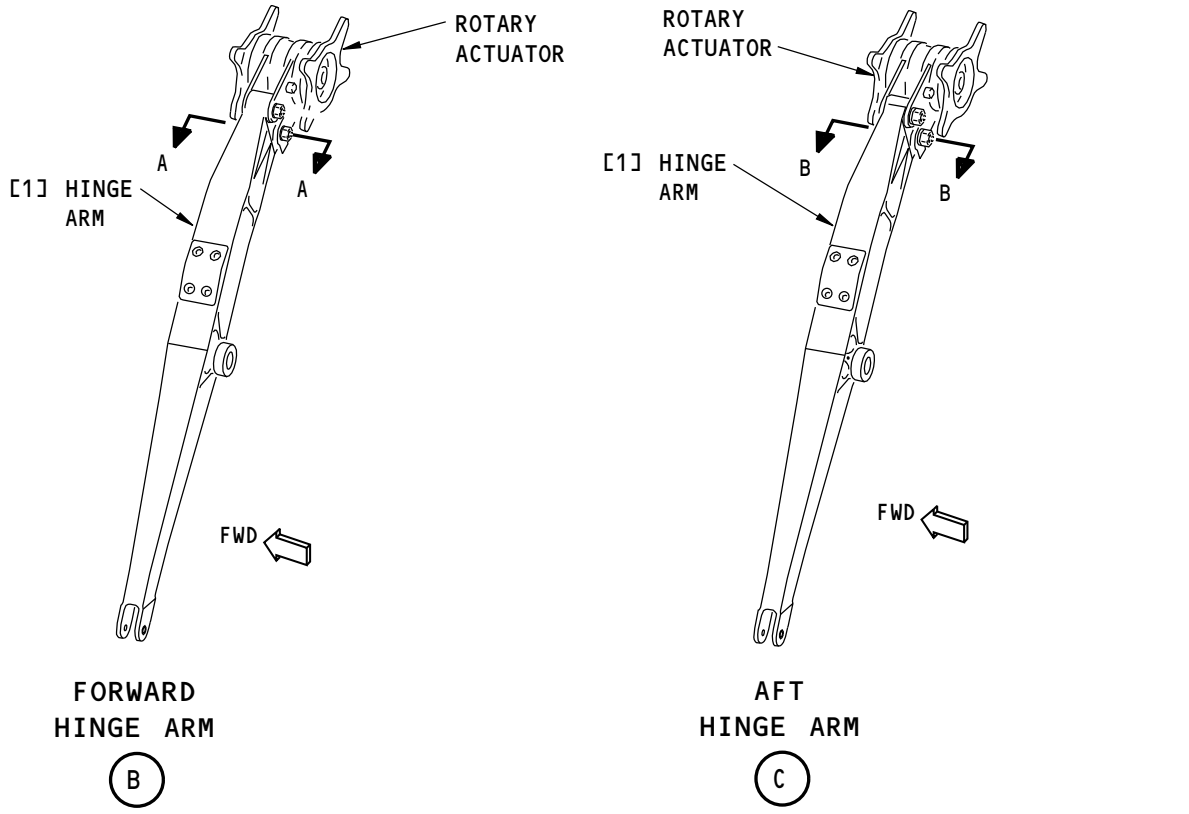
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Hinge Arm Mechanism Installation
Figure 401/52-35-04-990-801 (Sheet 1 of 2)

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Hinge Arm Mechanism Installation
Figure 401/52-35-04-990-801 (Sheet 2 of 2)

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LIFT/LATCH POWER DRIVE UNIT - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the lift/latch power drive unit.

(2) An installation of the lift/latch power drive unit.

TASK 52-35-05-000-801

2. Lift/Latch Power Drive Unit Removal

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. Location Zones

Zone	Area
823	Aft Small Cargo Door

B. Prepare for the Removal

SUBTASK 52-35-05-010-001

(1) Make sure the door is closed and latched.

SUBTASK 52-35-05-860-001

(2) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

C. Removal

SUBTASK 52-35-05-030-001

(1) Remove the unit assembly [1] as follows:

(a) Disconnect the electrical connector [2] from the unit assembly [1].

(b) Remove the bolt [16], washer [17], washer [18], washer [19], and nut [20] to disconnect the jumper assembly [3] from the unit assembly [1].

(c) Remove the bolt [15], washer [14], bushing [13], washer [11], and nut [12] that attach the bottom of the unit assembly [1] to the door structure.

(d) Hold the unit assembly [1] and remove the bolt [8], washer [7], bushing [6], washer [5], and nut [4] that attach the top of the unit assembly [1] to the door structure.

SUBTASK 52-35-05-020-003

(2) Disengage the unit assembly [1] and shaft assembly [10] from the door as follows:

(a) Move the unit assembly [1] straight inboard to disengage the unit assembly [1] from the shaft assembly [10].

(b) Pull the shaft assembly [10] from the lift/latch manual drive port [9] on the door.

END OF TASK

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TASK 52-35-05-400-801

3. Lift/Latch Power Drive Unit Installation

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
SWPM 20-20-00	Standard Wiring Practices Manual

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in Class I, Divisions I & II hazardous (classified) locations. Outside these hazardous locations, COM-614 can be used in lieu of COM-1550). Part #: 620LK Supplier: 1CRL2 Part #: M1 Supplier: 3AD17 Part #: T477W Supplier: 01014 Opt Part #: M1B Supplier: 3AD17

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Unit assembly	52-35-05-03-220	ARO ALL
3	Jumper assembly	52-35-05-03-020	ARO ALL
10	Shaft assembly	52-35-05-03-210	ARO ALL

D. Location Zones

Zone	Area
823	Aft Small Cargo Door

E. Installation

SUBTASK 52-35-05-420-001

(1) Engage the unit assembly [1] and shaft assembly [10] with the door as follows:

(a) Install the shaft assembly [10] on the lift/latch manual drive port [9] on the door.

(b) Hold the unit assembly [1] in its correct position in front of the door and move straight outboard to engage the unit assembly [1] with the shaft assembly [10].

SUBTASK 52-35-05-420-002

(2) Install the unit assembly [1] as follows:

(a) Hold the unit assembly [1] and install the bolt [8], washer [7], bushing [6], washer [5], and nut [4] to attach the top of the unit assembly [1] to the door structure.

(b) Install the bolt [15], washer [14], bushing [13], washer [11], and nut [12] to attach the bottom of the unit assembly [1] to the door structure.

NOTE: You can manually extend or retract the unit assembly [1] to make the installation of the bolt [15] easier.

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(c) Install the bolt [16], washer [17], washer [18], washer [19], and nut [20] to connect the jumper assembly [3] to the unit assembly [1]. Refer to Electrical Bonding and Grounding (SWPM 20-20-00).

1) Use the intrinsically safe approved bonding meter, COM-1550 to make sure the maximum resistance across the surface bond is not more than 10 milliohms.

(d) Connect the electrical connector [2] to the unit assembly [1].

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-05-860-003

(1) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

G. Installation Test

SUBTASK 52-35-05-710-001

(1) Do a test on the unit assembly [1] as follows:

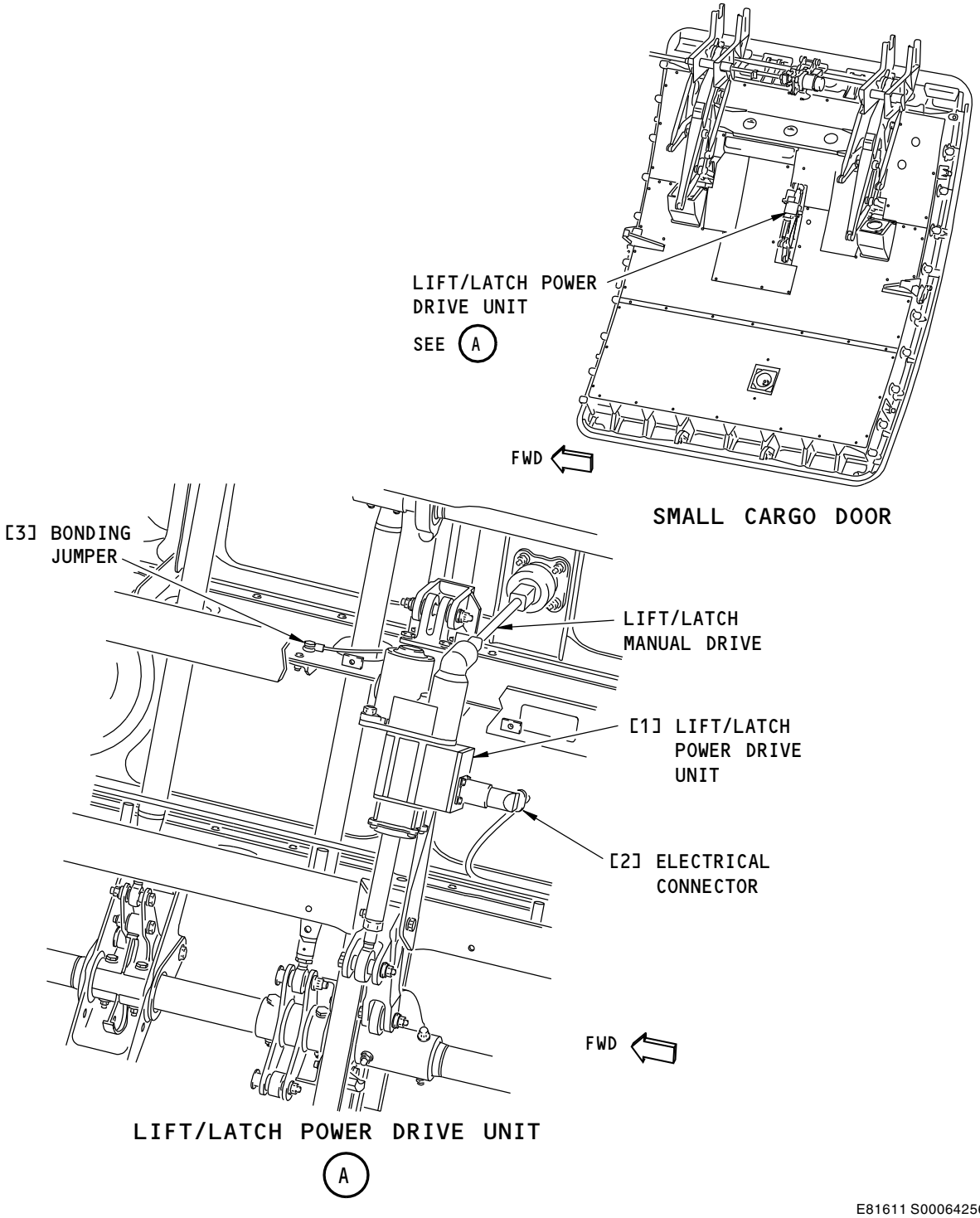
(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Operate the door electrically.

(c) Make sure that the door unlatches, lift, lowers and latches correctly.

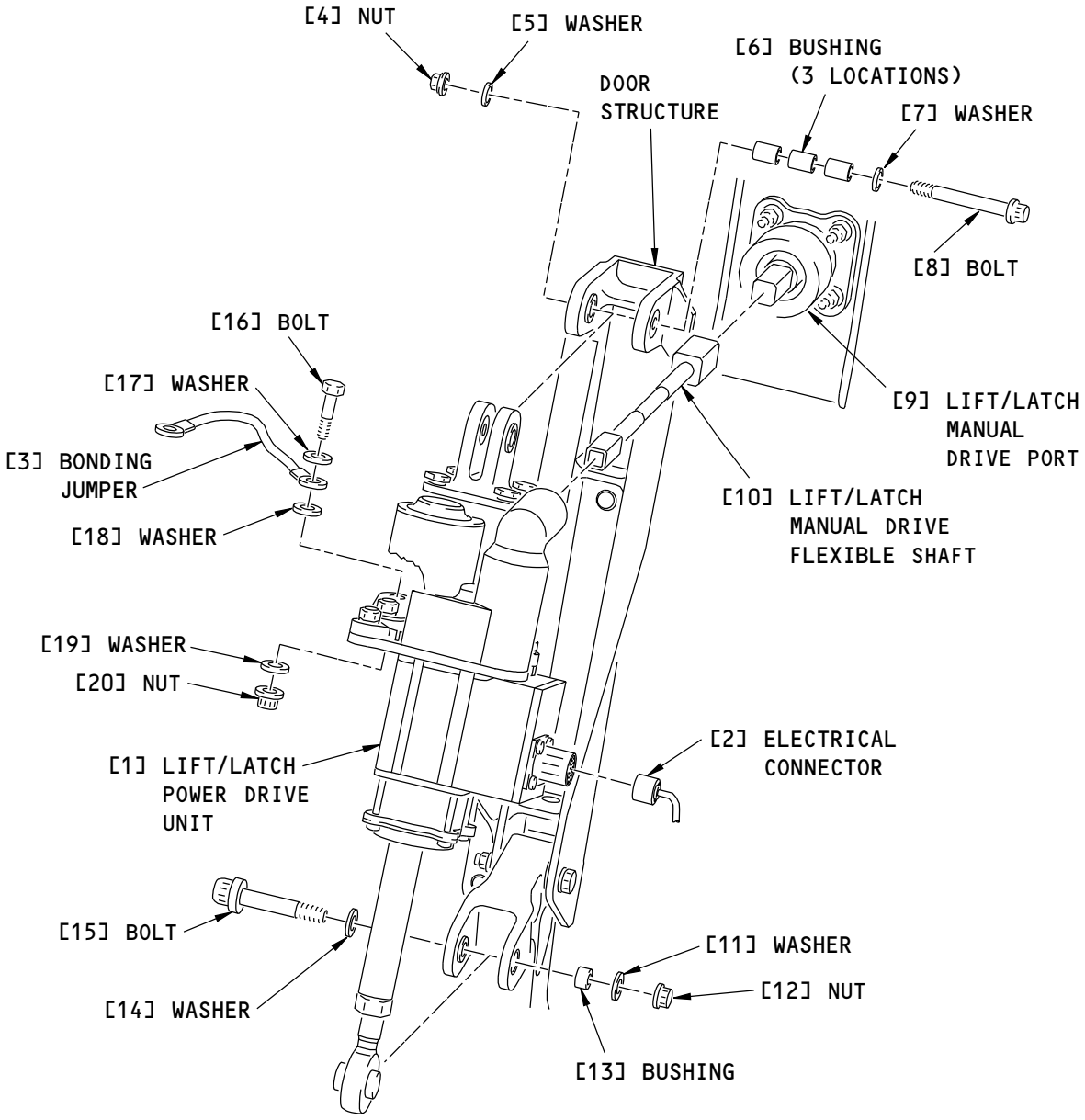
——— END OF TASK ———

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Lift/Latch Power Drive Unit Installation
Figure 401/52-35-05-990-801 (Sheet 1 of 2)

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LIFT/LATCH POWER DRIVE UNIT
(EXPLODED VIEW)

A

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Lift/Latch Power Drive Unit Installation
Figure 401/52-35-05-990-801 (Sheet 2 of 2)

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VENT DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the vent door.

(2) An installation of the vent door.

TASK 52-35-06-000-801

2. Vent Door Removal

(Figure 401)

A. Location Zones

Zone	Area
823	Aft Small Cargo Door

B. Prepare for the Removal

SUBTASK 52-35-06-010-001

(1) Make sure the door is closed and latched.

SUBTASK 52-35-06-860-001

(2) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-35-06-010-002

(3) Get access to the door assembly [2] as follows:

(a) Remove the applicable door lining.

(b) Remove the screws [3], screws [5], and washers [4] that attach the shroud [1] to the door structure.

(c) Remove the shroud [1].

C. Removal

SUBTASK 52-35-06-020-001

(1) Disconnect the rod assembly [13] from the door assembly [2] as follows:

WARNING HOLD THE VENT DOOR WHEN YOU DISCONNECT THE PUSHROD FROM THE VENT DOOR. WHEN YOU DISCONNECT THE PUSHROD, THE VENT DOOR WILL FULLY OPEN FROM THE FORCE OF ITS SPRINGS.

(a) Hold the door assembly [2] and remove the bolt [7], washer [8], bushing [9], washer [10], and nut [11] that attach the rod assembly [13] to the door assembly [2].

(b) Remove the bolt [25], washer [26], bushing [27], washer [28], and nut [29] that attach the rod assembly [13] to the lift/latch torque tube [18].

(c) Remove the rod assembly [13].

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SUBTASK 52-35-06-020-002

(2) Disengage the door assembly [2] from the door structure [6] as follows:

(a) Make sure the door assembly [2] is fully open.

(b) From the external side of the door assembly [2], remove the washers [23] and nuts [22] from the bolts [15] that go through the door assembly [2] and door structure [6].

WARNING BE CAREFUL WHEN YOU REMOVE THE CENTER SLEEVES AND PARTIALLY REMOVE THE BOLTS. WHEN THE SLEEVES ARE REMOVED AND THE BOLTS ARE PARTIALLY REMOVED, THE SPRINGS WILL TURN AND INJURY CAN OCCUR.

(c) Remove the sleeves [19].

(d) Partially disengage the bolts [15] from the door structure [6].

(e) Remove the spring [12] and spring [14].

(f) Hold the door assembly [2] and remove the bolts [15], washers [16], bushing [20], bushing [17], bushing [21], washers [24], and sleeves [19], that attach the door assembly [2] to the door structure [6].

SUBTASK 52-35-06-020-003

(3) Remove the door assembly [2] from the door structure [6].

——— END OF TASK ———

TASK 52-35-06-400-801

3. Vent Door Installation

(Figure 401)

A. References

Reference	Title
52-35-00-720-801	Aft Small Cargo Door System Test (P/B 501)
52-35-00-820-801	Aft Small Cargo Door Adjustment (P/B 501)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-4501	Installation equipment, Small Cargo Vent Door Part #: J52025-1 Supplier: 81205

C. Consumable Materials

Reference	Description	Specification
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796 Class III

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Door assembly	52-35-06-01-080	ARO ALL
13	Rod assembly	52-35-05-01-280	ARO ALL

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E. Location Zones

Zone	Area
823	Aft Small Cargo Door

F. Installation

SUBTASK 52-35-06-210-001

(1) Do a check on the vent door seal as follows:

(a) Make sure there is no damage or deterioration of the seal and that it is tightly bonded to the door assembly [2].

(b) If you find damage to the seal, replace the seal.

SUBTASK 52-35-06-420-001

(2) Put the door assembly [2] in the center of the opening.

SUBTASK 52-35-06-420-002

(3) Engage the door assembly [2] and the door structure [6] as follows:

NOTE: Do these steps for each bolt [15]].

(a) Install the bolts [15], washers [16], and bushing [20] through the door assembly [2] and door structure [6].

(b) Install the bushing [17], bushing [21], washers [24] and forward and aft sleeves [19] on the bolts [15].

(c) Use the Installation equipment, SPL-4501 to put a turn the spring [12] and spring [14] one turn to apply a torsion force before you install them on the bolts [15].

(d) Use the Installation equipment, SPL-4501 to keep the torsion force on spring [12] and spring [14] while you install them on the bolts [15].

(e) Install the spring [12] and spring [14] on the bolts [15].

(f) Install the center sleeves [19], washers [23], and nuts [22] on the bolts [15].

(g) Add washers [24] to make sure the spring [12] and spring [14] are compressed as shown, View A-A (Figure 401).

SUBTASK 52-35-06-420-003

(4) Connect the rod assembly [13] to the door assembly [2] as follows:

(a) Hold the pushrod [13] in its correct position and install the bolt [25], washer [26], bushing [27], washer [28], and nut [29] to attach the rod assembly [13] to the lift/latch torque tube [18].

(b) Install the bolt [7], washer [8], bushing [9], washer [10], and nut [11] to attach the rod assembly [13] to the door assembly [2].

SUBTASK 52-35-06-820-001

(5) Adjust the door assembly [2] as follows:

(a) Do this task: Aft Small Cargo Door Adjustment, TASK 52-35-00-820-801.

Only do the Vent Door Adjustment.

G. Installation Test

SUBTASK 52-35-06-710-001

(1) Do a test on the door assembly [2] as follows:

(a) Do this task: Aft Small Cargo Door System Test, TASK 52-35-00-720-801.

Only do the Vent Door Test.

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H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-06-410-001

(1) Close access to the door assembly [2] as follows:

(a) Apply the compound, C00528 to all parts of the holes for the screws [3] and screws [5] that attach the shroud [1] to the door structure.

(b) Install the screws [3], screws [5], and washers [4] to attach the shroud [1] to the door structure.

(c) Install the door lining.

SUBTASK 52-35-06-860-002

(2) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

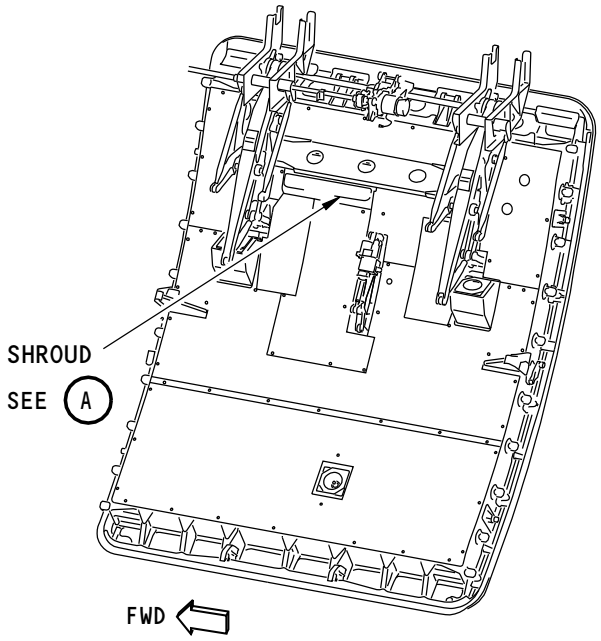
Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

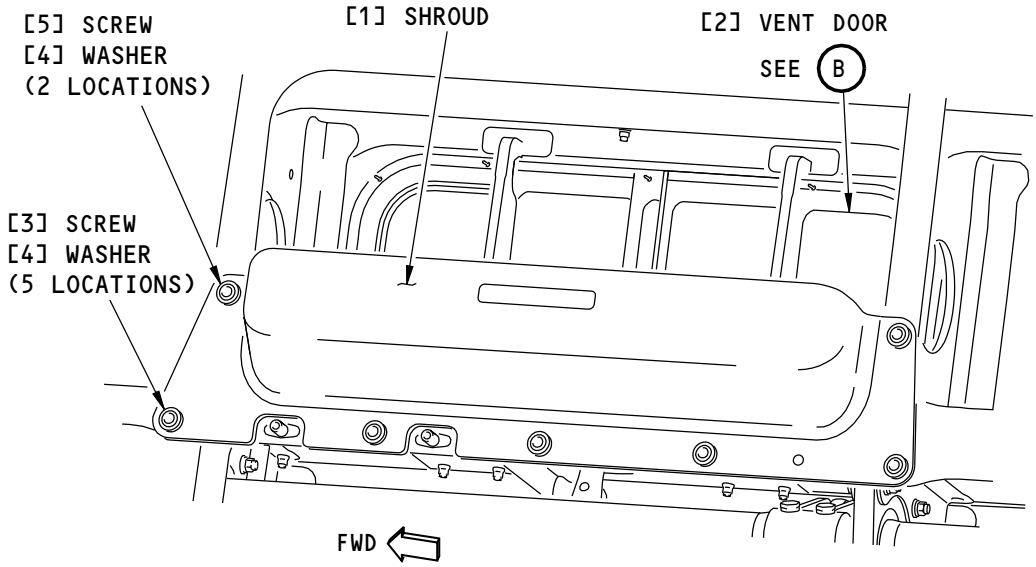
Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

END OF TASK

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SMALL CARGO DOOR

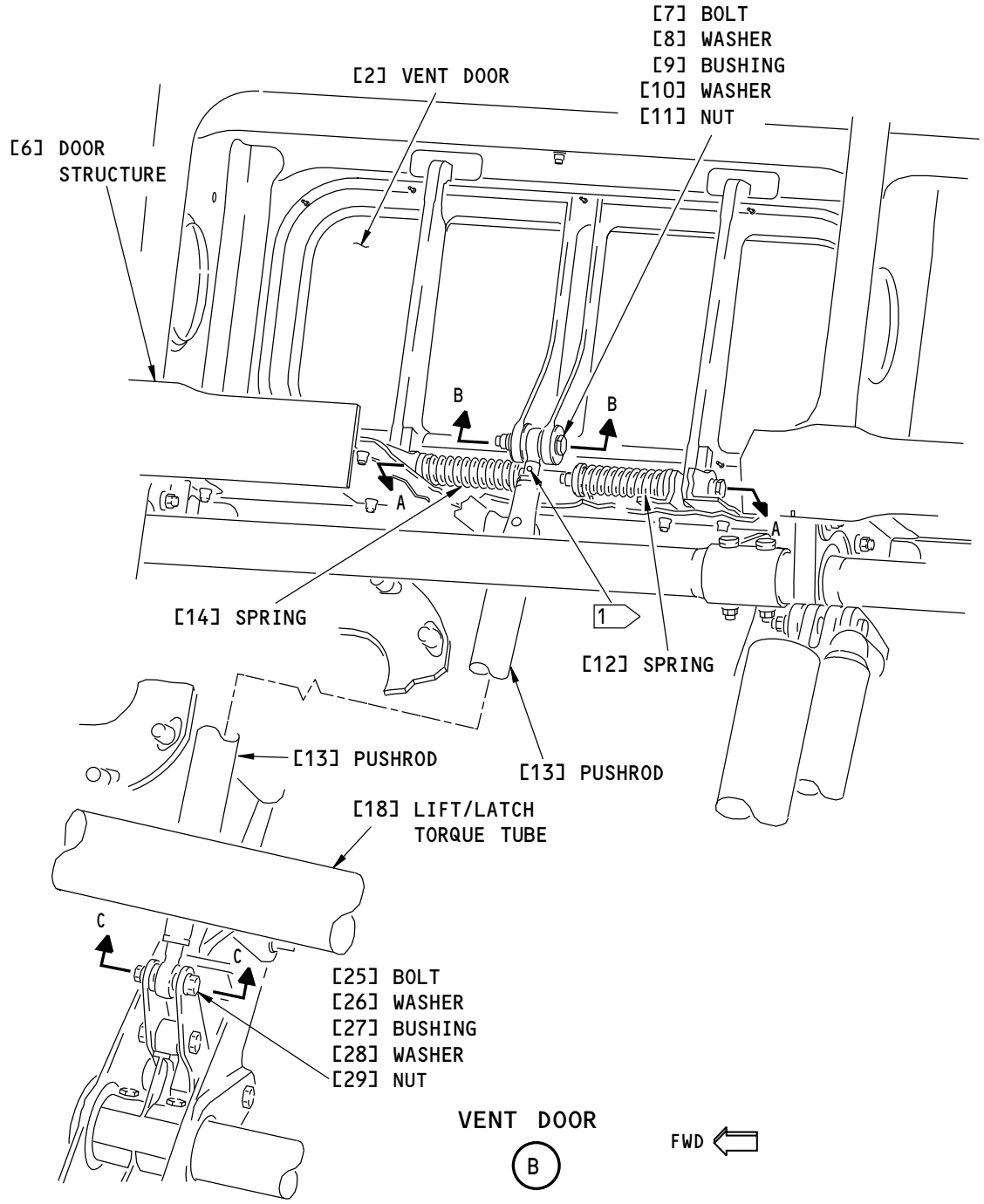


SHROUD
(DOOR STRUCTURE ABOVE VENT DOOR REMOVED)
A

E89389 S0006425611_V1

Vent Door Installation
Figure 401/52-35-06-990-801 (Sheet 1 of 3)

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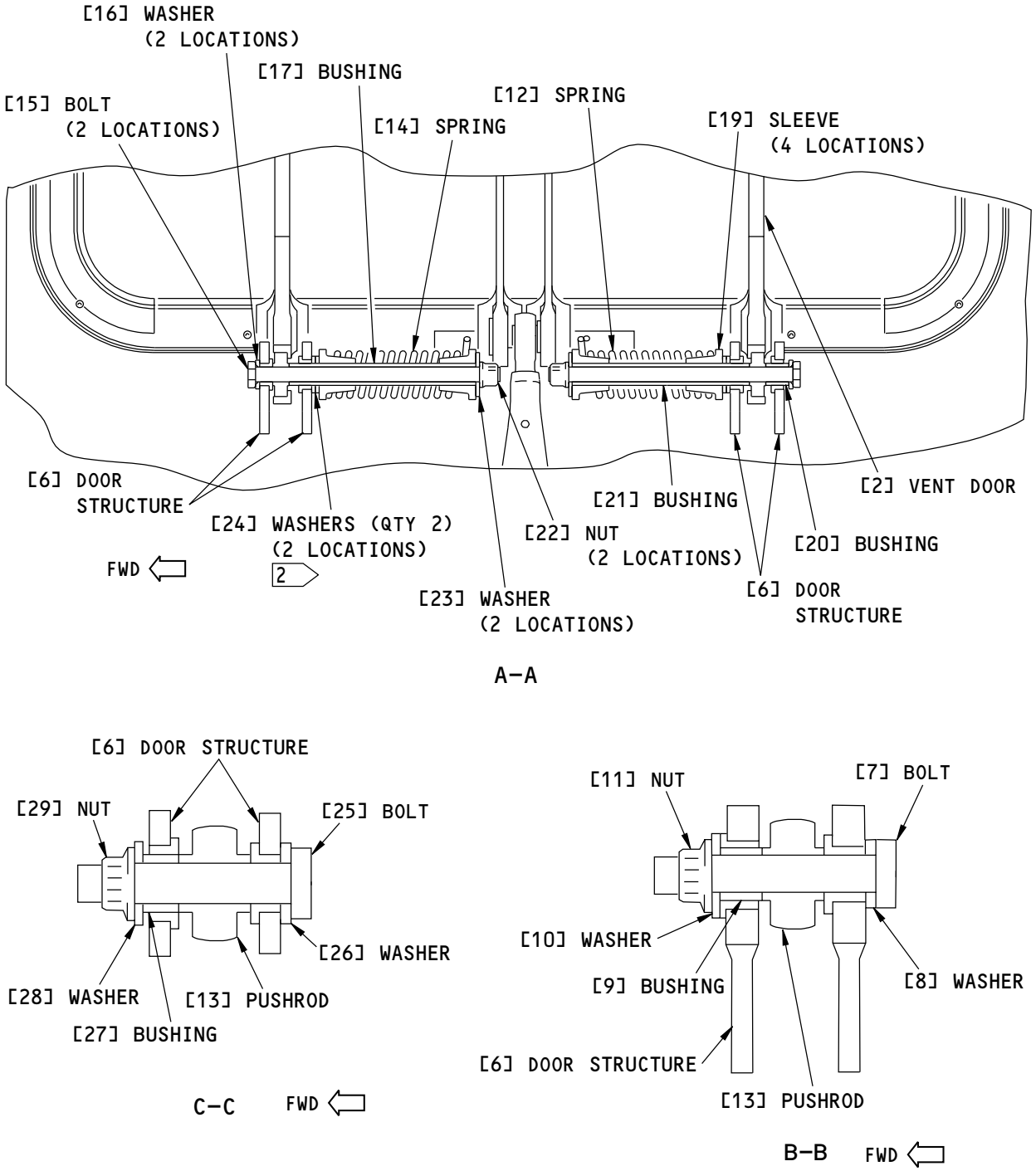


1 MAKE SURE GREASE FITTING IS ON INBOARD SIDE OF PUSHROD

E89430 S0006425612_V1

Vent Door Installation
Figure 401/52-35-06-990-801 (Sheet 2 of 3)

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2 ADD WASHERS [24] AS NECESSARY TO COMPRESS SPRINGS [12] [14] 0.25 ± 0.06 INCH FROM THEIR FREE LENGTH.

E92805 S0006425613_V1

Vent Door Installation
Figure 401/52-35-06-990-801 (Sheet 3 of 3)

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HINGE MANUAL DRIVE - REMOVAL/INSTALLATION

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal of the hinge manual drive flexible shaft.

(2) An installation of the hinge manual drive flexible shaft.

(3) A removal of the hinge manual drive gearbox.

(4) An installation of the hinge manual drive gearbox.

(5) An operational test of the lift/latch and hinge power drive unit.

TASK 52-35-07-000-801

2. Hinge Manual Drive Flexible Shaft Removal

(Figure 201)

A. Location Zones

Zone	Area
823	Aft Small Cargo Door

B. Prepare for the Removal

SUBTASK 52-35-07-860-001

(1) Make sure the door is closed and latched.

SUBTASK 52-35-07-860-002

(2) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-35-07-010-001

(3) Get access to the shaft [1] as follows:

(a) Remove the applicable cargo compartment linings forward of the door.

(b) Remove the applicable cargo compartment ceiling panels above the door.

C. Removal

SUBTASK 52-35-07-020-001

(1) Disconnect the shaft [1] from the gear box assembly [4] as follows:

(a) Remove the lockwire [10] from the nut [9] and gear box assembly [4].

(b) Loosen the nut [9] and pull the shaft [1] from the gear box assembly [4].

SUBTASK 52-35-07-020-002

(2) Disconnect the shaft [1] from the hinge power drive unit [3] as follows:

(a) Remove the lockwire [11] from the nut [12] and hinge power drive unit [3].

(b) Loosen the nut [12] and pull the shaft [1] from the hinge power drive unit [3].

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SUBTASK 52-35-07-020-003

(3) Remove the shaft [1] from the fuselage structure [5] as follows:

(a) Hold the shaft [1] and remove the screws [6], washers [7], and nuts [8] that attach the clamps [2] and shaft [1] to the fuselage structure [5].

(b) Remove the shaft [1] from the fuselage structure [5].

(c) Remove the clamps [2].

——— END OF TASK ———

TASK 52-35-07-400-801

3. Hinge Manual Drive Flexible Shaft Installation

(Figure 201)

A. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Shaft	52-35-07-01-060	ARO ALL

C. Location Zones

Zone	Area
823	Aft Small Cargo Door

D. Installation

SUBTASK 52-35-07-420-001

(1) Install the shaft [1] on the fuselage structure [5] as follows:

(a) Install the clamps [2] on the shaft [1].

(b) Put the shaft [1] in its correct position on the fuselage structure [5].

(c) Hold the shaft [1] and install the screws [6], washers [7], and nuts [8] to attach the clamps [2] and shaft [1] to the fuselage structure [5].

SUBTASK 52-35-07-420-002

(2) Connect the shaft [1] to the hinge power drive unit [3] as follows:

(a) Apply the grease, D00633 to the square drive mating surfaces of the nut [12] and hinge power drive unit [3].

(b) Turn the nut [12] to attach the shaft [1] to the hinge power drive unit [3].

(c) Tighten the nut [12] to 150-250 pound-inches.

(d) Install the lockwire [11] from the nut [12] to the hinge power drive unit [3].

SUBTASK 52-35-07-420-003

(3) Connect the shaft [1] to the gear box assembly [4] as follows:

(a) Apply the grease, D00633 to the square drive mating surfaces of the nut [9] and gear box assembly [4].

(b) Turn the nut [9] to attach the shaft [1] to the gear box assembly [4].

(c) Tighten the nut [9] to 150-250 pound-inches.

(d) Install the lockwire [10] from the nut [9] to the gear box assembly [4].

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E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-07-860-003

(1) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-35-07-410-001

(2) Close access to the shaft [1] as follows:

(a) Install the cargo compartment linings.

(b) Install the cargo compartment ceiling panels.

F. Installation Test

SUBTASK 52-35-07-710-001

(1) Do a test on the shaft [1] as follows:

(a) Unlatch and lift the door electrically.

(b) Put the speed wrench or power tool in the hinge manual drive port found on the fuselage skin forward of the door.

CAUTION

DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR. DO NOT OPERATE THE HINGE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 110 POUND-INCHES. DAMAGE TO THE HINGE POWER DRIVE UNIT CAN OCCUR.

(c) Slowly turn in the open and then close directions and do this check:

1) Make sure the manual drive turns freely and smoothly.

2) Make sure there is no vibration or deflection in the shaft [1].

3) Make sure the shaft [1] does not twist when the hinge power drive unit [3] operates with torque limiter slippage.

(d) Remove the speed wrench or power tool.

——— END OF TASK ———

TASK 52-35-07-000-802

4. Hinge Manual Drive Gearbox Removal

(Figure 202)

A. Location Zones

Zone	Area
823	Aft Small Cargo Door

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B. Prepare for the Removal

SUBTASK 52-35-07-860-004

(1) Make sure the door is closed and latched.

SUBTASK 52-35-07-860-005

(2) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-35-07-010-002

(3) Get access to the gear box assembly [4] as follows:

(a) Remove the applicable cargo compartment linings forward of the door.

(b) Remove the applicable cargo compartment ceiling panels above the door.

C. Removal

SUBTASK 52-35-07-020-004

(1) Disconnect the shaft [1] from the gear box assembly [4] as follows:

(a) Remove the lockwire [10] from the nut [9] and gear box assembly [4].

(b) Loosen the nut [9] and pull the shaft [1] from the gear box assembly [4].

SUBTASK 52-35-07-020-005

(2) Remove the gear box assembly [4] as follows:

(a) Hold the gear box assembly [4] and remove the bolts [31] and washers [32] that attach the gear box assembly [4] to the fuselage structure [5].

(b) Remove the gear box assembly [4].

——— END OF TASK ———

TASK 52-35-07-400-802

5. Hinge Manual Drive Gearbox Installation

(Figure 202)

A. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
4	Gear box assembly	52-35-07-01-080	ARO ALL

C. Location Zones

Zone	Area
823	Aft Small Cargo Door

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D. Installation

SUBTASK 52-35-07-420-004

(1) Install the gear box assembly [4] as follows:

(a) Hold the gear box assembly [4] in its correct position and engage the square drive adapter [33] for the hinge manual drive port on the fuselage skin with the gear box assembly [4].

(b) Install the bolts [31] and washers [32] to attach the gear box assembly [4] to the fuselage structure [5].

SUBTASK 52-35-07-420-005

(2) Connect the shaft [1] to the gear box assembly [4] as follows:

(a) Apply the grease, D00633 to the square drive mating surfaces of the nut [9] and gear box assembly [4].

(b) Turn the nut [9] to attach the shaft [1] to the gear box assembly [4].

(c) Tighten the nut [9] to 150-250 pound-inches.

(d) Install the lockwire [10] from the nut [9] to the gear box assembly [4].

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-07-860-006

(1) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-35-07-410-002

(2) Close access to the gear box assembly [4] as follows:

(a) Install the cargo compartment linings.

(b) Install the cargo compartment ceiling panels.

F. Installation Test

SUBTASK 52-35-07-710-002

(1) Do a test on the gear box assembly [4] as follows:

(a) Unlatch and lift the door electrically.

(b) Put the speed wrench or power tool in the hinge manual drive port found on the fuselage skin forward of the door.

CAUTION

DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR. DO NOT OPERATE THE HINGE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 110 POUND-INCHES. DAMAGE TO THE HINGE POWER DRIVE UNIT CAN OCCUR.

(c) Slowly turn in the open and then close directions and do this check:

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1) Make sure the manual drive turns freely and smoothly.
2) Make sure there is no vibration or deflection in the shaft [1].
3) Make sure the shaft [1] does not twist when the hinge power drive unit [3] operates with torque limiter slippage.

(d) Remove the speed wrench or power tool .

——— END OF TASK ———

TASK 52-35-07-710-801

6. Small Cargo Door Lift/Latch and Hinge Manual Drives and Hinge Power Drive Unit Operational Test

(Figure 203)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an operational test of the small cargo door lift/latch and hinge manual drives and hinge power drive unit.

B. Location Zones

Zone	Area
823	Aft Small Cargo Door

C. Procedure

SUBTASK 52-35-07-720-001

(1) Lift/Latch Manual Drive Test - Open

(a) Make sure the door is closed and latched.

(b) Put the speed wrench or power tool in the lift/latch manual drive port found on the door skin in the middle of the door.

CAUTION

DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR. DO NOT OPERATE THE LIFT/LATCH MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(c) Turn the lift/latch manual drive in the open direction until the door is fully lifted. As the door lifts, do these checks:

1) Make sure there is no binding or sudden change in the applied torque in the manual drive.
2) Make sure there are no unusual noises (cracking or popping) when the door starts or stops.
3) Make sure there is no unusual noise (squealing) as the door opens.

(d) Remove the speed wrench or power too .

SUBTASK 52-35-07-720-002

(2) Hinge Manual Drive Test - Open

NOTE: The hinge manual drive test also tests the hinge power drive unit.

(a) Put the speed wrench or power tool in the hinge manual drive port found on the fuselage skin forward of the door.

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CAUTION

DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR. DO NOT OPERATE THE HINGE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 110 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(b) Turn the hinge manual drive in the open direction until the door is in the fully open position. Do these checks:

1) Make sure the two rotary actuator drive shafts start to move at the same time and are synchronized.

2) Make sure the upper and lower guide rollers smoothly leave the guide tracks and the door does not fall.

3) Make sure there is no binding or sudden change in the applied torque in the manual drive.

SUBTASK 52-35-07-720-003

(3) Hinge Manual Drive Test - Close

(a) Put the speed wrench or power tool in the hinge manual drive port found on the fuselage skin forward of the door.

CAUTION

DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR. DO NOT OPERATE THE HINGE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 110 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(b) Turn the hinge manual drive in the close direction until the door is in the fully closed position and torque limiter slippage can be felt or heard. Do these checks:

1) Make sure the two rotary actuator drive shafts start to move at the same time and are synchronized.

2) Make sure there are no unusual noises (squealing, popping or cracking) as the door closes.

3) Make sure there is no binding or sudden change in the applied torque in the manual drive.

CAUTION

DO NOT TURN THE MANUAL DRIVE IN THE OPEN DIRECTION MORE THAN 1.5 TURNS. IF YOU TURN MORE THAN 1.5 TURNS AFTER THE DOOR IS CLOSED, THE HINGE ARMS CAN BE PRE-LOADED WHEN THE DOOR IS LATCHED AND DAMAGE CAN OCCUR.

(c) Turn the hinge manual drive back toward the open position 1.5 turns.

(d) Remove the speed wrench or power tool

SUBTASK 52-35-07-720-004

(4) Lift/Latch Manual Drive Test - Close

(a) Put the speed wrench or power tool in the lift/latch manual drive port found on the door skin in the middle of the door.

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CAUTION

DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR. DO NOT OPERATE THE LIFT/LATCH MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(b) Turn the lift/latch manual drive in the close direction until the door is in the fully latched position and torque limiter slippage can be felt or heard. Do these checks:

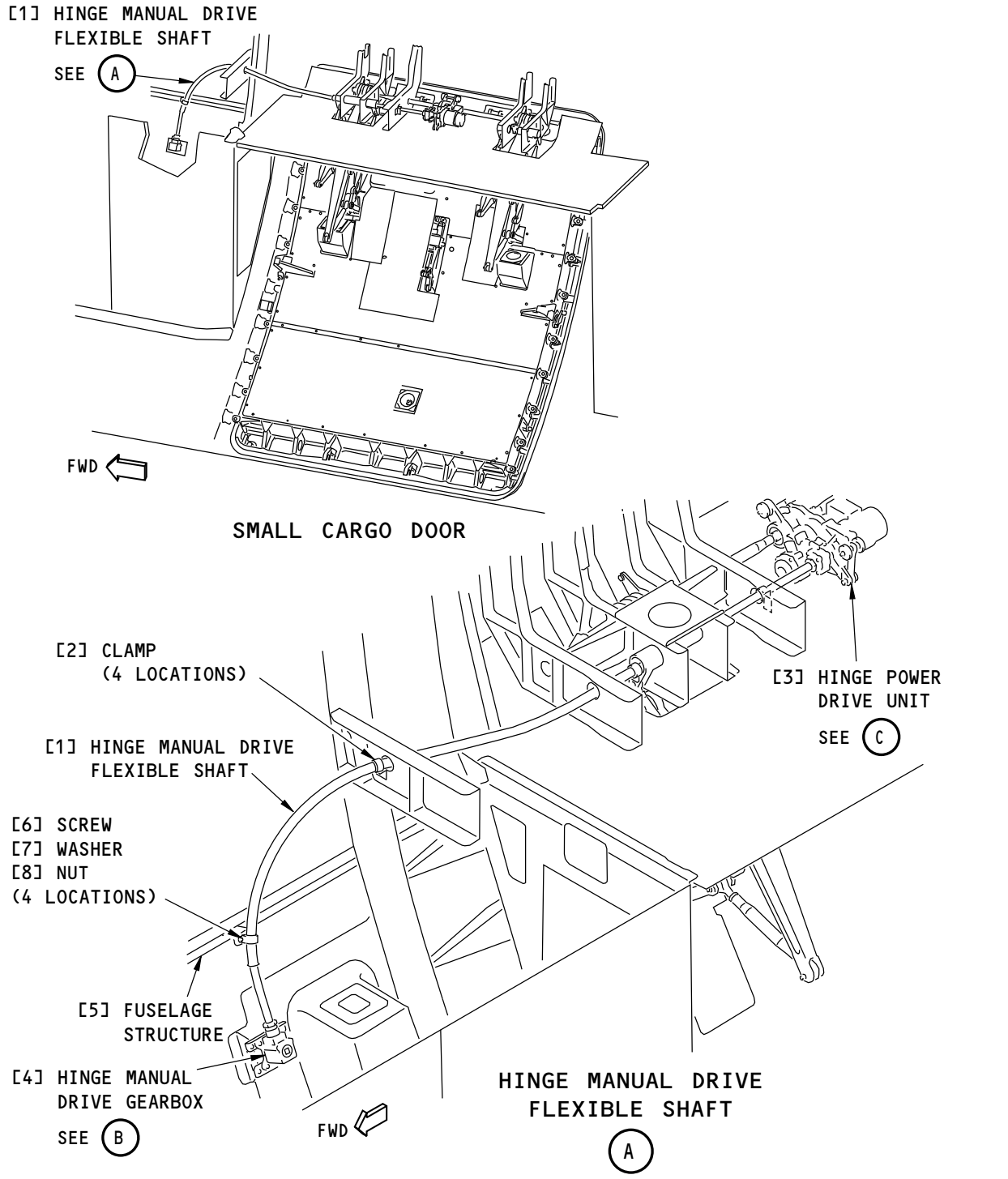
1) Make sure there is no binding or sudden change in the applied torque in the manual drive.
2) Make sure there are no unusual noises (cracking or popping) when the door starts or stops.
3) Make sure there is no unusual noise (squealing) as the door closes.

(c) Make sure the vent door is fully closed.

(d) Remove the speed wrench or power tool .

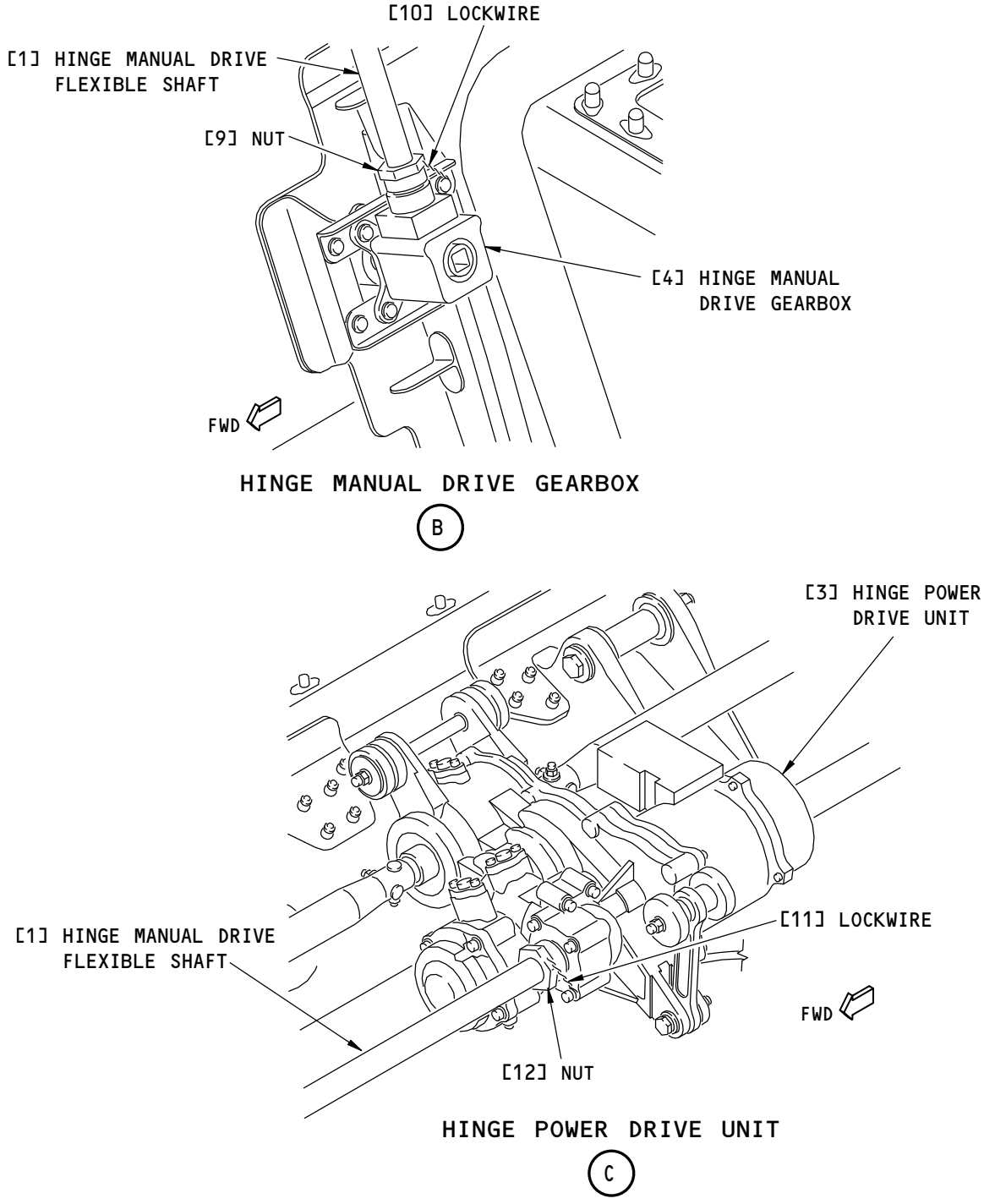
——— END OF TASK ———

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Hinge Manual Drive Flexible Shaft Installation
Figure 201/52-35-07-990-801 (Sheet 1 of 2)

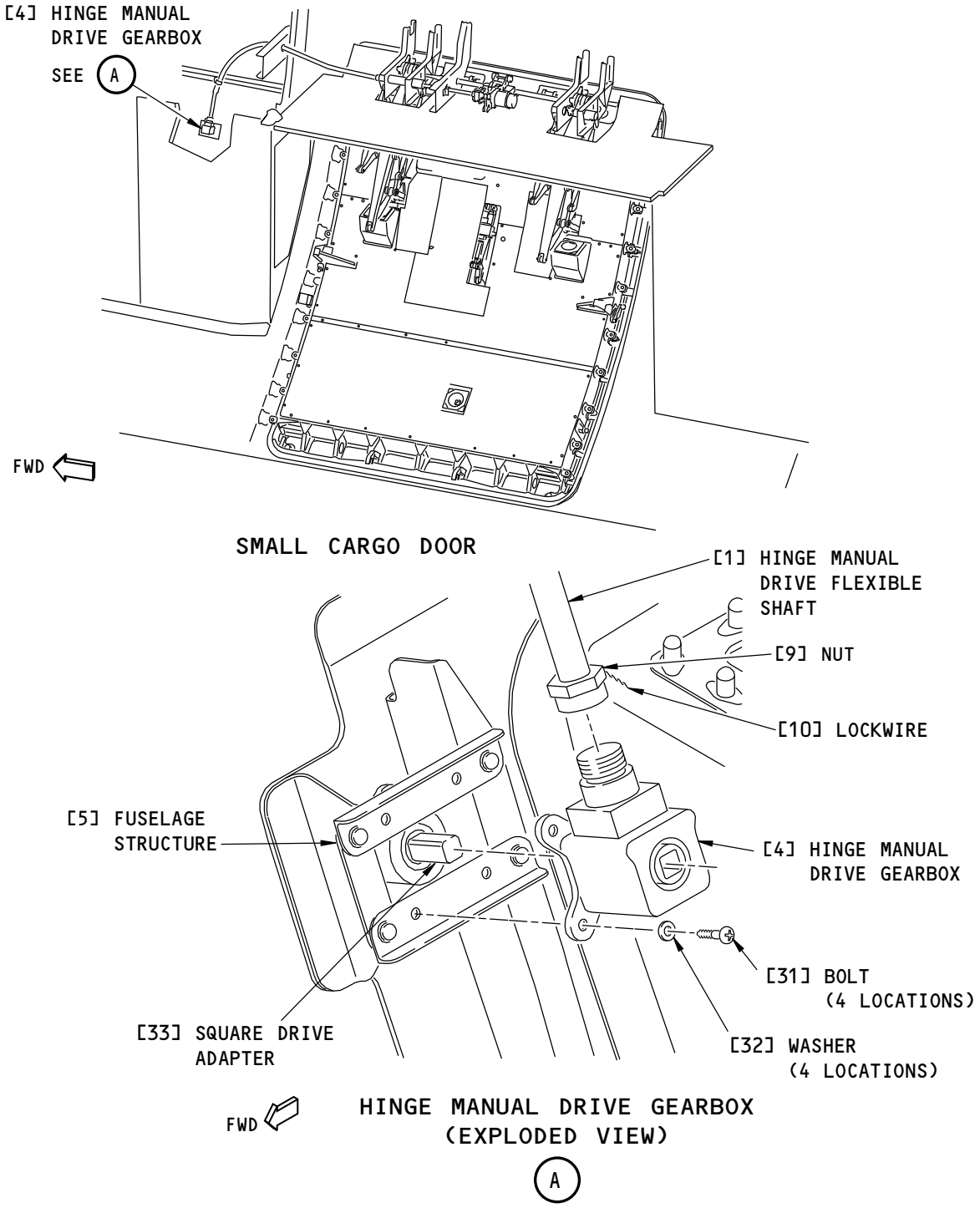
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E92065 S0006425622_V1

Hinge Manual Drive Flexible Shaft Installation
Figure 201/52-35-07-990-801 (Sheet 2 of 2)

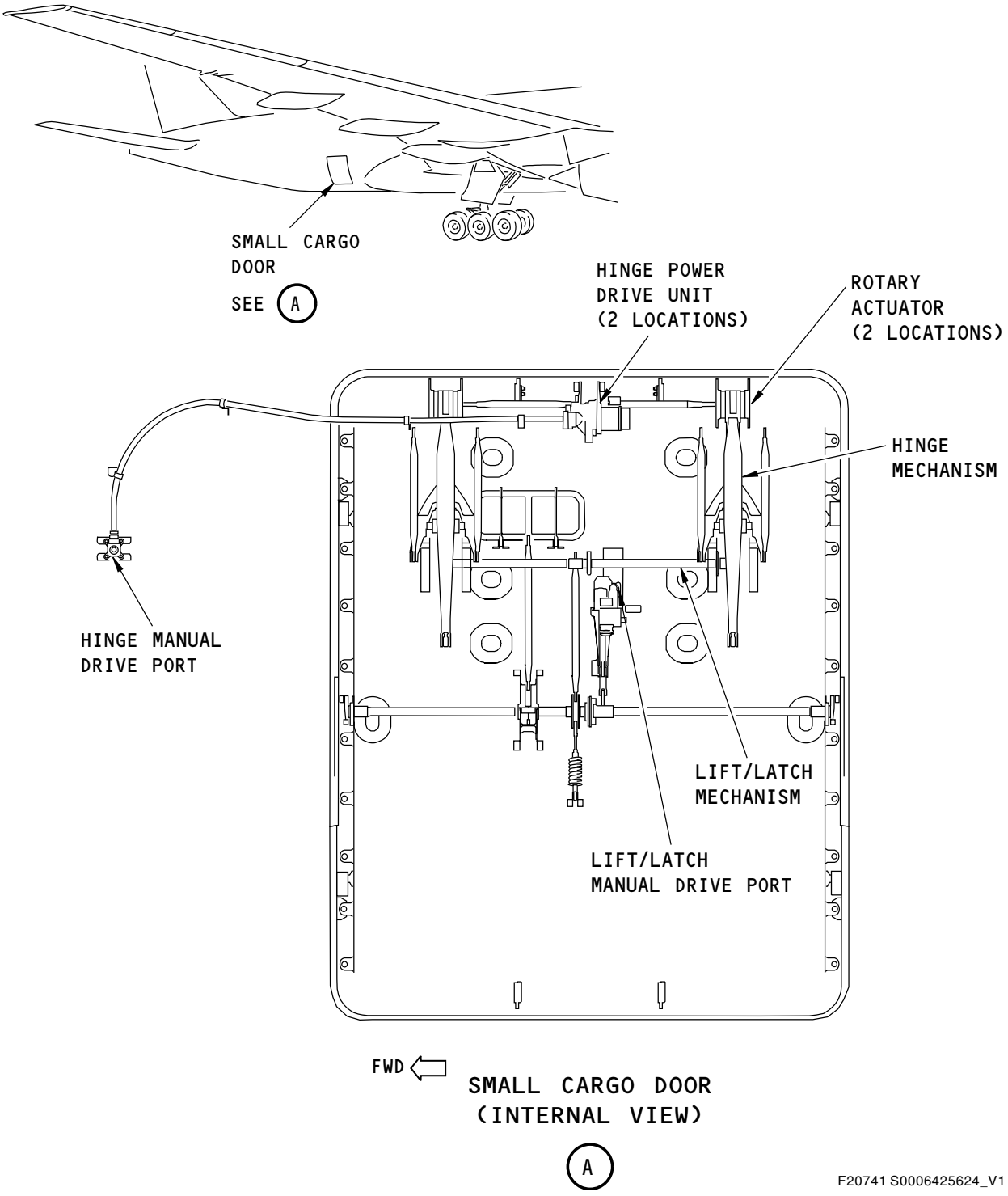
ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



E92092 S0006425623_V1

Hinge Manual Drive Gearbox Installation
Figure 202/52-35-07-990-802

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Small Cargo Door Lift/Latch and Hinge Manual Drives and Hinge Power Drive Unit Operational Test
Figure 203/52-35-07-990-803

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DOOR CONTROL PROXIMITY SENSORS - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) A removal, installation and adjustment of the door control proximity sensors.

B. Refer to Small Cargo Door Warning System - Maintenance Practices for the removal, installation and adjustment of the door indication sensors.

TASK 52-35-10-900-801

2. Door Up Proximity Sensor Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The door up proximity sensor is found on the upper, aft edge of the door cutout and the target is on the hinge arm.

(2) The sensor detects that the door is fully open, removes power to the hinge power drive unit, gives power to the cargo handling system, and turns on the door sill lights.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Sensor	52-35-10-01-060	ARO ALL

D. Location Zones

Zone	Area
823	Aft Small Cargo Door

E. Prepare for the Removal

SUBTASK 52-35-10-010-001

(1) Open the door sufficiently to get access to the sensor [1].

SUBTASK 52-35-10-040-001

(2) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

F. Removal

SUBTASK 52-35-10-000-001

(1) Remove the sensor [1] as follows:

(a) Disconnect the wiring [5] from the sensor [1].

(b) Remove the bolt [7] and washer [8] that attach the sensor [1] to the bracket [6].

(c) Remove the sensor [1].

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G. Installation

SUBTASK 52-35-10-400-001

(1) Install the sensor [1] as follows:

(a) Hold the sensor [1] in its correct position and install the bolt [7] and washer [8] to attach the sensor [1] to the bracket [6].

(b) Connect the wiring [5] to the sensor [1].

H. Adjustment

SUBTASK 52-35-10-440-001

(1) Adjust the sensor [1] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(c) Open the door electrically.

(d) Make sure the door stops automatically when the smallest clearance between the fixed open stops on the rotary actuator [2] is 0.02 in. (0.51 mm) to 0.05 in. (1.27 mm).

(e) Adjust the clearance of the sensor [1] as follows:

1) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

2) Remove the bolt [7] and washer [8] that attach the sensor [1] to the bracket [6].

3) Change the number of laminations of the shim [9] to get the correct clearance.

4) Add or remove the washer [8] between the shim [9] and the bracket [6] to get the correct clearance.

5) Hold the sensor [1] in its correct position and install the bolt [7] and washer [8] to attach the sensor to the bracket [6].

I. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-10-440-002

(1) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

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Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

J. Installation Test

SUBTASK 52-35-10-710-001

(1) Do a test on the sensor [1] as follows:

(a) Operate the door electrically.

(b) Make sure the door opens and closes correctly.

(c) Open the door electrically to the fully open position.

(d) Make sure the door sill lights come on when the door stops in the fully open position.

(e) Make sure the cargo handling system operates when the door is in the fully open position.

(f) Close the door electrically to the approximately 75% open position.

(g) Make sure the cargo handling system does not operate.

——— END OF TASK ———

TASK 52-35-10-900-802

3. Door Lifted Proximity Sensor Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The door lifted proximity sensor is found on the door and the target is on the bungee crank.

(2) The sensor detects that the door is in the fully lifted position (105.5 degree rotation of the latch crank), removes power from the lift/latch power drive unit, and gives power to the hinge power drive unit.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

D. Location Zones

Zone	Area
823	Aft Small Cargo Door

E. Prepare for the Removal

SUBTASK 52-35-10-010-002

(1) Open the door sufficiently to get access to the door lifted proximity sensor [16].

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SUBTASK 52-35-10-010-003

(2) Remove the applicable door lining.

SUBTASK 52-35-10-040-002

(3) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

F. Removal

SUBTASK 52-35-10-000-002

(1) Remove the door lifted proximity sensor [16] as follows:

(a) Disconnect the wiring [24] from the door lifted proximity sensor [16].

(b) Make marks on the serrated plate [48] to show the location of the door lifted proximity sensor [16] for the subsequent installation.

(c) Remove the bolt [17], washer [18], washer [19], and nut [20] that attach the door lifted proximity sensor [16] and the serrated plate [48] to the bracket [22].

(d) Remove the door lifted proximity sensor [16].

G. Installation

SUBTASK 52-35-10-400-002

(1) Install the door lifted proximity sensor [16] as follows:

(a) Hold the door lifted proximity sensor [16] in its correct position and install the bolt [17], washer [18], washer [19], and nut [20] to attach the sensor and the serrated plate [48] to the bracket [22].

(b) Connect the wiring [24] to the door lifted proximity sensor [16].

H. Adjustment

SUBTASK 52-35-10-040-003

(1) Adjust the door lifted proximity sensor [16] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Disconnect the electrical connector from the hinge power drive unit [42].

(c) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

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CAUTION

DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR. DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 110 POUND-INCHES (127 KG-CM). DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(d) Electrically unlatch and lift the door until the lift/ latch power drive unit [43] stops.

(e) Make sure the door has lifted 2.00 ±0.03 in. (50.80 ±0.76 mm) from the closed and latched position.

(f) Make sure the power is removed from the lift/latch power drive unit when the clearance between the lift/latch mechanism drive crank [28] and travel stop [30] is as shown, View C-C (Figure 201).

(g) Adjust the clearance or the alignment of the door lifted proximity sensor [16] as follows:

1) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

2) Remove the bolt [17], washer [18], washer [19], and nut [20] that attach the door lifted proximity sensor [16] and the serrated plate [48] to the bracket [22].

3) Change the number of laminations of the laminated shim [23] to get the correct clearance.

4) Move the serrated plate [48] to get the correct alignment.

NOTE: If you move the door lifted proximity sensor [16] one serration on the serrated plate [48], it changes the door lift by approximately 0.030 in. (0.762 mm).

a) Move the door lifted proximity sensor [16] away from the target [52] (up) to increase the door lift.

b) Move the door lifted proximity sensor [16] closer to the target [52] (down) to decrease the lift.

5) Apply the primer, C00259 to the bare laminations of the laminated shim [23].

6) Bond the laminated shim [23] to the serrated plate [48] with the sealant, A00247.

NOTE: Do not get the sealant, A00247 on the serrations of the serrated plate [48].

7) Apply the corrosion inhibiting material, G50136 to the serrations of the serrated plate [48].

8) Apply the corrosion inhibiting material, G50136 to the bolt [17] that attaches the serrated plate [48] to the bracket [22].

9) Hold the door lifted proximity sensor [16] in its correct position and install the bolt [17], washer [18], washer [19], and nut [20] to attach the sensor and the serrated plate [48] to the bracket [22].

(h) Connect the electrical connector to the hinge power drive unit [42].

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I. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-10-440-008

(1) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-35-10-410-001

(2) Install the door lining.

J. Installation Test

SUBTASK 52-35-10-710-003

(1) Do a test on the door lifted proximity sensor [16] as follows:

(a) Operate the door electrically.

(b) Make sure the door unlatches, lifts, opens, closes, lowers, and latches correctly.

(c) When the door opens, make sure that as the lift/latch power drive unit goes off the hinge power drive unit starts.

——— END OF TASK ———

TASK 52-35-10-900-803

4. Door Latched Proximity Sensor Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The door latched proximity sensor is found on the on the door and the target is on the bungee crank.

(2) The sensor detects that the door is fully latched and removes power from the lift/latch power drive unit.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

D. Location Zones

Zone	Area
823	Aft Small Cargo Door

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E. Prepare for the Removal

SUBTASK 52-35-10-010-004

(1) Open the door sufficiently to get access to the door latched proximity sensor [11].

SUBTASK 52-35-10-010-005

(2) Remove the applicable door lining.

SUBTASK 52-35-10-040-005

(3) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

F. Removal

SUBTASK 52-35-10-000-003

(1) Remove the door latched proximity sensor [11] as follows:

(a) Disconnect the wiring [25] from the door latched proximity sensor [11].

(b) Make marks on the serrated plate [26] to show the location of the door latched proximity sensor [11] for the subsequent installation.

(c) Remove the bolt [12], washer [13], washer [14], and nut [15] that attach the door latched proximity sensor [11] and the serrated plate [26] to the bracket [21].

(d) Remove the door latched proximity sensor [11].

G. Installation

SUBTASK 52-35-10-400-003

(1) Install the door latched proximity sensor [11] as follows:

(a) Hold the door latched proximity sensor [11] in its correct position and install the bolt [12], washer [13], washer [14], and nut [15] to attach the sensor and the serrated plate [26] to the bracket [21].

(b) Connect the wiring [25] to the door latched proximity sensor [11].

H. Adjustment

SUBTASK 52-35-10-440-009

(1) Adjust the door latched proximity sensor [11] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

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(c) Electrically latch and unlatch the door until the lift/ latch power drive unit [43] stops.

(d) Operate the lift/latch mechanism five times.

1) Measure the clearance between the lift/latch mechanism drive crank [28] and travel stop [30] after each operation (View C-C, Figure 201).

2) Make sure that the clearance is 0.09 in. (2.29 mm).

(e) Make sure the power is removed from the lift/ latch power drive unit [43] when the clearance between the lift/latch mechanism drive crank [28] and travel stop [30] is between 0.05 in. (1.27 mm) to 0.20 in. (5.08 mm).

(f) Adjust the clearance or the alignment of the door latched proximity sensor [11] as follows:

1) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

2) Remove the bolt [12], washer [13], washer [14], and nut [15] that attach the door latched proximity sensor [11] and the serrated plate [26] to the bracket [21].

3) Change the number of laminations of the laminated shim [27] to get the correct clearance.

4) Move the serrated plate [26] to get the correct alignment.

NOTE: If you move the door latched proximity sensor [11] one serration on serrated plate [26] the travel stop clearance is changed by approximately 0.030 in. (0.762 mm).

5) Move the door latched proximity sensor [11] away from the target [10] (outboard) to lower the door in the latch direction.

NOTE: If you move the door latched proximity sensor [11] outboard, it will lower the door more than if you move the sensor inboard.

6) Apply the primer, C00259 to the bare laminations of the shim [27].

7) Bond the shim [27] to the serrated plate [26] with the sealant, A00247.

8) Do not get the sealant, A00247 on the serrations of the serrated plate [26].

9) Apply the corrosion inhibiting material, G50136 to the serrations of the serrated plate [26].

10) Apply the corrosion inhibiting material, G50136 to the bolt [12] that attach the serrated plate [26] to the bracket [21].

11) Hold the door latched proximity sensor [11] in its correct position and install the bolt [12], washer [13], washer [14], and nut [15] to attach the sensor and the serrated plate [26] to the bracket [21].

I. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-10-410-002

(1) Install the door lining.

END OF TASK

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TASK 52-35-10-900-804

5. Door Down Proximity Sensor Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The door down proximity sensor is found on the forward edge of the door and the target is on the door cutout.

(2) The sensor detects that the door is in the closed position, removes power from the hinge power drive unit, and gives power to the lift/latch power drive unit.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
31	Sensor	52-35-10-02-140	ARO ALL

E. Location Zones

Zone	Area
823	Aft Small Cargo Door

F. Prepare for the Removal

SUBTASK 52-35-10-010-006

(1) Open the door sufficiently to get access to the sensor [31].

SUBTASK 52-35-10-040-006

(2) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

G. Removal

SUBTASK 52-35-10-000-004

(1) Remove the sensor [31] as follows:

(a) Disconnect the wiring [33] from the sensor [31].

(b) Remove the bolt [36], washer [37], washer [38], and nut [39] that attach the sensor [31] to the bracket [40].

(c) Remove the sensor [31].

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H. Installation

SUBTASK 52-35-10-400-004

(1) Install the sensor [31] as follows:

(a) Hold the sensor [31] in its correct position and install the bolt [36], washer [37], washer [38], and nut [39] to attach the sensor to the bracket [40].

(b) Connect the wiring [33] to the sensor [31].

I. Adjustment

SUBTASK 52-35-10-440-005

(1) Adjust the sensor [31] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Make sure the door is in the fully lifted and partially open position.

(c) Disconnect the electrical connector from the lift/ latch power drive unit [43].

(d) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

CAUTION DO NOT LET THE ROTARY ACTUATOR OPERATE WITH TORQUE LIMITER MOVEMENT FOR MORE THAN 5 SECONDS. DAMAGE TO THE ROTARY ACTUATOR CAN OCCUR.

(e) Electrically close the door until the hinge power drive unit stops.

(f) Push on the bottom of the door and continue to electrically close the door until the lower guide rollers [50] touch the inboard surfaces of the lower guide tracks [51].

(g) Make sure that when you close the door electrically the hinge power drive unit stops without torque limiter slippage.

(h) Make sure the clearance between the sensor [31] and the target [34] when the forward lower guide roller [50] touches the lower guide track [51] is as shown, View D-D (Figure 201).

(i) Connect the electrical connector to the lift/ latch power drive unit [43].

(j) Electrically lower and latch the door.

(k) Make the wedges from 0.16 x 0.02 x 6.00 inch (4.064 x 0.508 x 152.2 mm) tapered shim stock 0.90 in. (22.86 mm) wide.

(l) Install wedges at the two stop fittings below the lower guide roller [50] to make sure that the lower guide roller [50] touch the inboard surfaces of the lower guide track [51].

(m) Make sure the clearance between the sensor [31] and the target [34] when the forward lower guide roller [50] touches the lower guide track [51] is as shown on View D-D Figure 201.

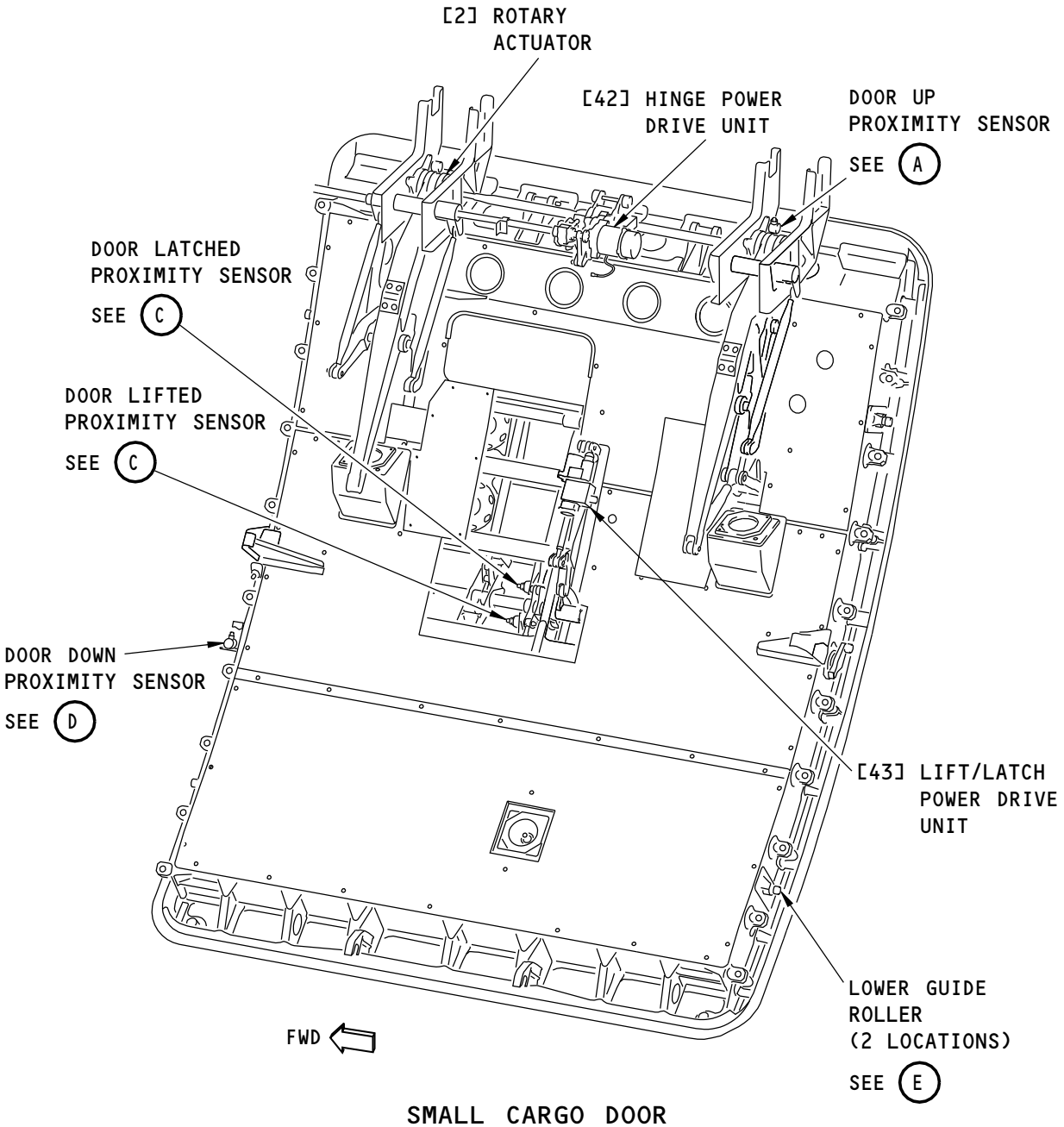
(n) Adjust the clearance of the sensor [31] as follows:

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1) Remove the screw [44], washer [45], nut [46] to remove the target [34] from the bracket [47] on the door cutout.
2) Change the number of laminations of the laminate shim [35] under the target [34] to get the correct clearance.
3) Apply the sealant, A00247 to the mating surfaces of the laminate shim [35] and target [34] to make a fay surface seal.
4) Install the screw [44], washer [45], and nut [46] to attach the target [34] to the bracket [47].

——— END OF TASK ———

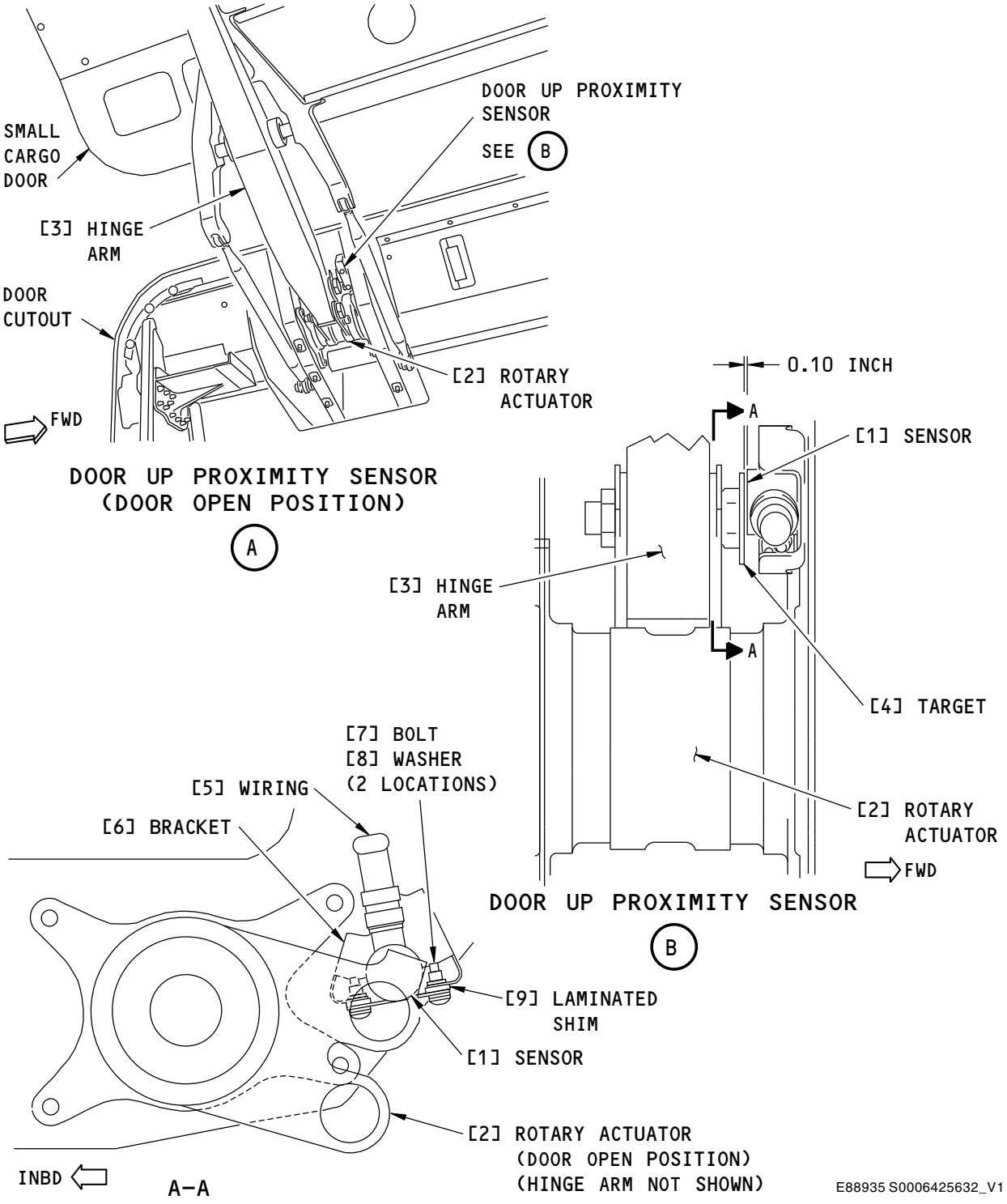
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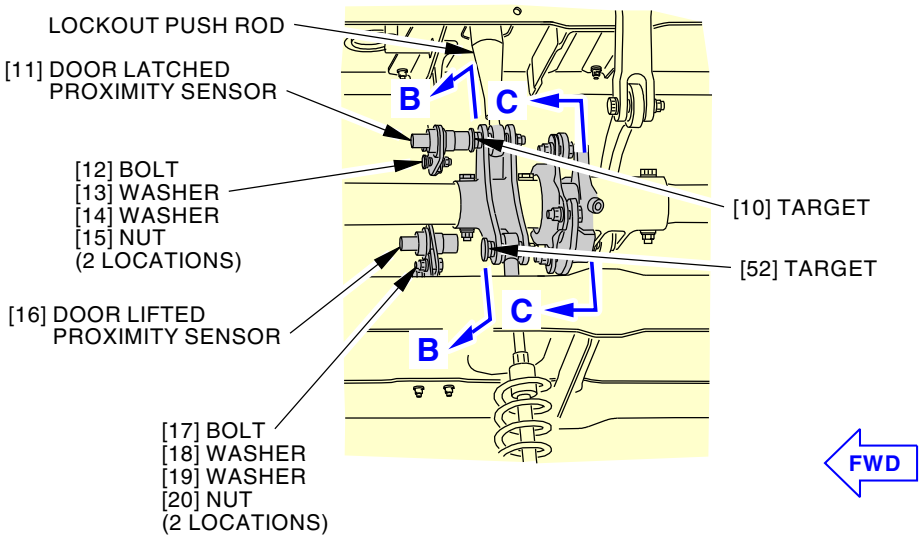
Door Control Proximity Sensors
Figure 201/52-35-10-990-801 (Sheet 1 of 5)

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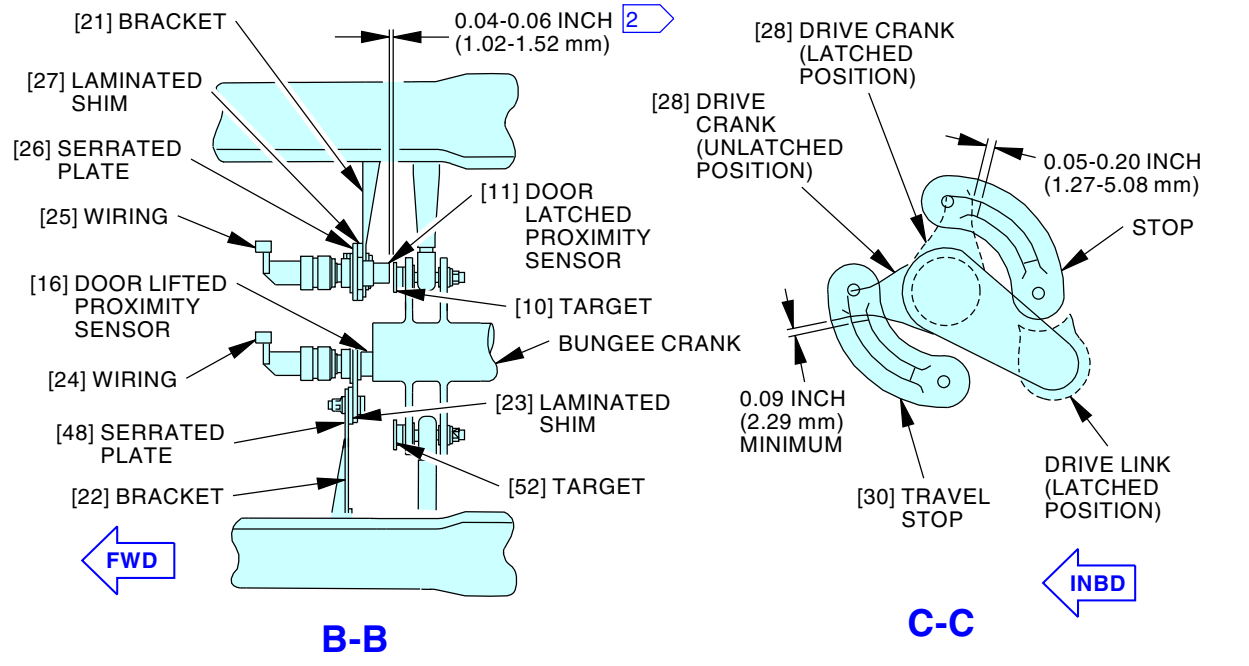
Door Control Proximity Sensors
Figure 201/52-35-10-990-801 (Sheet 2 of 5)

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DOOR LIFTED AND DOOR LATCHED PROXIMITY SENSORS

C 1



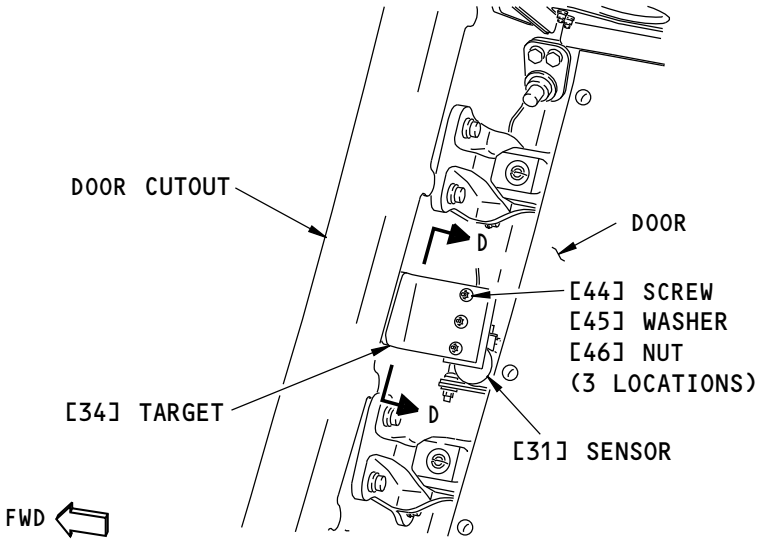
1 THE INSTALLATION OF THE DOOR LATCHED AND THE DOOR LIFTED PROXIMITY IS THE SAME.

2 CLEARANCE BETWEEN SENSOR AND TARGET IS THE SAME FOR DOOR LATCHED AND DOOR LIFTED PROXIMITY SENSORS.

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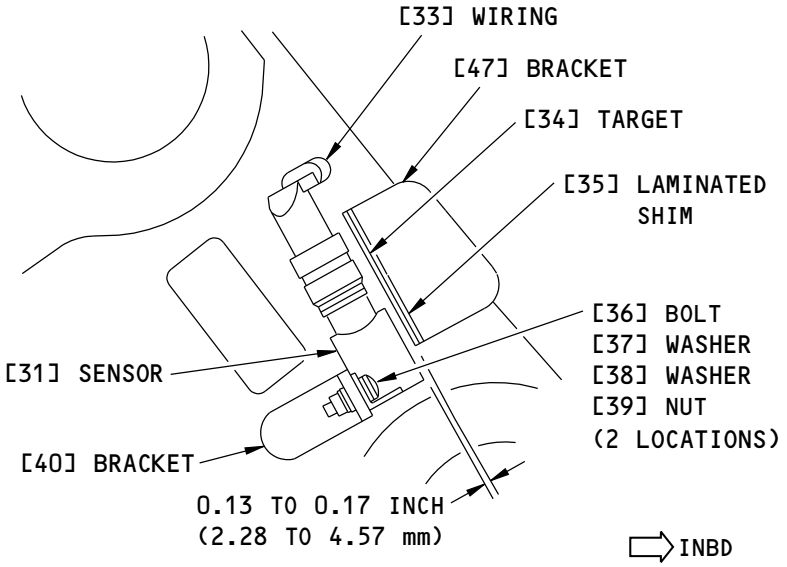
Door Control Proximity Sensors
Figure 201/52-35-10-990-801 (Sheet 3 of 5)

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DOOR DOWN PROXIMITY SENSOR

D

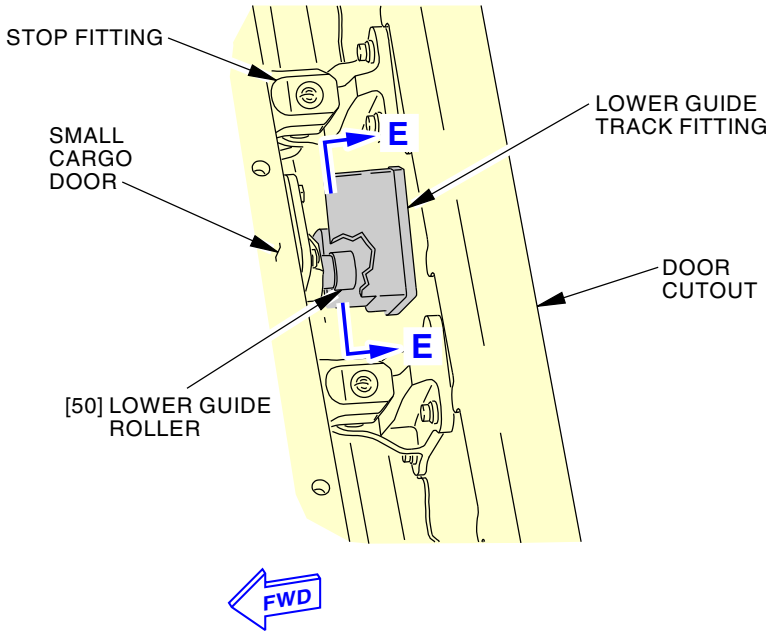


D–D

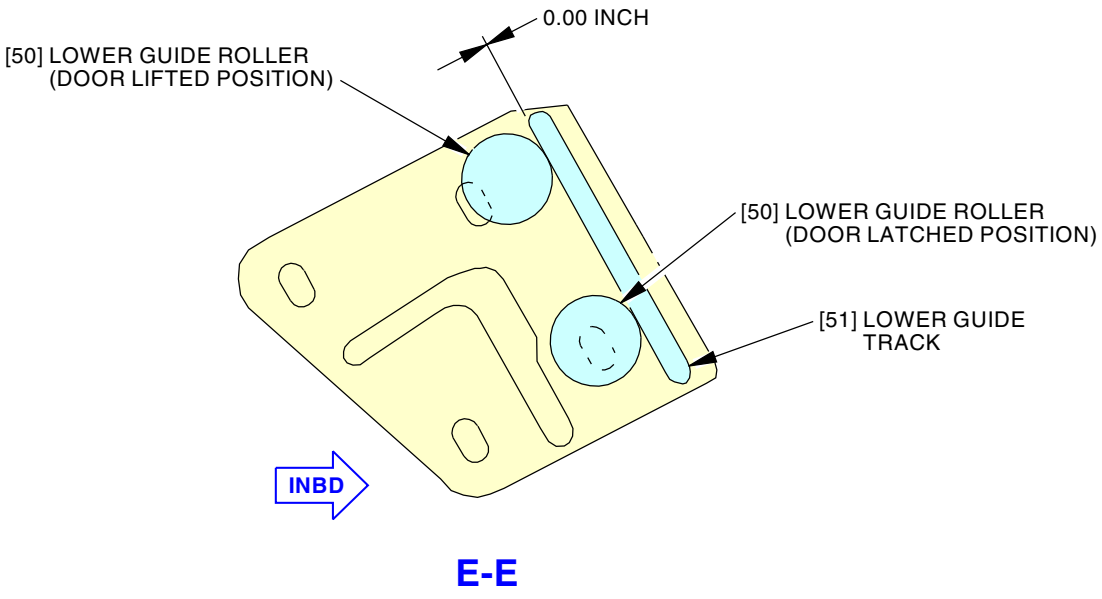
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Door Control Proximity Sensors
Figure 201/52-35-10-990-801 (Sheet 4 of 5)

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LOWER GUIDE ROLLER (EXAMPLE)



E88033 S0006425637_V2

Door Control Proximity Sensors
Figure 201/52-35-10-990-801 (Sheet 5 of 5)

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DOOR CONTROL SWITCHES - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the external cargo door control switch.

(2) An installation of the external cargo door control switch.

B. The external cargo door control panel is referred to as the panel assembly [1] in this procedure.

C. The external cargo door control switch is referred to as the switch [8] in this procedure.

D. The external cargo door control switch and the external cargo door control arming switch are found on the external cargo door control panel, P44.

Table 401/52-35-22-993-801

EXTERNAL CARGO DOOR CONTROL SWITCHES	
SWITCH	**NAME**
S52015	External Cargo Door Control Switch
S52016	External Cargo Door Control Arming Switch

TASK 52-35-22-000-801

2. External Cargo Door Control Switch Removal

(Figure 401)

A. Location Zones

Zone	Area
823	Aft Small Cargo Door

B. Access Panels

Number	Name/Location
152AR	Aft Cargo Door Control Door

C. Prepare for the Removal

SUBTASK 52-35-22-860-001

(1) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-35-22-010-001

(2) Open this access panel:

Number	Name/Location
152AR	Aft Cargo Door Control Door

D. Removal

SUBTASK 52-35-22-020-001

(1) Remove the switches [8] as follows:

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(a) Remove the screws [2], washers [3], and nuts [4] that attach the panel assembly [1] to the pan [5].

(b) Pull the panel assembly [1] from the pan [5] to get access to the switches [8].

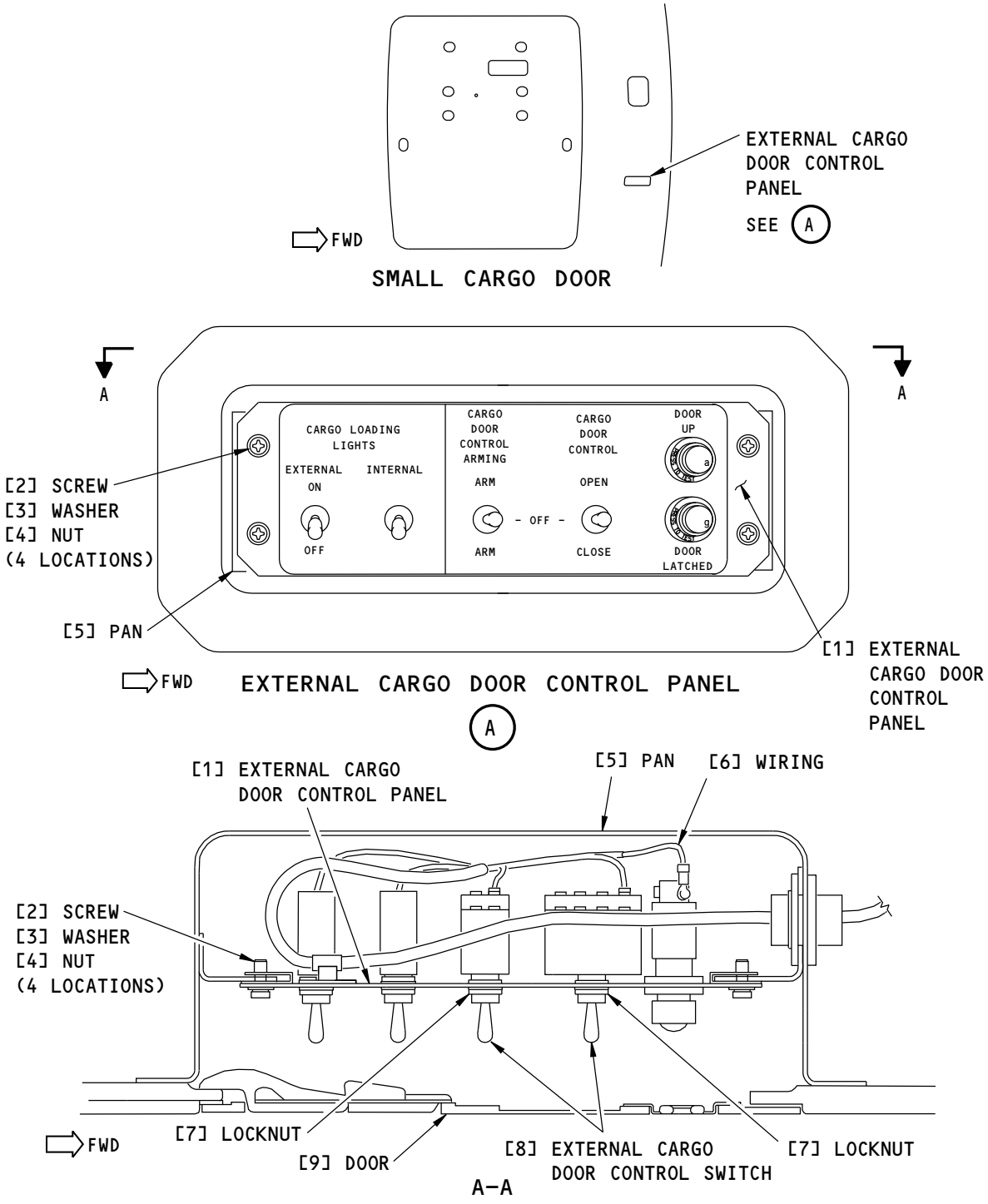
(c) Disconnect the wiring [6] from the switches [8].

(d) Loosen and remove the locknuts [7] from the front of the switches [8].

(e) Pull the switches [8] out from the rear of the panel assembly [1].

——— END OF TASK ———

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E89968 S0006425643_V1

External Cargo Door Control Switch Installation
Figure 401/52-35-22-990-802

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TASK 52-35-22-400-801

3. External Cargo Door Control Switch Installation

(Figure 401)

A. References

Reference	Title
52-35-00-720-801	Aft Small Cargo Door System Test (P/B 501)
SWPM 20-20-00	Standard Wiring Practices Manual

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in Class I, Divisions I & II hazardous (classified) locations. Outside these hazardous locations, COM-614 can be used in lieu of COM-1550). Part #: 620LK Supplier: 1CRL2 Part #: M1 Supplier: 3AD17 Part #: T477W Supplier: 01014 Opt Part #: M1B Supplier: 3AD17

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00064	Coating - Aluminum Chemical Conversion	BAC5719 Type II Class A (MIL-DTL-5541 Class 1A)

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Panel assembly	52-71-02-01-080	ARO 001-016
8	Switch	52-71-04-05-005	ARO ALL

E. Location Zones

Zone	Area
823	Aft Small Cargo Door

F. Access Panels

Number	Name/Location
152AR	Aft Cargo Door Control Door

G. Installation

SUBTASK 52-35-22-420-001

(1) Install the switches [8] in the panel assembly [1] as follows:

(a) Put the switches [8] through the panel assembly [1] in its correct position.

(b) Install the locknuts [7] on the switches from the front of the panel assembly [1].

(c) Tighten the locknuts [7].

(d) Connect the wiring [6] to the switches [8].

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SUBTASK 52-35-22-420-002

(2) Install the panel assembly [1] on the pan [5] as follows:

(a) Clean the pan [5] and panel assembly [1] of all unwanted material.

(b) Apply the coating, C00064 to the mating surfaces between the washers [3] and panel assembly [1].

(c) Put the panel assembly [1] in its correct position on the pan [5].

(d) Install the screws [2], washers [3], and nuts [4] to attach the panel assembly [1] to the pan [5].

(e) Use the intrinsically safe approved bonding meter, COM-1550 to do a resistance check between the panel assembly [1] and the pan [5].

1) Make sure the resistance is not more than 0.0025 ohm. Refer to Electrical Bonding and Grounding (SWPM 20-20-00).

(f) Make a fillet seal on the screws [2] and washers [3] with the sealant, A00247.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-22-860-002

(1) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

I. Installation Test

SUBTASK 52-35-22-710-001

(1) Do a test on the external cargo door control switch as follows:

(a) Do this task: Aft Small Cargo Door System Test, TASK 52-35-00-720-801.

NOTE: Only do the External Cargo Door Control Switch Test.

SUBTASK 52-35-22-710-002

(2) Close this control door (9):

Number	Name/Location
152AR	Aft Cargo Door Control Door

——— END OF TASK ———

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SMALL AFT CARGO DOOR WIRE BUNDLE - MAINTENANCE PRACTICES

1. General

A. This procedure has this task:

(1) Removal, installation, and adjustment of the small aft cargo door wire bundle.

TASK 52-35-23-900-801

2. Small Aft Cargo Door Wire Bundle - Removal, Installation, and Adjustment

(Figure 201)

A. References

Reference	Title
24-22-00-860-806	Remove Electrical Power (P/B 201)
52-35-00-860-801	Open the Aft Small Cargo Door Electrically (P/B 201)
52-35-00-860-802	Close the Aft Small Cargo Door Electrically (P/B 201)

B. Location Zones

Zone	Area
823	Aft Small Cargo Door

C. Prepare for the Removal

SUBTASK 52-35-23-010-001

(1) Do this task: Open the Aft Small Cargo Door Electrically, TASK 52-35-00-860-801.

SUBTASK 52-35-23-860-002

(2) Do this task:Remove Electrical Power, TASK 24-22-00-860-806

D. Removal

SUBTASK 52-35-23-020-001

(1) Remove the wire bundle [7] as follows:

(a) Remove the screws [3], washers [4], nuts [5], and clamps [2], [6] that attach the wire bundle [7] to the door.

(b) Disconnect the electrical connectors [1].

(c) Remove the wire bundle [7].

E. Prepare for the Installation

SUBTASK 52-35-23-840-001

(1) With the wire bundle [7] straight, make a permanent mark on the wire bundle 8.5 ± 0.1 inches (216 ± 3 mm) from the backshell of the inboard electrical connector [1].

F. Installation

SUBTASK 52-35-23-420-001

(1) Install the wire bundle [7] as follows:

(a) Install the wire bundle [7], clamps [2], [6], screws [3], washers [4], and nuts [5], but do not tighten the nuts.

(b) Connect the electrical connectors [1].

G. Adjustment

SUBTASK 52-35-23-820-001

(1) Adjust the position of the wire bundle [7] as follows:

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(a) Move the wire bundle [7] so the permanent mark aligns with the inboard face of the inboard clamp [2] as shown, View A (Figure 201).

(b) Tighten the nut [5] for the inboard clamp [2] to hold the wire bundle [7] in the correct position.

(c) Tighten the nuts [5] for the remaining clamps [2], [6].

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-35-23-440-001

(1) Do this task: Close the Aft Small Cargo Door Electrically, TASK 52-35-00-860-802.

I. Operational Test

SUBTASK 52-35-23-710-001

(1) Do a test on the aft small cargo door as follows:

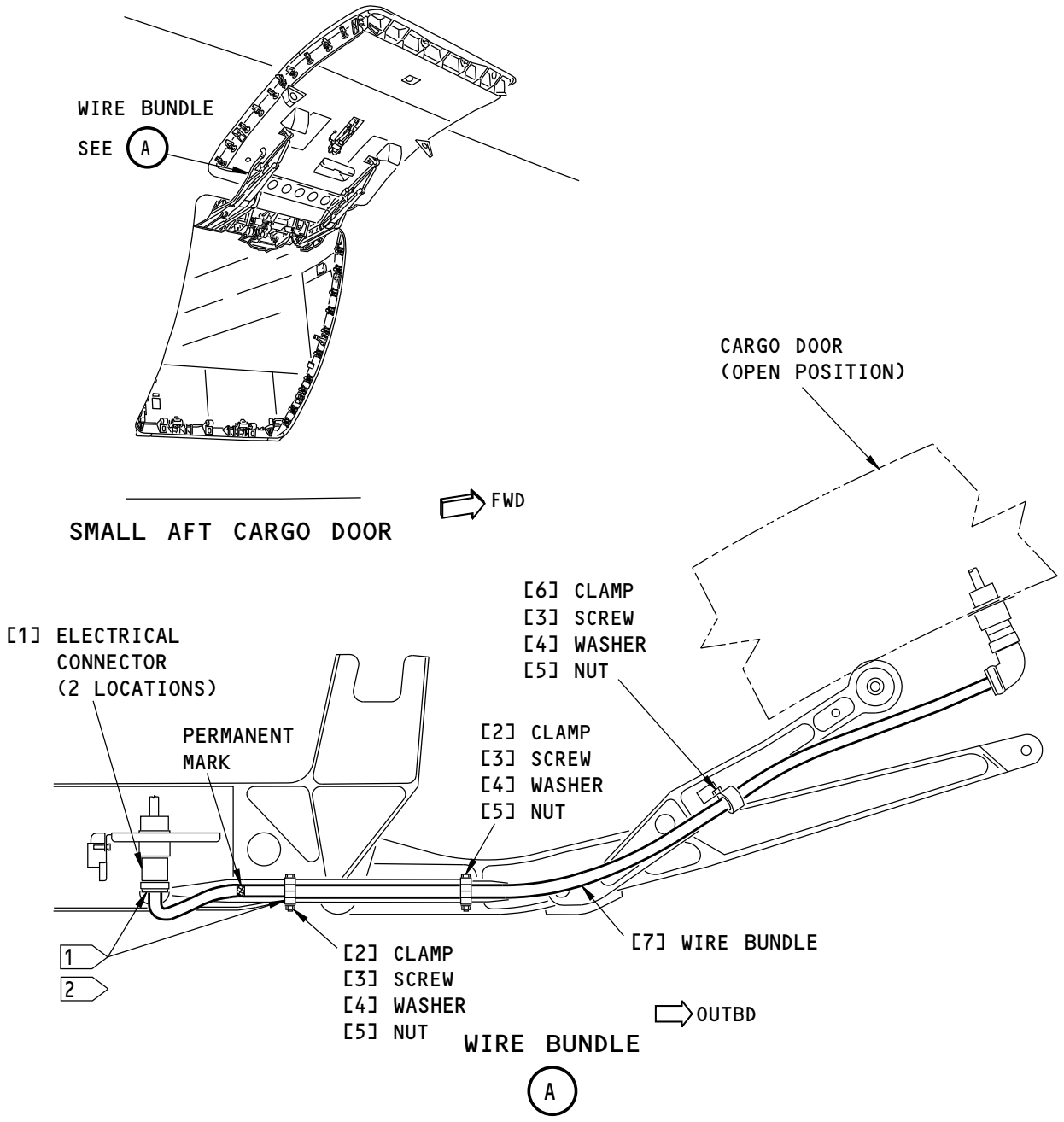
(a) Open the Aft Small Cargo Door Electrically, TASK 52-35-00-860-801

(b) Close the Aft Small Cargo Door Electrically, TASK 52-35-00-860-802

(2) Make sure the Aft Small Cargo Door opens and closes correctly.

——— END OF TASK ———

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1 THE DIMENSION FROM THE INBOARD FACE OF THE CLAMP TO THE CONNECTOR BACKSHELL IS 8.5 ±0.1 INCHES (216 ±3 mm)

2 DISCONNECT THE CONNECTOR AND MAKE THE WIRE BUNDLE STRAIGHT TO MEASURE THE DIMENSION

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Small Aft Cargo Door Wire Bundle Installation
Figure 201/52-35-23-990-801

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BULK CARGO DOOR - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) Open the door.

(2) Close the door.

TASK 52-36-00-860-801

2. Open the Door

(Figure 201)

A. Location Zones

Zone	Area
825	Bulk Cargo Door

B. Procedure

SUBTASK 52-36-00-860-001

CAUTION

DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. STRONG WINDS CAN CAUSE DAMAGE TO THE STRUCTURE OF THE AIRPLANE.

(1) Pull the exterior handle from the recess in the door.

SUBTASK 52-36-00-860-002

(2) Turn the handle to unlatch the door and hold in this position to make sure the latch mechanism is clear of the fuselage structure.

SUBTASK 52-36-00-860-003

(3) Release the handle and push the door inboard and up.

SUBTASK 52-36-00-860-004

(4) Detach the strap from the cargo compartment ceiling and attach to the lower stop fitting on the door.

——— END OF TASK ———

TASK 52-36-00-860-802

3. Close the Door

(Figure 201)

A. Location Zones

Zone	Area
825	Bulk Cargo Door

B. Procedure

SUBTASK 52-36-00-860-005

CAUTION

DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. STRONG WINDS CAN CAUSE DAMAGE TO THE STRUCTURE OF THE AIRPLANE.

(1) Remove the strap from the lower stop fitting and attach to the cargo compartment ceiling.

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SUBTASK 52-36-00-860-006

(2) Pull the exterior handle from the recess in the door.

SUBTASK 52-36-00-860-007

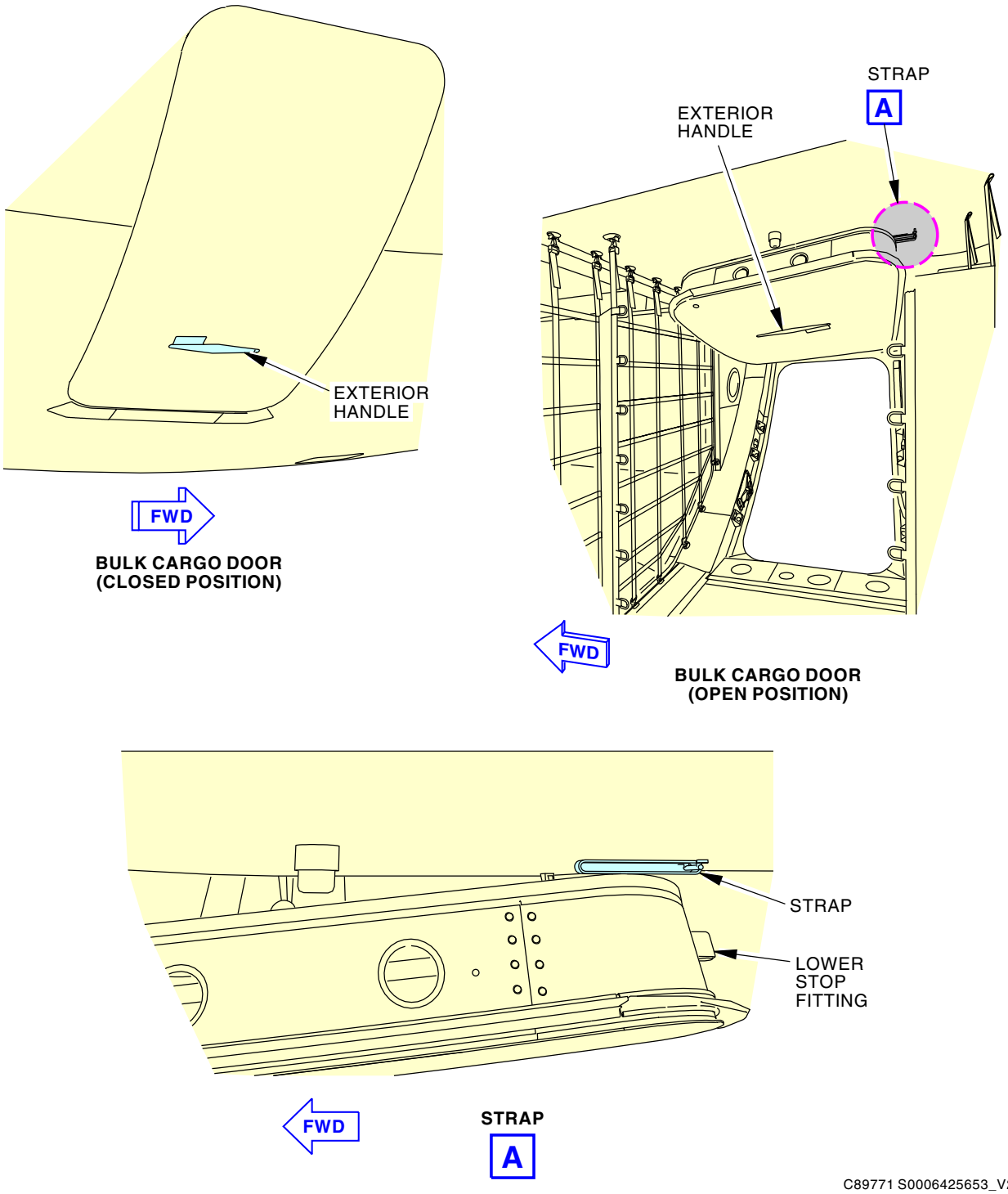
(3) Pull the door closed and turn the handle to make sure the latch mechanism is clear of the fuselage structure.

SUBTASK 52-36-00-860-008

(4) Release the handle to latch the door.

END OF TASK

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Bulk Cargo Door
Figure 201/52-36-00-990-801

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BULK CARGO DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the bulk cargo door.

(2) An installation of the bulk cargo door.

TASK 52-36-01-000-801

2. Bulk Cargo Door Removal

(Figure 401)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1563	Hoist - Fishpole (cable), minimum 500 lb capacity Part #: 10/3641 Supplier: K1425 Part #: PF51-003-1 Supplier: 1YRX6 Part #: PF51-009-1 Supplier: 1YRX6 Opt Part #: MINILIFT Supplier: K1425
SPL-1984	Sling - Door, Bulk Cargo Part #: J52002-26 Supplier: 81205 Opt Part #: J52002-1 Supplier: 81205
SPL-1996	Barrier - Safety, Bulk Cargo Door Part #: J52020-1 Supplier: 81205
STD-1164	Safety Pin - Counterbalance Mechanism, 3/8 Inch Diameter, 2 1/4 Inch Length, and Nut

B. Location Zones

Zone	Area
825	Bulk Cargo Door

C. Prepare for the Removal

SUBTASK 52-36-01-010-001

(1) Get access to the door assembly [4] as follows:

(a) Open the door.

(b) Go into the bulk cargo compartment.

(c) Close the door.

(d) Remove the applicable lining above the door assembly [4] to get access to the hinge arms.

SUBTASK 52-36-01-480-001

(2) Install the bulk cargo door sling, SPL-1984 as follows:

(a) Install the bulk cargo door sling, SPL-1984 and the cable fishpole hoist, COM-1563 on the counterbalance mechanism.

(b) Install the safety pin, STD-1164 in the counterbalance.

(c) Open the door a small distance until the load is removed from the counterbalance mechanism control rod.

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(d) Attach the bulk cargo door sling, SPL-1984 to the door assembly [4].

(e) Use the bulk cargo door sling, SPL-1984 to hold the weight of the door assembly [4].

D. Removal

SUBTASK 52-36-01-020-001

(1) Disconnect the counterbalance mechanism [1] as follows:

(a) Remove the bolt [11], washer [12], washer [14], bushing [13], and nut [15] that attach the counterbalance mechanism [1] to the forward hinge arm [3].

SUBTASK 52-36-01-020-002

(2) Disconnect the snubber [2] from the fuselage structure [5] as follows:

(a) Remove the bolt [6], washer [7], washers [9], bushing [8], and nut [10] that attach the snubber [2] to the fuselage structure [5].

(b) Secure the snubber [2] to the door assembly [4] so that it cannot move.

SUBTASK 52-36-01-020-003

(3) Disconnect the hinge arms [3] from the fuselage structure [5] as follows:

(a) Remove the bolts [16], washers [17], washers [18], washers [19] or washers [20], bushings [21], washers [22], and nuts [23] that connect the hinge arm [3] to the fuselage structure [5].

SUBTASK 52-36-01-020-004

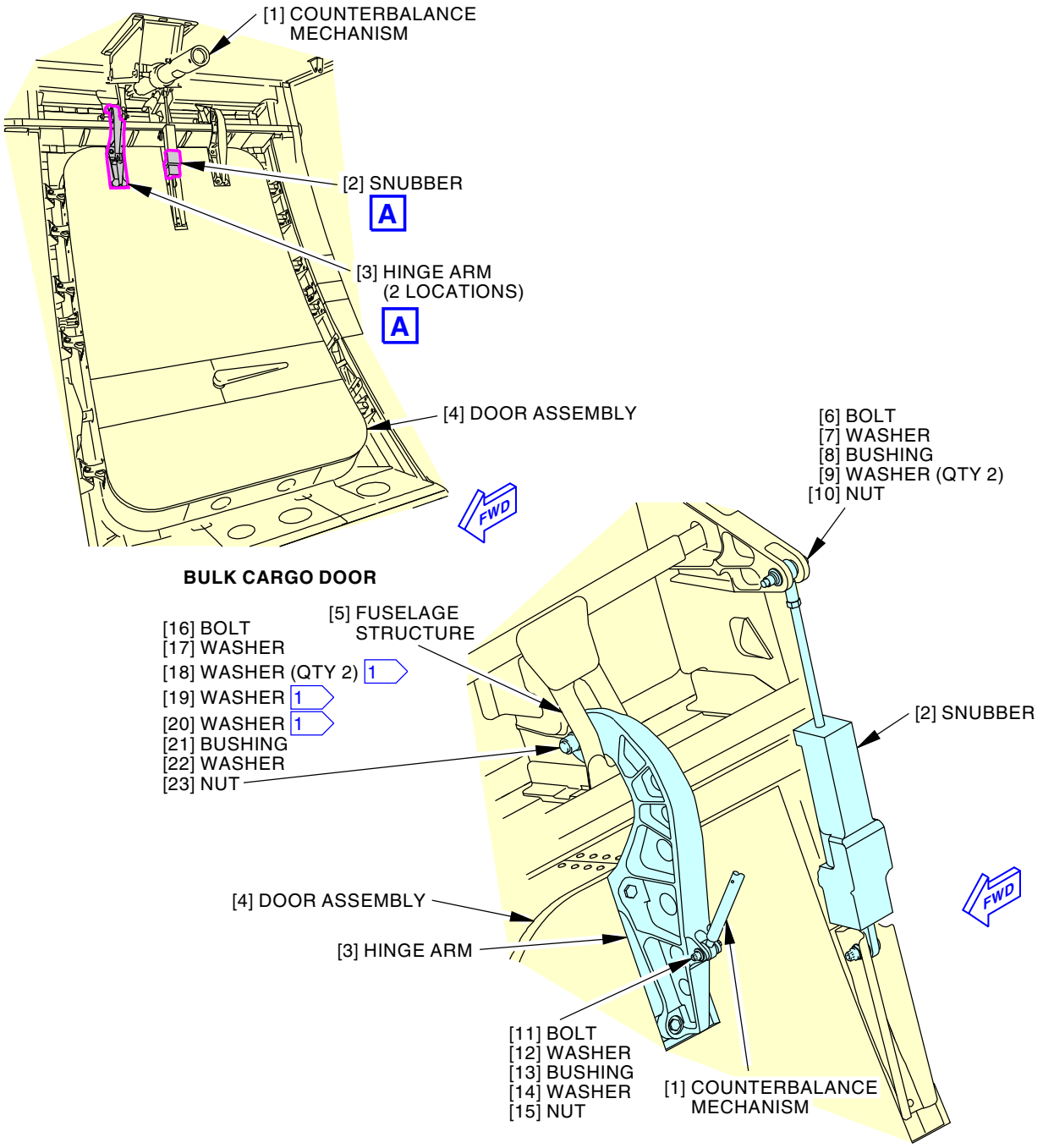
(4) Carefully remove the door assembly [4] from the fuselage structure [5].

SUBTASK 52-36-01-480-002

(5) Install the bulk cargo door safety barrier, SPL-1996 across the door opening.

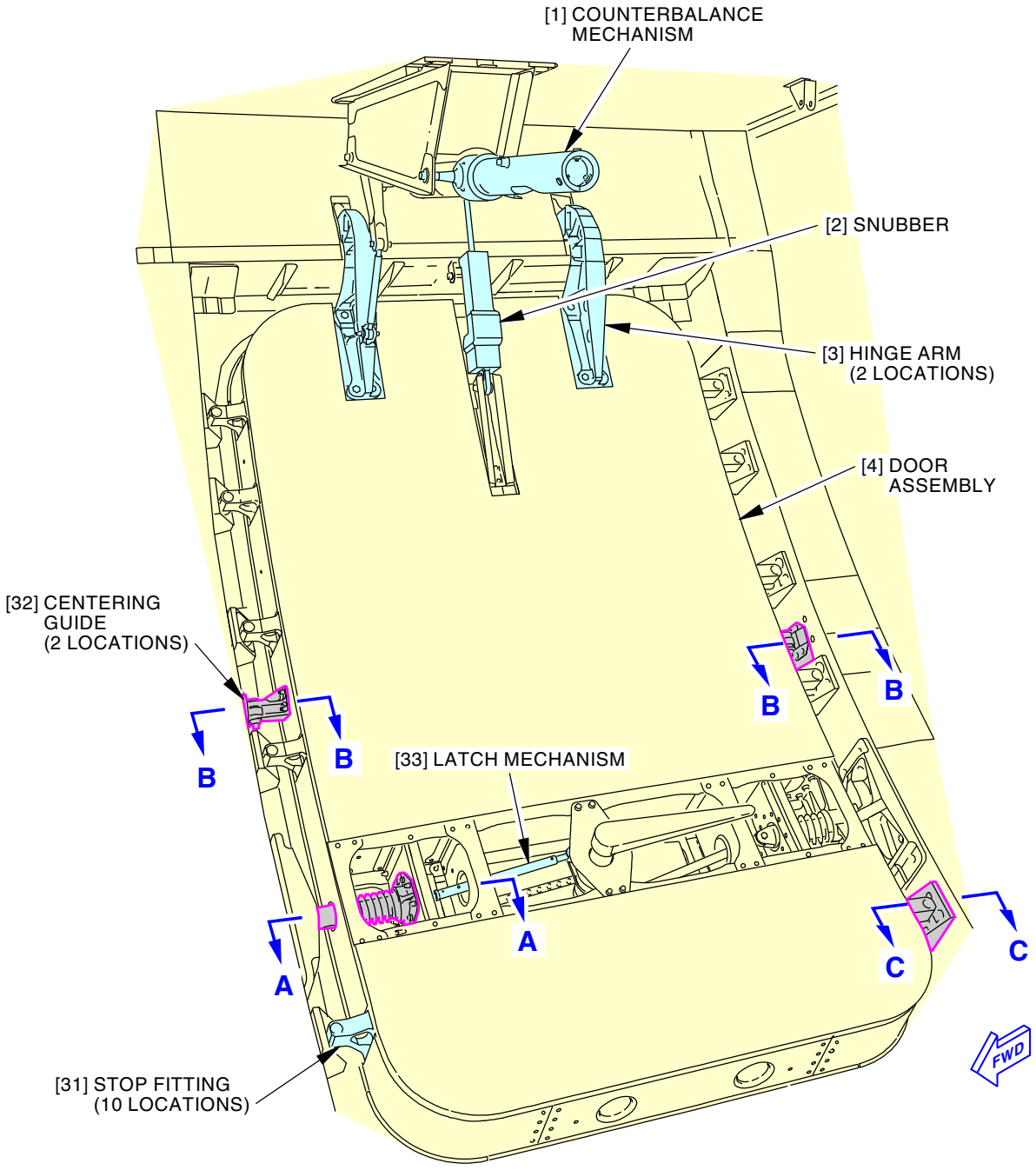
——— END OF TASK ———

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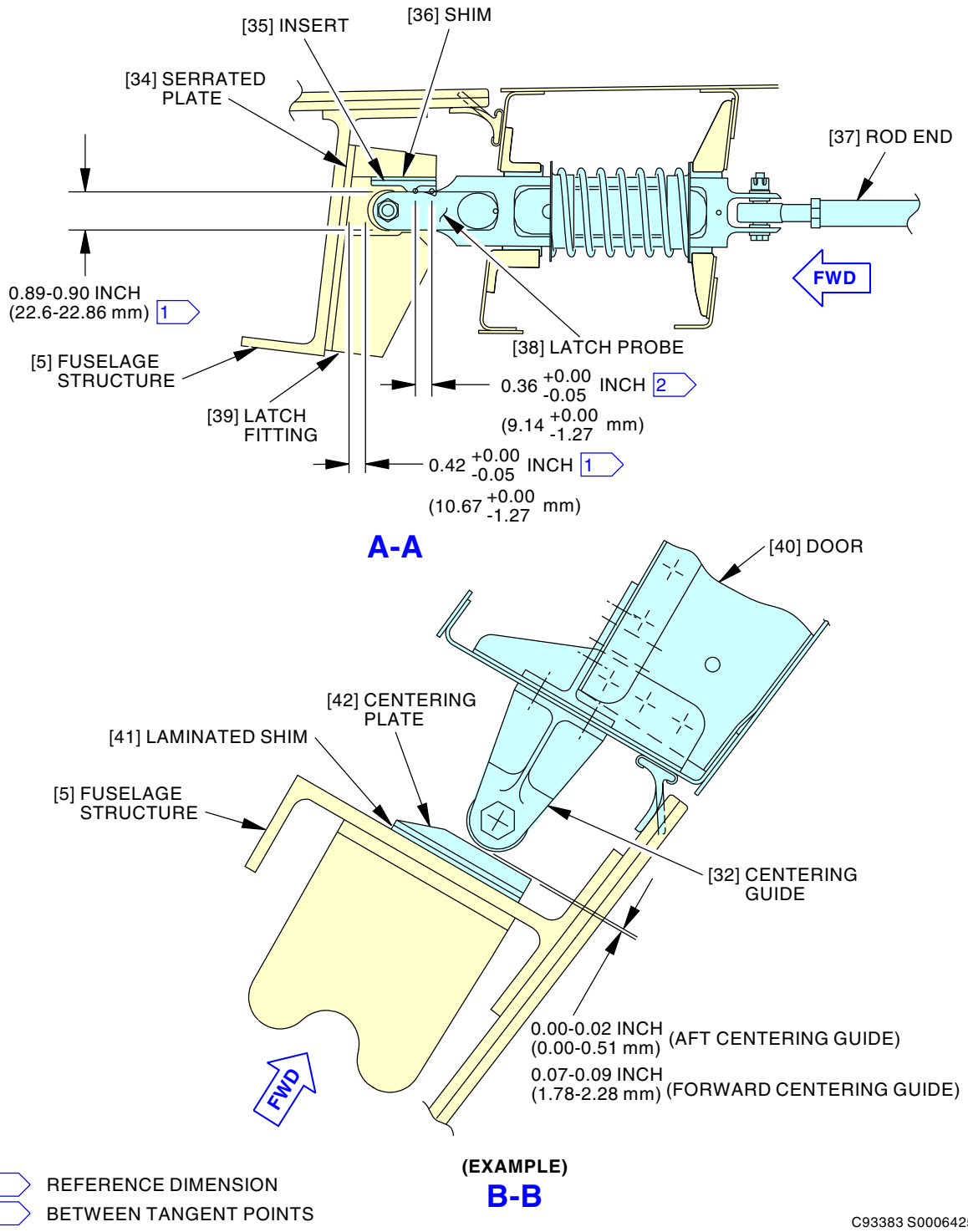
Bulk Cargo Door Installation
Figure 401/52-36-01-990-806

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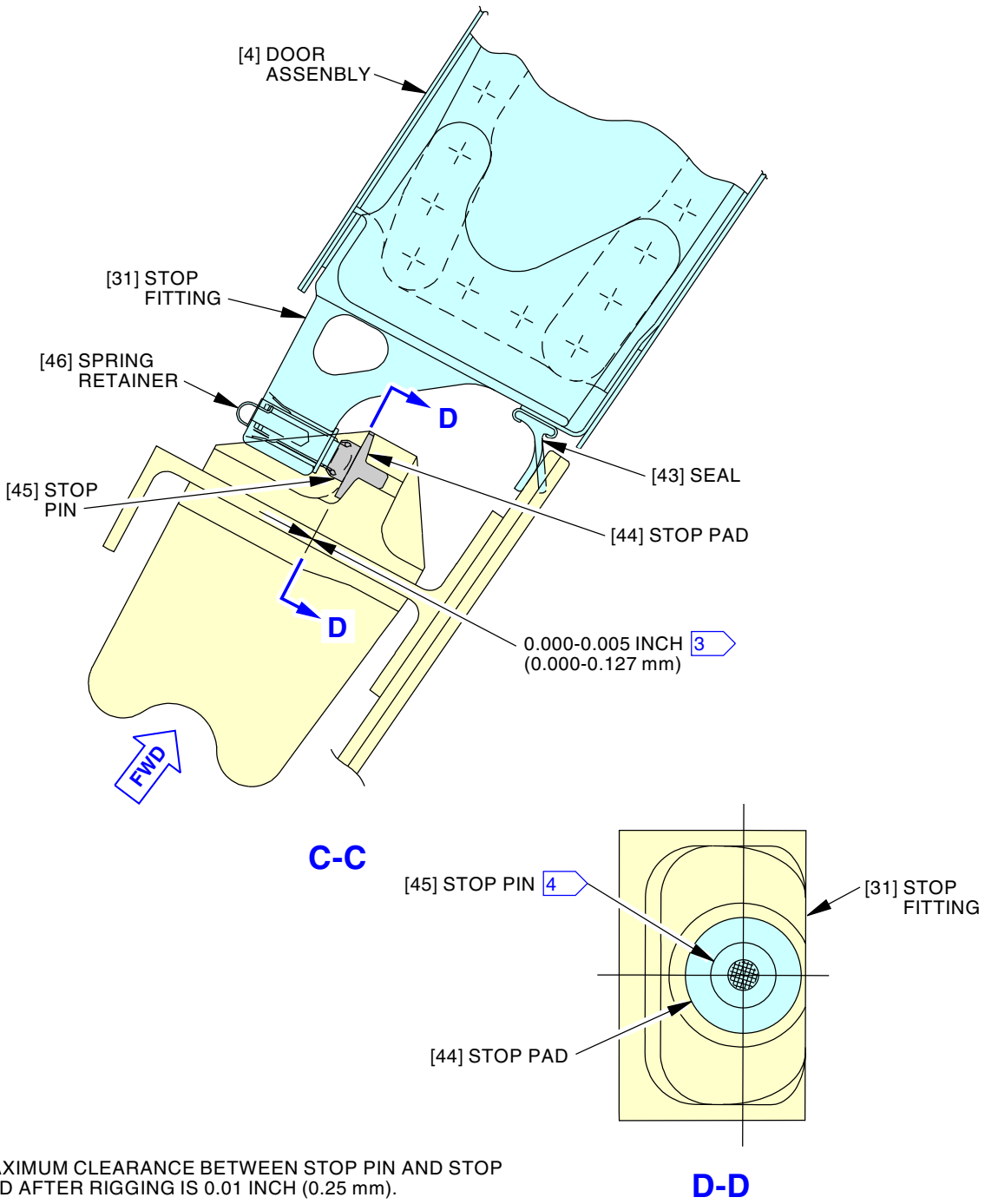
Bulk Cargo Door Adjustment
Figure 402/52-36-01-990-807 (Sheet 1 of 3)

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Bulk Cargo Door Adjustment
Figure 402/52-36-01-990-807 (Sheet 2 of 3)

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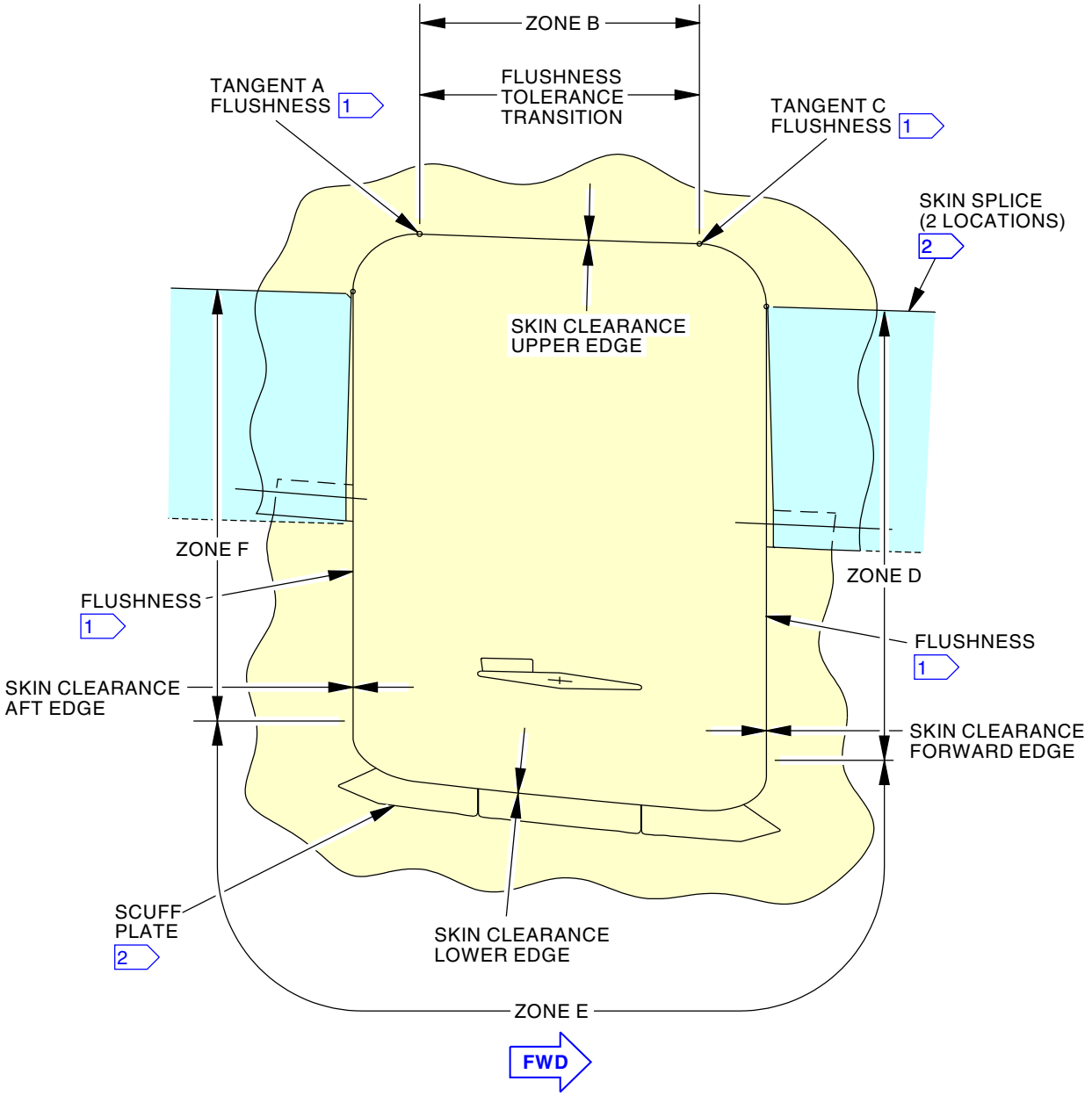
3 MAXIMUM CLEARANCE BETWEEN STOP PIN AND STOP PAD AFTER RIGGING IS 0.01 INCH (0.25 mm).

4 STOP PIN CENTER MUST TOUCH STOP PAD CENTER WITHIN A 0.30 INCH (7.62 mm) DIAMETER CIRCLE.

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Bulk Cargo Door Adjustment
Figure 402/52-36-01-990-807 (Sheet 3 of 3)

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BULK CARGO DOOR

1 A NEGATIVE FLUSHNESS SHOWS THE DOOR IS INBOARD OF THE FUSELAGE CUTOUT.

2 FLUSHNESS TOLERANCES ARE NOT APPLICABLE IN THIS AREA.

C93385 S0006425663_V2

Bulk Cargo Door Skin Clearances and Flushness Zones
Figure 403/52-36-01-990-808

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TASK 52-36-01-410-801

3. Bulk Cargo Door Installation

(Figure 401, Figure 402, Figure 403)

A. References

Reference	Title
52-09-04-200-801	Bulk Cargo Door Seal Check (P/B 201)
52-09-04-820-801	Bulk Cargo Door Seal Adjustment (P/B 201)
52-36-02-820-801	Counterbalance Mechanism Adjustment (P/B 501)
52-71-00-730-801	Door Warning System Test (P/B 501)
52-71-04-900-801	Bulk Cargo Door Closed, Latched and Locked Switch Removal, Installation and Adjustment (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1563	Hoist - Fishpole (cable), minimum 500 lb capacity Part #: 10/3641 Supplier: K1425 Part #: PF51-003-1 Supplier: 1YRX6 Part #: PF51-009-1 Supplier: 1YRX6 Opt Part #: MINILIFT Supplier: K1425
SPL-1984	Sling - Door, Bulk Cargo Part #: J52002-26 Supplier: 81205 Opt Part #: J52002-1 Supplier: 81205
SPL-1996	Barrier - Safety, Bulk Cargo Door Part #: J52020-1 Supplier: 81205
STD-1164	Safety Pin - Counterbalance Mechanism, 3/8 Inch Diameter, 2 1/4 Inch Length, and Nut

C. Consumable Materials

Reference	Description	Specification
C00064	Coating - Aluminum Chemical Conversion	BAC5719 Type II Class A (MIL-DTL-5541 Class 1A)
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
4	Door assembly	52-36-01-01-085	ARO 001-017

E. Location Zones

Zone	Area
825	Bulk Cargo Door

F. Installation

SUBTASK 52-36-01-080-001

(1) Remove the bulk cargo door safety barrier, SPL-1996 from across the door opening.

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SUBTASK 52-36-01-820-001

(2) Do a check on the latch fittings [39] as follows:

(a) Make sure the height of the opening in the latch fittings [39] as shown, View A-A (Figure 402).

(b) Adjust the height of the opening in the latch fittings [39] as follows:

1) Add or remove laminations of shim [36] between the insert [35] and latch fittings [39] to get the correct height of the opening.

2) Apply the primer, C00259 to the laminations of shim [36].

SUBTASK 52-36-01-420-001

(3) Install the stop pins [45] on the door assembly [4], but do not install the spring retainers [46].

NOTE: Do not let the stop pins touch the stop pads until after the door assembly [4] is adjusted.

SUBTASK 52-36-01-480-003

(4) Install the bulk cargo door sling, SPL-1984 and the cable fishpole hoist, COM-1563 on the door assembly [4] to hold the weight of the door assembly [4].

SUBTASK 52-36-01-420-002

(5) Put the door assembly [4] in its correct position in the fuselage structure [5] as follows:

(a) Put the door assembly [4] through the cutout and lower the door assembly [4] into its correct position in the fuselage structure [5].

(b) Align the hinge arms [3] and stop fittings [31] with the fuselage structure [5].

(c) If the centering plates [42] interfere with the centering guides [32] on the door assembly [4], remove them.

(d) Make sure the stop pins [45] align with the stop pads [44] as shown, View D-D (Figure 402).

(e) Make sure the skin clearances between the door assembly [4] and fuselage cutout as shown in Table 401.

Table 401/52-36-01-993-807 Skin Clearances and Flushness Zones - Bulk Cargo Door (See Figure 403)

	CLEARANCE		FLUSHNESS*[1]	
ZONE	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
Tangent A			0.00 (0.00)	-0.06 in. (-1.52 mm) to 0.06 in. (1.52 mm)
B		0.07 in. (1.78 mm) to 0.17 in. (4.32 mm)		Transition Area
Tangent C			0.00 (0.00)	-0.09 in. (-2.29 mm) to 0.03 in. (0.76 mm)
D *[2]		0.20 in. (5.08 mm) to 0.30 in. (7.62 mm)	0.00 (0.00)	-0.09 in. (-2.29 mm) to 0.03 in. (0.76 mm)
E		0.20 in. (5.08 mm) to 0.30 in. (7.62 mm)		

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Table 401/52-36-01-993-807 Skin Clearances and Flushness Zones - Bulk Cargo Door (See Figure 403) (Continued)

	CLEARANCE		FLUSHNESS*[1]	
ARO 012				
EXCEPT: E		0.20 in. (5.08 mm) to 0.37 in. (9.40 mm)		
ARO ALL				
F *[2]		0.20 in. (5.08 mm) to 0.30 in. (7.62 mm)	0.00 (0.00)	--0.06 in. (-1.52 mm) to 0.06 in. (1.52 mm)

*[1] The flushness is measured with the door assembly [4] latch probe [38] touching the inserts [35] on the latch fitting [39] (View A-A, Figure 402).

*[2] 20 percent of aft or forward edge length can have a flushness of 0.08 in. (2.03 mm).

(f) Adjust the skin clearances of the door assembly [4] as follows:

1) Mark the unwanted skin on the door assembly [4] edges to get the correct clearances.

2) Carefully remove the unwanted skin.

3) Apply the coating, C00064 to the areas of the door assembly [4] where you removed the skin.

SUBTASK 52-36-01-420-003

(6) Connect the hinge arms [3] to the fuselage structure [5] as follows:

(a) Install the bolts [16], washers [17], washers [18], washers [19] or washers [20], bushings [21], washers [22], and nuts [23] to connect the hinge arm [3] to the fuselage structure [5].

NOTE: The bolt head direction is optional. Install the countersunk washers [20] under the bolt head.

(b) Make sure the stop pin [45] align with the stop pads [44] as shown, View D-D (Figure 402).

SUBTASK 52-36-01-420-004

(7) Connect the snubber [2] to the fuselage structure [5] as follows:

(a) Hold the snubber [2] in its correct position and install the bolt [6], washer [7], washers [9], bushing [8], and nut [10] to attach the snubber to the fuselage structure [5].

SUBTASK 52-36-01-420-005

(8) Connect the counterbalance mechanism [1] to the forward hinge arm [3] as follows:

(a) Hold the counterbalance mechanism [1] in its correct position and install the bolt [11], washer [12], washer [14], bushing [13], and nut [15] to connect the counterbalance mechanism to the hinge arm [3].

SUBTASK 52-36-01-080-002

(9) Adjust the counterbalance mechanism as follows:

(a) Close and latch the door.

(b) Remove the safety pin, STD-1164 from the counterbalance.

(c) Do this task: Counterbalance Mechanism Adjustment, TASK 52-36-02-820-801.

(d) Close and latch the door.

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SUBTASK 52-36-01-820-002

(10) Make sure the flushness of the door assembly [4] is correct as follows:

NOTE: The hinge arms and latch fittings control the flushness of the door assembly [4].

(a) Push on the door assembly [4] to make the latch probes [38] touch the inserts [35] on the latch fittings [39] (View A-A, Figure 402).

(b) Make sure the flushness of the door assembly [4] is as shown (Table 401).

NOTE: A negative flushness shows the door is inboard of the fuselage cutout. The flushness tolerances are not applicable in the skin splice area.

NOTE: The flushness is measured with the door assembly [4] pushed outboard so that the latch probes [38] touch the inserts [35] on the latch fittings [39].

(c) Adjust the flushness as follows:

1) Adjust the hinge arms as follows:

a) Add or remove the laminations of shim between the hinge arms and the inner skin of the door assembly [4] to get the correct flushness of the door assembly [4].

NOTE: The maximum thickness of the shim is 0.19 in. (4.83 mm).

b) Apply the primer, C00259 to the laminations of shim.

2) Adjust the latch fittings as follows:

a) Push on the door assembly [4] to make the latch probes [38] touch the inserts [35] on the latch fittings [39].

b) Adjust the latch fittings [39] on the serrated plates [34] to get the correct flushness of the door assembly [4].

SUBTASK 52-36-01-820-003

(11) Adjust the latch mechanism [33] as follows:

(a) Push on the door assembly [4] to make the latch probes [38] touch the inserts [35] on the latch fittings [39].

(b) Make sure the flushness of the door assembly [4] is correct.

NOTE: The flushness is measured with the door assembly [4] pushed outboard so that the latch probes [38] touch the inserts [35] on the latch fittings [39].

(c) Make sure the latch probes [38] are engaged with the inserts [35] as shown, View A-A (Figure 402).

(d) Adjust the rod ends [37] to get the correct engagement of the latch probes [38] with the inserts [35].

(e) Make sure the latch probes [38] fully retract with a maximum of 30 pounds put on the internal handle.

SUBTASK 52-36-01-820-004

(12) Adjust the stop fittings [31] as follows:

(a) Continue to push on the door to make the latch probes [38] touch the inserts [35] on thelatch fittings [39].

(b) Turn the stop pins [45] until they just touch the stop pads [44].

(c) Open the door.

(d) Turn back the stop pins [45] to the first alignment slot and install the spring retainers [46].

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(e) Make sure the clearance between the stop pins [45] and stop pads [44] is as shown, View C-C (Figure 402).

SUBTASK 52-36-01-820-005

(13) Adjust the centering guides [32] and centering plates [42] as follows:

(a) Make sure the clearance between the forward and aft centering guides [32] and centering plates [42] is as shown, View B-B (Figure 402).

(b) Adjust the clearance as follows:

1) Add or remove laminations of shim [41] between the centering plates [42] and the fuselage structure [5] to get the correct clearance.

2) Apply the primer, C00259 to the bare laminations of shim [41].

SUBTASK 52-36-01-210-001

(14) Do a check of the seal [43] as follows:

(a) Do this task: Bulk Cargo Door Seal Check, TASK 52-09-04-200-801.

(b) Do this task: Bulk Cargo Door Seal Adjustment, TASK 52-09-04-820-801.

SUBTASK 52-36-01-820-007

(15) Do this task: Bulk Cargo Door Closed, Latched and Locked Switch Removal, Installation and Adjustment, TASK 52-71-04-900-801.

NOTE: Only do the Adjustment.

SUBTASK 52-36-01-820-006

(16) Do this task: Door Warning System Test, TASK 52-71-00-730-801.

NOTE: Only do the test for the bulk cargo door.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-36-01-080-003

(1) Install the lining above the door assembly [4].

H. Installation Test

SUBTASK 52-36-01-710-001

(1) Do a test on the door assembly [4] as follows:

(a) Open and close the door assembly [4].

(b) Make sure the door assembly [4] opens and closes smoothly and correctly.

——— END OF TASK ———

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BULK CARGO DOOR - INSPECTION/CHECK

1. General

A. This procedure has these tasks:

(1) An inspection of the mechanisms on the bulk cargo door for wear.

TASK 52-36-01-220-801

2. Bulk Cargo Door Inspection

(Figure 601, Figure 602)

A. General

(1) This procedure has the wear limits for the bulk cargo door.

B. References

Reference	Title
52-71-04-900-801	Bulk Cargo Door Closed, Latched and Locked Switch Removal, Installation and Adjustment (P/B 201)

C. Tools/Equipment

Reference	Description
STD-1164	Safety Pin - Counterbalance Mechanism, 3/8 Inch Diameter, 2 1/4 Inch Length, and Nut

D. Location Zones

Zone	Area
825	Bulk Cargo Door

E. Dimensions Examination

SUBTASK 52-36-01-010-002

(1) Get access to the mechanisms as follows:

(a) Open the bulk cargo door.

(b) Attach a DO-NOT-OPERATE tag to the exterior handle.

(c) Go into the bulk cargo compartment.

(d) Close and latch the door.

SUBTASK 52-36-01-860-001

(2) Make sure the door is safe as follows:

(a) Install the safety pin, STD-1164.

SUBTASK 52-36-01-220-001

(3) Examine the parts in (Table 601).

Table 601/52-36-01-993-806 Bulk Cargo Door Wear Limits

			DESIGN LIMITS		WEAR LIMITS		
INDEX NO.	PART NAME	DIM.	DIAMETER		Allowed WEAR DIM.	MAX CLEAR-ANCE	ACTION
			MIN	MAX			
1	BUSHING	ID	0.3125	0.3131	0.3170	0.0050	*[1]
	BOLT	OD	0.3110	0.3120	0.3075		*[1]

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Table 601/52-36-01-993-806 Bulk Cargo Door Wear Limits (Continued)

INDEX NO.	PART NAME	DIM.	DESIGN LIMITS		WEAR LIMITS		ACTION
			DIAMETER		Allowed WEAR DIM.	MAX CLEAR-ANCE	
			MIN	MAX			
2	BUSHING	ID	0.4375	0.4382	0.4420	0.0050	*[1]
	BUSHING	OD	0.4365	0.4370	0.4325		*[1]
3	BUSHING	ID	0.3125	0.3130	0.3170	0.0050	*[1]
	BOLT	OD	0.3110	0.3120	0.3075		*[1]
4	BUSHING	ID	0.4375	0.4382	0.4420	0.0050	*[1]
	BUSHING	OD	0.4365	0.4370	0.4325		*[1]
5	BUSHING	ID	0.3125	0.3130	0.3170	0.0050	*[1]
	BOLT	OD	0.3110	0.3120	0.3075		*[1]
6	BUSHING	ID	0.3125	0.3131	0.3170	0.0050	*[1]
	BOLT	OD	0.3110	0.3120	0.3075		*[1]
7	BUSHING	ID	0.5000	0.5006	0.5045	0.0050	*[1]
	BOLT	OD	0.4985	0.4995	0.4955		*[1]
8	BUSHING	ID	0.6875	0.6882	0.6915	0.0050	*[1]
	BUSHING	OD	0.6860	0.6865	0.6825		*[1]
9	BUSHING	ID	0.5000	0.5005	0.5045	0.0050	*[1]
	BOLT	OD	0.4985	0.4995	0.4950		*[1]
10	BUSHING	ID	0.3125	0.31317	0.3170	0.0050	*[1]
	BUSHING	OD	0.3115	0.3120	0.3075		*[1]
11	BUSHING	ID	0.1900	0.1905	0.1945	0.0050	*[1]
	BOLT	OD	0.1885	0.1895	0.1850		*[1]
12	BUSHING	ID	0.1900	0.1906	0.1945	0.0050	*[1]
	BOLT	OD	0.1885	0.1895	0.1850		*[1]
13	BUSHING	ID	1.5015	1.5025	1.5120	0.0130	*[1]
	PROBE	OD	1.4980	1.4990	*[3]		*[2]
14	BUSHING	ID	1.5015	1.5025	1.5120	0.0130	*[1]
	PROBE	OD	1.4980	1.4990	*[3]		*[2]
15	INSERT	ID	0.2250	0.2350	*[4]		*[1]
	PROBE	OD	0.8300	0.8400	*[3]		*[2]
16	BEARING	ID	0.5005	0.5015	*[5]	0.0140	*[1]
	FITTING	OD	0.4900	0.5000	0.4860		*[1]
17	BUSHING	ID	0.4375	0.4382	0.4420	0.0050	*[1]
	BUSHING	OD	0.4365	0.4370	0.4325		*[1]

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Table 601/52-36-01-993-806 Bulk Cargo Door Wear Limits (Continued)

INDEX NO.	PART NAME	DIM.	DESIGN LIMITS		WEAR LIMITS		ACTION
			DIAMETER		Allowed WEAR DIM.	MAX CLEAR-ANCE	
			MIN	MAX			
18	BUSHING	ID	0.3125	0.3130	0.3170	0.0050	*[1]
	BOLT	OD	0.3110	0.3120	0.3075		*[1]
19	BUSHING	ID	0.3125	0.3131	0.3170	0.0050	*[1]
	BOLT	OD	0.3110	0.3120	0.3075		*[1]
20	BUSING	ID	0.3125	0.3131	0.3170	0.0050	*[1]
	BOLT	OD	0.3110	0.3120	0.3075		*[1]
21	BUSHING	ID	0.4375	0.4382	0.4420	0.0050	*[1]
	BUSHING	OD	0.4365	0.4370	0.4325		*[1]
22	BUSHING	ID	0.3125	0.3130	0.3170	0.0050	*[1]
	BOLT	OD	0.3110	0.3120	0.3075		*[1]
23	BUSHING	ID	0.2500	0.2505	0.2545	0.0050	*[1]
	BOLT	OD	0.2485	0.2495	0.2450		*[1]
24	BUSHING	ID	0.3750	0.3756	0.3795	0.0050	*[1]
	BUSHING	OD	0.3740	0.3745	0.3700		*[1]
25	BUSHING	ID	0.2500	0.2505	0.2545	0.0050	*[1]
	BOLT	OD	0.2485	0.2495	0.2450		*[1]
26	BEARING	ID	0.5005	0.5015	*[5]	0.0150	*[1]
	SPRING ROD	OD	0.4895	0.4945	0.4850		*[1]

*[1] REPLACE WHEN WORN
*[2] REPAIR WHEN WORN
*[3] DAMAGE THROUGH THE CHROME LAYER IS NOT SATISFACTORY
*[4] REPLACE WHEN PAD THICKNESS IS 0.2100
*[5] DAMAGE THROUGH THE TEFLON COATING IS NOT SATISFACTORY

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-36-01-860-002

(1) Close and latch the door.

SUBTASK 52-36-01-080-004

(2) Remove the safety pin, STD-1164.

SUBTASK 52-36-01-080-005

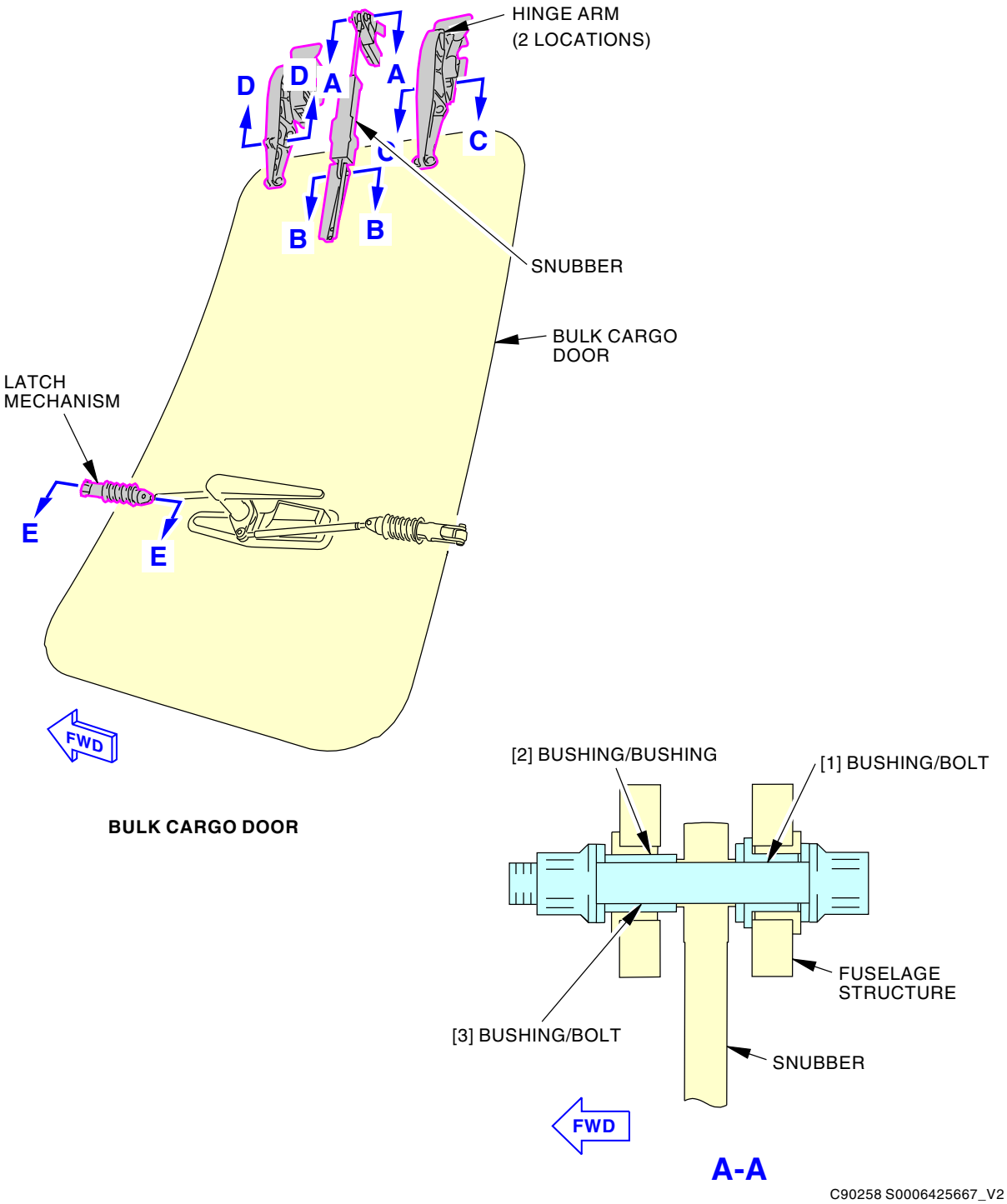
(3) Do this task: Bulk Cargo Door Closed, Latched and Locked Switch Removal, Installation and Adjustment, TASK 52-71-04-900-801.

SUBTASK 52-36-01-080-006

(4) Remove the DO-NOT-OPERATE tag on the exterior handle.

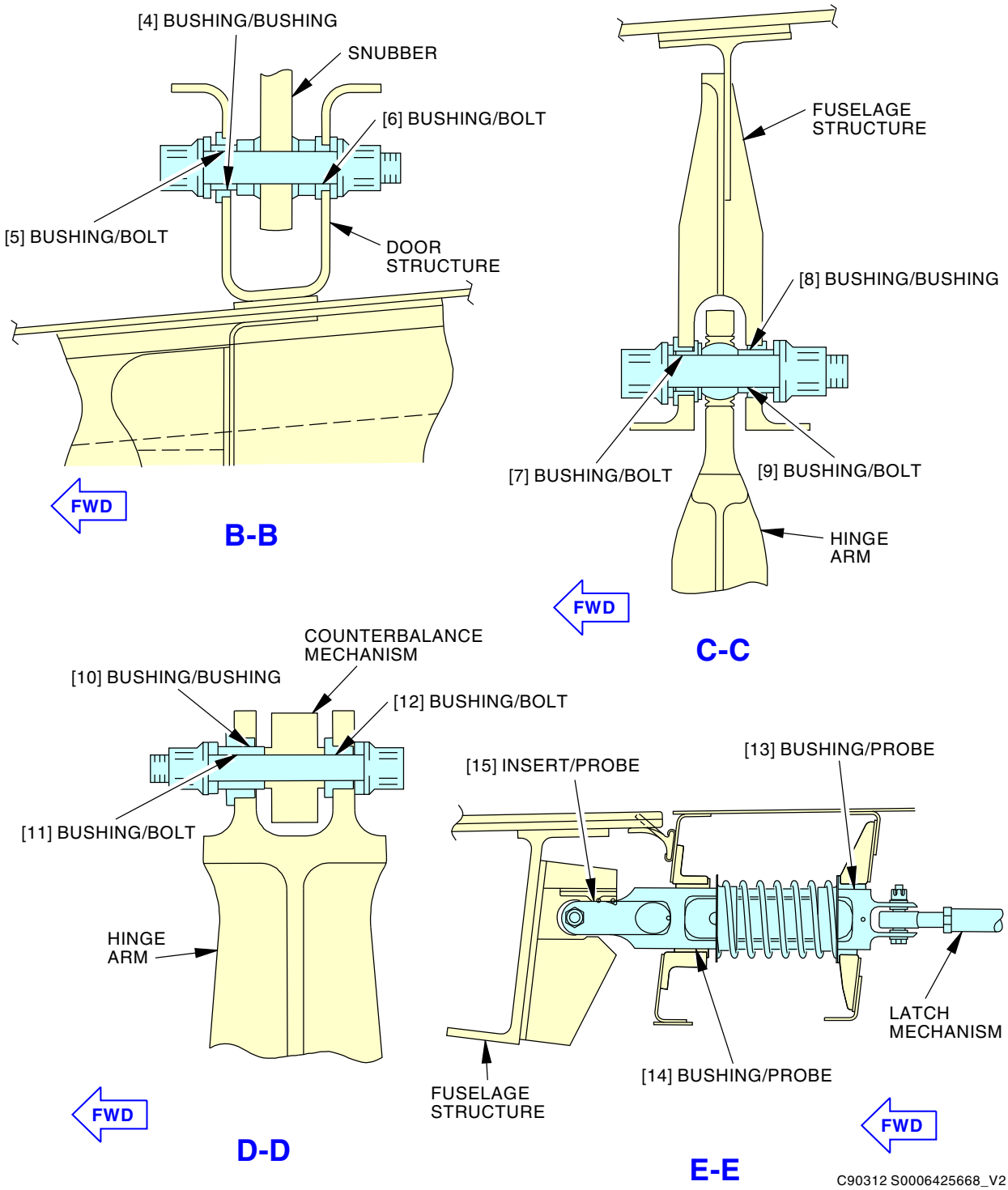
END OF TASK

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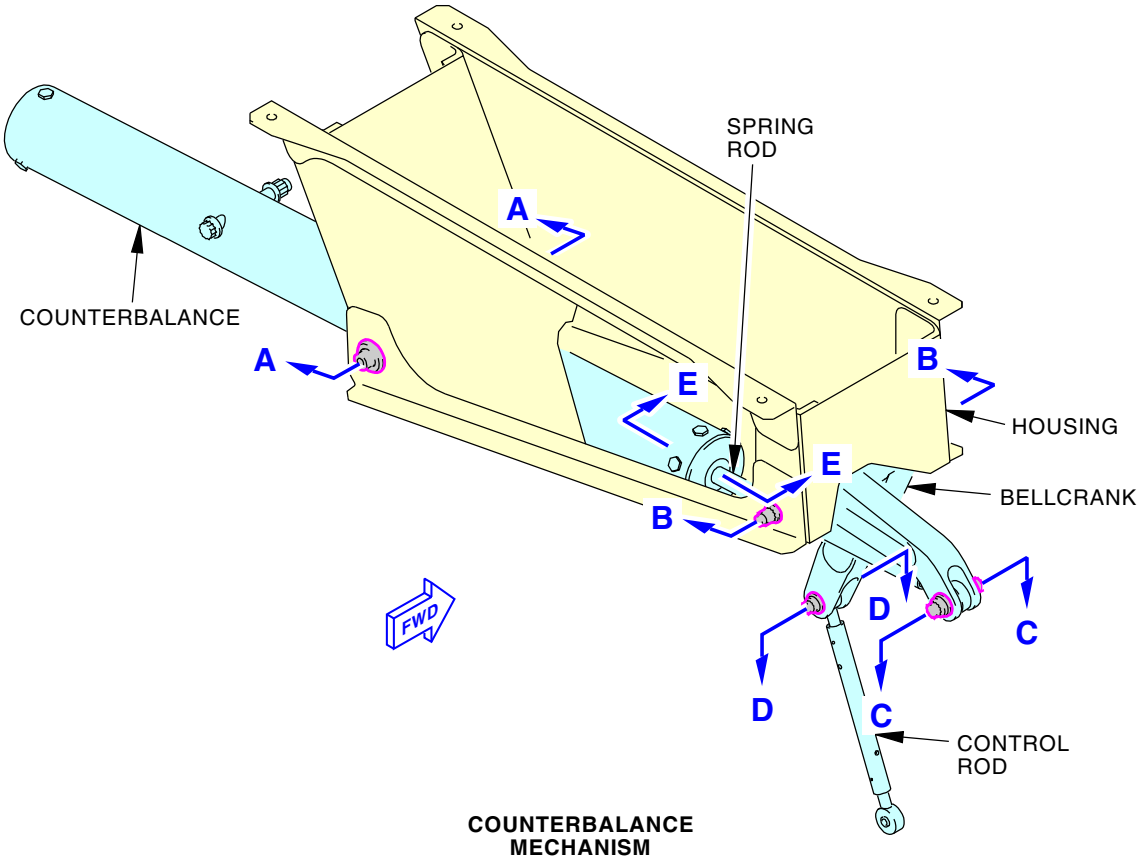
Bulk Cargo Door Wear Limits
Figure 601/52-36-01-990-804 (Sheet 1 of 2)

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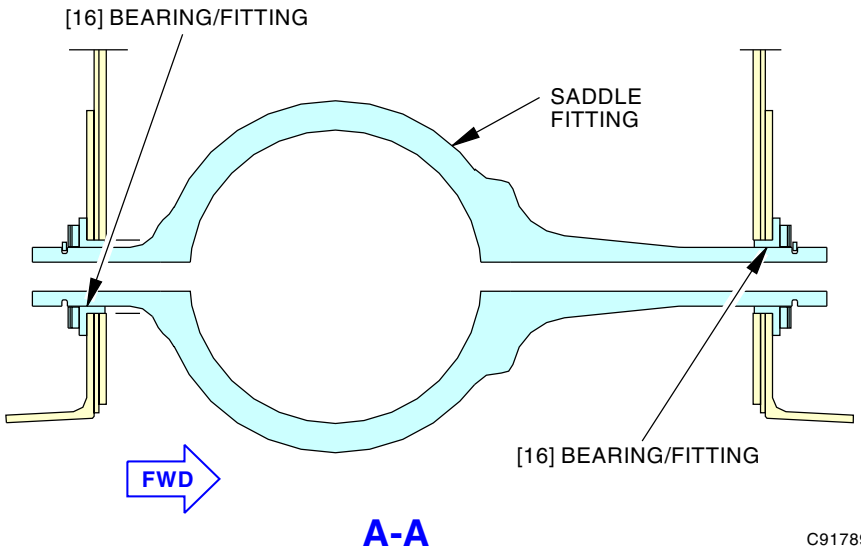


Bulk Cargo Door Wear Limits
Figure 601/52-36-01-990-804 (Sheet 2 of 2)

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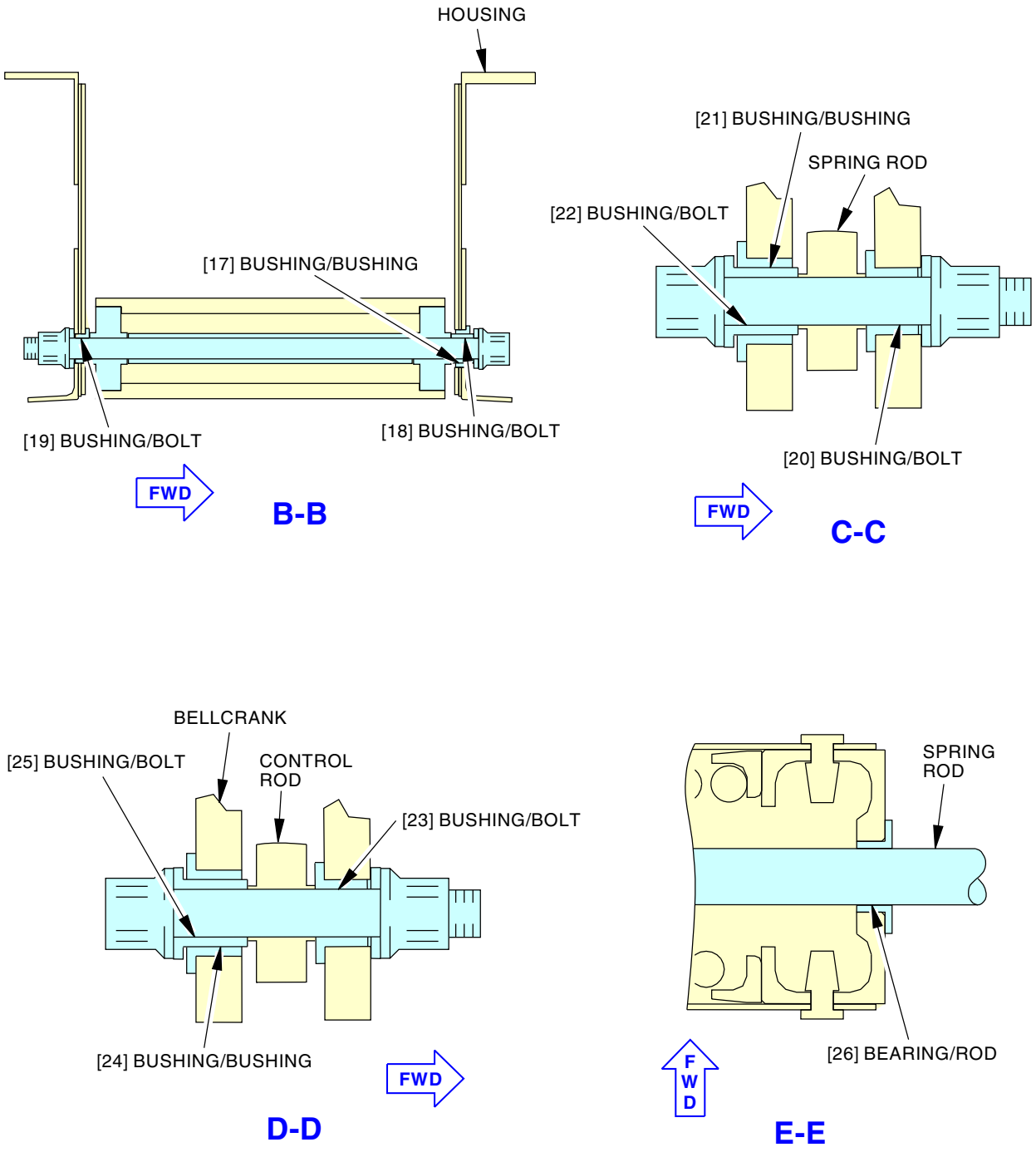
COUNTERBALANCE MECHANISM



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Counterbalance Mechanism Wear Limits
Figure 602/52-36-01-990-805 (Sheet 1 of 2)

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Counterbalance Mechanism Wear Limits
Figure 602/52-36-01-990-805 (Sheet 2 of 2)

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COUNTERBALANCE MECHANISM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the counterbalance mechanism.

(2) An installation of the counterbalance mechanism.

B. The counterbalanced machanizm is referred to as the counterbalance assembly [1] in this procedure.

TASK 52-36-02-000-801

2. Counterbalance Mechanism Removal

(Figure 401)

A. Tools/Equipment

Reference	Description
STD-1164	Safety Pin - Counterbalance Mechanism, 3/8 Inch Diameter, 2 1/4 Inch Length, and Nut

B. Location Zones

Zone	Area
825	Bulk Cargo Door

C. Prepare for the Removal

SUBTASK 52-36-02-010-001

(1) Get access to the counterbalance assembly [1] as follows:

(a) Open the bulk cargo door.

(b) Attach a DO-NOT-OPERATE tag to the exterior handle.

(c) Go into the bulk cargo compartment.

(d) Close and latch the door.

SUBTASK 52-36-02-860-001

(2) Make sure the door is safe as follows:

(a) Install the safety pin [14].

1) Use the safety pin, STD-1164.

(b) If it is necessary, tighten the adjustment fitting [13] until you can install the safety pin, STD-1164 [14].

NOTE: Do not use a cadmium plated tool on the adjustment fitting. The adjustment fitting is titanium.

(c) Open the door a small distance until the load is removed from the control rod [6] and hold in this position.

D. Removal

SUBTASK 52-36-02-020-001

(1) Disconnect the counterbalance assembly [1] from the forward hinge arm [5] as follows:

(a) Remove the bolt [11], washer [8], washer [12], bushing [10], and nut [9] that attach the control rod [6] to the forward hinge arm [5].

(b) Close and latch the door.

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SUBTASK 52-36-02-020-002

(2) Disconnect the counterbalance assembly [1] from the cargo compartment ceiling [4] as follows:

(a) Remove the floor panels in the passenger compartment above the counterbalance assembly [1] or remove the cargo compartment ceiling panels around the counterbalance assembly [1] to get access to the bolts [16], washers [17], and nuts [15].

(b) Remove the bolts [16], washers [17], and nuts [15] that attach the counterbalance assembly [1] to the plate [2] on the cargo compartment ceiling [4].

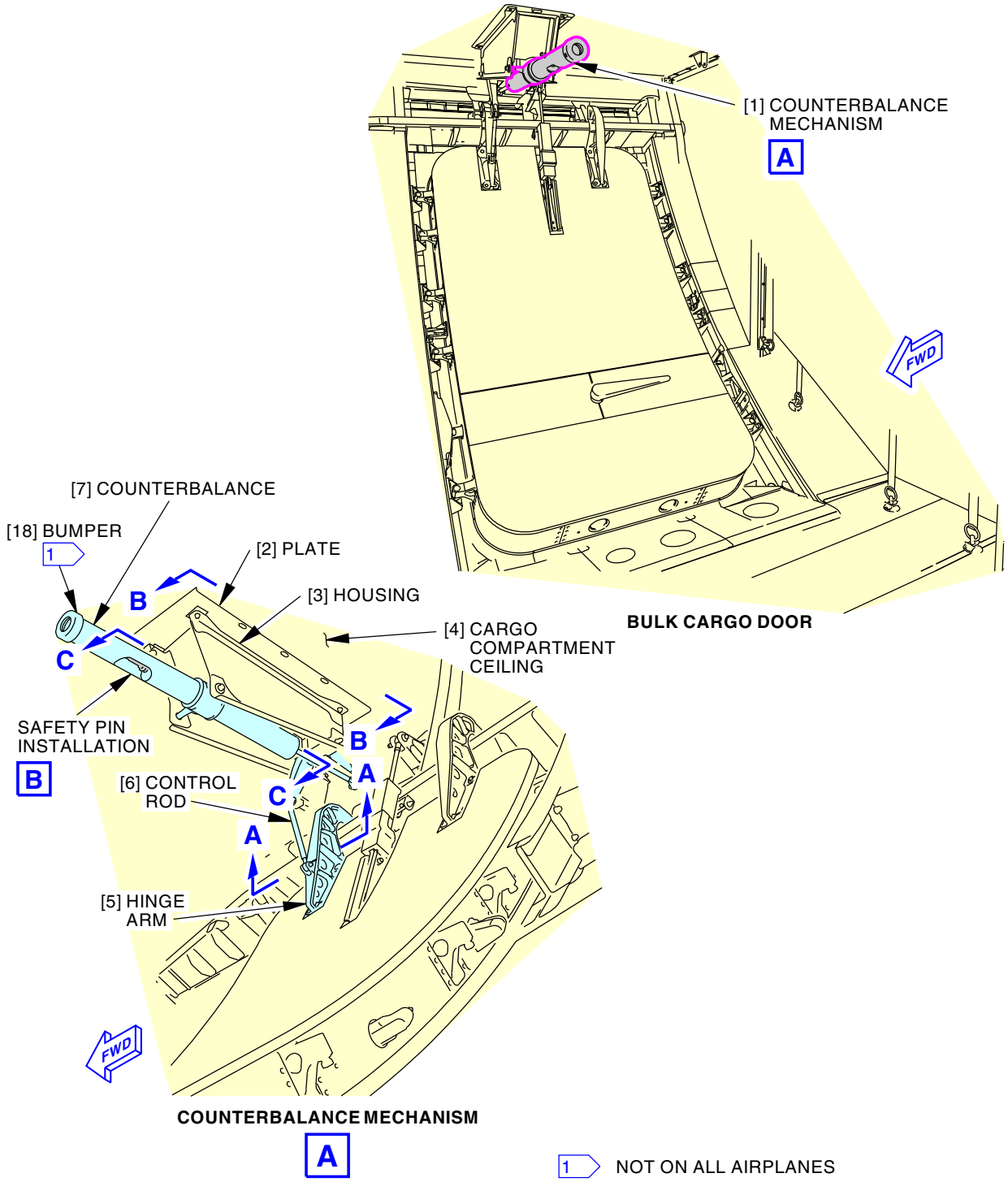
SUBTASK 52-36-02-020-003

(3) Remove the bumper [18] from the counterbalance assembly [1], if installed.

(a) Keep the bumper [18] for the counterbalance mechanism installation.

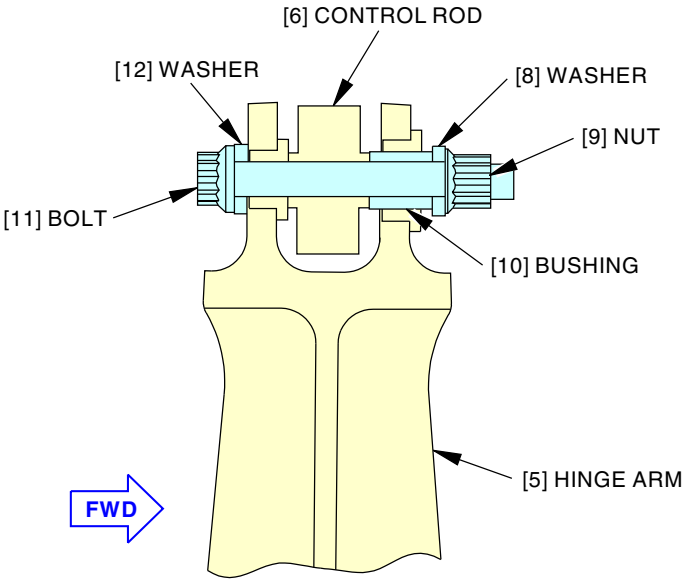
——— END OF TASK ———

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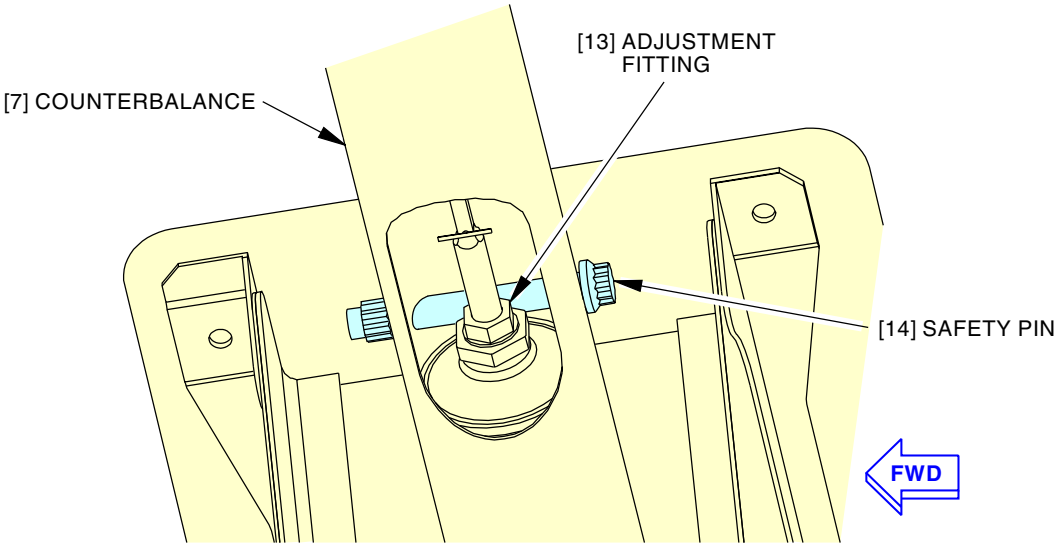


Counterbalance Mechanism Installation
Figure 401/52-36-02-990-803 (Sheet 1 of 3)

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A-A



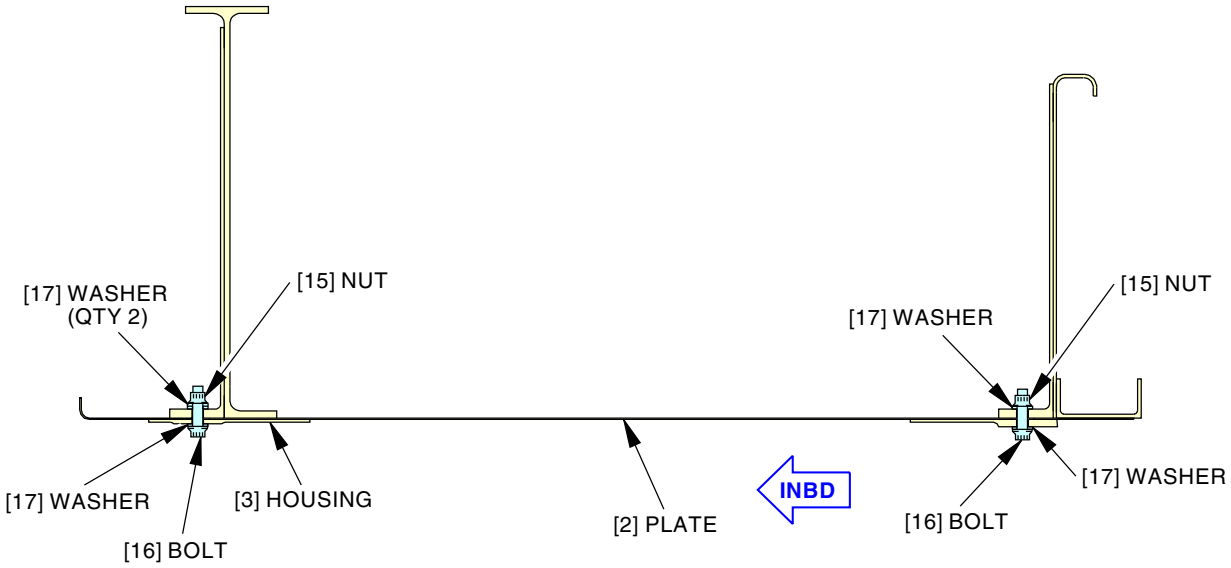
SAFETY PIN INSTALLATION

B

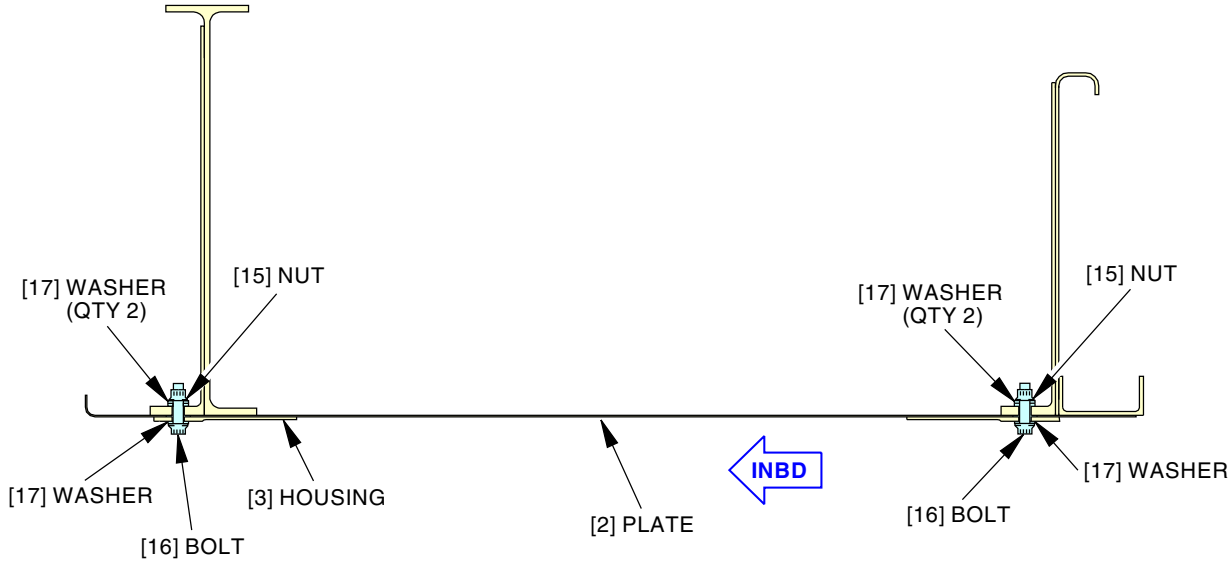
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Counterbalance Mechanism Installation
Figure 401/52-36-02-990-803 (Sheet 2 of 3)

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B-B



C-C

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Counterbalance Mechanism Installation
Figure 401/52-36-02-990-803 (Sheet 3 of 3)

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TASK 52-36-02-400-801

3. Counterbalance Mechanism Installation

(Figure 401)

A. References

Reference	Title
52-36-02-820-801	Counterbalance Mechanism Adjustment (P/B 501)

B. Tools/Equipment

Reference	Description
STD-1164	Safety Pin - Counterbalance Mechanism, 3/8 Inch Diameter, 2 1/4 Inch Length, and Nut

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Counterbalance assembly	52-36-02-01-020	ARO ALL

E. Location Zones

Zone	Area
825	Bulk Cargo Door

F. Installation

SUBTASK 52-36-02-420-003

(1) Install the bumper [18] on the counterbalance assembly [1], if previously installed.

SUBTASK 52-36-02-420-001

WARNING DO NOT REMOVE THE SAFETY PIN FROM THE COUNTERBALANCE MECHANISM BEFORE THE COUNTERBALANCE ASSEMBLY IS FULLY CONNECTED. THERE IS A VERY STRONG FORCE ON THE SPRING THAT CAN CAUSE INJURY OR DAMAGE.

(2) Connect the counterbalance assembly [1] to the cargo compartment ceiling [4] as follows:

(a) Apply the sealant, A00247 as follows:

1) Apply the sealant, A00247 to the mating surfaces of the counterbalance assembly [1], and the plate [2] on the cargo compartment ceiling [4].

2) Apply the sealant, A00247 to the mating surfaces of the bolts [16], washers [17], and nuts [15] that attach the counterbalance assembly [1] to the cargo compartment ceiling.

(b) Hold the counterbalance assembly [1] in its correct position and install the bolts [16], washers [17], and nuts [15] to attach the counterbalance assembly [1] to the plate [2] on the cargo compartment ceiling [4].

(c) Install the floor panels in the passenger compartment above the counterbalance assembly [1] or the cargo compartment ceiling panels around the counterbalance assembly [1] that you removed.

SUBTASK 52-36-02-420-002

(3) Connect the counterbalance assembly [1] to the forward control rod [6] as follows:

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(a) Open the door a small distance to align the end of the control rod [6] with the hinge arm [5] and hold the door in this position.

(b) Install the bolt [11], washer [8], washer [12], bushing [10], and nut [9] that attach the counterbalance assembly [1] to the forward hinge arm [5].

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-36-02-860-002

(1) Close and latch the door.

SUBTASK 52-36-02-080-001

(2) Remove the safety pin [14].

(a) Use the safety pin safety pin, STD-1164

SUBTASK 52-36-02-080-002

(3) Remove the DO-NOT-OPERATE tag from the exterior handle.

SUBTASK 52-36-02-820-001

(4) Do this task: Counterbalance Mechanism Adjustment, TASK 52-36-02-820-801.

H. Installation Test

SUBTASK 52-36-02-710-001

(1) Do a test on the counterbalance assembly [1] as follows:

(a) Open and close the door.

(b) Make sure the door opens smoothly.

——— END OF TASK ———

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COUNTERBALANCE MECHANISM - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

(1) An adjustment of the counterbalance mechanism.

TASK 52-36-02-820-801

2. Counterbalance Mechanism Adjustment

(Figure 501)

A. References

Reference	Title
52-36-00-860-801	Open the Door (P/B 201)

B. Location Zones

Zone	Area
825	Bulk Cargo Door

C. Procedure

SUBTASK 52-36-02-820-002

(1) Open the door (TASK 52-36-00-860-801).

SUBTASK 52-36-02-820-003

(2) Measure the distance between the door lining and the bumper on the cargo compartment ceiling.

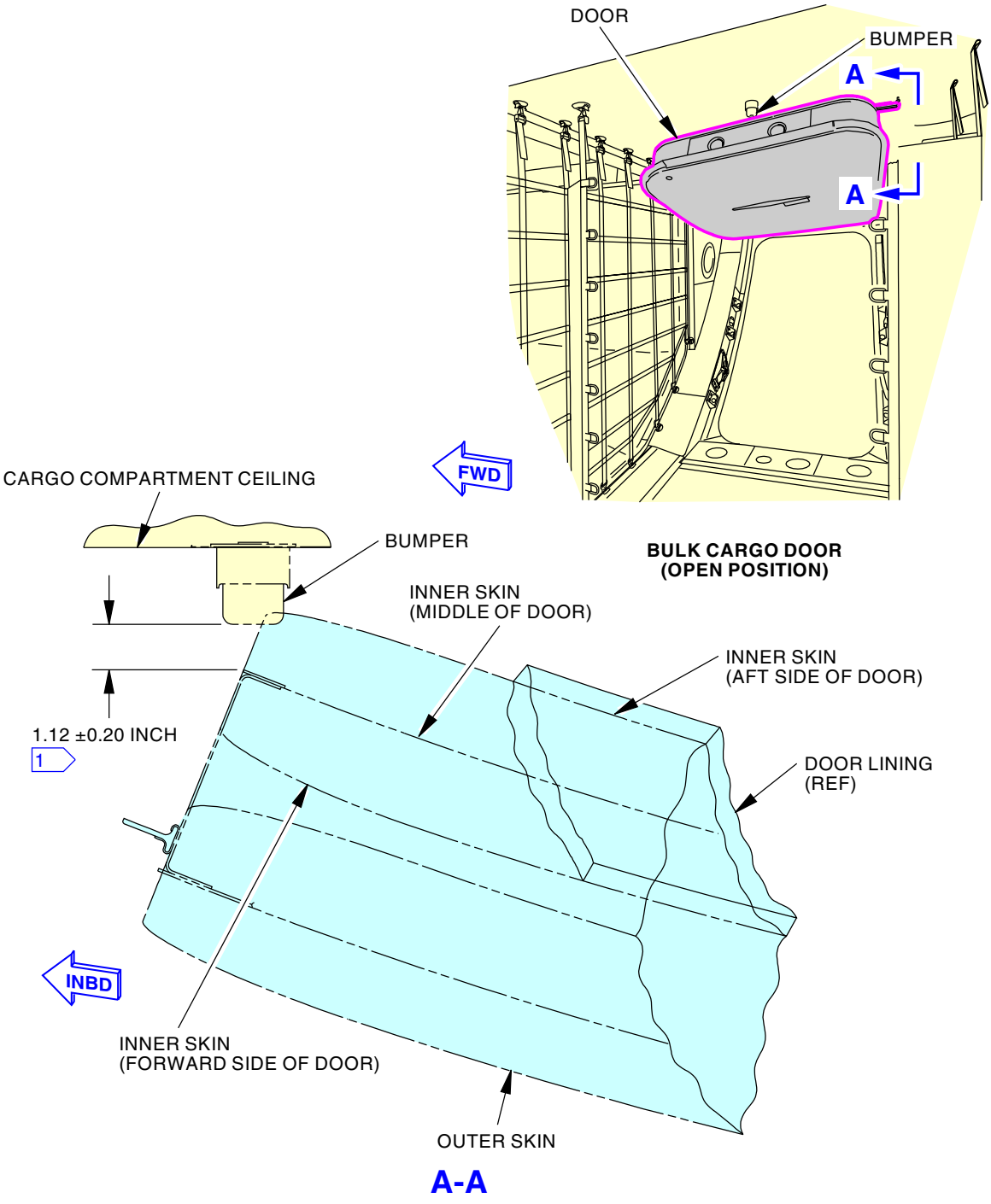
SUBTASK 52-36-02-820-004

(3) Adjust the adjustment fitting until the clearance between the door lining and the bumper is as shown, View A-A (Figure 501).

NOTE: Loosen the adjustment fitting to move the door away from the bumper. Do not use a cadmium plated tool on the adjustment fitting. The adjustment fitting is titanium.

——— END OF TASK ———

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Counterbalance Mechanism Adjustment
Figure 501/52-36-02-990-802

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SNUBBER - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the snubber.

(2) An installation of the snubber.

TASK 52-36-03-000-801

2. Snubber Removal

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. Location Zones

Zone	Area
825	Bulk Cargo Door

B. Prepare for the Removal

SUBTASK 52-36-03-010-001

(1) Get access to the snubber [3] as follows:

(a) Open the bulk cargo door.

(b) Attach a DO-NOT-OPERATE tag to the exterior handle.

(c) Go into the bulk cargo compartment.

(d) Close and latch the door.

C. Removal

SUBTASK 52-36-03-020-001

(1) Disconnect the snubber [3] from the door structure [2] as follows:

(a) Remove the bolt [13], washer [9], washer [10], bushing [12], and nut [11] that attach the snubber [3] to the door structure [2].

SUBTASK 52-36-03-020-002

(2) Disconnect the snubber [3] from the fuselage structure [1] as follows:

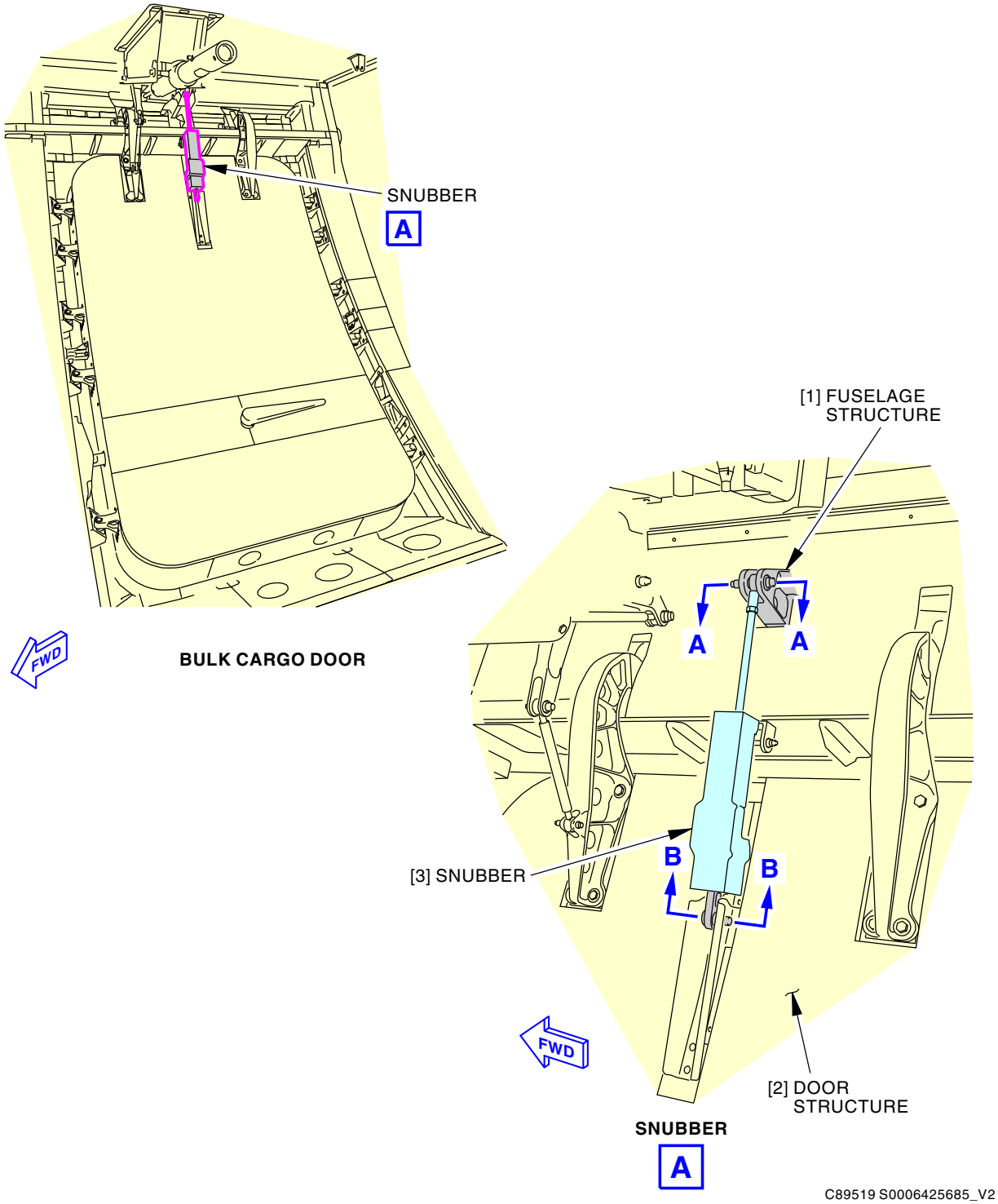
(a) Remove the bolt [6], washers [4], washer [7], bushing [5], and nut [8] that attach the snubber [3] to the fuselage structure [1].

SUBTASK 52-36-03-020-003

(3) Remove the snubber [3] from the door.

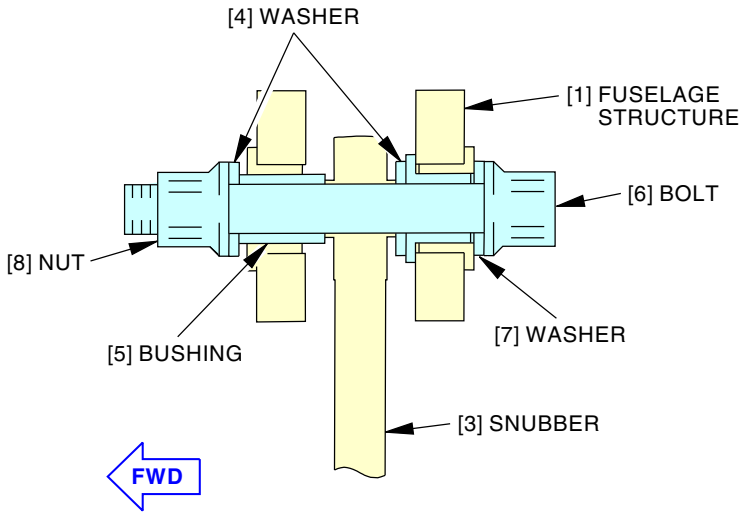
END OF TASK

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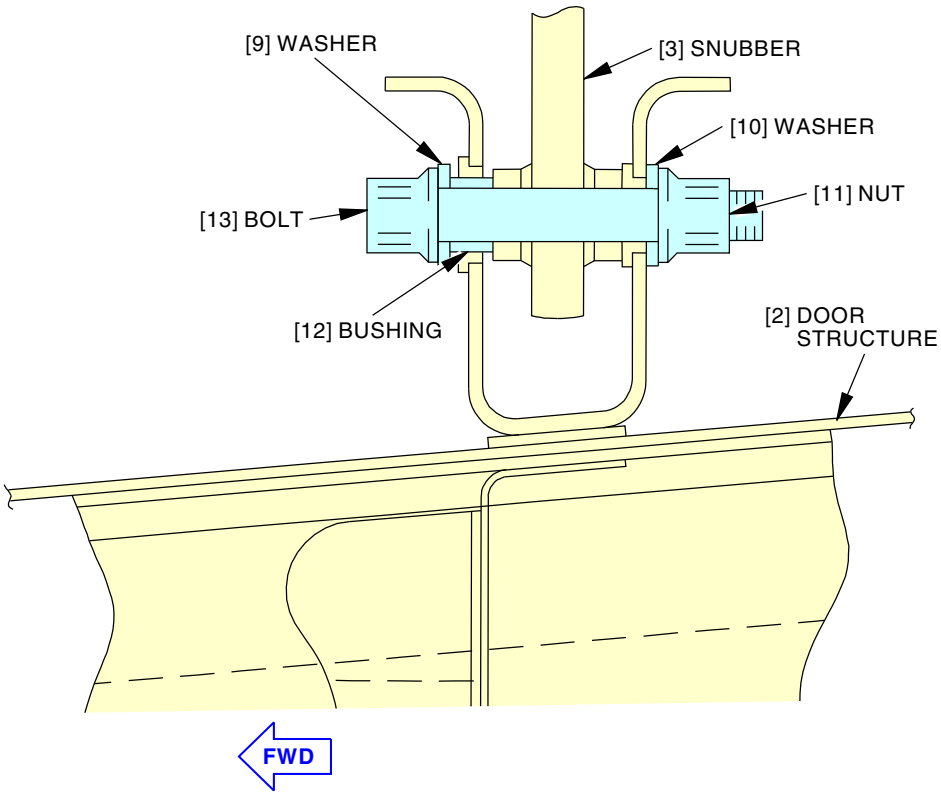


Snubber Installation
Figure 401/52-36-03-990-803 (Sheet 1 of 2)

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A-A



B-B

C89510 S0006425686_V2

Snubber Installation
Figure 401/52-36-03-990-803 (Sheet 2 of 2)

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TASK 52-36-03-400-801

3. Snubber Installation

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
52-36-03-710-801	Snubber Test (P/B 501)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
3	Snubber	52-36-03-01-070	ARO 001-017
13	Bolt	52-36-03-01-040	ARO 001-017

C. Location Zones

Zone	Area
825	Bulk Cargo Door

D. Installation

SUBTASK 52-36-03-420-001

(1) Connect the snubber [3] to the fuselage structure [1] as follows:

(a) Hold the snubber [3] in its correct position and install the bolt [6], washers [4], washer [7], bushing [5], and nut [8] to attach the snubber [3] to the fuselage structure [1].

SUBTASK 52-36-03-420-002

(2) Connect the snubber [3] to the door structure [2] as follows:

(a) Install the bolt [13], washer [9], washer [10], bushing [12], and nut [11] to attach the snubber [3] to the door structure [2].

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-36-03-080-001

(1) Remove the DO-NOT-OPERATE tag from the exterior handle.

F. Installation Test

SUBTASK 52-36-03-710-001

(1) Do a test on the snubber [3] (Snubber Test, TASK 52-36-03-710-801).

(a) Open and close the door.

(b) Make sure the door opens and closes smoothly.

——— END OF TASK ———

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SNUBBER - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

(1) A test of the snubber.

TASK 52-36-03-710-801

2. Snubber Test

(Figure 501)

A. References

Reference	Title
52-36-02-820-801	Counterbalance Mechanism Adjustment (P/B 501)
52-36-03-000-801	Snubber Removal (P/B 401)
52-36-03-400-801	Snubber Installation (P/B 401)

B. Tools/Equipment

Reference	Description
STD-1164	Safety Pin - Counterbalance Mechanism, 3/8 Inch Diameter, 2 1/4 Inch Length, and Nut

C. Location Zones

Zone	Area
825	Bulk Cargo Door

D. Procedure

SUBTASK 52-36-03-710-002

(1) Do a test on the usual operation of the snubber as follows:

(a) Open and close the door.

(b) Make sure the door opens and closes smoothly.

(c) Make sure that it takes more than 5 seconds for the door to open or close.

(d) Examine the snubber carefully and make sure it has no leaks.

(e) If the snubber has leaks, replace it as follows:

1) Do this task: Snubber Removal, TASK 52-36-03-000-801.

2) Do this task: Snubber Installation, TASK 52-36-03-400-801.

SUBTASK 52-36-03-020-004

(2) Disconnect the counterbalance mechanism as follows:

(a) Open the bulk cargo door.

(b) Go into the bulk cargo compartment and close and latch the door.

(c) Install the safety pin, STD-1164.

(d) Open the door a small distance until the load is removed from the control rod.

(e) Disconnect the control rod from the forward hinge arm.

SUBTASK 52-36-03-710-003

(3) Do a test on the snubber as follows:

(a) Lift the door to the fully open position and attach the strap to the lower stop fitting to hold the door open.

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(b) Install a foam pad across the door opening.

NOTE: The foam pad will prevent damage to the door opening if the snubber is defective and the door falls too quickly.

WARNING STAND AWAY FROM THE DOOR AND DOOR OPENING WHEN YOU RELEASE THE DOOR FROM THE STRAP. IF THE SNUBBER IS DEFECTIVE, THE DOOR CAN FALL QUICKLY AND CAUSE INJURY OR DAMAGE.

(c) Release the door from the strap and let the door fall.

(d) Measure the time it takes for the door to close at the bottom edge of the door.

(e) If the door closes in less than 4.0 seconds, replace the snubber.

(f) If the movement of the door was not smooth and at a constant velocity, replace the snubber.

(g) Carefully examine the snubber for leaks.

(h) If the snubber has leaks, replace it.

(i) If it is necessary, replace the snubber as follows:

1) Do this task: Snubber Removal, TASK 52-36-03-000-801.

2) Do this task: Snubber Installation, TASK 52-36-03-400-801.

(j) Remove the foam pad.

SUBTASK 52-36-03-420-003

(4) Connect the counterbalance mechanism as follows:

(a) Connect the control rod to the forward hinge arm.

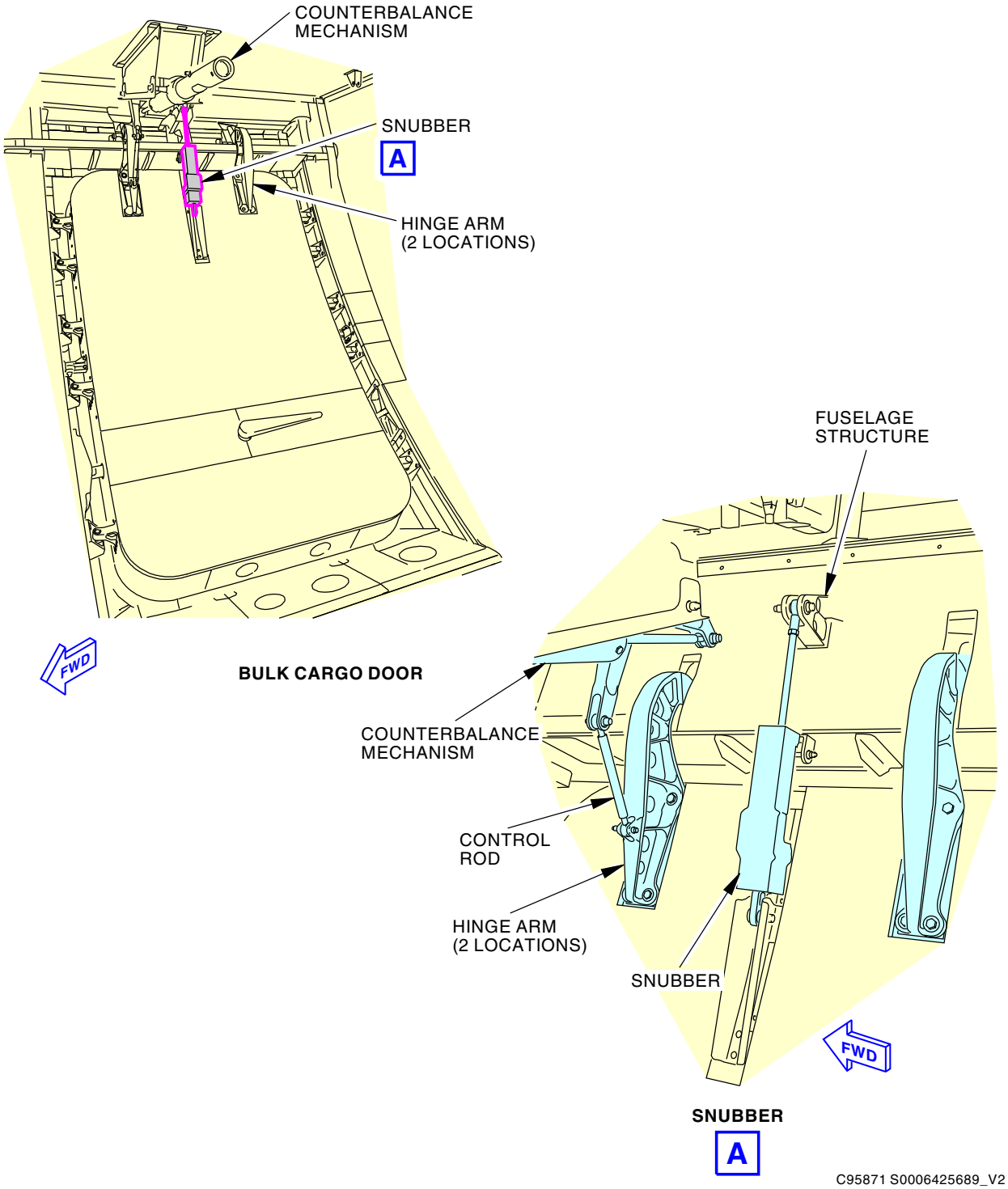
(b) Close and latch the door.

(c) Remove the safety pin, STD-1164.

(d) Do this task: Counterbalance Mechanism Adjustment, TASK 52-36-02-820-801.

END OF TASK

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Snubber Test
Figure 501/52-36-03-990-802

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HINGE ARM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the hinge arm.

(2) An installation of the hinge arm.

TASK 52-36-04-000-801

2. Hinge Arm Removal

(Figure 401)

A. Tools/Equipment

Reference	Description
STD-1164	Safety Pin - Counterbalance Mechanism, 3/8 Inch Diameter, 2 1/4 Inch Length, and Nut

B. Location Zones

Zone	Area
825	Bulk Cargo Door

C. Prepare for the Removal

SUBTASK 52-36-04-010-001

(1) Get access to the hinge arm [3] as follows:

(a) Open the bulk cargo door.

(b) Attach a DO-NOT-OPERATE tag to the exterior handle.

(c) Go into the bulk cargo compartment.

(d) Close and latch the door.

(e) Remove the applicable lining above the door to get access to the hinge arm.

SUBTASK 52-36-04-860-001

(2) Make sure the door is safe as follows:

(a) Install the safety pin, STD-1164.

D. Removal

SUBTASK 52-36-04-020-001

(1) Disconnect the counterbalance mechanism [1] from the forward hinge arm [3] as follows:

(a) Remove the bolt [9], washer [10], washer [12], bushing [11], and nut [13] that connect the counterbalance mechanism [1] to the hinge arm [3].

SUBTASK 52-36-04-020-002

(2) Disconnect the snubber [2] from the fuselage structure [15] as follows:

(a) Remove the bolt [4], washer [5], washers [7], bushing [6], and nut [8] that attach the snubber [2] to the fuselage structure [15].

SUBTASK 52-36-04-020-003

(3) Disconnect the hinge arm [3] from the fuselage structure [15] as follows:

(a) Remove the bolts [16], washers [17], washers [18], washers [19], washers [20], washers [34], bushings [22], and nuts [21] that connect the hinge arm [3] to the fuselage structure [15].

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SUBTASK 52-36-04-020-004

(4) Disconnect the hinge arm [3] from the door structure [14] as follows:

(a) Remove the bolt [23], washers [24] [25], and nut [26] that connect the hinge arm [3] to the door structure [14].

(b) Remove the bolt [29], washers [30] [31], and nut [32] that connect the hinge arm [3] to the door structure [14].

——— END OF TASK ———

TASK 52-36-04-410-801

3. Hinge Arm Installation

(Figure 401)

A. References

Reference	Title
52-36-01-000-801	Bulk Cargo Door Removal (P/B 401)
52-36-02-820-801	Counterbalance Mechanism Adjustment (P/B 501)

B. Tools/Equipment

Reference	Description
STD-1164	Safety Pin - Counterbalance Mechanism, 3/8 Inch Diameter, 2 1/4 Inch Length, and Nut

C. Consumable Materials

Reference	Description	Specification
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

D. Location Zones

Zone	Area
825	Bulk Cargo Door

E. Installation

SUBTASK 52-36-04-420-001

(1) Connect the hinge arm [3] to the door structure [14] as follows:

(a) Install the bolt [29], washers [30] [31], and nut [32] to connect the hinge arm [3] to the door structure [14].

NOTE: Install the countersunk washer under the bolt head.

(b) Install the bolt [23], washers [24] [25], and nut [26] to connect the hinge arm [3] to the door structure [14].

NOTE: Install the countersunk washer under the bolt head.

SUBTASK 52-36-04-820-001

(2) Do a check on the flushness of the door as follows:

NOTE: The hinge arms and latch fittings control the flushness of the door.

(a) Make sure the flushness of the door is correct (TASK 52-36-01-000-801).

(b) Adjust the flushness of the door as follows:

1) Add or remove laminations of shim [27] [33] between the hinge arm [3] and inner skin [28] to get the correct door flushness.

2) Apply one coat of the primer, C00259 to the laminations of shim.

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SUBTASK 52-36-04-420-002

(3) Connect the hinge arm [3] to the fuselage structure [15] as follows:

(a) Install the bolts [16], washers [17], washers [18], washers [19], washers [20], washers [34], bushings [22], and nuts [21] to connect the hinge arm [3] to the fuselage structure [15].

NOTE: The bolts [16] head direction is optional. Install the washers [17] under the bolts [16] head.

SUBTASK 52-36-04-420-003

(4) Connect the snubber [2] to the fuselage structure [15] as follows:

(a) Hold the snubber [2] in its correct position and install the bolt [4], washer [5], washer [7], bushing [6], and nut [8] to attach the snubber to the fuselage structure [15].

SUBTASK 52-36-04-420-004

(5) Connect the counterbalance mechanism [1] to the forward hinge arm [3] as follows:

(a) Install the bolt [9], washer [10], washer [12], bushing [11], and nut [13] that connect the counterbalance mechanism [1] to the hinge arm [3].

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-36-04-410-001

(1) Install the lining above the door.

SUBTASK 52-36-04-080-001

(2) Adjust the counterbalance mechanism as follows:

(a) Close and latch the door.

(b) Remove the safety pin, STD-1164.

(c) Do this task: Counterbalance Mechanism Adjustment, TASK 52-36-02-820-801.

SUBTASK 52-36-04-080-002

(3) Remove the DO-NOT-CLOSE tag from the exterior handle.

G. Installation Test

SUBTASK 52-36-04-710-001

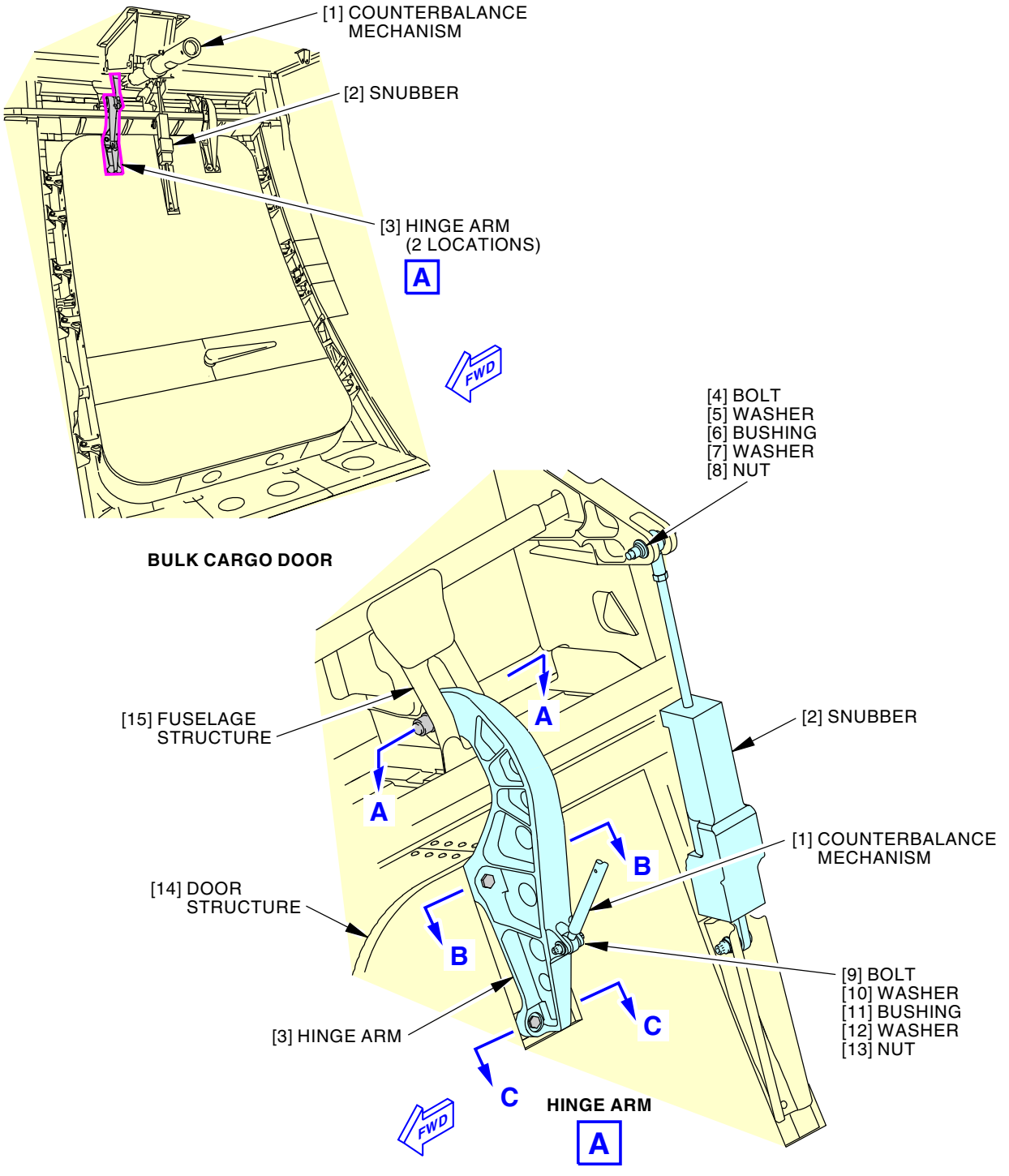
(1) Do a test on the hinge arm as follows:

(a) Open and close the door.

(b) Make sure the door opens and closes smoothly on the hinge arms.

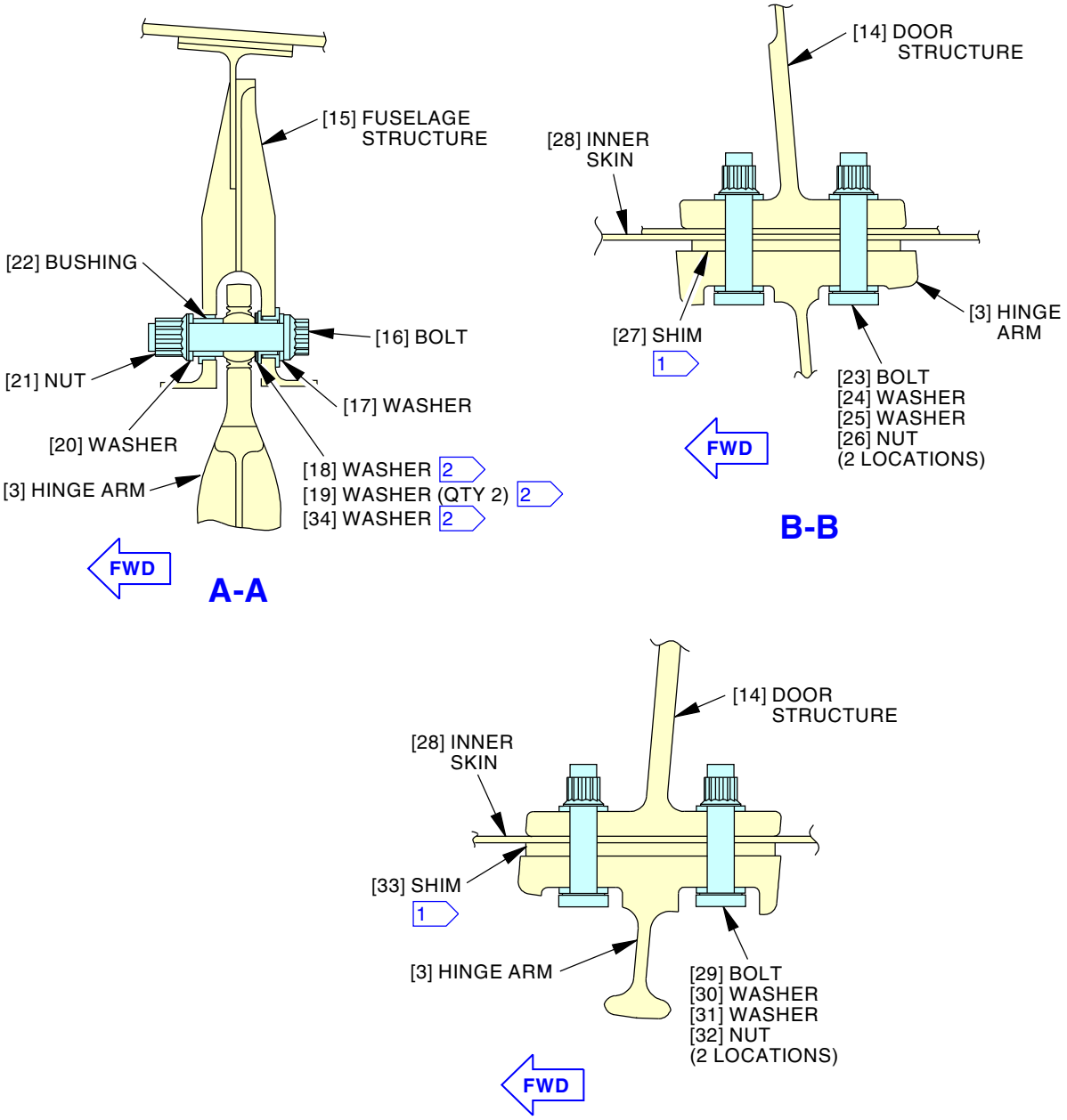
——— END OF TASK ———

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Hinge Arm Installation
Figure 401/52-36-04-990-801 (Sheet 1 of 2)

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NOTE:

1. MAXIMUM SHIM THICKNESS IS 0.19 INCH.
2. IF THREE WASHERS (2 WASHERS [19] AND 1 WASHER [18]) ARE NECESSARY TO ACHIEVE THE CORRECT CLEARANCE, USE ONE WASHER [34] INSTEAD OF THE THREE WASHER COMBINATION.

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Hinge Arm Installation
Figure 401/52-36-04-990-801 (Sheet 2 of 2)

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LATCH MECHANISM - INSPECTION/CHECK

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A check of the latch mechanism.

TASK 52-36-05-200-801

2. Bulk Cargo Door Latch Mechanism Check

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an inspection of the latch mechanism and latch probes.

B. Location Zones

Zone	Area
825	Bulk Cargo Door

C. Procedure

SUBTASK 52-36-05-010-001

(1) Get access to the latch mechanism as follows:

(a) Open the door.

(b) Go into the bulk cargo compartment.

(c) Close the door.

(d) Remove the lining around the interior handle to get access to the latch mechanism.

SUBTASK 52-36-05-220-001

(2) Do a check of the latch mechanism as follows:

(a) Operate the interior handle to unlatch and latch the door.

1) Make sure the latch probes extend and retract.

(b) Examine the latch mechanism and latch probes for wear or damage.

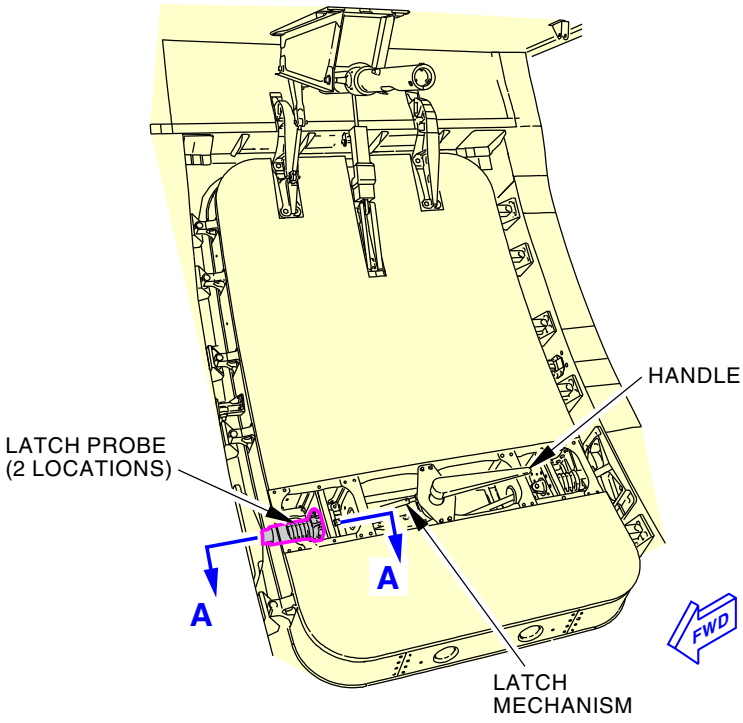
D. Put the Airplane Back to Its Usual Condition

SUBTASK 52-36-05-860-001

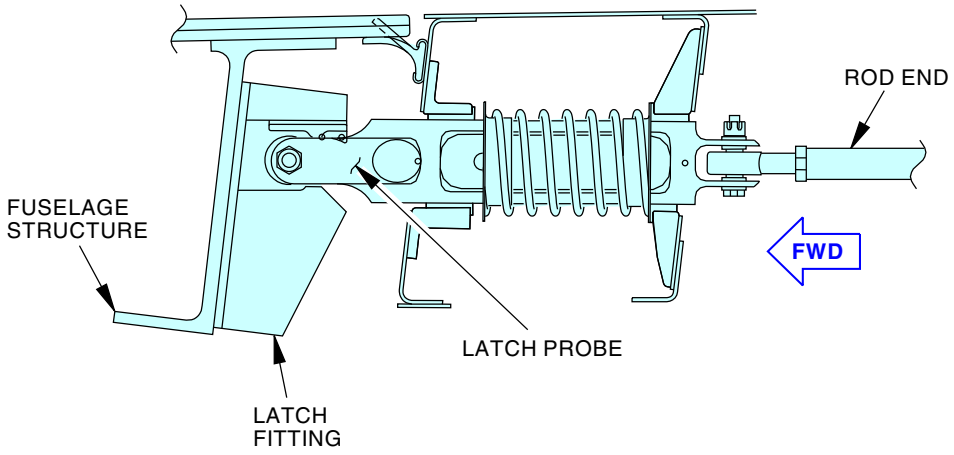
(1) Install the lining around the interior handle.

——— END OF TASK ———

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BULK CARGO DOOR



A-A

E86591 S0006425699_V2

Bulk Cargo Door Latch Mechanism Check
Figure 601/52-36-05-990-801

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BULK CARGO DOOR HANDLE MECHANISM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) Removal of the bulk cargo door handle mechanism.

(2) Installation of the bulk cargo door handle mechanism.

TASK 52-36-06-000-801

2. Bulk Cargo Door Handle Mechanism Removal

(Figure 401)

A. Location Zones

Zone	Area
825	Bulk Cargo Door

B. Prepare for the Removal

SUBTASK 52-36-06-010-001

(1) Get access to the handle mechanism as follows:

(a) Open the door and go into the cargo compartment.

(b) Close the door, but do not latch it.

(c) Remove the door lining over the handle mechanism.

C. Removal

SUBTASK 52-36-06-020-001

(1) Remove the interior handle [23] and the actuator [17] as follows:

(a) Remove the locknut [24], washer [25], and bolt [22] that attach the interior handle [23] to the actuator [17].

(b) Remove the interior handle [23] from the actuator [17].

(c) Remove the screws [20] and washers [19] that attach the support plate [26] to the door structure.

(d) Remove the support plate [26] and the collar [18] from the door structure at the same time.

1) If you will install a new support plate [26] or collar [18], remove the rivets [21].

(e) Remove the screws [13] that attach the fitting [15] to the actuator [17].

(f) Remove the fitting [15] from the actuator [17].

(g) Remove the bolts [27], washers [28], [30], nuts [31], and cotter pins [32] that attach the rods [29] to the actuator [17].

(h) Remove the actuator [17] and quad ring [12] from the housing [10].

(i) Remove the quad ring [12] and discard it.

SUBTASK 52-36-06-020-002

(2) Remove the exterior handle as follows:

(a) Pull the spring [1] away from the spring keeper [11] and remove the spring keeper from the housing [10].

(b) Open the door and go to the exterior of the airplane.

(c) Remove the exterior handle [3] from the housing [10].

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SUBTASK 52-36-06-020-003

(3) If it is necessary, disassemble the exterior handle as follows:

(a) Remove the bearing stud [6] from the exterior handle [3] and discard the bearing stud.

(b) Remove the pin [5] from the sleeve [2] and discard the pin.

(c) Remove the spring [1] and discard it.

(d) If you will install a new hinge assembly [9] or door [7], remove the rivets [8].

SUBTASK 52-36-06-020-004

(4) If you will install a new housing [10], remove the housing as follows:

(a) Remove the collars [33] and bolts [34] that attach the housing [10] to the door structure.

(b) Remove the housing [10] from the door.

——— END OF TASK ———

TASK 52-36-06-400-801

3. Bulk Cargo Door Handle Mechanism Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
C00057	Primer - Zinc Chromate	TT-P-1757B
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796 Class III
D00013	Grease - Aircraft And Instrument Grease	MIL-PRF-23827 (NATO G-354) (Supersedes MIL-G-23827)

B. Location Zones

Zone	Area
825	Bulk Cargo Door

C. Prepare for the Installation

SUBTASK 52-36-06-420-001

(1) If it is necessary, prepare the exterior handle for installation as follows:

(a) Put a new spring [1] in the sleeve [2].

(b) Apply zinc chromate primer, C00057 or corrosion preventive compound, C00528 to a new pin [5].

(c) Push the pin [5] into the sleeve [2] to hold the spring [1].

(d) Push a new bearing stud [6] and a wedge [35] into the boss in the exterior handle [3].

NOTE: Make sure there is no clearance between the top of the boss and the shoulder of the bearing stud.

SUBTASK 52-36-06-420-002

(2) If it is necessary, attach the support plate [26] to the collar [18] with the rivets [21].

SUBTASK 52-36-06-420-003

(3) If it is necessary, attach the hinge assembly [9] and the door [7] to the housing [10] with the rivets [8].

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D. Installation

SUBTASK 52-36-06-420-004

(1) If you removed the housing [10], install the new housing as follows:

(a) Drill the holes in the new housing [10].

(b) Put the housing [10] in the cutout in the door skin.

(c) Install the bolts [34] and collars [33] to attach the housing [10] to the door structure.

SUBTASK 52-36-06-420-005

(2) Install the exterior handle as follows:

(a) Apply a thin layer of grease, D00013 to the outer surface of the sleeve [2].

(b) Put the exterior handle [3] in the housing [10].

(c) Open the door and go into the cargo compartment.

(d) Close the door.

(e) Pull the spring [1] and install the spring keeper [11] on the housing [10] and under the spring.

SUBTASK 52-36-06-420-006

(3) Install the interior handle [23] and the actuator [17] as follows:

(a) Install a new quad ring [12] on the actuator [17].

(b) Lubricate the mating surfaces of the actuator [17] and the housing [10] with grease, D00013.

(c) Put the actuator [17] and quad ring [12] on the housing [10].

(d) Align the actuator [17] with the slots in the housing [10] and the sleeve [2].

(e) Apply zinc chromate primer, C00057 or corrosion preventive compound, C00528 to the threads of the screws [13].

(f) Put the fitting [15] on the actuator [17].

(g) Install the screws [13] to attach the fitting [15] to the actuator [17].

(h) Tighten screws [13] to 40 in-lb (4.5 N·m) to 45 in-lb (5.1 N·m).

(i) Install the bolts [27], washers [28], [30], nuts [31], and new cotter pins [32] to attach the rods [29] to the actuator [17].

(j) Put the collar [18] and the support plate [26] on the door structure.

(k) Install the screws [20] and washers [19] to attach the support plate [26] to the door structure.

(l) Install the interior handle [23] in its correct position on the actuator [17].

(m) Install the bolt [22], washer [25], and locknut [24] to attach the interior handle [23] to the actuator [17].

E. Put the Airplane Back to its Usual Condition.

SUBTASK 52-36-06-840-001

(1) Put the airplane back to its usual condition as follows:

(a) Install the door lining over the handle mechanism.

(b) Close and latch the door.

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F. Installation Test

SUBTASK 52-36-06-710-001

(1) Do a test on the handle mechanism as follows:

(a) Open and close the door with the exterior handle.

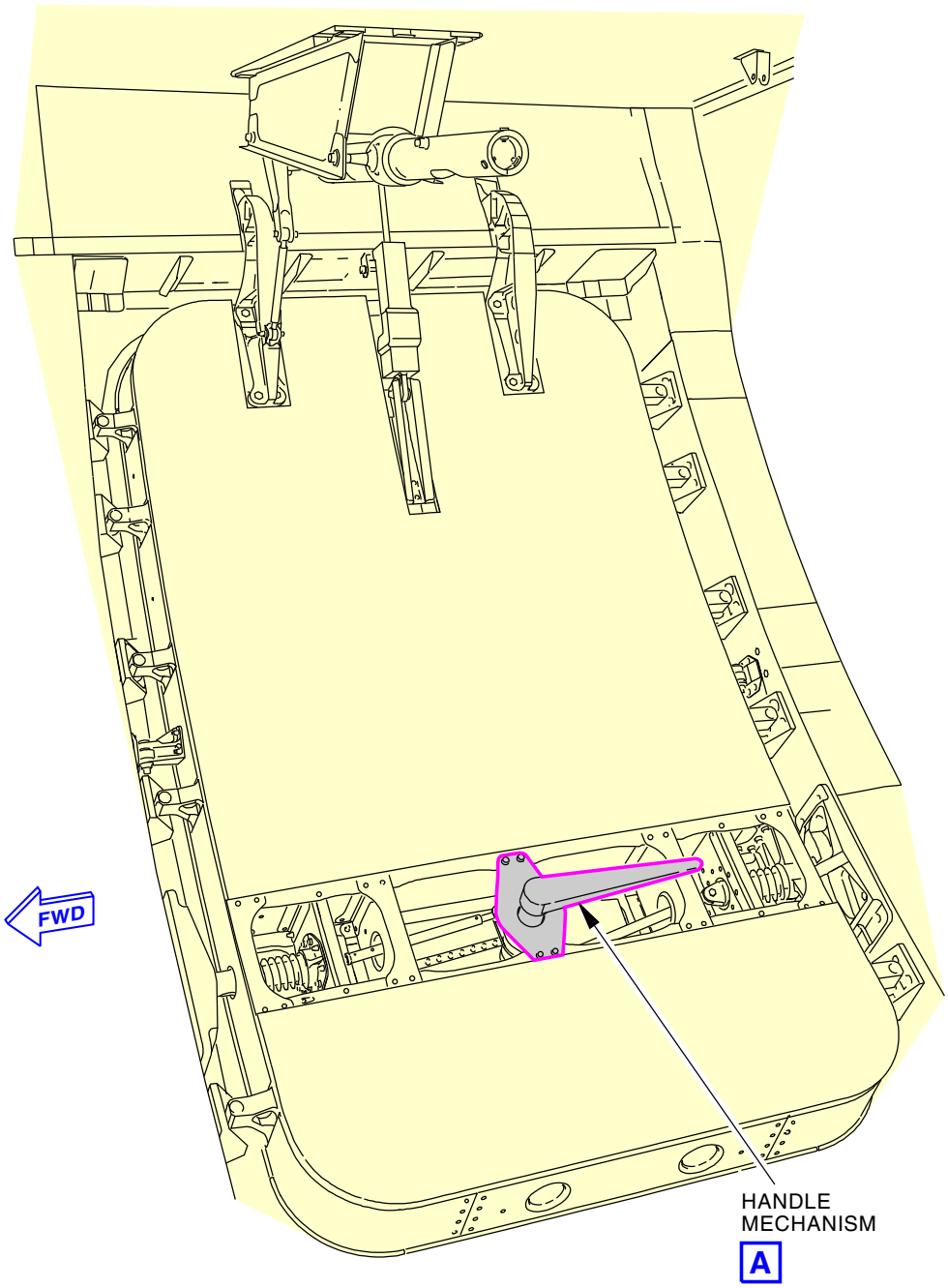
1) Make sure the door operates easily and smoothly.

(b) Open and close the door with the interior handle.

1) Make sure the door operates easily and smoothly.

——— END OF TASK ———

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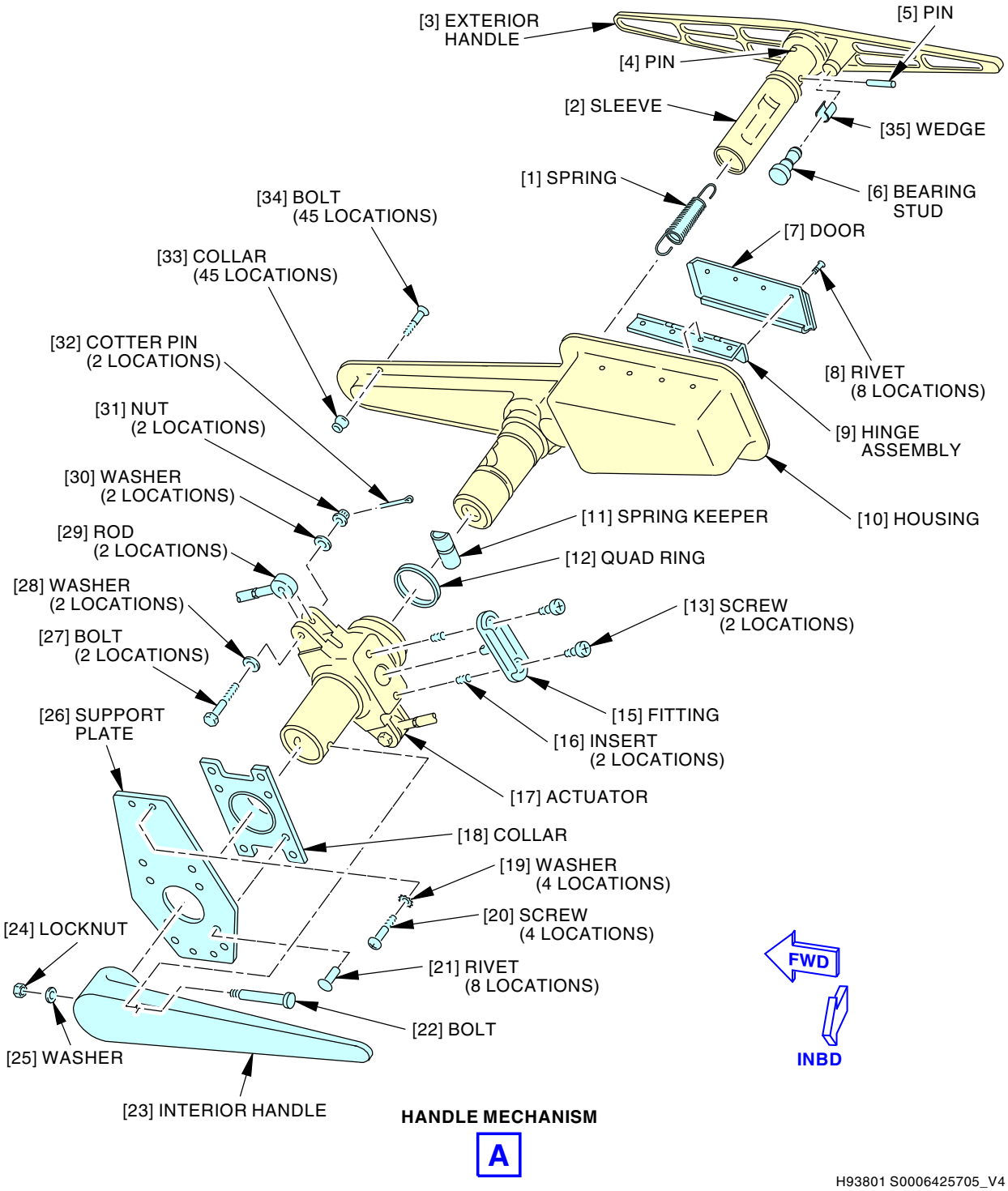


BULK CARGO DOOR

H92325 S0006425704_V2

Bulk Cargo Door Handle Mechanism Installation
Figure 401/52-36-06-990-801 (Sheet 1 of 2)

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Bulk Cargo Door Handle Mechanism Installation
Figure 401/52-36-06-990-801 (Sheet 2 of 2)

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FORWARD ACCESS DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the forward access door.

(2) An installation of the forward access door.

TASK 52-48-01-000-801

2. Forward Access Door Removal

(Figure 401)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1987	Barrier - Door, Forward Access (Door 112AL) Hatch Part #: J52003-1 Supplier: 81205

B. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

C. Access Panels

Number	Name/Location
112AL	Forward Access Door

D. Prepare for the Removal

SUBTASK 52-48-01-860-001

(1) To open the door assembly [2] and engage the hold-open [13] with the latch pin [3], do this step:

(a) Open this access panel:

Number	Name/Location
112AL	Forward Access Door

E. Removal

SUBTASK 52-48-01-020-001

(1) Disconnect the hinge arms [6] from the hinge supports [8] on the fuselage frame [10] as follows:

(a) Remove the washers [29] and nuts [30] to disconnect the bonding jumpers [7] from the hinge arms [6].

(b) Hold the door and remove the bolts [15], washers [16], washers [17], washers [18], washers [19], nuts [20], and cotter pins [23] that attach the hinge arms [6] to the hinge supports [8].

SUBTASK 52-48-01-020-002

(2) Remove the door assembly [2] as follows:

(a) Lower the door assembly [2] until the latch pin [3] releases from the hold-open [13].

(b) Remove the door assembly [2] from the airplane.

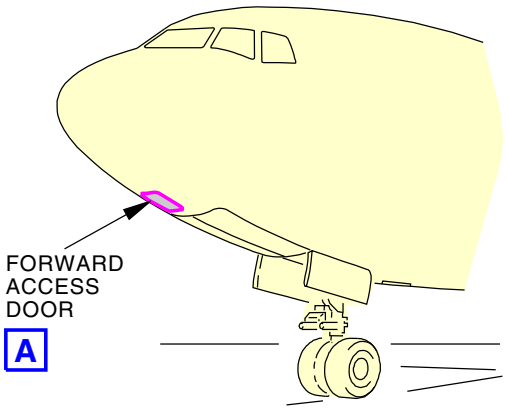
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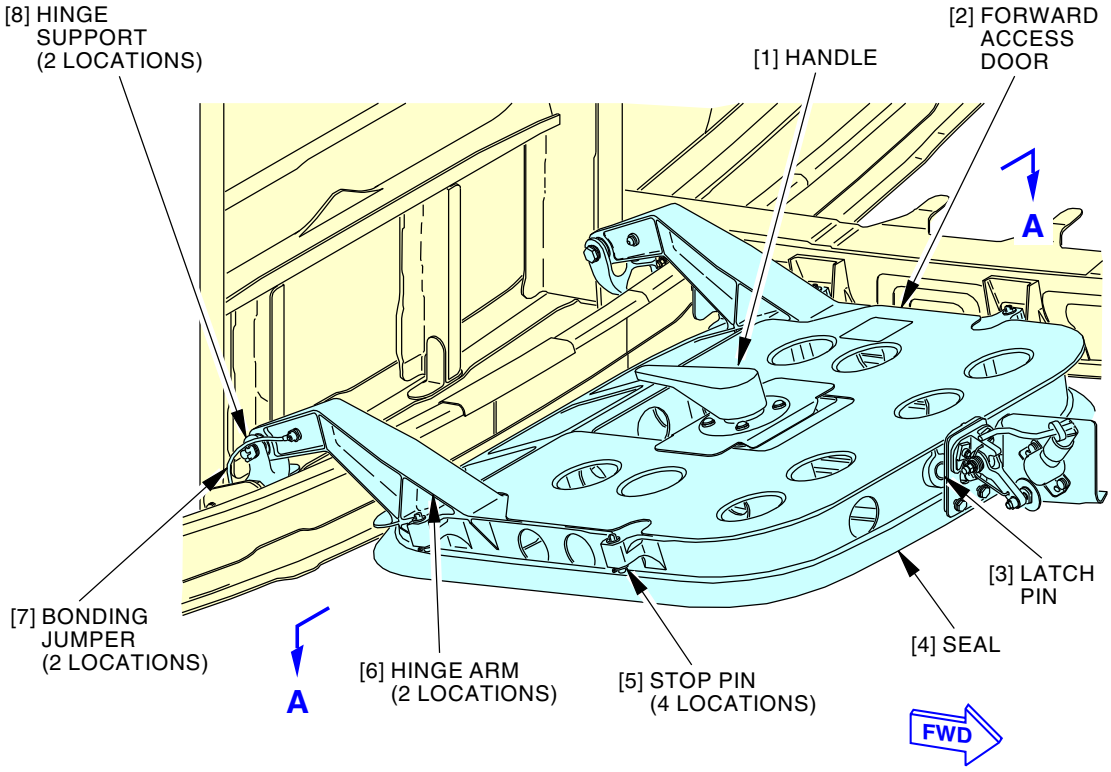
SUBTASK 52-48-01-480-001

(3) Install the forward access (door 112AL) hatch door barrier, SPL-1987, across the door opening.

——— END OF TASK ———

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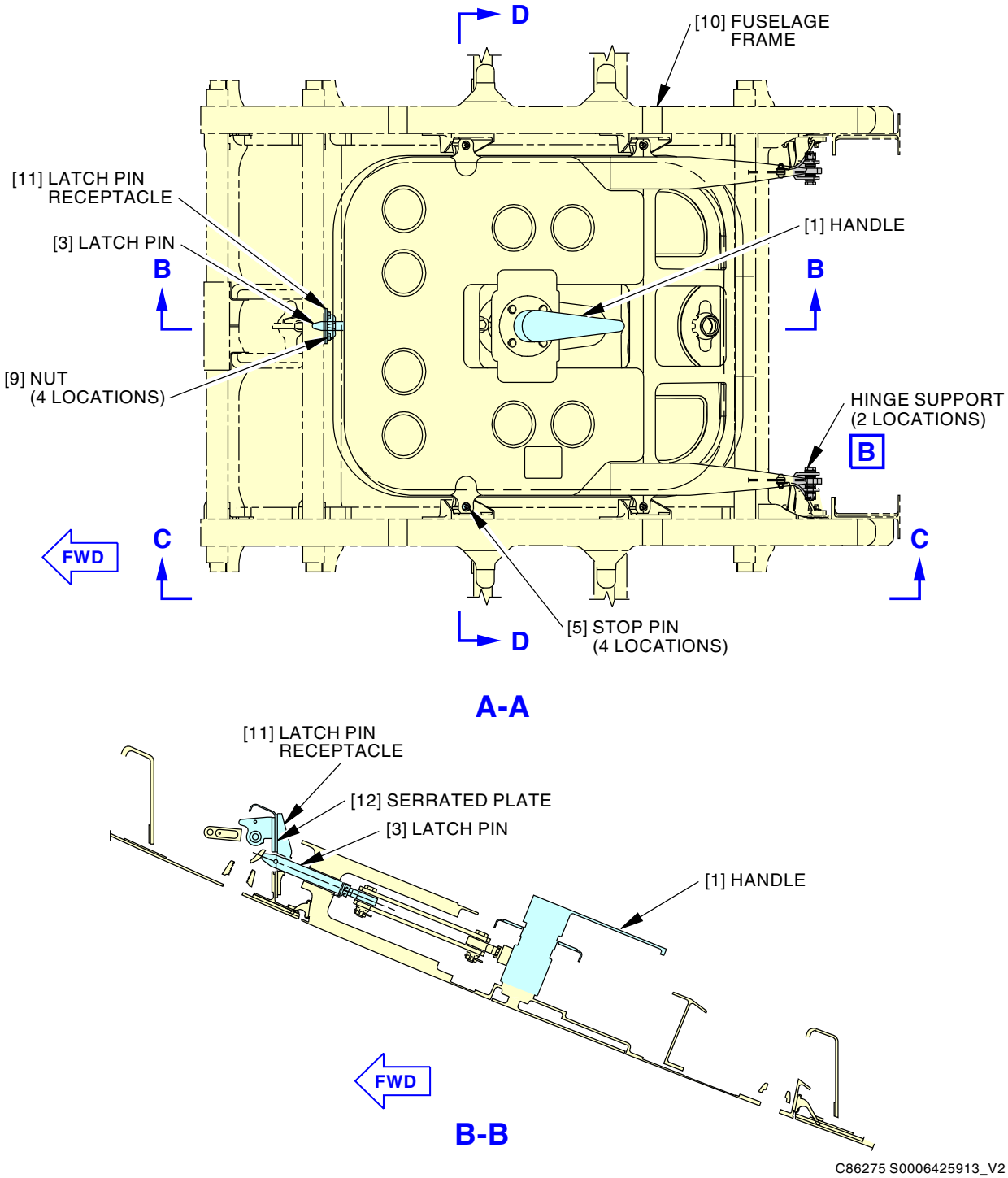




C86250 S0006425912_V2

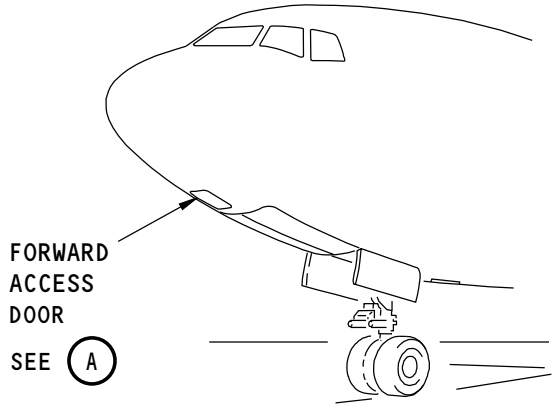
Forward Access Door Installation
Figure 401/52-48-01-990-804 (Sheet 1 of 6)

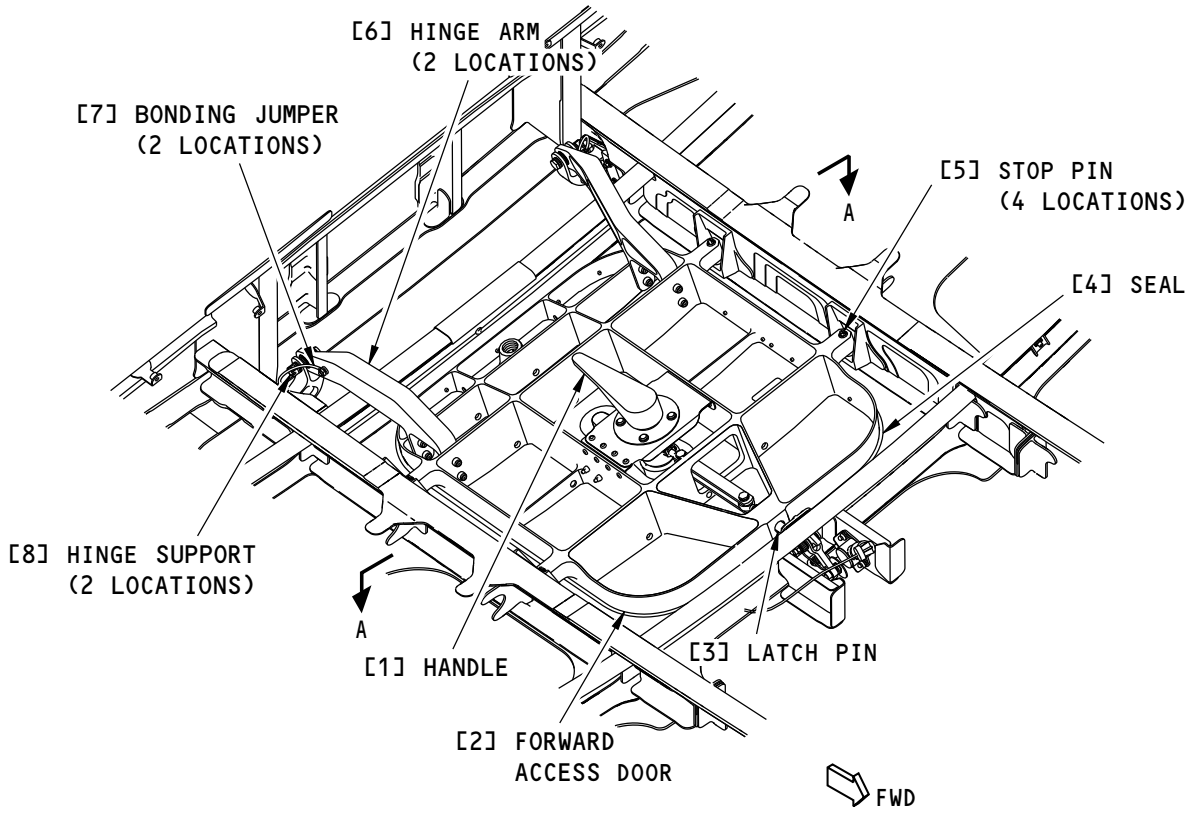
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Forward Access Door Installation
Figure 401/52-48-01-990-804 (Sheet 2 of 6)

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FORWARD ACCESS DOOR

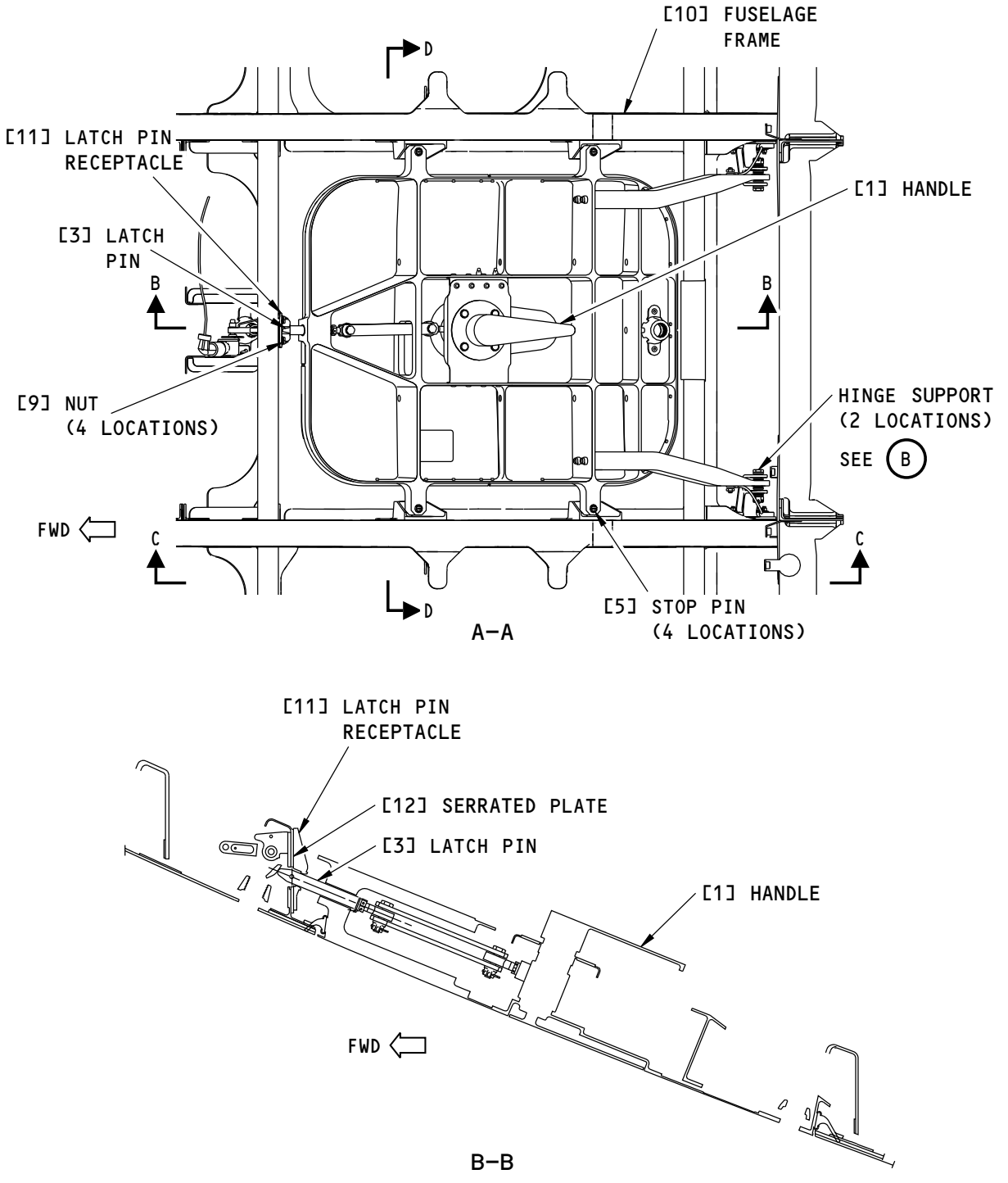
A

2459758 S0000571920_V1

Forward Access Door Installation
Figure 401/52-48-01-990-804 (Sheet 3 of 6)

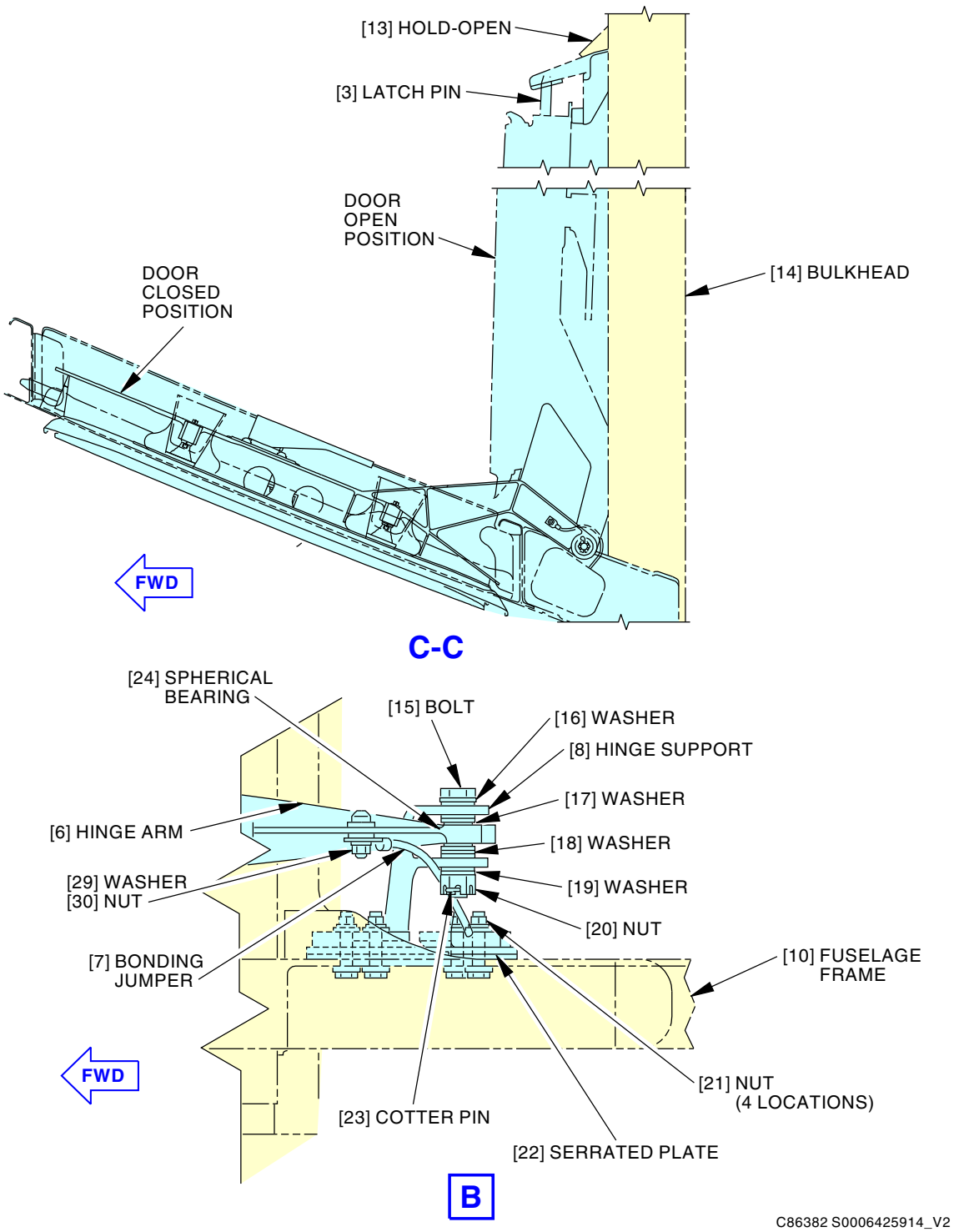
EFFECTIVITY
ARO ALL; AIRPLANES WITH FWD ACCESS DOOR P/N 137W1001-4 OR 137W1001-5 OR 137W1001-6.

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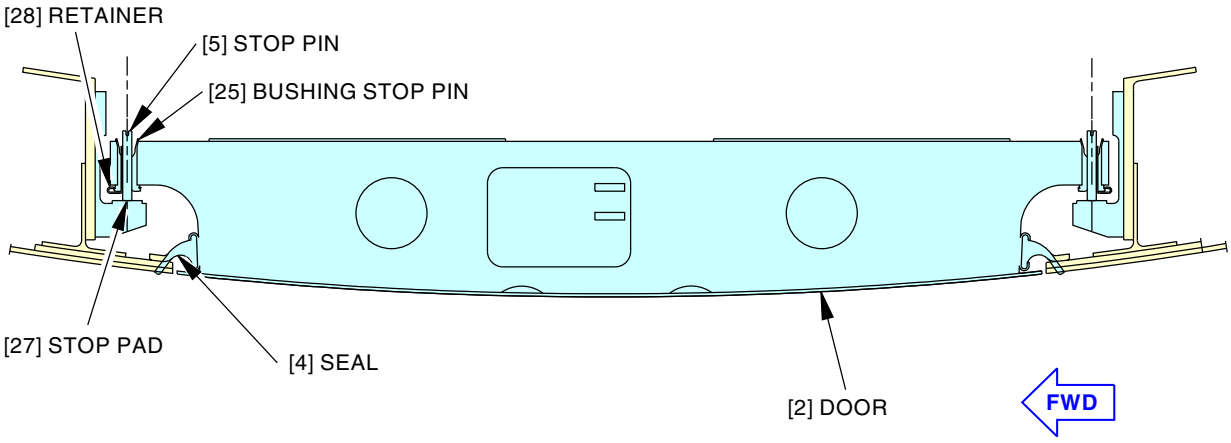
Forward Access Door Installation
Figure 401/52-48-01-990-804 (Sheet 4 of 6)

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Forward Access Door Installation
Figure 401/52-48-01-990-804 (Sheet 5 of 6)

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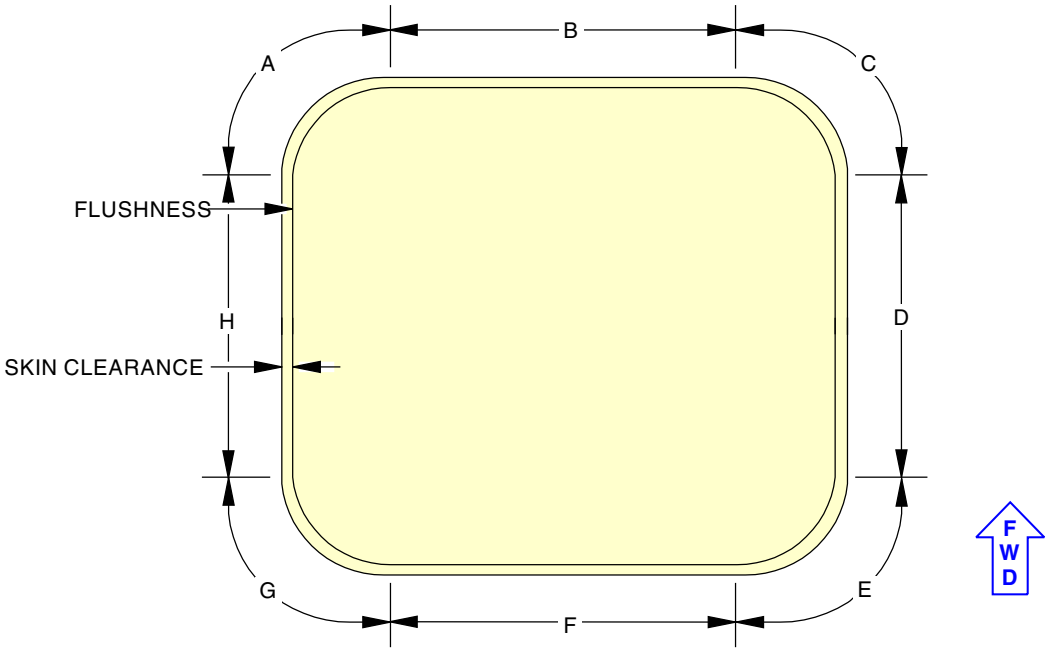
(EXAMPLE)

D-D

C86328 S0006425915_V3

Forward Access Door Installation
Figure 401/52-48-01-990-804 (Sheet 6 of 6)

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SKIN CLEARANCE AND FLUSHNESS DEVIATION ZONES

NOTE:

REFER TO TABLE FOR CLEARANCE AND FLUSHNESS DIMENSIONS.

E56378 S0006425916_V2

Skin Clearance and Flushness
Figure 402/52-48-01-990-805

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TASK 52-48-01-400-801

3. Forward Access Door Installation

(Figure 401, Figure 402)

A. References

Reference	Title
52-09-05-820-801	Forward Access Door Seal Adjustment (P/B 201)
52-71-05-900-801	Closed, Latched and Locked Proximity Sensor Removal, Installation and Adjustment (P/B 201)
SWPM 20-20-00	Standard Wiring Practices Manual

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1987	Barrier - Door, Forward Access (Door 112AL) Hatch Part #: J52003-1 Supplier: 81205
STD-1200	Sandbag

C. Consumable Materials

Reference	Description	Specification
C00064	Coating - Aluminum Chemical Conversion	BAC5719 Type II Class A (MIL-DTL-5541 Class 1A)
D00013	Grease - Aircraft And Instrument Grease	MIL-PRF-23827 (NATO G-354) (Supersedes MIL-G-23827)

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Door assembly	52-48-01-01-045	ARO ALL
		52-48-01-01-300	ARO ALL
4	Seal	52-48-01-01-080	ARO 001-015
		52-48-01-01-305	ARO ALL
5	Pin	52-48-01-01-085	ARO 001-015
		52-48-01-01-335	ARO ALL
8	Hinge support	52-48-01-02-040	ARO ALL
		52-48-01-02-045	ARO ALL
22	Plate	52-48-01-02-065	ARO ALL
		52-48-01-02-070	ARO ALL
28	Retainer	52-48-01-01-255	ARO ALL

E. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

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F. Access Panels

Number	Name/Location
112AL	Forward Access Door

G. Installation

SUBTASK 52-48-01-080-001

(1) Remove the forward access (door 112AL) hatch door barrier, SPL-1987, from across the door opening.

SUBTASK 52-48-01-420-001

(2) Prepare the fuselage frame [10] for adjustment as follows (Figure 401):

(a) Loosen the nuts [21] that attach the hinge supports [8] to the fuselage frame [10].

(b) Loosen the nuts [9] that attach the latch pin receptacle [11] to the fuselage frame [10].

SUBTASK 52-48-01-420-002

(3) Put the forward access door in the correct position in the fuselage frame:

Number	Name/Location
112AL	Forward Access Door

SUBTASK 52-48-01-820-001

(4) Adjust the flushness of the door as follows:

(a) If installed, remove the retainers [28].

(b) Use the sandbag, STD-1200, to put weight on the internal surface of the door to overcome the force of the seal [4] around the door and make the stop pins [5] touch their stop pads [27].

(c) Adjust the stop pins [5] until all of the stop pins [5] touch their stop pads [27].

NOTE: This will make sure the stop pins [5] and stop pads take the pressure load.

(d) Make sure the flushness of the door and fuselage cutout is as shown in Figure 402 and Table 401.

Table 401/52-48-01-993-807 Skin Clearances and Flushness Zones - Forward Access Door (See Figure 402)

	CLEARANCE		FLUSHNESS	
ZONE	NOMINAL	TOLERANCE	NOMINAL	TOLERANCE
A thru H	0.09 in. (2.29 mm)	0.06 in. (1.52 mm) to 0.15 in. (3.81 mm)	0.00 in. (0.00 mm)	-0.04 in. (1.02 mm) to +0.04 in. (1.02 mm)
ARO 009				
EXCEPT: B		0.06 in. (1.52 mm) to 0.154 in. (3.912 mm)		
ARO ALL				

(e) If you can not get the correct flushness do these measurements (aero-averaging):

1) Make three marks that are spaced equally along the forward edge of the door.

NOTE: Include the door corner tangent points.

2) Make three marks that are spaced equally along the aft edge of the door.

NOTE: Include the door corner tangent points.

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3) Measure the skin flushness within ±1.0 in. (25.4 mm) of each mark along the forward and aft edges of the door.

4) Record the skin flushness for each measurement.

5) Use the Table 402 to change the flushness to a Drag value.

NOTE: A flushness measurement on the forward door edge of -0.06 in. (1.52 mm) is 1.43 Drag Value.

6) Record the Drag value for each measurement from Table 402.

Table 402/52-48-01-993-808 Forward Access Door Flushness (Aero-Averaging) (see Figure 402)

Door Flushness		
Fwd Edge	**Aft Edge**	**Drag Value**
-0.11 in. (2.79 mm)	0.11 in. (2.79 mm)	2.98
-0.10 in. (2.54 mm)	0.10 in. (2.54 mm)	2.62
-0.09 in. (2.29 mm)	0.09 in. (2.29 mm)	2.26
-0.08 in. (2.03 mm)	0.08 in. (2.03 mm)	2.02
-0.07 in. (1.78 mm)	0.07 in. (1.78 mm)	1.67
-0.06 in. (1.52 mm)	0.06 in. (1.52 mm)	1.43
-0.05 in. (1.27 mm)	0.05 in. (1.27 mm)	1.19
-0.04 in. (1.02 mm)	0.04 in. (1.02 mm)	0.83
-0.03 in. (0.76 mm)	0.03 in. (0.76 mm)	0.60
-0.02 in. (0.51 mm)	0.02 in. (0.51 mm)	0.36
-0.01 in. (0.25 mm)	0.01 in. (0.25 mm)	0.12
0.00 in. (0.00 mm)	0.00 in. (0.00 mm)	0.00
0.01 in. (0.25 mm)	-0.01 in. (0.25 mm)	0.24
0.02 in. (0.51 mm)	-0.02 in. (0.51 mm)	0.60
0.03 in. (0.76 mm)	-0.03 in. (0.76 mm)	1.07
0.04 in. (1.02 mm)	-0.04 in. (1.02 mm)	1.67
0.05 in. (1.27 mm)	-0.05 in. (1.27 mm)	2.26
0.06 in. (1.52 mm)	-0.06 in. (1.52 mm)	2.88
0.07 in. (1.78 mm)	-0.07 in. (1.78 mm)	3.57
0.08 in. (2.03 mm)	-0.08 in. (2.03 mm)	4.29
0.09 in. (2.29 mm)	-0.09 in. (2.29 mm)	5.00
0.10 in. (2.54 mm)	-0.10 in. (2.54 mm)	5.71
0.11 in. (2.79 mm)	-0.11 in. (2.79 mm)	6.43

7) Add all the Drag values together (sum) and record this as measurement A.

8) Make measurements B, the count of measurements (6).

9) Divide measurement A by measurement B.

10) Make sure the value is 1.00 or less.

(f) If necessary, adjust as follows:

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1) Open the door.

2) Adjust the door to get the correct skin flushness.

(g) Install the retainers [28] into a slot between the stop pins [5] and bushing stop pin [25] to lock the stop pins [5] in position (Figure 401).

SUBTASK 52-48-01-820-002

(5) Adjust the latch pin receptacle [11] as follows:

(a) Adjust the latch pin receptacle [11] on its serrated plate [12] to get equal clearance between the top and bottom of the latch pin [3] and the latch pin receptacle [11].

(b) Tighten the nuts [9] that attach the latch pin receptacle [11] to the fuselage frame [10].

SUBTASK 52-48-01-820-003

(6) Adjust the skin clearances of the door as follows:

(a) Make sure the skin clearances between the door and the fuselage cutout are as shown in Figure 402 and Table 401.

(b) If the skin clearances are not correct, adjust the door as follows:

1) Change the clearance on the left and right sides of the door as follows:

a) Add or remove washers [17] and washers [18] on the bolts [15] that attaches the hinge arms [6] to the hinge supports [8] (Figure 401).

2) Change the clearance on the forward and aft sides of the door as follows:

a) Move the hinge supports [8] on their serrated plates [22].

(c) If it is necessary, remove the unwanted skin from the edges of the door as follows:

1) Remove skin only from replacement doors.

2) Do not remove skin from the initial door.

3) Mark the unwanted skin on the door edges to get the correct clearances.

4) Carefully remove the unwanted skin.

5) Apply the coating, C00064, to the areas of the door where you removed the skin.

SUBTASK 52-48-01-420-003

(7) Connect the hinge arms [6] to the hinge supports [8] as follows:

(a) Temporarily install the bolts [15] without the washers and align the hinge supports [8] with the spherical bearing [24] in the hinge arms [6].

(b) Tighten the nuts [21] to attach the hinge supports [8] to the fuselage frame [10].

(c) Remove the bolts [15].

(d) Install the bolts [15], washers [16], washers [17], washers [18], washers [19], nuts [20], and new cotter pins [23] that attach the hinge arms [6] to the fuselage frame [10].

(e) Make sure the skin clearances stay correct.

(f) Install the washers [29] and nuts [30] to connect the electrical bonding jumpers [7] to the hinge arm [6] (SWPM 20-20-00).

SUBTASK 52-48-01-820-004

(8) Continue to adjust the door as follows:

(a) Remove the weight from the door.

(b) Open and close the door.

1) Make sure it does not bind on the stop pads [27] or other components of the fuselage frame [10].

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(c) If the door binds at the stop pads [27], add or remove the washers [17] and washers [18] at the hinge arms [6].

1) Make sure the skin clearances stay correct.

(d) Close the door assembly [2].

1) Make sure that all stop pins [5] touch their stop pads [27].

(e) Adjust the stop pins [5], if necessary, and keep the correct flushness of the door.

SUBTASK 52-48-01-700-002

(9) Do this task: Forward Access Door Seal Adjustment, TASK 52-09-05-820-801.

SUBTASK 52-48-01-820-005

(10) Adjust the latch mechanism as follows:

(a) Operate the handle [1] and latch mechanism to make sure it operates smoothly.

(b) If the handle [1] does not operate smoothly, apply the grease, D00013, to the latch pin [3] and operate the handle several times to make the grease go into the bushing.

(c) If the latch mechanism does not operate smoothly at the latch pin receptacle [11], adjust the latch pin receptacle [11] or the washers [17] and washers [18] installed in the hinge arms [6].

1) Make sure you keep the other adjustments correct.

(d) Open the door.

(e) Make sure the door is held open by the latch pin [3] through the hole in the hold-open [13] of the forward bulkhead [14].

SUBTASK 52-48-01-820-006

(11) Adjust the proximity sensor (TASK 52-71-05-900-801).

——— END OF TASK ———

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FORWARD ACCESS DOOR - INSPECTION/CHECK

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A check of the latch mechanism.

TASK 52-48-01-200-801

2. Forward Access Door Latch Mechanism Check

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an inspection of the latch mechanism.

B. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

C. Access Panels

Number	Name/Location
112AL	Forward Access Door

D. Procedure

SUBTASK 52-48-01-010-001

(1) Get access to the latch mechanism as follows:

Open the forward access door:

Number	Name/Location
112AL	Forward Access Door

SUBTASK 52-48-01-220-001

(2) Do a check of the latch mechanism as follows:

(a) Operate the handle to unlatch and latch the door.

1) Make sure the latch pin extends and retracts.

(b) Examine the latch mechanism and latch pins for wear or damage.

E. Put the Airplane Back to Its Usual Condition

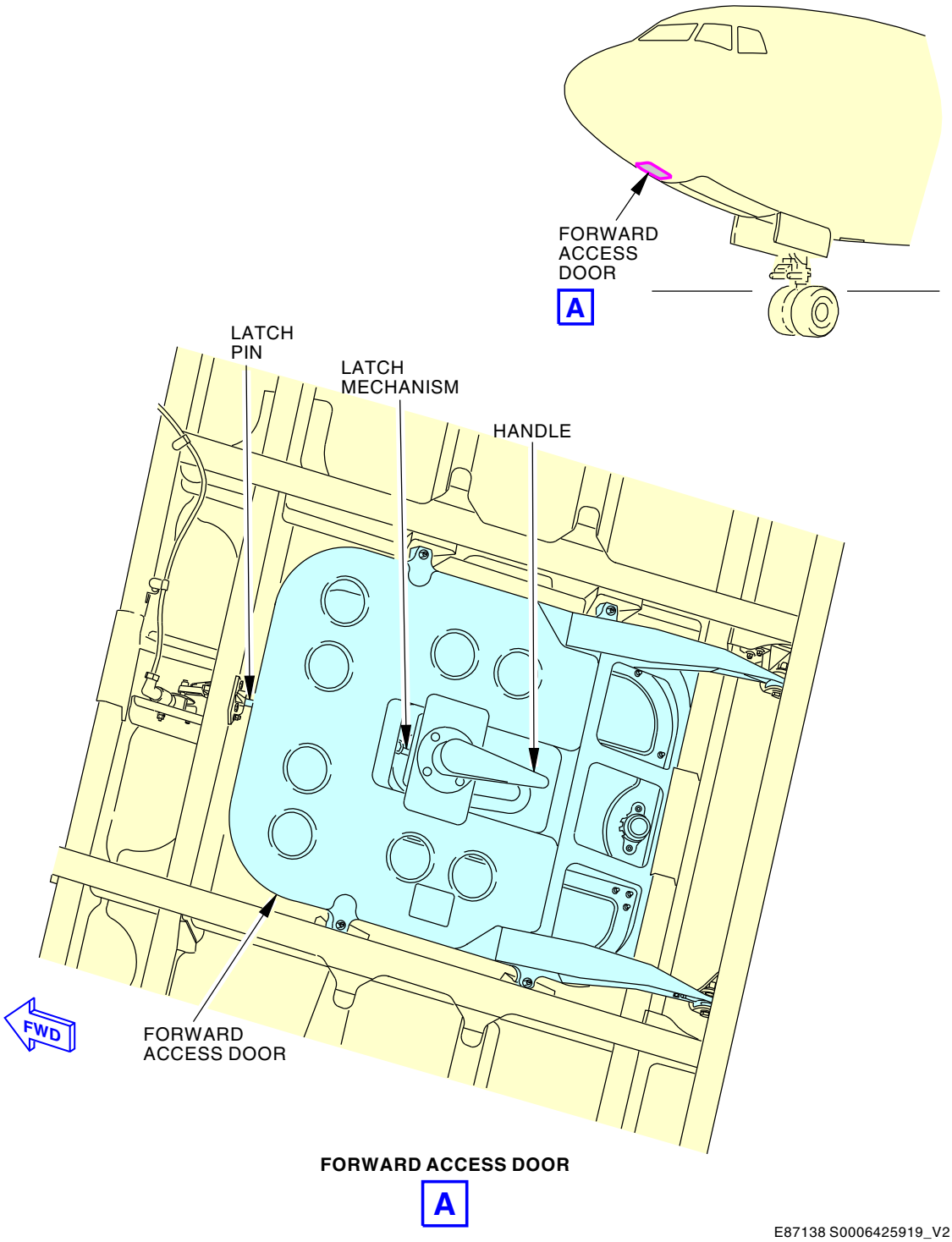
SUBTASK 52-48-01-220-002

(1) Close the forward access door:

Number	Name/Location
112AL	Forward Access Door

END OF TASK

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FORWARD ACCESS DOOR

A

E87138 S0006425919_V2

Forward Access Door Latch Mechanism Check
Figure 601/52-48-01-990-803

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MAIN EQUIPMENT CENTER ACCESS DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the main equipment center access door.

(2) An installation of the main equipment access door.

TASK 52-48-02-000-801

2. Main Equipment Center Access Door Removal

(Figure 401)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1986	Barrier - Door, Main Equipment Center Access (Door 117AL) Part #: J52003-2 Supplier: 81205

B. Location Zones

Zone	Area
117	Main Equipment Center, Left

C. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

D. Prepare for the Removal

SUBTASK 52-48-02-860-001

(1) Open this access door:

Number	Name/Location
117AL	Main Equipment Center Access Door

SUBTASK 52-48-02-860-002

(2) Go into the main equipment center.

SUBTASK 52-48-02-860-003

(3) Close this access door:

Number	Name/Location
117AL	Main Equipment Center Access Door

E. Removal

SUBTASK 52-48-02-020-001

(1) Remove the clips [1] and shims [22] from the guide tracks [4].

SUBTASK 52-48-02-020-002

(2) Align the door assembly [2] and rollers [9] with the openings in the guide tracks [4].

SUBTASK 52-48-02-020-003

(3) Lift the door assembly [2] and the rollers [9] up out of the guide tracks [4] and remove it from the airplane.

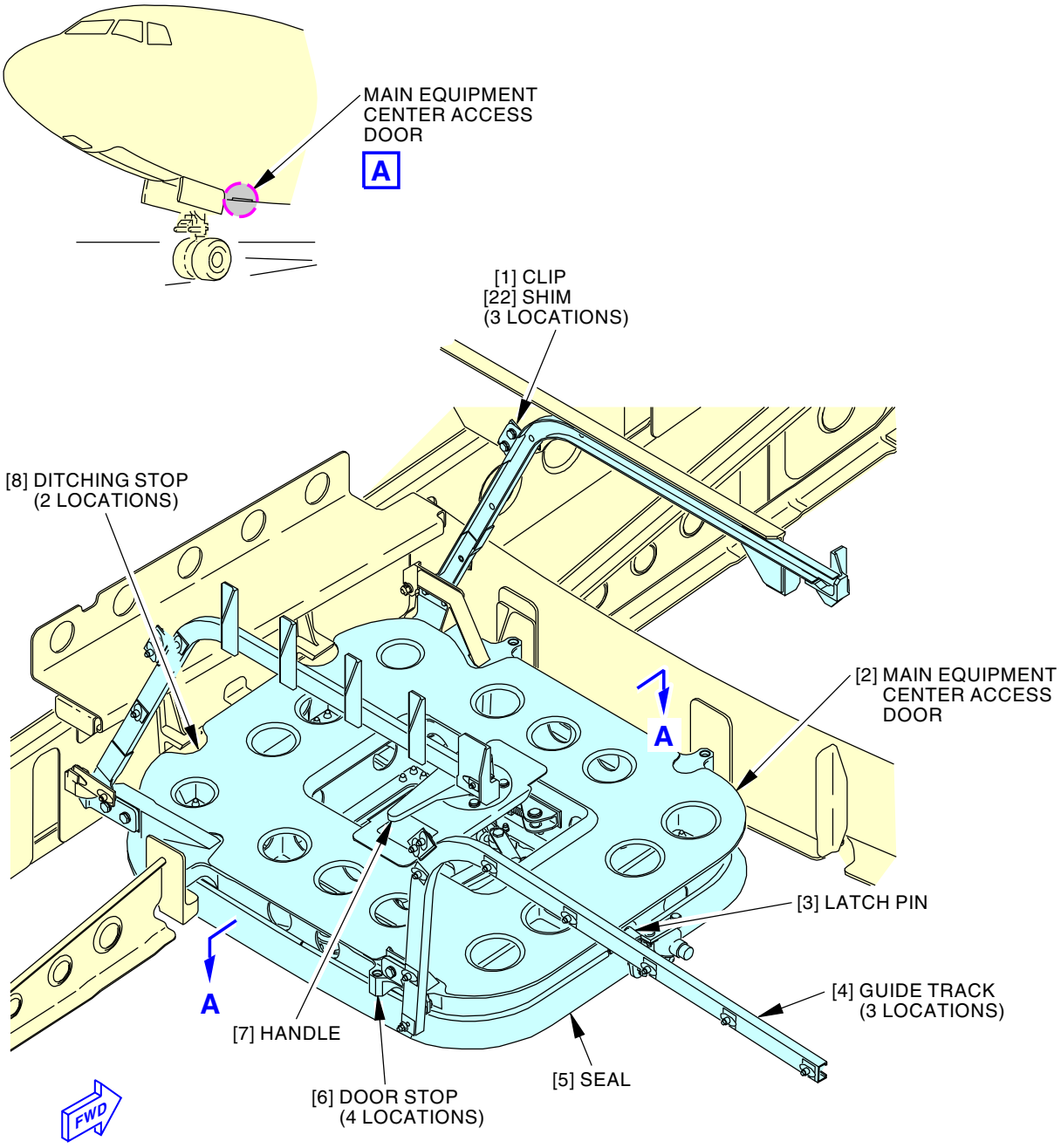
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SUBTASK 52-48-02-480-001

(4) Install the main equipment center access (door 117AL) door barrier, SPL-1986 across the door opening.

——— END OF TASK ———

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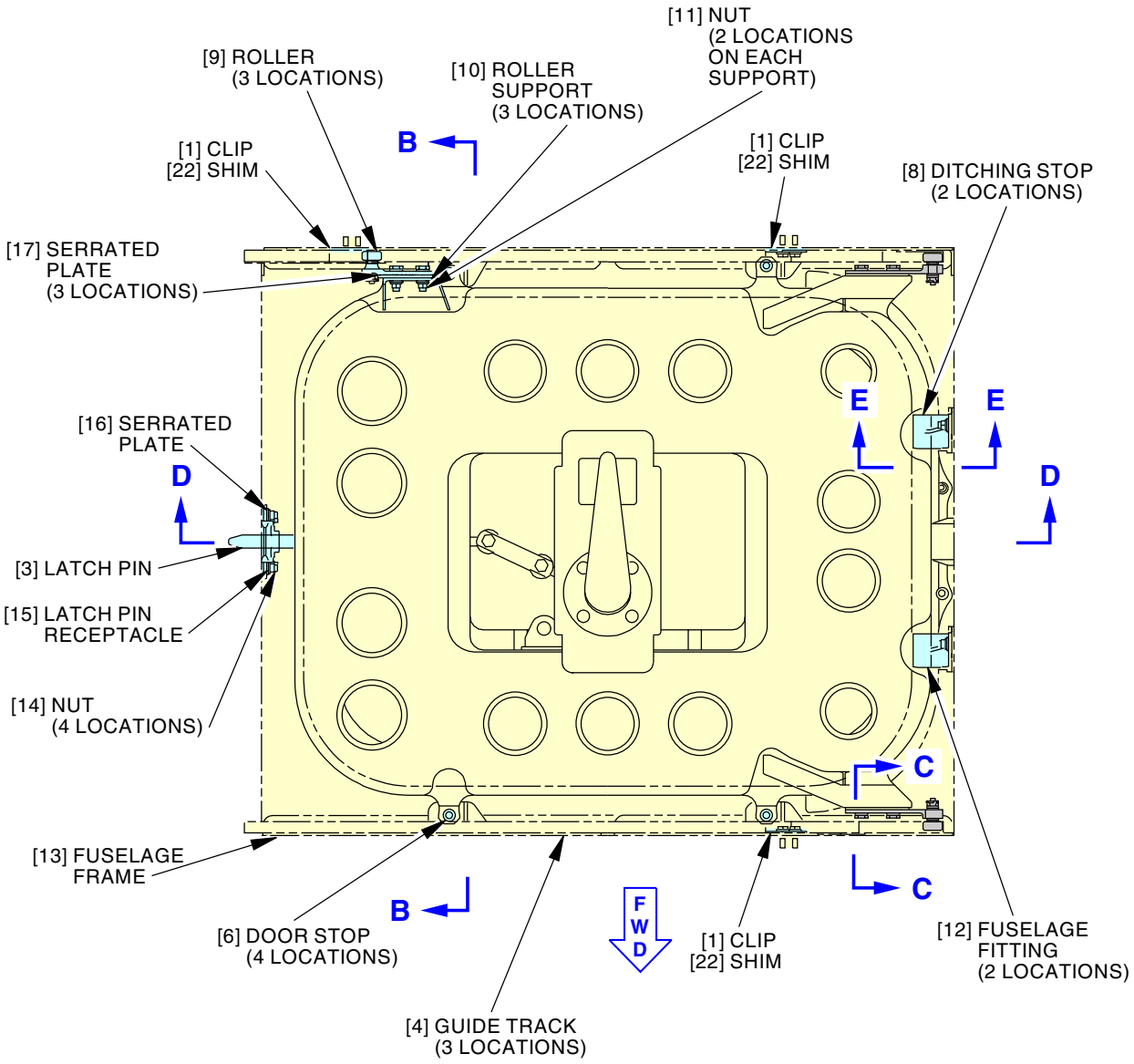
MAIN EQUIPMENT CENTER ACCESS DOOR

A

C87088 S0006425926_V3

Main Equipment Center Access Door Installation
Figure 401/52-48-02-990-803 (Sheet 1 of 4)

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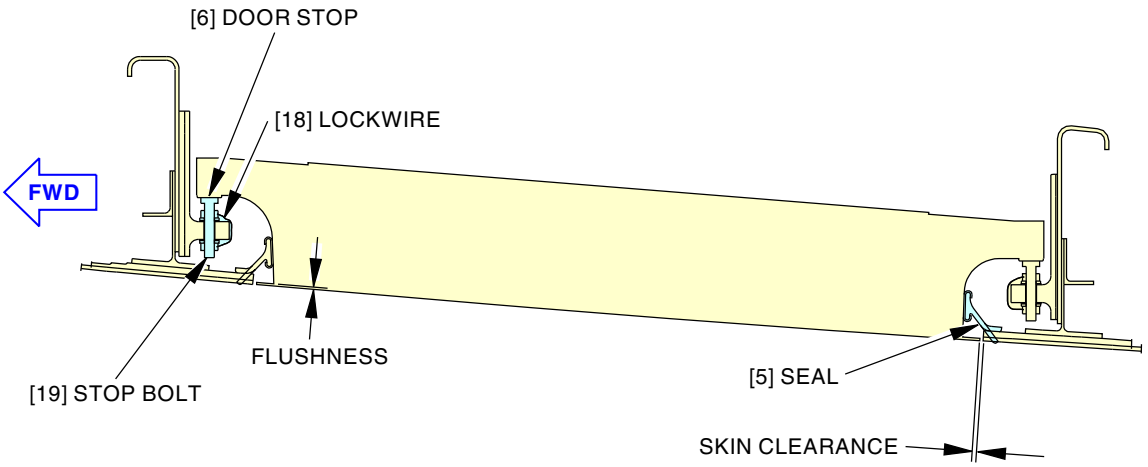


A-A

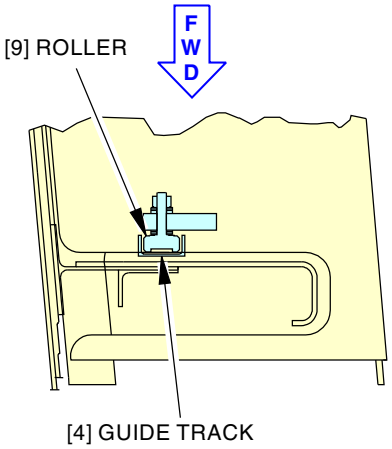
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Main Equipment Center Access Door Installation
Figure 401/52-48-02-990-803 (Sheet 2 of 4)

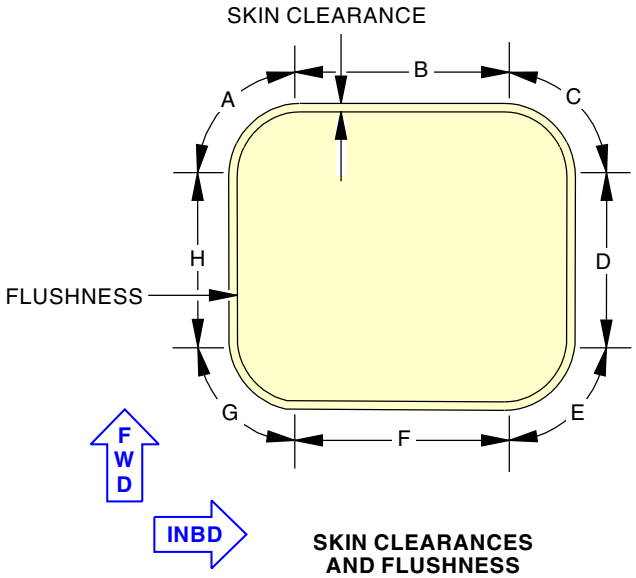
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B-B



C-C

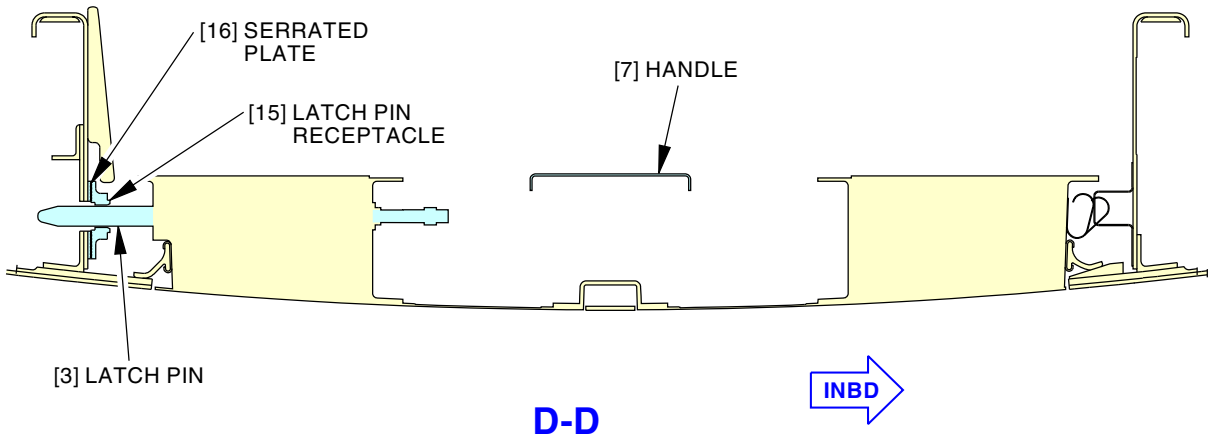


SKIN CLEARANCES AND FLUSHNESS ZONES

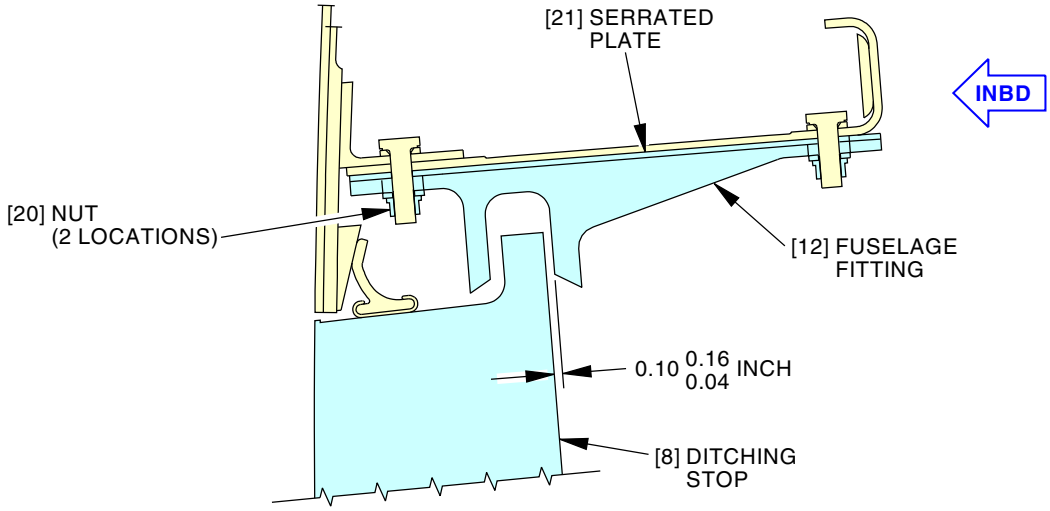
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Main Equipment Center Access Door Installation
Figure 401/52-48-02-990-803 (Sheet 3 of 4)

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D-D



E-E

C87141 S0006425929_V2

Main Equipment Center Access Door Installation
Figure 401/52-48-02-990-803 (Sheet 4 of 4)

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TASK 52-48-02-400-801

3. Main Equipment Center Access Door Installation

(Figure 401)

A. References

Reference	Title
52-09-06-820-801	Main Equipment Center Access Door Seal Adjustment (P/B 201)
52-71-06-900-801	Closed, Latched and Locked Proximity Sensor Removal, Installation and Adjustment (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1986	Barrier - Door, Main Equipment Center Access (Door 117AL) Part #: J52003-2 Supplier: 81205
STD-1200	Sandbag

C. Consumable Materials

Reference	Description	Specification
C00064	Coating - Aluminum Chemical Conversion	BAC5719 Type II Class A (MIL-DTL-5541 Class 1A)
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I
D00013	Grease - Aircraft And Instrument Grease	MIL-PRF-23827 (NATO G-354) (Supersedes MIL-G-23827)

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Door assembly	52-48-02-01-005	ARO ALL
5	Seal	52-48-02-01-310	ARO ALL
22	Shim	52-48-02-02-125	ARO ALL
		52-48-02-02-130	ARO ALL
		52-48-02-02-265	ARO ALL

E. Location Zones

Zone	Area
117	Main Equipment Center, Left

F. Installation

SUBTASK 52-48-02-080-001

(1) Remove the main equipment center access (door 117AL) door barrier, SPL-1986 from across the door opening.

SUBTASK 52-48-02-420-001

(2) Install the door assembly [2] as follows:

(a) Put the door assembly [2] through the opening in the fuselage.

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(b) Move the door assembly [2] and rollers [9] up along the guide tracks [4] until the rollers go into the guide tracks.

(c) Move the door assembly [2] in the guide tracks [4] up and right until the rollers [9] go into the retention depressions found at the right outboard end of the guide tracks.

(d) Install the clips [1] and shims [22].

1) Make sure they are smooth against the guide tracks [4].

(e) Lower the door assembly [2] to the closed and locked position.

SUBTASK 52-48-02-420-002

(3) Prepare the door assembly [2] and fuselage frame for adjustment as follows:

(a) Loosen the nuts [11] that attach the roller supports [10] to the door assembly [2].

(b) Loosen the nuts [14] that attach the latch pin receptacle [15] to the fuselage frame [13].

(c) Loosen the nuts [20] that attach the fuselage fittings [12] to the to the fuselage frame [13] for the ditching stops [8].

SUBTASK 52-48-02-820-001

(4) Adjust the flushness of the door as follows:

(a) Use the sandbag, STD-1200 to put weight on the internal surface of the door to overcome the force of the seal [5] around the door.

NOTE: This will make sure the door stops [6] and stop bolts [19] take the pressure load.

(b) Make sure the door stops [6] touch the stop bolts [19].

1) If necessary, adjust the stop bolts [19] until all of the door stops [6] touch their stop bolts.

(c) Make sure the flushness between the door skin and fuselage skin along the forward and aft edges of the door are as shown (Table 402) and (Figure 401).

(d) If you can not get the correct flushness do these measurements (aero-averaging):

1) Make three marks that are spaced equally along the forward edge of the door.

NOTE: Include the door corner tanget points.

2) Make three marks that are spaced equally along the aft edge of the door.

NOTE: Include the door corner tanget points.

3) Measure the skin flushness within -1.0 in. (-25.4 mm) - 1.0 in. (25.4 mm) of each mark along the forward and aft edges of the door.

4) Record the skin flushness for each measurement.

5) Use the (Table 401) to change the flushness to a Drag value.

NOTE: A flushness measurement on the forward door edge of -0.06 in. (-1.52 mm) is 1.15 Drag Value.

6) Record the Drag value for each measurement from (Table 401).

Table 401/52-48-02-993-803 Electronic Equipment Access Door Skin Flushness (Aero-Averaging) (see Figure 401)

Door Flushness		
Fwd Edge Inch (mm)	**Aft Edge Inch (mm)**	**Drag Value**
-0.11 in. (-2.79 mm)	0.11 in. (2.79 mm)	2.38
-0.10 in. (-2.54 mm)	0.10 in. (2.54 mm)	2.15

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Table 401/52-48-02-993-803 Electronic Equipment Access Door Skin Flushness (Aero-Averaging) (see Figure 401) (Continued)

Door Flushness		
Fwd Edge Inch (mm)	**Aft Edge Inch (mm)**	**Drag Value**
-0.09 in. (-2.29 mm)	0.09 in. (2.29 mm)	1.85
-0.08 in. (-2.03 mm)	0.08 in. (2.03 mm)	1.62
-0.07 in. (-1.78 mm)	0.07 in. (1.78 mm)	1.38
-0.06 in. (-1.52 mm)	0.06 in. (1.52 mm)	1.15
-0.05 in. (-1.27 mm)	0.05 in. (1.27 mm)	0.92
-0.04 in. (-1.02 mm)	0.04 in. (1.02 mm)	0.69
-0.03 in. (-0.76 mm)	0.03 in. (0.76 mm)	0.46
-0.02 in. (-0.51 mm)	0.02 in. (0.51 mm)	0.31
-0.01 in. (-0.25 mm)	0.01 in. (0.25 mm)	0.15
0.00 in. (0.00 mm)	0.00 in. (0.00 mm)	0.00
0.01 in. (0.25 mm)	-0.01 in. (-0.25 mm)	0.15
0.02 in. (0.51 mm)	-0.02 in. (-0.51 mm)	0.46
0.03 in. (0.76 mm)	-0.03 in. (-0.76 mm)	0.85
0.04 in. (1.02 mm)	-0.04 in. (-1.02 mm)	1.31
0.05 in. (1.27 mm)	-0.05 in. (-1.27 mm)	1.85
0.06 in. (1.52 mm)	-0.06 in. (-1.52 mm)	2.31
0.07 in. (1.78 mm)	-0.07 in. (-1.78 mm)	2.85
0.08 in. (2.03 mm)	-0.08 in. (-2.03 mm)	3.46
0.09 in. (2.29 mm)	-0.09 in. (-2.29 mm)	4.00
0.10 in. (2.54 mm)	-0.10 in. (-2.54 mm)	4.62
0.11 in. (2.79 mm)	-0.11 in. (-2.79 mm)	5.23

7) Add all the Drag values together (sum) and record this as measurement A.

8) Make measurements B, the count of measurements (6).

9) Divide measurement A by measurement B.

10) Make sure the value is 1.00 or less.

(e) If necessary, adjust as follows:

1) Open the door.

2) Adjust the door to get the correct skin flushness.

(f) Install the lockwire [18] on the stop bolt [19] to lock the stop bolts in position.

SUBTASK 52-48-02-820-002

(5) Adjust the rollers [9] and roller supports [10] as follows:

(a) Adjust the roller supports [10] on their serrated plates [17] to get equal clearance between the top and bottom of the rollers [9] and guide tracks [4].

(b) Tighten the nuts [11] that attach the roller supports [10] to the door assembly [2].

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SUBTASK 52-48-02-820-003

(6) Adjust the latch pin [3] and latch pin receptacle [15] as follows:

(a) Adjust the latch pin receptacle [15] on its serrated plate [16] to get equal clearance between the top and bottom of the latch pin [3] and the latch pin receptacle [15].

(b) Tighten the nuts [14] that attach the latch pin receptacle [15] to the fuselage frame [13].

SUBTASK 52-48-02-820-004

(7) Adjust the ditching stops [8] and fuselage fittings [12] as follows:

(a) Adjust the fuselage fittings [12] on their serrated plates [21] to get the clearance shown between the ditching stops [8] and the fuselage fittings [12] (Figure 401, View E-E).

(b) Tighten the nuts [20] that attach the fuselage fittings [12] to the door assembly [2].

(c) Remove the weight from the door.

(d) Open and close the door. Make sure the ditching stops [8] do not bind on the fuselage fittings [12].

SUBTASK 52-48-02-820-005

(8) Adjust the skin clearances of the door as follows:

(a) Make sure the skin clearances between the door and the fuselage cutout are as shown (Figure 401, View B-B).

(b) If the skin clearances are not correct, adjust the door as follows:

1) Change the clearance on the left and right sides of the door as follows:

a) Adjust the rollers [9] and roller supports [10].

2) Change the clearance on the forward and aft sides of the door as follows:

a) Add or remove the laminations of shims [22] between the guide tracks [4] and fuselage structure.

b) Apply the primer, C00259 wet or dry to the laminations of shims [22].

c) Make sure there is the clearance shown between the face of the rollers [9] and the inner surface of the guide tracks [4] for the length of the guide tracks.

d) Open and close the door.

<1> Make sure the rollers [9] operate smoothly on the guide tracks [4].

(c) If it is necessary, remove the unwanted skin from the edges of the door as follows:

NOTE: Remove skin only from replacement doors. Do not remove skin from the initial door.

Table 402/52-48-02-993-804 Skin Clearances and Flushness Zones - Main Equipment Center Access Door (See Figure 401)

	CLEARANCE		FLUSHNESS	
ZONE	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
A thru H	0.09 (2.28)	0.06 in. (1.52 mm) to 0.15 in. (3.81 mm)	0.00 in. (0.00 mm)	-0.04 in. (-1.02 mm) to 0.04 in. (1.02 mm)

1) Mark the unwanted skin on the door edges to get the correct clearances.

2) Carefully remove the unwanted skin.

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3) Apply the coating, C00064 to the areas of the door where you removed the skin.

SUBTASK 52-48-02-700-001

(9) Do this task: Main Equipment Center Access Door Seal Adjustment, TASK 52-09-06-820-801.

SUBTASK 52-48-02-820-006

(10) Adjust the latch mechanism as follows:

(a) Operate the handle [7] and latch mechanism to make sure it operates at a torque less than 75 in-lb (8.5 N·m).

(b) If the latch mechanism does not operate smoothly, apply the grease, D00013 to the latch pin [3] and operate the handle [7] to make the grease go into the bushing.

(c) If the latch mechanism does not operate smoothly at the latch pin receptacle [15], adjust the latch pin receptacle [15] or the guide tracks [4]. Make sure you keep the other adjustments correct.

SUBTASK 52-48-02-820-007

(11) Adjust the proximity sensor (TASK 52-71-06-900-801).

——— END OF TASK ———

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MAIN EQUIPMENT CENTER ACCESS DOOR - INSPECTION/CHECK

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A check of the latch mechanism.

TASK 52-48-02-200-801

2. Main Equipment Center Access Door Latch Mechanism Check

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is an inspection of the latch mechanism.

B. Location Zones

Zone	Area
117	Main Equipment Center, Left

C. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

D. Procedure

SUBTASK 52-48-02-010-001

(1) Get access to the latch mechanism as follows:

Open this access panel:

Number	Name/Location
117AL	Main Equipment Center Access Door

SUBTASK 52-48-02-220-002

(2) Do a check of the latch mechanism as follows:

(a) Operate the handle to unlatch and latch the door.

1) Make sure the latch pin extends and retracts.

(b) Examine the latch mechanism and latch pins for wear or damage.

E. Put the Airplane Back to Its Usual Condition

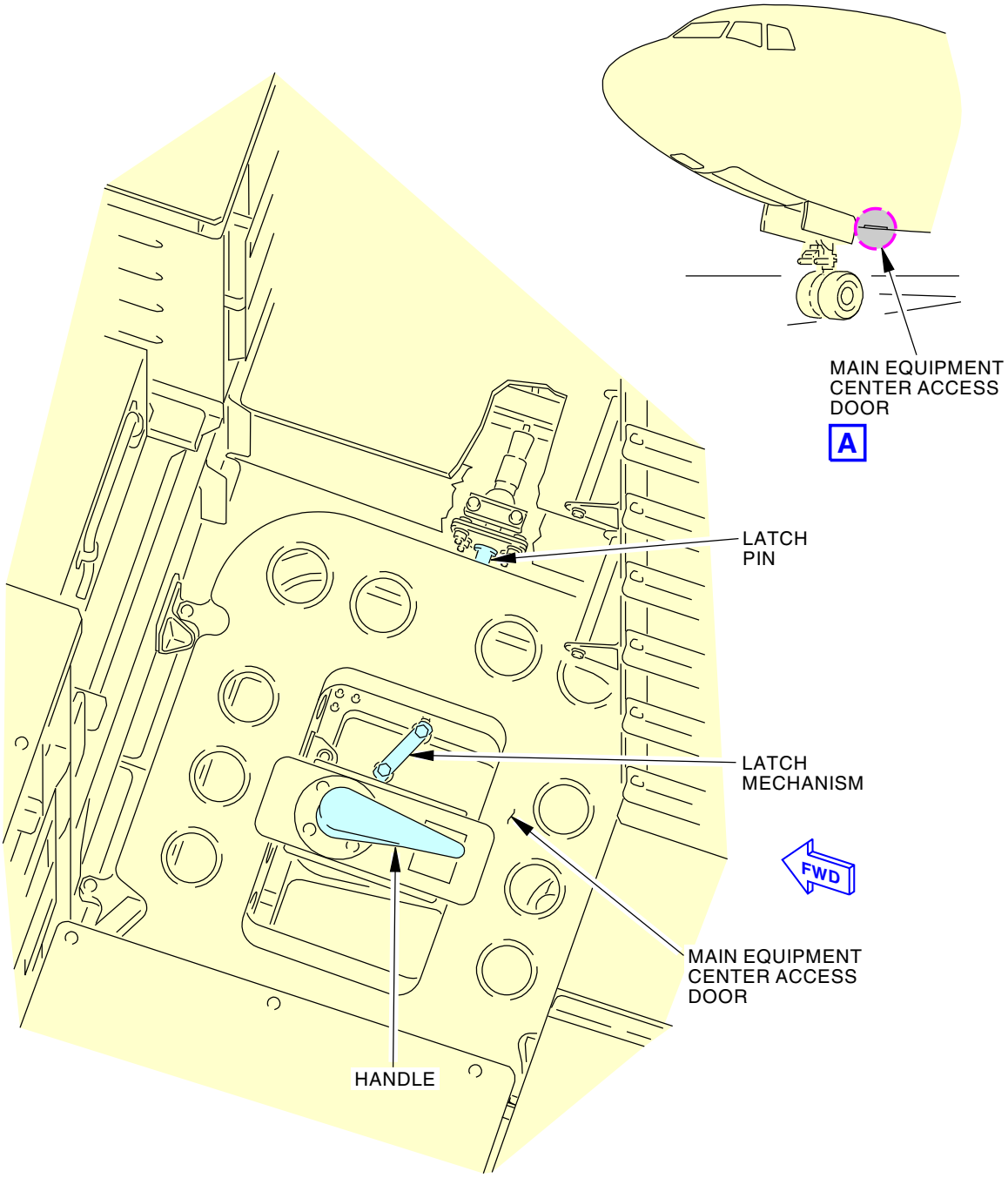
SUBTASK 52-48-02-220-001

(1) Close this access panel:

Number	Name/Location
117AL	Main Equipment Center Access Door

END OF TASK

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MAIN EQUIPMENT CENTER ACCESS DOOR

A

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Main Equipment Center Access Door Latch Mechanism Check
Figure 601/52-48-02-990-802

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AIR-DRIVEN PUMP (ADP) ACCESS DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the air-driven pump access door.

(2) An installation of the air-driven pump access door.

TASK 52-48-03-000-801

2. Air-Driven Pump Access Door Removal

(Figure 401)

A. Location Zones

Zone	Area
197	Aft Wing-to-Body Fairings, Left

B. Access Panels

Number	Name/Location
197JL	Air Driven Pump (ADP) Access Door

C. Prepare for the Removal

SUBTASK 52-48-03-840-001

CAUTION

PUT A DO-NOT-OPERATE TAG ON THE FLAP CONTROL LEVER BEFORE YOU OPEN THE AIR-DRIVEN PUMP ACCESS-DOOR. IF YOU OPERATE THE TRAILING EDGE FLAPS WHEN THE ACCESS DOOR IS OPEN, DAMAGE TO THE DOOR CAN OCCUR.

(1) Put a DO NOT OPERATE tag on the flap control lever.

SUBTASK 52-48-03-010-001

(2) Open this access door:

Number	Name/Location
197JL	Air Driven Pump (ADP) Access Door

D. Removal

SUBTASK 52-48-03-020-002

(1) Disconnect the hinges [2] from the fairing structure [1]:

(a) Hold the door assembly [3].

(b) Remove the screws [10], washers [9], washers [8], nuts [6], and nuts [7] to disconnect the bonding jumpers [5] from the hinges [2].

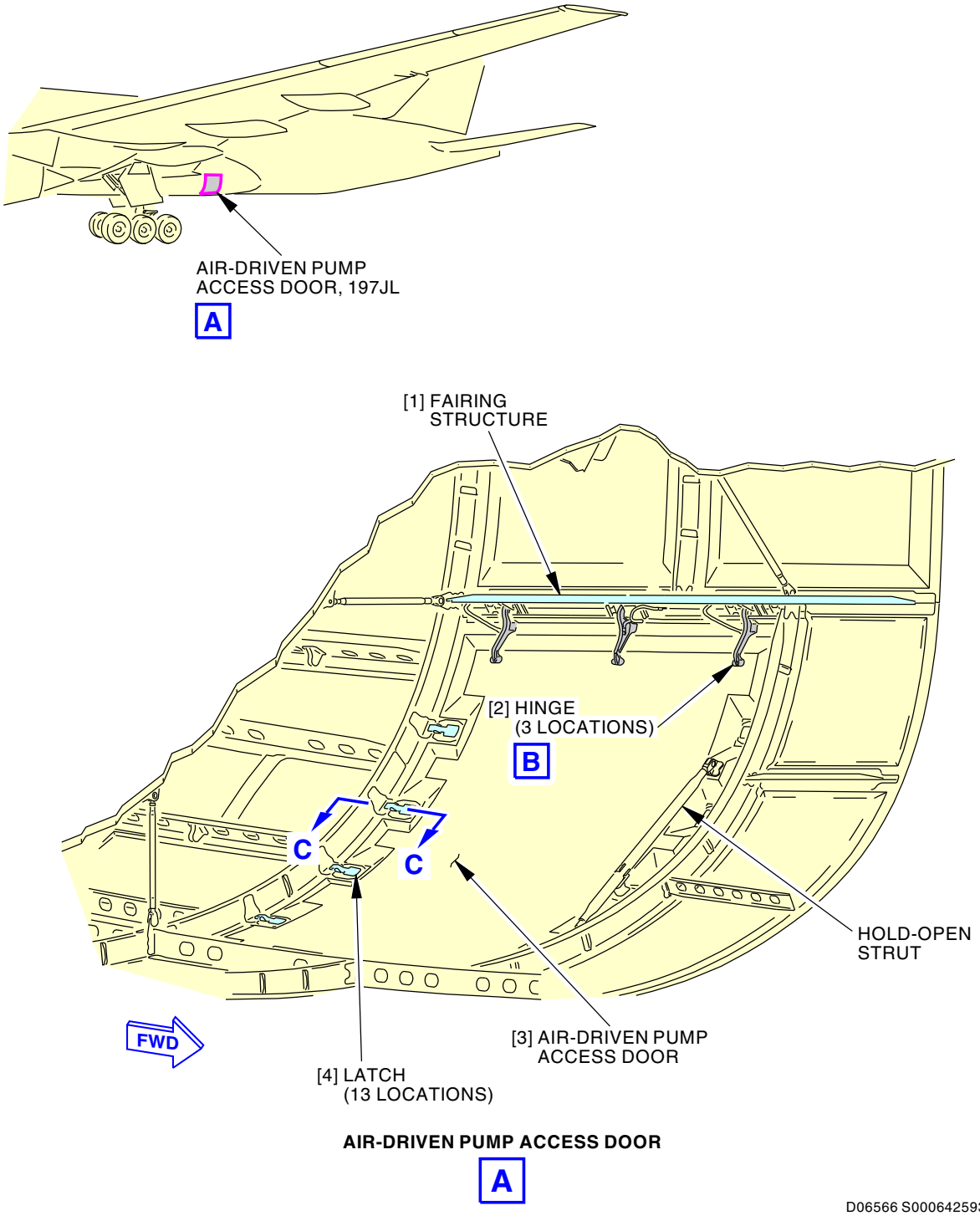
(c) Remove the bolts [18], washers [17], bushings [14], washers [16], and nuts [15] that attach the hinges [2] to the fairing structure [1].

SUBTASK 52-48-03-020-001

(2) Remove the door assembly [3].

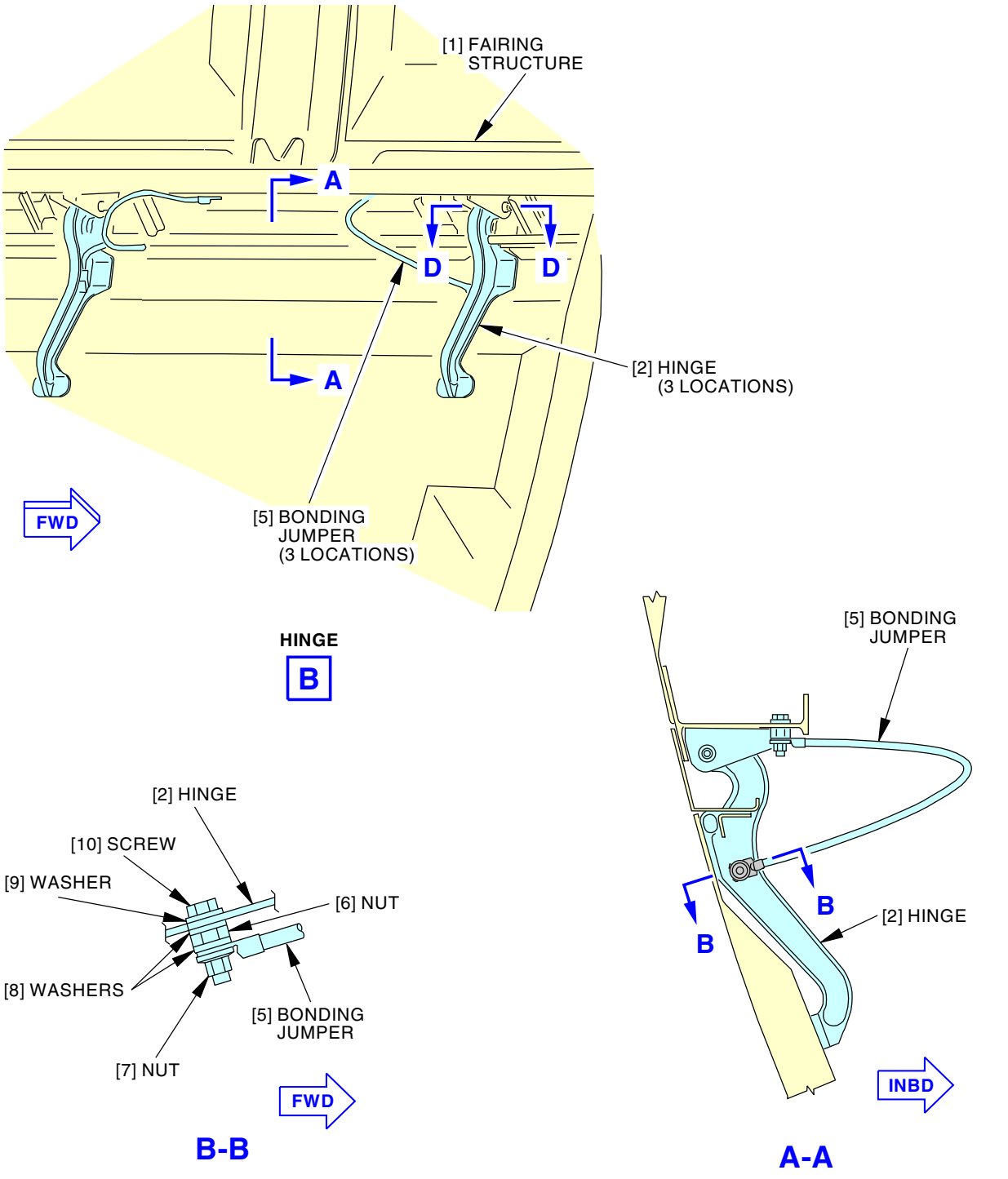
END OF TASK

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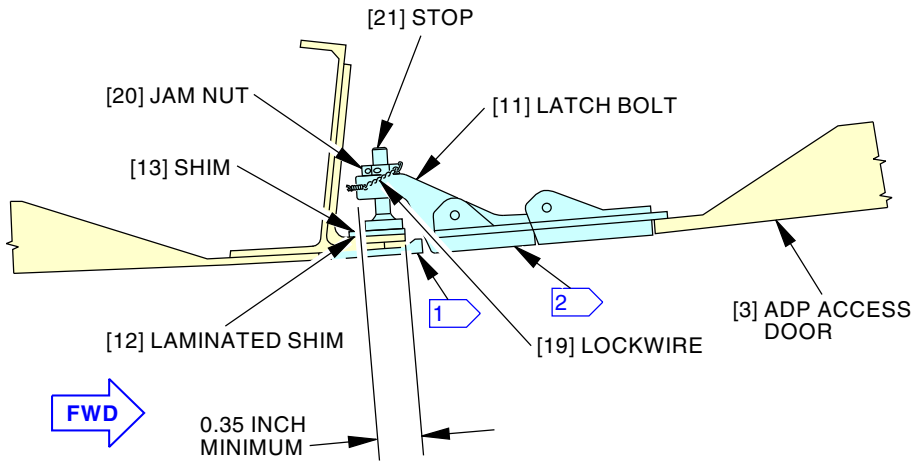
Air-Driven Pump (ADP) Access Door Installation
Figure 401/52-48-03-990-802 (Sheet 1 of 3)

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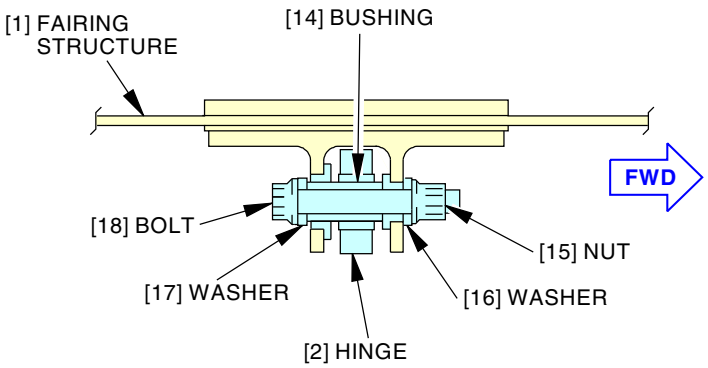
Air-Driven Pump (ADP) Access Door Installation
Figure 401/52-48-03-990-802 (Sheet 2 of 3)

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(EXAMPLE)

C-C



(EXAMPLE)

D-D

1 PUSH THE EDGE OF THE DOOR HERE TO ALIGN WITH THE FAIRING STRUCTURE.

2 PUSH THE LATCH HERE TO DO A CHECK FOR FREE PLAY.
THE PERMITTED FREE PLAY IS 0.00 TO 0.01 INCH.

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Air-Driven Pump (ADP) Access Door Installation
Figure 401/52-48-03-990-802 (Sheet 3 of 3)

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TASK 52-48-03-400-801

3. Air-Driven Pump Access Door Installation

(Figure 401)

A. References

Reference	Title
SWPM 20-20-00	Standard Wiring Practices Manual

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I
D00633	Grease - Aircraft General Purpose	BMS3-33

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
3	Door assembly	53-96-59-01-350	ARO ALL

D. Location Zones

Zone	Area
197	Aft Wing-to-Body Fairings, Left

E. Access Panels

Number	Name/Location
197JL	Air Driven Pump (ADP) Access Door

F. Installation

SUBTASK 52-48-03-420-001

(1) Connect the hinges [2] to the fairing structure [1]:

(a) Hold the door assembly [3] in its correct position.

(b) Apply the grease, D00633, to the outer diameter of the bolts [18] and the inner diameter of the bushings [14].

(c) Install the bolts [18], washers [17], washers [16], bushings [14], and nuts [15] to attach the hinges [2] to the fairing structure [1].

(d) Tighten the nuts [15] to 30 in-lb (3.4 N·m) - 35 in-lb (4.0 N·m).

(e) Install the screws [10], washers [9], washers [8], nuts [6], and nuts [7] to connect the bonding jumpers [5] to the hinges [2].

(f) Make sure that electrical resistance between the bonding jumpers [5] and hinges [2] is not more that 0.001 ohms (1 milliohms) (SWPM 20-20-00).

(g) Make a cap seal with the sealant, A00247, for the bonding jumper [5].

SUBTASK 52-48-03-820-001

(2) Adjust the latches [4] on the door assembly [3]:

NOTE: Do these steps for each latch.

(a) Push and hold the edge of the door assembly [3] aligned with the latch [4] in the location shown (View C-C, Figure 401).

(b) Lock the latch [4].

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(c) Push the latch [4] in the location shown to do a check for free play (View C-C, Figure 401).

(d) Make sure that the free play is as shown (View C-C, Figure 401).

(e) If the free play is too much or you have to use too much force to lock the latch [4], do the following:

1) Remove the lockwire [19].

2) Loosen the jam nut [20].

3) Adjust the stop [21] to the necessary fit.

4) If necessary, add or remove the laminated shims [12] or shims [13] for the latch bolt [11].

5) Apply one coat of the primer, C00259, to the bare laminated shims [12] and install.

6) Tighten the jam nut [20].

7) Install the lockwire [19] to the jam nut [20].

(f) Make sure that the overlap of the latch bolt [11] to the structure is as shown (View C-C, Figure 401).

SUBTASK 52-48-03-220-001

(3) Do a check of the door:

(a) Measure the flushness and clearance around the door.

1) Make sure that the flushness between door panels is within 0.06 in. (1.524 mm).

2) Make sure that the clearance between panels is 0.14 ±0.06 in. (3.556 ±1.524 mm).

G. Installation Test

SUBTASK 52-48-03-710-001

(1) Do a test on the door:

(a) Open and close the door.

(b) Make sure that the door and latches operate smoothly.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-48-03-410-001

(1) Close the access door (3):

Number	Name/Location
197JL	Air Driven Pump (ADP) Access Door

SUBTASK 52-48-03-840-002

(2) Remove the DO NOT OPERATE tag from the flap control handle.

——— END OF TASK ———

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ENVIRONMENTAL CONTROL SYSTEMS (ECS) ACCESS DOORS - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the environmental control systems (ECS) access door.

(2) An installation of the environmental control systems (ECS) access door.

B. The removal and installation procedures for the left and right ECS access doors are the same.

C. In this procedure environmental control systems (ECS) access door is referred to as door assembly [4].

TASK 52-48-04-000-801

2. Environmental Control Systems (ECS) Access Door Removal

(Figure 401)

A. Location Zones

Zone	Area
195	Underwing Wing-to-Body Fairings, Left
196	Underwing Wing-to-Body Fairings, Right

B. Access Panels

Number	Name/Location
195CL	ECS Low Pressure Connection Door
195EL	Environmental Control Systems (ECS) Access Door
196CR	ECS Low Pressure Connection Door
196ER	Environmental Control Systems (ECS) Access Door

C. Prepare for the Removal

SUBTASK 52-48-04-010-001

(1) Open these access doors:

Number	Name/Location
195EL	Environmental Control Systems (ECS) Access Door
196ER	Environmental Control Systems (ECS) Access Door

D. Removal

SUBTASK 52-48-04-020-001

(1) Remove the snubber [1]:

(a) Close and latch the door assembly [4].

(b) Do this step to get access to the snubber [1]:

1) Open the applicable access door:

Number	Name/Location
195CL	ECS Low Pressure Connection Door
196CR	ECS Low Pressure Connection Door

(c) Disconnect the snubber [1] from the door bracket [11]:

1) Remove the bolt [12], washer [6], washer [8], bushing [7], nut [10], and cotter pin [9] that attach the snubber [1] to the door bracket [11].

2) Make sure the snubber [1] rod end is free of the door.

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WARNING HOLD THE ECS DOOR TIGHTLY. DO NOT LET THE ECS DOOR OPEN FREELY. IF NOT, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(d) Unlatch and open the door.

(e) Disconnect the snubber [1] from the structure bracket [29]:

1) Remove the cotter pin [22], nut [28], washer [27], bushing [26], washer [25], and bolt [24] that attach the snubber [1] to the structure bracket [29].

2) Remove the snubber [1].

SUBTASK 52-48-04-020-002

(2) Disconnect the hinges [2] from the fairing structure [15] as follows:

(a) Hold the door assembly [4].

(b) Disconnect the bonding jumper [20] from the door bracket [11].

(c) If necessary, remove the seal [3] to get access to the hinges [2].

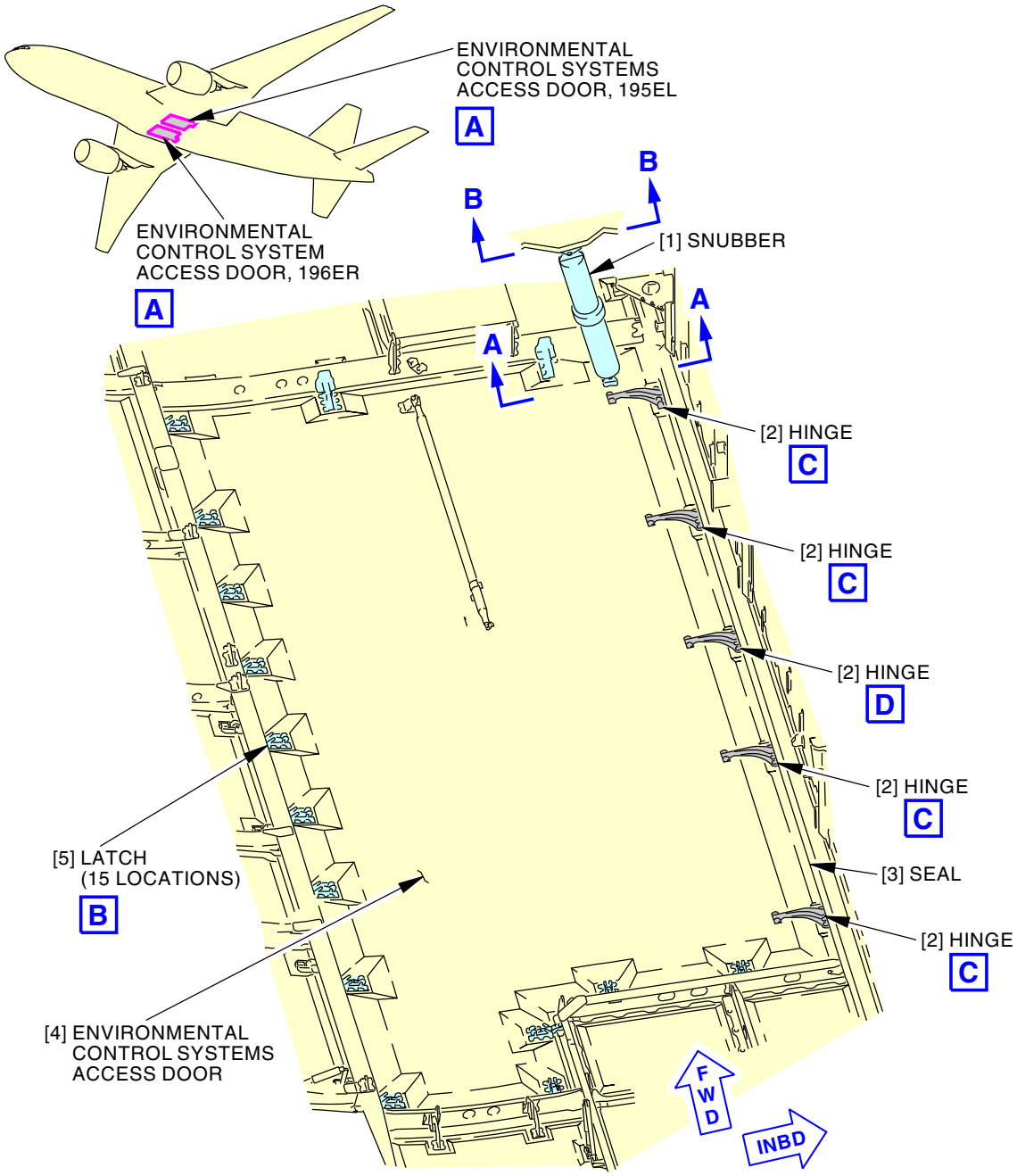
(d) Remove the hinge pins [17], washers [18], bushings [23], nuts [19], and cotter pins [21] that attach the hinges [2] to the fairing structure [15].

SUBTASK 52-48-04-020-003

(3) Remove the door assembly [4] from the airplane.

END OF TASK

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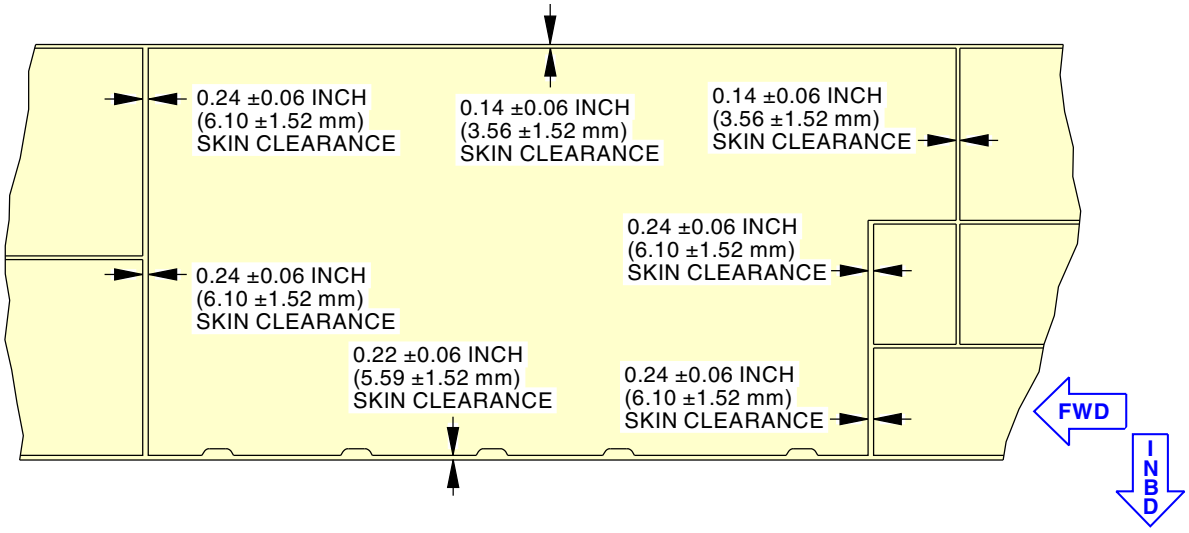


ENVIRONMENTAL CONTROL SYSTEMS ACCESS DOOR
(LEFT DOOR IS SHOWN, RIGHT DOOR IS OPPOSITE)
(INTERNAL SIDE)
A

E08879 S0006425944_V2

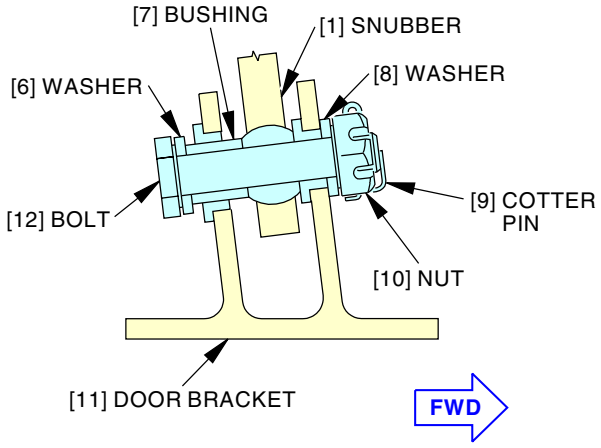
Environmental Control Systems (ECS) Access Door Installation
Figure 401/52-48-04-990-802 (Sheet 1 of 3)

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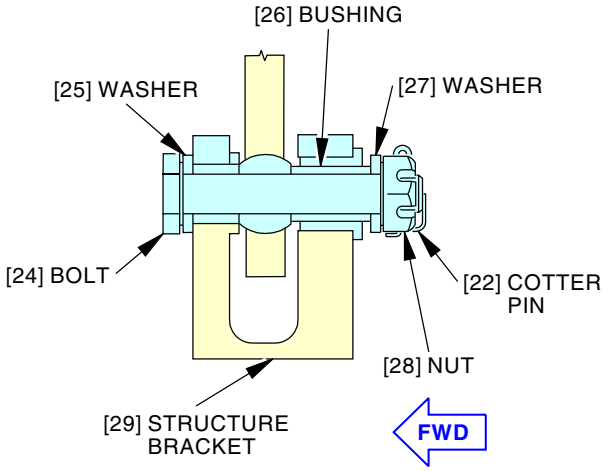


ENVIRONMENTAL CONTROL SYSTEMS ACCESS DOOR
(LEFT DOOR IS SHOWN, RIGHT DOOR IS OPPOSITE)
(EXTERNAL SIDE)

A



A-A

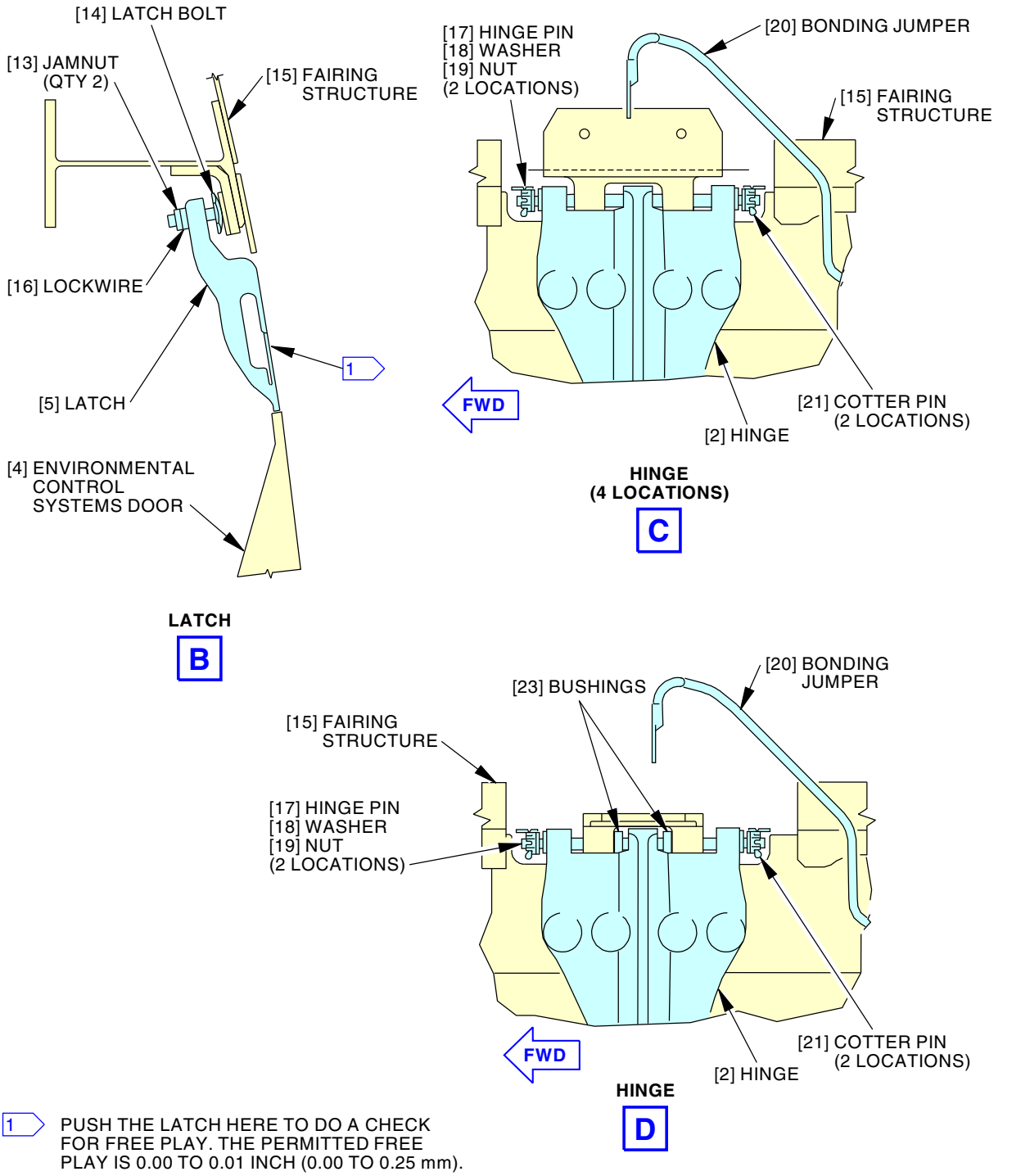


B-B

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Environmental Control Systems (ECS) Access Door Installation
Figure 401/52-48-04-990-802 (Sheet 2 of 3)

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Environmental Control Systems (ECS) Access Door Installation
Figure 401/52-48-04-990-802 (Sheet 3 of 3)

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TASK 52-48-04-400-801

3. Environmental Control Systems (ECS) Access Door Installation

(Figure 401)

A. References

Reference	Title
SWPM 20-20-00	Standard Wiring Practices Manual

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in Class I, Divisions I & II hazardous (classified) locations. Outside these hazardous locations, COM-614 can be used in lieu of COM-1550). Part #: 620LK Supplier: 1CRL2 Part #: M1 Supplier: 3AD17 Part #: T477W Supplier: 01014 Opt Part #: M1B Supplier: 3AD17

C. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
9	Cotter pin	52-48-04-01-010	ARO ALL
		53-96-51-10-375	ARO ALL

E. Location Zones

Zone	Area
195	Underwing Wing-to-Body Fairings, Left
196	Underwing Wing-to-Body Fairings, Right

F. Access Panels

Number	Name/Location
195CL	ECS Low Pressure Connection Door
195EL	Environmental Control Systems (ECS) Access Door
196CR	ECS Low Pressure Connection Door
196ER	Environmental Control Systems (ECS) Access Door

G. Installation

SUBTASK 52-48-04-400-001

(1) Make sure the ECS equipment locator marker is installed on the inside of the access door.

(a) If it is not installed, install the ECS equipment locator marker.

SUBTASK 52-48-04-420-001

(2) Connect the hinges [2] to the fairing structure [15] as follows:

(a) Align and engage the hinges [2] with the fairing structure [15] and hold in this position.

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(b) Apply the grease, D00633, to the outer diameter of the hinge pins [17] and the inner diameter of all the bushings [23].

(c) Install the hinge pins [17], washers [18], bushings [23], and nuts [19] that attach the hinges [2] to the fairing structure [15].

(d) Tighten the nuts [19] to 30 in-lb (3.4 N·m) - 35 in-lb (4.0 N·m).

(e) Install the cotter pins [21].

(f) Install the seal [3] if it was removed.

(g) Connect the bonding jumpers [20] to the door bracket [11] (SWPM 20-20-00).

(h) Measure the resistance between the bonding jumpers [20] to the door bracket [11] with a intrinsically safe approved bonding meter, COM-1550 (SWPM 20-20-00).

NOTE: The maximum resistance across the surface bond must not be more than 1.0 milliohms.

SUBTASK 52-48-04-420-002

(3) Install the snubber [1]:

(a) Connect the snubber [1] to the structure bracket [29]:

1) Apply the grease, D00633, to the outer diameter of the bolt [24] and the inner diameter of all the bushings [26].

2) Attach the snubber [1] to the structure bracket [29] with the bolt [24], washer [25], bushing [26], washer [27], and nut [28].

3) Tighten the nut [28] to 65 in-lb (7.34 N·m) - 100 in-lb (11.30 N·m).

4) Install a new cotter pin [22].

CAUTION

KEEP THE ROD END CLEAR OF THE DOOR WHEN YOU CLOSE IT. THE SNUBBER ROD END CAN PUT A HOLE IN THE DOOR.

5) Attach a cord to the snubber [1] loose end.

6) Safety the rod end to the structure with the cord.

(b) Close and latch the ECS door.

(c) Connect the snubber [1] to the door bracket [11]:

1) Remove the cord from the snubber [1] rod end.

2) Put the rod end into the door bracket.

3) Apply the grease, D00633, to the outer diameter of the bolt [12] and the inner diameter of all the bushings [7].

4) Install the bolt [12], washer [6], washer [8], bushing [7], and nut [10], that attach the snubber [1] to the door bracket [11].

5) Tighten the nut [10] to 65 in-lb (7.34 N·m) - 100 in-lb (11.30 N·m).

6) Install the cotter pin [9].

(d) Close the applicable access door:

Number	Name/Location
195CL	ECS Low Pressure Connection Door
196CR	ECS Low Pressure Connection Door

(e) Unlatch and open the ECS door.

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(f) Make sure the door opens and closes correctly.

SUBTASK 52-48-04-820-001

(4) Adjust the latches [5] as follows:

NOTE: Do these steps for each latch.

(a) Push and hold the edge of the door assembly [4] aligned with the fairing structure [15].

(b) Lock the latch [5].

(c) Push the latch [5] to do a check for free play (View B, Figure 401).

(d) Make sure the free play is as shown on the View B, Figure 401.

(e) If the free play is too much or you have to use too much force to lock the latch [5], adjust the latch bolt [14].

(f) Install the lockwire [16] on the jamnuts [13].

SUBTASK 52-48-04-820-002

(5) Do a check on the flushness and skin clearances of the door as follows:

(a) Make sure the skin clearances around the door are within the limits (View A, Figure 401).

H. Installation Test

SUBTASK 52-48-04-710-001

(1) Do a test on the door as follows:

(a) Open and close the door.

(b) Make sure the door, snubber, hinges and latches operate correctly.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 52-48-04-010-002

(1) Close these access doors:

Number	Name/Location
195EL	Environmental Control Systems (ECS) Access Door
196ER	Environmental Control Systems (ECS) Access Door

END OF TASK

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SERVICE ACCESS DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the service access door.

(2) An installation of the service access door.

TASK 52-48-05-000-801

2. Service Access Door Removal

(Figure 401)

A. Location Zones

Zone	Area
311	Area Aft of Bulkhead, Left

B. Access Panels

Number	Name/Location
311BL	Service Access Door

C. Prepare for the Removal

SUBTASK 52-48-05-010-003

(1) To get access to the door assembly [1], do this step:

(a) Open this access panel:

Number	Name/Location
311BL	Service Access Door

D. Removal

SUBTASK 52-48-05-020-004

(1) Disconnect the hold-open strut [5] from the fuselage structure [6] or door assembly [1] as follows:

(a) Hold the door assembly [1].

(b) To disconnect the hold-open strut [5] from the fuselage structure [6], remove the bolt [8], washer [9], washers [10], and nut [11] that attach the hold-open strut [5] to the pivot fitting [12].

(c) To disconnect the hold-open strut [5] from the door assembly [1], remove the bolt [13], washer [14], washers [15], and nut [16] that attach the hold-open strut [5] to the door.

SUBTASK 52-48-05-020-005

(2) Disconnect the hinge assembly [7] from the fuselage structure [6] as follows:

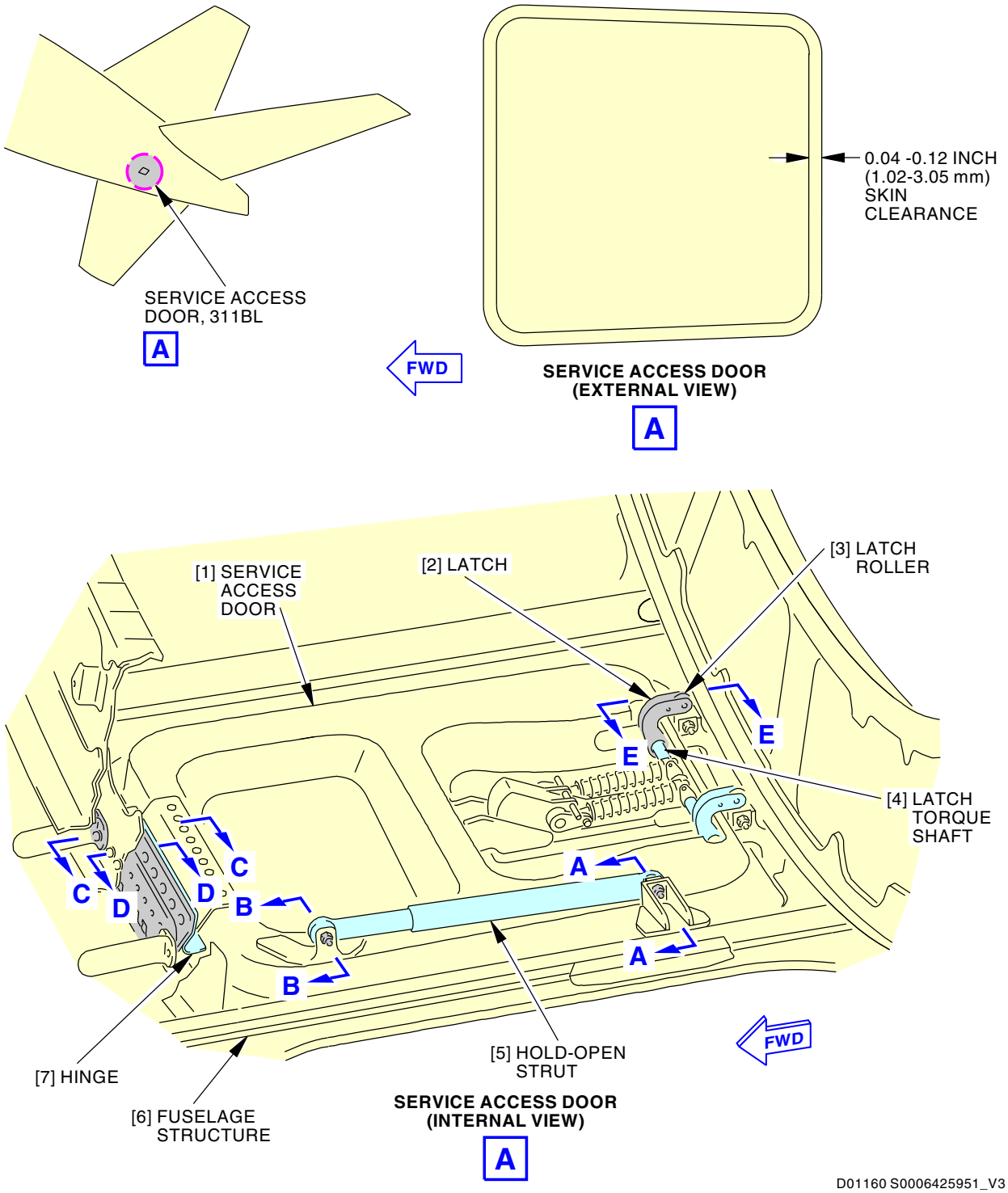
(a) Remove the bolts [18], bolts [20], washers [17], and nuts [19] that attach the hinge assembly [7] to the fuselage structure [6].

SUBTASK 52-48-05-020-006

(3) Remove the door assembly [1] from the airplane.

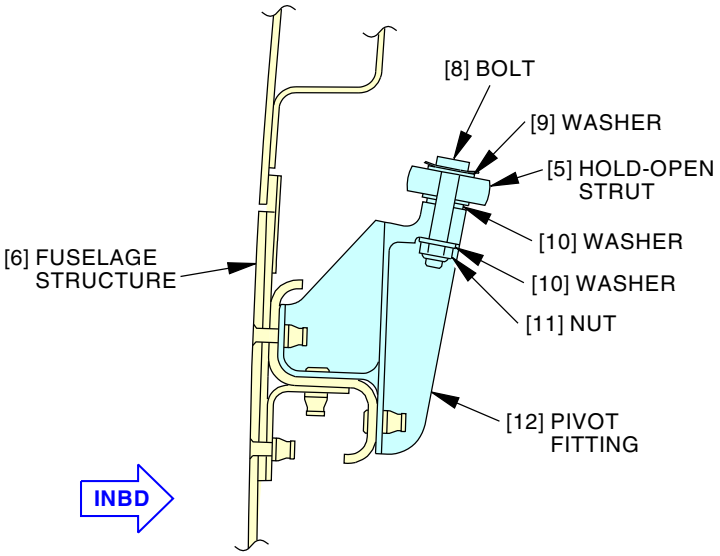
END OF TASK

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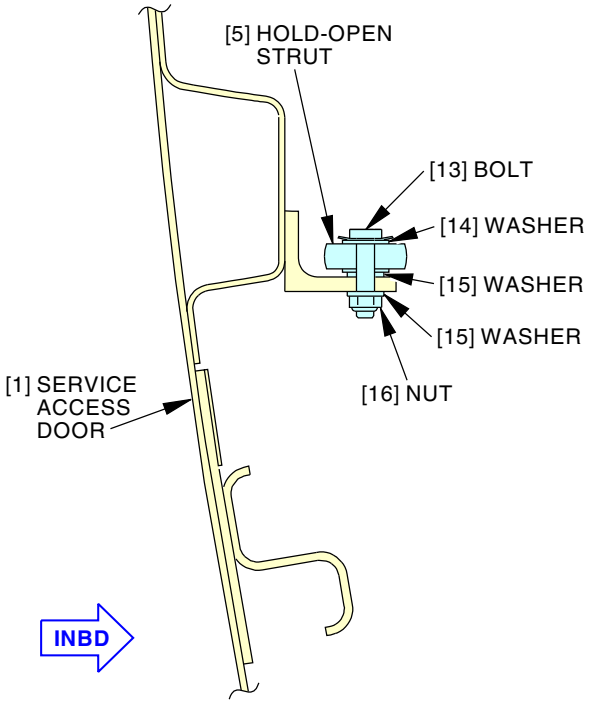


Service Access Door Installation
Figure 401/52-48-05-990-804 (Sheet 1 of 3)

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A-A

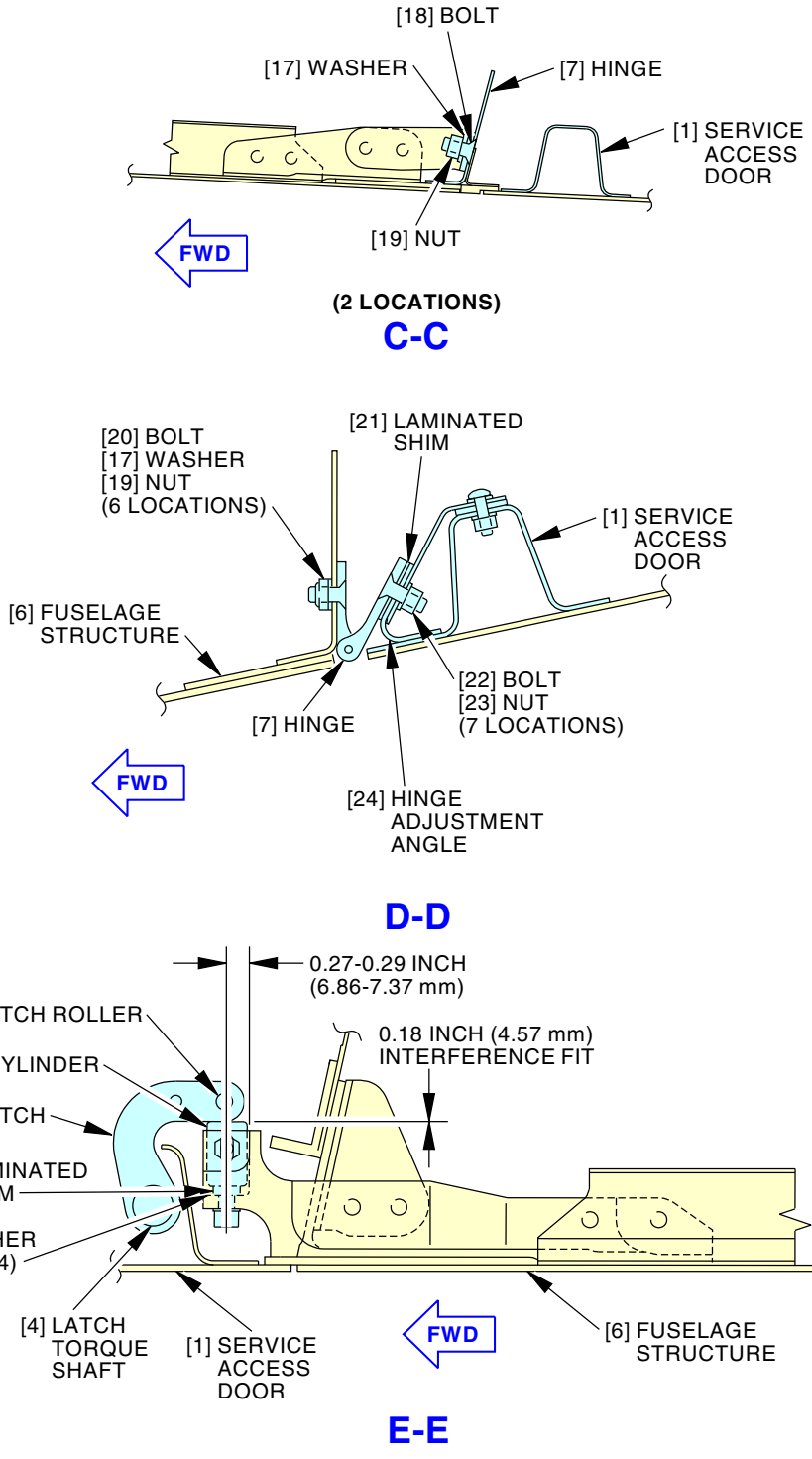


B-B

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Service Access Door Installation
Figure 401/52-48-05-990-804 (Sheet 2 of 3)

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Service Access Door Installation
Figure 401/52-48-05-990-804 (Sheet 3 of 3)

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TASK 52-48-05-400-801

3. Service Access Door Installation

(Figure 401)

A. References

Reference	Title
52-48-05-720-801	Service Access Door Test (P/B 501)

B. Consumable Materials

Reference	Description	Specification
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Door assembly	52-48-05-05-070	ARO 001-004
5	Hold-open strut	52-48-05-05-030	ARO 001-004
7	Hinge assembly	52-48-05-05-115	ARO 001-004

D. Location Zones

Zone	Area
311	Area Aft of Bulkhead, Left

E. Access Panels

Number	Name/Location
311BL	Service Access Door

F. Installation

SUBTASK 52-48-05-420-001

(1) Connect the hinge assembly [7] to the fuselage structure [6] as follows:

(a) Hold the door assembly [1] in its correct position.

(b) Install the bolts [18], bolts [20], washers [17], and nuts [19] to attach the hinge assembly [7] to the fuselage structure [6].

SUBTASK 52-48-05-820-001

(2) Adjust the door assembly [1] as follows:

WARNING STAY OFF THE DOOR. YOUR WEIGHT CAN RELEASE THE SPRING-LOADED LATCHES. IF YOU FALL THROUGH THE DOOR, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(a) Close the door.

(b) Align the skin on the forward edge of the door with the fuselage skin.

(c) Add or remove the laminated shim [21] between the hinge adjustment angle [24] and door assembly [1] to get the correct alignment.

(d) Apply the primer, C00259, to the laminated shim [21] that do not have primer on them before you install.

(e) Align the door in the fuselage structure to get the dimension shown between the latch rollers [3] that are installed on the latch [2] and forward edges of the cylinders [27] (View E-E, Figure 401).

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(f) Add or remove the laminated shim [21] between the hinge adjustment angle [24] and door assembly [1] to get the correct alignment.

(g) Apply the primer, C00259, to the laminated shim [21] that do not have primer on them before you install.

(h) Make sure the skin clearance between the door and fuselage is within the limits (View A, Figure 401).

(i) Make sure the latch rollers [3] touch the cylinders [27].

(j) Add or remove the laminated shim [26] or washers [25] to get an interference fit between the latch rollers [3] and cylinders [27] (View E-E, Figure 401).

(k) Apply the primer, C00259, to the laminated shims that do not have primer on them before you install.

(l) Do these steps again until the door is adjusted correctly.

SUBTASK 52-48-05-420-002

(3) Connect the hold-open strut [5] to the fuselage structure [6] or door assembly [1] as follows:

(a) Hold the door assembly [1].

(b) To connect the hold-open strut [5] to the fuselage structure [6], install the bolt [8], washer [9], washers [10], and nut [11] that attach the hold-open strut [5] to the pivot fitting [12].

NOTE: Convex surface of washer [9] should be installed toward bearing.

(c) To connect the hold-open strut [5] to the door assembly [1], install the bolt [13], washer [14], washers [15], and nut [16] that attach the hold-open strut [5] to the door.

NOTE: Convex surface of washer [14] should be installed toward bearing.

G. Installation Test

SUBTASK 52-48-05-710-001

(1) Do this task: Service Access Door Test, TASK 52-48-05-720-801.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-48-05-010-002

(1) To close the door assembly [1], do this step:

(a) Close this access panel:

Number	Name/Location
311BL	Service Access Door

——— END OF TASK ———

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SERVICE ACCESS DOOR - ADJUSTMENT/TEST

1. General

A. This procedure has this task:

(1) A test of the service access door.

TASK 52-48-05-720-801

2. Service Access Door Test

(Figure 501)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-7819	Test Equipment - Latch Assembly, Blowout Doors Part #: J52024-23 Supplier: 81205 Part #: J52024-24 Supplier: 81205

B. Location Zones

Zone	Area
311	Area Aft of Bulkhead, Left

C. Access Panels

Number	Name/Location
311BL	Service Access Door

D. Prepare for the Test

SUBTASK 52-48-05-010-004

(1) Open this access door:

Number	Name/Location
311BL	Service Access Door

SUBTASK 52-48-05-010-005



WARNING STAY OFF THE DOOR. YOUR WEIGHT CAN RELEASE THE SPRING-LOADED LATCHES. IF YOU FALL THROUGH THE DOOR, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Go into the compartment and close the door.

E. Procedure

SUBTASK 52-48-05-720-001

(1) Use latch assembly test equipment, SPL-7819, to do a blowout test on the door as follows (Figure 502):

(a) Place latch adapter fitting onto the blowout latch.

(b) Install hooks at the cross-bar found in each latch roller assembly.

(c) Assemble the hooks and short bar with shoulder screws.

NOTE: The shoulder screws are finger tight.

1) Position the bar so the cylinder piston engages bar at the notch.

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WARNING STAY OFF THE DOOR. YOUR WEIGHT CAN RELEASE THE SPRING-LOADED LATCHES. IF YOU FALL THROUGH THE DOOR, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(d) Attach hook/cord assembly.

1) Remove all loose items and tools from door.

CAUTION DO NOT USE MORE THAN THE SPECIFIED PRESSURE. IF YOU USE MORE PRESSURE, YOU CAN CAUSE DAMAGE TO EQUIPMENT.

(e) Pressurize test unit until door opens.

1) Note this pressure.

(f) A correctly adjusted door installation will open within a pressure range of 750 +250 / -0 psi (53 +18 / -0 kg/cm^2).

(g) Repeat the test two more times to confirm results.

SUBTASK 52-48-05-710-002

(2) Do a test on the usual operation of the door as follows:

(a) Open and close the door.

(b) Make sure the door opens and closes smoothly.

(c) Make sure the hinge, latches, and hold-open strut operate correctly.

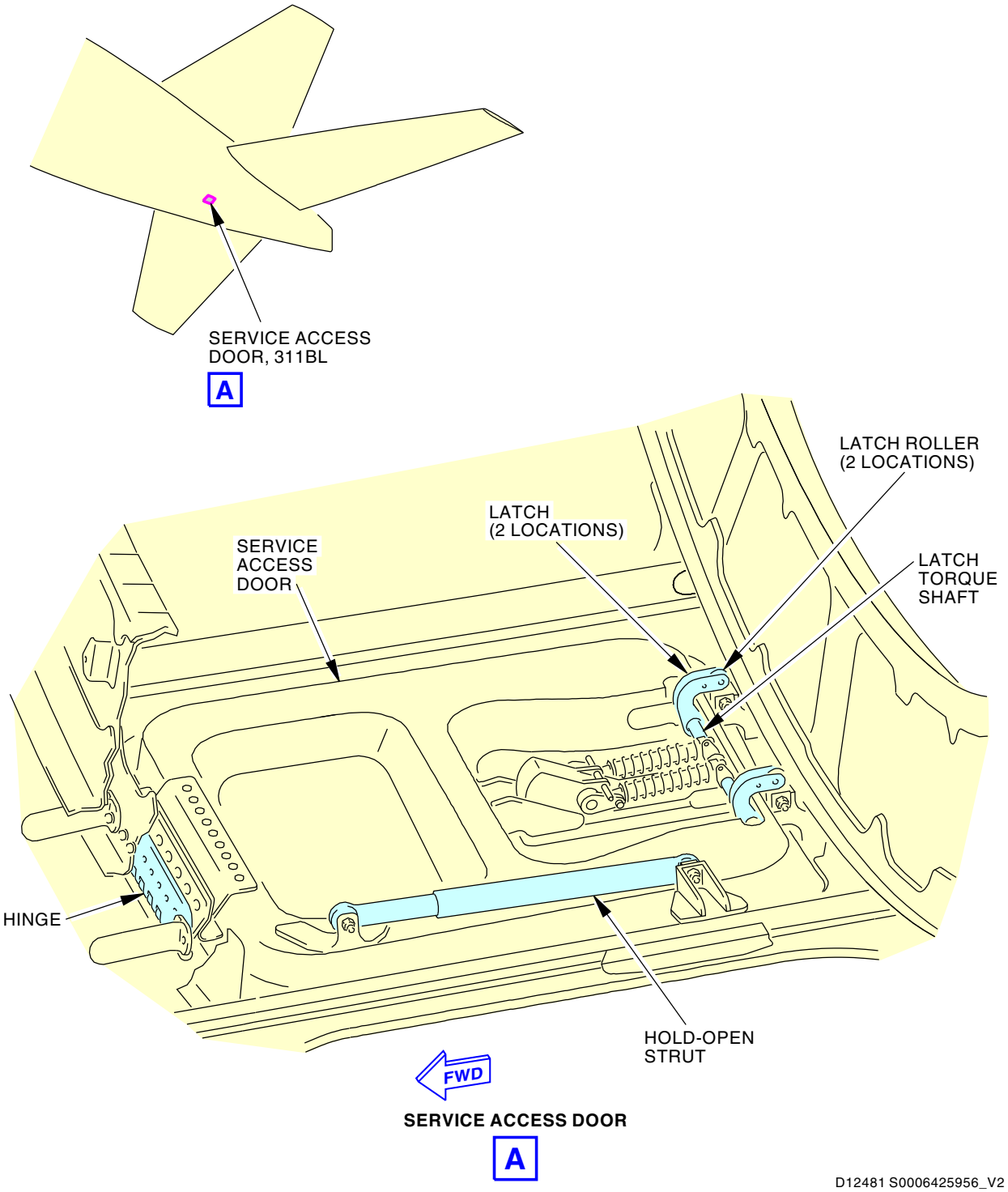
SUBTASK 52-48-05-410-001

(3) Close this access door:

Number	Name/Location
311BL	Service Access Door

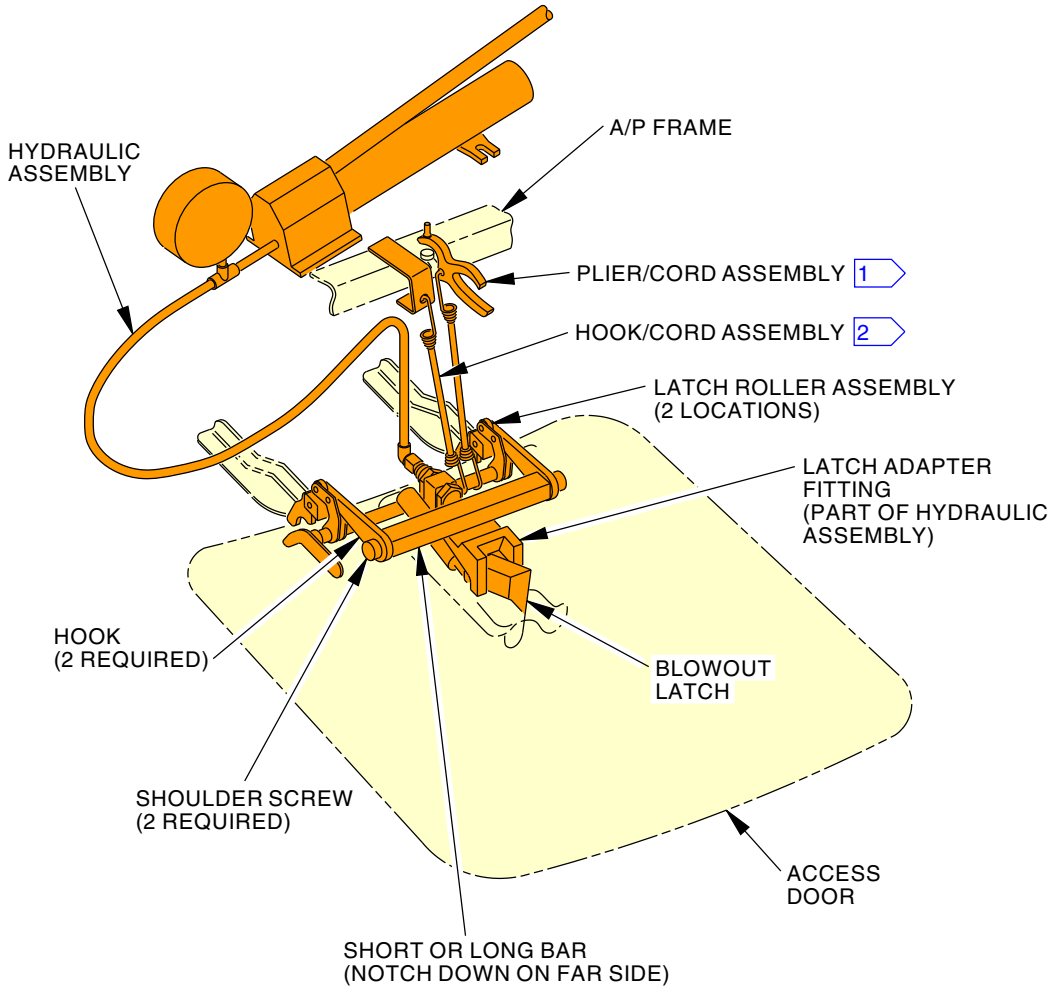
END OF TASK

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Service Access Door Test
Figure 501/52-48-05-990-802

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1 FOR CONTROL ACCESS DOOR, 313AL
2 FOR SERVICE ACCESS DOOR, 311BL

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Latch Assembly Test Equipment
Figure 502/52-48-05-990-803

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CONTROLS BAY ACCESS DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the controls bay access door

(2) An installation of the controls bay access door.

B. In this procedure the controls bay access door is referred to as the door assembly [6].

TASK 52-48-06-000-801

2. Controls Bay Access Door Removal

(Figure 401)

A. Location Zones

Zone	Area
313	Stabilizer Torsion Box Compartment, Left

B. Access Panels

Number	Name/Location
313AL	Controls Bay Access Door

C. Prepare for the Removal

SUBTASK 52-48-06-010-003

(1) To get access to the door assembly [6], do this step:

(a) Open this access panel:

Number	Name/Location
313AL	Controls Bay Access Door

D. Removal

SUBTASK 52-48-06-020-004

(1) Disconnect the hold-open strut [1] from the empennage structure [5] or the door assembly [6] as follows:

(a) Hold the door assembly [6].

(b) Disconnect the hold-open strut [1] from the empennage structure [5].

1) Remove the bolt [11], washers [10], washer [12], and nut [9] that attach the hold-open strut [1] to the pivot fitting [8].

(c) Disconnect the hold-open strut [1] from the door assembly [6].

1) Remove the bolt [13], washer [14], washers [15], and nut [16] that attach the hold-open strut [1] to the door.

SUBTASK 52-48-06-020-005

(2) Disconnect the hinge assembly [7] from the empennage structure [5] as follows:

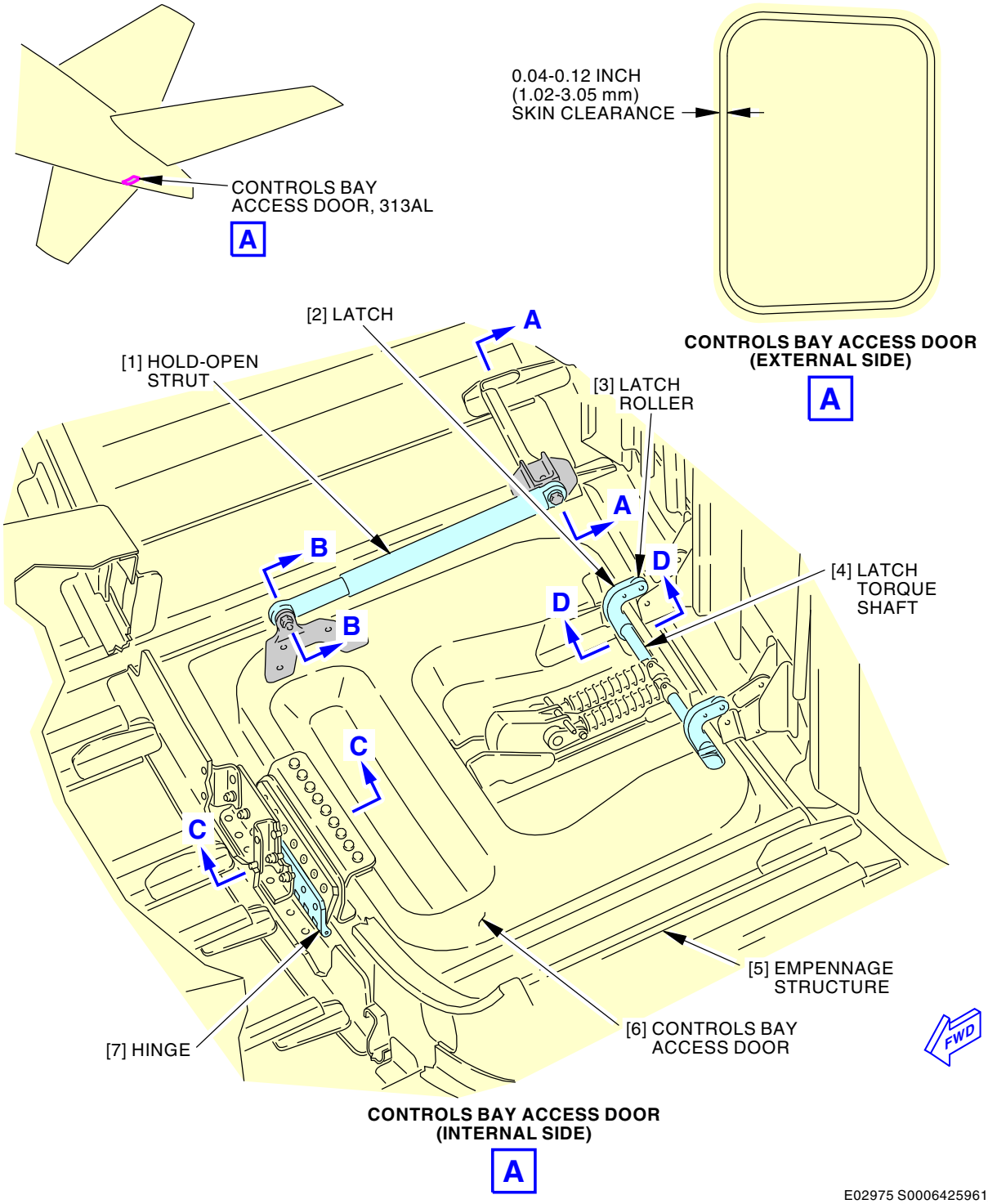
(a) Remove the bolts [19], bolts [20], washers [18], and nuts [17] that attach the hinge assembly [7] to the empennage structure [5].

SUBTASK 52-48-06-020-006

(3) Remove the door assembly [6] from the airplane.

END OF TASK

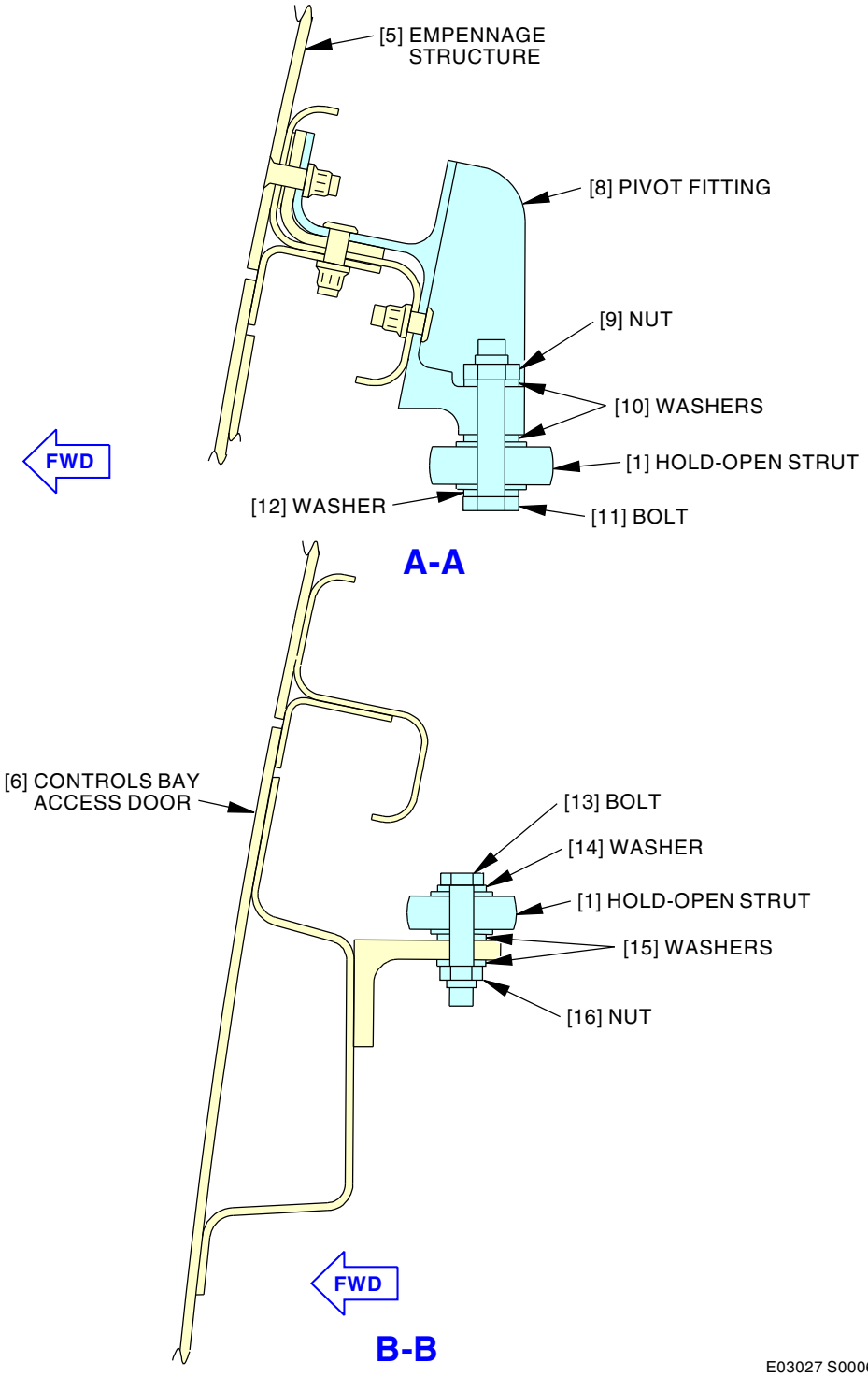
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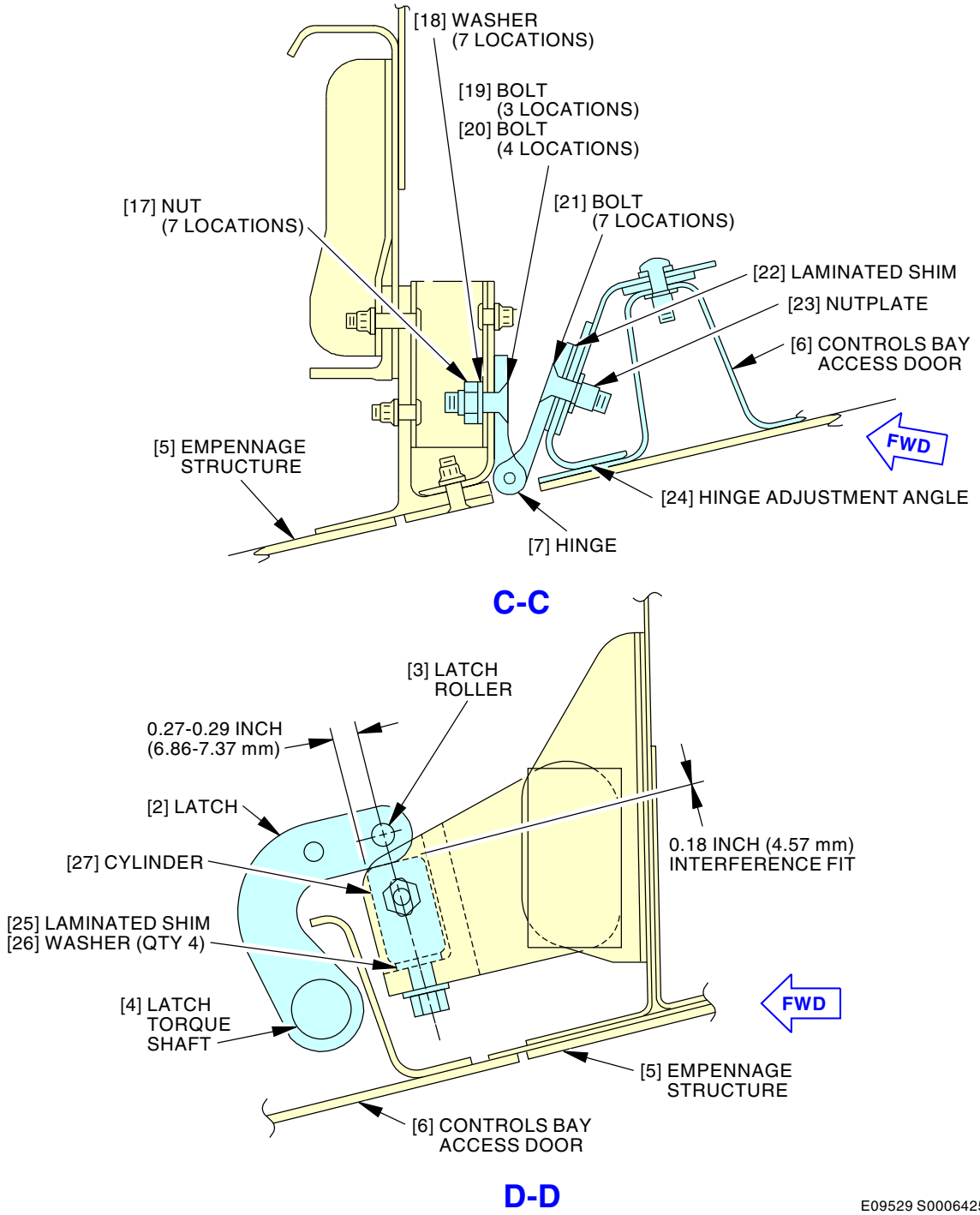
Controls Bay Access Door Installation
Figure 401/52-48-06-990-803 (Sheet 1 of 3)

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Controls Bay Access Door Installation
Figure 401/52-48-06-990-803 (Sheet 2 of 3)

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Controls Bay Access Door Installation
Figure 401/52-48-06-990-803 (Sheet 3 of 3)

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TASK 52-48-06-400-801

3. Controls Bay Access Door Installation

(Figure 401)

A. References

Reference	Title
52-48-06-720-801	Controls Bay Access Door Test (P/B 501)

B. Consumable Materials

Reference	Description	Specification
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Hold-open strut	52-48-06-01-005	ARO ALL
6	Door assembly	52-48-06-01-070	ARO ALL
7	Hinge assembly	52-48-06-01-095	ARO ALL

D. Location Zones

Zone	Area
313	Stabilizer Torsion Box Compartment, Left

E. Access Panels

Number	Name/Location
313AL	Controls Bay Access Door

F. Installation

SUBTASK 52-48-06-420-001

(1) Connect the hinge assembly [7] to the empennage structure [5] as follows:

(a) Align and engage the hinge assembly [7] with the empennage structure [5] and hold in this position.

(b) Install the bolts [19], bolts [20], washers [18], and nuts [17] to attach the hinge assembly [7] to the empennage structure [5].

SUBTASK 52-48-06-820-001

(2) Adjust the door assembly [6] as follows:

WARNING STAY OFF THE DOOR. YOUR WEIGHT CAN RELEASE THE SPRING-LOADED LATCHES. IF YOU FALL THROUGH THE DOOR, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(a) Close the door assembly [6].

(b) Make sure the forward edge of the door is aligned with the empennage and adjust as follows:

1) Add or remove the laminated shims [22] between the hinge adjustment angle [24] and hinge assembly [7] to get the correct alignment.

2) Before you install the laminated shims [22], apply the primer, C00259, to the laminated shims [22] that do not have primer on them.

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(c) Make sure the door is aligned in the empennage structure to get the necessary dimension between the latch rollers [3] and forward edges of the cylinders [27] and adjust as follows (View D-D, Figure 401):

1) Add or remove the laminated shims [22] between the hinge adjustment angle [24] and hinge assembly [7] to get the correct alignment.

2) Before you install the laminated shims [22], apply the primer, C00259, to the laminated shims [22] that do not have primer on them.

(d) Make sure the skin clearance between the door and empennage is within the limits (View A, Figure 401).

(e) Adjust the latches [2] as follows:

1) Make sure the latch rollers [3] touch the cylinders [27].

2) Add or remove the laminated shims [25] or washers [26] to get an interference fit between the latch rollers [3] and cylinders [27] (View D-D, Figure 401).

3) Apply the primer, C00259, to the laminated shims [25] that do not have primer on them before you install.

(f) Do these steps again until the door is adjusted correctly.

SUBTASK 52-48-06-420-002

(3) Connect the hold-open strut [1] to the empennage structure [5] and door assembly [6] as follows:

(a) Hold the door assembly [6].

(b) Connect the hold-open strut [1] to the empennage structure [5].

1) Install the bolt [11], washers [10], washer [12], and nut [9] that attach the hold-open strut [1] to the pivot fitting [8].

NOTE: Convex surface of washer [12] should be installed toward bearing.

(c) Connect the hold-open strut [1] to the door assembly [6].

1) Install the bolt [13], washer [14], washers [15], and nut [16] that attach the hold-open strut [1] to the door.

NOTE: Convex surface of washer [14] should be installed toward bearing.

G. Installation Test

SUBTASK 52-48-06-710-001

(1) Do this task: Controls Bay Access Door Test, TASK 52-48-06-720-801.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-48-06-010-002

(1) To close the door assembly [6], do this step:

(a) Close this access panel:

Number	Name/Location
313AL	Controls Bay Access Door

END OF TASK

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CONTROLS BAY ACCESS DOOR - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

(1) A test of the controls bay access door.

TASK 52-48-06-720-801

2. Controls Bay Access Door Test

(Figure 501)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-7819	Test Equipment - Latch Assembly, Blowout Doors Part #: J52024-23 Supplier: 81205 Part #: J52024-24 Supplier: 81205

B. Location Zones

Zone	Area
313	Stabilizer Torsion Box Compartment, Left

C. Access Panels

Number	Name/Location
313AL	Controls Bay Access Door

D. Prepare for the Test

SUBTASK 52-48-06-010-004

(1) Open this access door:

Number	Name/Location
313AL	Controls Bay Access Door

SUBTASK 52-48-06-010-005



WARNING STAY OFF THE DOOR. YOUR WEIGHT CAN RELEASE THE SPRING-LOADED LATCHES. IF YOU FALL THROUGH THE DOOR, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Go into the compartment and close the door.

E. Controls Bay Access Door Test

SUBTASK 52-48-06-720-001

(1) Use latch assembly test equipment, SPL-7819, to do a blowout test on the door:

(a) Place latch adapter fitting onto the blowout latch as shown.

(b) Install hooks at the cross-bar found in each latch roller assembly.

(c) Assemble the hooks and long bar with shoulder screws.

NOTE: The shoulder screws are finger tight.

1) Position the bar so the cylinder piston engages bar at the notch.

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WARNING STAY OFF THE DOOR. YOUR WEIGHT CAN RELEASE THE SPRING-LOADED LATCHES. IF YOU FALL THROUGH THE DOOR, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(d) Attach plier/cord assembly.

(e) Remove all loose items and tools from door.

CAUTION DO NOT USE MORE THAN THE SPECIFIED PRESSURE. IF YOU USE MORE PRESSURE, YOU CAN CAUSE DAMAGE TO EQUIPMENT.

(f) Pressurize test unit until door opens and note this pressure.

(g) Make sure that the door installation will open within a pressure range of 800 +160 / -80 psi (56 +11 / -6 kg/cm^2).

(h) Repeat the test two more times to confirm results.

SUBTASK 52-48-06-710-002

(2) Do a test on the usual operation of the door:

(a) Open and close the door.

(b) Make sure that the door opens and closes smoothly.

(c) Make sure that the hinge, latches, and hold-open strut operate correctly.

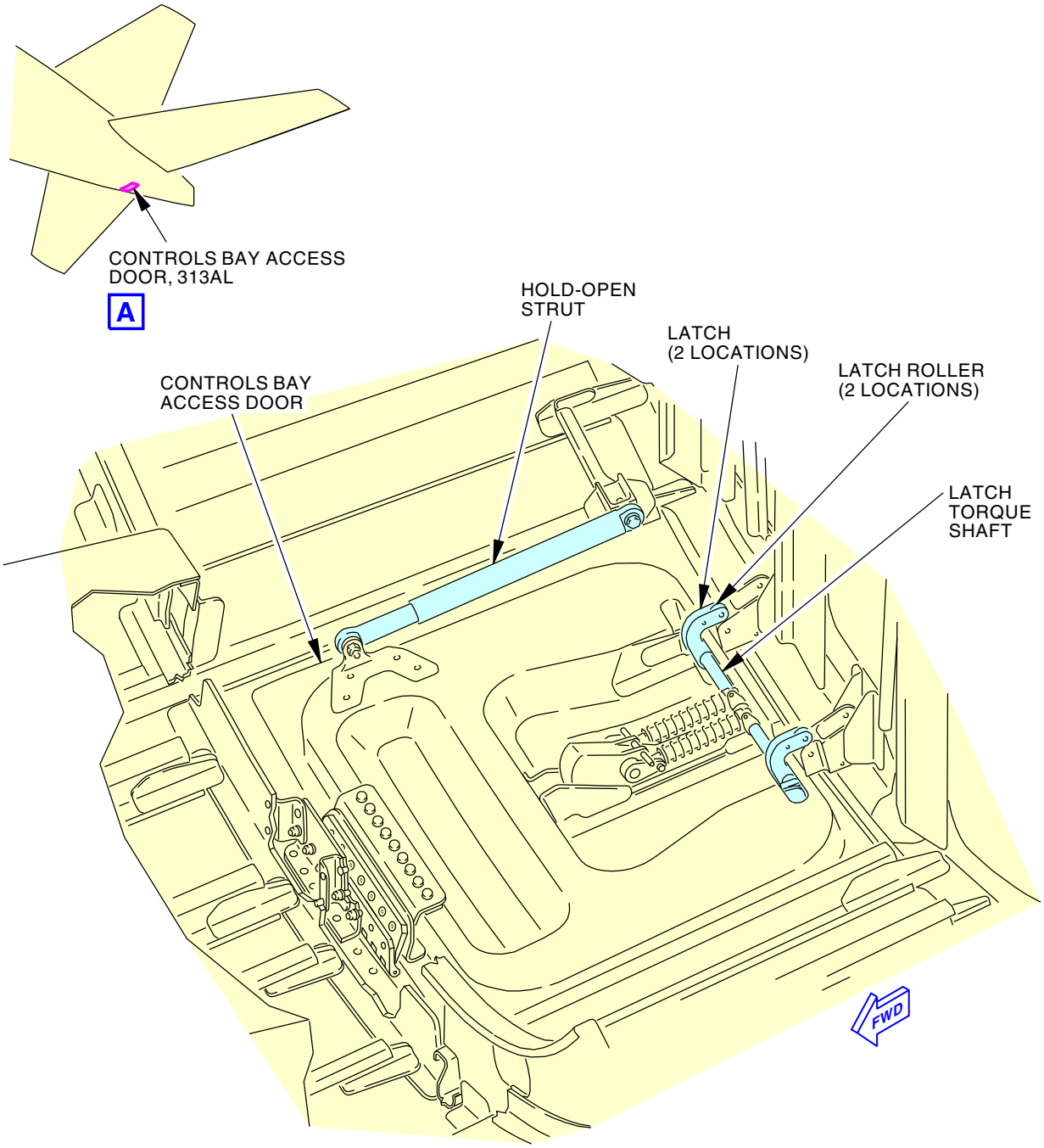
SUBTASK 52-48-06-410-001

(3) Close this access door:

Number	Name/Location
313AL	Controls Bay Access Door

END OF TASK

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Controls Bay Access Door Test
Figure 501/52-48-06-990-802

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AUXILIARY POWER UNIT (APU) ACCESS DOORS - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the auxiliary power unit access door.

(2) An installation of the auxiliary power unit access door.

B. The removal and installation of the left and right APU access doors are the same.

C. In this procedure the right and left auxiliary power unit access doors are referred to as the door assembly [4] and door assembly [6].

TASK 52-48-07-000-801

2. Auxiliary Power Unit Access Door Removal

(Figure 401)

A. References

Reference	Title
26-15-01-000-802	APU Fire Detector Assembly Removal (P/B 401)
49-11-02-010-801	APU Access Doors (Open) (P/B 201)

B. Location Zones

Zone	Area
315	APU Compartment, Left
316	APU Compartment, Right

C. Access Panels

Number	Name/Location
315AL	Auxiliary Power Unit (APU) Access Door, Left
316AR	Auxiliary Power Unit (APU) Access Door, Right

D. Prepare for the Removal

SUBTASK 52-48-07-010-001

(1) To get access to the door assembly [4] and door assembly [6], do this task:

(a) Open these access panels:

Number	Name/Location
315AL	Auxiliary Power Unit (APU) Access Door, Left
316AR	Auxiliary Power Unit (APU) Access Door, Right

1) Do this task: APU Access Doors (Open), TASK 49-11-02-010-801.

SUBTASK 52-48-07-020-004

(2) Remove the APU fire detector assembly from the APU access door (TASK 26-15-01-000-802).

E. Removal

SUBTASK 52-48-07-020-001

(1) Disconnect the hold-open struts [1] from the empennage structure [7], door assembly [4], and door assembly [6] as follows:

(a) Hold the door assembly [4] and door assembly [6].

(b) Disconnect the hold-open struts [1] from the empennage structure [7].

1) Remove the bolts [22], washers [19], and nuts [18] that attach the hold-open struts [1] to the empennage structure [7].

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(c) Disconnect the hold-open struts [1] from the door assembly [4] and door assembly [6].

1) Remove the bolts [27], washers [24], washers [26], bushings [25], and nuts [23] that attach the hold-open struts [1] to the doors.

SUBTASK 52-48-07-020-002

(2) Disconnect the hinges [8], hinge [9], and hinge [11], from the empennage structure [7] as follows:

(a) Hold the door assembly [4] and door assembly [6].

(b) Disconnect the bonding jumper [10] from the door assembly [4] and door assembly [6].

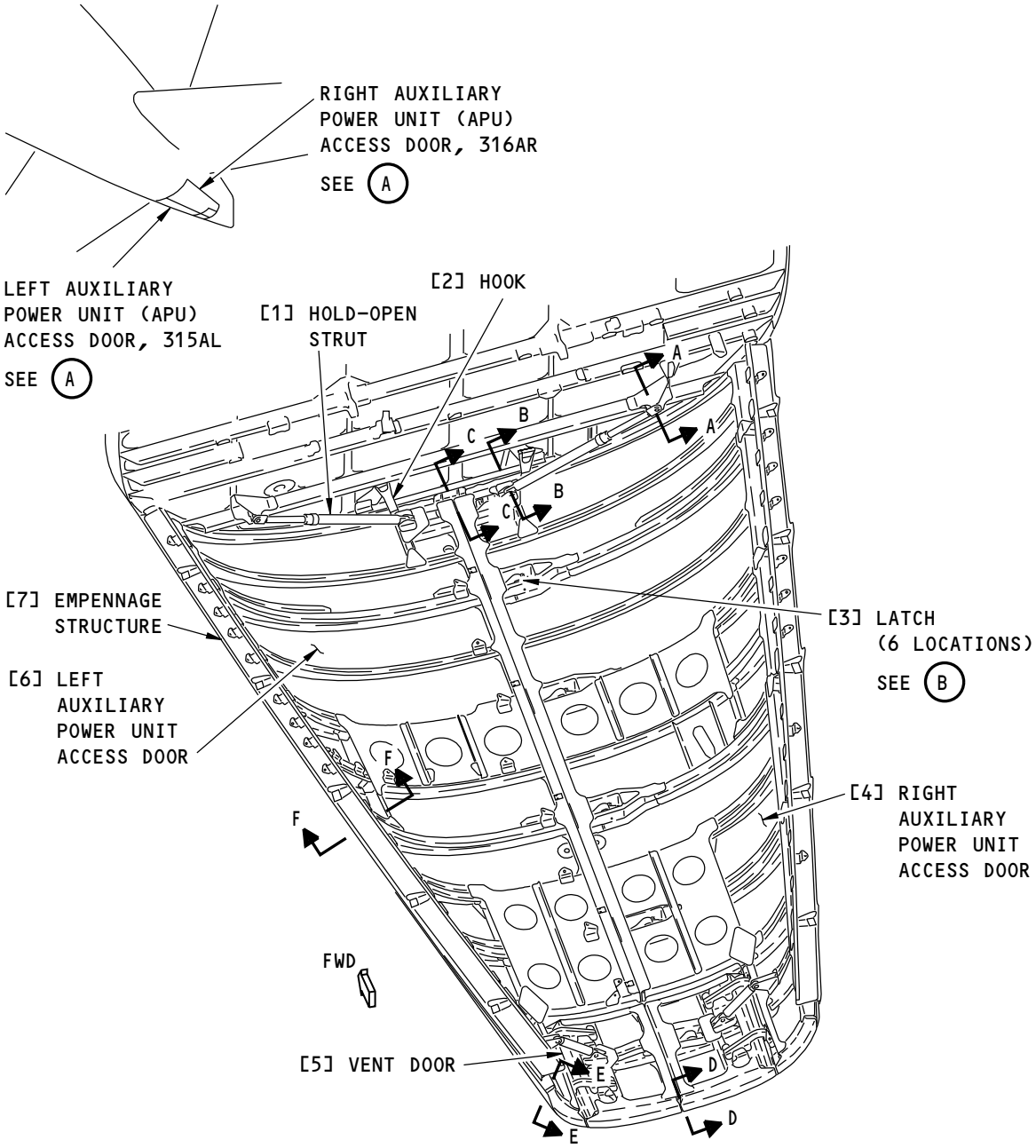
(c) Remove the bolts [32], bolts [36], bolts [43], washers [30], washers [33], washers [37], washers [38], washers [41], washers [42], bushings [31], bushings [35], bushings [44], and nuts [34], nuts [39], nuts [40] that attach the hinges [8], hinge [9], and hinge [11], to the empennage structure [7].

SUBTASK 52-48-07-020-003

(3) Remove the door assembly [4] and door assembly [6] from the airplane.

——— END OF TASK ———

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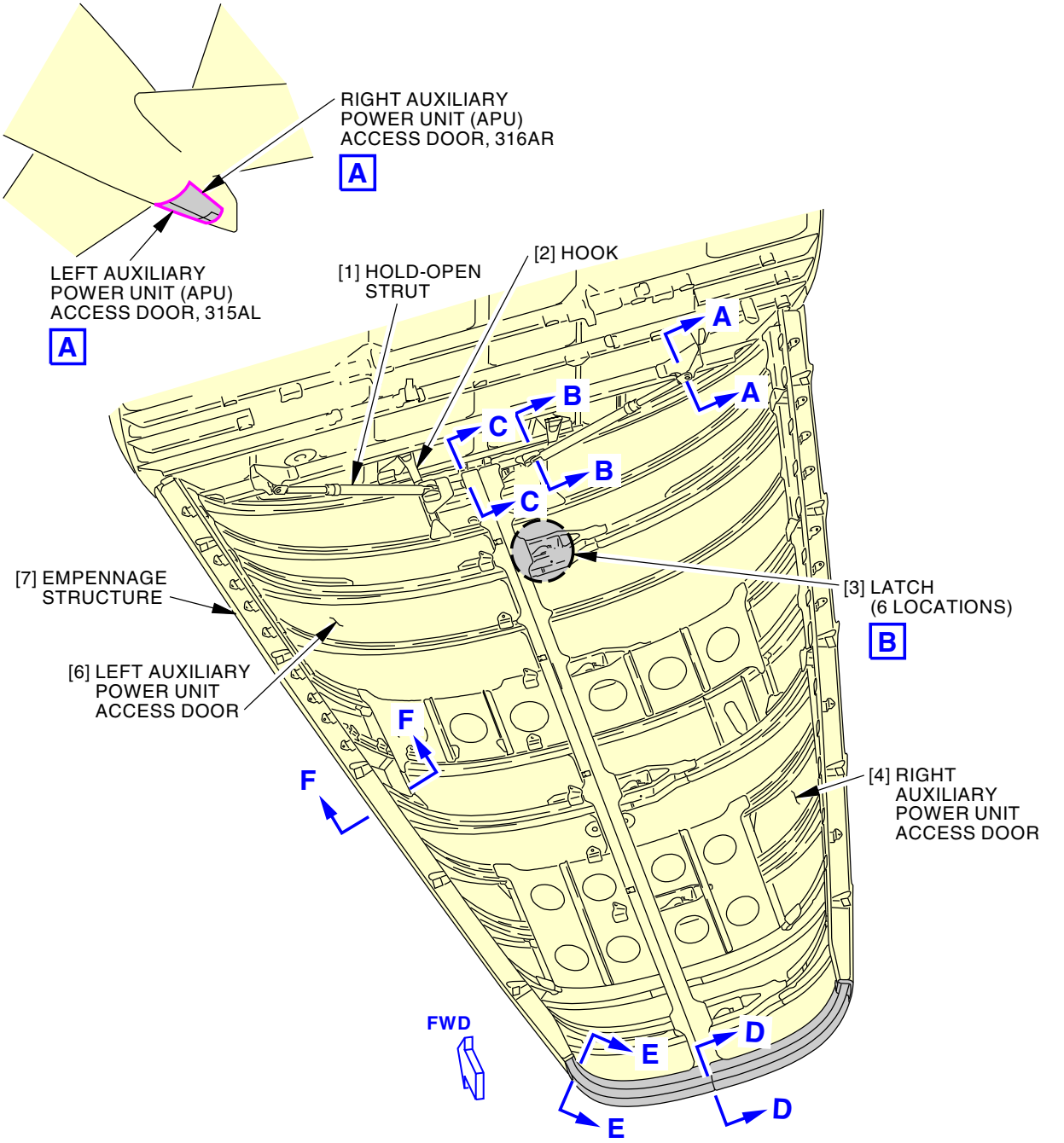


AUXILIARY POWER UNIT ACCESS DOORS
(INTERNAL SIDE, CLOSED POSITION)
A

E08436 S0006425971_V1

Auxiliary Power Unit (APU) Access Door Installation
Figure 401/52-48-07-990-802 (Sheet 1 of 7)

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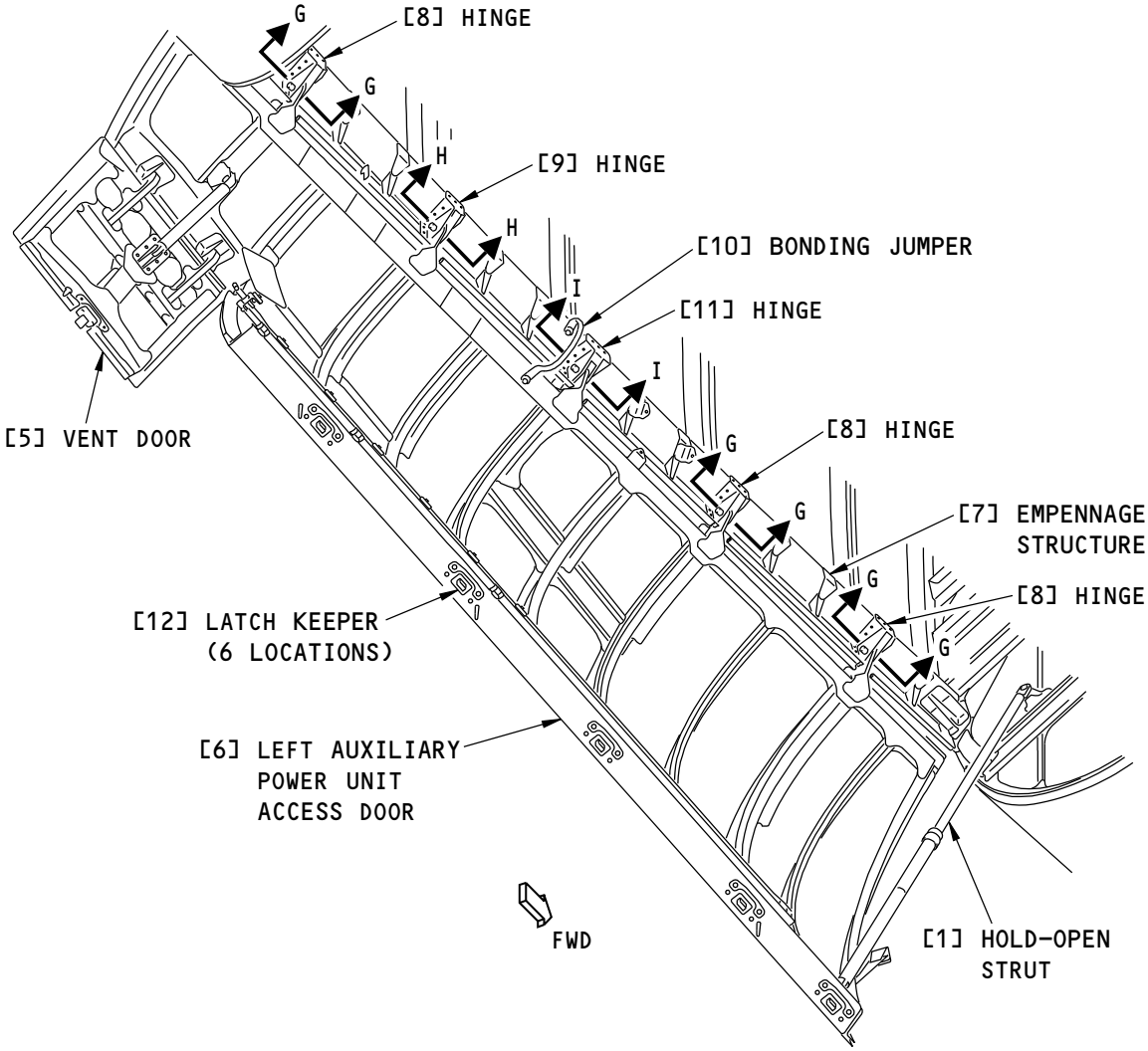
AUXILIARY POWER UNIT ACCESS DOORS (INTERNAL SIDE, CLOSED POSITION)

A

2326077 S0000528186_V2

Auxiliary Power Unit (APU) Access Door Installation
Figure 401/52-48-07-990-802 (Sheet 2 of 7)

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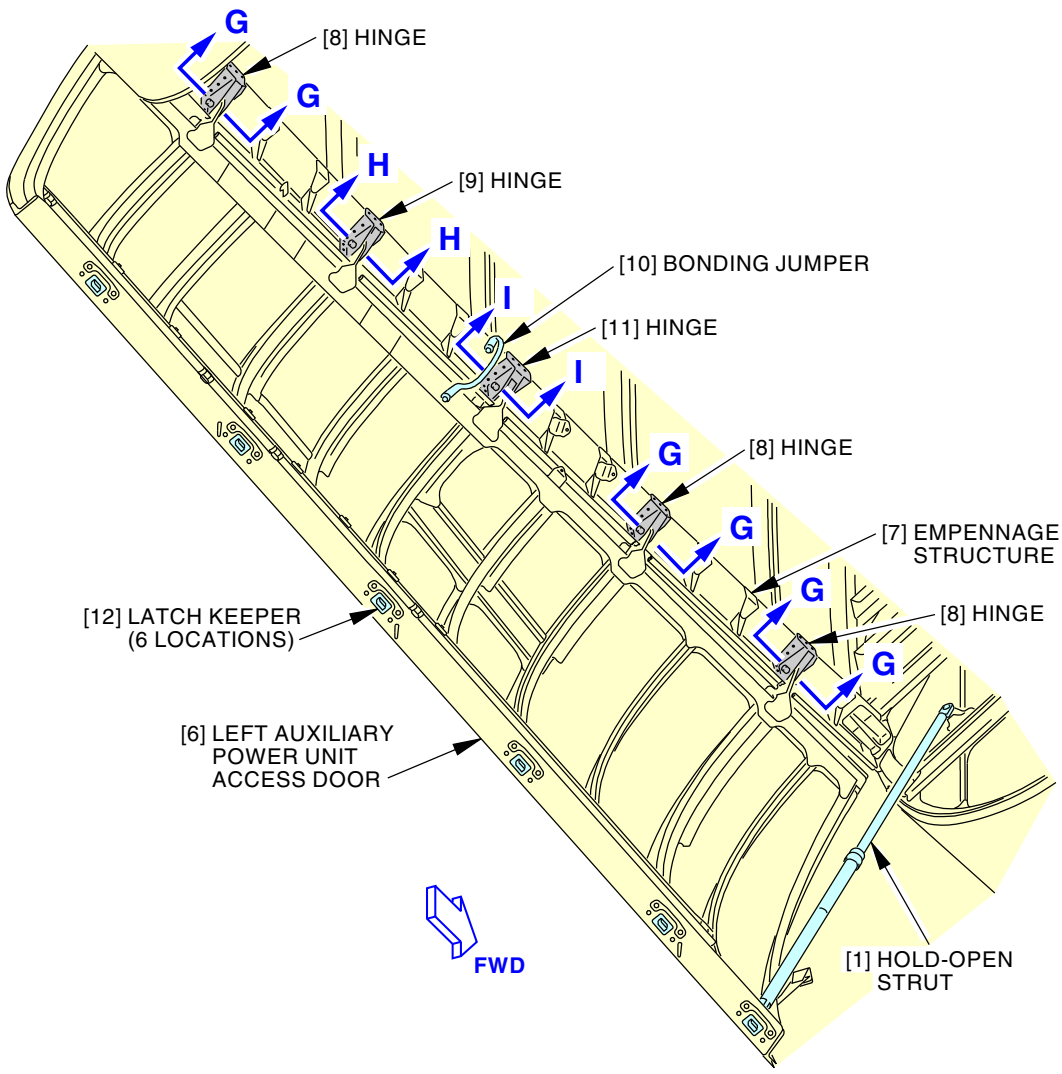
AUXILIARY POWER UNIT ACCESS DOOR
(INTERNAL SIDE, OPEN POSITION)

A

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Auxiliary Power Unit (APU) Access Door Installation
Figure 401/52-48-07-990-802 (Sheet 3 of 7)

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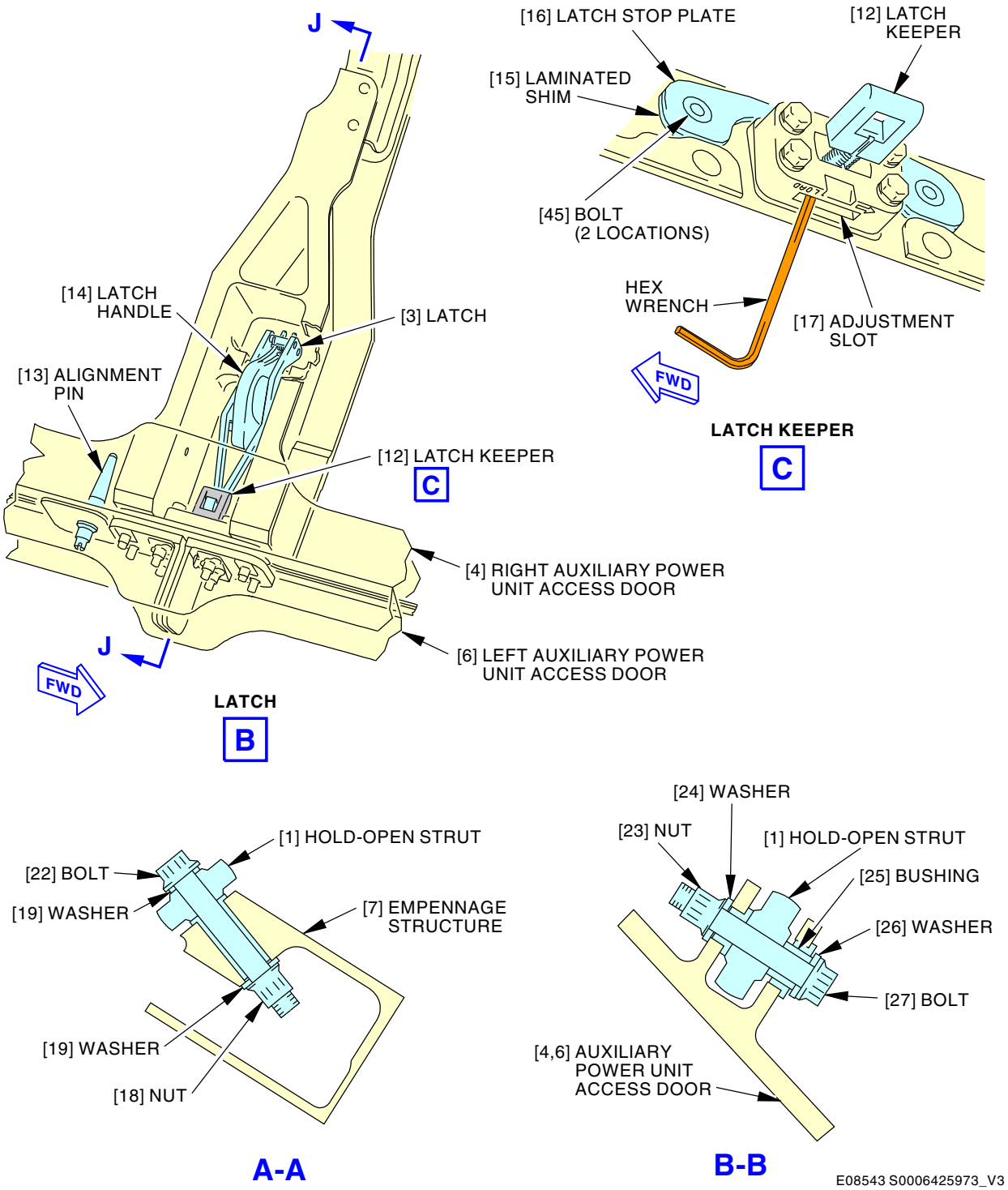
AUXILIARY POWER UNIT ACCESS DOOR (INTERNAL SIDE, OPEN POSITION)

A

2326136 S0000528187_V2

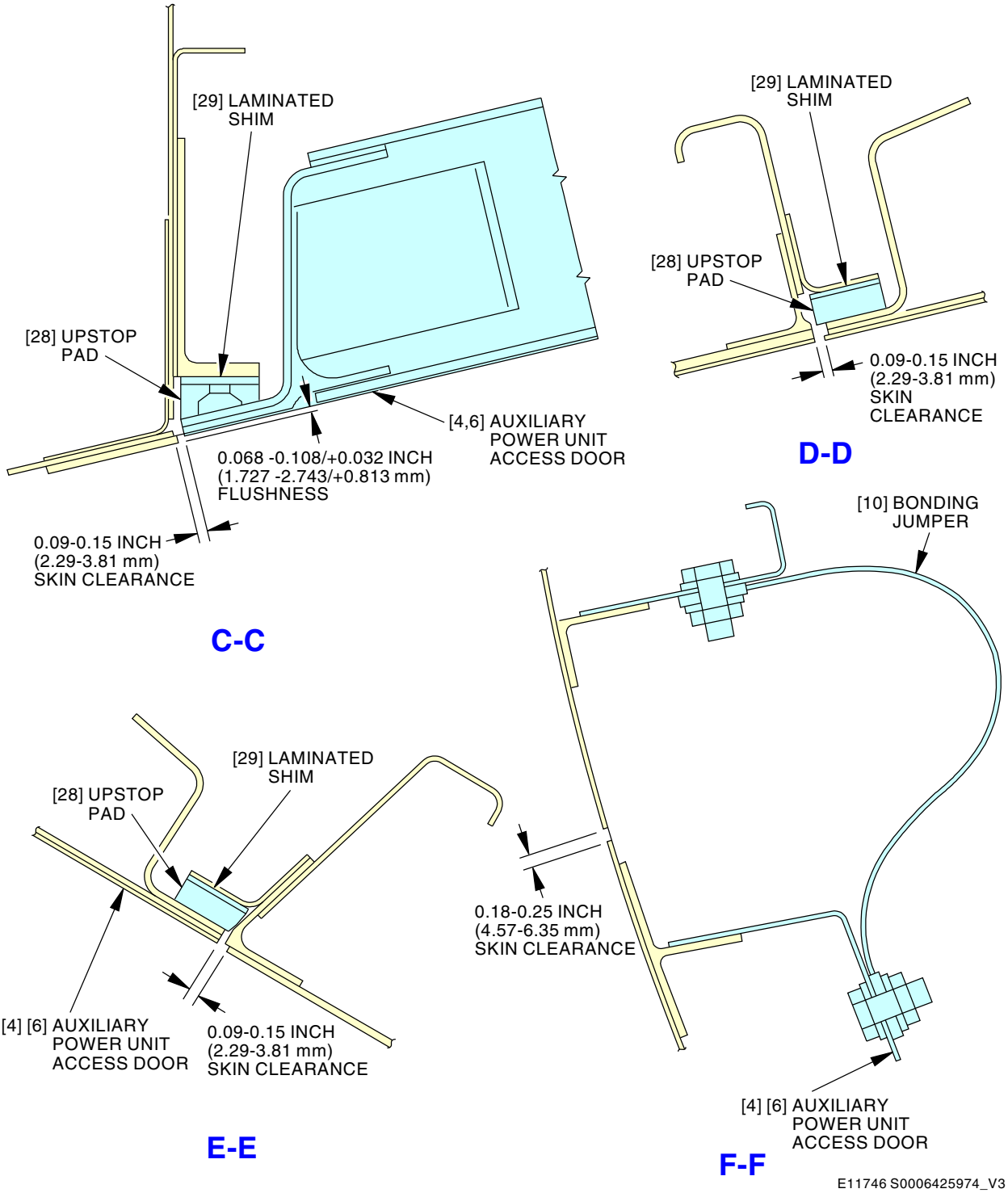
Auxiliary Power Unit (APU) Access Door Installation
Figure 401/52-48-07-990-802 (Sheet 4 of 7)

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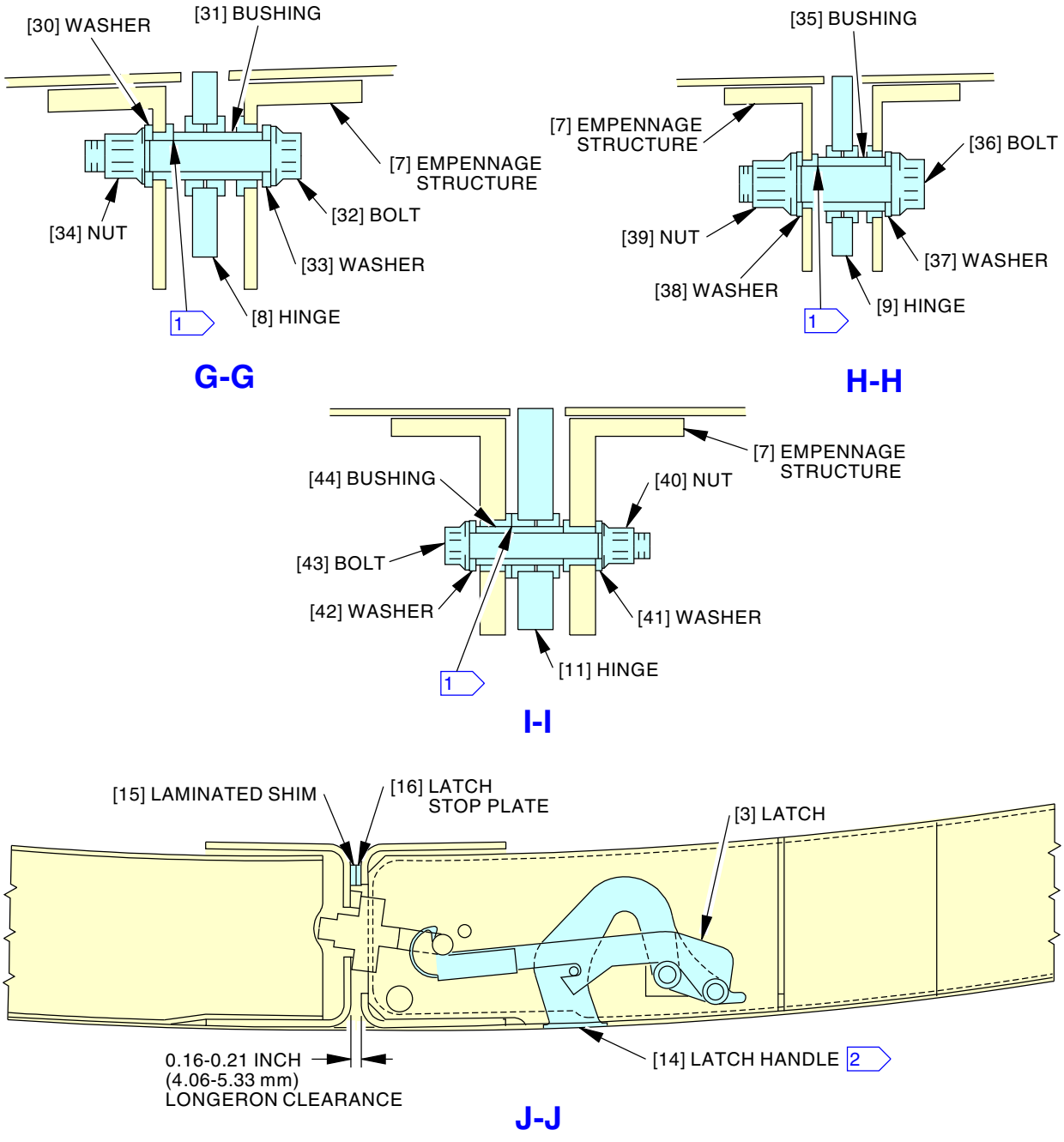
Auxiliary Power Unit (APU) Access Door Installation
Figure 401/52-48-07-990-802 (Sheet 5 of 7)

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Auxiliary Power Unit (APU) Access Door Installation
Figure 401/52-48-07-990-802 (Sheet 6 of 7)

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1 MAKE SURE THE BUSHINGS TOUCH AS SHOWN.

2 LATCH HANDLE FLUSHNESS IS -0.40/+0.06 INCH (-10.16/+1.52 mm).

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Auxiliary Power Unit (APU) Access Door Installation
Figure 401/52-48-07-990-802 (Sheet 7 of 7)

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TASK 52-48-07-400-801

3. Auxiliary Power Unit Access Door Installation

(Figure 401)

A. References

Reference	Title
26-15-01-400-802	APU Fire Detector Assembly Installation (P/B 401)
49-11-02-410-801	APU Access Doors (Close) (P/B 201)
SWPM 20-20-00	Standard Wiring Practices Manual

B. Consumable Materials

Reference	Description	Specification
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I
D00633	Grease - Aircraft General Purpose	BMS3-33
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Hold-open strut	52-48-07-05-047	ARO ALL
4	Door assembly	52-48-07-05-115	ARO 001-010
		52-48-07-05-555	ARO 001-010
6	Door assembly	52-48-07-05-110	ARO 001-010
		52-48-07-05-550	ARO 001-010
10	Bonding jumper	52-48-07-05-049	ARO ALL

D. Location Zones

Zone	Area
315	APU Compartment, Left
316	APU Compartment, Right

E. Access Panels

Number	Name/Location
315AL	Auxiliary Power Unit (APU) Access Door, Left
316AR	Auxiliary Power Unit (APU) Access Door, Right

F. Installation

SUBTASK 52-48-07-420-001

(1) Connect the hinges [8], hinge [9], and hinge [11], to the empennage structure [7] as follows:

(a) Hold the door assembly [4] and door assembly [6] in a vertical position.

(b) Align and engage the hinges [8], hinge [9], and hinge [11], on the door assembly [4] and door assembly [6] with the empennage structure [7] and hold in this position.

(c) At the hinge [11], make sure the flanged bushing on the door assembly [4] and door assembly [6] touches the flanged bushing on the empennage structure [7] (View I-I, Figure 401).

(d) At the hinges [8] and hinge [9], make sure the flanged bushings on the door assembly [4] and door assembly [6] touch the bushings [31], bushings [35] (Views G-G and View H-H, Figure 401).

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(e) Apply the grease, D00633, to the bolts [32], bolts [36], bolts [43], and all of the bushings.

(f) Install the bolts [32], bolts [36], bolts [43], washers [30], washers [33], washers [37], washers [38], washers [41], washers [42], bushings [31], bushings [35], bushings [44], and nuts [34], nuts [39], nuts [40] that attach the hinges [8], hinge [9], and hinge [11], to the empennage structure [7].

(g) Connect the bonding jumper [10] to the door assembly [4] and door assembly [6] (SWPM 20-20-00).

SUBTASK 52-48-07-820-001

(2) Adjust the door as follows:

(a) Move the door to the closed position.

(b) Make sure the skin clearances between the empennage and door are within the limits and the door fits in the cutout (View C-C, View D-D, View E-E, and View F-F, Figure 401).

(c) Make sure the flushness of the door is as shown on View C-C, Figure 401 and adjust as follows:

1) Add or remove the laminated shims [29] on the upstop pad [28] to get the correct flushness of the door.

NOTE: The maximum thickness of laminated shim is 0.5 in. (12.7 mm). The laminations of shim are 0.003 in. (0.076 mm) thick.

2) Apply the primer, C00259, to the laminated shims [29] that do not have primer on them before you install.

(d) Carefully push the door to its fully open position and hold.

(e) Make sure the skin clearance between the empennage and door at the outboard edge is 0.25 in. (6.35 mm) minimum.

NOTE: A stop on hinge no. 3 should not let the door touch the empennage.

SUBTASK 52-48-07-420-002

(3) Adjust the latches [3] as follows:

(a) Move the doors to the closed position.

(b) Close the latches [3].

(c) Make sure the longeron clearance between the doors at the latches [3] is within the limits and adjust as follows (View J-J, Figure 401):

1) Remove the bolts [45] that attach the laminated shims [15] and the latch stop plates [16] to the door assembly [6].

2) Add or remove the laminated shims [15] on the latch stop plates [16] to get the correct longeron clearances.

3) Apply the primer, C00259, to the laminated shims [15] that do not have primer on them before installation.

4) Apply the corrosion inhibiting material, G50136, to the bolts [45].

5) Install the bolts [45] through the latch stop plates [16], laminated shims [15], and into the door assembly [6].

(d) Adjust the latch keeper [12] closing force as follows:

NOTE: Do these steps for each latch.

1) Put a 10 in. (254 mm) screwdriver in the latch handle [14] slot and measure the force to close each latches [3] at an angle of 90 degrees to the end of the screwdriver.

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2) Make sure the force to close each latches [3] is 10 in-lb (1 N·m), and adjust as follows:

a) Put a hex wrench in the adjustment slot [17] between the doors and turn in the direction shown to increase the latch force.

NOTE: With the doors closed, if you turn the hex wrench forward the latch force will increase.

(e) Adjust the latch handle [14] flushness as follows:

1) Make sure the center point of the latch handle [14] has the flushness shown on View J-J, Figure 401, and adjust as follows:

a) Loosen the fasteners that attach the latch keeper [12] to the door assembly [6].

b) Move the latch keeper [12] up or down to adjust the flushness of the latch handle [14].

c) Tighten the fasteners that attach the latch keeper [12] to the door assembly [6] to 30 ±5 in-lb (3 ±1 N·m).

2) If necessary, readjust the latch keeper [12] closing force.

SUBTASK 52-48-07-420-003

(4) Connect the hold-open struts [1] to the empennage structure [7] and the door assembly [4], door assembly [6] as follows:

(a) Connect the hold-open struts [1] to the empennage structure [7].

1) Install the bolts [22], washers [19], and nuts [18] that attach the hold-open struts [1] to the empennage structure [7].

(b) Connect the hold-open struts [1] to the door assembly [4] and door assembly [6].

1) Install the bolt [27], washer [24], washer [26], bushing [25], and nut [23] that attach the hold-open struts [1] to the doors.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-48-07-420-004

(1) Install the APU fire detector assembly on the APU access door as follows:

(a) Do this task: APU Fire Detector Assembly Installation, TASK 26-15-01-400-802.

SUBTASK 52-48-07-410-001

(2) To close the door assembly [4] and door assembly [6], do this task:

(a) Close these access panels:

Number	Name/Location
315AL	Auxiliary Power Unit (APU) Access Door, Left
316AR	Auxiliary Power Unit (APU) Access Door, Right

1) Do this task: APU Access Doors (Close), TASK 49-11-02-410-801.

H. Installation Test

SUBTASK 52-48-07-710-001

(1) Do a test on the APU access doors as follows:

(a) Unlatch, open, close and latch the doors.

(b) Make sure the latches operate correctly and the doors open and close smoothly.

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(c) Make sure the hold-open struts operate correctly.

——— END OF TASK ———

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EXTERNAL GROUND POWER SUPPLY DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the external ground power supply door.

(2) An installation of the external ground power supply door.

B. In this procedure the external ground power supply door is referred to as the door assembly [6].

TASK 52-49-01-000-801

2. External Ground Power Supply Door Removal

(Figure 401)

A. Location Zones

Zone	Area
118	Main Equipment Center, Right

B. Access Panels

Number	Name/Location
118AR	External Ground Power Supply Door

C. Prepare for the Removal

SUBTASK 52-49-01-010-001

(1) To get access to the door assembly [6], do this step:

(a) Open this access panel:

Number	Name/Location
118AR	External Ground Power Supply Door

D. Removal

SUBTASK 52-49-01-020-001

(1) Disconnect the hinge [1] from the door assembly [6] as follows:

(a) Remove the bolt [13], washer [14], and nut [15] to disconnect the bonding jumper [7] from the door assembly [6].

(b) Hold the door assembly [6].

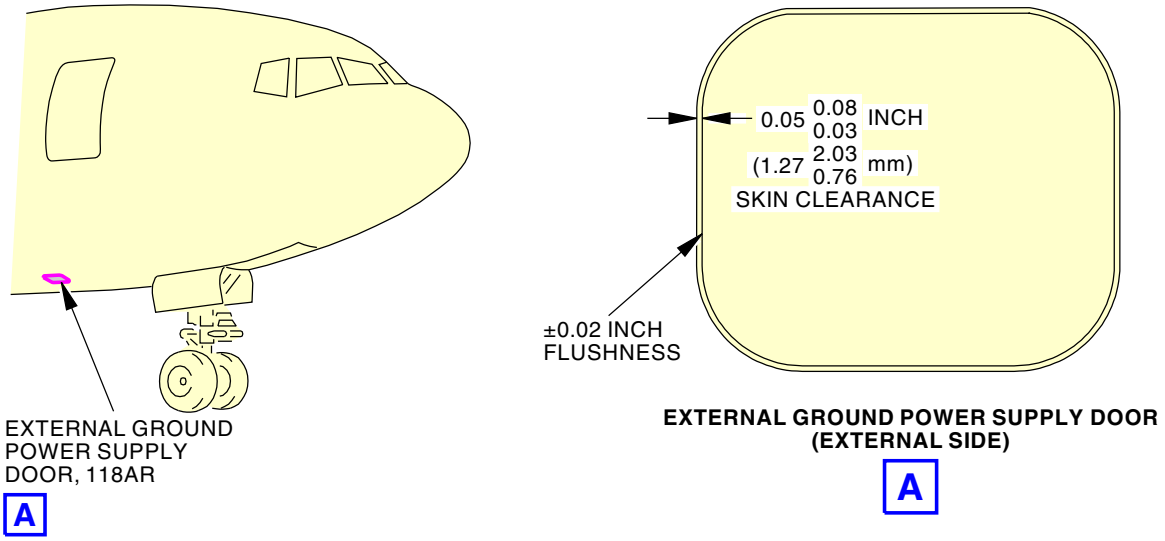
(c) Remove the bolts [2], washers [3], and nuts [4] that attach the hinge [1] to the door assembly [6].

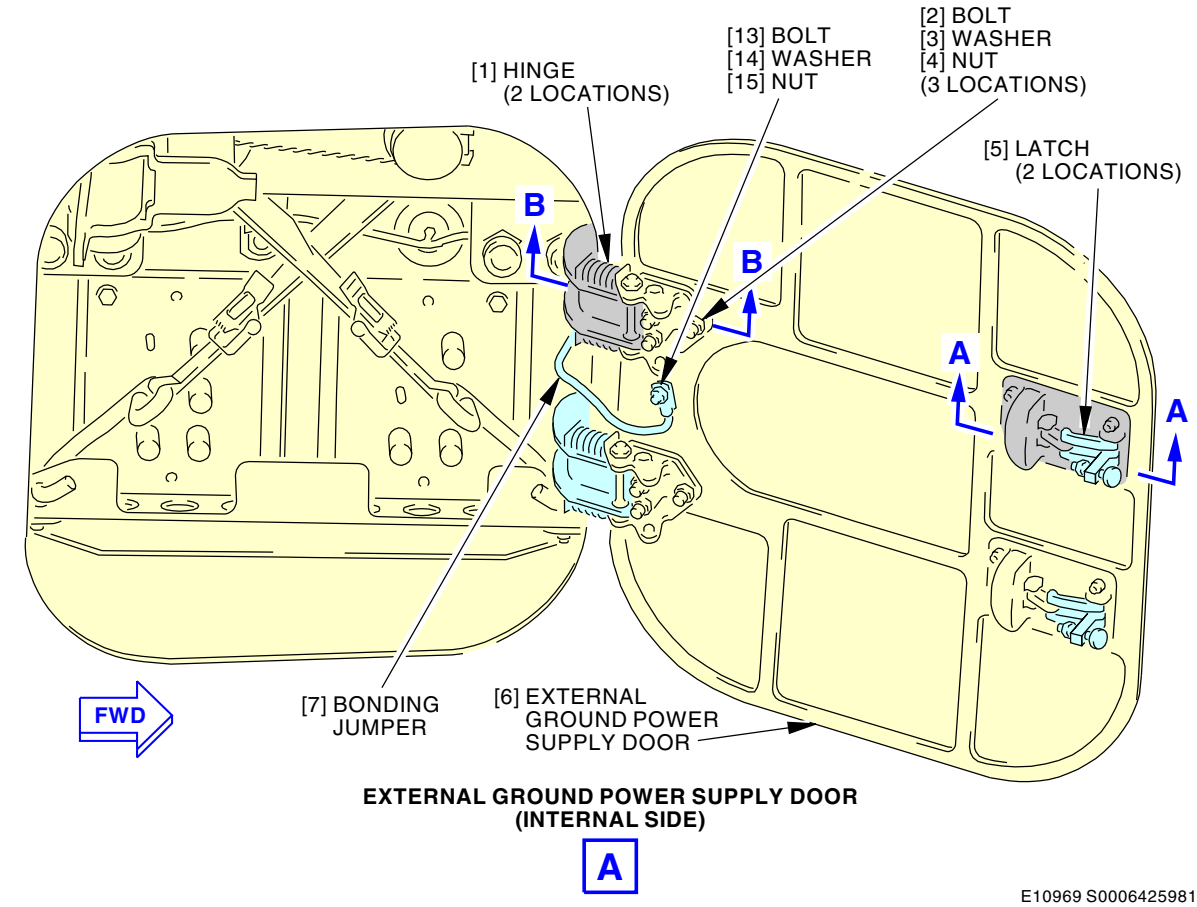
SUBTASK 52-49-01-020-002

(2) Remove the door assembly [6] from the airplane.

——— END OF TASK ———

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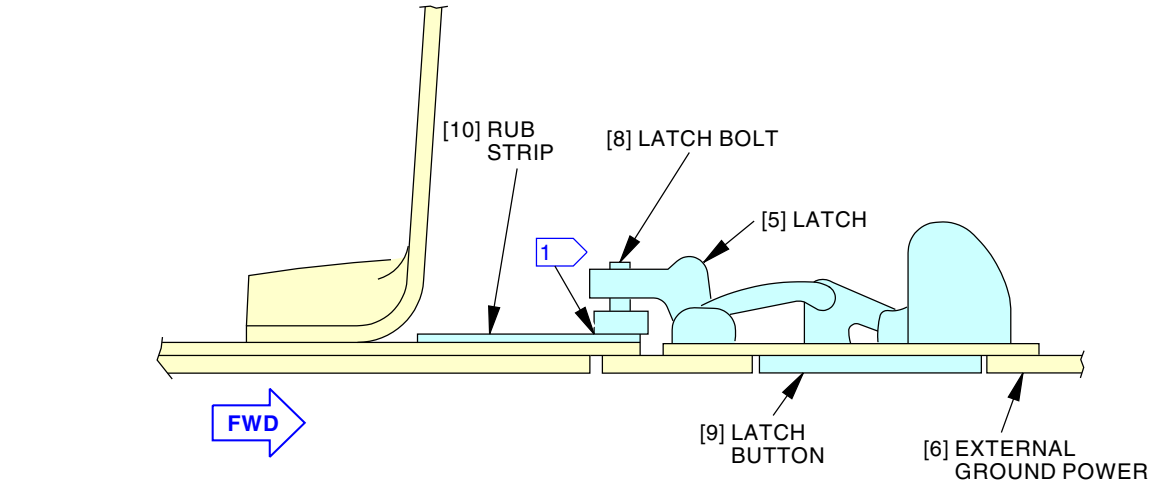




E10969 S0006425981_V3

External Ground Power Supply Door Installation
Figure 401/52-49-01-990-802 (Sheet 1 of 2)

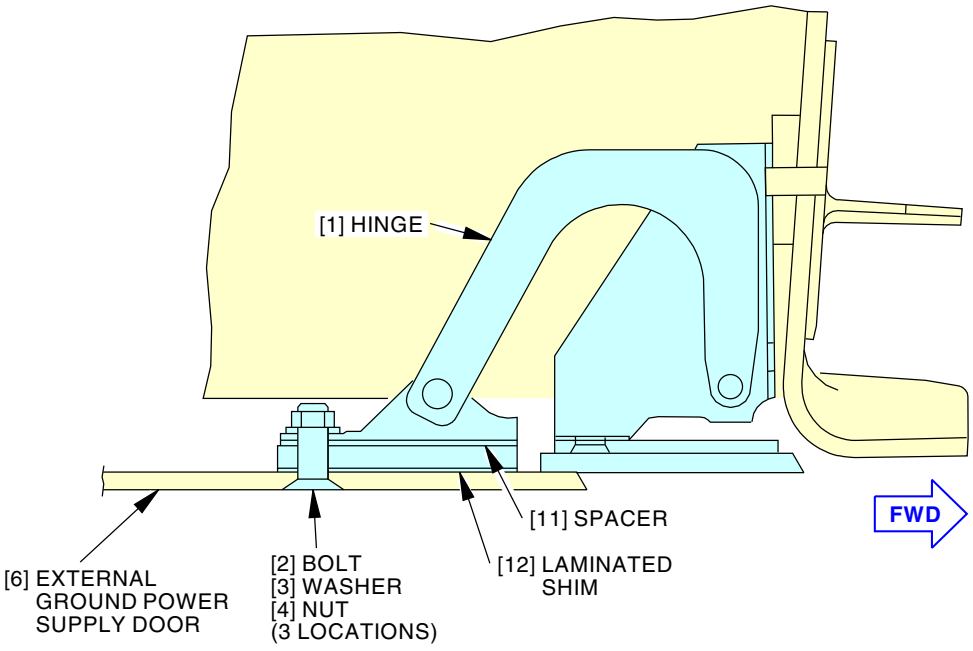
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1 CLEARANCE BETWEEN LATCH BOLT AND RUB STRIP IS 0.010 INCH (0.254 mm) MAXIMUM.

(CLOSED POSITION)

A-A



(CLOSED POSITION)

B-B

E10968 S0006425982_V3

External Ground Power Supply Door Installation
Figure 401/52-49-01-990-802 (Sheet 2 of 2)

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TASK 52-49-01-400-801

3. External Ground Power Supply Door Installation

(Figure 401)

A. References

Reference	Title
SWPM 20-20-10	Standard Wiring Practices Manual

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
6	Door assembly	52-49-01-01-150	ARO ALL

D. Location Zones

Zone	Area
118	Main Equipment Center, Right

E. Access Panels

Number	Name/Location
118AR	External Ground Power Supply Door

F. Installation

SUBTASK 52-49-01-020-003

(1) Connect the hinge [1] to the door assembly [6] as follows:

(a) Align and engage the door assembly [6] with the hinge [1] and hold in this position.

(b) Apply the sealant, A00247, between the door assembly [6], hinge [1], laminated shims [12], and spacer [11].

(c) Install the bolts [2], washers [3], nuts [4], laminated shims [12], and spacer [11] to attach the hinge [1] to the door assembly [6].

(d) Install the bolt [13], washer [14], and nut [15] to connect the bonding jumper [7] to the door assembly [6] SWPM 20-20-10.

SUBTASK 52-49-01-820-001

(2) Adjust the door assembly [6] as follows:

(a) Open and close the door assembly [6].

(b) Make sure the edge of the door assembly [6] closes freely +0.10 in. (2.54 mm) to -0.02 in. (0.51 mm) at the latches [5].

(c) Make sure the flushness and skin clearance of the door assembly [6] is within the limits and adjust as follows if it is necessary (View A, Figure 401):

1) Add or remove the laminated shims [12] at the hinge [1] to get the correct flushness.

2) Apply the primer, C00259, to the laminated shims [12] that do not have primer on them before you install.

(d) Make sure the latches [5] operate freely.

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(e) Make sure the clearance between the latch bolt [8] and the rub strip [10] is within the limits (View A-A, Figure 401).

G. Installation Test

SUBTASK 52-49-01-710-001

(1) Do a test on the door assembly [6] as follows:

(a) Open and close the door assembly [6].

(b) Make sure the door assembly [6] and the latches [5] operate smoothly.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-49-01-410-001

(1) To close the door assembly [6], do this step:

(a) Close this access panel:

Number	Name/Location
118AR	External Ground Power Supply Door

——— END OF TASK ———

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POTABLE WATER SERVICE DOORS - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the aft potable water service door.

(2) An installation of the aft potable water service door.

TASK 52-49-02-000-801

2. Aft Potable Water Service Door Removal

(Figure 401)

A. Location Zones

Zone	Area
154	Area Below Aft Cargo Compartment, Right

B. Access Panels

Number	Name/Location
154AR	Aft Potable Water Service Door

C. Prepare for the Removal

SUBTASK 52-49-02-010-001

(1) Open this service door (3):

Number	Name/Location
154AR	Aft Potable Water Service Door

D. Removal

SUBTASK 52-49-02-020-001

(1) Disconnect the hinges [1] from the aft potable water service door [3] as follows:

(a) Hold the aft potable water service door [3].

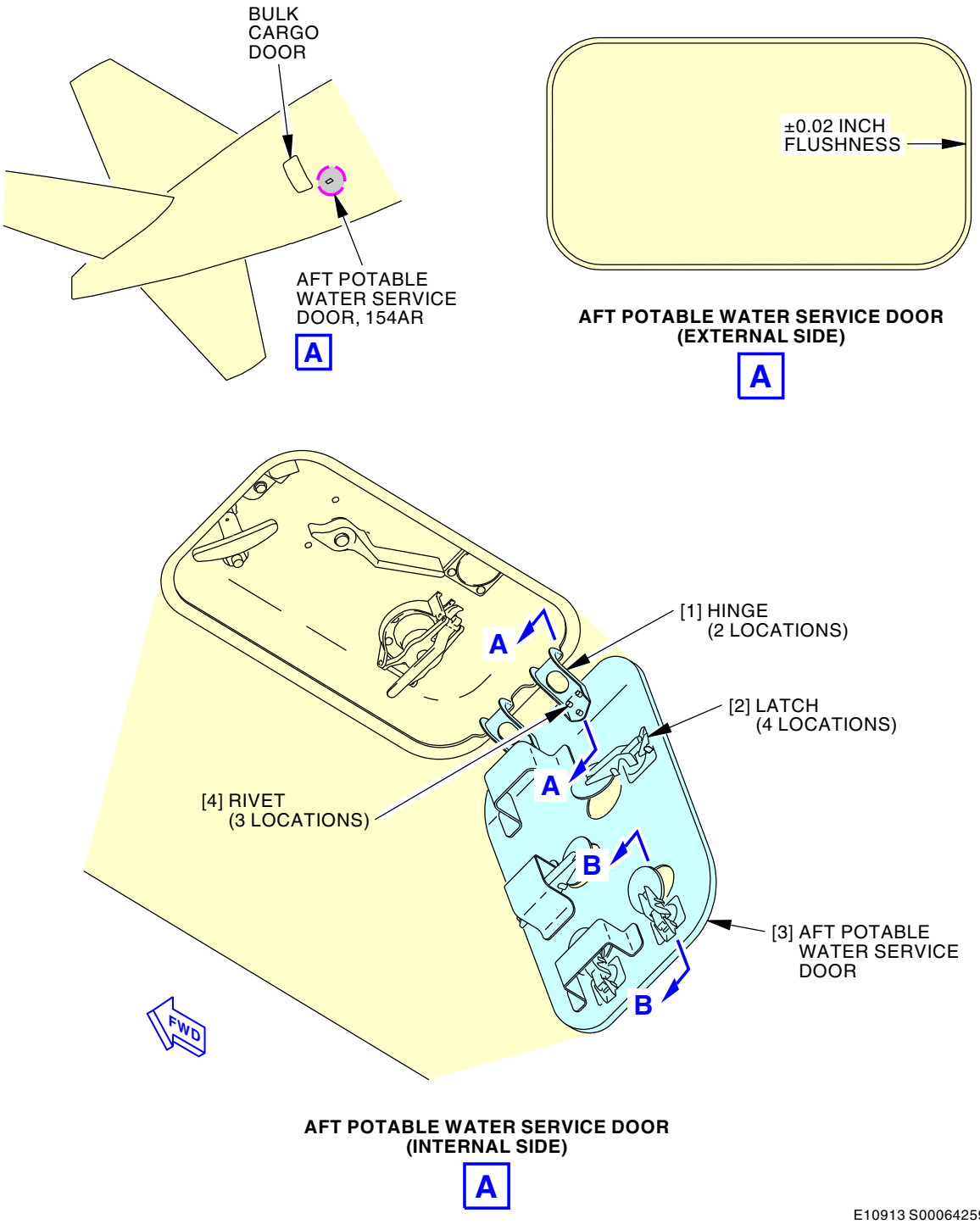
(b) Remove the rivets [4] that attach the hinges [1] to the aft potable water service door [3].

SUBTASK 52-49-02-020-002

(2) Remove the aft potable water service door [3] from the airplane.

——— END OF TASK ———

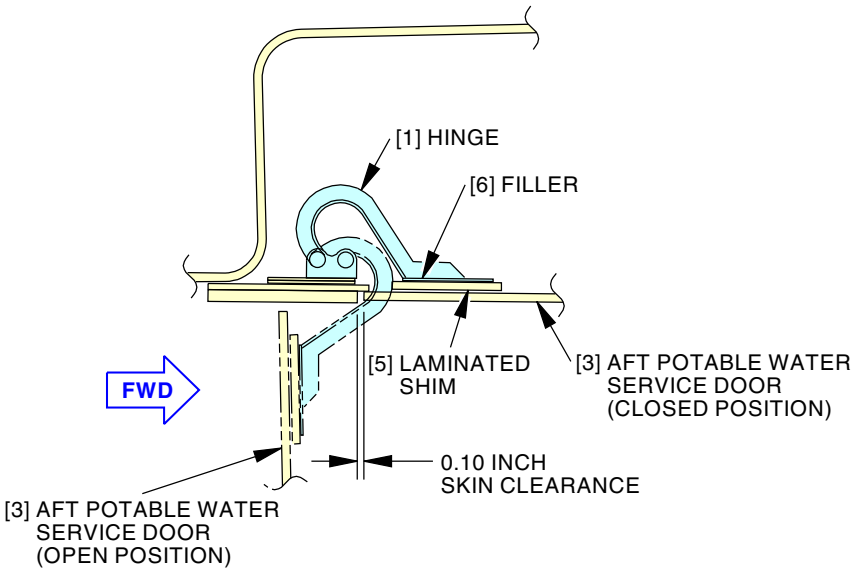
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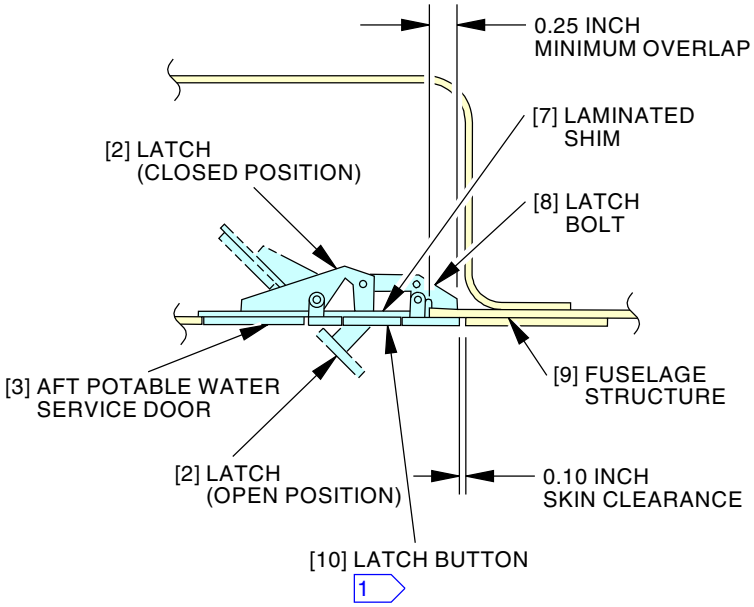
E10913 S0006425989_V2

Aft Potable Water Service Door Installation
Figure 401/52-49-02-990-803 (Sheet 1 of 2)

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A-A



B-B

1 PUSH THE LATCH HERE TO DO A CHECK FOR FREE PLAY. THE PERMITTED FREE PLAY IS 0.01-0.03 INCH.

E10920 S0006425990_V2

Aft Potable Water Service Door Installation
Figure 401/52-49-02-990-803 (Sheet 2 of 2)

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TASK 52-49-02-400-801

3. Aft Potable Water Service Door Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
3	Aft potable water service door	52-49-02-01A-010	ARO ALL
4	Rivet	52-49-02-01A-015	ARO ALL
5	Laminated shim	52-49-02-01A-039	ARO ALL
6	Filler	52-49-02-01A-038	ARO ALL
7	Shim	52-49-02-01A-030	ARO ALL

C. Location Zones

Zone	Area
154	Area Below Aft Cargo Compartment, Right

D. Access Panels

Number	Name/Location
154AR	Aft Potable Water Service Door

E. Installation

SUBTASK 52-49-02-020-003

(1) Connect the hinges [1] to the aft potable water service door [3] as follows:

(a) Align the hinges [1] to engage with the aft potable water service door [3] and hold in this position.

(b) Apply the sealant, A00247 between the aft potable water service door [3], hinges [1], laminated shim [5], and fillers [6].

(c) Apply the sealant, A00247 to the rivets [4] that attach the hinges [1] to the aft potable water service door [3].

(d) Install the rivets [4] to attach the hinges [1], laminated shim [5], and fillers [6] to the aft potable water service door [3].

SUBTASK 52-49-02-820-001

(2) Adjust the aft potable water service door [3] as follows:

(a) Adjust the latches [2] on the aft potable water service door [3] as follows:

NOTE: Do these steps for each latch [2].

1) Push and hold the edge of the aft potable water service door [3] aligned with the fuselage.

2) Lock the latch [2].

3) Push the latch button [10] to do a check for free play, View B-B (Figure 401).

4) Make sure the free play is as shown, View B-B (Figure 401). If it is necessary, adjust as follows:

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a) If the free play is too much, add or remove the teflon coating under the latches [2].

NOTE: The thickness of the teflon coating is 0.01 inch minimum and 0.05 inch maximum.

5) Make sure the overlap of the latch bolt [8] to the fuselage structure [9] is as shown, View B-B (Figure 401).

6) Make sure the flushness of the latch button [10] to the aft potable water service door [3] is the same as the flushness of the aft potable water service door [3] to the fuselage as shown, View A (Figure 401). If it is necessary, adjust as follows:

a) Add or remove the laminations of shim [7] between the latches [2] and the aft potable water service door [3] to get the correct flushness.

b) Apply the primer, C00259 to the bare laminations of shim [7] before you install.

c) Make sure the shim [7] is clear of the latch button [10].

(b) Adjust the hinges [1] on the aft potable water service door [3] as follows:

1) Make sure the flushness of the aft potable water service door [3] to the fuselage is as shown, View A (Figure 401). If it is necessary, adjust as follows:

a) Add or remove the laminations of laminated shim [5] between the hinges [1] and the aft potable water service door [3] to get the correct flushness.

NOTE: The maximum thickness of shim is 0.01 inch.

b) Apply the primer, C00259 to the bare laminations of laminated shim [5] before you install.

2) Make sure the hinge line is straight between the hinges [1].

F. Installation Test

SUBTASK 52-49-02-710-001

(1) Do a test on the aft potable water service door [3] as follows:

(a) Open and close the aft potable water service door [3].

(b) Make sure the aft potable water service door [3] and the latches [2] operate smoothly.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-49-02-010-002

(1) Close this service door (3):

Number	Name/Location
154AR	Aft Potable Water Service Door

——— END OF TASK ———

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REFUELING STATION DOORS - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the refueling station door.

(2) An installation of the refueling station door.

B. The removal and installation procedures for the left and right wing refueling station doors are the same.

C. In this procedure the refueling station door is referred to as the door assembly [12].

TASK 52-49-03-000-801

2. Refueling Station Door Removal

(Figure 401)

A. Location Zones

Zone	Area
521	Leading Edge to Front Spar - Outboard of Nacelle Strut - Left Wing
621	Leading Edge to Front Spar - Outboard of Nacelle Strut - Right Wing

B. Access Panels

Number	Name/Location
521DB	Refueling Station Door
621DB	Refueling Station Door

C. Prepare for the Removal

SUBTASK 52-49-03-010-003

(1) To get access to the door assemblies [12], do these step:

(a) Open these access panels:

Number	Name/Location
521DB	Refueling Station Door
621DB	Refueling Station Door

D. Removal

SUBTASK 52-49-03-020-001

(1) Disconnect the hold-open struts [10] from the wing structure [8] or door assembly [12] as follows:

(a) Remove the clevis pins [13], washers [14], and cotter pins [15] that attach the hold-open struts [10] to the wing structure [8] or door assembly [12].

SUBTASK 52-49-03-020-002

(2) Disconnect the hinge [9] from the wing structure [8] as follows:

(a) Hold the door assembly [12].

(b) Remove the bolts [1], bolts [4], bolts [6], bolts [7], washers [2], and nuts [3] that attach the hinge [9] to the wing structure [8].

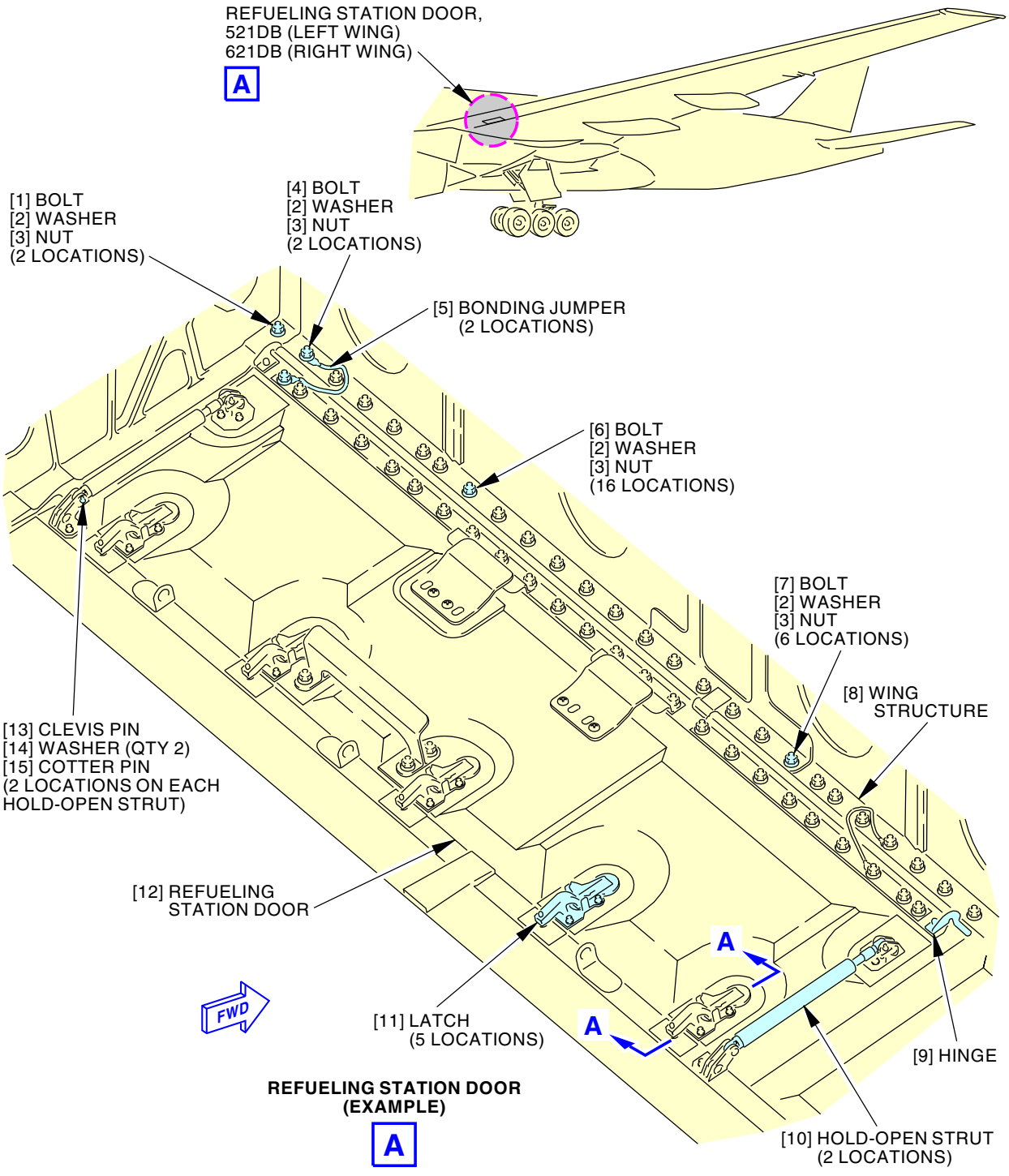
(c) Disconnect the bonding jumpers [5] from the hinge [9].

SUBTASK 52-49-03-020-003

(3) Remove the door assembly [12] from the airplane.

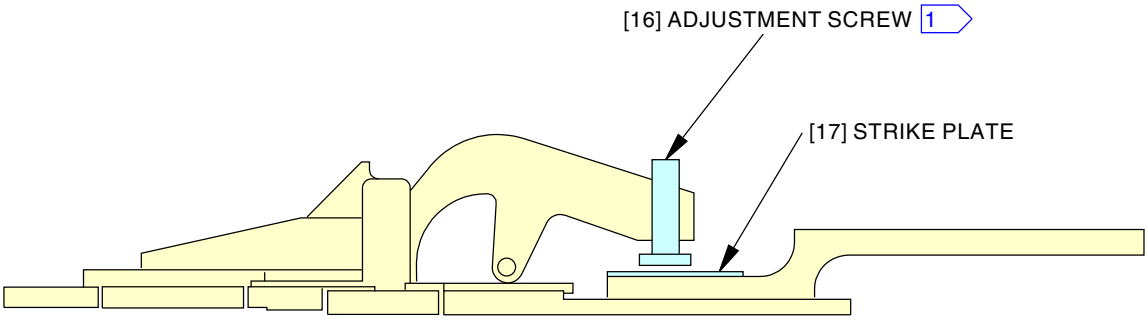
END OF TASK

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Refueling Station Door Installation
Figure 401/52-49-03-990-802 (Sheet 1 of 2)

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(EXAMPLE)

A-A

1 TURN THE SCREW TO GET A CLEARANCE OF 0.00 TO 0.01 INCH (0.00-0.25mm)

H31882 S0006425999_V3

Refueling Station Door Installation
Figure 401/52-49-03-990-802 (Sheet 2 of 2)

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TASK 52-49-03-400-801

3. Refueling Station Door Installation

(Figure 401)

A. References

Reference	Title
SWPM 20-20-00	Standard Wiring Practices Manual

B. Consumable Materials

Reference	Description	Specification
C00308	Compound - Corrosion Preventive, Petrolatum Hot Application	MIL-C-11796

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
10	Hold-open strut	52-49-03-02-035	ARO 001-004
		52-49-03-56-105	ARO 005-999
11	Latch	52-49-03-05-190	ARO 001-004
		52-49-03-56-410	ARO 005-999
12	Door assembly	52-49-03-02-200	ARO 001-004
		52-49-03-02-205	ARO 001-004
		52-49-03-56-135	ARO 005-999
		52-49-03-56-140	ARO 005-999

D. Location Zones

Zone	Area
521	Leading Edge to Front Spar - Outboard of Nacelle Strut - Left Wing
621	Leading Edge to Front Spar - Outboard of Nacelle Strut - Right Wing

E. Access Panels

Number	Name/Location
521DB	Refueling Station Door
621DB	Refueling Station Door

F. Installation

SUBTASK 52-49-03-020-004

(1) Connect the hinge [9] to the wing structure [8] as follows:

(a) Align and engage the door assembly [12] and hinge [9] with the wing structure [8] and hold in this position.

(b) Apply the corrosion preventive compound, C00308, to the fastener holes.

(c) Install the bolts [1], bolts [4], bolts [6], bolts [7], washers [2], and nuts [3] that attach the hinge [9] to the wing structure [8].

(d) Connect the bonding jumpers [5] to the hinge [9] (SWPM 20-20-00).

SUBTASK 52-49-03-820-001

(2) Adjust the door assembly [12] as follows:

(a) Make sure the flushness (misfair) of the door assembly [12] to the wing structure [8] is less than 0.03 in. (0.76 mm).

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(b) Make sure the flushness (misfair) of the latches [11] to the door assembly [12] is less than 0.03 in. (0.76 mm).

SUBTASK 52-49-03-420-001

(3) Connect the hold-open struts [10] to the wing structure [8] or door assembly [12] as follows:

(a) Install the clevis pins [13], washers [14], and cotter pins [15] to attach the hold-open struts [10] to the wing structure [8] or door assembly [12].

G. Installation Test

SUBTASK 52-49-03-710-001

(1) Do a test on the door assembly [12] as follows:

(a) Open and close the door assembly [12].

(b) Make sure the door assembly [12] and latches [11] operate smoothly.

(c) If the force to open or close the latches [11] is not correct, do this step:

1) Adjust the clearance between the adjustment screw [16] and strike plate [17] as shown on the View A-A, Figure 401.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-49-03-410-002

(1) To close the door assembly [12], do these step:

(a) Close these access panels:

Number	Name/Location
521DB	Refueling Station Door
621DB	Refueling Station Door

END OF TASK

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WASTE TANK SERVICE DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the waste tank service door.

(2) An installation of the waste tank service door.

B. In this procedure waste tank service door is referred to as the door assembly [5].

TASK 52-49-04-000-801

2. Waste Tank Service Door Removal

(Figure 401)

A. Location Zones

Zone	Area
163	Area Below Bulk Cargo Compartment, Left

B. Access Panels

Number	Name/Location
163AL	Waste Tank Service Door

C. Prepare for the Removal

SUBTASK 52-49-04-010-001

(1) To get access to the door assembly [5], do this step:

(a) Open this access panel:

Number	Name/Location
163AL	Waste Tank Service Door

D. Removal

SUBTASK 52-49-04-020-001

(1) Disconnect the hinges [3] from the door assembly [5] as follows:

(a) Hold the door assembly [5].

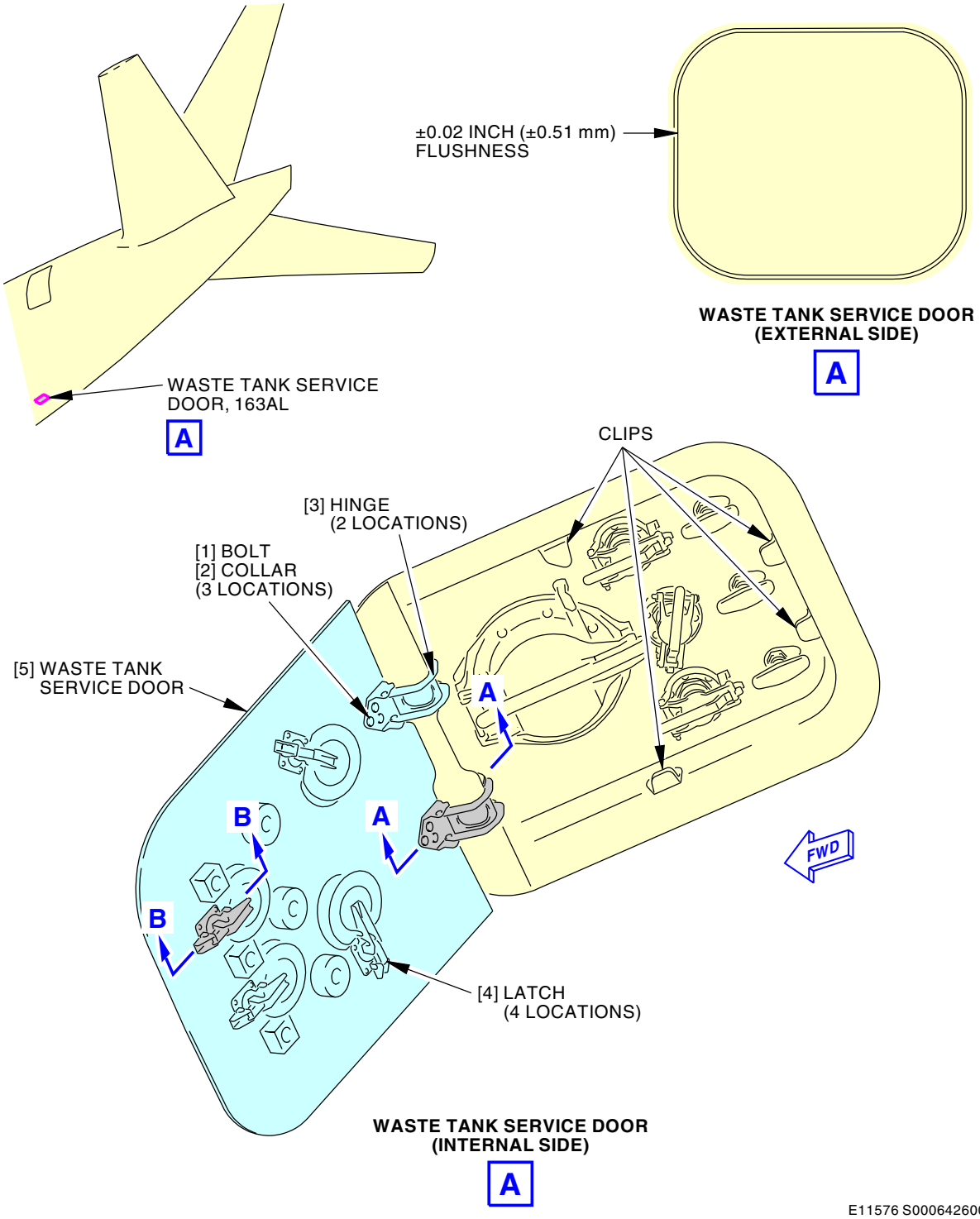
(b) Remove the bolts [1] and collars [2] that attach the hinges [3] to the door assembly [5].

SUBTASK 52-49-04-020-002

(2) Remove the door assembly [5] from the airplane.

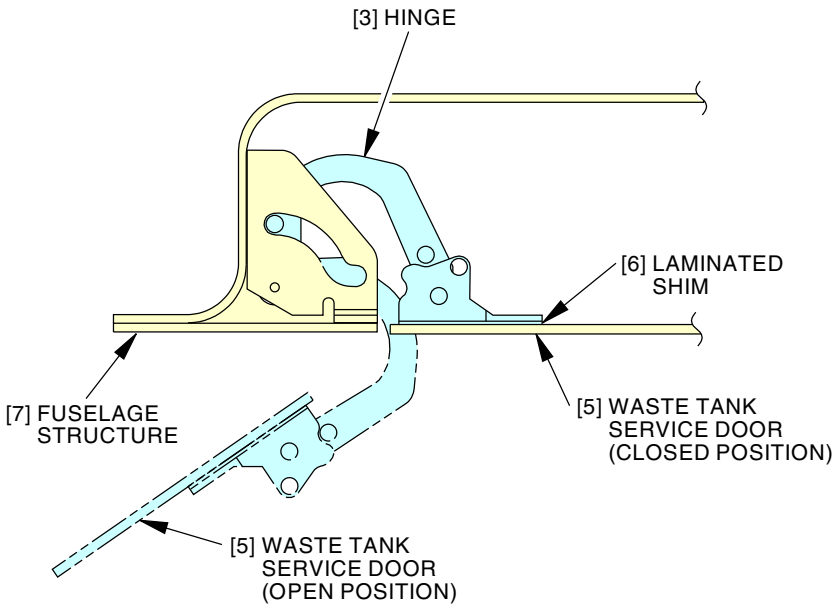
END OF TASK

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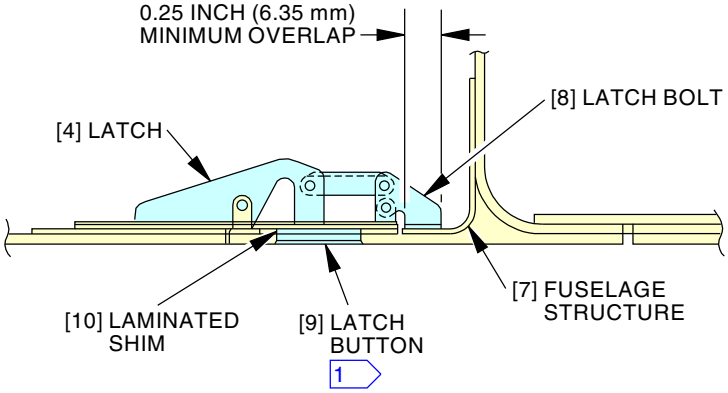


Waste Tank Service Door Installation
Figure 401/52-49-04-990-802 (Sheet 1 of 2)

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A-A



(CLOSED POSITION)

B-B

1 PUSH THE LATCH HERE TO DO A CHECK FOR FREE PLAY.
THE PERMITTED FREE PLAY IS 0.01-0.03 INCH (0.25-0.76 mm).

E11499 S0006426005_V3

Waste Tank Service Door Installation
Figure 401/52-49-04-990-802 (Sheet 2 of 2)

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TASK 52-49-04-400-801

3. Waste Tank Service Door Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
5	Door assembly	52-49-04-01A-030	ARO ALL

C. Location Zones

Zone	Area
154	Area Below Aft Cargo Compartment, Right

D. Access Panels

Number	Name/Location
163AL	Waste Tank Service Door

E. Installation

SUBTASK 52-49-04-420-001

(1) Connect the hinges [3] to the door assembly [5] as follows:

(a) Align the hinges [3] to engage with the door assembly [5] and hold in this position.

(b) Apply the sealant, A00247, between the door assembly [5], hinges [3], and laminated shims [6].

(c) Install the bolts [1] and collars [2] to attach the hinges [3] and laminated shims [6] to the door assembly [5].

SUBTASK 52-49-04-820-001

(2) Adjust the door assembly [5] as follows:

(a) Adjust the latches [4] as follows:

NOTE: Do these steps for each latch [4].

1) Push and hold the edge of the door assembly [5] aligned with the fuselage.

2) Lock the latch [4].

3) Push the latch button [9] to do a check for free play (View B-B, Figure 401).

4) Make sure the free play is as shown on View B-B, Figure 401:

a) If necessary, adjust the clips to get the correct free play.

5) Make sure the overlap of the latch bolt [8] to the fuselage structure [7] is within the limits (View B-B, Figure 401).

6) Make sure the flushness of the latch buttons [9] to the door assembly [5] is the same as the flushness of the door assembly [5] to the fuselage and adjust, if it is necessary (View A, Figure 401):

a) Add or remove the laminated shims [10] between the latch [4] and door assembly [5] to get the correct flushness.

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b) Apply the primer, C00259, to the laminated shims [10] that do not have primer on them before you install.

c) Make sure the laminated shims [10] is clear of the latch button [9].

(b) Adjust the hinges [3] as follows:

1) Make sure the flushness of the door assembly [5] to the fuselage is as shown on View A, Figure 401 and if it is necessary, adjust as follows:

a) Add or remove the laminated shims [6] between the hinges [3] and door assembly [5] to get the correct flushness.

b) Apply the primer, C00259, to the laminated shims [6] that do not have primer on them before you install.

2) Make sure the hinge line is straight between the hinges [3].

F. Installation Test

SUBTASK 52-49-04-710-001

(1) Do a test on the door assembly [5] as follows:

(a) Open and close the door assembly [5].

(b) Make sure the door assembly [5] and latches [4] operate smoothly.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-49-04-410-001

(1) To close the door assembly [5], do this step:

(a) Close this access panel:

Number	Name/Location
163AL	Waste Tank Service Door

——— END OF TASK ———

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HYDRAULIC GROUND SERVICE BAY ACCESS DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the hydraulic ground service bay access door.

(2) An installation of the hydraulic ground service bay access door.

B. In this procedure the hydraulic ground service bay access door is referred to as the door assembly [3].

TASK 52-49-05-000-801

2. Hydraulic Ground Service Bay Access Door Removal

(Figure 401)

A. Location Zones

Zone	Area
198	Aft Wing-to-Body Fairings, Right

B. Access Panels

Number	Name/Location
198DR	Hydraulic Ground Service Bay Access Door and Escape Slide Inflation Bottle

C. Prepare for the Removal

SUBTASK 52-49-05-010-001

(1) To get access to the door assembly [3], do this step:

(a) Open this access panel:

Number	Name/Location
198DR	Hydraulic Ground Service Bay Access Door and Escape Slide Inflation Bottle

D. Removal

SUBTASK 52-49-05-020-001

(1) Disconnect the folding strut [2] from the fairing structure [7] or the door assembly [3] as follows:

(a) Hold the door assembly [3].

(b) To disconnect the folding strut [2] from the fairing structure [7], remove the bolt [24], washer [25], washer [26], bushing [28], and nut [27].

(c) To disconnect the folding strut [2] from the door assembly [3], remove the bolt [17], washer [18], washer [19], washer [21], bushing [23], and nut [22].

SUBTASK 52-49-05-020-002

(2) Disconnect the hinges [4] from the fairing structure [7] as follows:

(a) Hold the door assembly [3].

(b) Remove the bolts [30], washers [31], washers [32], and nuts [33] to disconnect the bonding jumpers [1] from the hinges [4].

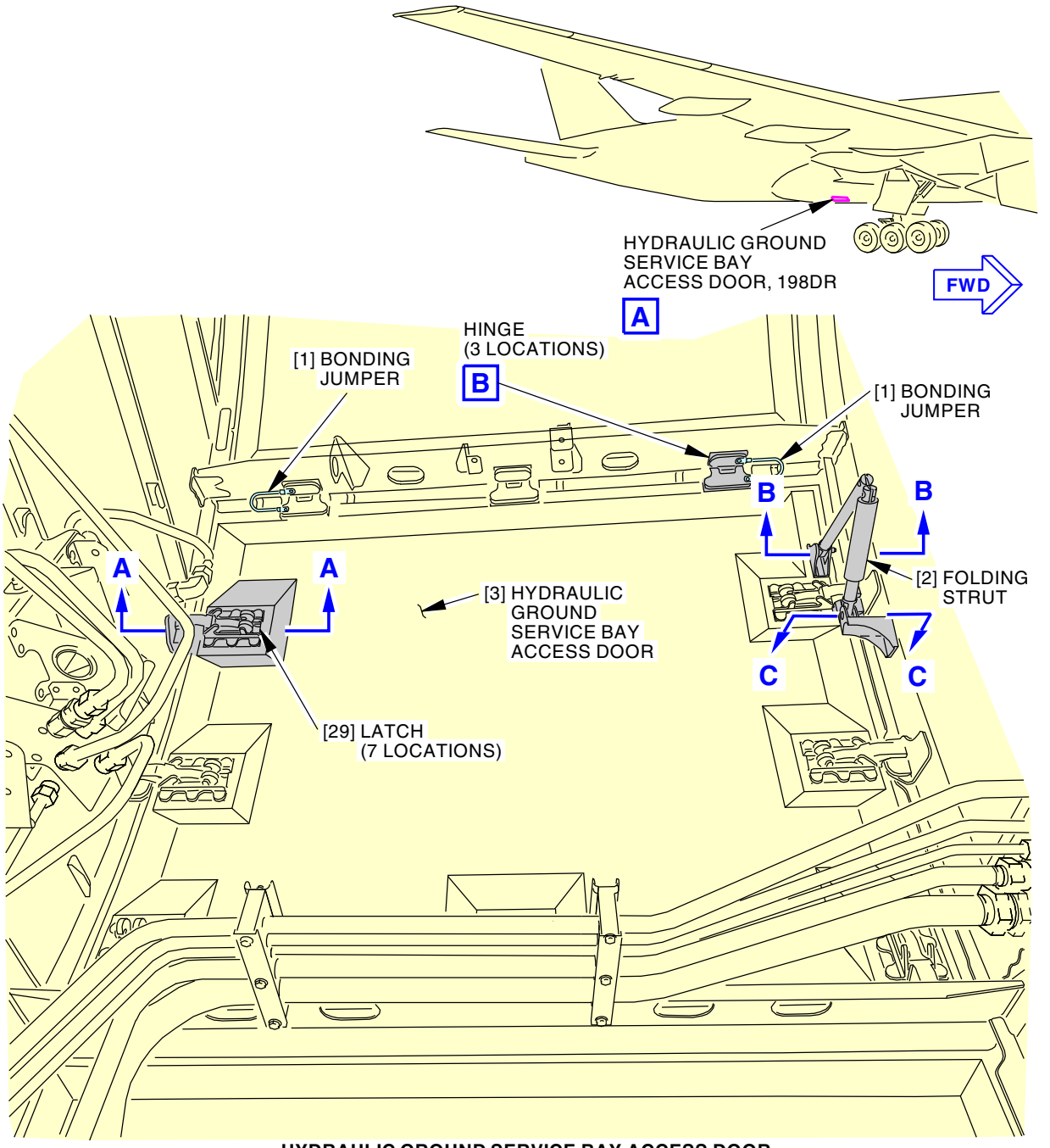
(c) Remove the bolts [5], washers [6], washers [8], nuts [9], and cotter pins [10] that attach the hinges [4] to the fairing structure [7].

SUBTASK 52-49-05-020-003

(3) Remove the door assembly [3] from the airplane.

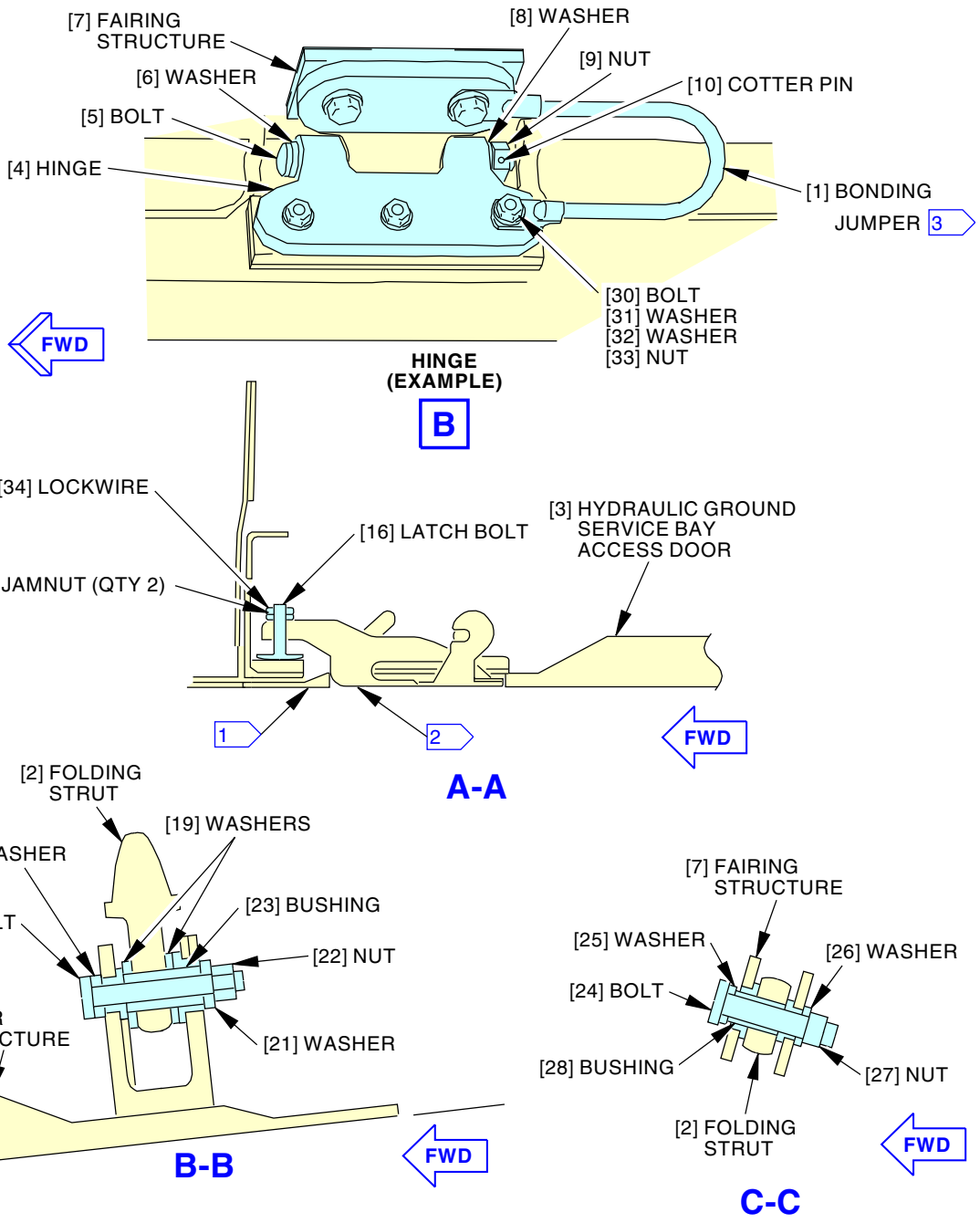
END OF TASK

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Hydraulic Ground Service Bay Access Door Installation
Figure 401/52-49-05-990-802 (Sheet 1 of 2)

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1 PUSH THE EDGE OF THE DOOR TO ALIGN WITH THE LATCH.

2 PUSH THE LATCH HERE TO DO A CHECK FOR FREE PLAY. THE PERMITTED FREE PLAY IS 0.00-0.01 INCH (0.00-0.25 mm).

3 THE BONDING JUMPER IS PRESENT ONLY ON THE TWO LOCATIONS.

E11278 S0006426011_V3

Hydraulic Ground Service Bay Access Door Installation
Figure 401/52-49-05-990-802 (Sheet 2 of 2)

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TASK 52-49-05-400-801

3. Hydraulic Ground Service Bay Access Door Installation

(Figure 401)

A. References

Reference	Title
SWPM 20-20-00	Standard Wiring Practices Manual

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in Class I, Divisions I & II hazardous (classified) locations. Outside these hazardous locations, COM-614 can be used in lieu of COM-1550). Part #: 620LK Supplier: 1CRL2 Part #: M1 Supplier: 3AD17 Part #: T477W Supplier: 01014 Opt Part #: M1B Supplier: 3AD17

C. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Bonding jumper	52-49-51-05-135	ARO ALL
4	Hinge	52-49-51-05-170	ARO ALL
		52-49-51-05-175	ARO ALL
10	Pin	52-49-51-05-180	ARO ALL
		52-49-51-20-010	ARO ALL
		52-49-51-25-010	ARO ALL
		52-49-51-30-005	ARO 001-015

E. Location Zones

Zone	Area
198	Aft Wing-to-Body Fairings, Right

F. Access Panels

Number	Name/Location
198DR	Hydraulic Ground Service Bay Access Door and Escape Slide Inflation Bottle

G. Installation

SUBTASK 52-49-05-420-001

(1) Connect the hinges [4] to the fairing structure [7] as follows:

(a) Align the door assembly [3] to engage the hinges [4] on the fairing structure [7] and hold in this position.

(b) Install the bolts [5], washers [6], washers [8], and nuts [9] to attach the hinges [4] to the fairing structure [7].

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(c) Tighten the nuts [9] to 12 in-lb (1 N·m) - 15 in-lb (2 N·m).

(d) Install the cotter pins [10].

(e) Install the bolts [30], washers [31], washers [32], and nuts [33] to connect the bonding jumpers [1] to the hinges [4] (SWPM 20-20-00).

(f) Measure the resistance between the bonding jumpers [1] and hinges [4] with a intrinsically safe approved bonding meter, COM-1550 (SWPM 20-20-00).

1) The maximum resistance across the surface bond must not be more than 1.0 ohms.

SUBTASK 52-49-05-420-002

(2) Connect the folding strut [2] to the fairing structure [7] or door assembly [3] as follows:

(a) To connect the folding strut [2] to the fairing structure [7], do these steps:

1) Apply the grease, D00633, to the outer diameter of the bolt [24] and inner diameter of bushing [28].

2) Install the bolt [24], washer [25], washer [26], bushing [28], and nut [27] to connect the folding strut [2] to the fairing structure [7].

3) Tighten the nut [27] to 30 in-lb (3 N·m) - 35 in-lb (4 N·m).

(b) To connect the folding strut [2] to the door assembly [3], do these steps:

1) Apply the grease, D00633, to the outer diameter of the bolt [17] and inner diameter of bushing [23].

2) Install the bolt [17], washer [18], washer [19], washer [21], bushing [23], and nut [22] to connect the folding strut [2] to the door assembly [3].

SUBTASK 52-49-05-820-001

(3) Adjust the latches [29] on the door assembly [3] as follows:

NOTE: Do these steps for each latch [29].

(a) Push and hold the edge of the door assembly [3] aligned with the latch [29] in the location shown on View A-A, Figure 401.

(b) Lock the latch [29].

(c) To do a check for free play, push the latch [29] in the location shown on View A-A, Figure 401.

(d) Make sure the free play is within the limits (View A-A, Figure 401).

(e) If the free play is too much or you have to use too much force to lock the latch [29], adjust the latch bolt [16].

(f) Install the lockwire [34] on the jamnuts [15].

H. Installation Test

SUBTASK 52-49-05-710-001

(1) Do a test on the door assembly [3] as follows:

(a) Open and close the door assembly [3].

(b) Make sure the door assembly [3] and latches [29] operate smoothly.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 52-49-05-010-002

(1) To close the door assembly [3], do this step:

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(a) Close this access panel:

Number	Name/Location
198DR	Hydraulic Ground Service Bay Access Door and Escape Slide Inflation Bottle

——— END OF TASK ———

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AFT CARGO HANDLING CONTROL DOOR- REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the aft cargo handling control door.

(2) An installation of the aft cargo handling control door.

(3) The aft cargo handling control door will be referred to as the door assembly for these procedures.

TASK 52-49-06-000-801

2. Aft Cargo Handling Control Door - Removal

(Figure 401)

A. Location Zones

Zone	Area
152	Aft Cargo Compartment, Right

B. Access Panels

Number	Name/Location
152BR	Aft Cargo Handling Control Door

C. Prepare for the Removal

SUBTASK 52-49-06-010-001

(1) Open this access panel:

Number	Name/Location
152BR	Aft Cargo Handling Control Door

D. Aft Cargo Handling Control Door Removal

SUBTASK 52-49-06-020-001

(1) Disconnect the hinge [2] from the panel assembly.

(a) Hold the door assembly [1] in the open position.

(b) Remove the bolts [3], washers [4], and nutplates [6] at four locations that attach the hinge [2] to the panel assembly.

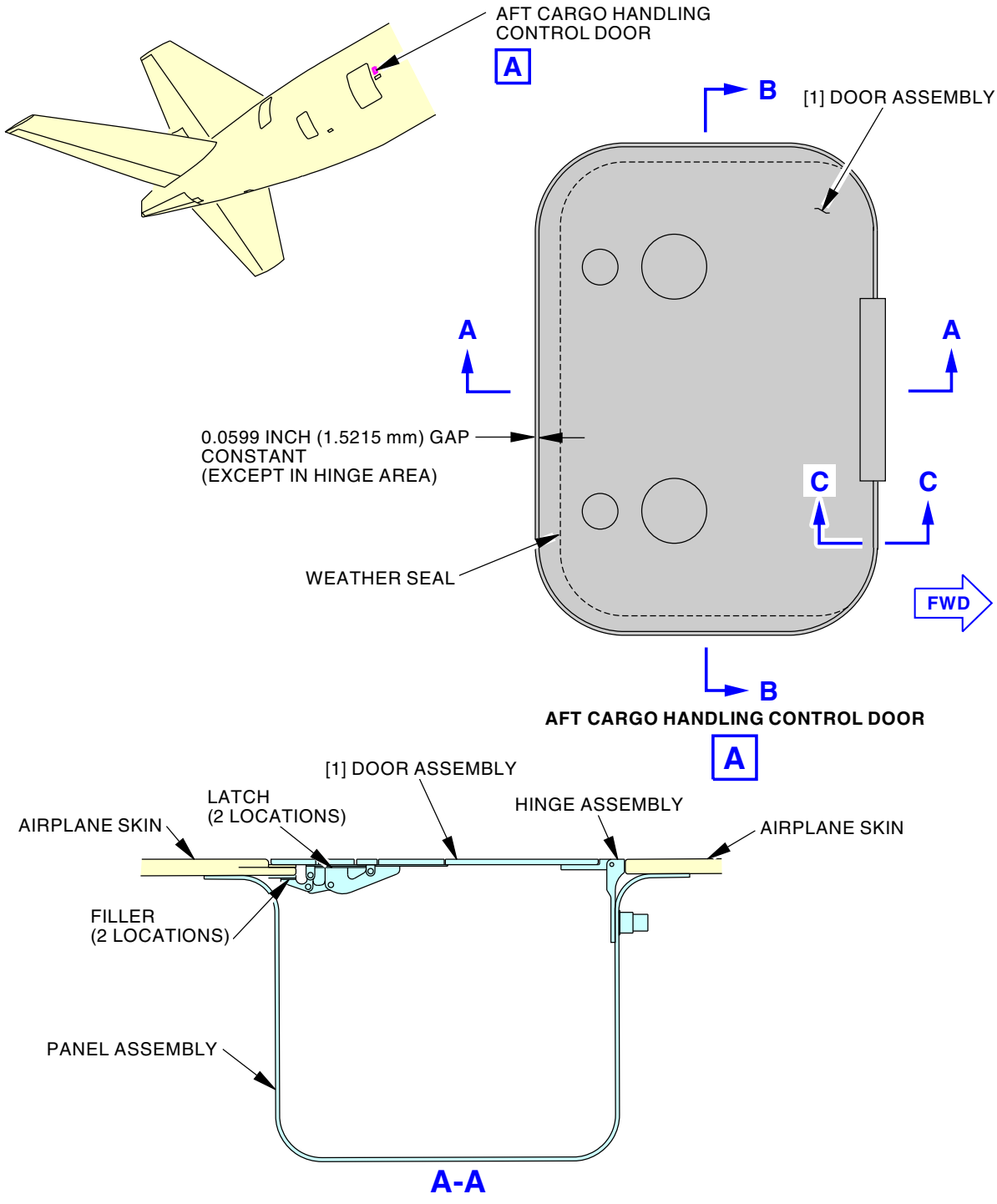
(c) Remove and discard the shim [5] from the hinge [2].

SUBTASK 52-49-06-020-002

(2) Remove the door assembly [1] from the airplane.

END OF TASK

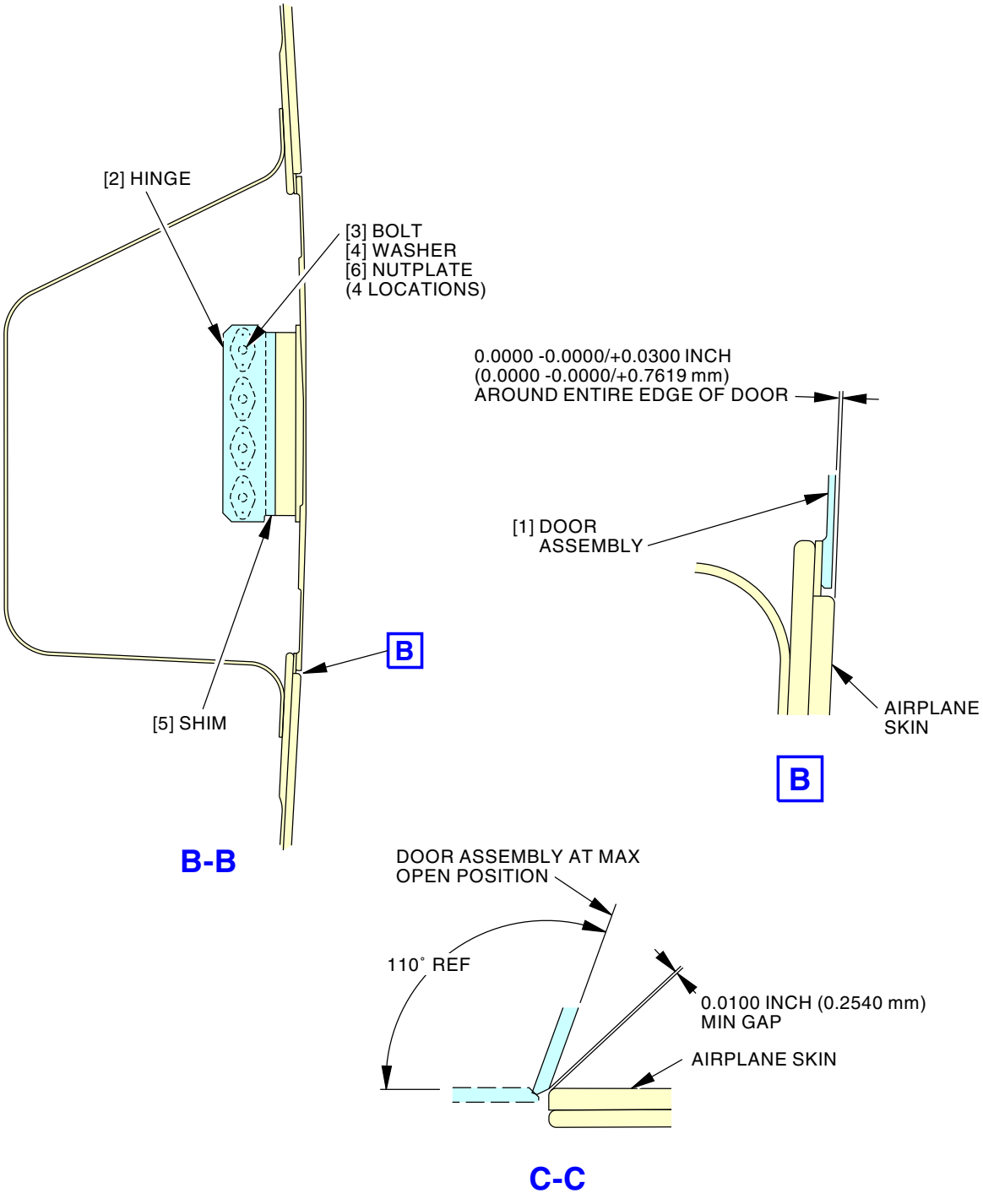
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Aft Cargo Handling Control Door Installation
Figure 401/52-49-06-990-801 (Sheet 1 of 2)

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Aft Cargo Handling Control Door Installation
Figure 401/52-49-06-990-801 (Sheet 2 of 2)

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TASK 52-49-06-400-801

3. Aft Cargo Handling Control Door - Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95

B. Location Zones

Zone	Area
152	Aft Cargo Compartment, Right

C. Access Panels

Number	Name/Location
152BR	Aft Cargo Handling Control Door

D. Prepare for the Installation

SUBTASK 52-49-06-210-001

(1) Make sure that the door assembly [1] you are installing is fully assembled.

(a) Make sure that the weather seal is bonded to the door surface.

(b) Make sure that two fillers are installed.

(c) Make sure that the two latches are installed.

(d) Makes sure that the hinge [2] is installed.

SUBTASK 52-49-06-420-001

(2) Apply sealant, A00247, on the mating surface of the hinge [2], on both side of the new shim [5], and on the mating surface of the panel assembly.

SUBTASK 52-49-06-420-002

(3) Put the new shim [5] in its usual position on the hinge [2].

NOTE: The shim [5] is required to provide the specified door clearance.

NOTE: The door clearance is verified after the door assembly [1] is installed.

E. Aft Cargo Handling Control Door Installation

SUBTASK 52-49-06-420-003

(1) Install the door assembly [1] as follows:

(a) Align the four hole locations on the hinge [2] with the panel assembly.

(b) Install the nutplates [6], bolts [3], and washers [4] at four locations to attach the hinge [2] to the panel assembly.

F. Aft Cargo Handling Control Door Post-Installation Check

SUBTASK 52-49-06-211-001

(1) Do a check on the door assembly [1] as follows:

(a) Open and close the door assembly [1].

(b) Make sure that the door assembly [1] and the latches operate smoothly.

(c) Make sure that the door assembly maintains a constant gap clearance of 0.0599 in. (1.5215 mm) at all points except at the hinge area (View A, Figure 401).

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1) If necessary, remove the required 0.003 in. (0.076 mm) laminations from the shim [5] to obtain the necessary door clearance.

NOTE: This will require removing the door assembly [1].

(d) Make sure that the flushness of the door assembly around the entire edge of the door (externally) is 0.000 +0.030 / -0.000 in. (0.000 +0.762 / -0.000 mm) (View B, Figure 401).

(e) Open the door assembly [1].

1) Make sure that the door assembly does not interfere with the skin near the hinge area (View C-C, Figure 401).

2) Keep a minimum clearance of 0.01 in. (0.25 mm).

3) Increasing the chamfer of the door assembly [1] is permitted only if a shim adjustment does not provide the specified clearance.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-49-06-410-001

(1) Close this access panel:

Number	Name/Location
152BR	Aft Cargo Handling Control Door

——— END OF TASK ———

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FORWARD CARGO HANDLING CONTROL DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) Removal of the forward cargo handling control door.

(2) Installation of the forward cargo handling control door.

B. The forward cargo handling control door will be referred to as the door assembly for these tasks.

TASK 52-49-07-000-801

2. Forward Cargo Handling Control Door - Removal

(Figure 401)

A. Location Zones

Zone	Area
122	Forward Cargo Compartment, Right

B. Access Panels

Number	Name/Location
122BR	Forward Cargo Handling Control Door

C. Prepare for the Removal

SUBTASK 52-49-07-010-001

(1) Open this access panel:

Number	Name/Location
122BR	Forward Cargo Handling Control Door

D. Forward Cargo Handling Control Door Removal

SUBTASK 52-49-07-020-001

(1) Disconnect the hinge [2] from the panel assembly.

(a) Hold the door assembly [1] in the open position.

(b) Remove the bolts [3], washers [4] and nutplates [6] at four locations that attach the hinge [2] to the panel assembly.

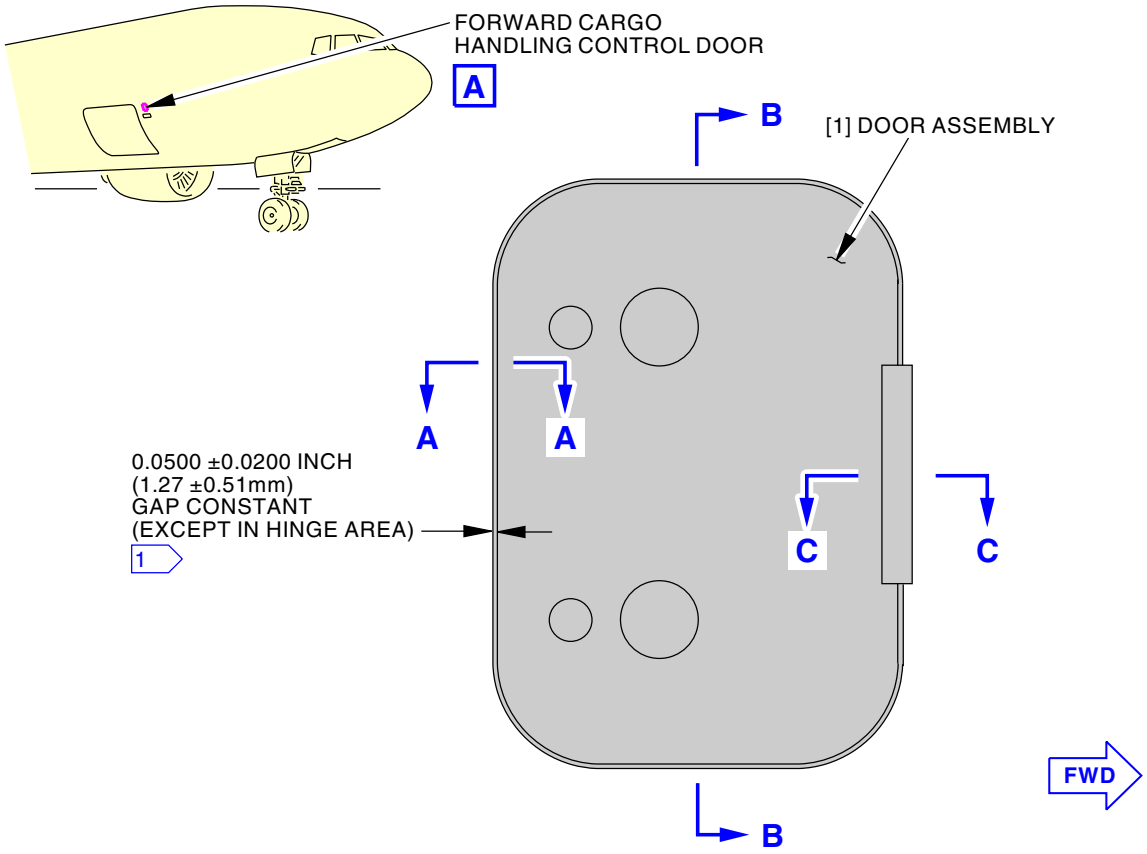
(c) Remove and discard the shim [5] from the hinge [2].

SUBTASK 52-49-07-020-002

(2) Remove the door assembly [1] from the airplane.

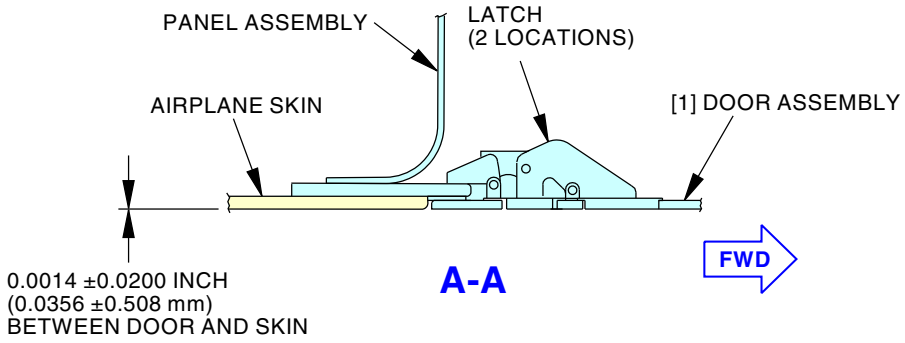
——— END OF TASK ———

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FORWARD CARGO HANDLING CONTROL DOOR

A

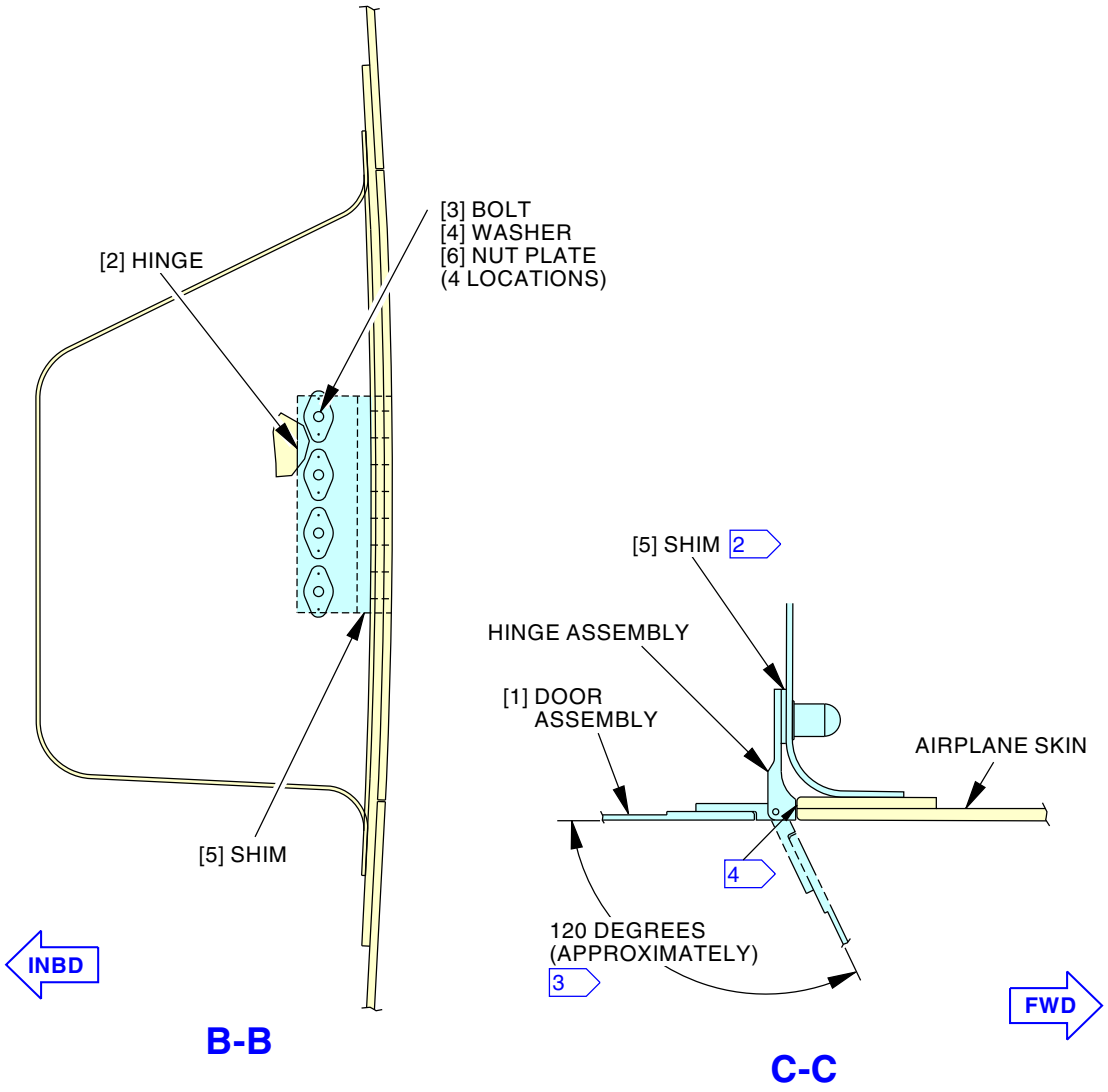


1 GAP VARIATION NOT TO EXCEED 0.0150 INCH (0.381 MM) OVER A 2.0 INCH (51 MM) LENGTH.

2118773 S0000454804_V2

Forward Cargo Handling Control Door Installation
Figure 401/52-49-07-990-801 (Sheet 1 of 2)

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2 REMOVE 0.003 INCH (0.076 mm) LAMINATIONS AS REQUIRED.

3 MAKE SURE THAT DOOR ASSEMBLY DOES NOT INTERFERE WITH AIRPLANE SKIN AND/OR DOUBLER THROUGH ENTIRE RANGE OF MOTION. KEEP 0.01-0.02 INCH (0.25-0.51 mm) CLEARANCE.

4 MAKE SURE DOUBLER EDGE IS TRIMMED FLUSH TO SKIN EDGE ±0.005 INCH (±0.127 mm).

2118805 S0000454805_V2

Forward Cargo Handling Control Door Installation
Figure 401/52-49-07-990-801 (Sheet 2 of 2)

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TASK 52-49-07-400-801

3. Forward Cargo Handling Control Door - Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95

B. Location Zones

Zone	Area
122	Forward Cargo Compartment, Right

C. Access Panels

Number	Name/Location
122BR	Forward Cargo Handling Control Door

D. Prepare for the Installation

SUBTASK 52-49-07-210-001

(1) Make sure that the door assembly [1] you are installing is fully assembled.

(a) Make sure that the two latches are installed.

(b) Makes sure that the hinge [2] is installed.

SUBTASK 52-49-07-210-002

(2) Make sure that the doubler edge is trimmed flush to the skin edge (0.000 ±0.005 in. (0.000 ±0.127 mm)) in hinge area indicated (View C-C, Figure 401).

SUBTASK 52-49-07-420-001

(3) Apply sealant, A00247, on the mating surface of the hinge [2], on both sides of the new shim [5], and on the mating surface of the panel assembly.

SUBTASK 52-49-07-420-002

(4) Put the new shim [5] in its usual position on the hinge [2].

NOTE: A shim is required to provide the specified door clearance.

NOTE: The door clearance is verified after the door assembly [1] is installed.

E. Forward Cargo Handling Control Door Installation

SUBTASK 52-49-07-420-003

(1) Install the door assembly [1] as follows:

(a) Align the four hole locations on the hinge [2] with the panel assembly.

(b) Install the bolts [3], washers [4] and nutplates [6] at four locations to attach the hinge [2] to the panel assembly.

F. Forward Cargo Handling Control Door Post-Installation Check

SUBTASK 52-49-07-211-001

(1) Do a check on the door assembly [1] as follows:

(a) Open and close the door assembly [1].

(b) Make sure that the door assembly [1] and the latches operate smoothly.

(c) Make sure that the door assembly maintains a constant gap clearance of 0.0500 in. (1.27 mm) at all points except at the hinge area (View A, Figure 401).

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1) Remove 0.003 in. (0.076 mm) laminations as required from the shim [5] to obtain the necessary door clearance.

NOTE: This will require removing the door assembly [1].

(d) Make sure that the flushness of the door assembly [1] around the entire edge of the door (externally) is 0.0014 ±0.0200 in. (0.0356 ±0.5080 mm) (View A-A, Figure 401).

(e) Open the door assembly [1].

1) Make sure that the door assembly [1] does not interfere with the skin near the hinge area (View C-C, Figure 401).

a) Keep a clearance of 0.01 in. (0.25 mm) to 0.02 in. (0.51 mm).

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-49-07-410-001

(1) Close this access panel:

Number	Name/Location
122BR	Forward Cargo Handling Control Door

——— END OF TASK ———

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FLIGHT COMPARTMENT DOOR - MAINTENANCE PRACTICES

1. General

A. This procedure contains these tasks:

(1) A Programming of the Access Code.

(2) A Programming of the Time Delays and DOOR BELL Enable.

B. In the program mode, if the time gap between two of the inputs, including the ENT key, is more than 30 seconds the system will:

(1) Ignore keypad inputs made before the program button was pushed.

(2) Retain the access, time delay and door bell enable codes before the program button was pushed.

(3) Exit the program mode.

C. If the system is in the program mode for more than 3 minutes, it will exit the program mode.

D. The door is unlocked while the system is in the program mode.

TASK 52-51-00-900-801

2. Access Code Programming

(Figure 201)

A. General

(1) The access code must be 3 to 8 characters long.

(2) The amber LED on the keypad will blink continuously while the system is in the program mode.

(3) The access code is set to 12345 at the factory.

B. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

C. Access Code Programming

SUBTASK 52-51-00-850-001

(1) Do these procedures to program the access code:

(a) Remove the access cover from the chime module.

(b) Press and release the ACCESS switch on the chime module.

(c) Make sure that the amber light on the keypad FLASHES continuously.

ARO ALL

(d) Enter the new 3 - 8 digit access code on the keyboard.

NOTE: Make sure the access code number is consistent with airline operational requirements.

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

(e) Press the ENT button on the keypad.

(f) Make sure that the amber light on the keypad is OFF.

(g) Make sure that the red Light on the keypad is ON.

(h) Use the new access code to make sure that the door will unlock.

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1) Enter the same 3 - 8 digit access code on the keypad a second time.

2) Press the ENT button on the keypad.

(i) Install the access cover on the chime module.

——— END OF TASK ———

TASK 52-51-00-900-802

3. Time Delays and DOOR BELL Enable Programming

(Figure 201)

A. General

(1) Programming steps for the DENY and AUTO UNLOCK time delays are all the same.

(2) The green LED on the keypad will blink continuously while the system is in the program mode.

(3) The DOOR BELL ENABLE code will toggle the door bell enable.

(4) To program more than one time delay or door bell enable, the program mode must be re-entered each time.

(5) The keypad code to sound the door bell is 1, ENT.

(6) The access time delay is set to 30 seconds at the factory.

(7) The deny time delay set to 5 minutes at the factory.

(8) The door bell function is set to DISABLE at the factory.

B. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

C. Time Delays and DOOR BELL Enable Programming

SUBTASK 52-51-00-850-002

(1) Do these steps to program the time delays and door bell enable:

(a) Remove the access cover from the chime module.

(b) Press and release the TIMERS switch on the chime module.

(c) Enter the 3 digit time delay or door bell enable code on the keypad (Table 201).

NOTE: The Access Time Delay must only be set to 30, 45, or 60 seconds. If the Door Bell Mode is Enabled then the Continuous Chime Time Delay must be set to 0 seconds (Code 311).

(d) Press the ENT button on the keypad.

(e) Enter the 3 digit time delay or door bell enable code a second time on the keypad.

1) Press the ENT button on the keypad.

NOTE: The green LED will come on for five seconds when the new code has been accepted by the chime module. The green LED will then go off and the red LED will come on. If the two codes that you entered do not match, the chime module will exit the programming mode.

(f) Use the access code to unlock the door in the AUTO mode.

(g) Make sure that the time delays for the CONTINUOUS CHIME, AUTO UNLOCK or DENY are correct.

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(h) Enter 1 and ENT on the keypad to make sure the DOOR BELL ENABLE mode operates, if the DOOR BELL mode has been enabled.

(i) Install the access cover on the chime module.

Table 201/52-51-00-993-804 TIME DELAY AND DOOR BELL ENABLE CODES

CODE	TIME	NOMENCLATURE
112	30 Seconds	Access Time Delay*[1]
113	45 seconds	Access Time Delay*[2]
114	60 seconds	Access time Delay*[2]
211	5 Minutes	Deny Access Time Delay
212	10 minutes	Deny Access Time Delay
213	15 minutes	Deny Access Time Delay
214	20 Minutes	Deny Access Time Delay
215	25 Minutes	Deny Access Time Dalay
221	30 Minutes	Deny Access Time Del;ay
311	0 Seconds	Continuous Chime Time Delay
312	5 Seconds	Continuous Chime Time Delay
313	10 Seconds	Continuous Chime Time Delay
314	15 Seconds	Continuous Chime Time Delay
315	20 Seconds	Continuous Chime Time Delay
321	25 Seconds	Continuous Chime Time Delay *[2]
322	30 Seconds	Continuous Chime Time Delay *[2]
323	35 Seconds	Continuous Chime Time Delay *[2]
324	40 Seconds	Continuous Chime Time Delay *[2]
325	45 Seconds	Continuous Chime Time Delay *[2]
331	50 Seconds	Continuous Chime Time Delay *[2]
555	N/A	Toggles Door Bell Mode ON or OFF *[3]

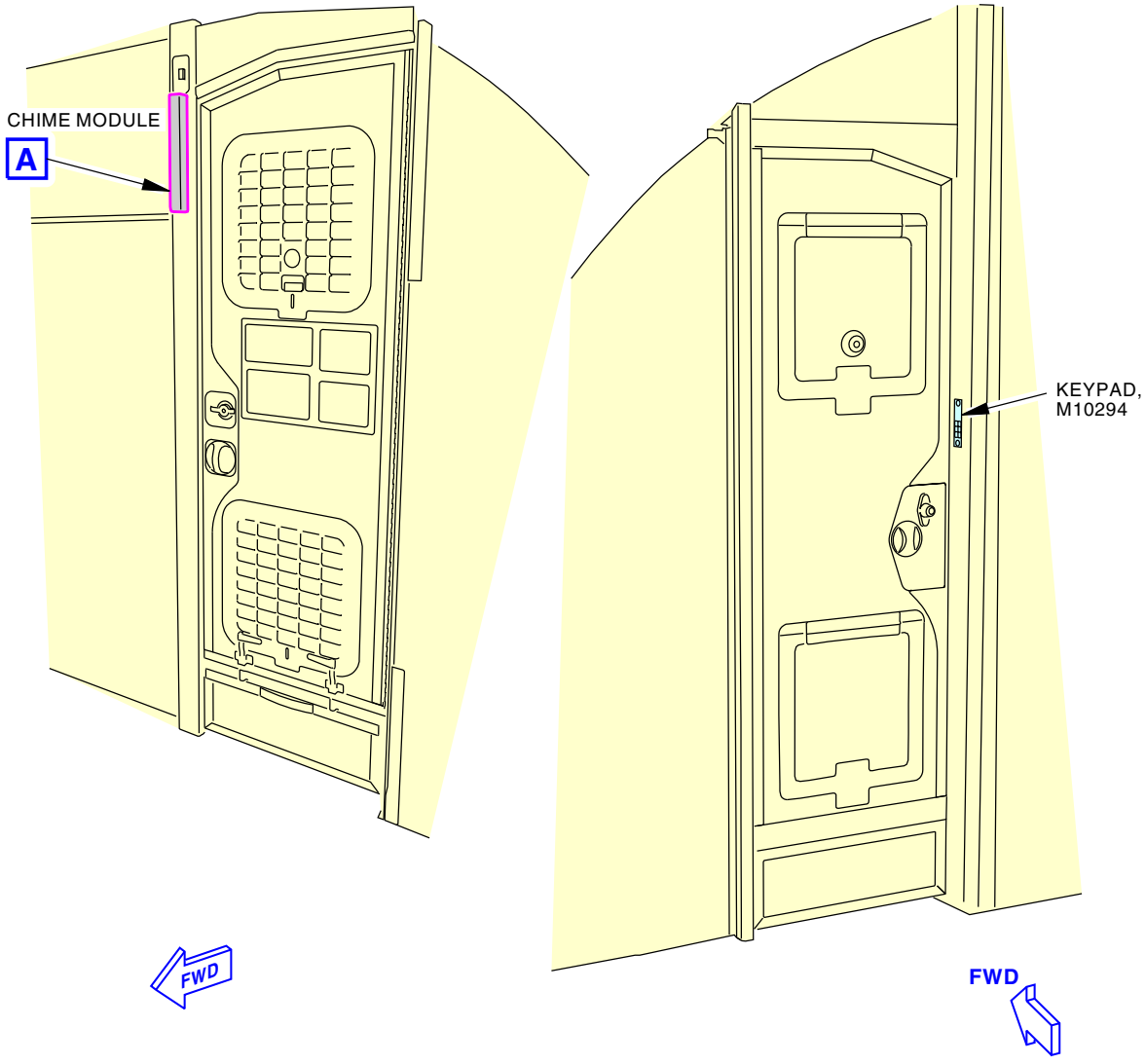
*[1] 30 second Access Time Delay is required for airplanes that are registered in a JAA Member country

*[2] Not a valid code for airplanes that are registered in a JAA member country

*[3] If Door Bell Mode is enabled then the Continous Chime Time Delay must be set to 0 seconds (Code 311)

END OF TASK

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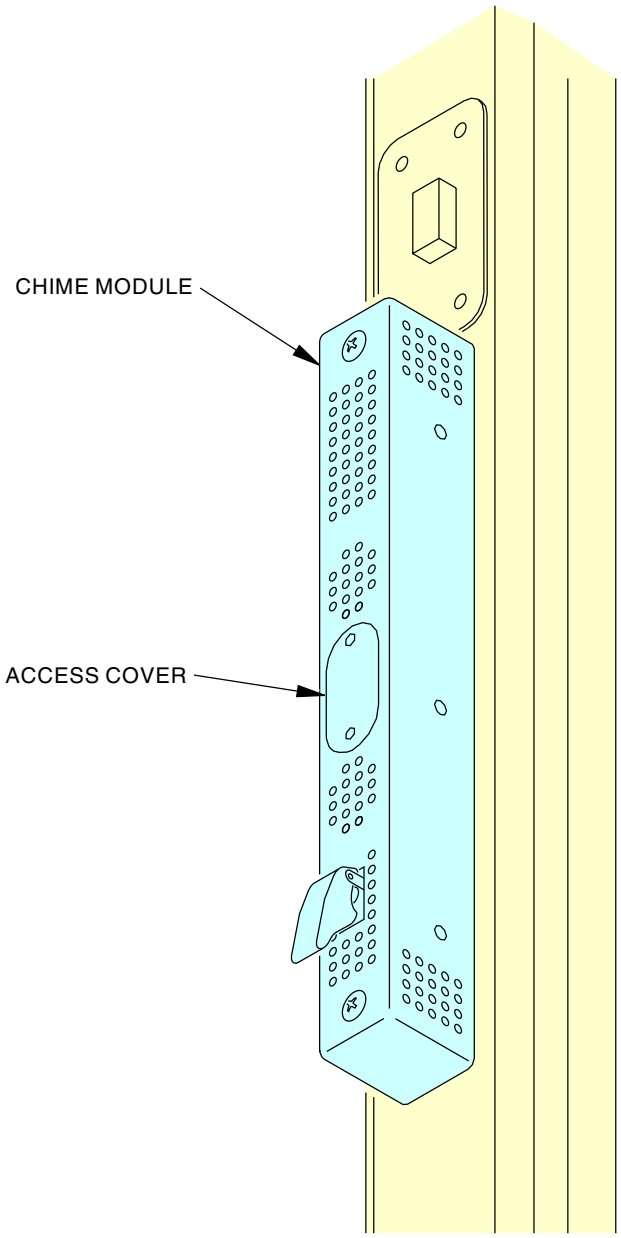
FLIGHT COMPARTMENT DOOR

N00389 S0006426018_V3

Flight Compartment Door and Chime Module
Figure 201/52-51-00-990-801 (Sheet 1 of 2)

EFFECTIVITY
ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

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CHIME MODULE

A

N00391 S0006426019_V2

Flight Compartment Door and Chime Module
Figure 201/52-51-00-990-801 (Sheet 2 of 2)

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FLIGHT COMPARTMENT DOOR - ADJUSTMENT/TEST

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) Flight Compartment Security Door Access System Test

(2) Functional Check of the DENY Function of the Flight Compartment Security Access System (Scheduled Maintenance Task)

(3) Pressure Sensor Decompression Operational Test

(4) Operational Check of the Flight Compartment Access System

(5) Flight Compartment Door Opening Force Adjustment

TASK 52-51-00-700-801

2. Flight Compartment Security Door Access System Test

(Figure 502)

A. General

(1) This task is performed with the door in the open position. With the door in the open position, one mechanic can turn the FLT DK DOOR rotary switch, enter keypad numbers and see the position of the strike at the same time. This allows the test to be performed with one mechanic.

(2) This task does a test of these functions of the flight compartment security door access system:

(a) AUTO Mode

(b) UNLOCK Mode

(c) DENY Mode

(d) Power on Solenoid Deactivation

(e) Doorbell function

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

D. Prepare for the Test

SUBTASK 52-51-00-750-001

(1) Obtain this information:

NOTE: These items are programmable. You need to obtain the access code and times currently in use by the flight crew.

(a) Access Code

(b) Access Time Delay

(c) Deny Time Delay

(d) Time of Continuous Chime

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SUBTASK 52-51-00-860-001

(2) Supply electrical power (TASK 24-22-00-860-805).

SUBTASK 52-51-00-860-002

(3) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

SUBTASK 52-51-00-860-003

(4) Make sure that the Flight Deck Access System switch on the Chime Module is in the ON position (guard closed).

SUBTASK 52-51-00-860-004

(5) Make sure that the flight compartment door is open.

E. AUTO Mode Test

SUBTASK 52-51-00-710-001

(1) Do these steps to make sure that the AUTO Mode operates:

(a) Make sure that the FLT DK DOOR rotary switch on the M52002 flight deck door control module is in the AUTO position.

(b) Make sure that the red LED on the keypad is on.

(c) Make sure that the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

ARO ALL

(d) Enter the access code in the keypad and push the ENT key.

NOTE: You must keep track of the time elapsed from when you press the ENT key.

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

(e) Do these steps immediately after the correct access code is entered:

1) Make sure that the amber LED on the keypad comes on and the red LED goes off.

ARO ALL

2) Make sure that the chime module sounds two one-half second tones.

NOTE: If the Continuous Chime Time Delay is programmed to 0 (zero) seconds (Code 311), then a continuous chime will occur and not the two one-half second tones.

3) Make sure that the AUTO UNLK light comes on.

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

(f) Do this step when one third of the Access Time Delay has elapsed:

NOTE: If the Time of Continuous Chime is programmed to occur at one third or less of the Access Time Delay, then the two half second tones in the step below will not sound.

1) Make sure that the chime sounds two half second tones again.

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(g) Do these steps when the Time of Continuous Chime has elapsed:

NOTE: If the Time of Continuous Chime is set to occur 5 seconds or less before the Access Time Delay, the Time of Continuous Chime will occur 10 seconds before the Access Time Delay.

1) Make sure that the AUTO UNLK light flashes.

2) Make sure that the chime module sounds continuously.

(h) Do these steps when the Access Time Delay has expired:

1) Make sure that the electric strike is in the unlocked position.

NOTE: The Solenoid pin in the electric strike will retract down such that you can rotate the strike.

2) Make sure that the green LED on the keypad comes on and the amber LED goes off.

3) Make sure that the chime module does not sound.

4) Make sure that the AUTO UNLK light goes off.

(i) Do these steps five seconds after the electric strike goes to the unlocked position:

1) Make sure that the electric strike is in the locked position.

2) Make sure that the green LED goes off and the red LED comes on.

F. UNLOCK Mode Test

SUBTASK 52-51-00-710-002

(1) Do these steps to make sure that the UNLOCK Mode operates:

(a) Make sure that the FLT DK DOOR rotary switch on the M52002 flight deck door control module is in the AUTO position.

(b) Make sure that the red LED on the keypad is on.

(c) Make sure that the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

(d) Push and hold the FLT DK DOOR switch to the UNLKD position.

1) Make sure that the green LED on the keypad comes on and the red LED goes off.

2) Make sure that the electric strike is in the unlocked position.

NOTE: The Solenoid pin in the electric strike will retract down such that you can rotate the strike.

(e) Put the FLT DK DOOR switch back to the AUTO position.

G. DENY Mode Test

SUBTASK 52-51-00-710-003

(1) Do these steps to make sure that the DENY Mode operates:

(a) Make sure that the red LED on the keypad is on.

(b) Make sure that the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

ARO ALL

(c) Enter the access code in the keypad and push the ENT key.

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ARO ALL (Continued)

1) Make sure that the amber LED on the keypad comes on and the red LED goes off.
2) Make sure that the chime module sounds two one-half second tones.

NOTE: If the Continuous Chime Time Delay is programmed to 0 (zero) seconds (Code 311), then a continuous chime will occur and not the two one-half second tones.

3) Make sure that the AUTO UNLK on the flight deck door control module comes on.

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

(d) Push and momentarily hold the FLT DK DOOR switch in the DENY position.

NOTE: You must keep track of the time elapsed from when you put the switch in the DENY position.

1) Make sure that the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will be extended up such that you can not rotate the catch arm in the strike.

2) Make sure that the amber LED on the keypad goes off and the red LED comes on.
3) Make sure that the AUTO UNLK light on the lighting control panel goes off.

ARO ALL

(e) Do these steps before the DENY Time Delay has expired:

1) Enter the access code in the keypad and push the ENT key.
   a) Make sure that the red LED on the keypad stays on.
   b) Make sure that the chime module does not sound.
   c) Make sure that the AUTO UNLK light on the flight deck door control module stays off.

(f) Do these steps after the Deny Time Delay has expired:

1) Enter the access code on the keypad and push the ENT key.
   a) Make sure that the amber LED on the keypad comes on and the red LED goes off.
   b) Make sure that the chime module sounds two one-half second tones.

NOTE: If the Continuous Chime Time Delay is programmed to 0 (zero) seconds (Code 311), then a continuous chime will occur and not the two one-half second tones.

   c) Make sure that the AUTO UNLK light on the flight deck door control module comes on.

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

(g) Push and hold the FLT DK DOOR switch to the UNLKD position.

1) Make sure that the green LED on the keypad comes on and the red LED goes off.
2) Make sure that the electric strike is in the unlocked position.

NOTE: The Solenoid pin in the electric strike will retract down such that you can rotate the strike.

(h) Put the FLT DK DOOR switch back to the AUTO position.

1) Make sure that the red LED on the keypad comes on and the green LED goes off.

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2) Make sure that the electric strike is in the locked position.

NOTE: The solenoid pin in the electric strike will be extended up such that you can not rotate the catch arm in the strike.

H. Power On Solenoid Deactivation Test

SUBTASK 52-51-00-710-004

(1) Do these steps to make sure that the Flight Deck Access System switch operates:

(a) Open the switch guard on the bottom of the chime module and put the toggle switch to the OFF position.

(b) Make sure that the electric strike is in the unlocked position.

NOTE: The Solenoid pin in the electric strike will retract down such that you can rotate the catch arm in the strike.

(c) Make sure that the LOCK FAIL light on the lighting control module comes ON.

(d) Put the toggle switch back to the NORM position and close the guard.

(e) Make sure that the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will extend such that you can not rotate the catch arm in the strike.

(f) Make sure that the LOCK FAIL light goes off.

I. Doorbell Function Test

SUBTASK 52-51-00-710-010

(1) Do these steps to make sure that the Doorbell Function operates:

NOTE: It is not necessary to do this test for airplanes that have the Doorbell Mode disabled.

(a) Enter 1 in the keypad and then ENT.

ARO ALL

(b) Make sure that the chime module sounds a two cycle tone.

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

(c) Make sure that the red LED stays on.

——— END OF TASK ———

TASK 52-51-00-700-802

3. Functional Check of the DENY Function of the Flight Deck Access System

(Figure 502)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task does a test of the Deny function of the flight compartment security door access system.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
24-22-00-860-806	Remove Electrical Power (P/B 201)

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C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

D. Procedure

SUBTASK 52-51-00-750-002

(1) Obtain this information:

NOTE: These items are programmable. You need to obtain the access code and times currently in use by the flight crew.

ARO ALL

(a) Access Code

(b) Deny Time Delay

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

SUBTASK 52-51-00-860-005

(2) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-51-00-860-006

(3) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

SUBTASK 52-51-00-860-007

(4) Make sure that the Flight Deck Access System switch on the Chime Module is in the NORM position (guard closed).

SUBTASK 52-51-00-860-008

(5) Make sure that the flight compartment door is open.

E. DENY Mode Test

SUBTASK 52-51-00-710-005

(1) Do these steps to make sure that the DENY Mode operates:

(a) Make sure that the red LED on the keypad is on.

(b) Make sure that the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will be extended up such that you can not rotate the catch arm in the strike.

ARO ALL

(c) Enter the access code in the keypad and push the ENT key.

1) Make sure that the amber LED on the keypad comes on and the red LED goes off.

2) Make sure that the chime module sounds two one-half second tones.

NOTE: If the Continuous Chime Time Delay is programmed to 0 (zero) seconds (Code 311), then a continuous chime will occur and not the two one-half second tones.

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ARO ALL (Continued)

3) Make sure that the AUTO UNLK light on the flight deck door control module comes on.

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

(d) Push and momentarily hold the FLT DK DOOR switch in the DENY position.

NOTE: You must keep track of the time elapsed from when you put the switch in the DENY position.

1) Make sure that the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will be extended up such that you can not rotate the catch arm in the strike.

2) Make sure that the amber LED on the keypad goes off and the red LED comes on.

3) Make sure that the AUTO UNLK light on the flight deck door control module goes off.

4) Make sure that the chime module does not sound.

ARO ALL

(e) Do these steps before the DENY Time Delay has expired:

1) Enter the access code in the keypad and push the ENT key.

a) Make sure that the red LED on the keypad stays on.

b) Make sure that the chime module does not sound.

c) Make sure that the AUTO UNLK light on the flight deck door control module stays off.

(f) Do these steps once the Deny Time Delay has expired:

1) Enter the access code on the keypad and push the ENT key.

a) Make sure that the amber LED on the keypad comes on and the red LED goes off.

b) Make sure that the chime module sounds two one-half second tones.

NOTE: If the Continuous Chime Time Delay is programmed to 0 (zero) seconds (Code 311), then a continuous chime will occur and not the two one-half second tones.

c) Make sure that the AUTO UNLK light on the flight deck door control module comes on.

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

(g) Push and hold the FLT DK DOOR switch to the UNLKD position.

1) Make sure that the green LED on the keypad comes on and the red LED goes off.

2) Make sure that the electric strike is in the unlocked position.

NOTE: The Solenoid pin in the electric strike will retract down such that you can rotate the strike.

(h) Put the FLT DK DOOR switch back to the AUTO position.

1) Make sure that the red LED on the keypad comes on and the green LED goes off.

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2) Make sure that the electric strike is in the locked position.

NOTE: The solenoid pin in the electric strike will be extended up such that you can not rotate the catch arm in the strike.

F. Put the Airplane Back to its Usual Condition

SUBTASK 52-51-00-860-009

(1) Do this task: Remove Electrical Power, TASK 24-22-00-860-806.

——— END OF TASK ———

TASK 52-51-00-710-801

4. Pressure Sensor Decompression Operational Test

(Figure 501)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task does a test of the Pressure Sensor to determine proper operation during a decompression event.

(2) The pressure sensor has two decompression ports. You need to perform this test on the two ports.

(3) You will need two people to perform this test.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
24-22-00-860-806	Remove Electrical Power (P/B 201)

C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

D. Equipment

SUBTASK 52-51-00-800-001

(1) 37N00001-3, Decompression Simulator (1HEC6)

Northwest Aerospace Technologies, Inc.

2210 Hewitt Avenue, Suite 300

Everett, WA 98201

(425) 257-2044

E. Prepare for the Test

SUBTASK 52-51-00-860-010

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-51-00-860-011

(2) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

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SUBTASK 52-51-00-860-012

(3) Make sure the Flight Deck Access System switch on the Chime Module is in the NORM position (guard closed).

SUBTASK 52-51-00-860-013

(4) Make sure the FLT DK DOOR switch is in the AUTO position.

SUBTASK 52-51-00-860-014

(5) Make sure the flight deck door is closed and locked.

NOTE: Do not lock the deadbolt or this test will not work.

F. Procedure

SUBTASK 52-51-00-480-001

CAUTION

MAKE SURE YOU PUSH THE END TAB DOWN ON THE DECOMPRESSION SIMULATOR BEFORE YOU INSERT IT INTO ONE OF THE DECOMPRESSION PORTS ON THE PRESSURE SENSOR. IF YOU DO NOT PUSH THE END TAB DOWN BEFORE YOU INSERT IT INTO THE DECOMPRESSION PORTS, DAMAGE TO THE PRESSURE SENSOR CAN OCCUR.

(1) Push the end tab down on the decompression simulator to prepare the simulator for the test.

SUBTASK 52-51-00-480-002

(2) Put the tube of the decompression simulator into one of the two decompression ports on the pressure sensor.

SUBTASK 52-51-00-800-002

(3) Make sure a second person stands on the passenger compartment side of the flight compartment door and applies pressure on the door.

SUBTASK 52-51-00-710-006

(4) With the second person applying pressure on the door, push the trigger on the decompression simulator.

SUBTASK 52-51-00-710-007

(5) Make sure the door unlocks and the door opens.

SUBTASK 52-51-00-710-008

(6) Repeat this test for the other decompression port on the pressure sensor.

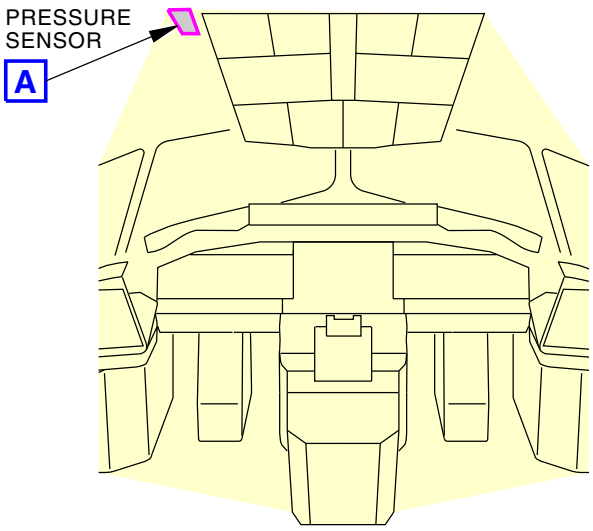
G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-51-00-860-015

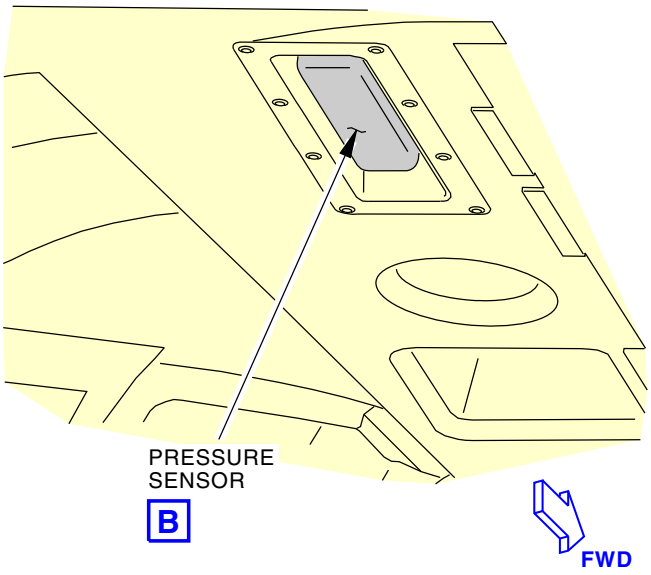
(1) Do this task: Remove Electrical Power, TASK 24-22-00-860-806.

——— END OF TASK ———

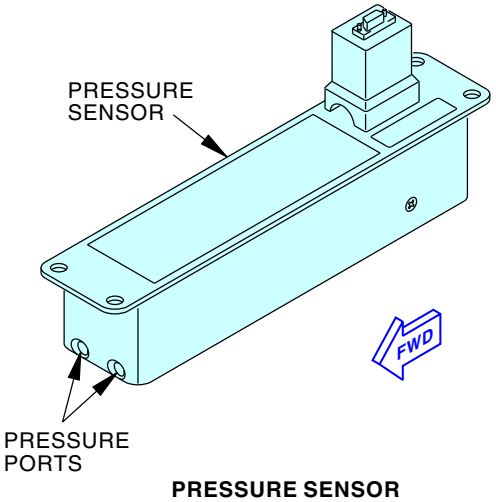
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FLIGHT COMPARTMENT



PRESSURE SENSOR
A



PRESSURE SENSOR
B

2293020 S0000519284_V2

Pressure Sensor Decompression Operational Test
Figure 501/52-51-00-990-807

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TASK 52-51-00-710-802

5. Operational Check of the Flight Compartment Access System

(Figure 502)

A. General

(1) This task does a test of the chime module to make sure you can hear the chime and that the other parts of the system operate.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
24-22-00-860-806	Remove Electrical Power (P/B 201)

C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

D. Prepare for the Test

SUBTASK 52-51-00-860-016

(1) Obtain the access code for the flight deck door.

NOTE: The access code is programmable. You need to obtain the access code currently in use by the flight crew.

SUBTASK 52-51-00-860-017

(2) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-51-00-860-018

(3) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

SUBTASK 52-51-00-860-019

(4) Make sure the Flight Deck Access System switch on the Chime Module is in the NORM position (guard closed).

SUBTASK 52-51-00-860-020

(5) Make sure the flight deck door is open.

E. Procedure

SUBTASK 52-51-00-710-009

(1) Do these steps to make sure the chime module speaker operates:

(a) Make sure the FLT DK DOOR switch is in the AUTO position.

ARO ALL

(b) Enter the access code in the keypad and press the ENT key.

(c) Make sure the chime module sounds.

(d) Make sure the AUTO UNLK light comes on and flashes.

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

(e) Put the FLT DK DOOR switch in the DENY position.

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(f) Make sure the AUTO UNLK light goes off.

(g) Put the FLT DK DOOR switch to the UNLKD position and then release.

(h) Put the Flight Deck Access System switch on the chime module to the OFF position.

(i) Make sure the LOCK FAIL Light comes on.

(j) Put the Flight Deck Access System switch in the NORM position.

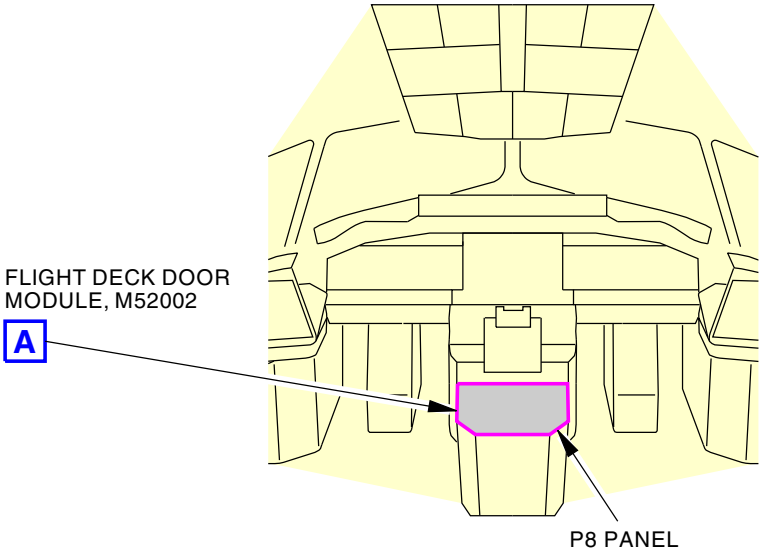
F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-51-00-860-021

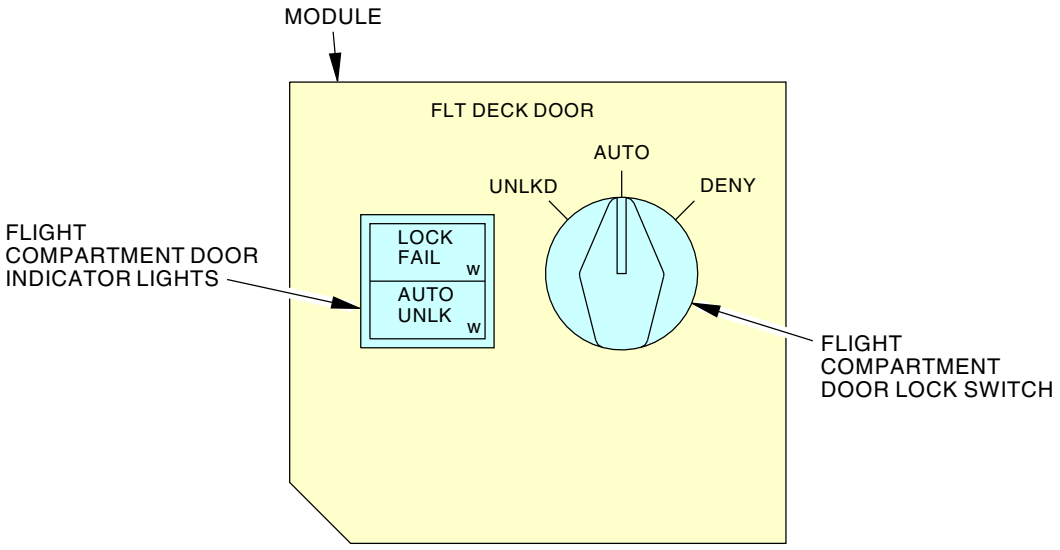
(1) Do this task: Remove Electrical Power, TASK 24-22-00-860-806.

——— END OF TASK ———

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FLIGHT COMPARTMENT



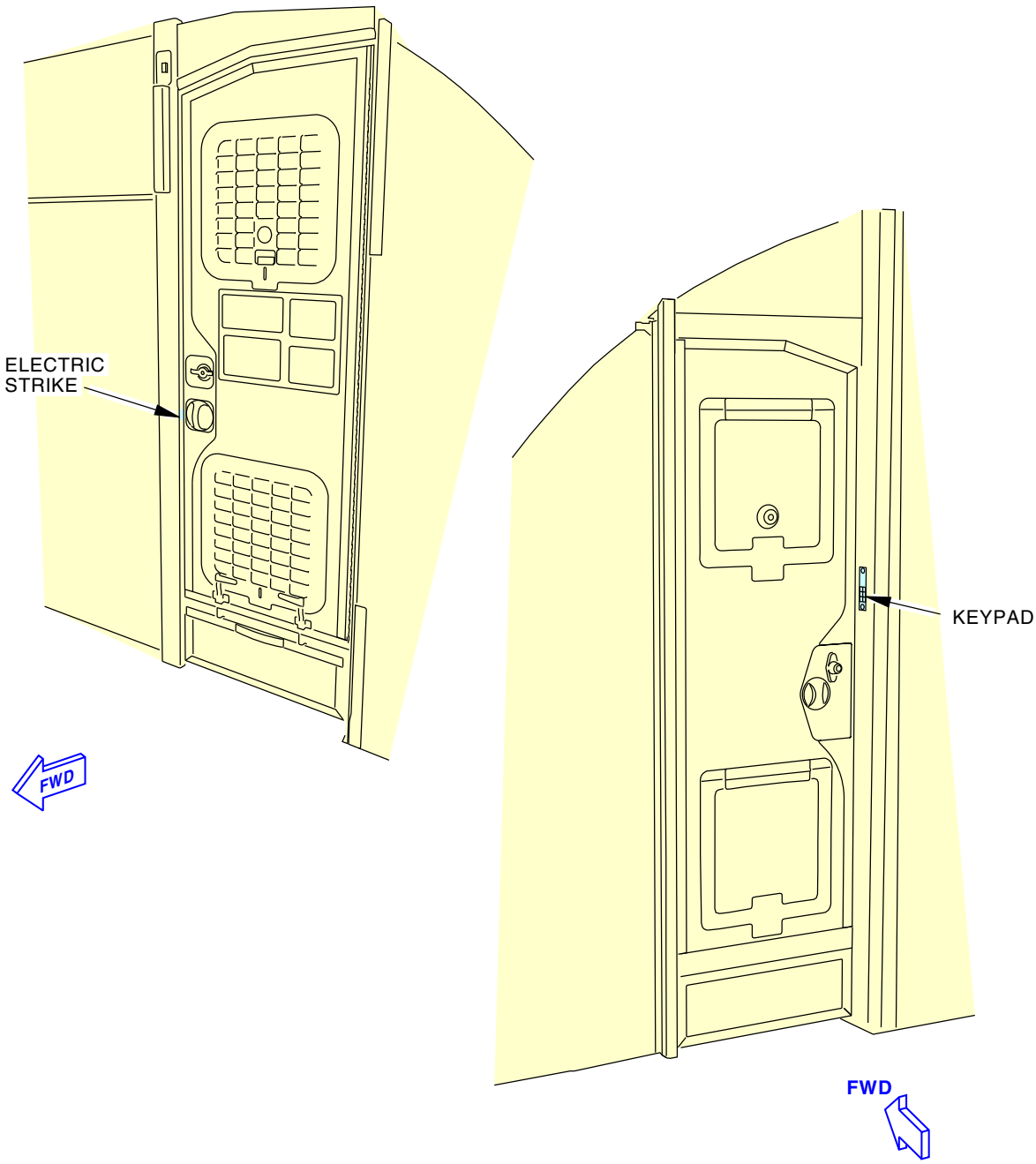
FLIGHT DECK DOOR MODULE, M52002

A

N00499 S0006426025_V2

Flight Compartment Door Adjustment/Test
Figure 502/52-51-00-990-802 (Sheet 1 of 2)

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FLIGHT COMPARTMENT DOOR

N00503 S0006426026_V3

Flight Compartment Door Adjustment/Test
Figure 502/52-51-00-990-802 (Sheet 2 of 2)

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TASK 52-51-00-700-803

6. Flight Compartment Door Opening Force Adjustment

(Figure 503)

A. General

(1) This task adjusts the quantity of force necessary to open the flight compartment door.

B. References

Reference	Title
51-31-01-390-810	Removable Faying (Mated) Surface Seal Application (P/B 201)
52-51-09-000-801	Keypad Removal (P/B 401)
52-51-09-400-801	Keypad Installation (P/B 401)
52-51-20-020-801	Flight Compartment Door Armor Removal (P/B 401)
52-51-20-420-801	Flight Compartment Door Armor Installation (P/B 401)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-6980	Gage - Dial Push/Pull, 0-100 LBS Part #: LG-100 Supplier: 92456

D. Consumable Materials

Reference	Description	Specification
A50231	Sealant - Pressure And Environmental - Chromate Type	BMS5-95 Class B

E. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

F. Prepare for the Adjustment

SUBTASK 52-51-00-480-003

(1) Make a cord assembly with these or equivalent materials.

- Approximately 2.00 ft (0.61 m) length of Techflex 0.125 in. (0.318 cm) nylon untreated sleeving or similar cord.
- Metal washer (PN: NAS1149( )0332( ) or similar)
- Rubber washer (PN: 5613–70–62 or similar)

(a) Put the cord through the two washers (View C, Figure 503).

(b) Tie a large overhand knot to connect the loose ends together and form a loop.

1) Make sure that the metal washer is against the knot.

SUBTASK 52-51-00-480-004

(2) Put the end of the cord assembly opposite the knot through the hole of the inner door handle (flight compartment side) of the flight compartment door.

NOTE: This will make sure that the force applied is at the center of the handle and that the handle does not turn during the procedure.

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(a) Make sure that the knot of the cord assembly is against the door handle's inner surface.

SUBTASK 52-51-00-410-001

(3) Make sure that the flight compartment door is closed and fully latched.

SUBTASK 52-51-00-040-001

(4) Set the Flight Deck Access System switch, on the chime module, to the OFF position.

G. Flight Compartment Door Opening Force Adjustment

SUBTASK 52-51-00-480-005

(1) Install a push/pull dial gage, COM-6980 (or equivalent) to the open loop of the cord assembly.

SUBTASK 52-51-00-820-001

WARNING USE CAUTION WHEN YOU DO THE ADJUSTMENT OF THE FLIGHT COMPARTMENT DOOR. THE FLIGHT COMPARTMENT DOOR CAN OPEN SUDDENLY, WHICH CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

(2) Slowly apply a force to the door by pulling the push/pull dial gage, COM-6980 until the door opens.

NOTE: Make sure that a second person can stop the door if it opens suddenly.

(a) Make sure that you pull in the horizontal and forward direction.

SUBTASK 52-51-00-970-002

(3) Make a record of the maximum force shown on the push/pull dial gage, COM-6980.

SUBTASK 52-51-00-820-002

(4) Repeat the door opening by pulling the push/pull dial gage, COM-6980, two more times for a total of three records.

(a) Make sure that you pull gradually slower each time.

SUBTASK 52-51-00-820-003

(5) Make sure that a minimum of one of the three records is between 30.00 lbf (133.45 N) and 55.00 lbf (244.65 N).

SUBTASK 52-51-00-820-004

(6) If none of the records fall in the recommended force range, do these steps:

(a) Measure and record the door bolt engagement dimension (View A-A, Figure 503):

1) Make sure that the FLT DECK DOOR switch on the P8 panel is in the AUTO position.

2) Make sure that the Flight Deck Access System switch on the chime module is in the NORMAL position.

3) Make sure that the flight deck door is closed.

NOTE: The flight deck door will be locked if it is closed and the door system is powered.

4) Measure the door bolt to strike arm engagement dimension:

NOTE: This is a critical dimension for intrusion certification and for reduced door opening force. An accurate measurement is important.

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a) Before marking the door bolt, make sure that the door bolt has extended fully after closing the door.

NOTE: It may be necessary to push the door in the aft direction to allow the bolt to fully extend.

b) Mark the door bolt directly adjacent to the end of the catch arm.

<1> Make sure that you do not scratch the finish on the door bolt.

<2> Use a writing instrument such as a red ultra fine point marker.

NOTE: The use of a flashlight and magnifying glass is suggested when reading a scale. Calipers are preferred over a scale as the caliper can index against the tip of the door bolt.

5) Make sure that the latch bolt engagement dimension is 0.3650 ±0.0150 in. (0.9271 ±0.0381 cm).

(b) If you have one of these two conditions then adjust the latch bolt engagement dimension by changing the number or thickness of shims in the shim stack-up:

NOTE: If you add shims the latch bolt engagement dimension will decrease. If you remove shims the latch bolt engagement dimension will increase. You can decrease the door opening force by reducing the latch bolt engagement dimension to as close to 0.3500 in. (8.890 mm) as possible.

1) The latch bolt engagement dimension is less than 0.3500 in. (8.890 mm) or more than 0.3800 in. (9.652 mm).

2) The door opening force is too high and the latch bolt engagement dimension is more than 0.3530 in. (8.966 mm).

(c) If necessary, adjust the door bolt engagement dimension as follows:

1) Put the Flight Deck Access System switch in the OFF position.

2) Get access to the shims [1] (View A, Figure 503).

a) Make sure that the flight compartment door is open.

b) Remove the keypad (TASK 52-51-09-000-801).

c) Remove the post side armor (TASK 52-51-20-020-801).

d) Remove the screws [3] that attach the cover plate [2] to the door post.

e) Remove the cover plate [2] and the strike assembly [6] from the door post:

<1> Disconnect the four electrical connectors [9] between the strike assembly [6] and the door post wire bundle.

NOTE: Disconnect the electrical connectors before you fully remove the electric strike.

<2> Remove the screws [4], washers [8], and nuts [7] that attach the strike assembly [6] to the cover plate [2].

3) Adjust the total thickness of the shim stack-up if necessary:

a) These are the permitted part numbers and thicknesses for the shims:

<1> Part number 232W2251–214 solid shim with 0.040 in. (1.016 mm) thickness.

<2> Part number 232W2251–219 solid shim with 0.020 in. (0.508 mm) thickness.

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<3> Part number 232W2251–242 laminated shim with 0.015 in. (0.381 mm) thickness and 0.003 in. (0.076 mm) laminations.

<a> Laminations may be removed as required.

b) Add shims to reduce the latch bolt engagement dimension.

c) Remove shims to increase the latch bolt engagement dimension.

4) Make sure that the total shim stack-up is not more than 0.160 in. (4.064 mm).

5) Put the electric strike assembly back to its usual position:

a) Put the shims [1], if installed, in their position on the strike assembly [6].

b) Install the screws [4], washers [8] and nuts [7] that attach the strike assembly [6] to the cover plate [2].

NOTE: If you install 0–2 shims on the electric strike, install BACB30VF3K6 screws. If you install 3–4 shims, install BACB30VF3K7 screws.

c) Apply faying surface seal with sealant, A50231 between door strike and adjacent shim (TASK 51-31-01-390-810).

d) Connect the four electrical connectors [9] between the strike assembly [6] and the door post wire bundle.

e) Install the screws [3] to install the cover plate [2] to the door post.

6) Make sure that the door bolt engagement dimension is 0.3650 ±0.0150 in. (9.271 ±0.381 mm).

a) If you need to remove a shim, repeat steps to 2) through 6).

7) Put the Flight Deck Access System switch to the NORM position.

8) Make sure that the FLT DK DOOR three position switch, located on the M52002 Flight Deck Door Module, is in the AUTO position.

9) Make sure that the electric strike energizes.

NOTE: The catch arm on the electric strike can not be rotated.

SUBTASK 52-51-00-820-005

(7) Do the test again until you record a force between 30.00 lbf (133.45 N) and 55.00 lbf (244.65 N).

SUBTASK 52-51-00-820-006

(8) If the opening force is too high after you adjusted the engagement close to 0.3500 in. (8.890 mm) then do these steps:

(a) Make sure that the spring [11] in the strike assembly [6] is installed correctly:

NOTE: An incorrectly installed spring increases the force necessary to open the flight deck door.

1) Put the Flight Deck Access System switch in the OFF position.

2) Remove the screws [3] that attach the cover plate [2] to the door post.

3) Measure the distance between the end of the spring tang [12] and the edge of the strike assembly [6] (View D, Figure 503).

a) Make sure that this dimension is less than or equal to 0.160 in. (4.06 mm).

NOTE: If the dimension is more than 0.160 in. (4.06 mm), the spring installation is incorrect.

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H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-51-00-080-001

(1) Remove the cord assembly from the flight compartment door handle.

SUBTASK 52-51-00-410-002

(2) Install the post side armor (TASK 52-51-20-420-801).

SUBTASK 52-51-00-420-001

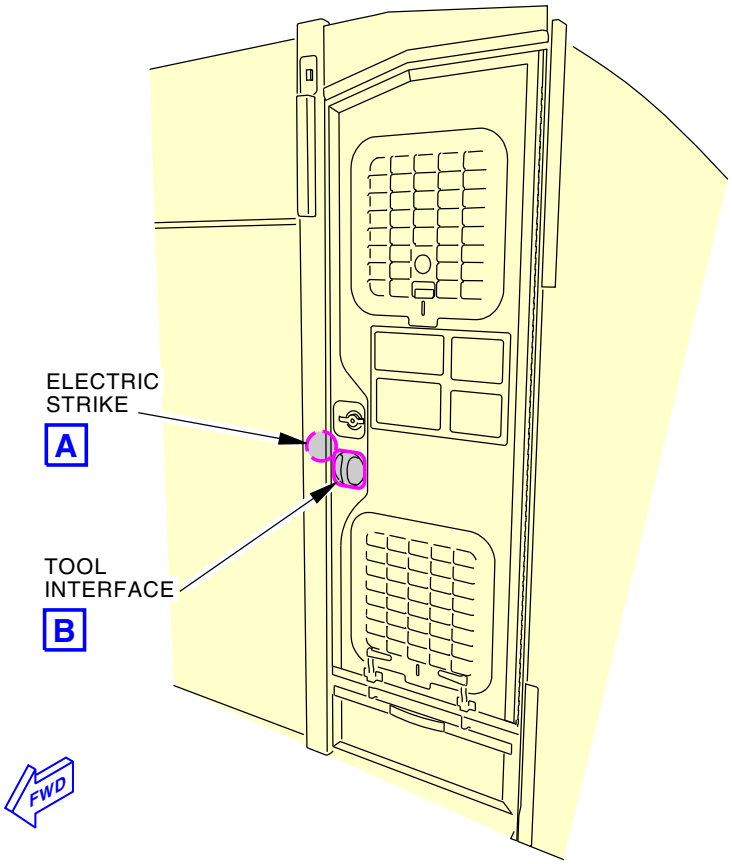
(3) Install the keypad (TASK 52-51-09-400-801).

SUBTASK 52-51-00-440-001

(4) Make sure that the Flight Deck Access System switch is in the NORM position.

——— END OF TASK ———

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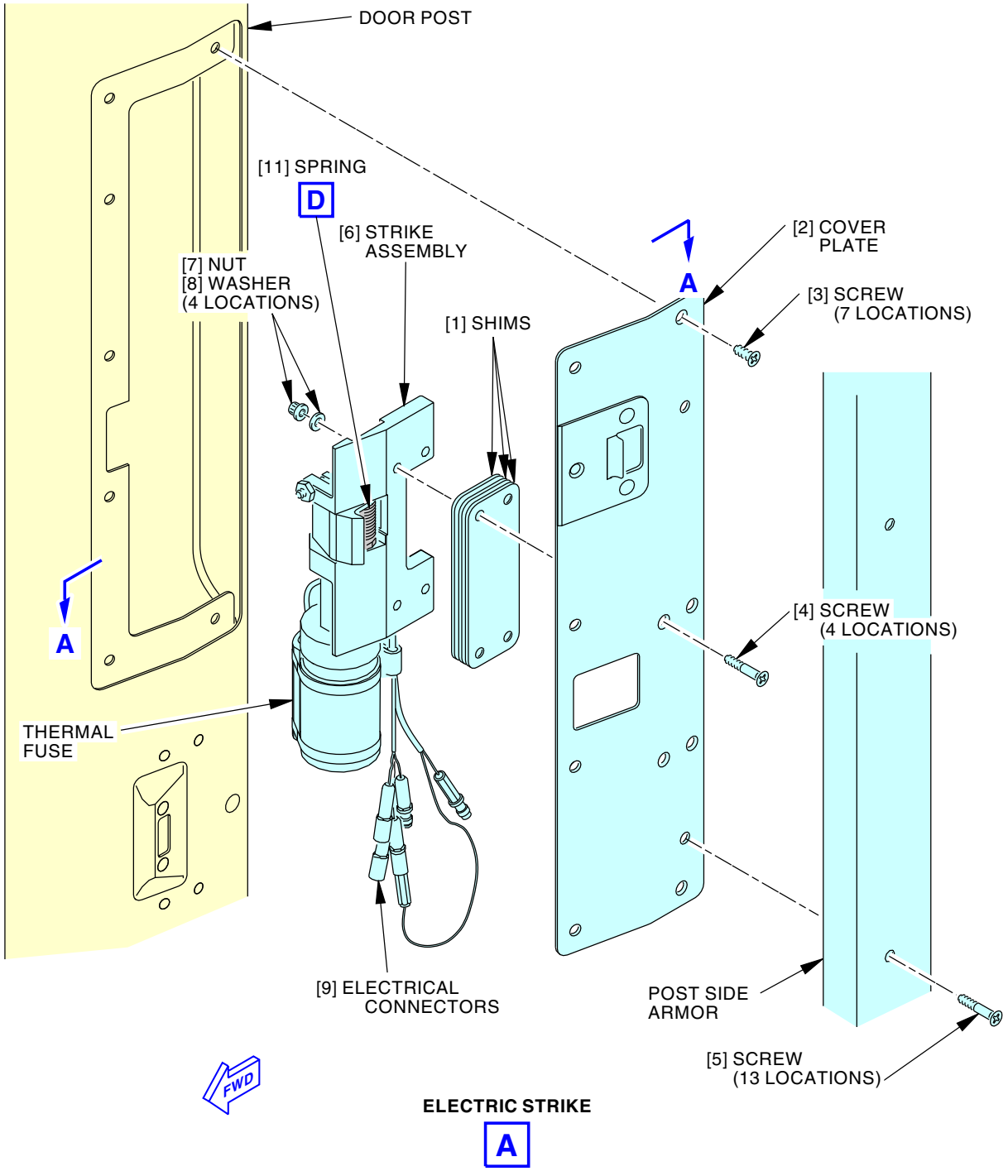
FLIGHT COMPARTMENT DOOR

2032981 S0000408047_V3

Flight Compartment Door Opening Force Adjustment
Figure 503/52-51-00-990-803 (Sheet 1 of 5)

EFFECTIVITY
ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

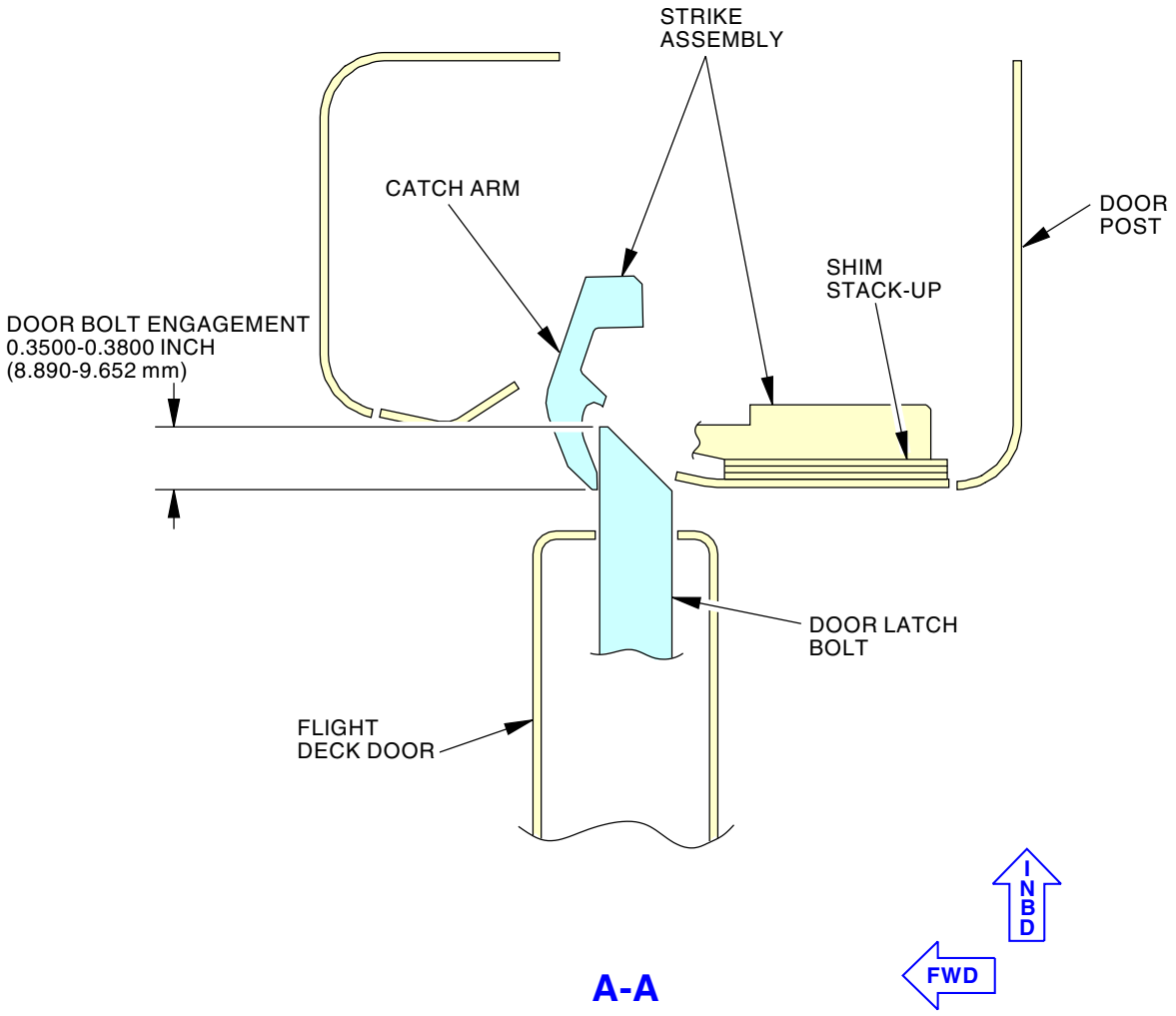
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2032992 S0000408051_V3

Flight Compartment Door Opening Force Adjustment
Figure 503/52-51-00-990-803 (Sheet 2 of 5)

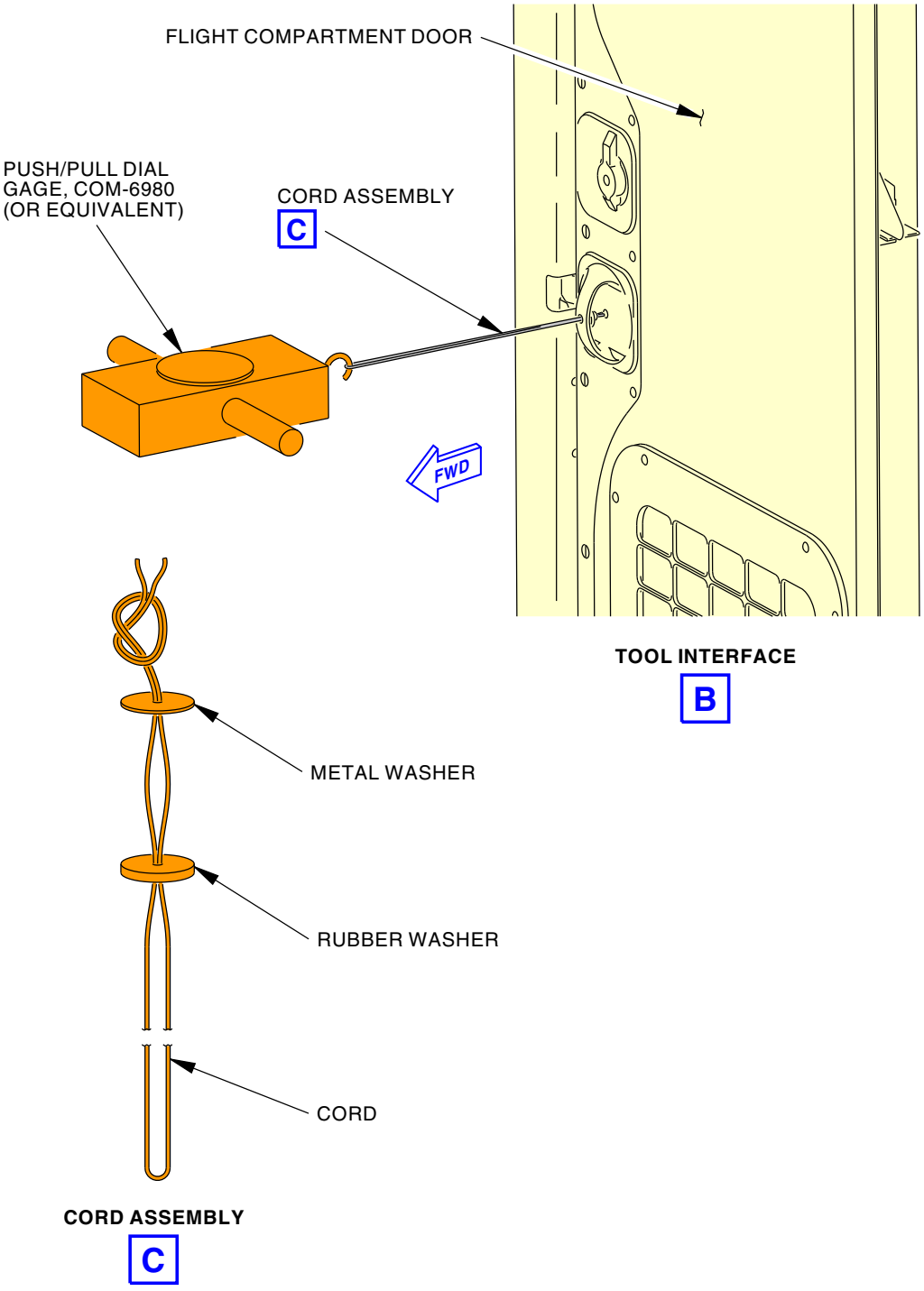
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2033009 S0000408049_V3

Flight Compartment Door Opening Force Adjustment
Figure 503/52-51-00-990-803 (Sheet 3 of 5)

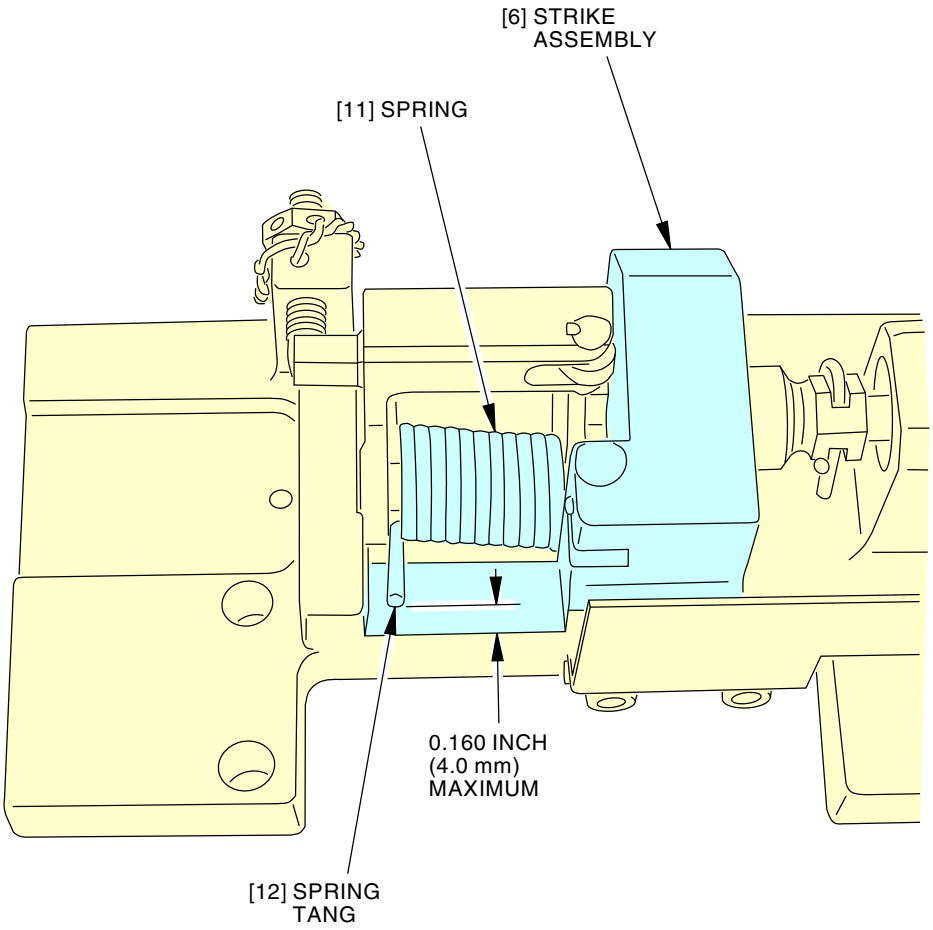
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Flight Compartment Door Opening Force Adjustment
Figure 503/52-51-00-990-803 (Sheet 4 of 5)

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2096997 S0000443517_V2

Flight Compartment Door Opening Force Adjustment
Figure 503/52-51-00-990-803 (Sheet 5 of 5)

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FLIGHT COMPARTMENT DOOR - REMOVAL/INSTALLATION

1. General

A. This Procedure has these tasks:

(1) A removal of the flight compartment door.

(2) An installation of the flight compartment door.

TASK 52-51-01-000-802-002

2. Flight Compartment Door Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

B. Flight Compartment Door Removal

SUBTASK 52-51-01-010-003-002

(1) Open the flight compartment door.

SUBTASK 52-51-01-020-005-002

(2) Remove the bolts [3] and bolts [4] that attach the hinge to the left hand door post.

SUBTASK 52-51-01-020-006-002

(3) Remove the flight compartment door.

SUBTASK 52-51-01-020-007-002

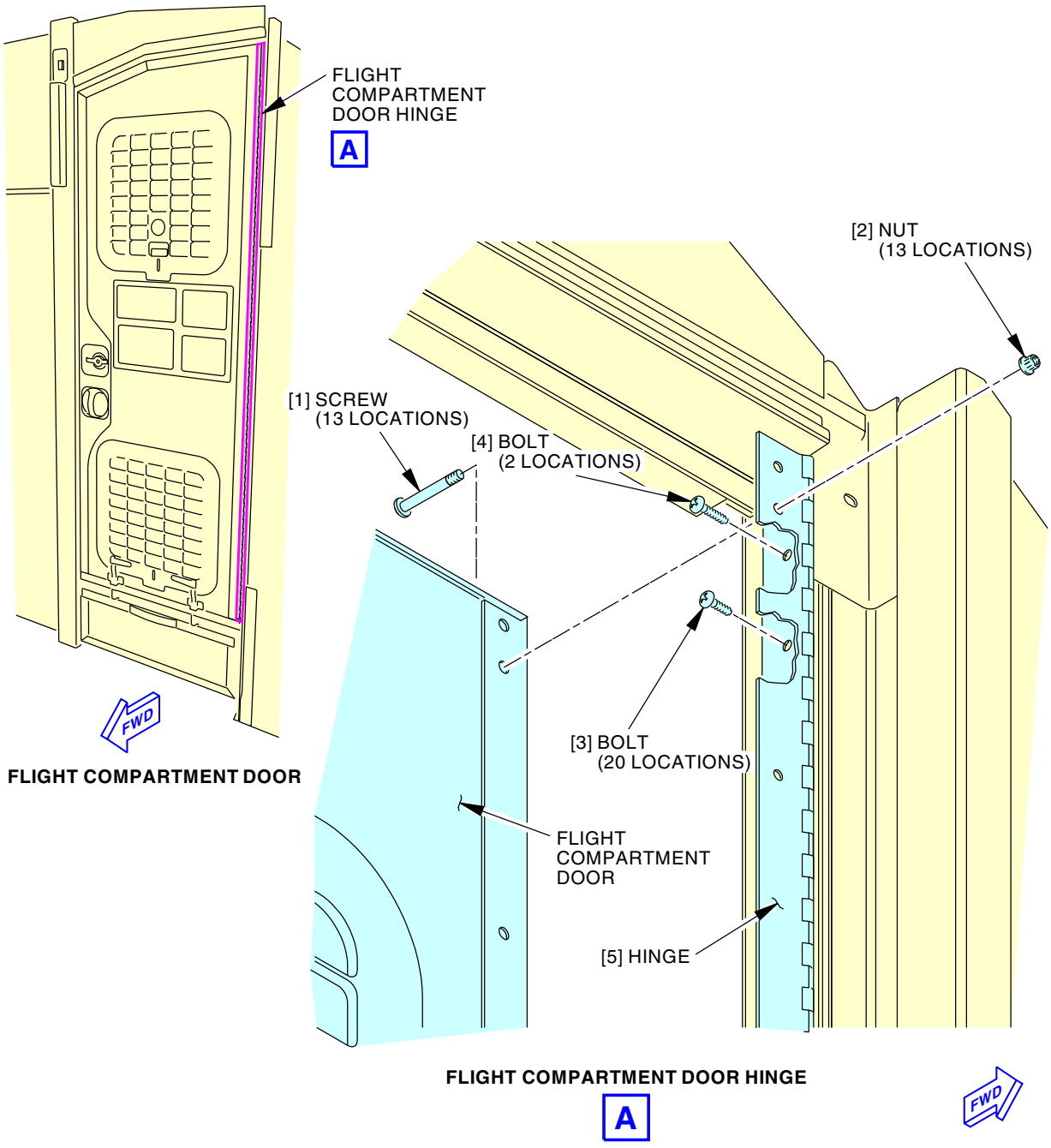
(4) Remove the screws [1] and barrel nuts [2] that attach the hinge [5] to the door.

SUBTASK 52-51-01-020-008-002

(5) Remove the hinge [5].

——— END OF TASK ———

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Flight Compartment Door Installation
Figure 401/52-51-01-990-811-002

EFFECTIVITY
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TASK 52-51-01-400-802-002

3. Flight Compartment Door Installation

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

B. Flight Compartment Door Installation

SUBTASK 52-51-01-420-002-002

(1) Install the hinge [5] on the door with the screws [1] and the barrel nuts [2].

SUBTASK 52-51-01-420-003-002

(2) Install the door in the door opening:

(a) Put the door in its correct position.

(b) Make sure that you have 0.17 in. (4.32 mm) to 0.33 in. (8.38 mm) between the bottom of the door and the door sill.

NOTE: It can be easiest to put the door on a temporary shim to hold the door in the correct position.

(c) Install and tighten the bolts [3] and bolts [4].

1) Close the door.

2) Make sure that there is a minimum of 0.02 in. (0.51 mm) between the head of the bolts [3] and bolts [4] and the edge of the door.

——— END OF TASK ———

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FLIGHT COMPARTMENT DOOR - INSPECTION/CHECK

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure contains these tasks:

(1) Breakaway Panel Release Pins Inspection

(2) Flight Compartment Door Seal Check

(3) Flight Compartment Door Breakaway Panel Seal Check

TASK 52-51-01-210-801

2. Breakaway Panel Release Pins Inspection

(Figure 601)

A. General

(1) This procedure checks the condition and security of the flight compartment door breakaway panel release pins.

(2) This procedure ensures the breakaway panel will aid in intrusion resistance to the flight compartment.

B. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

C. Procedure

SUBTASK 52-51-01-210-001

(1) Do these steps to do a check of the release pins:

(a) Remove the release pins from the breakaway panel.

(b) Inspect the release pins for these abnormal conditions:

1) Cracks

2) Notches

3) Unusual wear

4) Corrosion

5) Deformation

(c) Install the release pins in the breakaway panel.

——— END OF TASK ———

TASK 52-51-01-210-802

3. Flight Compartment Door Seal Check

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This procedure checks the condition and security of the flight compartment door seal.

(2) This procedure ensures the flight compartment door seal will aid in the removal of smoke from the flight compartment.

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B. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

C. Procedure

SUBTASK 52-51-01-210-002

(1) Do these steps to do a check of the door seal:

(a) Open the flight compartment door.

(b) Check the door seal on the top and sides of the door frame for these abnormal conditions:

1) Cracks

2) Notches

3) Unusual wear

4) Tears

5) Splits

——— END OF TASK ———

TASK 52-51-01-210-803

4. Flight Compartment Door Breakaway Panel Seal Check

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This procedure checks the condition and security of the flight compartment door breakaway panel seal.

(2) This procedure ensures the flight compartment door breakaway panel seal will aid in the removal of smoke from the flight compartment.

B. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

C. Procedure

SUBTASK 52-51-01-210-003

(1) Do these steps to do a check of the breakaway panel seal:

(a) Open the flight compartment door.

(b) Do a check of the breakaway panel seal, located on the bottom edge of the breakaway panel, for these abnormal conditions:

1) Improper installation

2) Notches

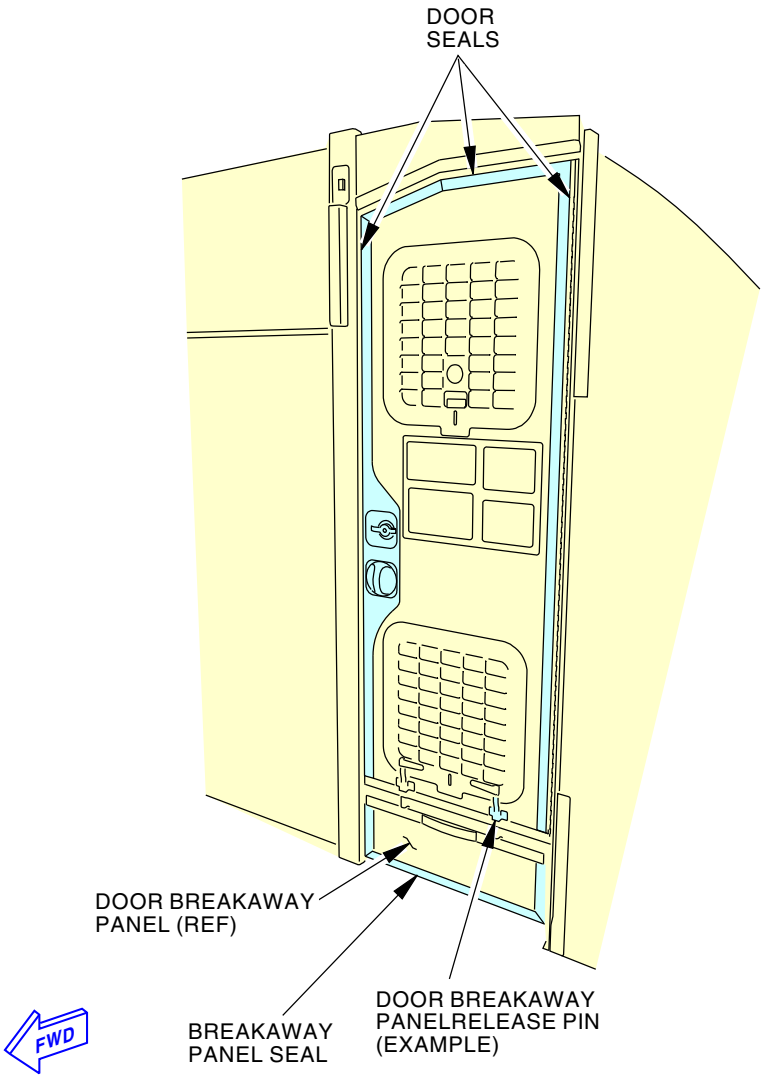
3) Unusual wear

4) Tears

5) Splits

——— END OF TASK ———

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FLIGHT COMPARTMENT DOOR

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Flight Compartment Door Inspection
Figure 601/52-51-01-990-803

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ELECTRIC STRIKE - REMOVAL/INSTALLATION

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal of the electric strike.

(2) An installation of the electric strike.

52-CMR-01

TASK 52-51-02-000-802-002

2. Electric Strike Removal

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
52-51-09-000-801	Keypad Removal (P/B 401)
52-51-20-020-801	Flight Compartment Door Armor Removal (P/B 401)

B. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

C. Prepare for the Removal

SUBTASK 52-51-02-860-005-002

(1) Open this circuit breaker and attach a DO-NOT-CLOSE tag:

(a) Left Power Management Panel, P110:

1) 110N16 FLT DK DR LOCK

SUBTASK 52-51-02-010-004-002

(2) Open the flight compartment door.

SUBTASK 52-51-02-020-023-002

(3) Remove the keypad (TASK 52-51-09-000-801).

SUBTASK 52-51-02-010-008-002

(4) Remove the post side armor (TASK 52-51-20-020-801).

D. Electric Strike Removal

SUBTASK 52-51-02-020-006-002

(1) Remove the screws [3] that attach the cover plate [2] to the door post.

SUBTASK 52-51-02-020-007-002

(2) Remove the cover plate [2] and strike assembly [6] from door post.

SUBTASK 52-51-02-020-008-002

(3) Disconnect the four electrical connectors [9] between the strike assembly [6] and the door post wire bundle.

SUBTASK 52-51-02-020-009-002

(4) Remove the screws [4], washers [8] and nuts [7] that attach the strike assembly [6] to the cover plate [2].

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SUBTASK 52-51-02-020-010-002

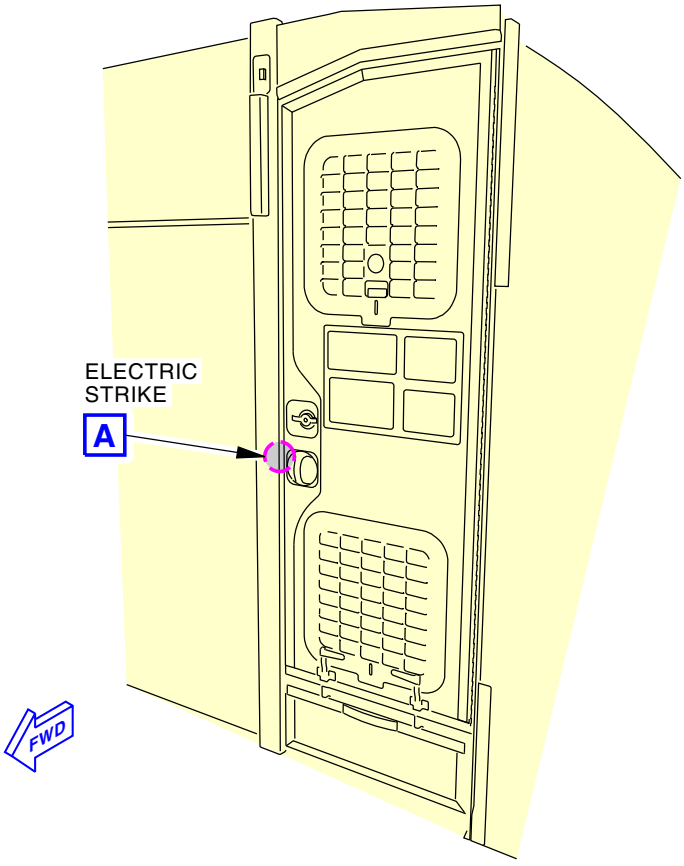
(5) Remove the shims [1].

SUBTASK 52-51-02-020-011-002

(6) Remove the strike assembly [6].

——— END OF TASK ———

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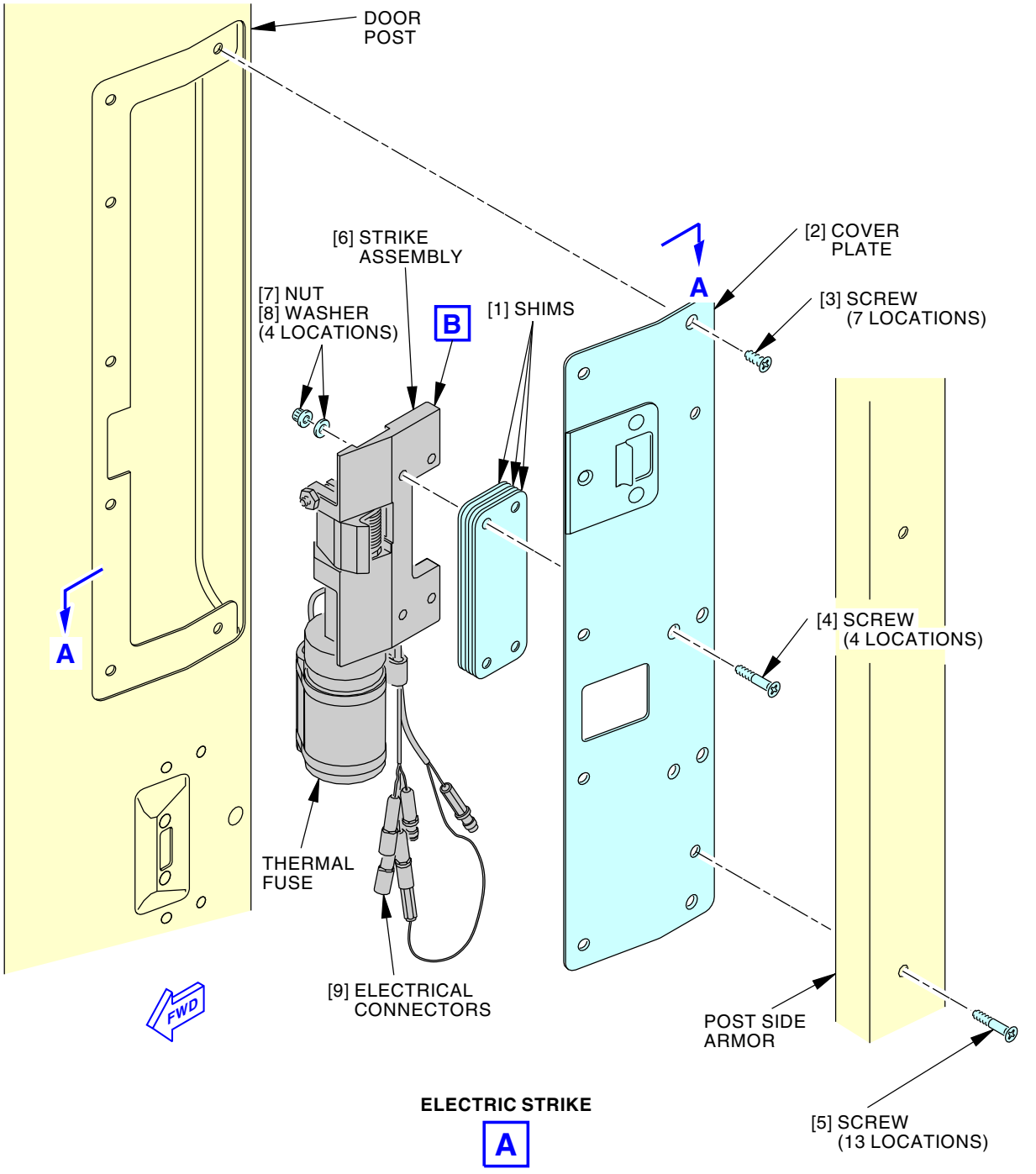


FLIGHT COMPARTMENT DOOR

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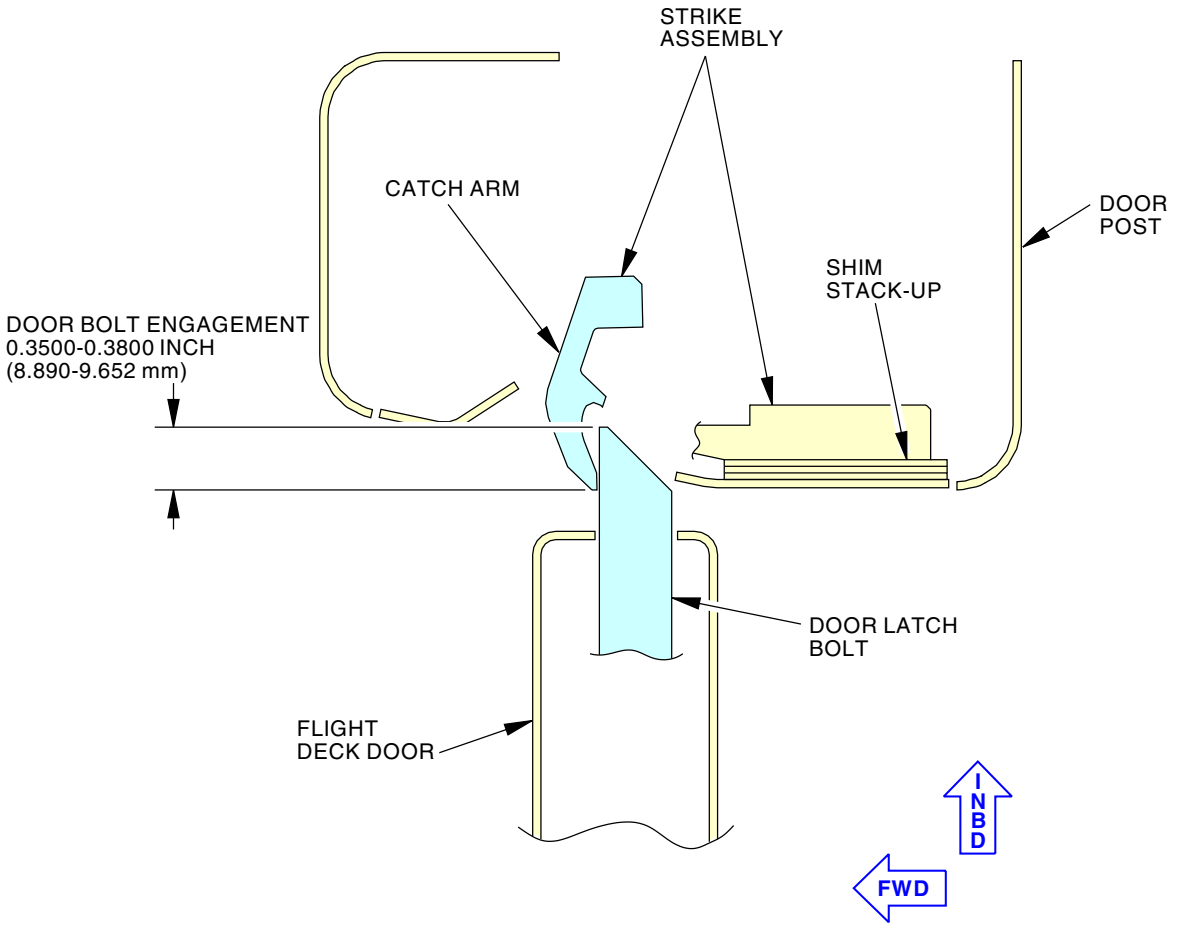
Electric Strike Installation
Figure 401/52-51-02-990-806-002 (Sheet 1 of 4)

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Electric Strike Installation
Figure 401/52-51-02-990-806-002 (Sheet 2 of 4)

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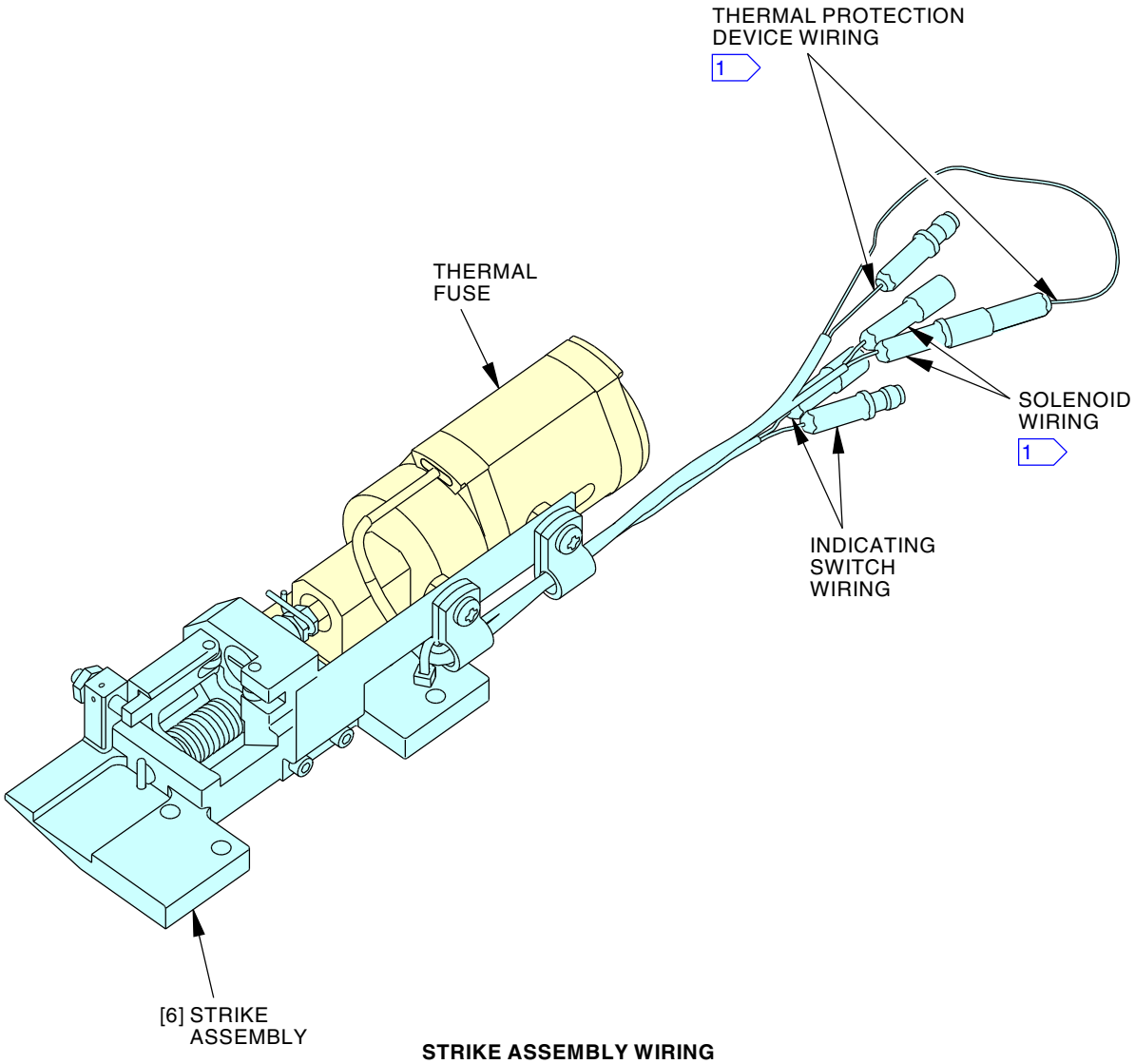


A-A

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Electric Strike Installation
Figure 401/52-51-02-990-806-002 (Sheet 3 of 4)

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1 THE THERMAL PROTECTION DEVICE WIRING (TS-D7), FEMALE CONNECTOR, CONNECTS WITH THE SOLENOID WIRING (D7), MALE CONNECTOR.

2791842 S0000635163_V1

Electric Strike Installation
Figure 401/52-51-02-990-806-002 (Sheet 4 of 4)

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52-CMR-01

TASK 52-51-02-400-802-002

3. Electric Strike Installation

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
24-22-00-860-806	Remove Electrical Power (P/B 201)
51-31-01-390-810	Removable Faying (Mated) Surface Seal Application (P/B 201)
52-51-00-700-803	Flight Compartment Door Opening Force Adjustment (P/B 501)
52-51-09-400-801	Keypad Installation (P/B 401)
52-51-20-420-801	Flight Compartment Door Armor Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
A50231	Sealant - Pressure And Environmental - Chromate Type	BMS5-95 Class B

C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

D. Electric Strike Installation

SUBTASK 52-51-02-420-003-002

(1) Connect the strike assembly [6] to the cover plate [2] as follows:

(a) Put the shims [1] in their position on the strike assembly [6].

(b) Hold the strike assembly [6] in its correct position and install the screws [4], washers [8] and nuts [7] to the cover plate [2].

NOTE: If 0-2 shims are used on the electric strike, install BACB30VF3K6 screws. If 3-4 shims are used, install BACB30VF3K7 screws.

(c) Apply faying surface seal (TASK 51-31-01-390-810) with sealant, A50231 between door strike and adjacent shim.

CAUTION

MAKE SURE THAT YOU WIRE THE STRIKE ASSEMBLY CORRECTLY BETWEEN THE THERMAL FUSE AND THE SOLENOID. IF YOU WIRE THIS INCORRECTLY, THE STRIKE ASSEMBLY WILL BECOME TOO HOT AND DAMAGE TO THE UNIT CAN OCCUR.

(d) Connect the electrical connectors [9] between the strike assembly [6] and the door post wire bundle.

SUBTASK 52-51-02-420-004-002

(2) Install the screws [3] that attach the cover plate [2] to the door post.

E. Post Installation Test of the Electric Strike

SUBTASK 52-51-02-860-006-002

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

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SUBTASK 52-51-02-710-002-002

(2) Make sure that the electric strike solenoid is in the de-energized position.

NOTE: The solenoid is de-energized when the pin is retracted such that the catch arm on the strike can be rotated.

SUBTASK 52-51-02-710-003-002

(3) Close the flight compartment door.

SUBTASK 52-51-02-710-004-002

(4) Make sure that you can open the door from the passenger side by pushing near the door handle.

SUBTASK 52-51-02-710-005-002

(5) Close this circuit breaker and remove the DO-NOT-CLOSE tag:

(a) Left Power Management Panel, P110:

1) 110N16 FLT DK DR LOCK

SUBTASK 52-51-02-710-006-002

(6) Make sure that the FLT DK DOOR three position switch on the M52002 Flight Deck Door Module is in the AUTO position.

SUBTASK 52-51-02-710-007-002

(7) Make sure that the electric strike solenoid energizes.

NOTE: The catch arm on the electric strike can not be rotated.

SUBTASK 52-51-02-710-008-002

(8) Close the flight compartment door.

SUBTASK 52-51-02-820-003-002

(9) Make sure that 0.3500 in. (8.890 mm) to 0.3800 in. (9.652 mm) of the door bolt is engaged in the door strike (Figure 401, Sheet 3).

(a) If necessary, adjust the number or thickness of shims to get the minimum engagement (Flight Compartment Door Opening Force Adjustment, TASK 52-51-00-700-803).

NOTE: The adjustment setscrew on the strike unit is factory set by the manufacturer. Do not adjust the setscrew.

SUBTASK 52-51-02-710-009-002

(10) Put the FLT DK DOOR three position switch on the M52002 Flight Deck Door Module in the UNLOCK position.

SUBTASK 52-51-02-710-010-002

(11) Make sure that the electric strike solenoid de-energizes.

NOTE: The catch arm on the electric strike can be rotated.

F. Put the Airplane Back to its Usual Condition

SUBTASK 52-51-02-420-011-002

(1) Install the post side armor (TASK 52-51-20-420-801).

SUBTASK 52-51-02-420-012-002

(2) Install the keypad (TASK 52-51-09-400-801).

SUBTASK 52-51-02-860-007-002

(3) Remove the electrical power if it is not necessary (TASK 24-22-00-860-806).

END OF TASK

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FLIGHT COMPARTMENT DOOR LOCK - REMOVAL/INSTALLATION

1. General

A. This Procedure has these tasks:

(1) A removal of the flight compartment door lock.

(2) An installation of the flight compartment door lock.

TASK 52-51-03-000-802-002

2. Flight Compartment Door lock Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

B. Flight Compartment Door Lock Removal

SUBTASK 52-51-03-020-007-002

(1) Do these steps to remove the handle [2]:

(a) Remove the screw [1] that attaches the handle [2] to the lock assembly [19].

(b) Remove the handle [2] and washers [24].

(c) Remove the escutcheon [3].

(d) Remove any remaining sealant from under the escutcheon [3].

SUBTASK 52-51-03-020-008-002

(2) Do these steps to remove the lock handle [16]:

(a) Make sure the deadbolt lock is retracted.

(b) Remove the screw [17] that attaches the lock handle [16] to the deadbolt assembly [9].

(c) Remove the lock handle [16] and washers [23].

(d) Remove the lockout handle [15].

(e) emove the two spring pins [14] which hold the cam [13] on the deadbolt assembly [9].

(f) Remove the cam [13].

(g) Remove the escutcheon [12].

(h) Remove any remaining sealant from under the escutcheon [12].

SUBTASK 52-51-03-020-009-002

(3) Do these steps to remove the lock escutcheon [18] from the door cover plate [20].

(a) Remove the two screws [8] and two screws [22].

(b) Remove the lock escutcheon [18].

(c) Remove the plate [21].

SUBTASK 52-51-03-020-010-002

(4) Do these steps to remove the door cover plate [20]:

(a) Remove the six screws [4] and eight screws [5].

(b) Remove the door cover plate [20].

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SUBTASK 52-51-03-020-011-002

(5) Do these steps to remove the channel [10] from the door:

(a) Remove the four screws [8].

(b) Remove the three screws [11].

(c) Remove the ten screws [6] and the ten screws [7].

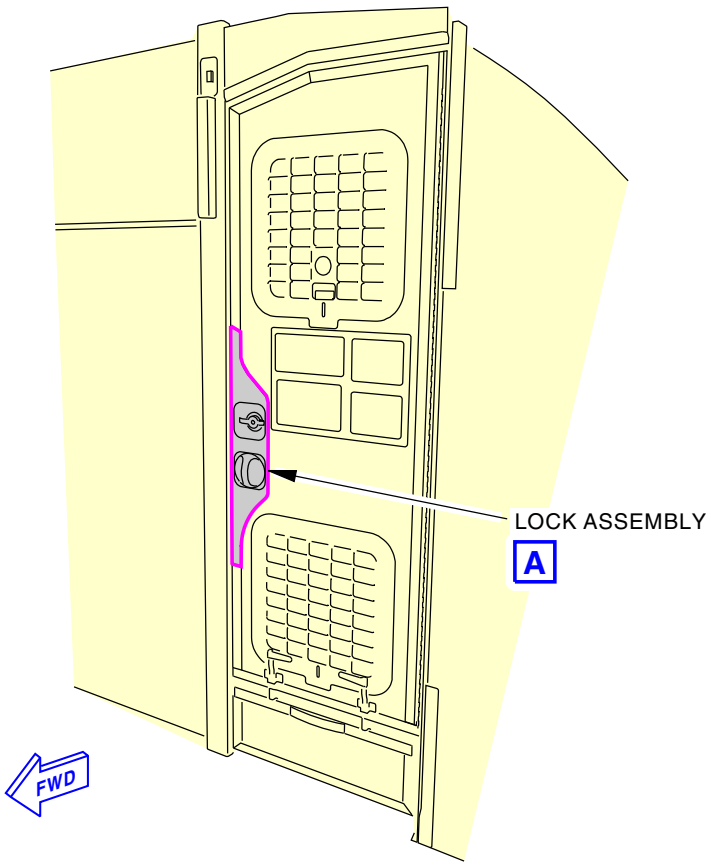
(d) Remove the channel [10].

SUBTASK 52-51-03-020-012-002

(6) Remove the lock assembly [19].

END OF TASK

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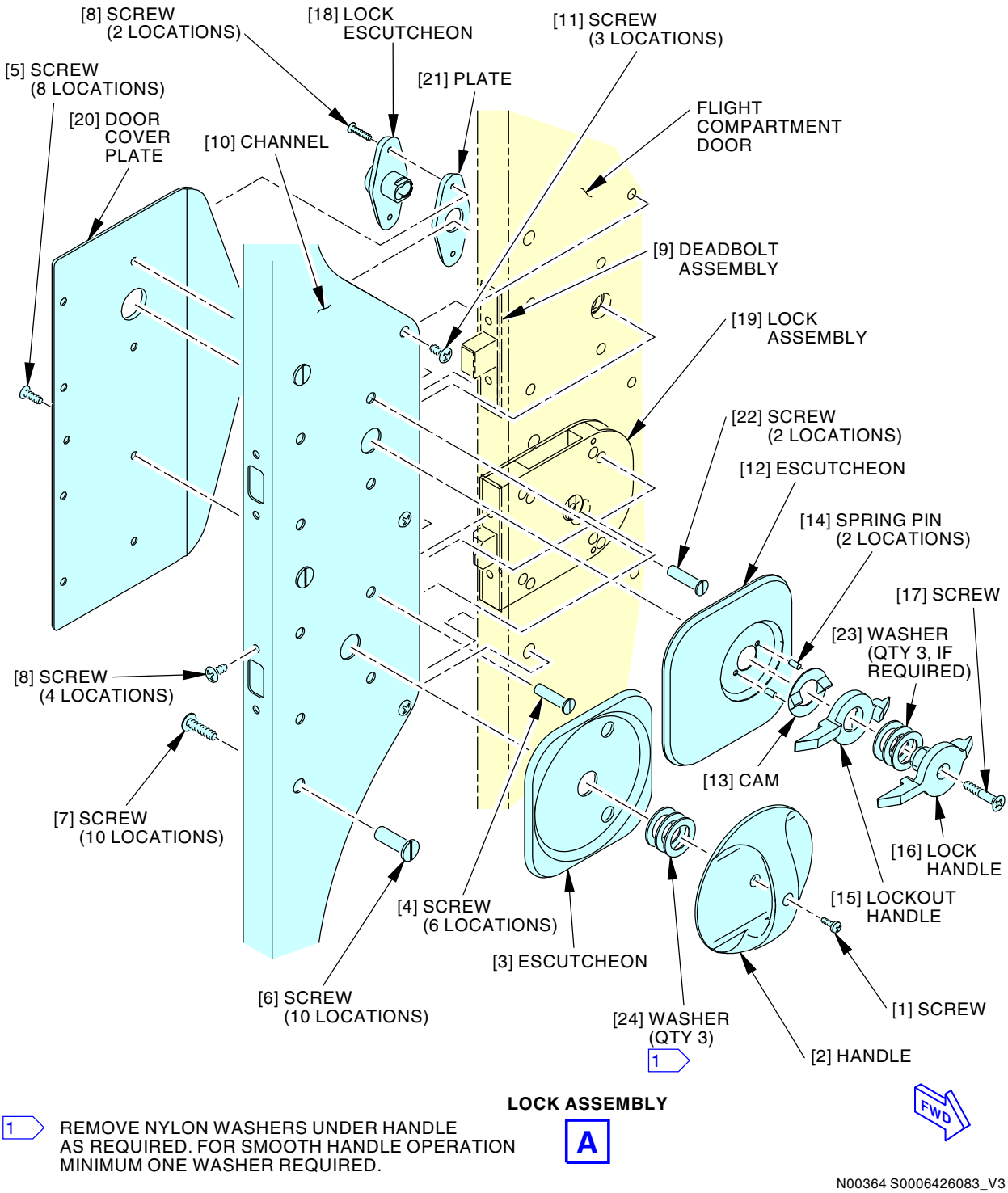


FLIGHT COMPARTMENT DOOR

N00215 S0006426082_V3

Door Lock Installation
Figure 401/52-51-03-990-802-002 (Sheet 1 of 2)

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Door Lock Installation
Figure 401/52-51-03-990-802-002 (Sheet 2 of 2)

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TASK 52-51-03-400-802-002

3. Flight Compartment Door Lock Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
A50011	Sealant - Silicone, Aluminum Color - RTV109	

B. Location Zones

Zone	Area
211	Flight Compartment, Left
221	Passenger Compartment, Left - Section 41

C. Flight Compartment Door Lock Installation

SUBTASK 52-51-03-420-004-002

(1) Install the lock assembly [19] in the door.

SUBTASK 52-51-03-420-005-002

(2) Do these steps to install the channel [10] on the door:

(a) Put the channel [10] in the correct position.

(b) Install the four screws [8].

(c) Install the three screws [11].

(d) Install the ten screws [6] and the ten screws [7] as follows:

1) Add 15 in-lb (1.7 N·m) to 20 in-lb (2.3 N·m) to the self locking torque to get the total torque value.

SUBTASK 52-51-03-420-006-002

(3) Do these steps to install the door cover plate [20]:

(a) Put the door cover plate [20] in the correct position.

(b) Install the six screws [4] and the eight screws [5].

SUBTASK 52-51-03-420-007-002

(4) Do these steps to install the lock escutcheon [18] on the door cover plate [20].

(a) Put the plate [21] in the correct position on the door cover plate [20].

(b) Put the lock escutcheon [18] on the plate [21] with the keyhole pointed toward the latch side of the door.

(c) Install the two screws [8] and two screws [22].

SUBTASK 52-51-03-420-008-002

(5) Do these steps to install the lock handle [16]:

(a) Use RTV109 sealant, A50011, to attach the escutcheon [12] to the door.

(b) Put the cam [13] on the lockout handle [15] and install the two spring pins [14].

(c) Install the lockout handle [15] with the long arm pointed in the up direction.

(d) Install the lock handle [16] with the long arm pointed in the up direction and washers [23].

(e) Install the screw [17] that attaches the lock handle [16] to the deadbolt assembly [9].

SUBTASK 52-51-03-420-009-002

(6) Do these steps to install the handle [2]:

(a) Use RTV109 sealant, A50011, to attach the escutcheon [3] to the door.

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(b) Put the door handle [2] and washers [24] into the correct position.

(c) Install the screw [1].

D. Post Installation Test of the Door Lock and Deadbolt

SUBTASK 52-51-03-710-002-002

(1) Turn the lock handle [16] and make sure the deadbolt extends and retracts properly.

SUBTASK 52-51-03-710-003-002

(2) Turn the door handle [2] and make sure the latch retracts into the lock assembly [19].

SUBTASK 52-51-03-710-004-002

(3) Release the handle [2] and make sure the latch extends out of the lock assembly [19].

SUBTASK 52-51-03-710-005-002

(4) Close the door and make sure the door latch engages the strike and the deadbolt correctly engages.

——— END OF TASK ———

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FLIGHT COMPARTMENT DOOR DEADBOLT - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the flight compartment door deadbolt.

(2) An installation of the flight compartment door deadbolt.

TASK 52-51-08-000-801

2. Flight Compartment Door Deadbolt Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment, Left
ARO ALL	
221	Passenger Compartment, Left - Section 41
ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR	

B. Flight Compartment Door Deadbolt Removal

SUBTASK 52-51-08-020-001

(1) Do these steps to remove the handle [2]:

(a) Remove the screw [1] that attaches the door handle [2] to the lock assembly [19].

(b) Remove the door handle [2] and three washers [24].

(c) Remove the escutcheon [3].

(d) Remove any remaining sealant from under the escutcheon [3].

SUBTASK 52-51-08-020-002

(2) Do these steps to remove the lock handle [16]:

(a) Make sure the deadbolt lock is retracted.

(b) Remove the screw [17] that attaches the lock handle [16] to the deadbolt assembly [9].

(c) Remove the lock handle [16] and three washers [23].

(d) Remove the lockout handle [15].

(e) Remove the two spring pins [14] that hold the cam [13] on the deadbolt assembly [9].

(f) Remove the cam [13].

(g) Remove the escutcheon [12].

(h) Remove any sealant that remains from under the escutcheon [12].

SUBTASK 52-51-08-020-003

(3) Do these steps to remove the lock escutcheon [18] from the door cover plate [20].

(a) Remove the two screws [8] and two screws [22].

(b) Remove the lock escutcheon [18].

(c) Remove the plate [21].

SUBTASK 52-51-08-020-004

(4) Do these steps to remove the door cover plate [20]:

(a) Remove the six screws [4] and eight screws [5].

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(b) Remove the door cover plate [20].

SUBTASK 52-51-08-020-005

(5) Do these steps to remove the channel [10] from the door:

(a) Remove the four screws [8].

(b) Remove the three screws [11].

(c) Remove the 10 screws [6] and 10 screws [7].

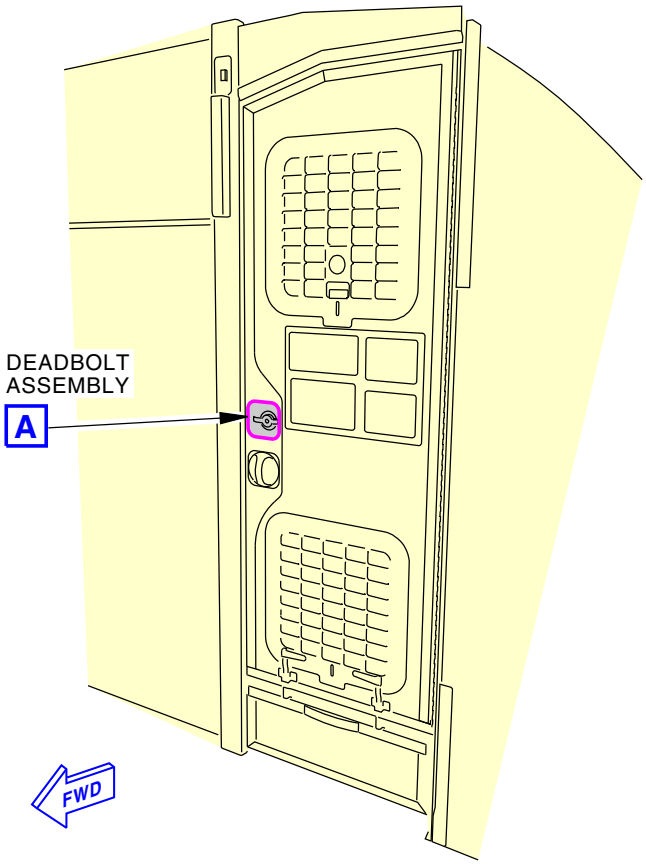
(d) Remove the channel [10].

SUBTASK 52-51-08-020-006

(6) Remove the deadbolt assembly [9].

——— END OF TASK ———

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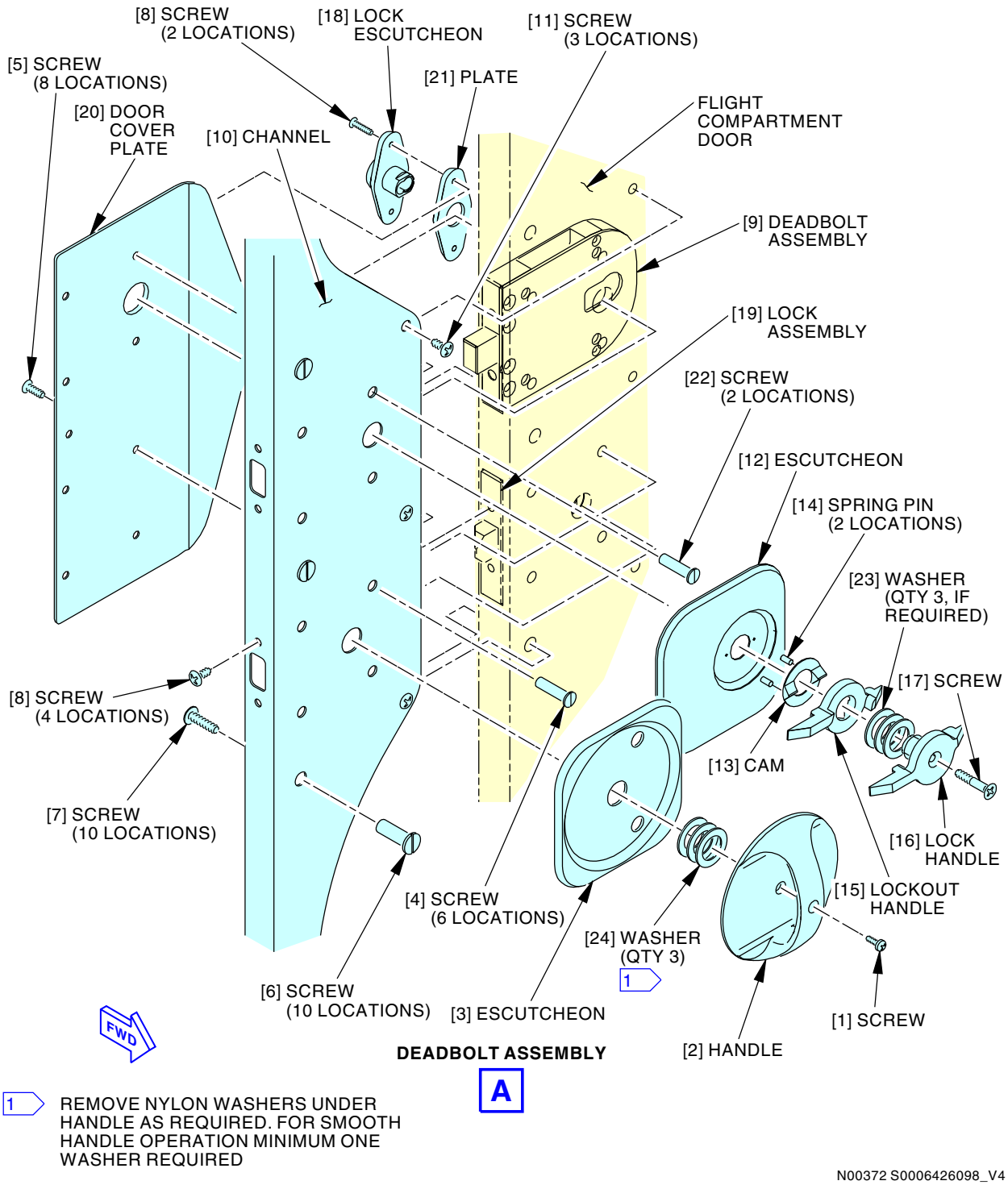
FLIGHT COMPARTMENT DOOR

A

N00368 S0006426097_V3

Deadbolt Installation
Figure 401/52-51-08-990-801 (Sheet 1 of 2)

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Deadbolt Installation
Figure 401/52-51-08-990-801 (Sheet 2 of 2)

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TASK 52-51-08-400-801

3. Flight Compartment Door Deadbolt Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
A50011	Sealant - Silicone, Aluminum Color - RTV109	

B. Location Zones

Zone	Area
211	Flight Compartment, Left
ARO ALL	
221	Passenger Compartment, Left - Section 41

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

C. Flight Compartment Door Deadbolt Installation

SUBTASK 52-51-08-420-001

(1) Install the deadbolt assembly [9] in the door.

(a) Make sure that the deadbolt is in the retracted position and the lock driver slot is in the up direction.

SUBTASK 52-51-08-420-002

(2) Do these steps to install the channel [10] on the door:

(a) Put the channel [10] in the correct position.

(b) Install the four screws [8].

(c) Install the three screws [11].

(d) Install the 10 screws [6] and the 10 screws [7].

1) Add from 15 in-lb (1.7 N·m) to 20 in-lb (2.3 N·m) to the self-locking torque to get the total torque value.

SUBTASK 52-51-08-420-003

(3) Do these steps to install the door cover plate [20]:

(a) Put the door cover plate [20] in the correct position.

(b) Install the six screws [4] and eight screws [5].

SUBTASK 52-51-08-420-004

(4) Do these steps to install the lock escutcheon [18] on the door cover plate [20]:

(a) Put the plate [21] in the correct position on the door cover plate [20].

(b) Put the lock escutcheon [18] on the plate [21] with the keyhole pointed toward the latch side of the door.

(c) Install the two screws [8] and two screws [22].

SUBTASK 52-51-08-420-005

(5) Do these steps to install the lock handle [16]:

(a) Use RTV109 sealant, A50011, to attach the escutcheon [12] to the door.

(b) Put the cam [13] on the lockout handle [15] and install the two spring pins [14].

(c) Install the lockout handle [15] with the long arm pointed in the up direction.

(d) Install the washers [23].

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(e) Install the lock handle [16] with the long arm pointed in the up direction.

(f) Install the screw [17] that attaches the lock handle [16] to the deadbolt lock.

SUBTASK 52-51-08-420-006

(6) Do these steps to install the handle [2]:

(a) Use RTV109 sealant, A50011, to attach the escutcheon [3] to the door.

(b) Install the washers [24].

(c) Put the door handle [2] into the correct position.

(d) Install the screw [1].

D. Flight Compartment Door Deadbolt Installation Test

SUBTASK 52-51-08-710-001

(1) Turn the lock handle [16] and make sure that the deadbolt extends and retracts properly.

SUBTASK 52-51-08-710-002

(2) Turn the handle [2] and make sure that the latch retracts into the lock assembly [19].

SUBTASK 52-51-08-710-003

(3) Release the handle and make sure that the latch extends out of the lock assembly [19].

SUBTASK 52-51-08-710-004

(4) Close the door and make sure that the door latch engages the strike and the deadbolt correctly engages.

——— END OF TASK ———

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FLIGHT COMPARTMENT DOOR DEADBOLT - ADJUSTMENT/TEST

1. General

A. This procedure has this task:

(1) A test of the flight compartment door deadbolt.

TASK 52-51-08-710-801

2. Flight Compartment Door Deadbolt Test

A. Location Zones

Zone	Area
211	Flight Compartment, Left
ARO ALL	
221	Passenger Compartment, Left - Section 41
ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR	

B. Flight Compartment Deadbolt Test

SUBTASK 52-51-08-710-005

(1) Do these steps to do a test of the deadbolt:

(a) Make sure that one person is in the flight compartment and one person in the passenger cabin.

(b) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

(c) Close the flight compartment door.

(d) Put the key into the deadbolt slot on the passenger side.

1) Make sure that the key inserts easily and moves freely.

(e) Turn the key to lock the deadbolt.

1) Make sure that only the inner deadbolt knob on the flight compartment side is turned horizontal.

NOTE: From the passenger cabin, only the inner knob can be engaged.

2) Make sure that the door is locked from the passenger side.

(f) Turn the key to unlock the deadbolt.

(g) Turn the deadbolt knobs on the flight compartment side until horizontal (engaged).

NOTE: From the flight compartment, the inner and outer knobs can only engage together.

1) Make sure that the door is locked from the passenger side.

2) Make sure that the key from the passenger side will not unlock the deadbolt.

(h) Put the deadbolt knobs on the flight compartment side to vertical (disengaged).

(i) Open the door.

(j) Remove the key.

1) Make sure that the key is easily removed.

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(k) Remove the safety tag and close this circuit breaker:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

END OF TASK

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KEYPAD - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the keypad.

(2) An installation of the keypad.

TASK 52-51-09-000-801

2. Keypad Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

B. Prepare for the Removal

SUBTASK 52-51-09-860-001

(1) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

C. Keypad Removal

SUBTASK 52-51-09-020-001

(1) Remove the plugs [1] on the top and the bottom of the keypad [3].

SUBTASK 52-51-09-020-002

(2) Remove the screws [2] that attach the keypad [3] to the right hand door post.

SUBTASK 52-51-09-020-003

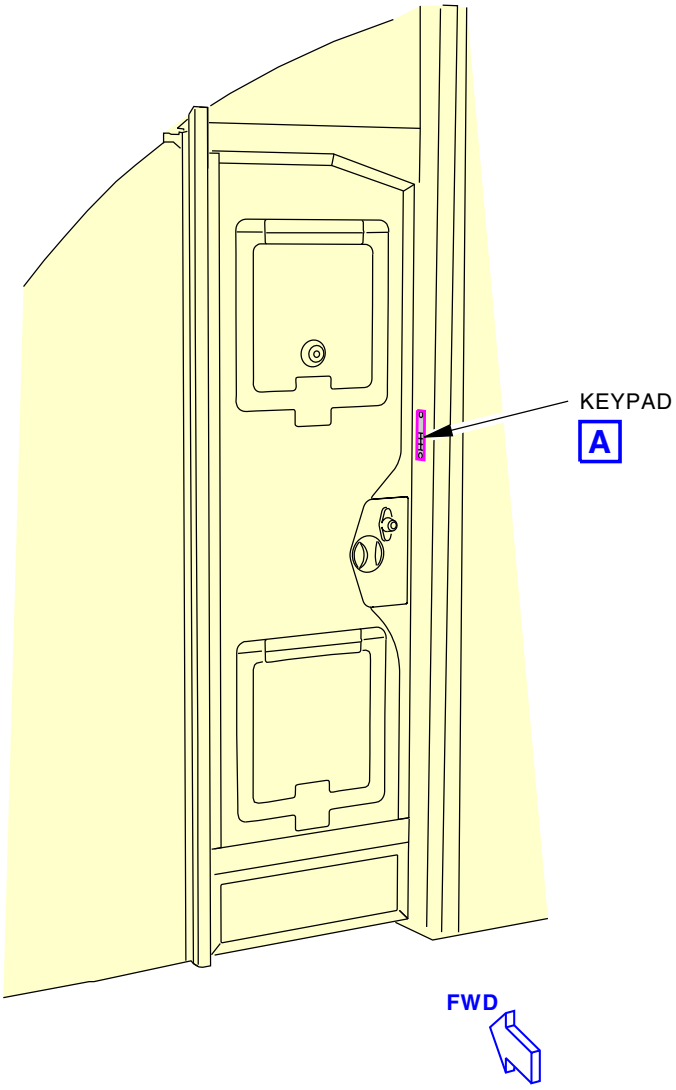
(3) Disconnect the electrical connector.

SUBTASK 52-51-09-020-004

(4) Remove the keypad [3].

——— END OF TASK ———

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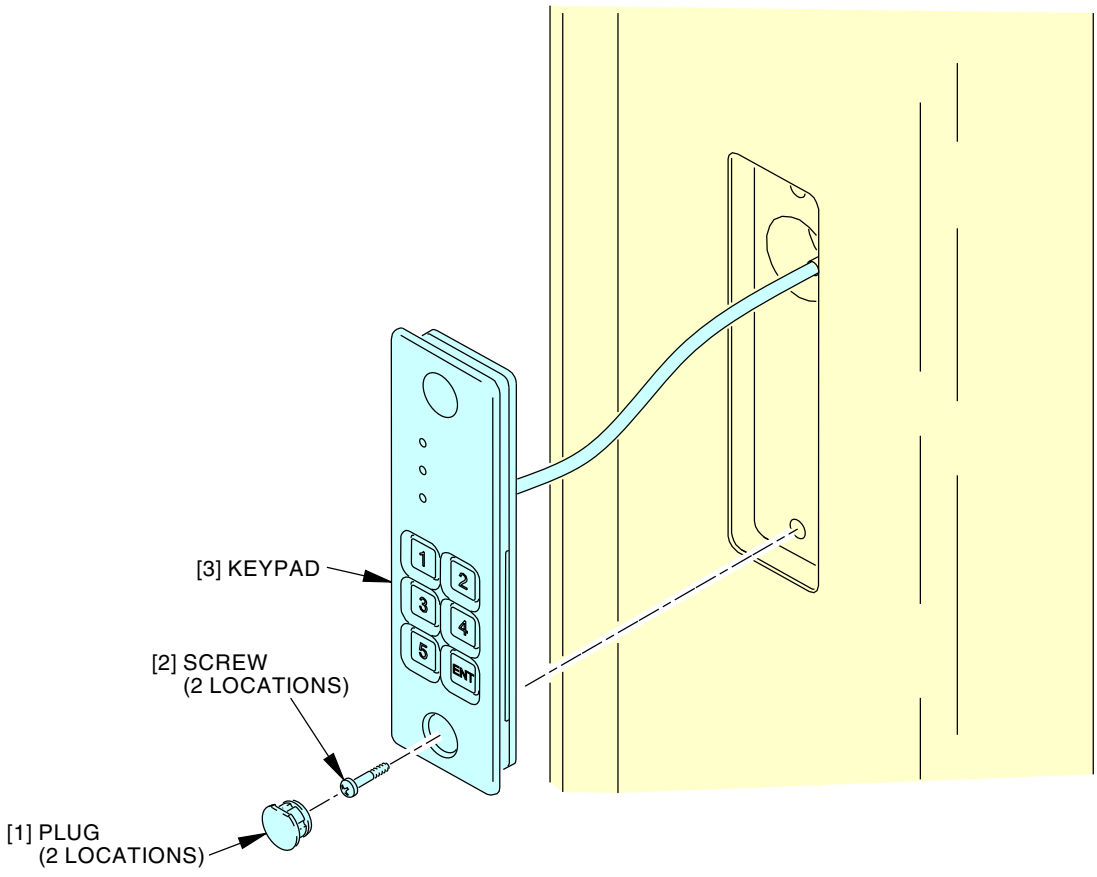


FLIGHT COMPARTMENT DOOR

N00209 S0006426103_V3

Keypad Installation
Figure 401/52-51-09-990-801 (Sheet 1 of 2)

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KEYPAD

A

N00208 S0006426104_V3

Keypad Installation
Figure 401/52-51-09-990-801 (Sheet 2 of 2)

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TASK 52-51-09-400-801

3. Keypad Installation

(Figure 401)

A. References

Reference	Title
52-51-00-700-801	Flight Compartment Security Door Access System Test (P/B 501)

B. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

C. Keypad Installation

SUBTASK 52-51-09-420-001

(1) Put the keypad [3] in its position.

SUBTASK 52-51-09-420-002

(2) Install the electrical connector.

SUBTASK 52-51-09-420-003

(3) Install the screws [2].

SUBTASK 52-51-09-420-004

(4) Install the plugs [1] on the top and the bottom of the keypad [3].

SUBTASK 52-51-09-860-002

(5) Remove the safety tag and close this circuit breaker:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

D. Do a Post Installation Test of the Keypad

SUBTASK 52-51-09-730-001

(1) Do the system test of the flight compartment security door access system (TASK 52-51-00-700-801).

——— END OF TASK ———

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CHIME MODULE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the chime module.

(2) An installation of the chime module.

TASK 52-51-10-000-801

2. Chime Module Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

B. Prepare for the Removal

SUBTASK 52-51-10-860-001

(1) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

C. Chime Module Removal

SUBTASK 52-51-10-020-001

(1) Remove the screws [1] that attach the chime module [2] to the right hand door post.

SUBTASK 52-51-10-020-002

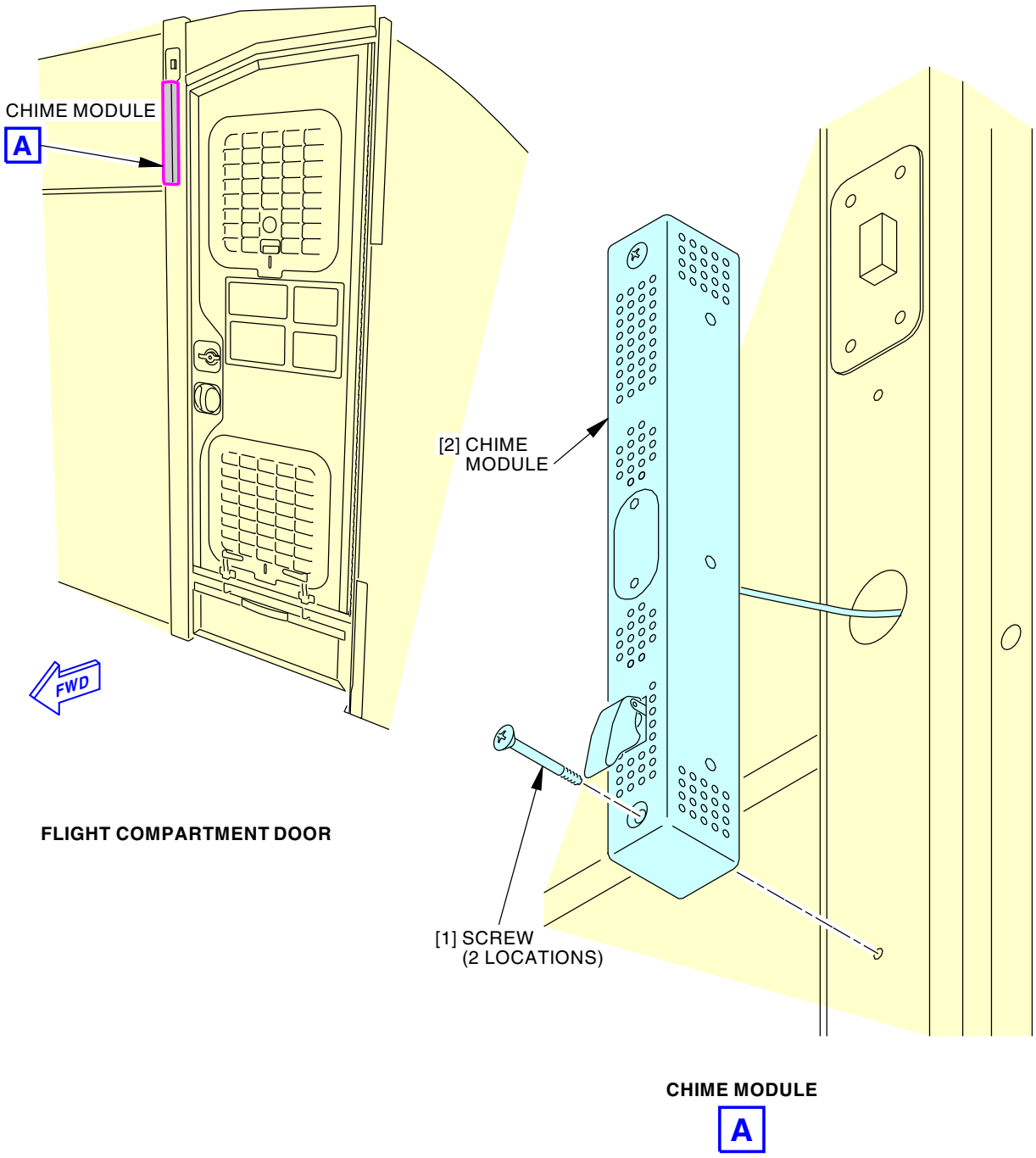
(2) Disconnect the electrical connector.

SUBTASK 52-51-10-020-003

(3) Remove the chime module [2].

——— END OF TASK ———

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N00393 S0006426109_V3

Chime Module Installation
Figure 401/52-51-10-990-801

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TASK 52-51-10-400-801

3. Chime Module Installation

(Figure 401)

A. References

Reference	Title
52-51-00 P/B 201	FLIGHT COMPARTMENT DOOR - MAINTENANCE PRACTICES
52-51-00-700-801	Flight Compartment Security Door Access System Test (P/B 501)

B. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

C. Chime Module Installation

SUBTASK 52-51-10-420-001

(1) Put the chime module [2] in its position.

SUBTASK 52-51-10-420-002

(2) Install the electrical connector.

SUBTASK 52-51-10-420-003

(3) Install the screws [1].

SUBTASK 52-51-10-860-002

(4) Remove the safety tag and close this circuit breaker:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

D. Post Installation Test of the Logic Controller

SUBTASK 52-51-10-800-001

(1) Do these procedures to program the chime module: FLIGHT COMPARTMENT DOOR - MAINTENANCE PRACTICES, PAGEBLOCK 52-51-00/201.

SUBTASK 52-51-10-730-001

(2) Do the system test of the flight compartment security door access system (TASK 52-51-00-700-801).

——— END OF TASK ———

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CHIME MODULE - CLEANING

1. General

A. This procedure has a task to clean the chime module.

TASK 52-51-10-000-802

2. Chime Module Cleaning

A. References

Reference	Title
20-30-81-910-801	General Cleaning of Solvent Sensitive Organic Coatings (Series 81) (P/B 201)

B. Consumable Materials

Reference	Description	Specification
B01001	Solvent - General Cleaning Of All Organic Coatings - Series 81	
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5 Class A

C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

D. Chime Module Cleaning

SUBTASK 52-51-10-160-001

WARNING

DO NOT GET SOLVENTS IN YOUR MOUTH, YOUR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM SOLVENTS. SOLVENTS ARE DANGEROUS MATERIALS. SOLVENTS CAN BE FLAMMABLE. OBEY THE MATERIAL SAFETY DATA SHEETS (MSDS) FOR SOLVENTS. OBEY LOCAL REGULATIONS FOR THE CORRECT PROCEDURES TO USE OR DISCARD SOLVENTS. SOLVENTS CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

CAUTION

MAKE SURE THAT YOU DO NOT SPRAY THE CHIME MODULE DIRECTLY WITH THE CLEANING SOLUTION. IF YOU SPRAY THE CHIME MODULE DIRECTLY WITH THE CLEANING SOLUTION, DAMAGE TO THE CHIME MODULE CAN OCCUR.

(1) Do these steps to clean the chime module:

(a) Moisten the cotton wiper, G00034 with the Series 81 solvent, B01001.

(b) To clean the module, do this task: General Cleaning of Solvent Sensitive Organic Coatings (Series 81), TASK 20-30-81-910-801.

(c) Use the cotton wiper, G00034 to clean the exterior surface of the chime module.

(d) Dry the chime module with a clean cotton wiper, G00034.

END OF TASK

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PRESSURE SENSOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the pressure sensor.

(2) An installation of the pressure sensor.

TASK 52-51-11-000-801

2. Pressure Sensor Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment, Left
ARO ALL	
221	Passenger Compartment, Left - Section 41
ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR	

B. Prepare for the Removal

SUBTASK 52-51-11-860-001

(1) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

C. Pressure Sensor Removal

SUBTASK 52-51-11-020-001

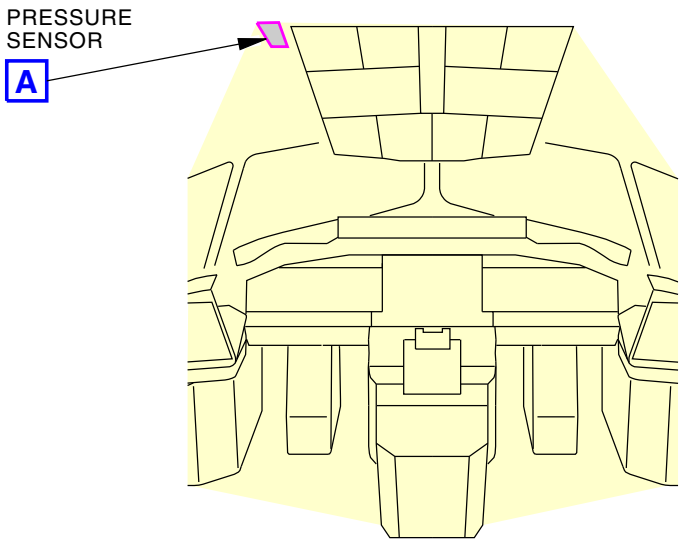
(1) Remove the screws [1] and the washers [2] that attach the pressure sensor [3] to the P61 panel.

SUBTASK 52-51-11-020-002

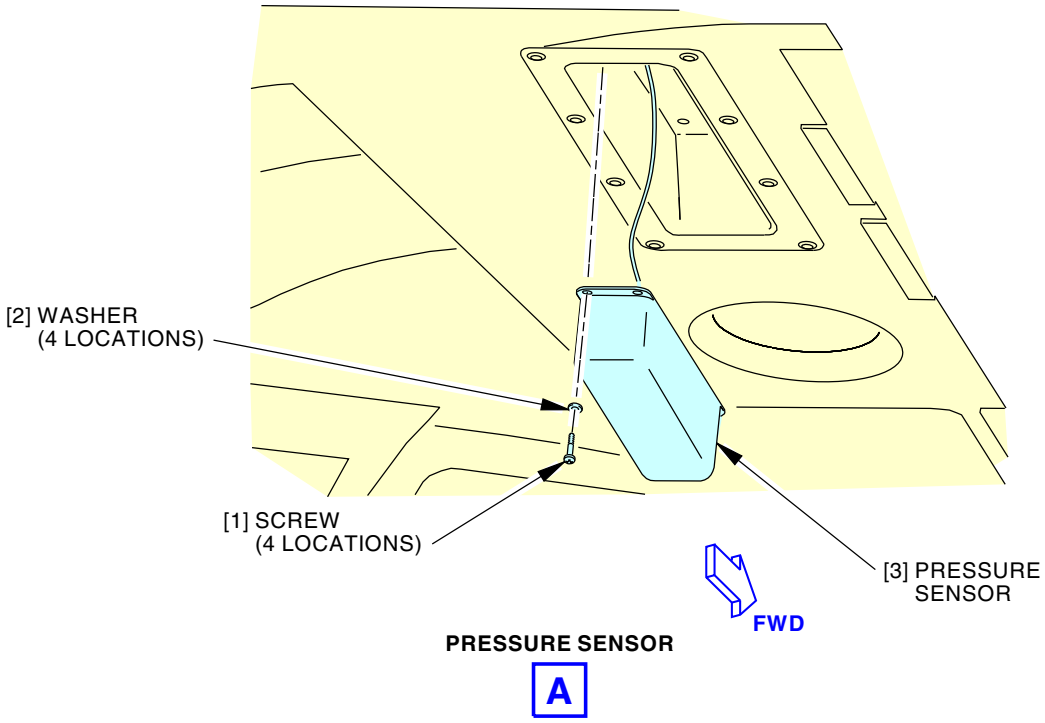
(2) Remove the pressure sensor [3].

END OF TASK

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FLIGHT COMPARTMENT



PRESSURE SENSOR
A

N00619 S0006426116_V2

Pressure Sensor Installation
Figure 401/52-51-11-990-801

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TASK 52-51-11-400-801

3. Pressure Sensor Installation

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment, Left
ARO ALL	
221	Passenger Compartment, Left - Section 41
ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR	

B. Pressure Sensor Installation

SUBTASK 52-51-11-420-001

(1) Put the pressure sensor [3] in its position.

NOTE: The vent holes in the pressure sensor should be on the bottom.

SUBTASK 52-51-11-420-002

(2) Install the electrical connector.

SUBTASK 52-51-11-420-003

(3) Install the screws [1] and the washers [2].

C. Put the Airplane Back to its Usual Condition

SUBTASK 52-51-11-860-003

(1) Close this circuit breaker:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

——— END OF TASK ———

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FLIGHT DECK DOOR MODULE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the flight deck door module

(2) An installation of the flight deck door module.

TASK 52-51-13-020-801

2. Flight Deck Door Module Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

B. Flight Deck Door Module Removal

SUBTASK 52-51-13-020-001

(1) Do these steps to remove the Flight Deck Door Module [1] on the P8 panel.

(a) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

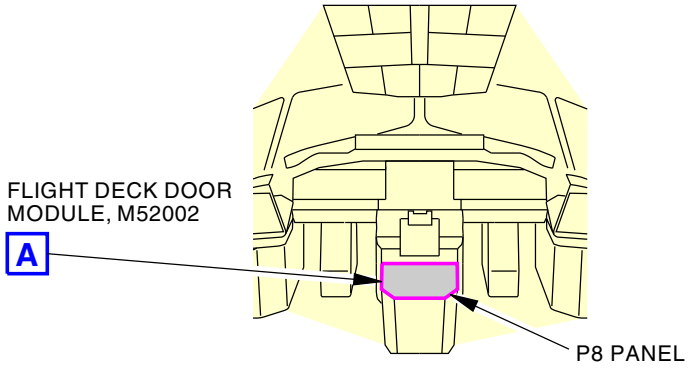
(b) Turn the four quarter-turn fasteners [2] which hold the Flight Deck Door Module [1] to the P8 panel.

(c) Carefully remove the Flight Deck Door Module [1] from the P8 panel.

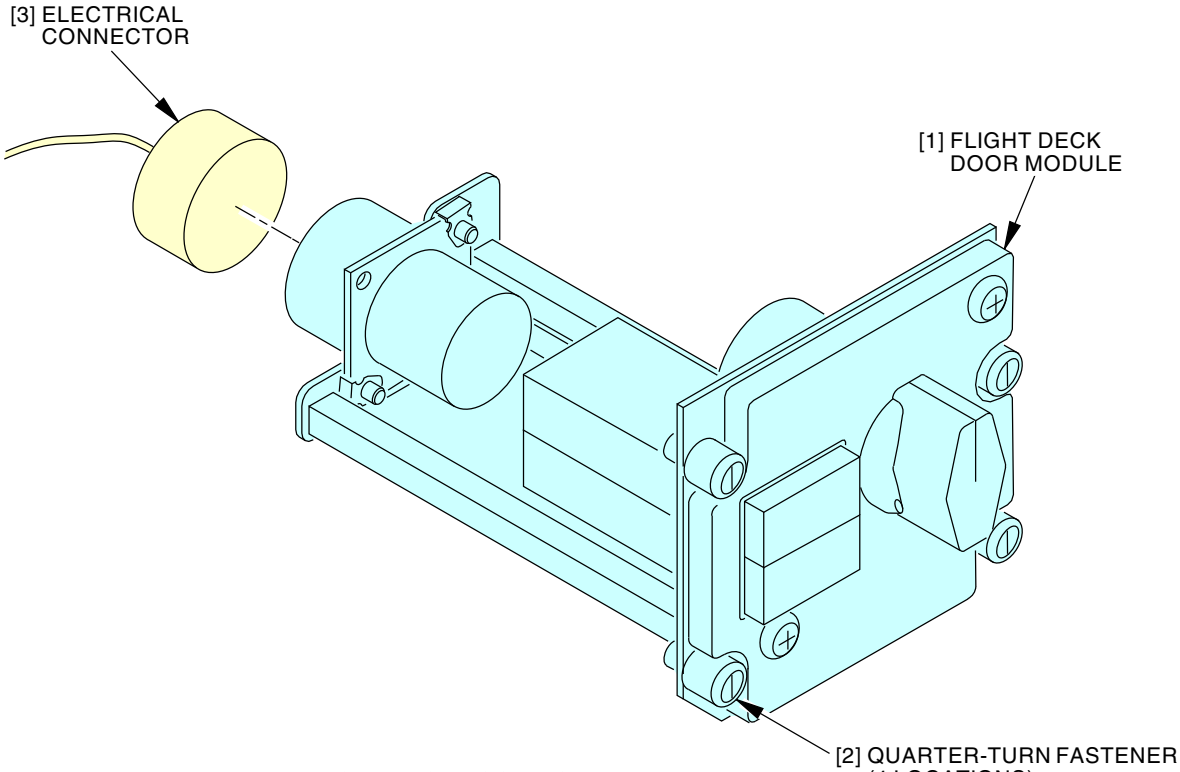
(d) Disconnect the electrical connector [3].

END OF TASK

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FLIGHT COMPARTMENT



**FLIGHT DECK DOOR MODULE, M52002
(EXAMPLE)**

A

N00721 S0006426121_V3

**Flight Deck Door Module Installation
Figure 401/52-51-13-990-801**

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TASK 52-51-13-420-801

3. Flight Deck Door Module Installation

(Figure 401)

A. References

Reference	Title
52-51-00-700-801	Flight Compartment Security Door Access System Test (P/B 501)

B. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

C. Flight Deck Door Module Installation

SUBTASK 52-51-13-420-001

(1) Do these steps to install the Flight Deck Door Module [1] into the P8 panel:

(a) Reconnect the electrical connector [3].

(b) Carefully put the Flight Deck Door Module [1] into the P8 panel.

(c) Turn the four quarter-turn fasteners [2] to secure the module.

D. Post Installation Test

SUBTASK 52-51-13-860-001

(1) Remove the safety tag and close this circuit breaker:

Left Power Management Panel, P110

Row	Col	Number	Name
N	16	C52605	F/D DR LOCK

SUBTASK 52-51-13-710-001

(2) Do a post installation test of the flight deck door (TASK 52-51-00-700-801).

——— END OF TASK ———

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BLOWOUT PANEL - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the blowout panels

(2) An installation of the blowout panels.

(3) There are two blowout panels on the door. The removal and installation steps are almost the same for both blowout panels.

TASK 52-51-14-000-801

2. Blowout Panel Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment, Left
ARO ALL	
221	Passenger Compartment, Left - Section 41

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

B. Blowout Panel Removal

SUBTASK 52-51-14-020-001

(1) Do these steps to remove the blowout panel:

(a) Disengage the lower door release pin handles from the clips on the bottom blowout panel grill.

(b) Remove the screws that attach the grill to the flight compartment door.

(c) Remove the release pin clips from the lower blowout panel grill.

(d) Remove the grill.

(e) Remove the screws and the nuts that attach the hinge to the door.

(f) Remove the blowout panel.

SUBTASK 52-51-14-020-002

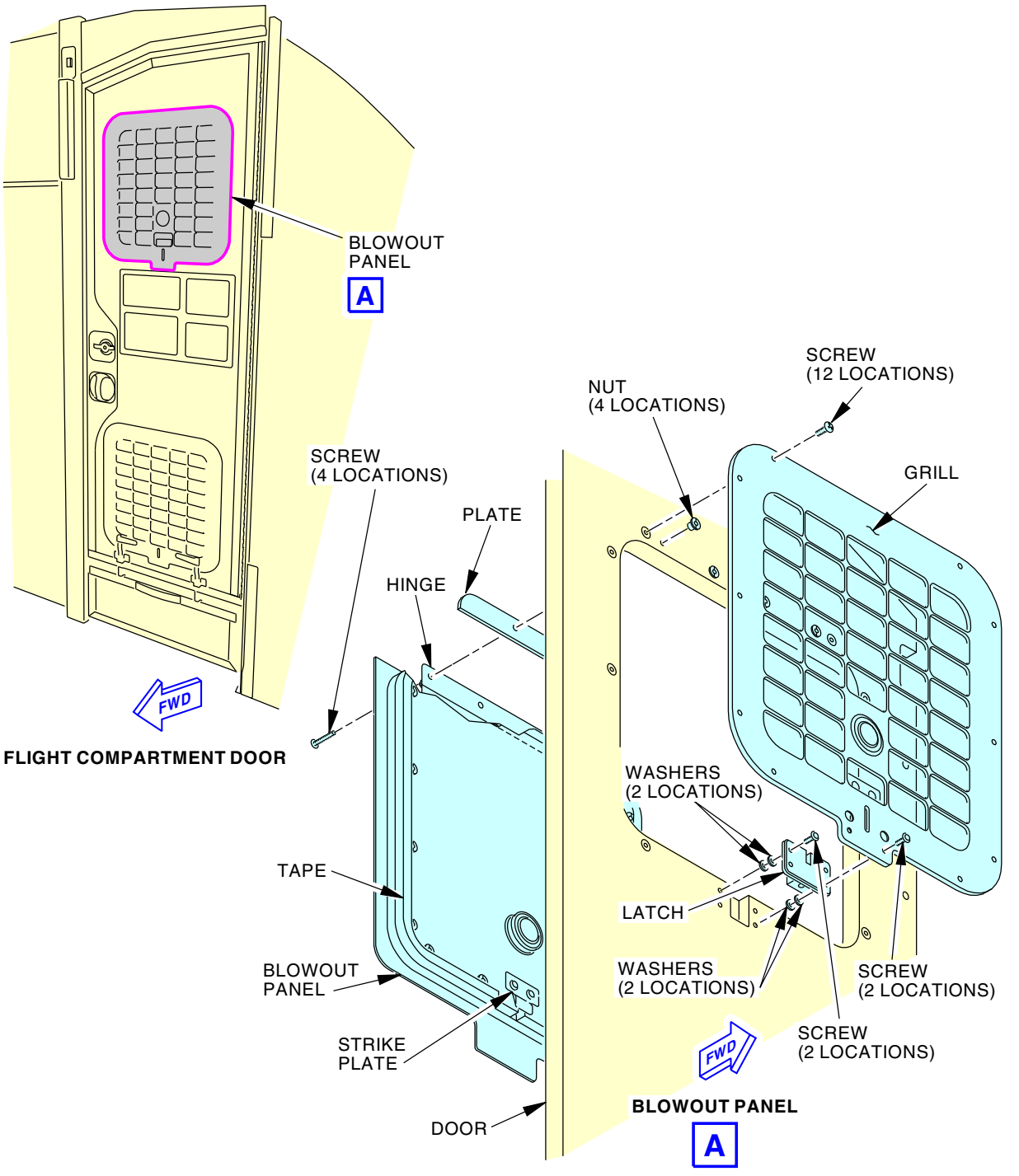
(2) Do these steps to remove the latch:

(a) Remove the screws and washers that attach the latch to the door.

(b) Remove the latch.

——— END OF TASK ———

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Blowout Panel Installation
Figure 401/52-51-14-990-801

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TASK 52-51-14-400-801

3. Blowout Panel Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
G02186	Seal - Closed Cell Silicone Foam Rubber, Hydraulic Fluid Resistant	BMS1-68 Form III

B. Location Zones

Zone	Area
211	Flight Compartment, Left
ARO ALL	
221	Passenger Compartment, Left - Section 41

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

C. Blowout Panel Installation

SUBTASK 52-51-14-420-001

(1) Do these steps to install the latch:

(a) Put the latch in its position.

(b) Install the two sets of screws and washers on the top side of the latch.

NOTE: Put the washers under the latch cover.

(c) Install the two sets of washers on the bottom side of the latch.

NOTE: Put the washers under the latch cover.

SUBTASK 52-51-14-420-002

(2) Do these steps to install the blowout panel:

(a) Put the blowout panel in its position.

(b) Install the screws and the nuts that attach the hinge to the door.

(c) Make a note of the location of the tape on the old blowout panel.

(d) Install new seal, G02186 around the edge of the new blowout panel door so it seals against the door assembly and the edge of the tape is 0.95 to 1.15 inches (24.1 to 29.2 mm) from the outside edge of the grill when the grill is installed.

NOTE: Trim the seal, G02186 as necessary.

SUBTASK 52-51-14-820-001

(3) Do these steps to adjust the latch:

(a) Loosen the screws that attach the strike plate to the blowout panel.

(b) Put the blowout panel in the closed position.

(c) Make sure the blowout panel strike plate/latch overlap dimension is a minimum of 0.15 inches (3.8 mm).

(d) If necessary, adjust the strike plate to obtain the proper dimension.

(e) Tighen the screws that attach the strike plate to the blowout panel.

SUBTASK 52-51-14-420-003

(4) Do these steps to install the grill:

(a) Put the grill in its position.

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(b) Put the two release pin clips in their position on the lower blowout panel.

(c) Install the screws that attach the grill to the door.

(d) Engage the release lower door release pin handles on the clips of the lower blowout panel grill.

END OF TASK

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FLIGHT COMPARTMENT DOOR BLOWOUT PANEL - INSPECTION/CHECK

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure contains these tasks:

(1) Decompression Panel Hinges and Latches Inspection

(2) Decompression Panel Trim Ring Seal Inspection

TASK 52-51-14-210-801

2. Decompression Panel Hinges and Latches Inspection

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This procedure checks the condition and security of the flight compartment door decompression panel hinges and latches.

(2) These checks ensure that the decompression panels will open if there is a rapid decompression of the aft cabin.

(3) You must do the inspections on both the top and the bottom blowout panels.

B. Location Zones

Zone	Area
211	Flight Compartment, Left

C. Procedure

SUBTASK 52-51-14-210-001

(1) Do these steps to check the decompression panel hinges and latches:

(a) Remove the screws that attach the strike plate to the blowout panel.

NOTE: You can access the screws through the holes in the grill.

(b) Remove the strike plate and the shim.

(c) Open the blowout panel.

(d) Make sure the tongue on the latch is in the vertical position and is not loose.

(e) Inspect the hinge, strike plate, and latch for the following abnormal conditions:

1) Deformation

2) Cracks

3) Notches

4) Unusual wear

5) Corrosion

(f) Put the blowout panel in the closed position.

(g) Put the shim and the strike plate in its position.

(h) Install the screws that attach the strike plate to the blowout panel.

END OF TASK

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TASK 52-51-14-210-802

3. Decompression Panel Trim Ring Inspection

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This procedure checks the condition and security of the flight compartment door inner trim ring.

(2) This procedure ensures there is an adequate air seal on the blowout panels to aid in the removal of smoke from the flight compartment.

(3) You must do the inspection on both the top and the bottom blowout panels.

B. Location Zones

Zone	Area
211	Flight Compartment, Left

C. Procedure

SUBTASK 52-51-14-210-002

(1) Do these steps to check the inner trim ring:

(a) Disconnect the lower door panel hinge pin levers from the bottom blowout panel grill.

(b) Remove the screws that attach the grill to the blowout panel.

(c) Remove the grill

(d) Inspect the inner trim ring for these abnormal conditions:

1) Deformation

2) Cracks

3) Corrosion

4) Unusual wear

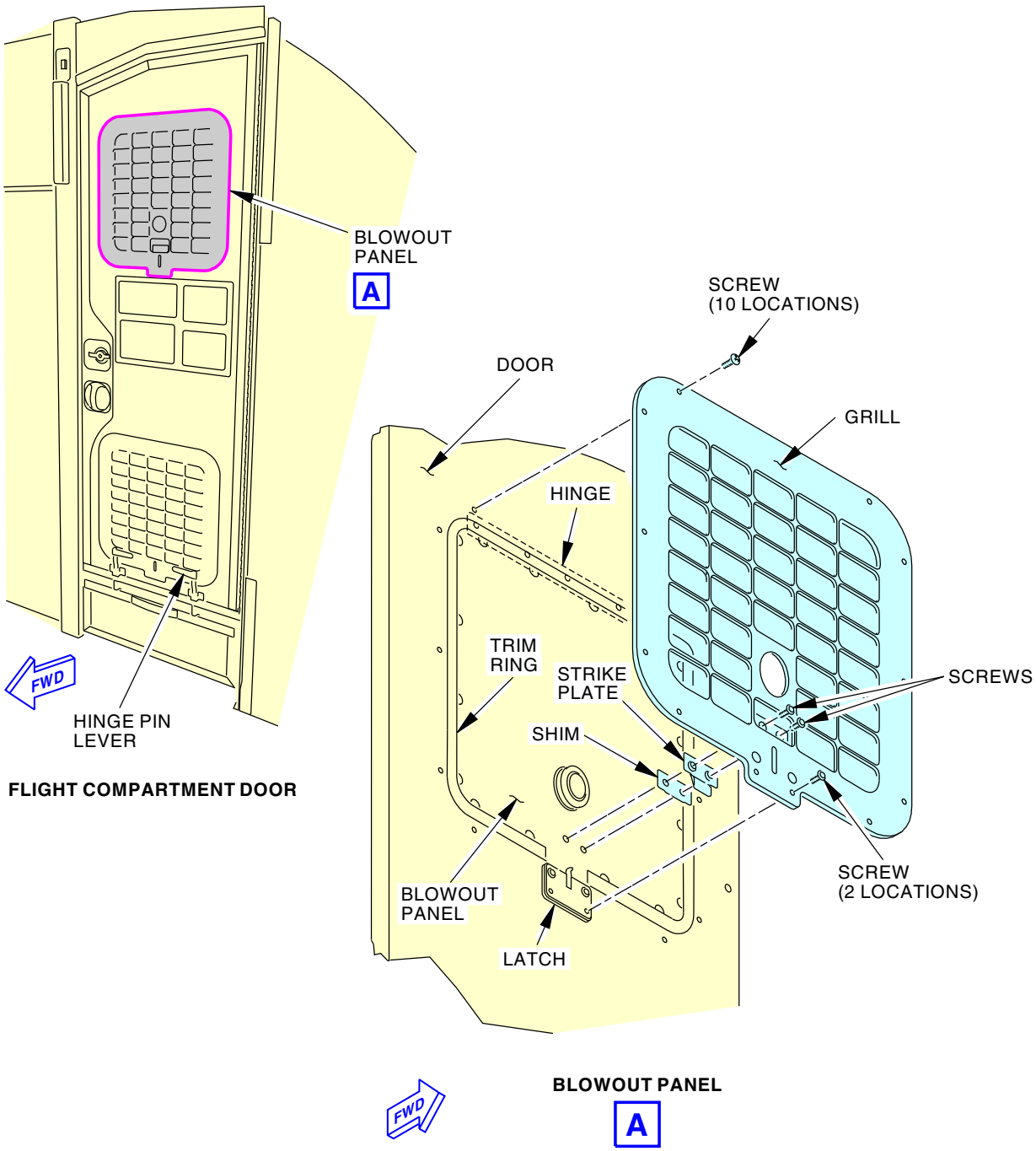
(e) Put the grill in its position.

(f) Install the screws that attach the grill to the blowout panel.

(g) Connect the lower door panel hinge pin levers to the bottom blowout panel grill.

——— END OF TASK ———

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N00746 S0006426131_V6

Blowout Panel Inspection
Figure 601/52-51-14-990-802

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FLIGHT COMPARTMENT DOOR ARMOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the flight compartment door armor.

(2) An installation of the flight compartment door armor.

TASK 52-51-20-020-801

2. Flight Compartment Door Armor Removal

Figure 401

A. References

Reference	Title
52-51-01-000-802-002	Flight Compartment Door Removal (P/B 401)

B. Flight Compartment Door Armor Removal

SUBTASK 52-51-20-020-001

(1) Remove the flight compartment door if it is necessary (Flight Compartment Door Removal, TASK 52-51-01-000-802-002).

SUBTASK 52-51-20-020-004

(2) Do these steps to remove the hinge side armor [6]:

(a) Remove the screws [7] that attach the hinge side armor [6] to the hinge side post.

(b) Remove the hinge side armor [6].

SUBTASK 52-51-20-020-005

(3) Do these steps to remove the post side armor:

ARO ALL

(a) Remove the screws [1] and washers [8] that attach the upper post side armor angle [2] to the post side armor [5].

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

(b) Remove the upper post side armor angle [2].

ARO ALL

(c) Remove the screws [1] and washers [9] that attach the mid post side armor angle [3] to the post side armor [5].

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

(d) Remove the mid post side armor angle [3].

ARO ALL

(e) Remove the screws [1] and washers [8] that attach the lower post side armor angle [4] to the post side armor [5].

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

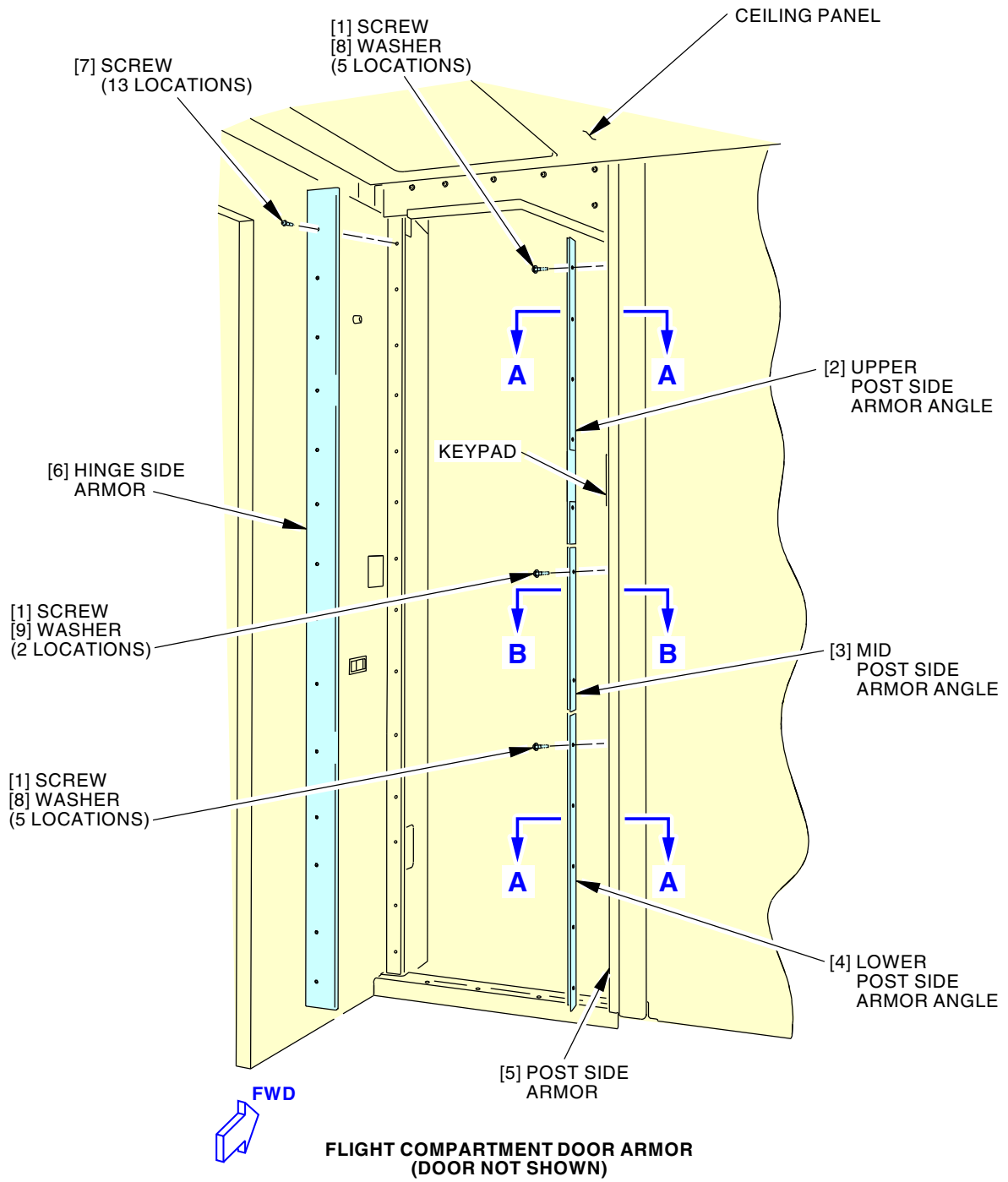
(f) Remove the lower post side armor angle [4].

(g) Remove the screw at the top of the post side armor [5].

(h) Remove the post side armor [5].

END OF TASK

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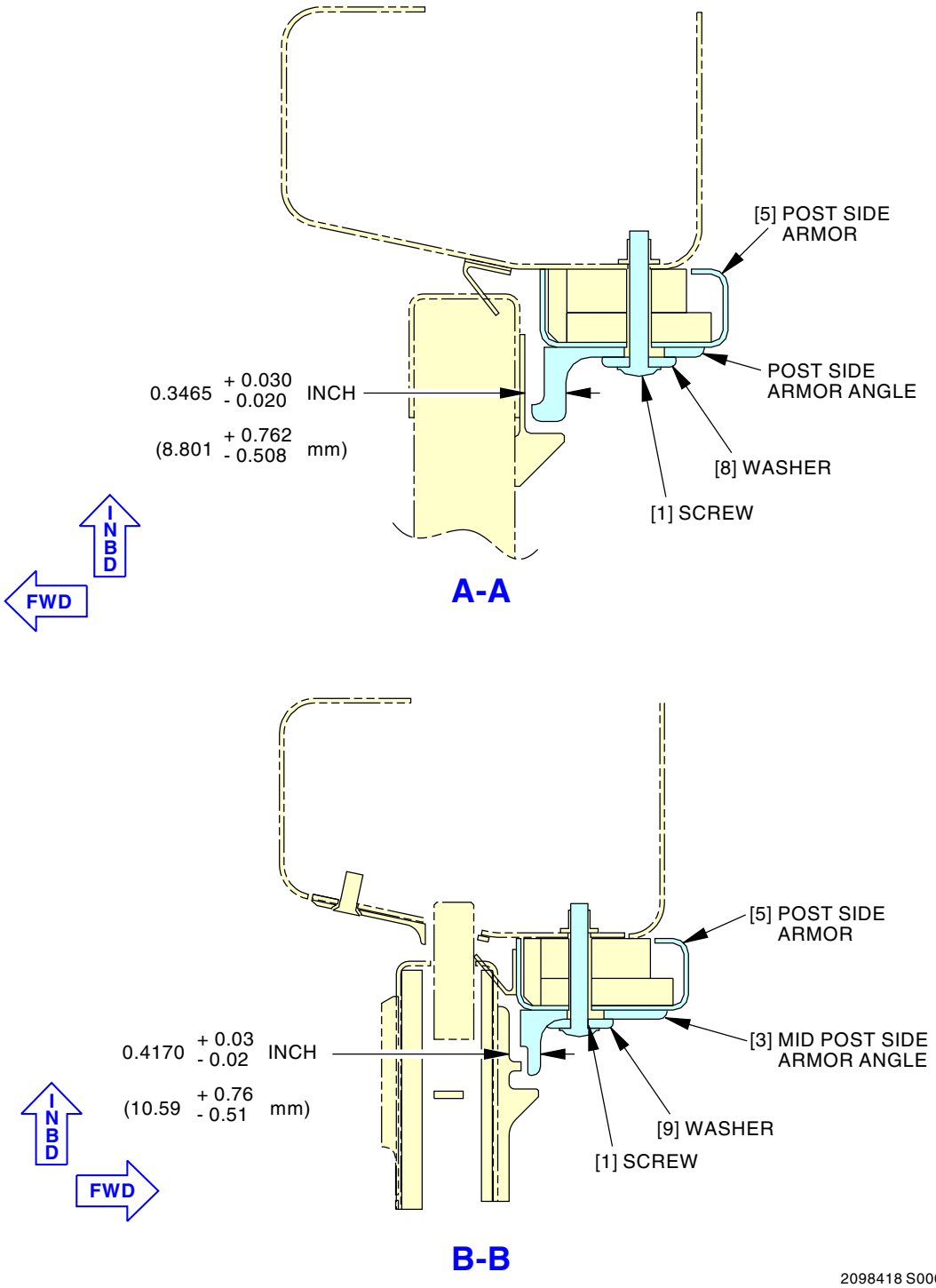


FLIGHT COMPARTMENT DOOR ARMOR
(DOOR NOT SHOWN)

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Flight Compartment Door Armor Installation
Figure 401/52-51-20-990-802 (Sheet 1 of 2)

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Flight Compartment Door Armor Installation
Figure 401/52-51-20-990-802 (Sheet 2 of 2)

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TASK 52-51-20-420-801

3. Flight Compartment Door Armor Installation

Figure 401

A. References

Reference	Title
52-51-01-400-802-002	Flight Compartment Door Installation (P/B 401)

B. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

C. Flight Compartment Door Armor Installation

SUBTASK 52-51-20-420-001

(1) Do these steps to install the hinge side armor [6]:

(a) Put the hinge side armor [6] in its position.

(b) Install the screws [7] that attach the hinge side armor [6] to the hinge side post.

SUBTASK 52-51-20-420-002

(2) Do these steps to install the post side armor:

(a) Put the post side armor [5] in its position.

(b) Install the screw at the top of the post side armor [5].

(c) Put the upper post side armor angle [2] in its position.

ARO ALL

(d) Install but do not fully tighten the screws [1] and washers [8] that attach the armor angle [2] to the post side armor [5].

NOTE: The washers [9] have a chamfer and the washers [8] do not.

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

(e) Put the mid post side armor angle [3] in its position.

ARO ALL

(f) Install but do not fully tighten the screws [1] and washers [9] that attach the armor angle [3] to the post side armor [5].

1) Make sure that you orient the radius of the washers [9] toward the armor angle.

NOTE: The washers [9] have a chamfer and the washers [8] do not.

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

(g) Put the lower post side armor angle [4] in its position.

ARO ALL

(h) Install but do not fully tighten the screws [1] and washers [8] that attach the armor angle [4] to the post side armor [5].

NOTE: The washers [9] have a chamfer and the washers [8] do not.

ARO ALL; AIRPLANES WITH ENHANCED SECURITY FLIGHT COMPARTMENT DOOR

SUBTASK 52-51-20-820-001

(3) Adjust the upper, mid and lower post side armor angles.

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(a) Refer to Figure 401 for dimension tolerances.

SUBTASK 52-51-20-420-004

(4) Tighten the screws [1].

SUBTASK 52-51-20-420-003

(5) Install the flight compartment door if you removed it (Flight Compartment Door Installation, TASK 52-51-01-400-802-002).

——— END OF TASK ———

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MAIN EQUIPMENT CENTER ACCESS HATCH - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the main equipment center access hatch.

(2) An installation of the main equipment center access hatch.

B. In this procedure the main equipment center access hatch is referred to as the hatch assembly [1].

TASK 52-53-01-000-801

2. Main Equipment Center Access Hatch Removal

(Figure 401)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-2009	Barrier - Safety, Electrical Equipment Access/Crew Cabin Part #: 5900T14 Supplier: 3A054

B. Location Zones

Zone	Area
221	Passenger Compartment, Left - Section 41

C. Prepare for the Removal

SUBTASK 52-53-01-010-001

(1) Remove the floor covering to get access to the hatch assembly [1].

D. Removal

SUBTASK 52-53-01-020-001

(1) Remove the filler [14] at the hinge assemblies [2] as follows:

(a) Pull the seal [4] back at the hinge assemblies [2] to get access to the fillers [14].

(b) Remove the fillers [14].

SUBTASK 52-53-01-020-002

(2) Safety the restraint arm [12] as follows:

(a) Open the hatch assembly [1] and hold open.

1) Turn the handle [3] to open the hatch assembly [1].

(b) Disengage bolt [22], bushing [24], washer [25], and collar [26] from the restraint arm [12] and support bracket.

(c) Attach the spring [6] to the restraint arm [12] to safety the restraint arm [12].

SUBTASK 52-53-01-020-003

(3) Remove the hatch assembly [1] as follows:

(a) Pull the seal [4] back to access to the bolts [18] in the hinge assemblies [2].

(b) Remove the bolts [18] from the hinge assemblies [2] and lift the hatch from the passenger compartment floor [5].

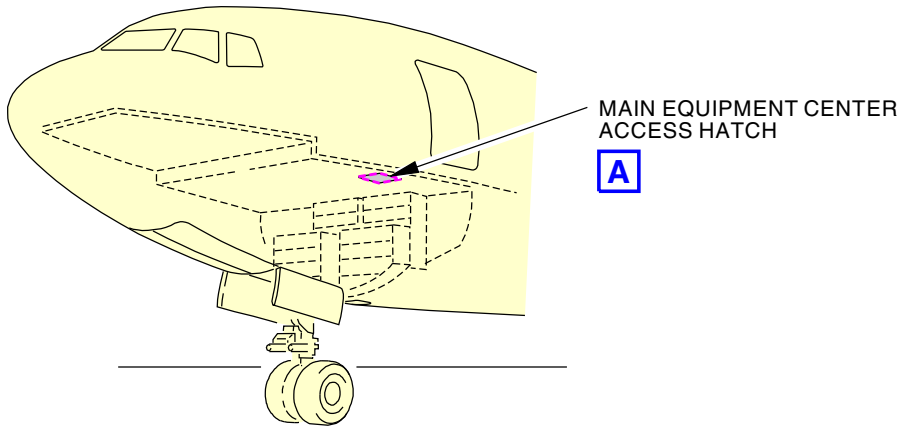
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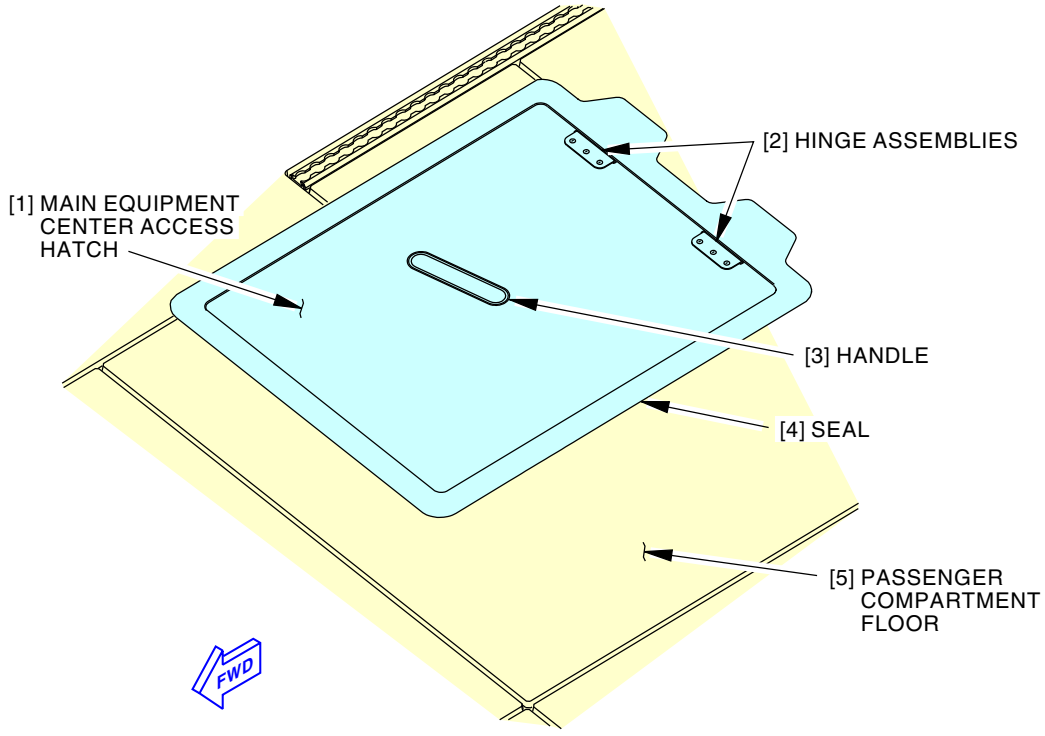
SUBTASK 52-53-01-480-001

(4) Install the safety barrier, COM-2009, around the hatch opening.

——— END OF TASK ———

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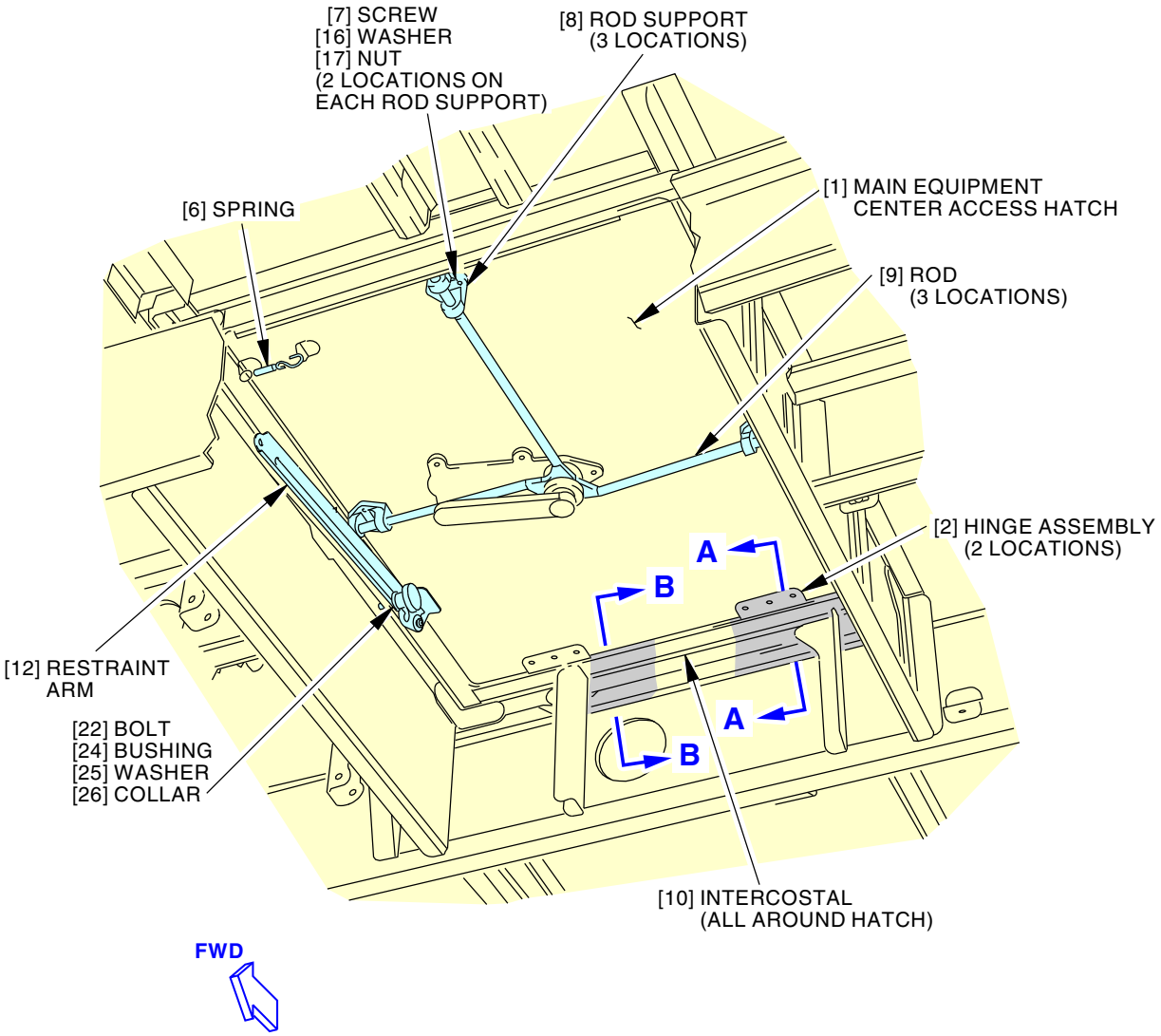
**MAIN EQUIPMENT CENTER ACCESS HATCH
(TOP VIEW)**

A

E02029 S0006426156_V3

**Main Equipment Center Access Hatch Installation
Figure 401/52-53-01-990-804 (Sheet 1 of 3)**

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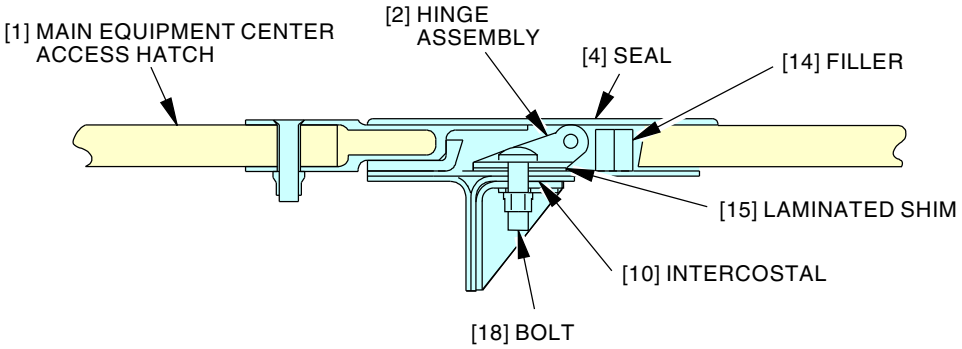
MAIN EQUIPMENT CENTER ACCESS HATCH
(BOTTOM VIEW)

A

U64291 S0000211449_V3

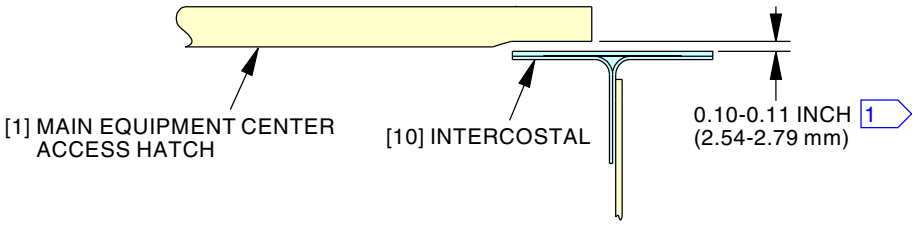
Main Equipment Center Access Hatch Installation
Figure 401/52-53-01-990-804 (Sheet 2 of 3)

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(HATCH CLOSED)

A-A



B-B

1 CLEARANCE BETWEEN HATCH AND INTERCOSTAL ALL AROUND HATCH

U64284 S0000211497_V3

Main Equipment Center Access Hatch Installation
Figure 401/52-53-01-990-804 (Sheet 3 of 3)

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TASK 52-53-01-400-801

3. Main Equipment Center Access Hatch Installation

(Figure 401)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-2009	Barrier - Safety, Electrical Equipment Access/Crew Cabin Part #: 5900T14 Supplier: 3A054

B. Consumable Materials

Reference	Description	Specification
A00016	Adhesive - Pressure Sensitive Film For Interior Non-Structural Bonding	BMS5-91
A00028	Adhesive - Modified Epoxy For Rigid PVC, Foam Cored Sandwiches	BAC5010 Type 70 (BMS5-92 Type 1)

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Hatch assembly	52-53-01-01-037	ARO ALL
4	Seal	52-53-01-01-160	ARO ALL
14	Filler	52-53-01-01-225	ARO ALL

D. Location Zones

Zone	Area
221	Passenger Compartment, Left - Section 41

E. Installation

SUBTASK 52-53-01-080-001

(1) Remove the safety barrier, COM-2009, around the hatch opening.

SUBTASK 52-53-01-420-001

(2) Install the hatch assembly [1] as follows:

(a) If you install a new or repaired hatch assembly [1], remove the seal [4] on the hatch assembly [1].

(b) Put the hatch assembly [1] in the opening in the passenger compartment floor [5].

(c) Install bolts [18] that attach the hinge assemblies [2] to the intercostal [10].

(d) Close the hatch assembly [1].

SUBTASK 52-53-01-820-001

(3) Adjust the hatch assembly [1] as follows:

NOTE: Do these steps if you install a new or repaired hatch assembly [1].

(a) On the lower side of the hatch assembly [1], measure the clearance between the hatch and the intercostal [10].

(b) Make sure the clearance is within the limits (View B-B, Figure 401).

(c) If it is necessary, adjust as follows:

1) Remove the bolts [18] that attach the hinge assemblies [2] to the intercostal [10].

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2) Remove the hinge assemblies [2] from the intercostal [10].

3) Add or remove the laminations of laminated shim [15] between the hinge assemblies [2] and intercostal [10] to get the correct clearance.

4) Remove the screws [7], washers [16], and nuts [17] that attach the rod supports [8] to the hatch assembly [1].

5) Add or remove the laminations of shim between the rod supports [8] and the hatch assembly [1] to get the correct clearance.

6) Install the bolts [18] that attach the hinge assemblies [2] to the intercostal [10].

7) Tighten the bolts [18] to 25 in-lb (3 N·m) - 35 in-lb (4 N·m).

8) Install the screws [7], washers [16], and nuts [17] to attach the rod supports [8] to the hatch assembly [1].

9) Tighten the screws [7] to 13 in-lb (1 N·m) - 15 in-lb (2 N·m).

(d) Remove the hatch assembly [1].

(e) Install the seal [4] on the hatch assembly [1].

(f) Install the hatch assembly [1].

SUBTASK 52-53-01-420-002

(4) Install the restraint arm [12] as follows:

(a) Open the hatch assembly [1] and hold open.

(b) Remove the spring [6] from the restraint arm [12] and put the spring [6] in the stowed position.

(c) Put the bolt [22], bushing [24], washer [25], and collar [26] through the restraint arm [12] to the support bracket.

(d) Close the hatch assembly [1].

(e) Turn the handle [3] that is in the center of the hatch assembly [1] to engage the rods [9].

SUBTASK 52-53-01-420-003

(5) Install the fillers [14] at the hinge assemblies [2] as follows:

(a) Pull the seal [4] back at the hinge assemblies [2] to get access to the space behind the hinges.

(b) Clean the mating surfaces between the fillers [14] and intercostal [10].

(c) Apply the adhesive, A00028, to the fillers [14] to bond them together.

(d) Apply the adhesive, A00016, to the intercostal [10] for the fillers [14] installation.

(e) Push the fillers [14] on the adhesive, A00016, and make sure they attach tightly.

(f) Push the seal [4] back over the fillers [14] at the hinge assemblies [2].

F. Installation Test

SUBTASK 52-53-01-710-001

(1) Do a test on the hatch assembly [1] as follows:

(a) Open and close the hatch assembly [1].

(b) Make sure the hatch assembly [1] mechanisms operate smoothly and correctly.

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G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-53-01-410-001

(1) Install the floor covering over the hatch assembly [1].

——— END OF TASK ———

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VERTICAL STABILIZER ACCESS DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the vertical stabilizer access door.

(2) An installation of the vertical stabilizer access door.

TASK 52-53-02-000-801

2. Vertical Stabilizer Access Door With Cables Removal

(Figure 401)

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1976	Barrier - Service Access Door, Section 48 Part #: J51001-1 Supplier: 81205
SPL-2011	Ladder Equipment - Vertical Fin and Empennage Access Part #: J53001-1 Supplier: 81205

C. Location Zones

Zone	Area
311	Area Aft of Bulkhead, Left

D. Access Panels

Number	Name/Location
311AZ	Vertical Stabilizer Access Door
311BL	Service Access Door

E. Prepare for the Removal

SUBTASK 52-53-02-860-001

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-53-02-860-002

(2) Make sure the area is safe as follows:

WARNING DEACTIVATE THE HORIZONTAL STABILIZER ACTUATOR BEFORE YOU DO WORK IN THE COMPARTMENT AFT OF THE BULKHEAD. IF THE ACTUATOR MOVES AND YOU ARE IN THE AREA, INJURIES OR DAMAGE CAN OCCUR.

(a) In the flight compartment, on the control stand, put the C and R STAB cutout switches in the CUTOUT position.

(b) Open this access door:

Number	Name/Location
311BL	Service Access Door

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(c) Install the ladder equipment, SPL-2011, to get up to the vertical stablizer access door [4].

1) This is the door:

Number	Name/Location
311AZ	Vertical Stabilizer Access Door

(d) Install the service access door barrier, SPL-1976, across the opening.

1) This is the door:

Number	Name/Location
311BL	Service Access Door

F. Removal

SUBTASK 52-53-02-020-002

(1) Remove the bolts [14], washers [15], and collars [16] to disconnect the cables [13] from the structure [5].

SUBTASK 52-53-02-020-003

(2) Remove the vertical stablizer access door [4] as follows:

(a) Hold the vertical stablizer access door [4] closed.

(b) Remove the bolts [10], washers [11], and nuts [12] that attach the latch [2] to the angle [3].

(c) Disengage the latch [1].

(d) Remove the vertical stablizer access door [4] from the structure [5].

SUBTASK 52-53-02-020-004

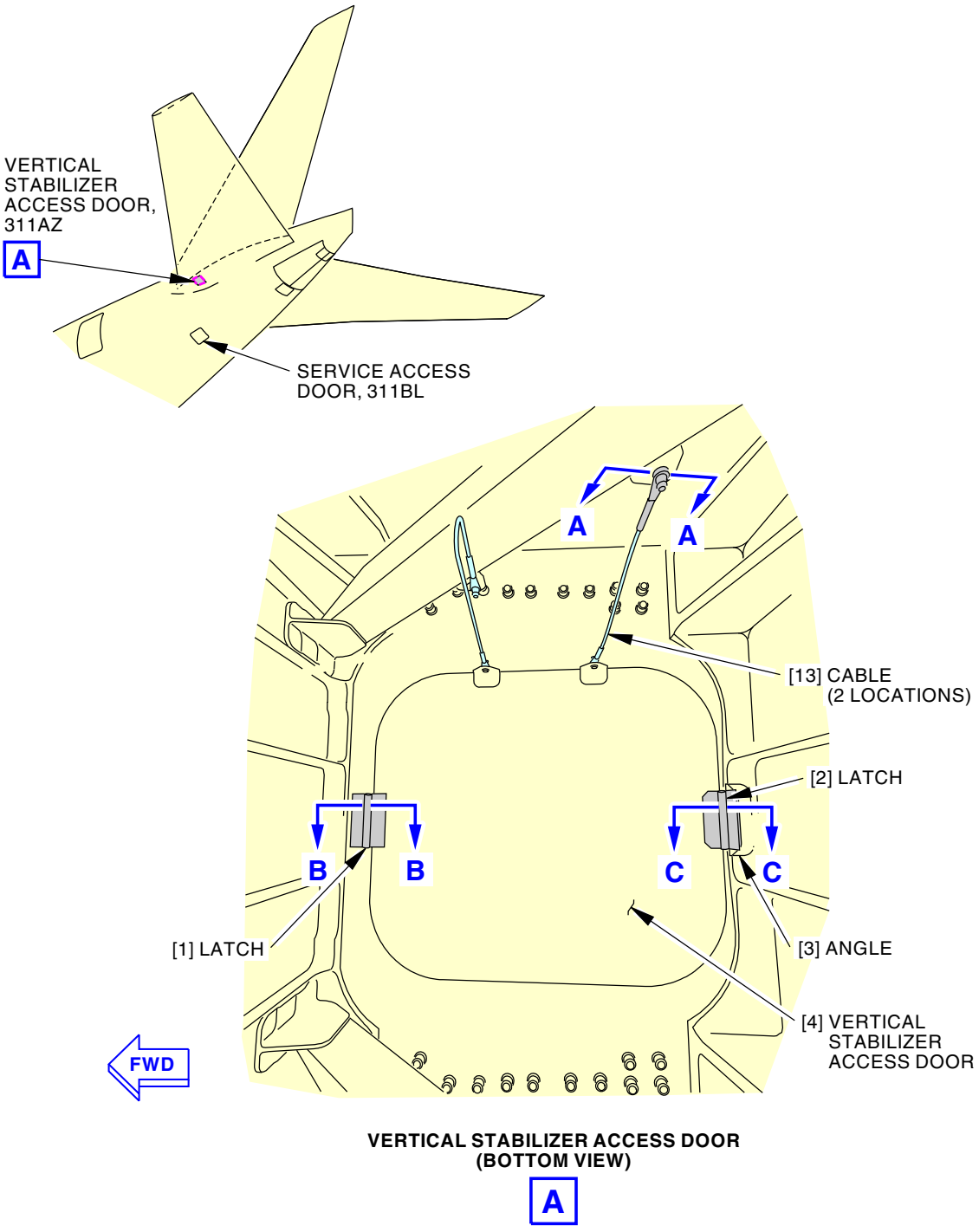
(3) If necessary, remove the latch [1] from the structure [5] as follows:

(a) Hold the latch [1] and remove the bolts [7], washers [8], and nuts [9] to remove the latch from the structure [5].

(b) Remove the latch [1] and filler [6].

——— END OF TASK ———

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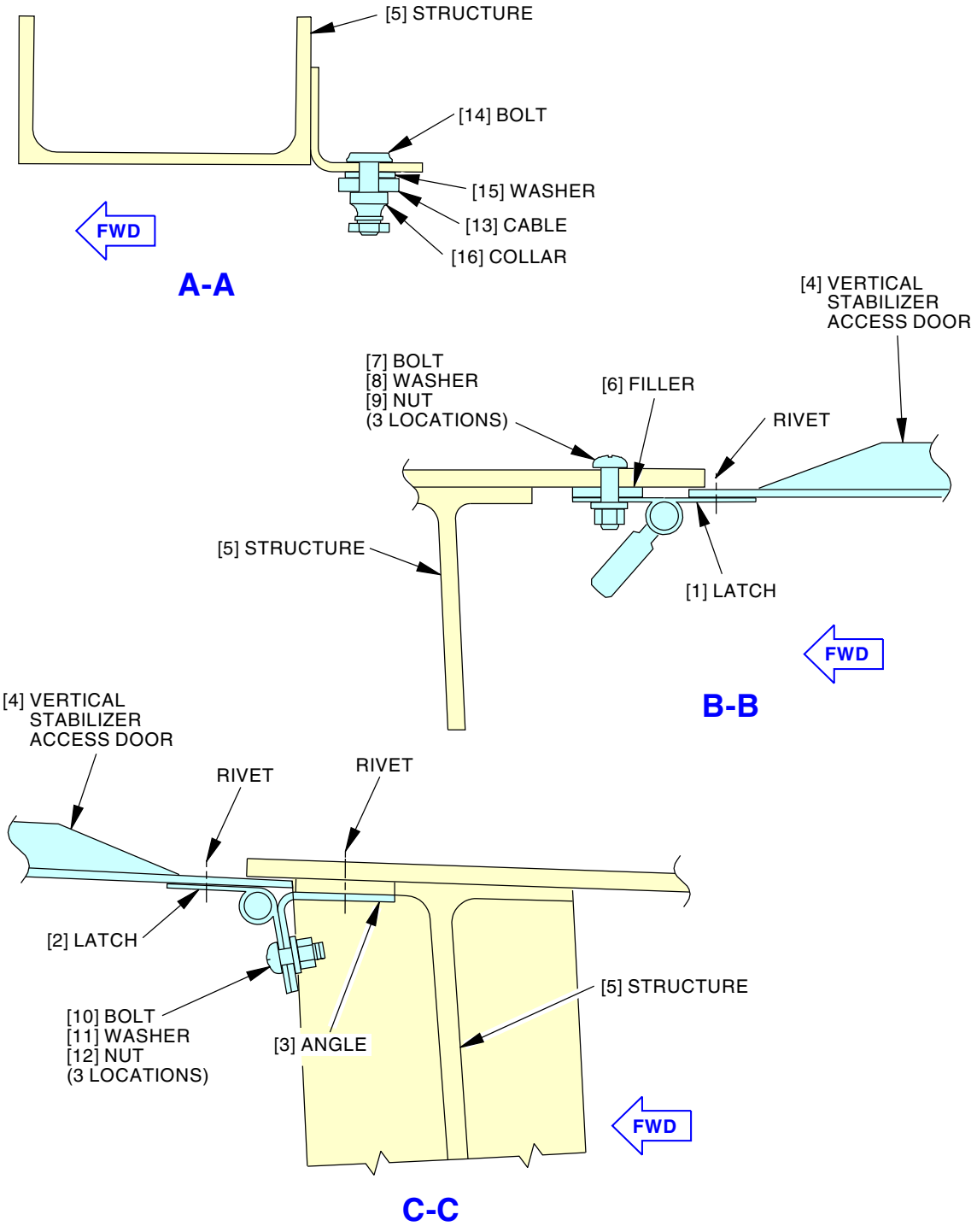
VERTICAL STABILIZER ACCESS DOOR (BOTTOM VIEW)

A

F10364 S0006426165_V2

Vertical Stabilizer Access Door Installation
Figure 401/52-53-02-990-804 (Sheet 1 of 2)

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F10386 S0006426166_V2

Vertical Stabilizer Access Door Installation
Figure 401/52-53-02-990-804 (Sheet 2 of 2)

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TASK 52-53-02-400-801

3. Vertical Stabilizer Access Door With Cables Installation

(Figure 401)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1976	Barrier - Service Access Door, Section 48 Part #: J51001-1 Supplier: 81205
SPL-2011	Ladder Equipment - Vertical Fin and Empennage Access Part #: J53001-1 Supplier: 81205

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95

C. Location Zones

Zone	Area
311	Area Aft of Bulkhead, Left

D. Access Panels

Number	Name/Location
311BL	Service Access Door

E. Installation

SUBTASK 52-53-02-420-002

(1) If necessary, install the latch [1] on the structure [5] as follows:

(a) Apply the sealant, A00247, to the sides of the filler [6] to make a fay surface seal.

(b) Install the filler [6], bolts [7], washers [8], and nuts [9] to attach the latch [1] to the structure [5].

SUBTASK 52-53-02-420-001

(2) Install the vertical stablizer access door [4] as follows:

(a) Hold the vertical stablizer access door [4] in its correct position in the structure [5].

(b) Install the bolts [10], washers [11], and nuts [12] to attach the latches [2] to the angle [3].

(c) Engage the latch [1].

SUBTASK 52-53-02-420-003

(3) Install the bolts [14], washers [15], and collars [16] to connect the cables [13] to the structure [5].

F. Installation Test

SUBTASK 52-53-02-710-001

(1) Do a test on the vertical stablizer access door [4] installation as follows:

(a) Open and close the vertical stablizer access door [4].

(b) Make sure it operates correctly.

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G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-53-02-860-003

(1) Close access to the area as follows:

(a) Remove the service access door barrier, SPL-1976, from the door opening.

NOTE: The service access door barrier, SPL-1976, can be removed from the access door 311BL.

(b) Remove the ladder equipment, SPL-2011.

NOTE: The ladder equipment, SPL-2011, can be removed from the access door 311AZ.

(c) Close this access door:

Number	Name/Location
311BL	Service Access Door

(d) In the flight compartment, on the control stand, put the C and R STAB cutout switches in the NORM position.

——— END OF TASK ———

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DOOR WARNING SYSTEM - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

(1) A test of the door warning system.

(2) A test of the door and landing gear proximity sensors using breakout box.

TASK 52-71-00-730-801

2. Door Warning System Test

(Figure 501)

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
31-61-00-800-814	Showing Alert Messages (P/B 201)

B. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well
117	Main Equipment Center, Left
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door

C. Access Panels

Number	Name/Location
112AL	Forward Access Door
117AL	Main Equipment Center Access Door

D. Prepare for the Test

SUBTASK 52-71-00-860-001

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-71-00-860-002

WARNING MAKE SURE ALL OF THE PASSENGER ENTRY DOORS ARE DISARMED BEFORE YOU START THE TEST. IF THE DOORS ARE NOT DISARMED, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

(2) Make sure the mode select handle for each passenger entry door is in the MANUAL/DISARM position.

E. Test

SUBTASK 52-71-00-860-003

(1) Make sure all the passenger entry doors, the cargo doors, and the access doors are closed, latched and locked:

Number	Name/Location
112AL	Forward Access Door
117AL	Main Equipment Center Access Door

(2) Make sure the over-wing emergency exit door (PED 3), and the off-wing escape slide

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compartment door are fully closed, latched and locked.

SUBTASK 52-71-00-210-001

(3) Make sure that no EICAS messages show for the doors. To show the messages, do this task: Showing Alert Messages, TASK 31-61-00-800-814.

SUBTASK 52-71-00-730-001

(4) Do a test on each door in the system as follows:

NOTE: When you do the test, make sure all of the other doors are fully closed, latched and locked.

(Table 501)

(a) Open the door.

(b) Make sure the applicable EICAS alert message shows.

(c) Close the door.

(d) Make sure the applicable EICAS alert message does not show.

(e) Do these steps again for each door.

Table 501/52-71-00-993-804 Door Warning System EICAS Messages

DOOR	EICAS STATUS MESSAGE	EICAS ALERT MESSAGE
Forward Access Door		DOOR FWD ACCESS
Main Equipment Center Access Door		DOOR E/E ACCESS
Forward Cargo Door	DOOR FWD CARGO IND	DOOR FWD CARGO
Aft Cargo Door	DOOR AFT CARGO IND	DOOR AFT CARGO
Bulk Cargo Door		DOOR BULK CARGO
Left Off-Wing Escape Slide Door	DOOR WING SLIDE L	DOOR WING SLIDE L
Right Off-Wing Escape Slide Door	DOOR WING SLIDE R	DOOR WING SLIDE R
Left No. 1 Passenger Entry Door	DOOR ENTRY IND 1L	DOOR ENTRY 1L
Right No. 1 Passenger Entry Door	DOOR ENTRY IND 1R	DOOR ENTRY 1R
Left No. 2 Passenger Entry Door	DOOR ENTRY IND 2L	DOOR ENTRY 2L
Right No. 2 Passenger Entry Door	DOOR ENTRY IND 2R	DOOR ENTRY 2R
Left No. 3 Overwing Exit Door	DOOR ENTRY IND 3L	DOOR ENTRY 3L
Right No. 3 Overwing Exit Door	DOOR ENTRY IND 3R	DOOR ENTRY 3R
Left No. 4 Passenger Entry Door	DOOR ENTRY IND 4L	DOOR ENTRY 4L
Right No. 4 Passenger Entry Door	DOOR ENTRY IND 4R	DOOR ENTRY 4R
Left No. 5 Passenger Entry Door	DOOR ENTRY IND 5L	DOOR ENTRY 5L
Right No. 5 Passenger Entry Door	DOOR ENTRY IND 5R	DOOR ENTRY 5R

SUBTASK 52-71-00-730-002

(5) Do a test on each group of doors (Table 502) as follows:

(a) Open two or more of the doors in each group.

(b) Make sure the correct EICAS alert message shows.

(c) Close the doors.

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(d) Make sure the applicable EICAS alert message does not show.

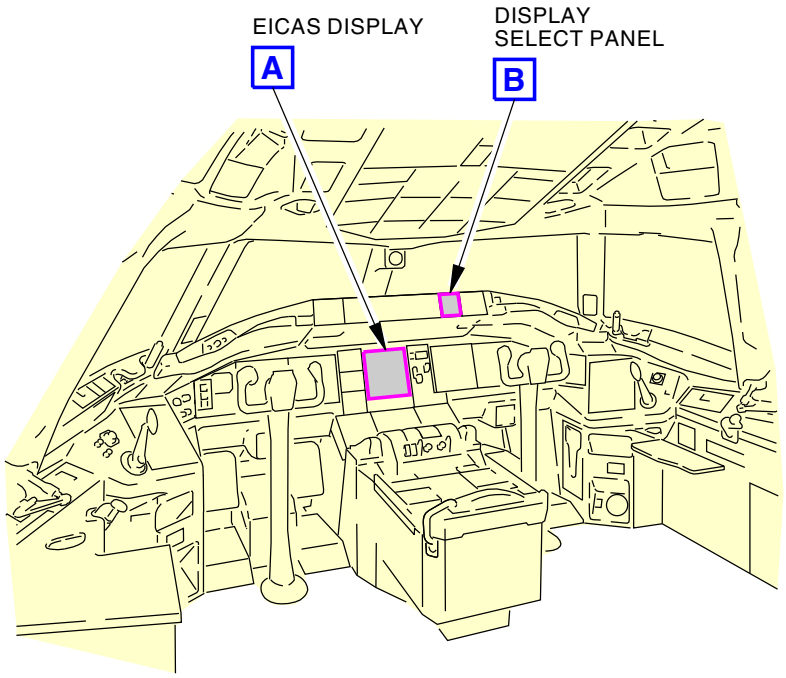
(e) Do these steps again for each group of doors.

Table 502/52-71-00-993-803 Door Warning System EICAS Messages

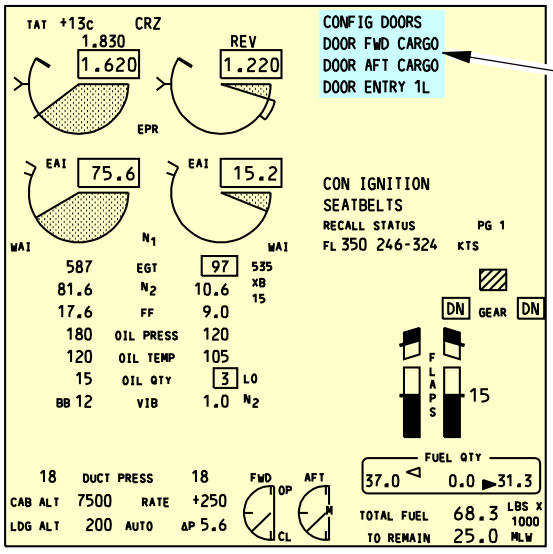
GROUP OF DOORS	EICAS ALERT MESSAGE
Forward Access Door Main Equipment Center Access Door	DOORS
Forward Cargo Door Aft Cargo Door Bulk Cargo Door	DOORS
Left No. 1 Passenger Entry Door Right No. 1 Passenger Entry Door	DOORS
Left No. 2 Passenger Entry Door Right No. 2 Passenger Entry Door	
Left No. 3 Overwing Exit Door Right No. 3 Overwing Exit Door	
Left No. 4 Passenger Entry Door Right No. 4 Passenger Entry Door	
Left No. 5 Passenger Entry Door Right No. 5 Passenger Entry Door	

——— END OF TASK ———

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FLIGHT COMPARTMENT



EICAS DISPLAY

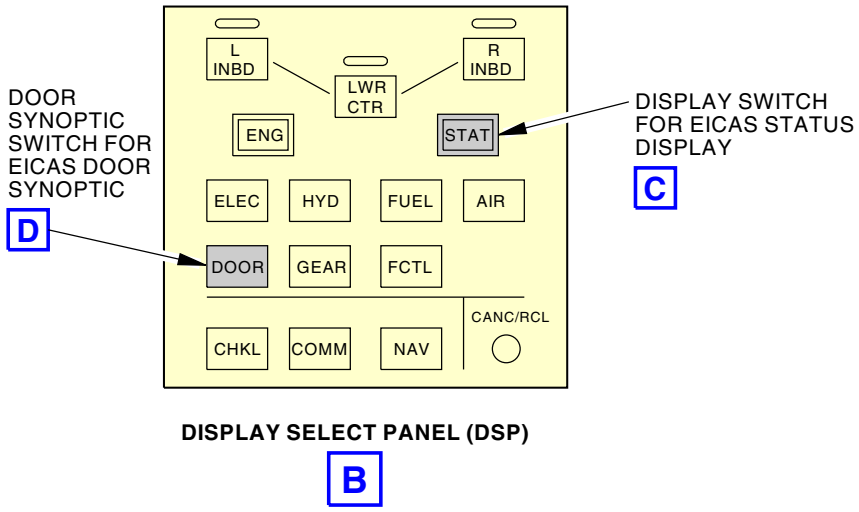
A

1 WARNING MESSAGES ARE RED
CAUTION MESSAGES ARE AMBER

E20298 S0006426205_V2

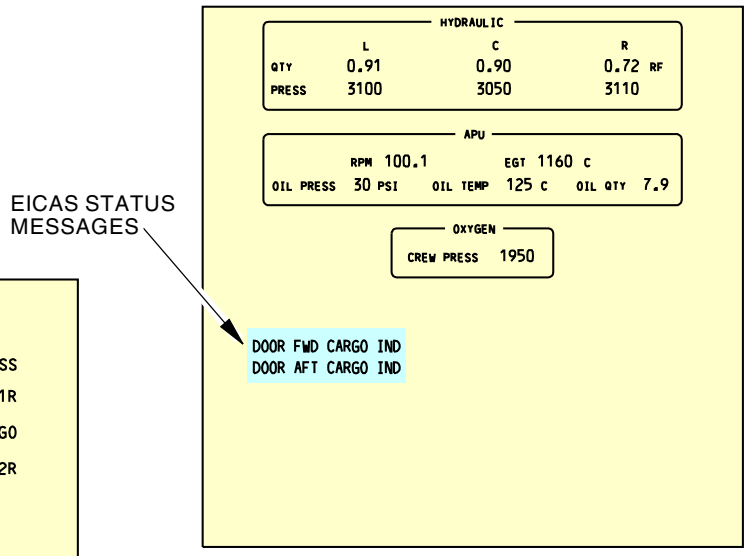
Door Warning System
Figure 501/52-71-00-990-801 (Sheet 1 of 2)

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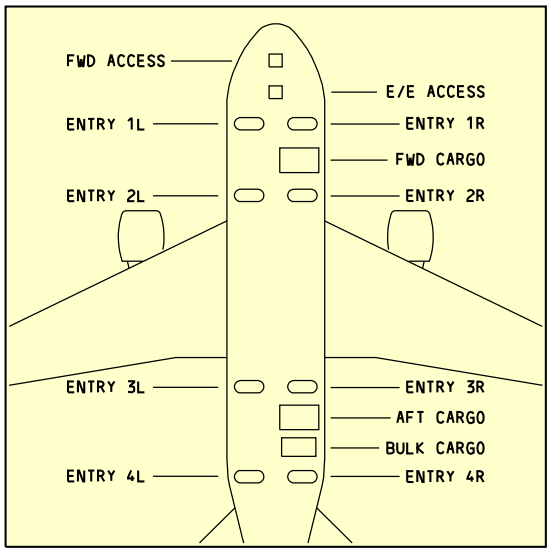
DISPLAY SELECT PANEL (DSP)

B



EICAS STATUS DISPLAY

C



EICAS DOOR SYNOPTIC

D

E20381 S0006426206_V2

Door Warning System
Figure 501/52-71-00-990-801 (Sheet 2 of 2)

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TASK 52-71-00-720-802

3. Door and Landing Gear Proximity Sensor Test Using Breakout Box

A. General

(1) This procedure gives a method for troubleshoot testing of the proximity sensors on the doors and the landing gear. The proximity sensor breakout box, COM-14585 is used to do this test.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
32-08-00-730-801	Proximity Sensor Electronics Unit - System Test (P/B 501)
32-08-01-000-801	Proximity Sensor Electronics Unit Removal (P/B 401)
32-08-01-400-801	Proximity Sensor Electronics Unit Installation (P/B 401)
45-10-00-740-817	How to Find Maintenance Messages from the Present Leg that are not Correlated (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1741	Meter - LCR (Inductance, Capacitance, Resistance) Part #: 875B Supplier: 08098 Part #: 878B Supplier: 08098 Part #: 879B Supplier: 08098 Opt Part #: 878A Supplier: 08098 Opt Part #: 879 Supplier: 08098
COM-14585	Breakout Box - Proximity Sensor Part #: 380-777-02 Supplier: 81982 Opt Part #: 380-777-01 Supplier: 81982
STD-6481	Voltmeter - Digital

D. Prepare for the Test

SUBTASK 52-71-00-940-003

(1) Make sure the airplane is not on jacks during this test.

SUBTASK 52-71-00-860-005

(2) Do this task: (Supply Electrical Power, TASK 24-22-00-860-805).

SUBTASK 52-71-00-740-002

(3) If applicable, check for present leg faults for the door or landing gear that is being examined:

(a) Do this task: (How to Find Maintenance Messages from the Present Leg that are not Correlated, TASK 45-10-00-740-817).

SUBTASK 52-71-00-020-003

(4) Remove the applicable PSEU for the sensor being tested (Proximity Sensor Electronics Unit Removal, TASK 32-08-01-000-801).

NOTE: Keep the PSEU for later re-installation.

NOTE: If both PSEU 1 and PSEU 2 are removed at the same time, error messages may appear when they are reinstalled.

(a) Inspect ARINC connector pins for physical damage or corrosion and repair as necessary.

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SUBTASK 52-71-00-480-003

(5) Install the proximity sensor breakout box, COM-14585 in place of the removed PSEU.

NOTE: Before installing the breakout box, remove the blanking caps from the back side connectors and install the blanking caps on the removed PSEU back side ARINC 629 bus connectors.

NOTE: No calibration or testing is required for the proximity sensor breakout box. No components are used in the design of the boxes that require calibration or measurement. If a fault is suspected in the breakout box; test each pin of the ARINC connector for continuity. Set the sensor selector switch to each sensor in turn and measure for continuity between the sensor inputs of the ARINC connector and the front panel connectors

(a) Set the SW1 switch to 1, SW2 switch to 1, and the ABCD switch to A.

SUBTASK 52-71-00-480-004

(6) Connect the LCR meter (Inductance, Capacitance, Resistance), COM-1741 or equivalent to the two test jacks labeled “OUTPUT” on the front of the proximity sensor breakout box, COM-14585.

E. Door and Landing Gear Proximity Sensor Test

SUBTASK 52-71-00-720-002

(1) Do a test of the applicable proximity sensor as follows:

(a) Select the sensor to be tested on the front plate of the proximity sensor breakout box, COM-14585.

NOTE: Some sensor installations are tested by both PSEU 1 and PSEU 2.

1) Use the applicable sensor table that follows to set the positions of the SW1, SW2, and ABCD switches:

PSEU 1 Sensors With SW1

SW1 Position	Tested Sensor
With ABCD switch in Position A	
01	LE Left Sleeve Sync Shaft Lock (Left Engine)
02	LE Left Sleeve Center Actuator Lock (Left Engine)
03	LE Left Sleeve Lower Actuator Lock (Left Engine)
04	LE Directional Control Valve (Left Engine)
05	LE Right Sleeve Sync Shaft Lock (Left Engine)
06	LE Right Sleeve Center Actuator Lock (Left Engine)
07	LE Right Sleeve Lower Actuator Lock (Left Engine)
17	Right Side Comp Door Closed
With ABCD switch in position B	
01	R MLG Side Brace DN 1
02	R MLG Drag Brace DN 1
03	R MLG Up and Locked 1
04	R MLG Truck Tilt 1

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PSEU 1 Sensors With SW1 (Continued)

SW1 Position	Tested Sensor
05	R MLG Door Closed 1
08	R Semi Lever Gear Lock
09	L MLG Side Brace DN 1
10	L MLG Drag Brace DN 1
11	L MLG Up and Locked 1
12	L MLG Truck Tilt 1
13	L MLG Door Closed 1
17	NLG Not Comp 1
18	NLG DN 1
19	NLG UP 1
20	NLG Locked 1
21	NLG Door Closed 1
23	Tail Skid Up
24	Tail Skid Down

PSEU 1 Sensors With SW2

SW2 Position	Tested Sensor
With ABCD switch in Position C	
01	Fwd Large Cargo Door Latch Range
02	Fwd Large Cargo Door Unlatched
03	Fwd Large Cargo Door Up
04	Fwd Large Cargo Door Handle Unlocked
05	Fwd Large Cargo Door Latched
17	Aft Small Cargo Door Down
18	Aft Small Cargo Door Lifted
19	Aft Small Cargo Door Up
21	Aft Small Cargo Door Latched

PSEU 2 Sensors with SW1

SW1 Position	Tested Sensor
With ABCD switch in Position A	
01	LE Left Sleeve Sync Shaft Lock (Right Engine)
02	LE Left Sleeve Center Actuator Lock (Right Engine)
03	LE Left Sleeve Lower Actuator Lock (Right Engine)
04	LE Directional Control Valve (Right Engine)
05	LE Right Sleeve Sync Shaft Lock (Right Engine)

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PSEU 2 Sensors with SW1 (Continued)

SW1 Position	Tested Sensor
06	LE Right Sleeve Center Actuator Lock (Right Engine)
07	LE Right Sleeve Lower Actuator Lock (Right Engine)
With ABCD switch in position B	
01	R MLG Side Brace DN 2
02	R MLG Drag Brace DN 2
03	R MLG Up and Locked 2
04	R MLG Truck Tilt 2
05	R MLG Door Closed 2
09	L MLG Side Brace DN 2
10	L MLG Drag Brace DN 2
11	L MLG Up and Locked 2
12	L MLG Truck Tilt 2
13	L MLG Door Closed 2
17	NLG Not Comp 2
18	NLG DN 2
19	NLG UP 2
20	NLG Locked 2
21	NLG Door Closed 2

PSEU 2 Sensors with SW2

SW2 Position	Tested Sensor
With ABCD switch in Position C	
01	Door 4L Closed and Latched
02	Door 4L Locked
03	Door 4L FLT LK Engaged
04	Door 4L FLT LK Disengaged
05	Door 4R Closed and Latched
06	Door 4R Locked
07	Door 4R FLT LK Engaged
08	Door 4R FLT LK Disengaged
09	FCD Door Closed
10	FCD Door Latched
11	FCD Door Locked
12	Aft Small Cargo Door Closed
13	Aft Small Cargo Door Latched and Locked

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PSEU 2 Sensors with SW2 (Continued)

SW2 Position	Tested Sensor
15	FAD Door Closed, Latched, and Locked
16	LEAD Door Closed, Latched, and Locked
17	Door 5L Closed and Latched
18	Door 5L Locked
19	Door 5L FLT LK Engaged
20	Door 5L FLT LK Disengaged
21	Door 5R Closed and Latched
22	Door 5R Locked
23	Door 5R FLT LK Engaged
24	Door 5R FLT LK Disengaged
With ABCD switch in Position D	
01	Door 1L Closed and Latched
02	Door 1L Locked
03	Door 1L FLT LK Engaged
04	Door 1L FLT LK Disengage
05	Door 1R Closed and Latched
06	Door 1R Locked
07	Door 1R FLT LK Engaged
08	Door 1R FLT LK Disengaged
09	Door 2L Closed and Latched
10	Door 2L Locked
11	Door 2L FLT LK Engaged
12	Door 2L FLT LK Disengaged
13	Door 2R Closed and Latched
14	Door 2R Locked
15	Door 2R FLT LK Engaged
16	Door 2R FLT LK Disengaged
17	Door 3L Closed and Latched
18	Door 3L Locked
19	Door 3L FLT LK Engaged
20	Door 3L FLT LK Disengaged
21	Door 3R Closed and Latched
22	Door 3R Locked
23	Door 3R FLT LK Engaged

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PSEU 2 Sensors with SW2 (Continued)

SW2 Position	Tested Sensor
24	Door 3R FLT LK Disengaged

(b) Set the LCR meter (Inductance, Capacitance, Resistance), COM-1741 or equivalent to read series inductance at 1 kHz.

NOTE: In order to switch between inductance and resistance modes, push the L/C/R button until the desired mode is displayed. In order to switch to series mode on LCR Meter 878A/878B push and hold the L/C/R button until “SEr” is shown in the middle-right side of the LCR meter display; on LCR Meter 848/878 push the DATA HOLD button one time, then push and hold the D/Q button until “SEr” is shown in the right hand corner of the LCR meter display.

(c) Measure the selected sensor and associated wire's series inductance at 1 kHz.

(d) Compare the measured inductance values to the nominal values from the following table to determine if the sensors are correctly rigged.

Sensor Nominal Values

Value	Sensor Condition
19.10 - 19.50 mH (nominal)	Valid Target FAR
20.30 mH or Greater	Target NEAR
22.10 - 25.50 mH (nominal)	Preferred Interval for Target NEAR state
Greater than 29 mH	Target may be rigged TOO NEAR to the sensor

NOTE: Sensors that are rigged TOO NEAR to the target may come in contact with the target and this could result in damage to either component.

(e) Set the LCR meter (Inductance, Capacitance, Resistance), COM-1741 or equivalent to read series resistance at 1 kHz.

NOTE: A digital voltmeter, STD-6481 may be used to measure the resistance.

(f) Measure the selected sensor and associated wire's series resistance at 1 kHz.

NOTE: If the measured resistance value is more than 200 ohms, make sure that the proximity sensor breakout box, COM-14585 is properly installed.

(g) Compare the measured sensor and wiring resistance values to the following values:

1) If the measured resistance value is less than 29.00 ohms, this indicates a short circuit.

a) If there is a short circuit, inspect the associated wiring and connectors for contamination or damage.

2) If the measured resistance value is greater than 80.00 ohms, this indicates a loose contact or wire damage.

a) If there is loose contact or wire damage, inspect the associated wiring and connectors for contamination or damage.

NOTE: Before another sensor is tested, push the DATA HOLD button once, then push the L/C/R button until the necessary measurement mode is displayed.

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F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-00-020-004

(1) Remove the proximity sensor breakout box, COM-14585 from the shelf.

SUBTASK 52-71-00-420-002

(2) Install the PSEU that was removed for the testing: (Proximity Sensor Electronics Unit Installation, TASK 32-08-01-400-801).

SUBTASK 52-71-00-730-006

(3) Do this task: (Proximity Sensor Electronics Unit - System Test, TASK 32-08-00-730-801).

——— END OF TASK ———

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PASSENGER ENTRY DOOR WARNING SYSTEM - MAINTENANCE PRACTICES

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal, installation, and adjustment of the vent door locked indication proximity sensors.

(2) A removal, installation, and adjustment of the passenger entry door closed and latched indication proximity sensors.

(3) A removal, installation, and adjustment of the passenger entry door flight lock indication proximity sensors.

(4) A functional test of the indication proximity sensors.

(5) An operational test of the vent door locked and the door closed and latched proximity sensors.

TASK 52-71-01-900-801

2. Vent Door Locked Proximity Sensor Removal, Installation, and Adjustment

(Figure 201)

A. General

(1) The vent door locked proximity sensor is found near the vent door and the target is found on the edge of the vent door.

(2) The sensor detects that the vent door is locked.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)
52-12-25-400-803	Upper Liner Installation (P/B 201)

C. Consumable Materials

Reference	Description	Specification
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

D. Prepare for the Removal

SUBTASK 52-71-01-860-001

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) Turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-71-01-010-019

(2) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

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E. Removal

SUBTASK 52-71-01-020-001

(1) Remove the vent door locked sensor [4] as follows (View A, Figure 201):

NOTE: (Table 201)

(a) Disconnect the wiring [3] from the sensor [4].

(b) Remove the bolt [5] and washer [6] that attach the sensor [4] to its bracket [1].

(c) Remove the sensor [4].

Table 201/52-71-01-993-804 Vent Door Locked Proximity Sensors - 777-300

PASSENGER ENTRY DOOR INDICATION PROXIMITY SENSORS		
DOOR	**PROXIMITY SENSOR**	**NAME**
1L&1R	S52110	Vent Door Locked
2L&2R	S52110	Vent Door Locked
3L&3R	S52026	Vent Door Locked
4L&4R	S52110	Vent Door Locked
5L&5R	S52110	Vent Door Locked

F. Installation

SUBTASK 52-71-01-420-001

(1) Install the vent door locked sensor [4] as follows:

(a) Apply the primer, C00259 between the sensor [4] and bracket [1].

(b) Hold the sensor [4] in its correct position and install the bolts [5] and washers [6] to attach the sensor [4] to its bracket [1].

(c) Connect the wiring [3] to the sensor [4].

G. Adjustment

SUBTASK 52-71-01-820-002

(1) Adjust the vent door locked sensor [4] as follows:

(a) Make sure the vent door is in the closed position.

(b) Make sure the clearance between the sensor [4] and the target [2] is as shown on View A-A, Figure 201.

(c) Make sure the sensor [4] aligns with the target [2] as shown on View B-B, Figure 201.

(d) Adjust the clearance or the alignment of the sensor [4] as follows:

1) Adjust the jamnut [7] on the target [2] to get the correct clearance as shown on View B-B, Figure 201.

2) Remove the bolts [5] and washers [6] that attach the sensor [4] to its bracket [1].

3) Move the sensor [4] on its bracket [1] to get the correct alignment.

NOTE: The bracket has slots to change the alignment of the sensor [4].

4) Apply the primer, C00259 between the sensor [4] and the bracket [1].

5) Hold the sensor [4] in its correct position and install the bolts [5] and washers [6] that attach the sensor [4] to its bracket [1].

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H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-01-010-020

(1) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

SUBTASK 52-71-01-860-020

(2) Arm the door as follows:

(a) Turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

I. Installation Test

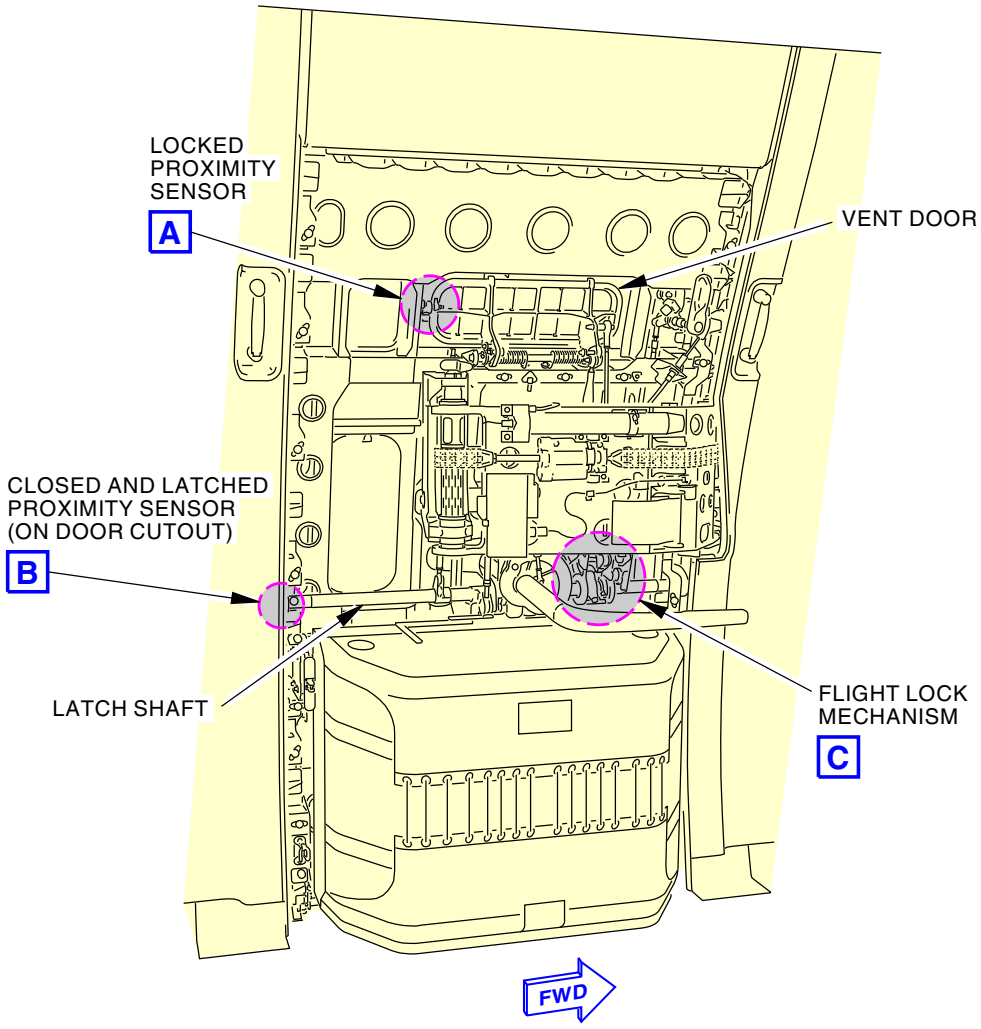
SUBTASK 52-71-01-730-001

(1) Do this task: Passenger Entry Door Indication Functional Test, TASK 52-71-01-730-801.

(a) Do the test for the vent door locked proximity sensor only.

——— END OF TASK ———

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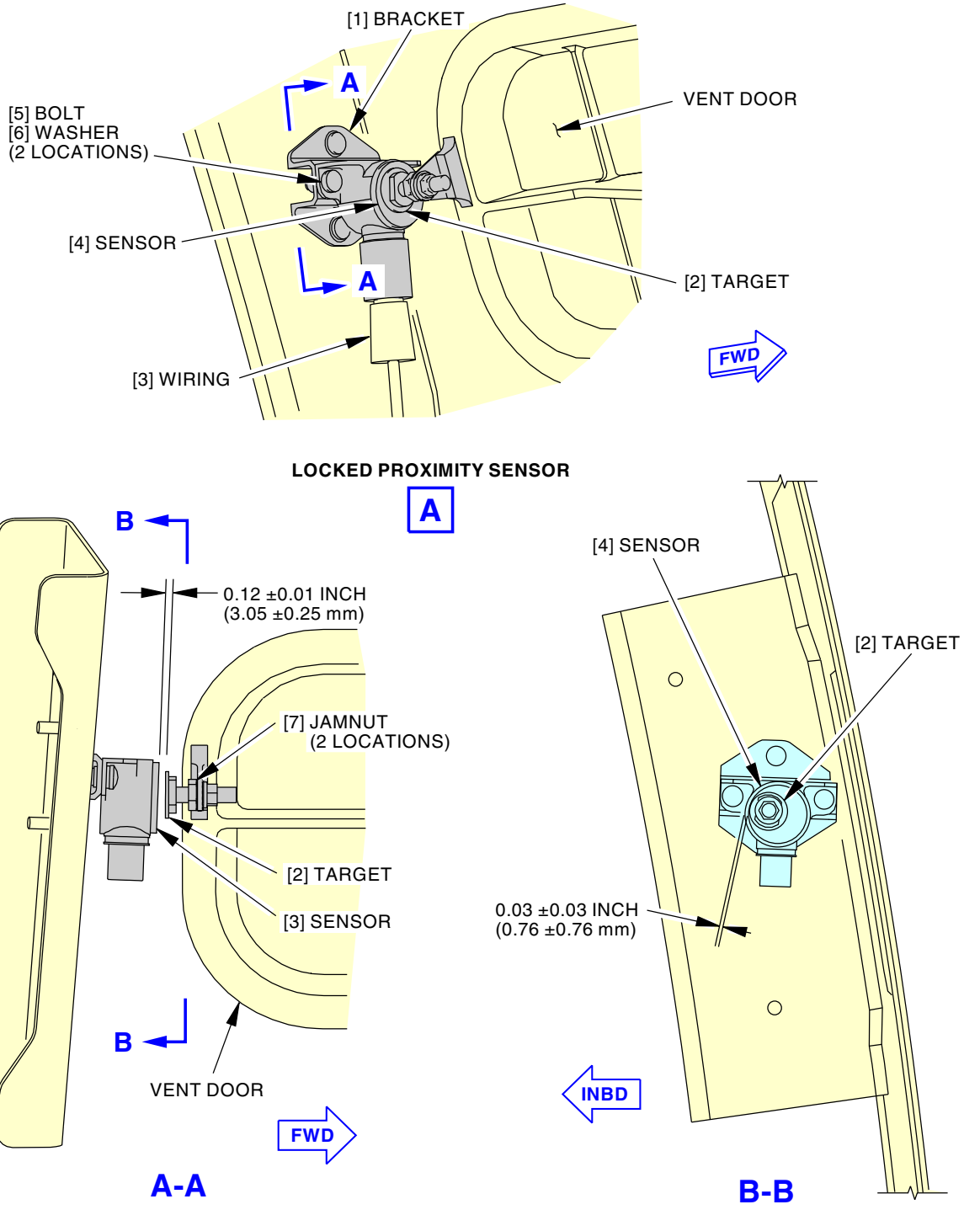


**PASSENGER ENTRY DOOR
(EXAMPLE)**

C70937 S0006426224_V2

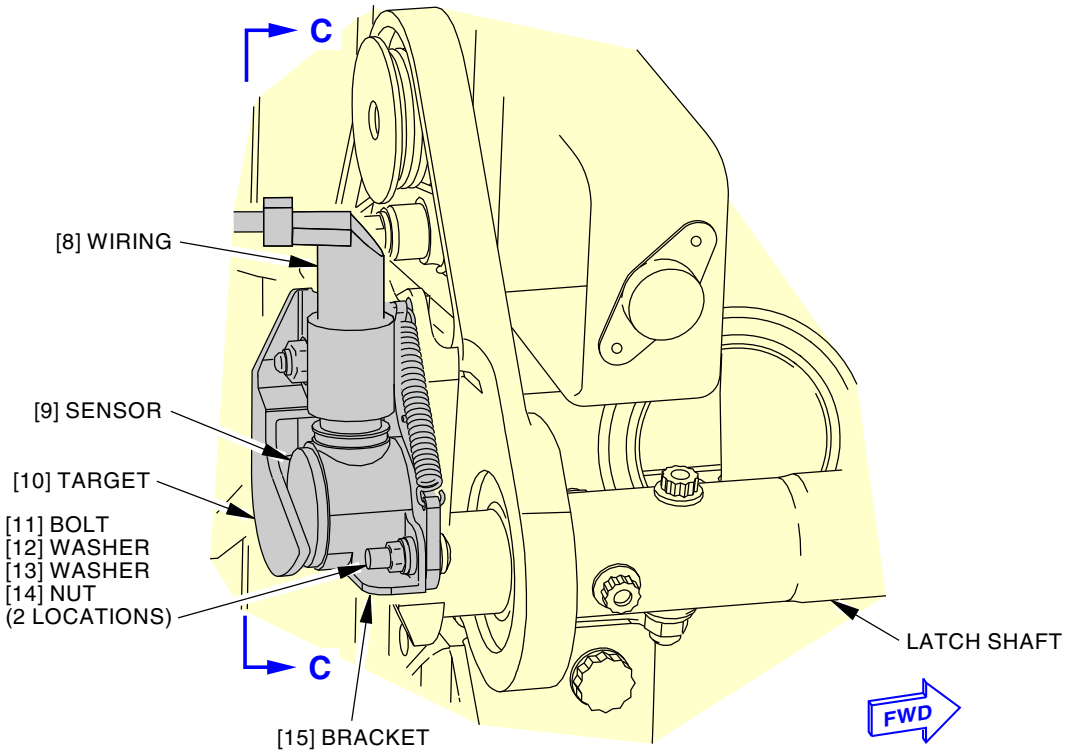
**Passenger Entry Door Warning System
Figure 201/52-71-01-990-802 (Sheet 1 of 6)**

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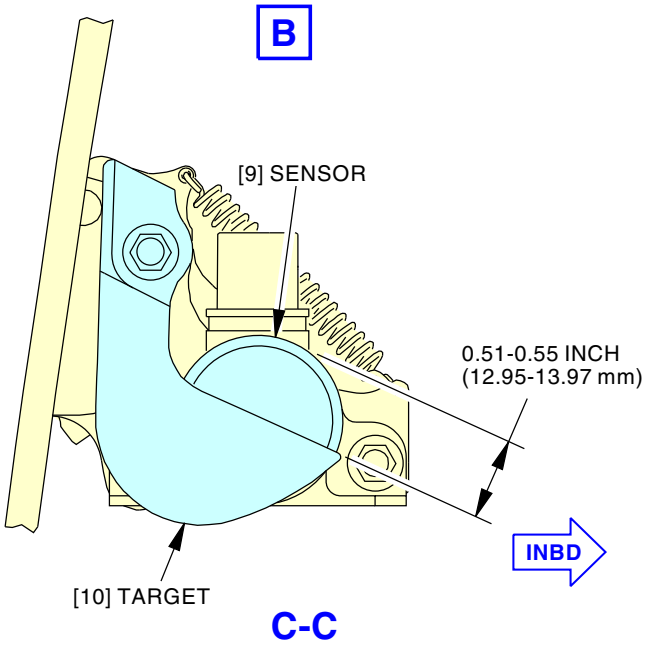


Passenger Entry Door Warning System
Figure 201/52-71-01-990-802 (Sheet 2 of 6)

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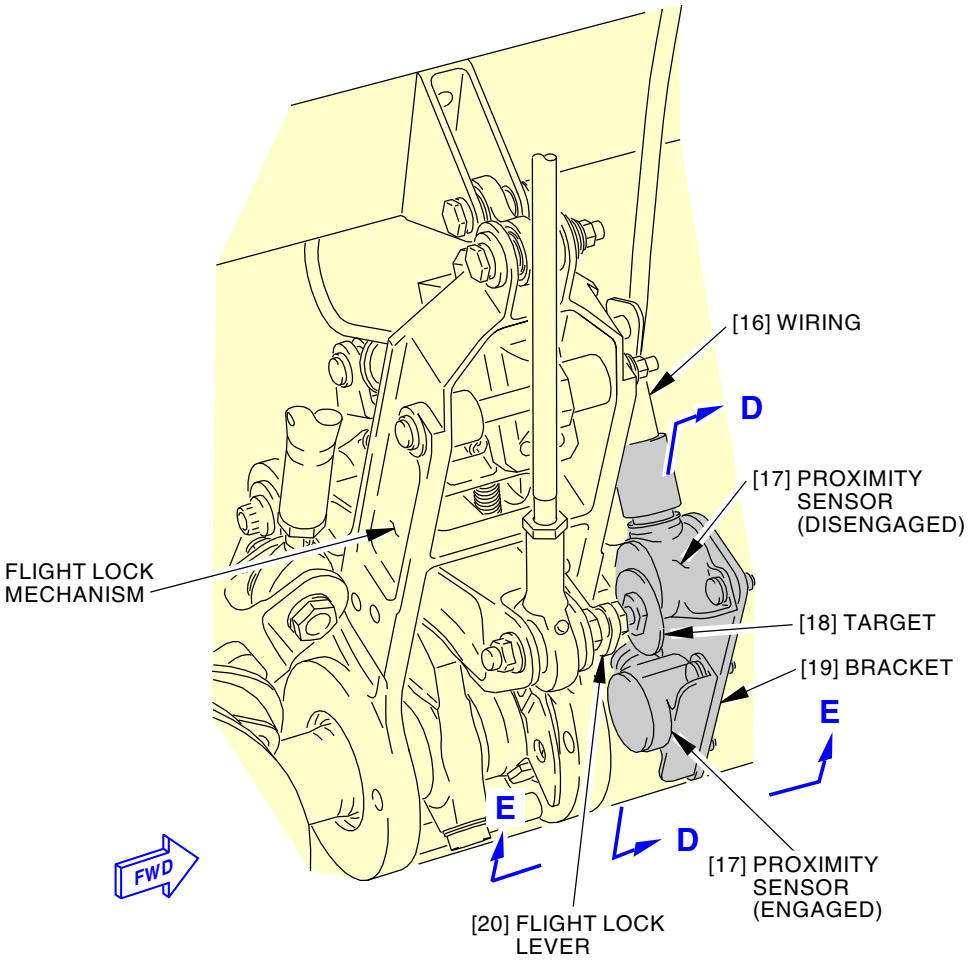
CLOSED AND LATCHED PROXIMITY SENSOR



C70977 S0006426226_V3

Passenger Entry Door Warning System
Figure 201/52-71-01-990-802 (Sheet 3 of 6)

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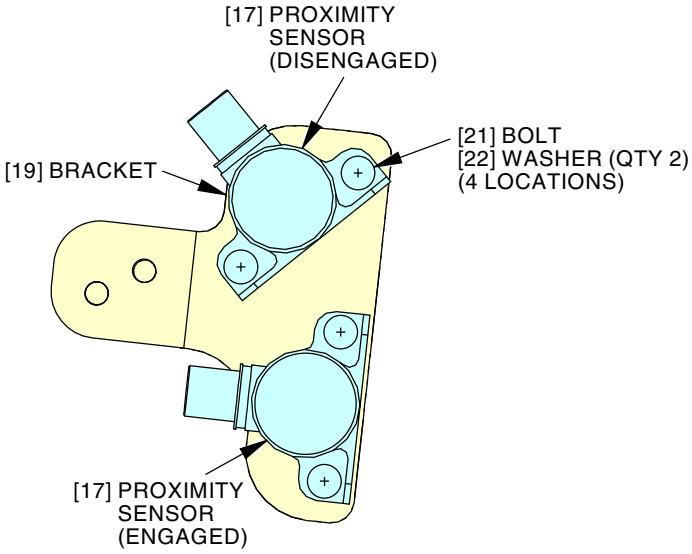
FLIGHT LOCK MECHANISM

C

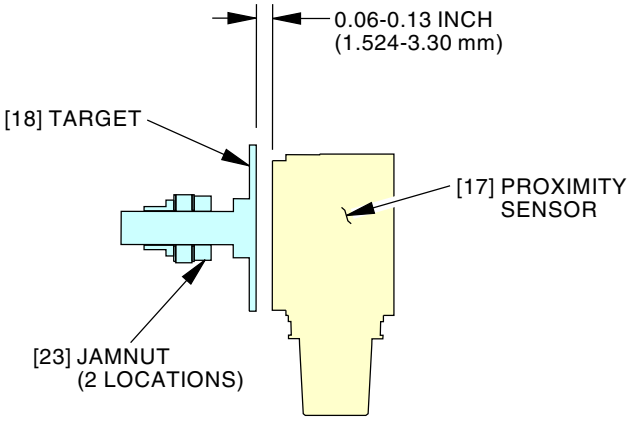
J21856 S0000170687_V3

Passenger Entry Door Warning System
Figure 201/52-71-01-990-802 (Sheet 4 of 6)

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D-D



E-E

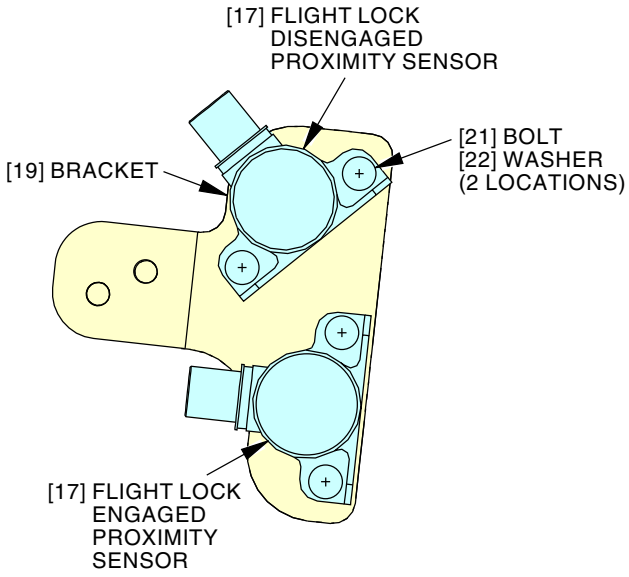
NOTE:

THIS ILLUSTRATION PROVIDES GUIDANCE ON TARGET TO SENSOR GAP RIGGING AND DOES NOT PROVIDE A TARGET CENTERLINE TO SENSOR CENTERLINE MISALIGNMENT REQUIREMENT. THE TARGET CENTERLINE TO SENSOR CENTERLINE MISALIGNMENT IS A PRODUCT OF THE FLIGHT LOCK MECHANISM DESIGN AND CANNOT BE ADJUSTED.

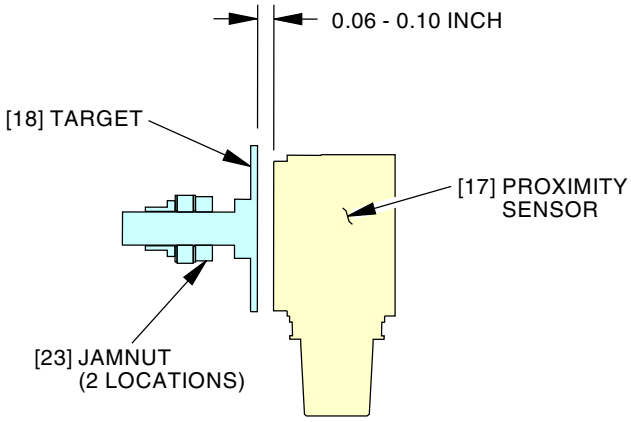
G87298 S0006426228_V4

Passenger Entry Door Warning System
Figure 201/52-71-01-990-802 (Sheet 5 of 6)

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D-D



E-E

NOTE:

THIS ILLUSTRATION PROVIDES GUIDANCE ON TARGET TO SENSOR GAP RIGGING AND DOES NOT PROVIDE A TARGET CENTERLINE TO SENSOR CENTERLINE MISALIGNMENT REQUIREMENT. THE TARGET CENTERLINE TO SENSOR CENTERLINE MISALIGNMENT IS A PRODUCT OF THE FLIGHT LOCK MECHANISM DESIGN AND CANNOT BE ADJUSTED.

2585372 S0000624313_V2

Passenger Entry Door Warning System
Figure 201/52-71-01-990-802 (Sheet 6 of 6)

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TASK 52-71-01-900-802

3. Passenger Entry Door Closed and Latched Proximity Sensor Removal, Installation, and Adjustment

(Figure 201)

A. General

(1) The passenger entry door closed and latched proximity sensor and its target are found on the door cutout on the latch track.

(2) The sensor detects that the passenger entry door is fully closed and latched.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1540	Stand - Work, General Purpose

D. Consumable Materials

Reference	Description	Specification
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

E. Prepare for the Removal

SUBTASK 52-71-01-860-003

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) Turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-71-01-010-002

(2) Get access to the closed and latched sensor [9] as follows on View B, (Figure 201):

(a) Make sure the work stand, COM-1540 is outboard of the door.

(b) Open the door.

F. Removal

SUBTASK 52-71-01-020-002

(1) Remove the closed and latched sensor [9] as follows:

NOTE: (Table 202)

(a) Disconnect the wiring [8] from the sensor [9].

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(b) Remove the bolts [11], washers [12], washers [13], and nuts [14] that attach the sensor [9] to its bracket [15].

(c) Remove the sensor [9].

Table 202/52-71-01-993-806 Door CLosed and Latched Proximity Sensors - 777-300

PASSENGER ENTRY DOOR INDICATION PROXIMITY SENSORS		
DOOR	**PROXIMITY SENSOR**	**NAME**
1L	S52109	Closed and Latched
1R	S52209	Closed and Latched
2L	S52111	Closed and Latched
2R	S52211	Closed and Latched
3L	S52113	Closed and Latched
3R	S52213	Closed and Latched
4L	S52115	Closed and Latched
4R	S52215	Closed and Latched
5L	S52117	Closed and Latched
5R	S52217	Closed and Latched

G. Installation

SUBTASK 52-71-01-420-002

(1) Install the sensor [9] as follows on View B, Figure 201:

(a) Apply the primer, C00259 between the sensor [9] and bracket [15].

(b) Hold the sensor [9] in its correct position and install the bolts [11] , washers [12], washers [13], and nuts [14] to attach the sensor to its bracket [15].

(c) Connect the wiring [8] to the sensor [9].

H. Adjustment

SUBTASK 52-71-01-220-001

(1) Adjust the sensor [9] as follows:

(a) Make sure the sensor [9] aligns with the target [10] as shown on View C-C, Figure 201.

(b) Adjust the alignment of the sensor [9] as follows:

1) Remove the bolts [11], washers [12], washers [13], and nuts [14] that attach the sensor [9] to its bracket [15].

2) Move the sensor [9] on its brackets [15] to get the correct alignment.

NOTE: The bracket has slots to change the alignment of the sensor.

3) Apply the primer, C00259 between the sensor [9] and bracket [15].

4) Hold the sensor [9] in its correct position and install the bolts [11], washers [12], washers [13], and nuts [14] to attach the sensor to its bracket [15].

I. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-01-860-004

(1) Arm the door as follows:

(a) Turn the EPAS battery safety switch to the ARM position.

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(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

J. Installation Test

SUBTASK 52-71-01-730-002

(1) Do this task: Passenger Entry Door Indication Functional Test, TASK 52-71-01-730-801.

(a) Do the test for the door closed and latched proximity sensor only.

——— END OF TASK ———

TASK 52-71-01-000-801

4. —Flight Lock Engaged/Disengaged Proximity Sensor Removal, Installation, and Adjustment

(Figure 201)

A. General

(1) The flight lock engaged and disengaged proximity sensors are found near the flight lock mechanism and the target is on the flight lock lever.

(2) The sensors detect that the flight lock mechanism is engaged or disengaged.

B. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)
52-12-25-400-803	Upper Liner Installation (P/B 201)

C. Consumable Materials

Reference	Description	Specification
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

D. Prepare for the Removal

SUBTASK 52-71-01-860-014

(1) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARMED position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) Turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

(d) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

Row	Col	Number	Name
N	15	C52611	L FLT LOCK DR

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Right Power Management Panel, P210

Row	Col	Number	Name
N	8	C52610	R FLT LOCK DR

SUBTASK 52-71-01-010-006

(2) Get access to the flight lock proximity sensors as follows:

(a) Remove the upper liner to do a test of the sensors after you replace one of them.

(b) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

E. Removal

SUBTASK 52-71-01-020-003

(1) Remove the flight lock proximity sensors as follows on View D-D, Figure 201:

NOTE: (Table 203)

(a) Disconnect the wirings [16] from the flight lock disengaged and engaged proximity sensor [17].

(b) Remove the bolt [21] and washer [22] that attach the proximity sensor [17] to its bracket [19].

(c) Remove the proximity sensor [17].

Table 203/52-71-01-993-811 Flight Lock Proximity Sensors

PASSENGER ENTRY DOOR CONTROL PROXIMITY SENSORS	
SENSOR	**DESCRIPTION**
S52101	FLIGHT LOCK ENGAGED - PED 1, 2, 4, 5
S52105	FLIGHT LOCK DISENGAGED - PED 1, 2, 4, 5
S52028	FLIGHT LOCK ENGAGED - PED 3
S52027	FLIGHT LOCK DISENGAGED - PED 3

F. Installation

SUBTASK 52-71-01-370-001

(1) Install the flight lock proximity sensors as follows on View D-D, Figure 201:

NOTE: (Table 203)

(a) Apply one coat of the primer, C00259 between the proximity sensor [17] and the bracket [19], View C (Figure 201).

(b) Hold the proximity sensor [17] in its correct position, and install the bolts [21] and washers [22] to attach the sensor its bracket [19].

(c) Connect the wiring [16] to the proximity sensor [17].

G. Adjustment

SUBTASK 52-71-01-220-002

(1) Adjust the flight lock proximity sensors as follows:

(a) Make sure the clearance between the proximity sensor [17] and the target [18] is as shown on View E-E, Figure 201.

(b) Adjust the clearance of the proximity sensor [17] as follows:

1) Adjust the jamnut [23] on the target [18] to get the correct clearance.

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H. Installation Test

SUBTASK 52-71-01-720-001

(1) Do a test of the flight lock proximity sensor [17] as follows:

(a) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

Row	Col	Number	Name
N	15	C52611	L FLT LOCK DR

Right Power Management Panel, P210

Row	Col	Number	Name
N	8	C52610	R FLT LOCK DR

(b) Do this task: Passenger Entry Door Indication Functional Test, TASK 52-71-01-730-801.

1) Do the test of the flight lock proximity sensors only.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-01-010-010

(1) Close access to the flight lock proximity sensors as follows:

(a) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

SUBTASK 52-71-01-860-021

(2) Arm the door as follows:

(a) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

(b) Turn the EPAS battery safety switch to the ARM position.

——— END OF TASK ———

TASK 52-71-01-730-801

5. Passenger Entry Door Indication Functional Test

(Figure 201)

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
31-61-00-800-814	Showing Alert Messages (P/B 201)
52-12-25-000-803	Upper Liner Removal (P/B 201)
52-12-25-400-803	Upper Liner Installation (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1540	Stand - Work, General Purpose

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(Continued)

Reference	Description
SPL-1690	Actuators/Deactuators Set - Proximity Sensor Part #: 8-758-01 Supplier: 08748 Part #: A27092-70 Supplier: 81205 Opt Part #: A32102-25 Supplier: 81205 Opt Part #: KHT8-758-01 Supplier: 08748
STD-1232	Protractor - Digital

C. Prepare for the Test

SUBTASK 52-71-01-860-012

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-71-01-860-005

(2) Make sure that all the passenger entry doors, cargo doors, and access doors are fully closed and latched.

SUBTASK 52-71-01-480-002

(3) Make sure the work stand, COM-1540 is outboard of the door.

SUBTASK 52-71-01-860-016

(4) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARMED position.

(b) For the overwing emergency exit door (PED 3), do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

NOTE: It is not necessary to disarm the escape slide compartment door latch actuator.

(c) Turn the EPAS battery safety switch to the DISARM position.

NOTE: If the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not be flush.

SUBTASK 52-71-01-210-002

(5) Make sure that no EICAS messages show for the passenger entry doors (TASK 31-61-00-800-814).

D. Vent Door Locked and Door Closed and Latched Proximity Sensors Test

SUBTASK 52-71-01-860-006

(1) Do a test on the vent door locked proximity sensor as follows:

NOTE: (Table 204)

(a) Turn the interior handle approximately 10 degrees in the open direction and release.

1) Make sure the vent door should be fully open.

(b) Set the the vent door to 2-3 degrees open with your hand.

1) Use the digital protractor, STD-1232 to measure the angular travel of the vent door.

(c) Make sure that an EICAS alert message does not show.

(d) Set the vent door to 8-9 degrees open with your hand.

(e) Make sure the applicable EICAS alert message shows.

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Table 204/52-71-01-993-808 Passenger Entry Door Warning System EICAS Messages

PASSENGER ENTRY DOOR WARNING SYSTEM EICAS MESSAGES			
DOOR	**PROXIMITY SENSORS**	**EICAS STATUS MESSAGE**	**EICAS ALERT MESSAGE**
1L	Vent Door Locked Closed and Latched Flight Lock	DOOR ENTRY IND 1L DOOR ENTRY IND 1L DOOR FLIGHT LOCK 1L	DOOR ENTRY 1L DOOR ENTRY 1L
1R	Vent Door Locked Closed and Latched Flight Lock	DOOR ENTRY IND 1R DOOR ENTRY IND 1R DOOR FLIGHT LOCK 1R	DOOR ENTRY 1R DOOR ENTRY 1R
2L	Vent Door Locked Closed and Latched Flight Lock	DOOR ENTRY IND 2L DOOR ENTRY IND 2L DOOR FLIGHT LOCK 2L	DOOR ENTRY 2L DOOR ENTRY 2L
2R	Vent Door Locked Closed and Latched Flight Lock	DOOR ENTRY IND 2R DOOR ENTRY IND 2R DOOR FLIGHT LOCK 2R	DOOR ENTRY 2R DOOR ENTRY 2R
3L	Vent Door Locked Closed and Latched Flight Lock	DOOR ENTRY IND 3L DOOR ENTRY IND 3L DOOR FLIGHT LOCK 3L	DOOR ENTRY 3L DOOR ENTRY 3L
3R	Vent Door Locked Closed and Latched Flight Lock	DOOR ENTRY IND 3R DOOR ENTRY IND 3R DOOR FLIGHT LOCK 3R	DOOR ENTRY 3R DOOR ENTRY 3R
4L	Vent Door Locked Closed and Latched Flight Lock	DOOR ENTRY IND 4L DOOR ENTRY IND 4L DOOR FLIGHT LOCK 4L	DOOR ENTRY 4L DOOR ENTRY 4L
4R	Vent Door Locked Closed and Latched Flight Lock	DOOR ENTRY IND 4R DOOR ENTRY IND 4R DOOR FLIGHT LOCK 4R	DOOR ENTRY 4R DOOR ENTRY 4R
5L	Vent Door Locked Closed and Latched Flight Lock	DOOR ENTRY IND 5L DOOR ENTRY IND 5L DOOR FLIGHT LOCK 5L	DOOR ENTRY 5L DOOR ENTRY 5L
5R	Vent Door Locked Closed and Latched Flight Lock	DOOR ENTRY IND 5R DOOR ENTRY IND 5R DOOR FLIGHT LOCK 5R	DOOR ENTRY 5R DOOR ENTRY 5R

SUBTASK 52-71-01-860-007

(2) Do a test on the closed and latched proximity sensor as follows:

NOTE: (Table 204)

(a) Open the door.

(b) Install the proximity sensor actuator from the proximity sensor test set, SPL-1690 on the vent door locked proximity sensor.

NOTE: When the actuator is installed on the vent door locked proximity sensor, only the closed and latched proximity sensor can cause an EICAS alert message.

(c) Close the door and turn the interior handle to the fully closed position.

(d) In the flight compartment, make sure an EICAS alert message does not show.

(e) Turn the interior handle slowly in the open direction.

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(f) Measure the angular travel of the interior handle from the fully closed position to the position when the applicable EICAS alert message shows.

(g) Make sure the EICAS alert message shows at an angular travel of the interior handle of less than 34 degrees from the fully closed position.

(h) Turn the interior handle to the fully open position.

(i) In the flight compartment, make sure the applicable EICAS alert message stays on.

(j) Turn the interior handle slowly in the close direction.

(k) Measure the angular travel of the interior handle from the fully closed position to the position when the applicable EICAS alert message goes off.

(l) Make sure the EICAS alert message goes off at an angular travel of the interior handle of less than 34 degrees from the fully closed position.

(m) Open the door.

(n) Remove the proximity sensor actuator from the vent door locked proximity sensor.

E. Prepare for the Flight Lock Proximity Sensors Test

SUBTASK 52-71-01-010-014

(1) Get access to the flight lock proximity sensors as follows:

(a) Do this task: Upper Liner Removal, TASK 52-12-25-000-803.

F. Flight Lock Proximity Sensors Test

SUBTASK 52-71-01-860-017

(1) Do a test on the flight lock proximity sensors as follows:

NOTE: (Table 204)

(a) Make sure the door is closed, latched and locked.

(b) Push the flight lock lever [20] down until it stops, and hold the lever in that position.

(c) Install the proximity sensor actuator from the proximity sensor test set, SPL-1690 on the flight lock disengaged proximity sensor [17] to give it a target near signal.

(d) Make sure the applicable EICAS status message shows.

NOTE: The message can take 3 minutes to show.

(e) Remove the proximity sensor actuator from the flight lock disengaged proximity sensor [17].

(f) Release the flight lock lever [20], and make sure it moves to its initial position.

(g) Make sure the EICAS status message goes out of view.

(h) Install the proximity sensor deactuator from the proximity sensor test set, SPL-1690 on the flight lock disengaged proximity sensor [17] to give it a target far signal.

(i) Make sure the applicable EICAS status message shows.

NOTE: The message can take 3 minutes to show.

(j) Remove the proximity sensor deactuator from the flight lock disengaged proximity sensor [17].

(k) Make sure the EICAS status message goes out of view.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-01-010-018

(1) Close access to the flight lock proximity sensors as follows:

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(a) Do this task: Upper Liner Installation, TASK 52-12-25-400-803.

SUBTASK 52-71-01-860-018

(2) Arm the door as follows:

(a) Turn the EPAS battery safety switch to the ARM position.

(b) For the overwing emergency exit door (PED 3), do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

TASK 52-71-01-710-801

6. Vent Door Locked and Door Closed and Latched Proximity Sensors Operational Test

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
31-61-00-800-814	Showing Alert Messages (P/B 201)

B. Prepare for the Test

SUBTASK 52-71-01-860-008

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-71-01-860-019

(2) Make sure the door is safe as follows:

(a) Make sure the mode select handle is in the MANUAL/DISARM position.

C. Test

SUBTASK 52-71-01-860-010

(1) Make sure that all the passenger entry doors, cargo doors, and access doors are fully closed and latched.

SUBTASK 52-71-01-210-001

(2) Make sure that no EICAS messages show for the passenger entry doors (Showing Alert Messages, TASK 31-61-00-800-814).

SUBTASK 52-71-01-730-003

(3) Do a test of the proximity sensors on each passenger entry door as follows:

NOTE: (Table 205)

(a) Turn the interior handle to the open position.

(b) Make sure the applicable EICAS alert message shows.

(c) Turn the interior handle to the closed position.

(d) Make sure the applicable EICAS alert message does not show.

(e) Do these steps again for each door.

Table 205/52-71-01-993-809 Proximity Sensor EICAS Alert Messages - 777-300

DOOR	EICAS ALERT MESSAGE
Left No. 1 Passenger Entry Door	DOOR ENTRY 1L
Right No. 1 Passenger Entry Door	DOOR ENTRY 1R

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Table 205/52-71-01-993-809 Proximity Sensor EICAS Alert Messages - 777-300 (Continued)

DOOR	EICAS ALERT MESSAGE
Left No. 2 Passenger Entry Door	DOOR ENTRY 2L
Right No. 2 Passenger Entry Door	DOOR ENTRY 2R
Left No. 3 Passenger Entry Door	DOOR ENTRY 3L
Right No. 3 Passenger Entry Door	DOOR ENTRY 3R
Left No. 4 Passenger Entry Door	DOOR ENTRY 4L
Right No. 4 Passenger Entry Door	DOOR ENTRY 4R
Left No. 5 Passenger Entry Door	DOOR ENTRY 5L
Right No. 5 Passenger Entry Door	DOOR ENTRY 5R

——— END OF TASK ———

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LARGE CARGO DOOR WARNING SYSTEM - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) A removal, installation and adjustment of the door indication proximity sensors.

(2) A test of the door indication.

Table 201/52-71-02-993-802

FORWARD LARGE CARGO DOOR INDICATION PROXIMITY SENSORS	
PROXIMITY SENSOR	**NAME**
S52021	Closed
S52022	Locked
S52042	Latched

TASK 52-71-02-900-801

2. Closed Proximity Sensor Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The closed proximity sensor is found on the lower edge of the door and the target is found on the cutout.

(2) The sensor detects that the door is fully closed.

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I
C00308	Compound - Corrosion Preventive, Petrolatum Hot Application	MIL-C-11796

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Sensor	52-34-20-02-025	ARO ALL

D. Location Zones

Zone	Area
821	Forward Large Cargo Door

E. Prepare for the Removal

SUBTASK 52-71-02-860-001

(1) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

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Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-71-02-010-001

(2) Open the door sufficiently to get access to the sensor [2].

F. Removal

SUBTASK 52-71-02-020-001

(1) Remove the sensor [2] as follows:

(a) Disconnect the wiring [1] from the sensor [2].

(b) Remove the bolts [3], washers [4], washers [5], and nuts [6] that attach the sensor [2] to its bracket [9].

(c) Remove the sensor [2].

G. Installation

SUBTASK 52-71-02-420-001

(1) Install the sensor [2] as follows:

(a) Apply the corrosion preventive compound, C00308 to the holes for the bolts [3].

(b) Hold the sensor [2] in its correct position and install the bolts [3], washers [4], washers [5], and nuts [6] to attach the sensor [2] to its bracket [9].

(c) Connect the wiring [1] to the sensor [2].

H. Adjustment

SUBTASK 52-71-02-820-001

(1) Adjust the sensor [2] as follows:

(a) Manually close the door.

(b) Turn the latch/hook manual drive to the fully latched position.

NOTE: When the overtravel coupling at the latch/hook torque tube touches the latched overtravel stop, the door is in the fully latched position.

(c) Make sure the clearance between the sensor [2] and the target [7] is as shown, View A-A (Figure 201)

(d) Adjust the clearance of the sensor [2] as follows:

1) Remove the bolts [3], washers [4], washers [5], and nuts [6] that attach the sensor [2] to its bracket [9].

2) Add or remove laminations of shim [8] to get the correct clearance.

3) Apply the primer, C00259 to the bare laminations of shim [8].

4) Bond the shim [8] to the bracket [9] with the sealant, A00247.

5) Apply the corrosion preventive compound, C00308 to the holes for the bolts [3].

6) Hold the sensor [2] in its correct position and install the bolts [3], washers [4], washers [5], and nuts [6] to attach the sensor [2] to its bracket [9].

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I. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-02-860-003

(1) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

J. Installation Test

SUBTASK 52-71-02-730-001

(1) Do this task: Large Cargo Door Indication Proximity Sensor Test, TASK 52-71-02-730-801.

——— END OF TASK ———

TASK 52-71-02-900-802

3. Latched Proximity Sensor Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The latched proximity sensor is found on the lower edge of the door between main cam latches No. 3 and 4 and the target is attached to the latch bellcrank.

(2) The sensor detects that the door is fully latched.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1690	Actuators/Deactuators Set - Proximity Sensor Part #: 8-758-01 Supplier: 08748 Part #: A27092-70 Supplier: 81205 Opt Part #: A32102-25 Supplier: 81205 Opt Part #: KHT8-758-01 Supplier: 08748

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
22	Sensor	52-34-20-01-025	ARO ALL

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E. Location Zones

Zone	Area
821	Forward Large Cargo Door

F. Prepare for the Removal

SUBTASK 52-71-02-860-006

(1) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-71-02-010-002

(2) Get access to the sensor [22] as follows:

(a) Put the door in its vertical, free-hang position.

NOTE: The door is in the free-hang position when the bottom of the door can be freely moved in the open and close directions.

(b) Remove the applicable door lining.

G. Removal

SUBTASK 52-71-02-020-002

(1) Remove the sensor [22] as follows:

(a) Disconnect the wiring [21] from the sensor [22].

(b) Make marks on the serrated plate [28] to show the location of the sensor [22] for the subsequent installation.

(c) Remove the bolts [24], washers [25], washers [26], and nuts [27] that attach the sensor [22] to its bracket [23].

(d) Remove the sensor [22].

H. Installation

SUBTASK 52-71-02-420-002

(1) Install the sensor [22] as follows:

(a) Apply the corrosion inhibiting material, G50136 to the bolts [24] that attach the sensor [22] to its bracket [23].

(b) Hold the sensor [22] in its correct position and install the bolts [24], washers [25], washers [26], and nuts [27] to attach the sensor [22] to its bracket [23].

(c) Connect the wiring [21] to the sensor [22].

I. Adjustment

SUBTASK 52-71-02-820-002

(1) Adjust the sensor [22] as follows:

(a) Turn the latch/hook manual drive to the fully latched position.

NOTE: When the overtravel coupling at the latch/hook torque tube touches the latched overtravel stop, the door is in the fully latched position.

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(b) Make sure the clearance between the sensor [22] and the target [30] is as shown, View B-B (Figure 201).

(c) Lightly hit the latch bellcrank [31] forward and then aft and make sure the clearance between the sensor [22] and the target [30] stays correct.

(d) Put the proximity sensor test set, SPL-1690 against the closed and locked proximity sensors.

(e) Remove the safety tag and close this circuit breaker:

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(f) In the flight compartment, make sure the EICAS message, DOOR FWD CARGO, does not show.

(g) On the internal side of the door, turn the latch/hook manual drive shaft aft of the lock handle by hand approximately 10 to 15 turns from the latched overtravel stop.

(h) Stop when you can just barely push the vent door or lock handle closed to lock the door.

(i) In the flight compartment, make sure the EICAS message, DOOR FWD CARGO, shows.

(j) Remove the proximity sensor test set, SPL-1690 on the closed and locked proximity sensors.

(k) Open this circuit breaker and install safety tag:

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(l) Adjust the clearance or the alignment of the sensor [22] as follows:

1) Remove the bolts [24], washers [25], washers [26], and nuts [27] that attach the sensor [22] to its bracket [23].

2) Add or remove laminations of shim [29] to get the correct clearance.

3) Move the serrated plate [28] to get the correct alignment.

a) Make sure that the change from target near to target far occurs at the position where the door can first be locked.

4) Apply the primer, C00259 to the bare laminations of shim [29].

5) Bond the shim [29] to the bracket [23] with the sealant, A00247.

NOTE: Do not get the sealant, A00247 on the serrations of the serrated plate.

6) Apply the corrosion inhibiting material, G50136 as follows:

a) Apply the corrosion inhibiting material, G50136 to the bolts [24] that attach the sensor [22] to its bracket [23].

b) Apply the corrosion inhibiting material, G50136 to the serrations of the serrated plate [28].

7) Hold the sensor [22] in its correct position and install the bolts [24], washers [25], washers [26], and nuts [27] to attach the sensor [22] to its bracket [23].

J. Put the Airplane Back to Its Usual Condition.

SUBTASK 52-71-02-410-001

(1) Install the door lining.

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SUBTASK 52-71-02-860-008

(2) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

K. Installation Test

SUBTASK 52-71-02-730-002

(1) Do this task: Large Cargo Door Indication Proximity Sensor Test, TASK 52-71-02-730-801.

——— END OF TASK ———

TASK 52-71-02-900-803

4. Locked Proximity Sensor Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The locked proximity sensor is found on the lower edge of the door and the target is the on the lock pawl No. 7.

(2) The sensor detects that the door is fully locked.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1690	Actuators/Deactuators Set - Proximity Sensor Part #: 8-758-01 Supplier: 08748 Part #: A27092-70 Supplier: 81205 Opt Part #: A32102-25 Supplier: 81205 Opt Part #: KHT8-758-01 Supplier: 08748
SPL-14736	Gage - Go/No-Go, Forward Cargo Door Rigging Adjustment Tool Part #: J52041-1 Supplier: 81205

C. Consumable Materials

Reference	Description	Specification
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
48	Sensor	52-34-20-03-025	ARO ALL

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E. Location Zones

Zone	Area
821	Forward Large Cargo Door

F. Prepare for the Removal

SUBTASK 52-71-02-860-010

(1) Open these circuit breakers and install safety tags:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

SUBTASK 52-71-02-010-003

(2) Get access to the sensor [48] as follows:

(a) Open the door sufficiently to get access to the sensor [48].

(b) Remove the applicable door lining.

G. Removal

SUBTASK 52-71-02-020-003

(1) Remove the sensor [48] as follows:

(a) Disconnect the wiring [41] from the sensor [48].

(b) Make marks on the serrated plate [51] to show the location of the sensor [48] for the subsequent installation.

(c) Remove the bolts [43], washers [44], washers [45], and nuts [46] that attach the sensor [48] to its bracket [47].

(d) Remove the sensor [48].

H. Installation

SUBTASK 52-71-02-420-003

(1) Install the sensor [48] as follows:

(a) Apply the corrosion inhibiting material, G50136 to the bolts [43] that attach the sensor [48] to its bracket [47].

(b) Hold the sensor [48] in its correct position and install the bolts [43], washers [44], washers [45], and nuts [46] to attach the sensor [48] to its bracket [47].

(c) Connect the wiring [41] to the sensor [48].

I. Adjustment

SUBTASK 52-71-02-820-003

(1) Adjust the sensor [48] as follows:

(a) Make sure the door is open.

(b) Turn the latch manual drive to the latched position.

(c) Close the lock handle.

(d) Make sure the clearance between the sensor [48] and the target [42] is as shown, View D-D (Figure 201).

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(e) Lightly hit the lock pawl [50] forward and then aft and make sure the clearance between the sensor [48] and the target [42] stays correct.

(f) Put the proximity sensor test set, SPL-1690 against the closed and locked proximity sensors.

(g) Remove the safety tag and close this circuit breaker:

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(h) In the flight compartment, make sure the EICAS message, DOOR FWD CARGO, does not show.

(i) Release the catch in the lock handle and open the lock handle a small distance.

(j) Stop and hold the lock handle when the lock pawl is in the position shown, View C-C (Figure 201).

(k) If necessary, use Go/No-Go Gage, SPL-14736 to hold the lock handle when the lock pawl is in the position shown, View C-C (Figure 201).

1) Use the Go side of the Go/No-Go Gage, SPL-14736 to make sure the lock pawl is 1.84 in. (4.67 cm) from the main cam latch inner diameter.

2) Make sure the Go/No-Go Gage, SPL-14736 is not free to move between the main cam latch surface and the lock pawl surface.

(l) In the flight compartment, make sure the EICAS message, DOOR FWD CARGO, shows.

(m) Remove the proximity sensor test set, SPL-1690 on the closed and locked proximity sensors.

(n) Open this circuit breaker and install safety tag:

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(o) Adjust the clearance or the alignment of the sensor [48] as follows:

1) Remove the bolts [43], washers [44], washers [45], and nuts [46] that attach the sensor [48] to its bracket [47].

2) Add or remove laminations of shim [52] to get the correct clearance.

3) Move the serrated plate [51] to get the correct alignment.

NOTE: The serrations on the serrated plate are 0.036 in. (0.914 mm) apart. If you move the serrated plate one serration, the position that the sensor will signal target far and show the EICAS message will change by 0.4 degrees of turn of the lock pawl.

4) Apply the primer, C00259 to the bare laminations of shim [52].

5) Bond the shim [52] to the bracket [47] with the sealant.

NOTE: Do not get the sealant on the serrations of the serrated plate.

6) Apply the corrosion inhibiting material, G50136 as follows:

a) Apply the corrosion inhibiting material, G50136 to the bolts [43] that attach the sensor [48] to its bracket [47].

b) Apply the corrosion inhibiting material, G50136 to the serrations of the serrated plate [51].

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7) Hold the sensor [48] in its correct position and install the bolts [43], washers [44], washers [45], and nuts [46] to attach the sensor [48] to its bracket [47].

J. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-02-410-002

(1) Install the door lining.

SUBTASK 52-71-02-860-012

(2) Remove the safety tags and close these circuit breakers:

FWD Cargo Handling Access Panel, P35

Row	Col	Number	Name
D	4	C52303	FWD CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

K. Installation Test

SUBTASK 52-71-02-730-003

(1) Do this task: Large Cargo Door Indication Proximity Sensor Test, TASK 52-71-02-730-801.

——— END OF TASK ———

TASK 52-71-02-730-801

5. Large Cargo Door Indication Proximity Sensor Test

(Figure 201)

A. General

Table 202/52-71-02-993-801

LARGE CARGO DOOR WARNING SYSTEM EICAS MESSAGES			
DOOR	**PROXIMITY SENSORS**	**EICAS STATUS MESSAGE**	**EICAS ALERT MESSAGE**
Large Forward Cargo Door	Closed Latched Locked	DOOR FWD CARGO IND	DOOR FWD CARGO
Large Aft Cargo Door	Closed Latched Locked	DOOR AFT CARGO IND	DOOR AFT CARGO

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
31-61-00-800-813	Showing Status Messages (P/B 201)
31-61-00-800-814	Showing Alert Messages (P/B 201)
31-61-00-800-816	Showing a System Synoptic Page (P/B 201)

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C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1690	Actuators/Deactuators Set - Proximity Sensor Part #: 8-758-01 Supplier: 08748 Part #: A27092-70 Supplier: 81205 Opt Part #: A32102-25 Supplier: 81205 Opt Part #: KHT8-758-01 Supplier: 08748
SPL-14736	Gage - Go/No-Go, Forward Cargo Door Rigging Adjustment Tool Part #: J52041-1 Supplier: 81205

D. Location Zones

Zone	Area
821	Forward Large Cargo Door

E. Prepare for the Test

SUBTASK 52-71-02-860-014

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-71-02-010-004

(2) Remove the applicable door lining to get access to the indication proximity sensors.

F. Test

SUBTASK 52-71-02-860-005

(1) Do the test as follows:

(a) Make sure all doors are closed, latched and locked.

NOTE: If two or more doors of any kind are not closed, latched and locked, the EICAS alert message DOORS will show and the individual message for the door will not show.

(b) Open the lock handle.

(c) In the flight compartment, make sure the EICAS alert message shows. To show the message, do this task: Showing Alert Messages, TASK 31-61-00-800-814.

(d) Close the lock handle.

(e) Push the external side of the vent door inboard until it touches the interlock mechanism.

(f) In the flight compartment, make sure the EICAS alert message does not show.

(g) Release the vent door.

(h) Open the lock handle.

(i) Open the door approximately 3 feet.

(j) In the flight compartment, make sure the door shows on the DOOR system synoptic page. To show the page, do this task: Showing a System Synoptic Page, TASK 31-61-00-800-816.

(k) Turn the latch/hook manual drive to the fully latched position.

NOTE: When the overtravel coupling at the latch/hook torque tube touches the latched overtravel stop, the door is in the fully latched position.

(l) Put the proximity sensor test set, SPL-1690 against the closed proximity sensor [2].

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(m) Hold the lock mechanism to make the Lock No 7 Pawl [50] 1.84 in. (46.74 mm) from the main cam latch inner diameter, View C-C, Figure 201.

(n) If necessary, use the Go/No-Go Gage, SPL-14736 to hold the lock mechanism to make the Lock No 7 Pawl [50] 1.84 in. (46.74 mm) from the main cam latch inner diameter, View C-C, Figure 201.

1) Use the Go side of the Go/No-Go Gage, SPL-14736 to make sure the lock pawl is 1.84 in. (4.67 cm) from the main cam latch inner diameter.

2) Make sure the Go/No-Go Gage, SPL-14736 is not free to move between the main cam latch surface and the lock pawl surface.

(o) In the flight compartment, make sure the door does not show on the DOOR synoptic page.

(p) Hold the lock mechanism to make the Lock No 7 Pawl [50] 1.87 in. (47.50 mm) from the main cam latch inner diameter, View C-C, Figure 201.

(q) If necessary, use the Go/No-Go Gage, SPL-14736 to hold the lock mechanism to make the Lock No 7 Pawl [50] 1.87 in. (47.50 mm) from the main cam latch inner diameter, View C-C, Figure 201.

1) Use the No-Go side of the Go/No-Go Gage, SPL-14736 to make sure the lock pawl is 1.87 in. (4.75 cm) from the main cam latch inner diameter.

2) Make sure the Go/No-Go Gage, SPL-14736 is not free to move between the main cam latch surface and the lock pawl surface.

(r) In the flight compartment, make sure the door shows on the DOOR synoptic page.

(s) Release the lock mechanism.

(t) Put the proximity sensor test set, SPL-1690 against the locked proximity sensor [48].

(u) In the flight compartment, make sure the door does not show on the DOOR synoptic page.

(v) Turn the latch/hook manual drive approximately 8-15 turns from the latched overtravel stop in the unlatch direction until the door cannot be locked.

NOTE: The latch mechanism stops the lock mechanism from fully locking. You should be within 2 manual drive turns of the position where you can lock the door.

(w) In the flight compartment, make sure the door shows on the Door synoptic page.

(x) Turn the latch/hook manual drive approximately 2-5 turns in the latch direction until the door can just be locked.

NOTE: There is some backlash in the latch mechanism.

(y) In the flight compartment, make sure the door does not show on the DOOR synoptic page.

(z) Turn the latch/hook manual drive to the unlatched position.

(aa) Put the proximity sensor test set, SPL-1690 against the latched proximity sensor [22].

(ab) In the flight compartment, wait 5-10 seconds and make sure the EICAS status message shows. To show the message, do this task: Showing Status Messages, TASK 31-61-00-800-813.

(ac) Put the proximity sensor test set, SPL-1690 against the latch range control proximity sensor.

(ad) In the flight compartment, clear the EICAS status message.

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(ae) In the flight compartment, wait 5-10 seconds and make sure the EICAS status message does not show.

(af) Put the proximity sensor test set, SPL-1690 against the door up control proximity sensor.

(ag) In the flight compartment, wait 5-10 seconds and make sure the EICAS status message shows.

(ah) Remove the proximity sensor test set, SPL-1690 from the door up control proximity sensor.

(ai) In the flight compartment, clear the EICAS status message.

(aj) In the flight compartment, wait 5-10 seconds and make sure the EICAS message does not show.

(ak) Remove the proximity sensor test set, SPL-1690 from the closed, latched, locked, and latch range proximity sensors.

(al) In the flight compartment, make sure the EICAS alert message shows.

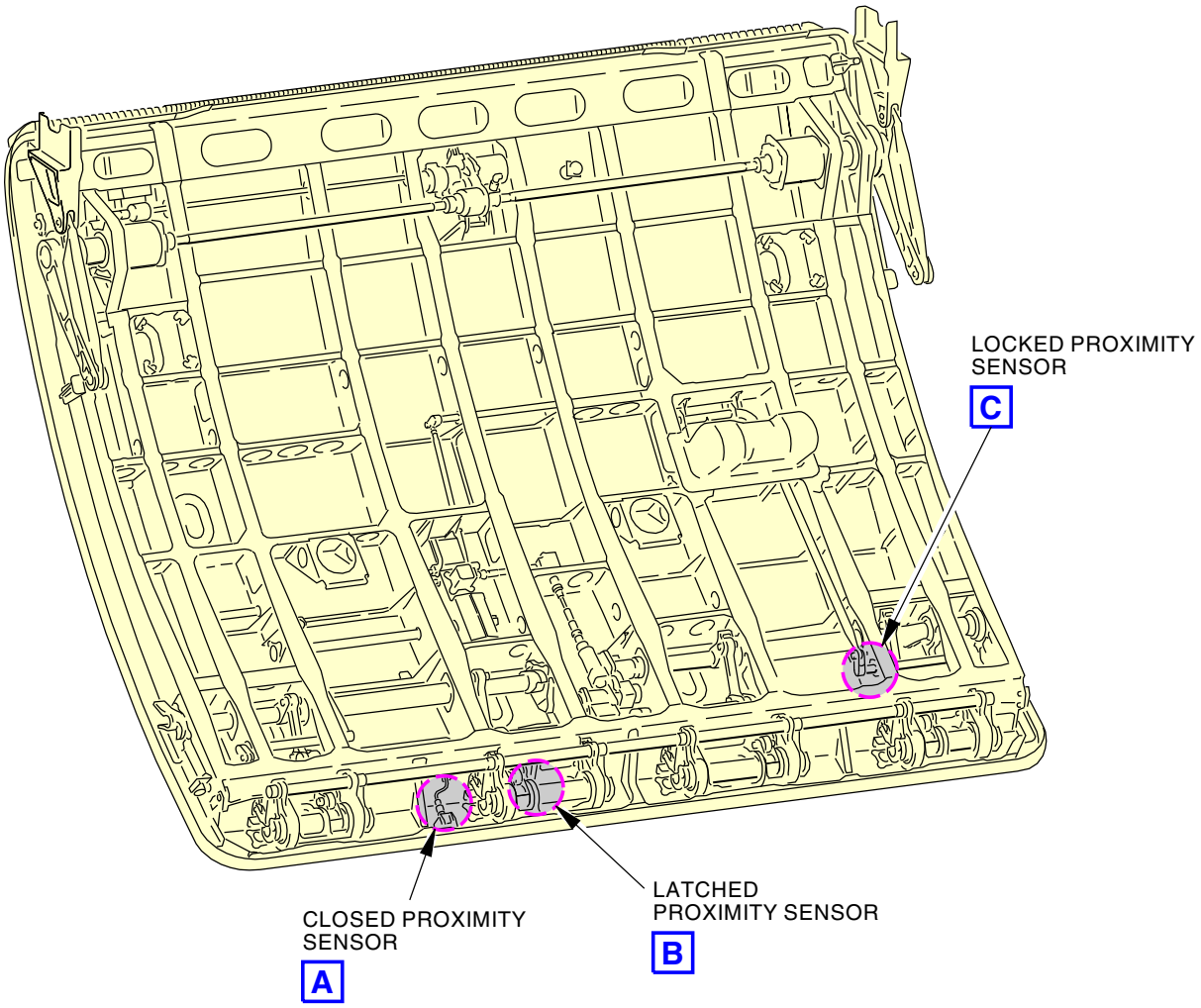
G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-02-410-003

(1) Install the door lining.

——— END OF TASK ———

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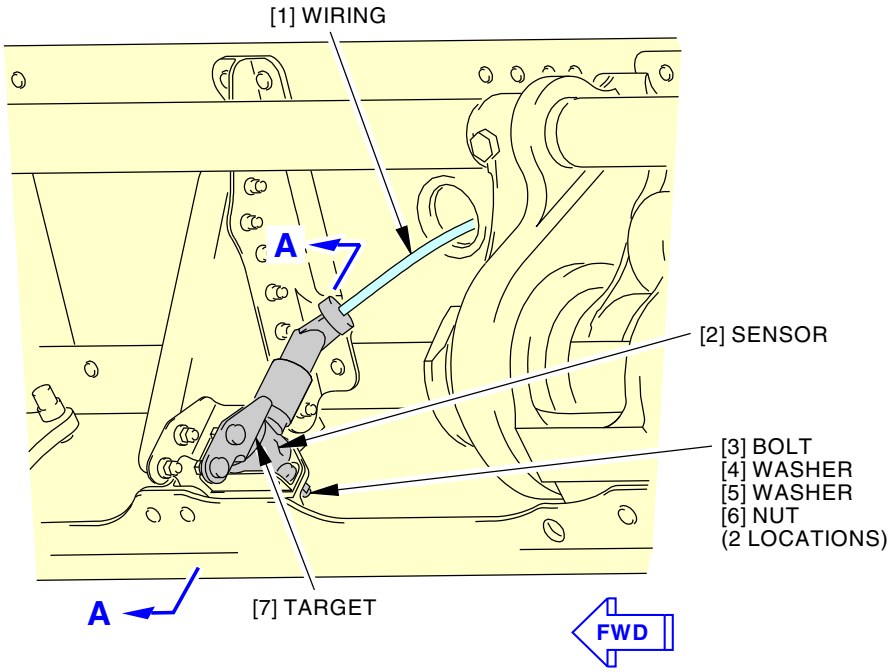


LARGE CARGO DOOR

G85879 S0006426238_V2

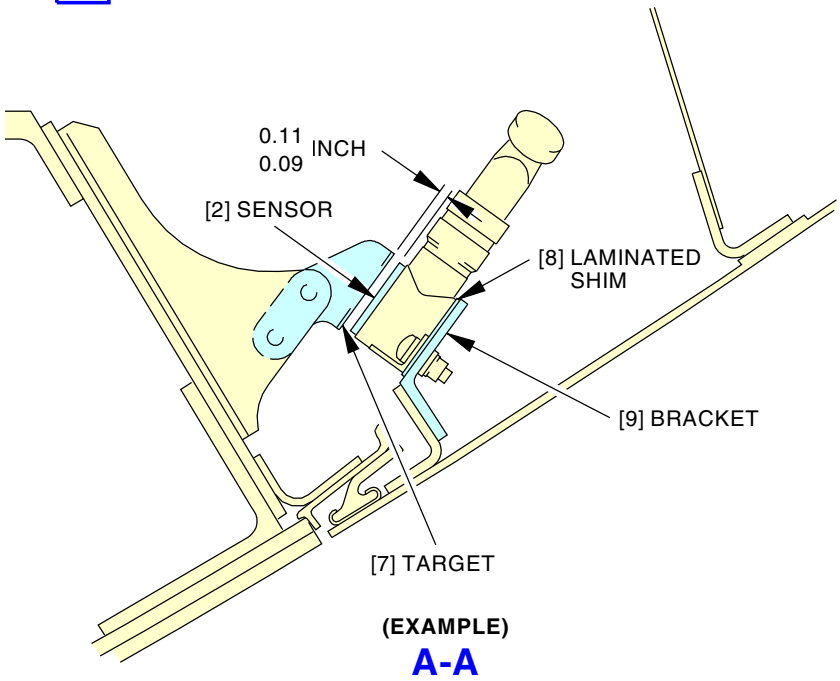
Large Cargo Door Warning System
Figure 201/52-71-02-990-801 (Sheet 1 of 4)

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CLOSED PROXIMITY SENSOR

A



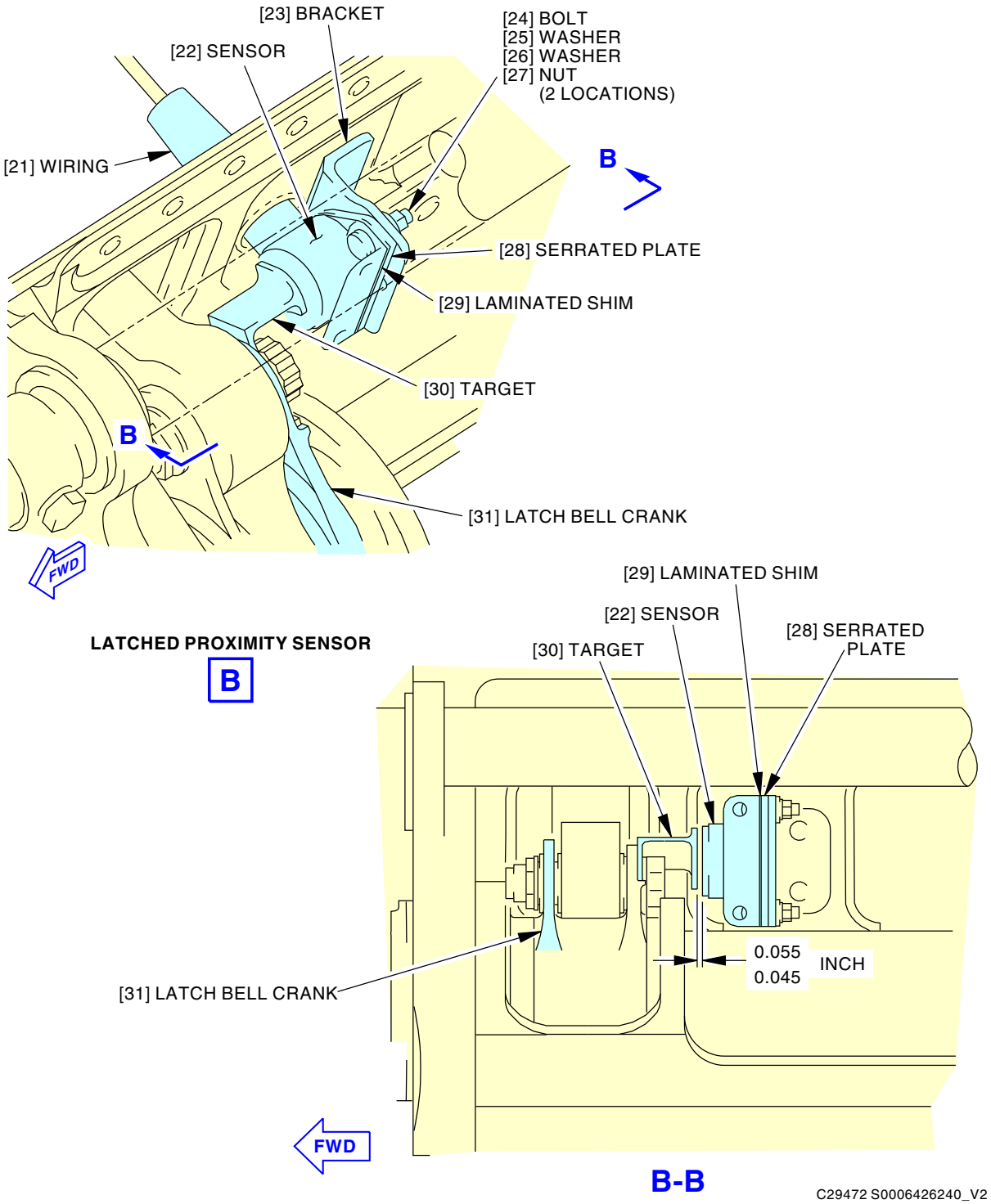
(EXAMPLE)

A-A

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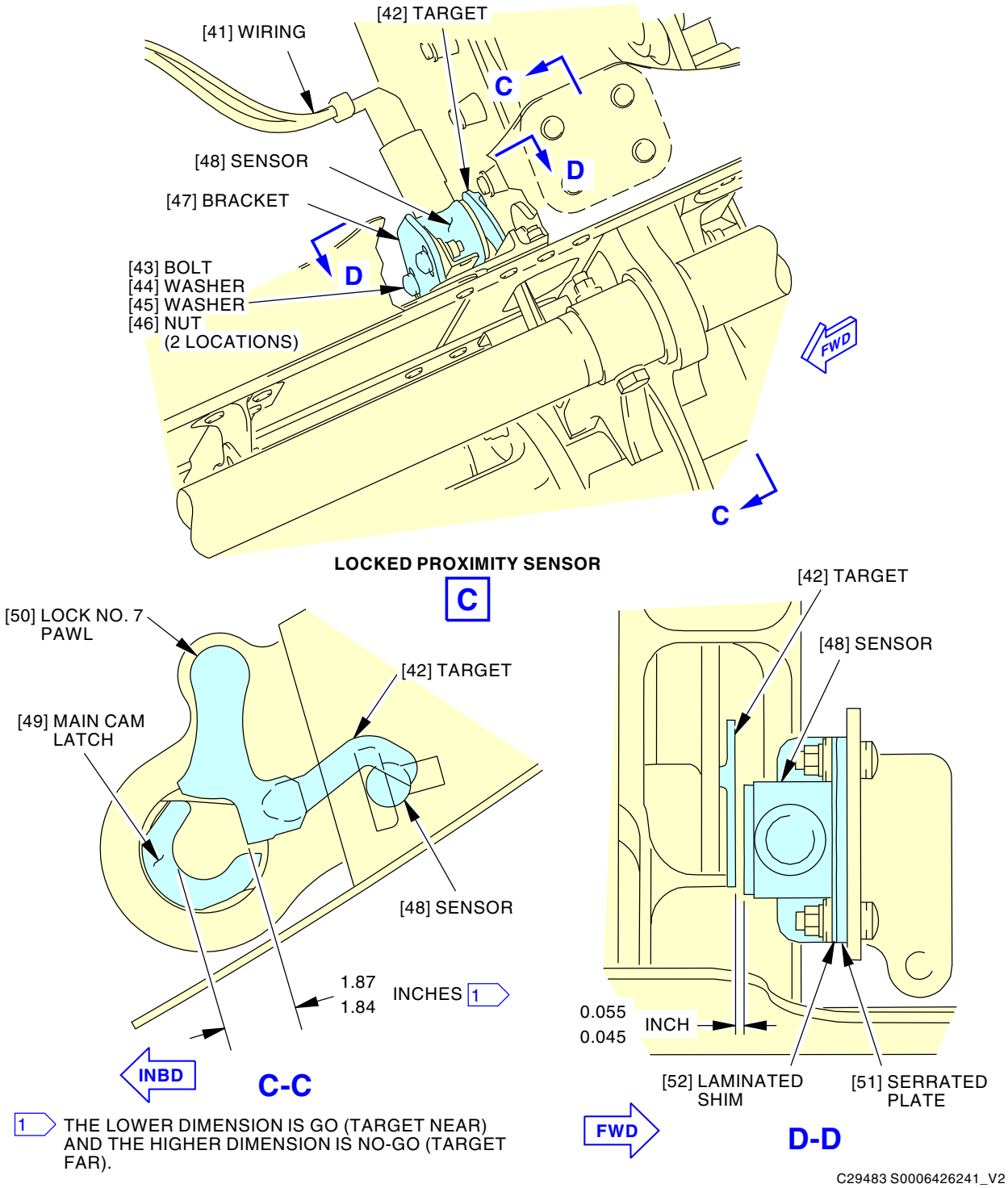
Large Cargo Door Warning System
Figure 201/52-71-02-990-801 (Sheet 2 of 4)

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Large Cargo Door Warning System
Figure 201/52-71-02-990-801 (Sheet 3 of 4)

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Large Cargo Door Warning System
Figure 201/52-71-02-990-801 (Sheet 4 of 4)

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SMALL CARGO DOOR WARNING SYSTEM - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) A removal, installation and adjustment of the door indication proximity sensors.

(2) A test of the door indication.

Table 201/52-71-03-993-801

AFT SMALL CARGO DOOR INDICATION PROXIMITY SENSORS	
PROXIMITY SENSOR	**NAME**
S52023	Closed
S52024	Latched and Locked

TASK 52-71-03-900-801

2. Closed Proximity Sensor Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The closed proximity sensor is found on the upper edge of the door structure and the target is found on the aft rotary actuator.

(2) The sensor detects that the door is not closed.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
31-61-00-800-814	Showing Alert Messages (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1690	Actuators/Deactuators Set - Proximity Sensor Part #: 8-758-01 Supplier: 08748 Part #: A27092-70 Supplier: 81205 Opt Part #: A32102-25 Supplier: 81205 Opt Part #: KHT8-758-01 Supplier: 08748

D. Consumable Materials

Reference	Description	Specification
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

E. Location Zones

Zone	Area
823	Aft Small Cargo Door

F. Prepare for the Removal

SUBTASK 52-71-03-010-003

(1) Open the door sufficiently to get access to the sensor [6].

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SUBTASK 52-71-03-860-001

(2) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

G. Removal

SUBTASK 52-71-03-020-001

(1) Remove the sensor [6] as follows:

(a) Disconnect the wiring [5] from the sensor [6].

(b) Remove the bolts [1] and washers [2] that attach the sensor [6] to its bracket [3].

(c) Remove the sensor [6].

H. Installation

SUBTASK 52-71-03-420-001

(1) Install the sensor [6] as follows:

(a) Hold the sensor [6] in its correct position and install the bolts [1] and washers [2] to attach the sensor [6] to its bracket [3].

(b) Connect the wiring [5] to the sensor [6].

I. Adjustment

SUBTASK 52-71-03-820-001

(1) Adjust the sensor [6] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(c) Put the proximity sensor test set, SPL-1690, against the sensor [18].

(d) Put the power tool in the hinge manual drive port found on the fuselage skin forward of the door.

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CAUTION

DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR. DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 110 POUND-INCHES (127 KG-CM). DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(e) Slowly turn the hinge manual drive until the EICAS alert message, DOOR AFT CARGO, shows on the EICAS display in the flight compartment. To show the message, do this task: Showing Alert Messages, TASK 31-61-00-800-814.

NOTE: If two or more doors of any kind are not closed, latched and locked, the EICAS alert message DOORS will show and the individual message for the door will not show.

(f) Make sure the distance between the upper guide roller [9] and the inboard surface of the upper guide track [8] is as shown on View C-C Figure 201.

(g) Turn the hinge manual drive in the door open direction until the upper guide roller [9] is 2 in. (50.80 mm) minimum from the inboard surface of the upper guide track [8].

(h) Slowly turn the hinge manual drive in the door close direction until the EICAS alert message, DOOR AFT CARGO, clears on the EICAS display in the flight compartment.

(i) Make sure the clearance between the upper guide roller [9] and the inboard surface of the upper guide track [8] is as shown on View C-C Figure 201.

(j) Adjust the clearance of the sensor [6] as follows:

1) Remove the bolts [1] and washers [2] that attach the sensor [6] to its bracket [3].
2) Add or remove laminations of laminated shim [7] to get the correct clearance.
3) Apply the primer, C00259 to the bare laminations of laminated shim [7].
4) Hold the sensor [6] in the correct position and install the bolts [1] and washers [2] to attach the sensor [6] to its bracket [3].

(k) Remove the proximity sensor test set, SPL-1690, from the sensor [18].

J. Installation Test

SUBTASK 52-71-03-730-001

(1) Do this task: Small Cargo Door Indication Proximity Sensor Test, TASK 52-71-03-700-801.

——— END OF TASK ———

TASK 52-71-03-900-802

3. Latched and Locked Proximity Sensor Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The latched and locked proximity sensor is found on the forward edge of the door cutout and the target is on the latch crank of the lift/latch torque tube.

(2) The sensor detects that the door is not latched and locked.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
31-61-00-800-814	Showing Alert Messages (P/B 201)

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C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-4591	Rig Pin Assembly Part #: J20003-34 Supplier: 81205

D. Consumable Materials

Reference	Description	Specification
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I

E. Location Zones

Zone	Area
823	Aft Small Cargo Door

F. Prepare for the Removal

SUBTASK 52-71-03-010-004

(1) Open the door sufficiently to get access to the sensor [18].

SUBTASK 52-71-03-860-003

(2) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

G. Removal

SUBTASK 52-71-03-020-002

(1) Remove the sensor [18] as follows:

(a) Disconnect the wiring [17] from the sensor [18].

(b) Make marks on the serrated plate [12] to show the location of the sensor [18] for the subsequent installation.

(c) Remove the bolts [13], washers [14], washers [15], and nuts [16] that attach the sensor [18] to its bracket [10].

(d) Remove the sensor [18].

H. Installation

SUBTASK 52-71-03-420-002

(1) Install the sensor [18] as follows:

(a) Hold the sensor [18] in its correct position and install the bolts [13], washers [14], washers [15], and nuts [16] to attach the sensor [18] to its bracket [10].

(b) Connect the wiring [17] to the sensor [18].

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I. Adjustment

SUBTASK 52-71-03-820-007

(1) Adjust the sensor [18] as follows:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

(b) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

(c) Make sure the door is fully closed and latched.

(d) Make sure the clearance between the sensor [18] and the target [19] on the latch crank [20] is as shown on View B-B Figure 201.

(e) Put a 0.166 in. (4.22 mm) diameter rig pin from the Rig Pin Assembly, SPL-4591, in rig pin hole No. 3.

(f) Put a wrench on one of the lift/latch manual drive flexible shaft end fittings on the inner side of the door.

(g) Turn in the door open direction until the rig pin stops the rotation. Do not bend the rig pin.

(h) In the flight compartment, make sure the EICAS alert message does not show.

(i) Turn the lift/latch manual drive slightly in the door close direction and remove the rig pin.

(j) Put a 0.120 in. (3.05 mm) diameter rig pin from the Rig Pin Assembly, SPL-4591, in rig pin hole No. 3.

(k) Put a wrench on one of the lift/latch manual drive flexible shaft end fittings on the inner side of the door.

(l) Turn in the door open direction until the rig pin stops the rotation.

(m) In the flight compartment, make sure the EICAS alert message shows.

1) Do this task: Showing Alert Messages, TASK 31-61-00-800-814

NOTE: If two or more doors of any kind are not closed, latched and locked, the EICAS alert message DOORS will show and the individual message for the door will not show.

(n) Adjust the clearance of the sensor [18] as follows:

1) Remove the bolts [13], washers [14], washers [15], and nuts [16] that attach the sensor [18] to its bracket [10].

2) Add or remove laminations of laminated shim [11] to get the correct clearance.

3) Apply the primer, C00259 to the bare laminations of laminated shim [11].

4) Move the serrated plate [12] to get the correct clearance.

NOTE: The serrations on the serrated plate are 0.036 in. (0.91 mm) apart. One serration changes the angle by approximately 0.82 degrees. If you move the sensor down, the clearance will decrease.

5) Hold the sensor [18] in its correct position and install the bolts [13], washers [14], washers [15], and nuts [16] to attach the sensor [18] to its bracket [10].

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J. Installation Test

SUBTASK 52-71-03-730-002

(1) Do this task: Small Cargo Door Indication Proximity Sensor Test, TASK 52-71-03-700-801.

——— END OF TASK ———

TASK 52-71-03-700-801

4. Small Cargo Door Indication Proximity Sensor Test

A. General

Table 202/52-71-03-993-802

SMALL CARGO DOOR WARNING SYSTEM EICAS MESSAGES			
DOOR	PROXIMITY SENSORS	EICAS STATUS MESSAGE	EICAS ALERT MESSAGE
Aft Small Cargo Door	Closed Latched and Locked	DOOR AFT CARGO IND	DOOR AFT CARGO

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
31-61-00-800-813	Showing Status Messages (P/B 201)
31-61-00-800-814	Showing Alert Messages (P/B 201)
31-61-00-800-816	Showing a System Synoptic Page (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1690	Actuators/Deactuators Set - Proximity Sensor Part #: 8-758-01 Supplier: 08748 Part #: A27092-70 Supplier: 81205 Opt Part #: A32102-25 Supplier: 81205 Opt Part #: KHT8-758-01 Supplier: 08748
STD-10304	Rod - Drill 0.1610 (No.20) to 0.1660 (No. 19)
STD-10307	Rod - Drill 0.1200 (No.31) to 0.1250 (1/8)

D. Location Zones

Zone	Area
823	Aft Small Cargo Door

E. Prepare for the Test

SUBTASK 52-71-03-860-006

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

F. Test

SUBTASK 52-71-03-860-005

(1) Do the test as follows:

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(a) Make sure all of the doors are fully closed, latched and locked.

NOTE: If two or more doors of any kind are not closed, latched and locked, the EICAS alert message DOORS will show and the individual message for the door will not show.

(b) In the flight compartment, make sure the door does not show on the DOOR system synoptic page.

(c) Do this task: Showing a System Synoptic Page, TASK 31-61-00-800-816

(d) Open this circuit breaker and install safety tag:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

(e) Make sure that these circuit breakers are closed:

Ground Service/Handling Power Panel, P320

Row	Col	Number	Name
C	11	C52604	CGO DR CTRL

Left Power Management Panel, P110

Row	Col	Number	Name
H	26	C32600	PSEU 1 PRI PWR

Right Power Management Panel, P210

Row	Col	Number	Name
L	13	C32601	PSEU 2 PRI PWR

Standby Power Management Panel, P310

Row	Col	Number	Name
D	1	C32603	PSEU 1 ALTN PWR
D	2	C32624	PSEU 2 ALTN PWR

(f) Make sure the clearance between the lift/latch travel stop and the drive crank is from 0.10 in. (2.54 mm) to 0.20 in. (5.08 mm).

(g) In the flight compartment, make sure the EICAS alert message does not show.

(h) Put a drill rod, STD-10304 in the rig pin hole No. 3.

(i) Put a wrench on one of the lift/latch manual drive flexible shaft end fittings on the inner side of the door.

(j) Use an adjustable open end wrench to turn the manual drive when the drill rod is installed.

(k) Turn in the door open direction until the drill rod stops the rotation.

1) Do not bend the drill rod.

(l) In the flight compartment, make sure the EICAS alert message does not show.

(m) Turn the lift/latch manual drive slightly in the door close direction and remove the drill rod.

(n) Put a drill rod, STD-10307 in the rig pin hole No. 3.

(o) Put a wrench on one of the lift/latch manual drive flexible shaft end fittings on the inner side of the door.

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(p) Use an adjustable open end wrench to turn the manual drive when the drill rod is installed.

(q) Turn in the door open direction until the drill rod stops the rotation.

NOTE: The latch rotation is 6.2-7.8 degrees.

(r) In the flight compartment, make sure the EICAS alert message shows.

1) Do this task: Showing Alert Messages, TASK 31-61-00-800-814.

(s) Turn the lift/latch manual drive slightly in the door close direction and remove the drill rod.

(t) Put the speed wrench in the lift/latch manual drive port found on the door skin in the middle of the door.

CAUTION DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR.

CAUTION DO NOT OPERATE THE LIFT/LATCH MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 50 POUND-INCHES. DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(u) Turn the lift/latch manual drive in the door open direction until the door has lifted 2 in. (50.80 mm) minimum.

(v) Remove the speed wrench.

(w) Put the proximity sensor test set, SPL-1690 against the latched and locked proximity sensor [18].

1) Use the A27092-71 actuator slug.

(x) In the flight compartment, make sure the EICAS alert message does not show.

(y) Put the power tool in the hinge manual drive port found on the fuselage skin forward of the door.

CAUTION DO NOT LET THE POWER DRIVE UNIT OPERATE WITH TORQUE LIMITER SLIPPAGE FOR MORE THAN 5 SECONDS. DAMAGE TO THE POWER DRIVE UNIT CAN OCCUR. DO NOT OPERATE THE MANUAL DRIVE AT A SPEED FASTER THAN 500 RPM OR A TORQUE OF MORE THAN 110 POUND-INCHES (127 KG-CM). DAMAGE TO THE MANUAL DRIVE CAN OCCUR.

(z) Turn the hinge manual drive in the door open direction.

(aa) When the aft upper guide roller is 1.25 in. (31.75 mm) to 2.0 in. (50.80 mm) from the inboard surface of the upper guide track, make sure the EICAS alert message shows in the flight compartment.

(ab) Continue to turn the hinge manual drive in the door open direction until the door is in the fully open position.

(ac) In the flight compartment, make sure the EICAS status message shows.

1) Do this task: Showing Status Messages, TASK 31-61-00-800-813.

(ad) Remove the proximity sensor test set, SPL-1690 from the latched and locked proximity sensor [18].

(ae) In the flight compartment, clear the EICAS status message.

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(af) In the fight compartment, wait 5-10 seconds and make sure the EICAS status message does not show.

(ag) Put the proximity sensor test set, SPL-1690 against the closed proximity sensor [6].

1) Use the A27092-73 actuator slug.

(ah) In the flight compartment, make sure the EICAS status message shows.

(ai) Remove the proximity sensor test set, SPL-1690 from the closed proximity sensor [6].

(aj) In the flight compartment, clear the EICAS status message.

(ak) In the fight compartment, wait 5-10 seconds and make sure the EICAS status message does not show.

(al) Remove the safety tag and close this circuit breaker:

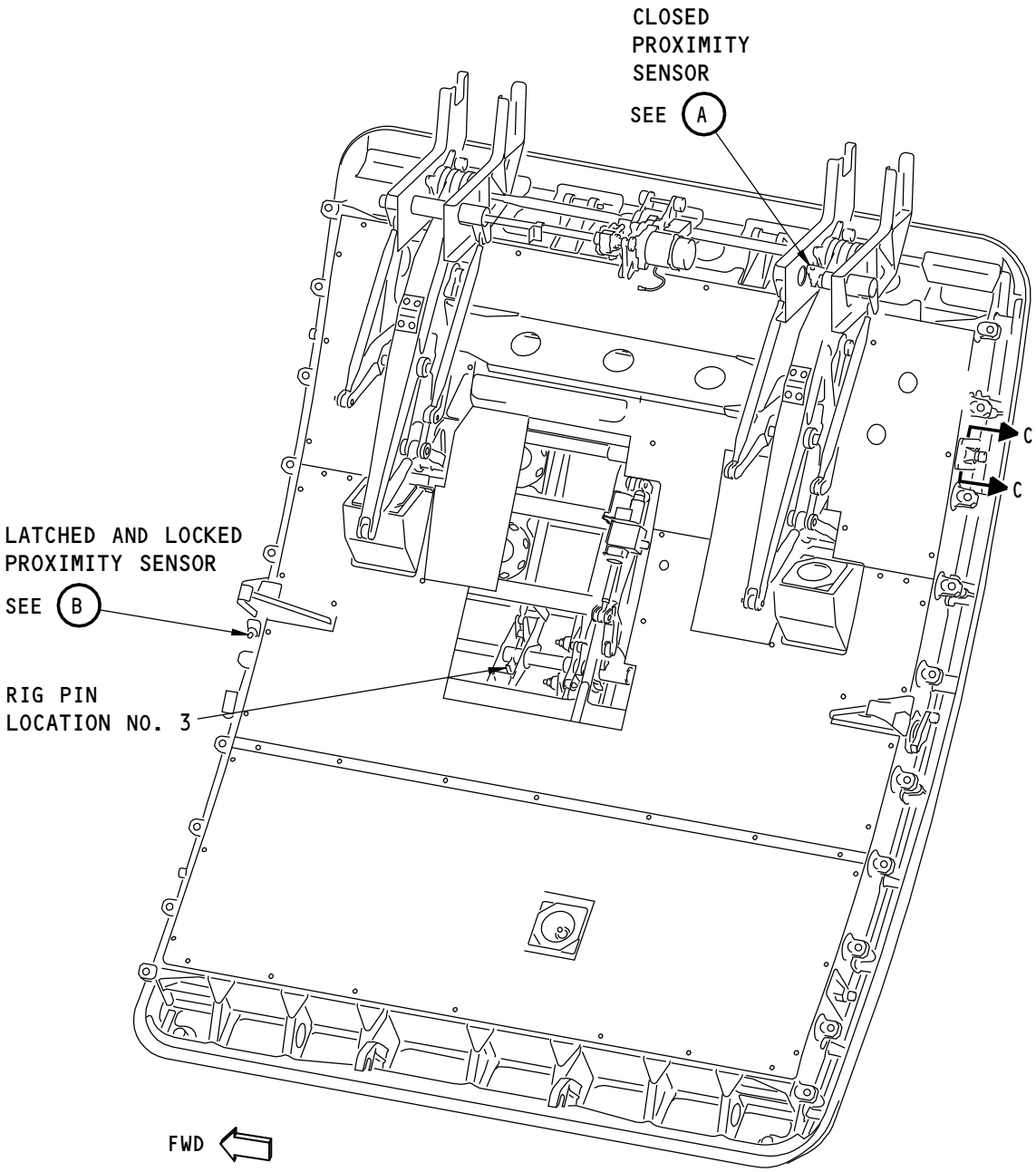
Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
D	5	C52304	AFT CARGO DOOR

(am) In the flight compartment, make sure the EICAS alert message shows.

——— END OF TASK ———

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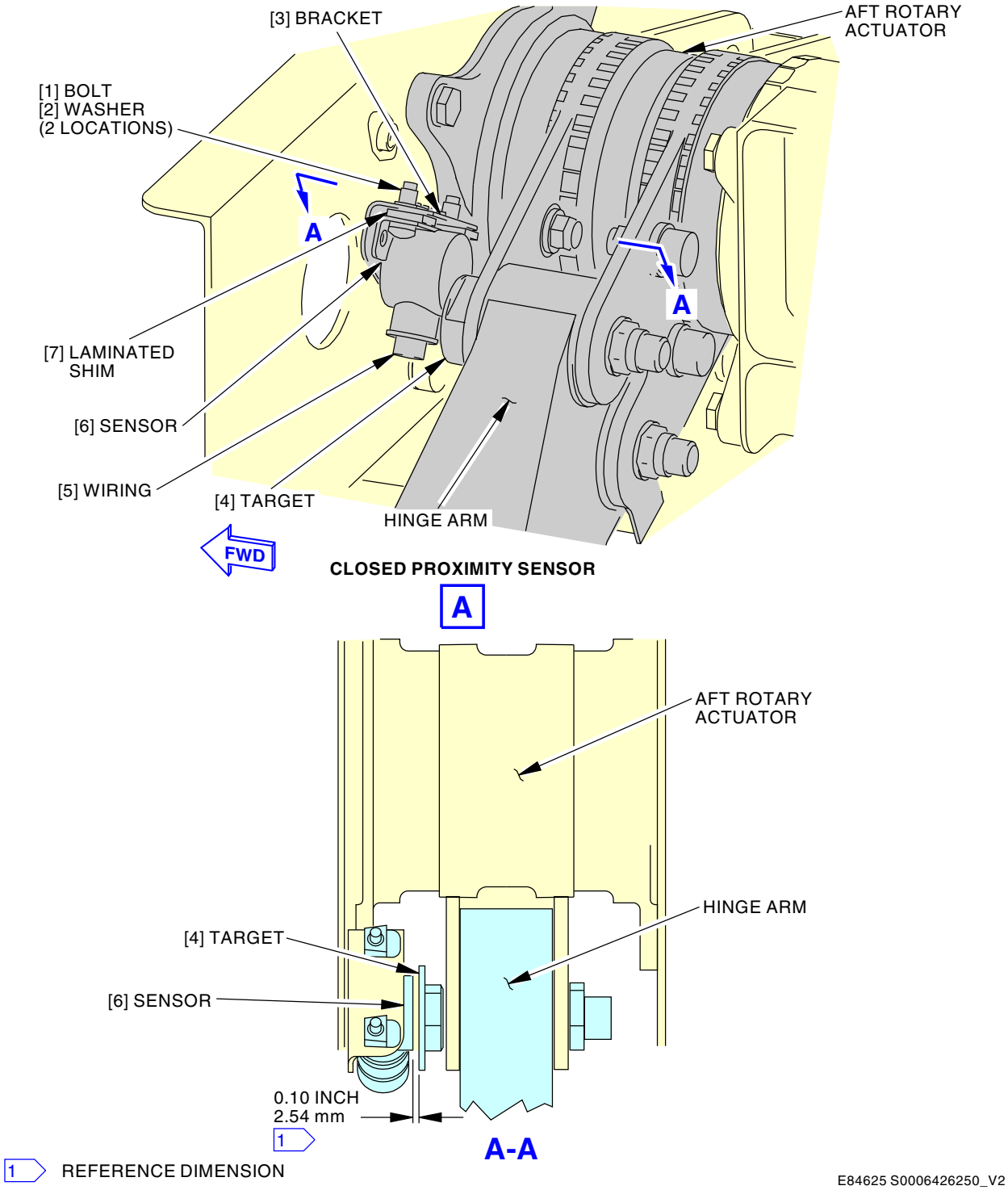


SMALL CARGO DOOR

E82027 S0006426249_V1

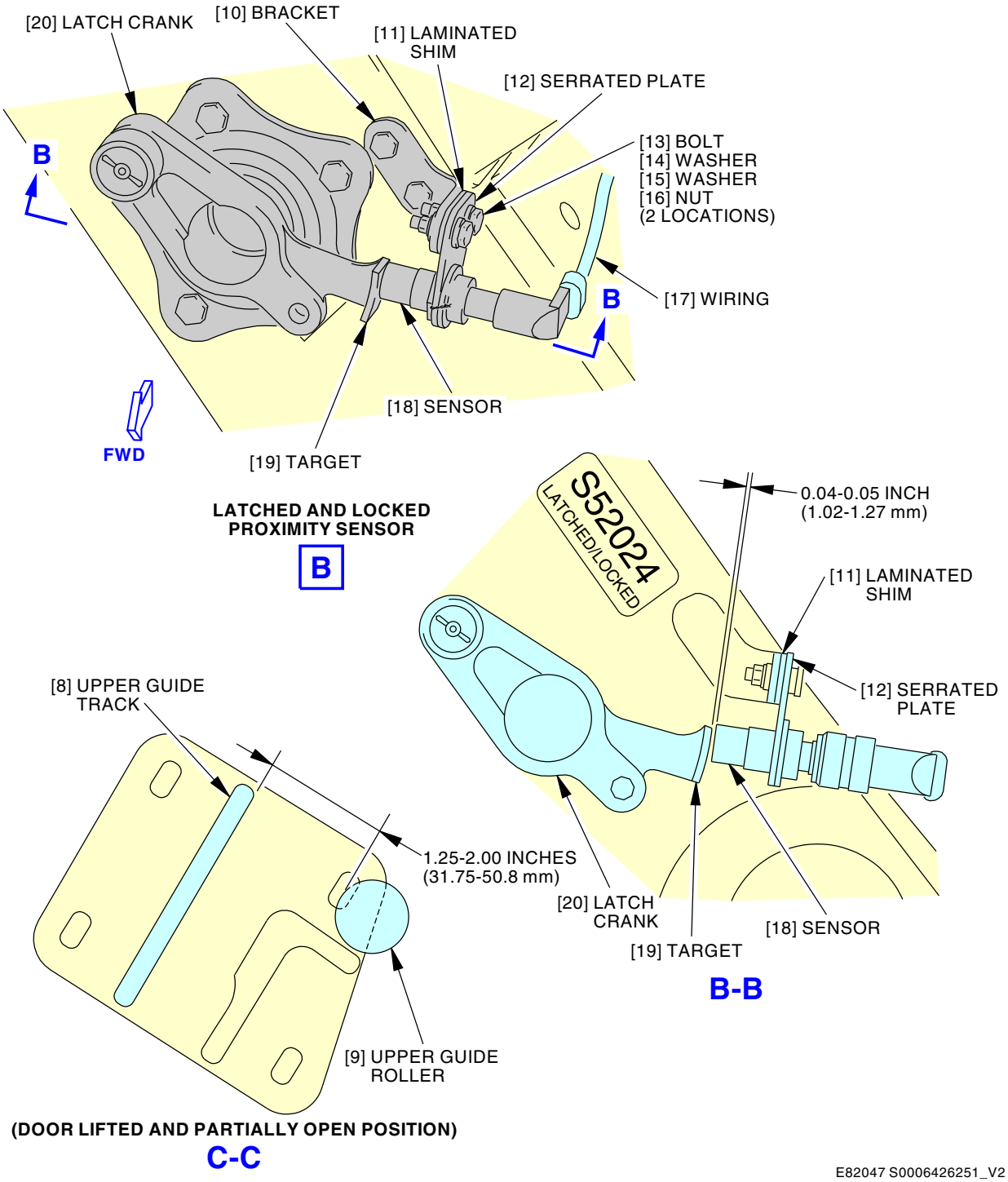
Small Cargo Door Warning System
Figure 201/52-71-03-990-801 (Sheet 1 of 3)

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Small Cargo Door Warning System
Figure 201/52-71-03-990-801 (Sheet 2 of 3)

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E82047 S0006426251_V2

Small Cargo Door Warning System
Figure 201/52-71-03-990-801 (Sheet 3 of 3)

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BULK CARGO DOOR WARNING SYSTEM - MAINTENANCE PRACTICES

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal, installation and adjustment of the bulk cargo door closed, latched and locked switch.

(2) A check for over-travel of the bulk cargo door latch probe.

(3) An operational test of the bulk cargo door closed, latched and locked switch.

Table 201/52-71-04-993-803

BULK CARGO DOOR INDICATION SWITCH	
SWITCH	**NAME**
S52020	Closed, Latched and Locked

TASK 52-71-04-900-801

2. Bulk Cargo Door Closed, Latched and Locked Switch Removal, Installation and Adjustment

(Figure 201)

A. General

(1) This task gives steps to remove, install, and adjust the bulk cargo door closed, latched and locked switch.

(a) The adjustment steps may require fabrication of a bushing or block.

(2) The bulk cargo door closed, latched and locked switch is found in the latch fitting at the forward edge of the door cutout.

(3) The switch detects that the door is closed, latched and locked.

B. References

Reference	Title
52-36-01-410-801	Bulk Cargo Door Installation (P/B 401)
52-71-00-720-802	Door and Landing Gear Proximity Sensor Test Using Breakout Box (P/B 501)

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
3	Bolt	52-71-04-05-010	ARO ALL
4	Washer	52-71-04-05-015	ARO ALL
5	Switch	52-71-04-05-005	ARO ALL
6	Serrated plate	53-74-51-13-172	ARO ALL
9	Pushrod	52-36-01-01-275	ARO 001-017

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(Continued)

AMM Item	Description	AIPC Reference	AIPC Effectivity
12	Bearing	52-36-01-01-600	ARO 001-017
13	Bolt	52-36-01-01-575	ARO 001-017
14	Washer	52-36-01-01-580	ARO 001-017
16	Nut	52-36-01-01-595	ARO 001-017

E. Location Zones

Zone	Area
825	Bulk Cargo Door

F. Prepare for the Removal

SUBTASK 52-71-04-010-001

(1) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
G	1	C33019	CARGO LTS CTRL-AFT

Right Power Management Panel, P210

Row	Col	Number	Name
L	13	C32601	PSEU 2 PRI PWR

Standby Power Management Panel, P310

Row	Col	Number	Name
D	2	C32624	PSEU 2 ALTN PWR

(2) Get access to the switch [5] as follows:

(a) Open the door.

(b) Remove the applicable cargo compartment lining on the forward side of the fuselage structure [2].

(3) Check the latch probe [1] for over-travel Bulk Cargo Door Latch Probe Over-Travel - Inspection/Check, TASK 52-71-04-200-801.

NOTE: Over-travel of the latch probe may cause damage to the bulk cargo door closed, latched and locked switch.

G. Removal

SUBTASK 52-71-04-020-001

(1) Remove the switch [5] as follows:

(a) Cut the wiring [7] from the switch [5].

1) Make sure that there is a sufficient length of wiring [7] to permit a splice.

(b) Remove the bolts [3] and washers [4] that attach the switch [5] to the fuselage structure [2].

(c) Remove the switch [5].

H. Installation

SUBTASK 52-71-04-420-001

(1) Install the switch [5] as follows:

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(a) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the switch [5] and the fuselage structure [2].

(b) Hold the switch [5] in its correct position and install the bolts [3] and washers [4] to attach the switch [5] to the fuselage structure [2].

(c) Apply the sealant, A00247 to the threads of the bolts [3] that show.

(d) Splice the wiring [7] to the wiring from the switch [5] (SWPM 20-30-12).

I. Adjustment

SUBTASK 52-71-04-820-003

(1) Check the clearance between the centering plate and the centering guide (Bulk Cargo Door Installation, TASK 52-36-01-410-801).

NOTE: The 0.00 gap indicated is defined as the roller is just touching the centering plates lightly and the roller can be rotated with finger force. Adjusting the centering guide may affect switch adjustment.

(a) Readjust the centering guides, as required, before the push rod length adjustment.

SUBTASK 52-71-04-820-002

(2) Put a bushing or block over the switch plunger [8], between the serrated plate [6] and the latch probe [1] (View A-A, Figure 201).

NOTE: The bushing can prevent damage to the switch [5] caused by the over-travel of the latch probe [1] and may be fabricated from any type of aluminum or steel.

NOTE: A machined or fabricated block with the same dimensions is optional to the bushing. The block may be fabricated from any type of aluminum or steel.

(a) Make sure the inner diameter of the bushing or block is 0.27 in. (6.86 mm)-0.31 in. (7.87 mm).

(b) Make sure the minimum outer diameter of the bushing or block is 0.5 in. (12.70 mm).

(c) Make sure the thickness of the bushing or block is 0.39 in. (9.91 mm)-0.40 in. (10.16 mm).

NOTE: The thickness will ensure the gap between the serrated plate [6] and the latch probe [1] stays at 0.42 +0.00 / -0.05 in. (10.67 +0.00 / -1.27 mm).

(d) Make sure the bushing or block makes full contact with the serrated plate [6].

SUBTASK 52-71-04-820-001

(3) Adjust the bulk cargo door warning system as follows:

NOTE: The switch [5] cannot be adjusted, so the system is adjusted with the latch probes.

(a) Open the door.

(b) If it is necessary, remove the bolt [13], washers [14], bushing [15], and nut [16] to remove the bearing [12] and make space for the door to move aft.

NOTE: It is easier to see the door move aft and adjust the latch probe pushrod [9]if the bearing [12] is removed, but it is not necessary.

(c) Close the door.

(d) Disconnect the latch probe pushrod [9] from the latch probe [1].

NOTE: The latch probe spring will push the latch probe [1] forward against the bushing on the switch plunger [8].

(e) Adjust the end of the latch probe pushrod [9] to align with the bolt hole in the latch probe [1].

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(f) Tighten the lock nut on the latch probe pushrod [9].

(g) Connect the latch probe pushrod [9] to the latch probe [1].

(h) Open the door.

(i) Remove the bushing on the switch plunger [8].

(j) If removed, install the bolt [13], washers [14], bushing [15], and nut [16] to install the bearing [12].

J. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-04-410-001

(1) Close access to the switch [5] as follows:

(a) Install the cargo compartment lining.

(b) Close the door.

(2) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
G	1	C33019	CARGO LTS CTRL-AFT

Right Power Management Panel, P210

Row	Col	Number	Name
L	13	C32601	PSEU 2 PRI PWR

Standby Power Management Panel, P310

Row	Col	Number	Name
D	2	C32624	PSEU 2 ALTN PWR

K. Installation Test

SUBTASK 52-71-04-730-001

(1) Do one of the steps that follow to perform a functional test of the proximity sensor:

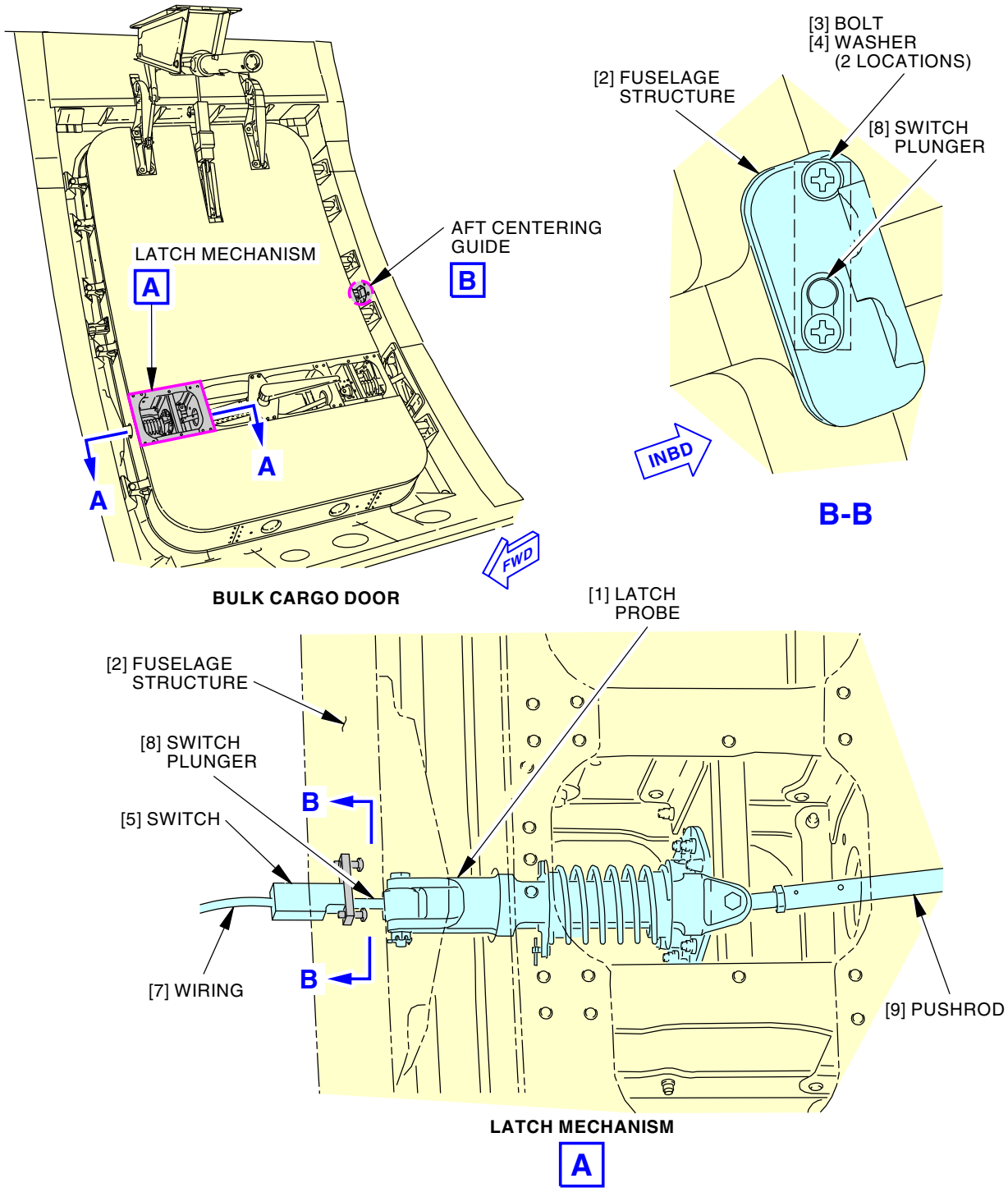
(a) Do this task: Bulk Cargo Door Closed, Latched and Locked Switch Operational Test, TASK 52-71-04-710-801.

(b) Do this task: Door and Landing Gear Proximity Sensor Test Using Breakout Box, TASK 52-71-00-720-802.

NOTE: The proximity sensor breakout box, COM-14585 is required to do this task.

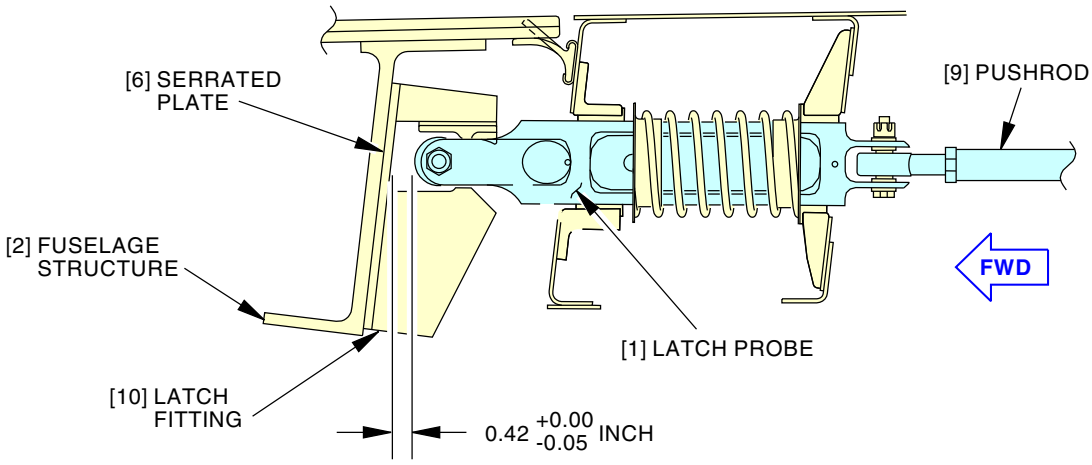
——— END OF TASK ———

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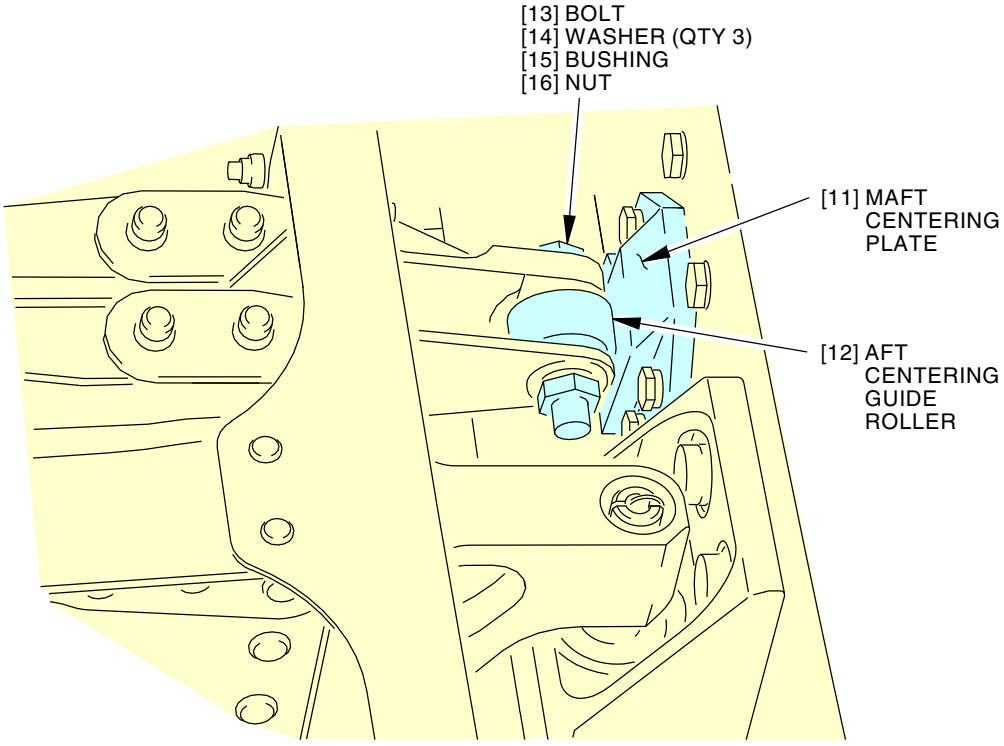


Bulk Cargo Door Warning System
Figure 201/52-71-04-990-802 (Sheet 1 of 2)

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A-A



AFT CENTERING GUIDE

B

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Bulk Cargo Door Warning System
Figure 201/52-71-04-990-802 (Sheet 2 of 2)

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TASK 52-71-04-200-801

3. Bulk Cargo Door Latch Probe Over-Travel - Inspection/Check

(Figure 201)

A. General

(1) This procedure does a check of the bulk cargo door latch probe to make sure that there is no over-travel.

B. Consumable Materials

Reference	Description	Specification
G50673	Compound - Metrology Casting Material, Quicksetting Putty, Flexbar ReproRubber (Light Blue Color)	

C. Location Zones

Zone	Area
825	Bulk Cargo Door

D. Prepare for the Check

SUBTASK 52-71-04-040-001

(1) Open these circuit breakers and install safety tags:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
G	1	C33019	CARGO LTS CTRL-AFT

Right Power Management Panel, P210

Row	Col	Number	Name
L	13	C32601	PSEU 2 PRI PWR

Standby Power Management Panel, P310

Row	Col	Number	Name
D	2	C32624	PSEU 2 ALTN PWR

(2) Get access to the switch [5] as follows:

(a) Open the door.

E. Bulk Cargo Door Latch Probe Over-Travel Check

SUBTASK 52-71-04-220-001

(1) Put Flexbar ReproRubber Quicksetting Putty, G50673 on the serrated plate [6] and around the switch plunger [8] that is approximately 0.5 in. (1.3 cm) thick.

(a) Follow the manufacturers directions when you mix the 2–part Flexbar ReproRubber Quicksetting Putty, G50673.

(b) Mix a sufficient quantity of compound.

NOTE: In general, you will knead two equal size balls of catalyst putty and base putty together for 30-45 seconds. Manipulation time to put the ReproRubber around the switch plunger is approximately 3 to 4 minutes. ReproRubber will become hard in approximately 8 to 10 minutes. If the ReproRubber becomes hard before you close the bulk cargo door, you will get incorrect gap measurement results.

1) Make sure there is sufficient quantity to be 0.5 in. (1.3 cm) thick from the serrated plate [6] and to go around the switch plunger [8].

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2) Make sure there is sufficient quantity for a control sample.

(2) Close the door.

(3) Check the control sample of the Flexbar ReproRubber Quicksetting Putty, G50673 to determine the appropriate hardness before you open the door.

(4) Open the door.

(5) Make sure the thickness of the Flexbar ReproRubber Quicksetting Putty, G50673 is 0.44 +0.00 / -0.05 in. (1.12 +0.00 / -0.13 cm).

NOTE: The latch probe to the top of the serrations on the serrated plate [6] is 0.42 +0.00 / -0.05 in. (1.07 +0.00 / -0.13 cm). The top of the serrations to the bottom of the serrations on the serrated plate [6] is 0.02 in. (0.05 cm) (Figure 201).

(6) If the thickness of the Flexbar ReproRubber Quicksetting Putty, G50673 is not 0.44 +0.00 / -0.05 in. (1.12 +0.00 / -0.13 cm), adjust the latch probes [1] before the switch [5] is removed.

(a) To adjust the latch probes [1], do this task: Bulk Cargo Door Closed, Latched and Locked Switch Removal, Installation and Adjustment, TASK 52-71-04-900-801.

1) Do only the adjustment procedure.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-04-840-001

(1) Close access to the switch [5] as follows:

(a) Close the door.

(2) Remove the safety tags and close these circuit breakers:

Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	Name
G	1	C33019	CARGO LTS CTRL-AFT

Right Power Management Panel, P210

Row	Col	Number	Name
L	13	C32601	PSEU 2 PRI PWR

Standby Power Management Panel, P310

Row	Col	Number	Name
D	2	C32624	PSEU 2 ALTN PWR

——— END OF TASK ———

TASK 52-71-04-710-801

4. Bulk Cargo Door Closed, Latched and Locked Switch Operational Test

A. General

(1) This task is an operational test of the bulk cargo door closed, latched and locked switch.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
31-61-00-800-814	Showing Alert Messages (P/B 201)

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C. Location Zones

Zone	Area
825	Bulk Cargo Door

D. Prepare for the Test

SUBTASK 52-71-04-860-001

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

E. Test

SUBTASK 52-71-04-860-002

(1) Make sure all the doors are fully closed, latched and locked.

SUBTASK 52-71-04-210-001

(2) Make sure that no EICAS messages show for the doors. To show the messages, do this task: Showing Alert Messages, TASK 31-61-00-800-814.

SUBTASK 52-71-04-730-002

(3) Do a test on the bulk cargo door closed, latched and locked switch as follows:

(a) Open the door.

(b) Make sure the applicable EICAS alert message shows (Table 202).

NOTE: If two or more doors of any kind are not closed, latched and locked, the EICAS alert message DOORS will show and the individual message for the door will not show.

(c) Close the door.

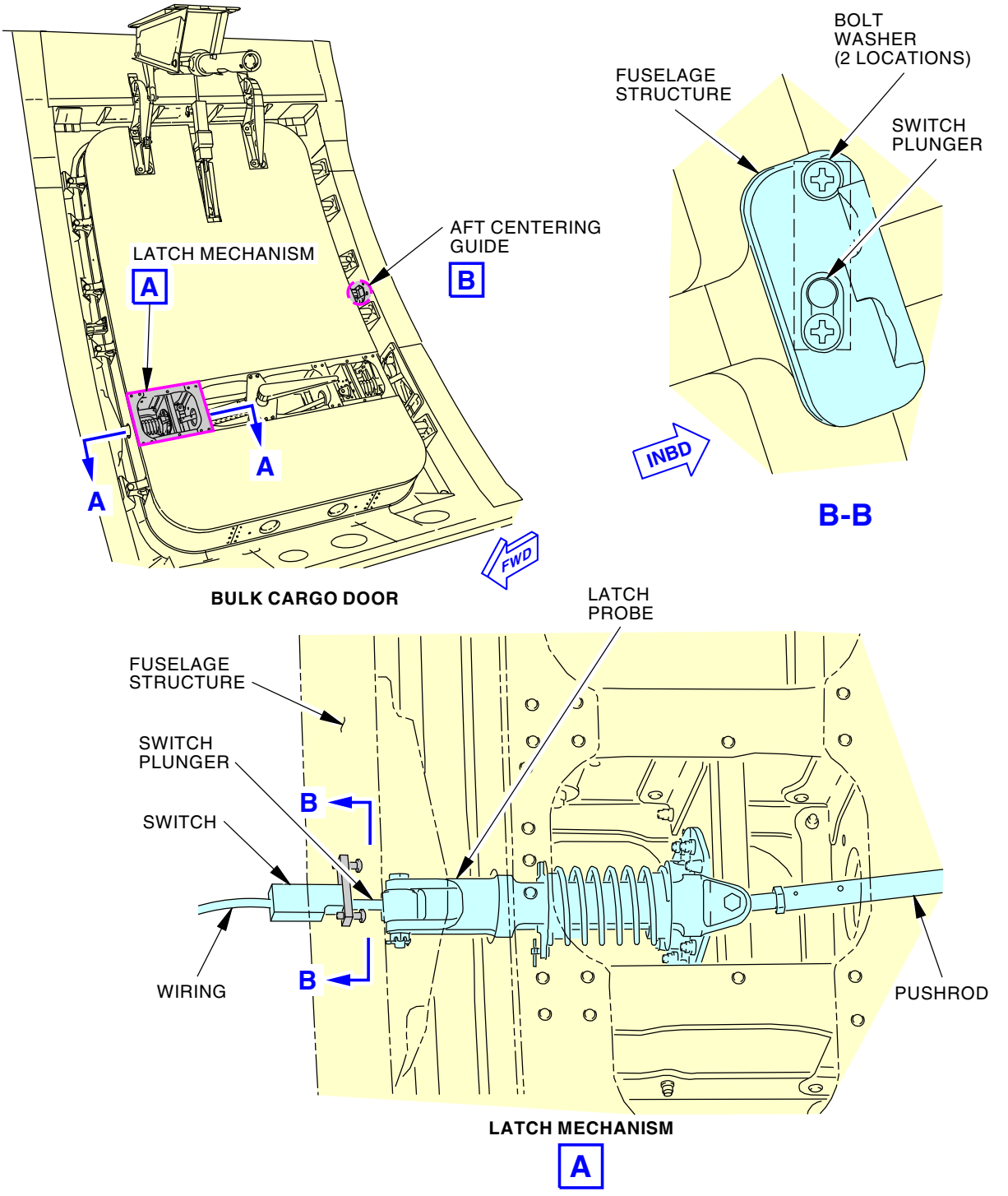
(d) Make sure the applicable EICAS alert message does not show.

Table 202/52-71-04-993-802 Bulk Cargo Door EICAS Alert Messages

DOOR	EICAS ALERT MESSAGE
Bulk Cargo Door	DOOR BULK CARGO

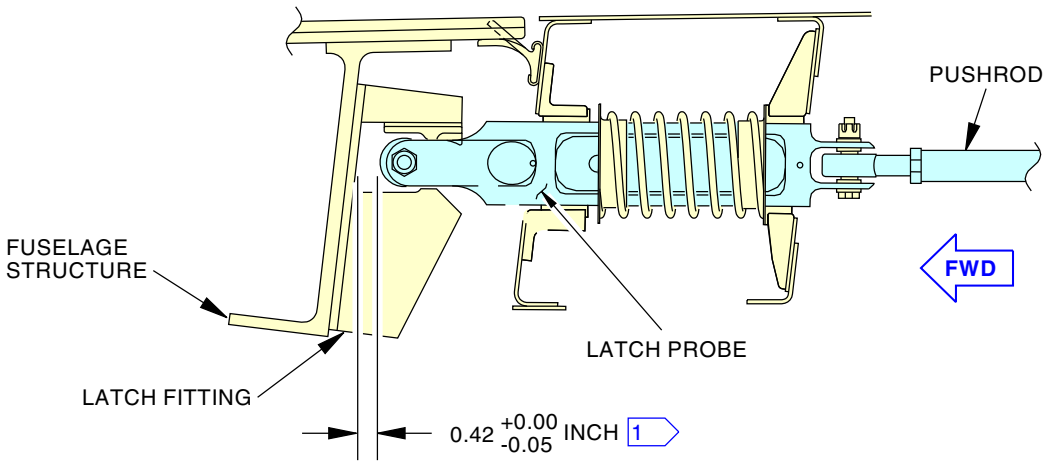
END OF TASK

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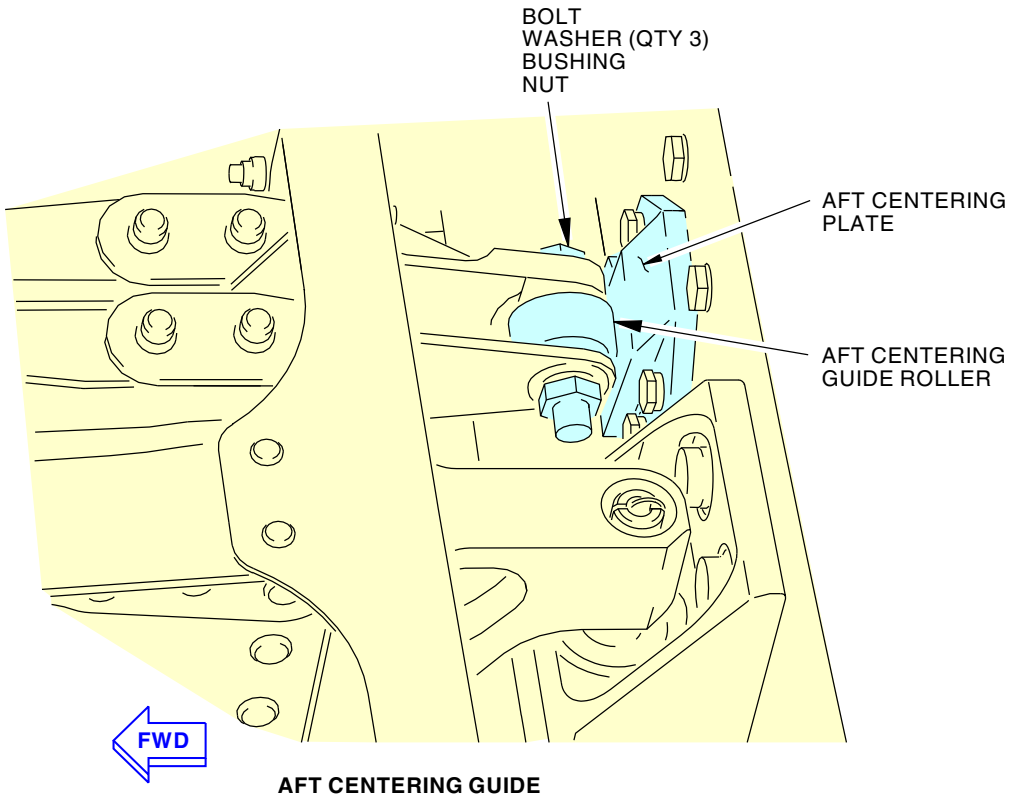


Bulk Cargo Door Latch Microswitch
Figure 202/52-71-04-990-803 (Sheet 1 of 2)

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A-A



AFT CENTERING GUIDE

B

1 REFERENCE DIMENSION

383939 S0000134884_V2

Bulk Cargo Door Latch Microswitch
Figure 202/52-71-04-990-803 (Sheet 2 of 2)

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FORWARD ACCESS DOOR WARNING SYSTEM - MAINTENANCE PRACTICES

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal, installation and adjustment of the door indication proximity sensor.

(2) An operational test of the forward access door closed, latched and locked proximity sensor.

Table 201/52-71-05-993-803

FORWARD ACCESS DOOR INDICATION PROXIMITY SENSOR	
SENSOR	**NAME**
S52018	Closed, Latched and Locked

TASK 52-71-05-900-801

2. Closed, Latched and Locked Proximity Sensor Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The closed, latched and locked proximity sensor and target are found on the fuselage frame near the latch pin receptacle. The target is moved in front of the sensor by the latch pin on the door.

(2) The sensor detects that the door is fully closed and latched.

B. Consumable Materials

Reference	Description	Specification
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

C. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

D. Access Panels

Number	Name/Location
112AL	Forward Access Door

E. Prepare for the Removal

SUBTASK 52-71-05-860-001

(1) Open this access door to the fully open position:

Number	Name/Location
112AL	Forward Access Door

F. Removal

SUBTASK 52-71-05-020-001

(1) Remove the proximity sensor [2] as follows:

(a) Disconnect the wiring [4] from the proximity sensor [2].

(b) Remove the bolts [5], washers [6], washers [7], and nuts [8] that attach the proximity sensor [2] to the structure.

(c) Remove the proximity sensor [2].

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G. Installation

SUBTASK 52-71-05-420-001

(1) Install the proximity sensor [2] as follows:

(a) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the bolts [5], washers [6], washers [7], and nuts [8] that attach the proximity sensor [2] to the structure.

(b) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the proximity sensor [2] and the structure.

(c) Hold the proximity sensor [2] in its correct position and install the bolts [5], washers [6], washers [7], and nuts [8] to attach the proximity sensor [2] to the structure.

(d) Connect the wiring [4] to the proximity sensor [2].

H. Adjustment

SUBTASK 52-71-05-700-001

(1) Make sure the latch pin [11] length is correct (View A-A, Figure 201).

(a) If it is necessary to adjust the length of the latch pin [11], do these steps:

1) Remove the safety wire and loosen the rod end jam nuts on the latch pin [11] and latch crank.

2) Rotate both rod end bearing lengths in or out to get the dimension (View A-A, Figure 201).

a) After the adjustment, make sure the threads on the latch pin [11] rod end can be seen through the witness hole in the latch pin [11].

3) With the adjustment made, tighten the jam nuts and safety wire.

SUBTASK 52-71-05-420-002

(2) Adjust the proximity sensor [2] as follows:

(a) Make sure the clearance between the proximity sensor [2] and the target [3] is correct (View B-B, Figure 201).

1) Make sure the proximity sensor [2] aligns with the target [3].

(b) Adjust the clearance or alignment of the proximity sensor [2] as follows:

1) Turn the threaded shaft of the target [3] to get the correct clearance and lock in position with the nut [9].

2) Loosen the nuts [10] and turn the target bellcrank to get the correct alignment.

3) Tighten the nuts [10].

I. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-05-860-002

(1) Close this access door:

Number	Name/Location
112AL	Forward Access Door

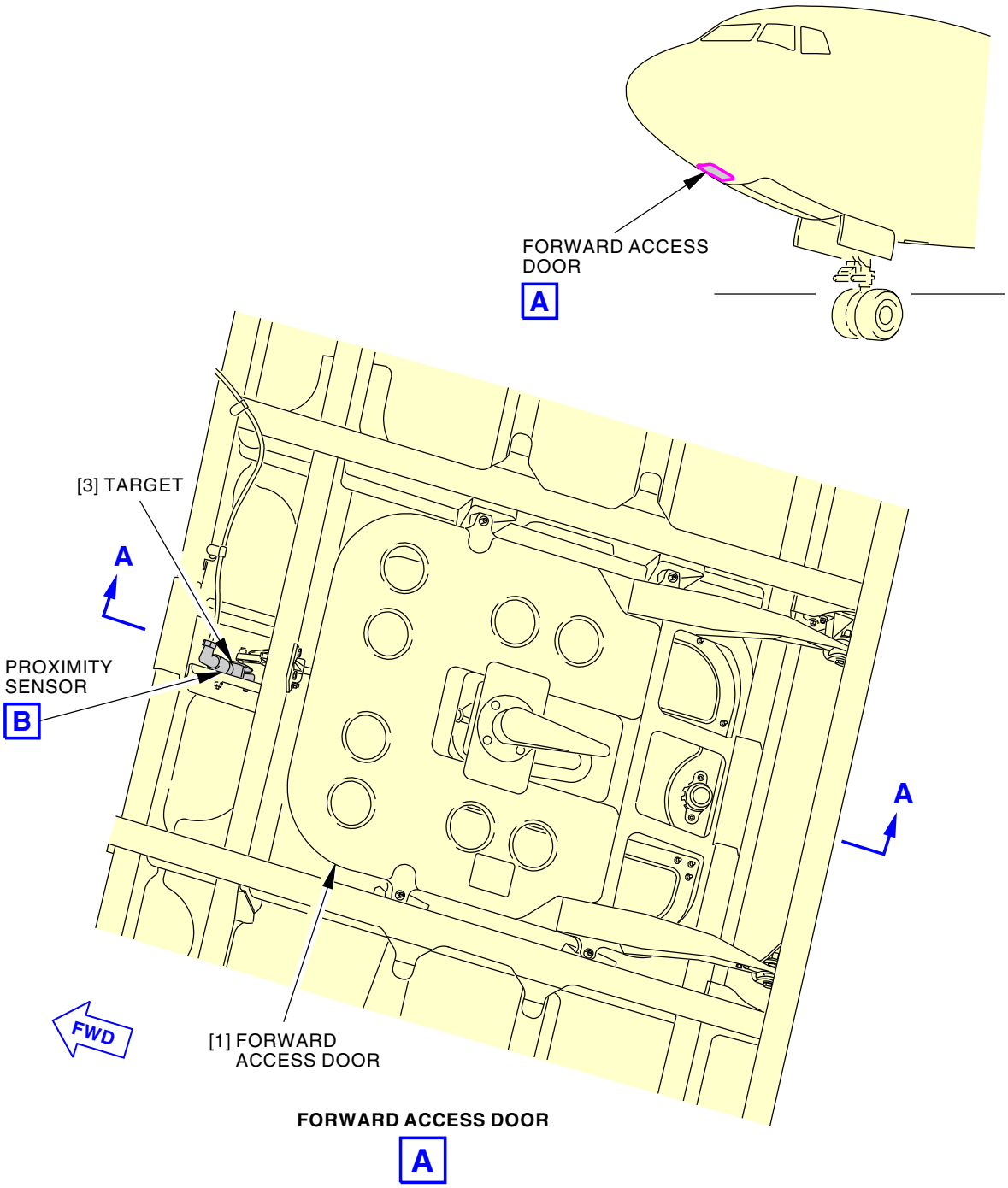
J. Installation Test

SUBTASK 52-71-05-730-001

(1) Do this task: Forward Access Door Closed, Latched and Locked Proximity Sensor Operational Test, TASK 52-71-05-710-801.

END OF TASK

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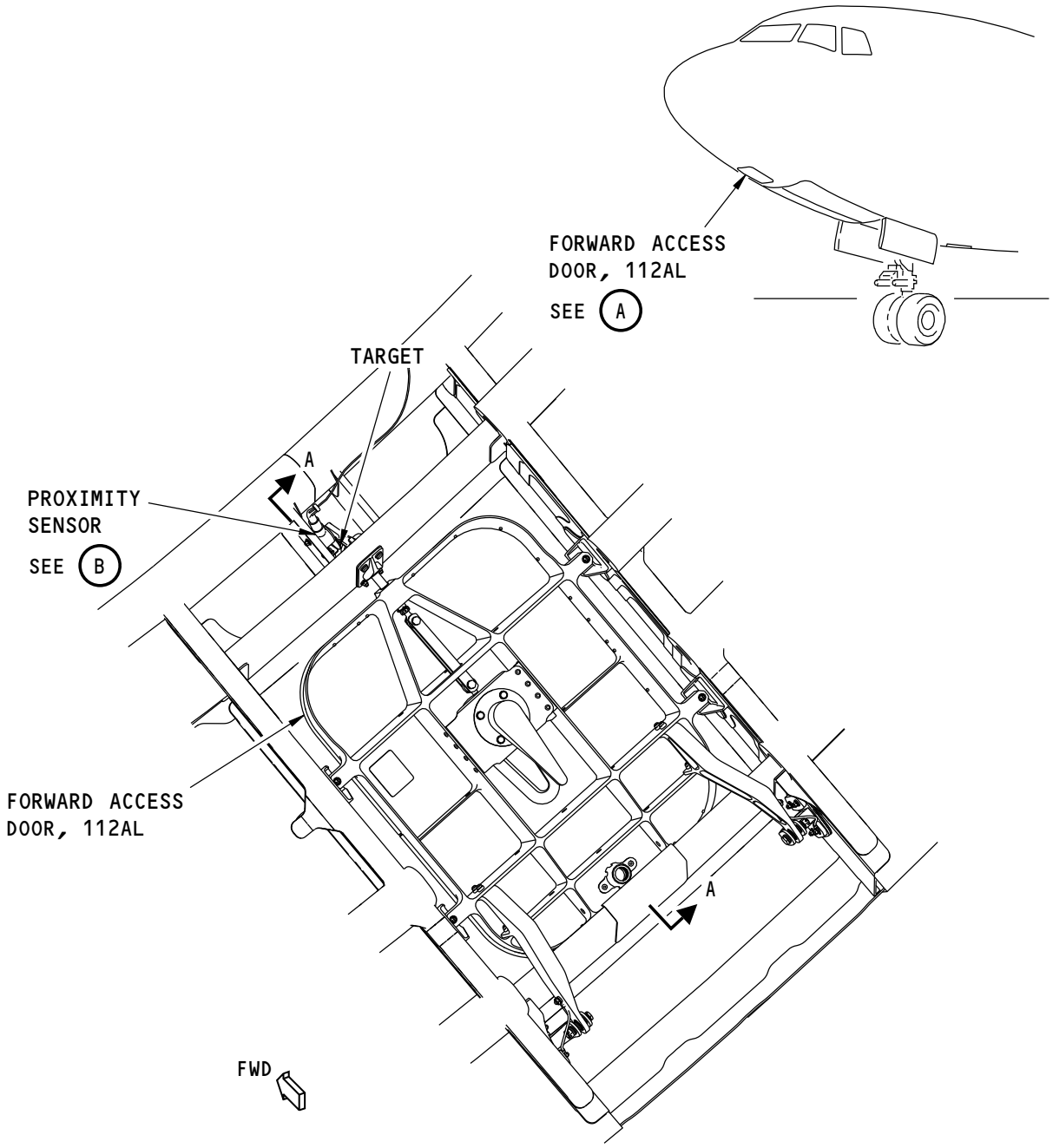


FORWARD ACCESS DOOR
A

C86367 S0006426266_V3

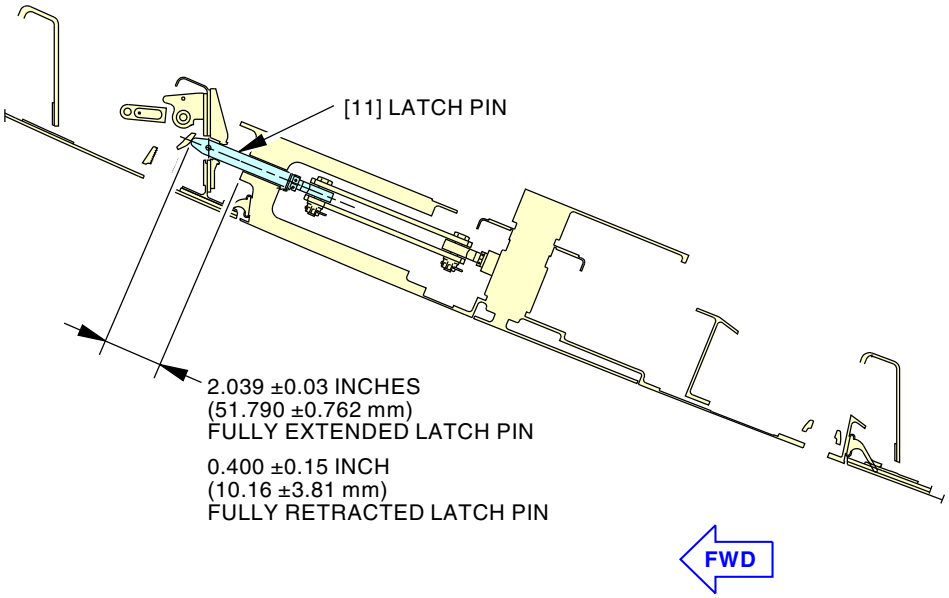
Forward Access Door Warning System
Figure 201/52-71-05-990-802 (Sheet 1 of 4)

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Forward Access Door Warning System
Figure 201/52-71-05-990-802 (Sheet 2 of 4)

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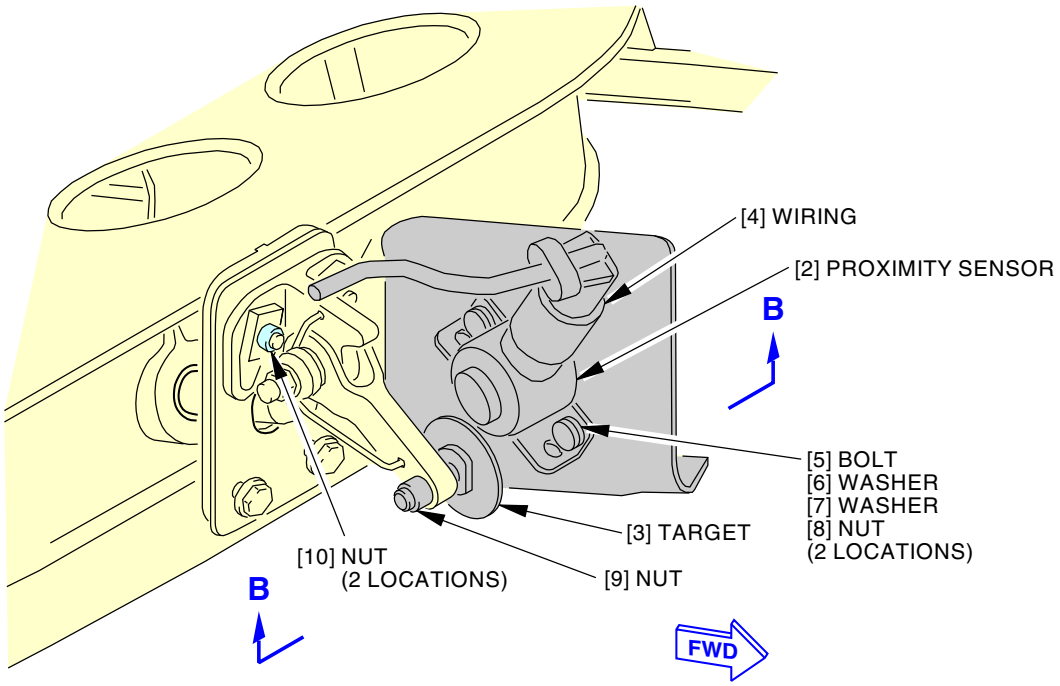


A-A

M17545 S0006426267_V2

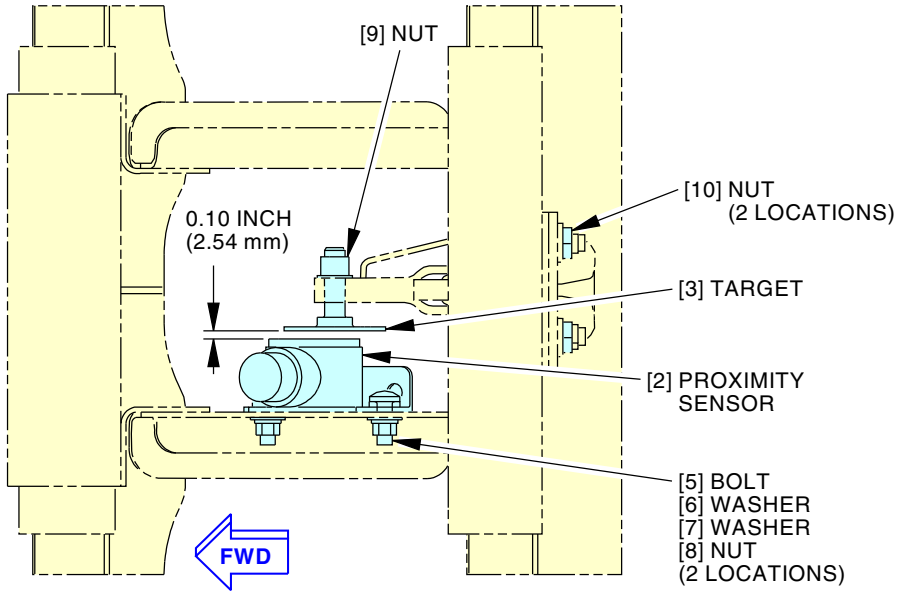
Forward Access Door Warning System
Figure 201/52-71-05-990-802 (Sheet 3 of 4)

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PROXIMITY SENSOR

B



B-B

C86385 S0006426268_V2

Forward Access Door Warning System
Figure 201/52-71-05-990-802 (Sheet 4 of 4)

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TASK 52-71-05-710-801

3. Forward Access Door Closed, Latched and Locked Proximity Sensor Operational Test

(Figure 202)

A. General

(1) This task is an operational test of the forward access door closed, latched and locked proximity sensor.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
31-61-00-800-814	Showing Alert Messages (P/B 201)

C. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

D. Prepare for the Test

SUBTASK 52-71-05-860-003

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

E. Test

SUBTASK 52-71-05-860-004

(1) Make sure all the doors are fully closed, latched and locked.

SUBTASK 52-71-05-210-001

(2) Make sure that no EICAS messages show for the access doors (Showing Alert Messages, TASK 31-61-00-800-814).

SUBTASK 52-71-05-730-002

(3) Do a test on the forward access door closed, latched and locked proximity sensor as follows:

(a) Open the door.

(b) Make sure the applicable EICAS alert message shows (Table 202).

NOTE: If two or more doors of any kind are not closed, latched and locked, the EICAS alert message DOORS will show and the individual message for the door will not show.

(c) Close the door.

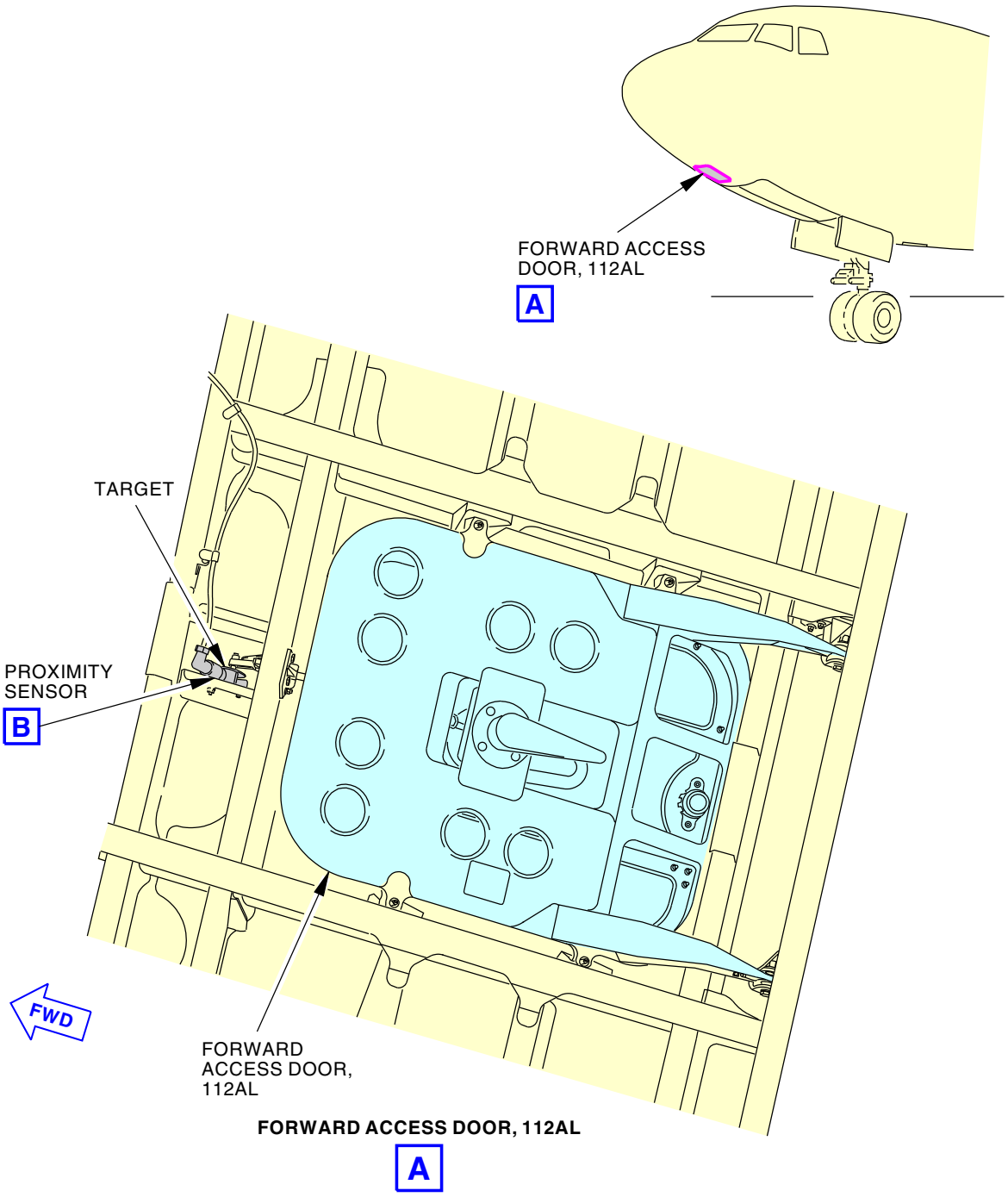
(d) Make sure the applicable EICAS alert message does not show.

Table 202/52-71-05-993-802 Forward Access Door EICAS Alert Message

DOOR	EICAS ALERT MESSAGE
Forward Access Door	DOOR FWD ACCESS

——— END OF TASK ———

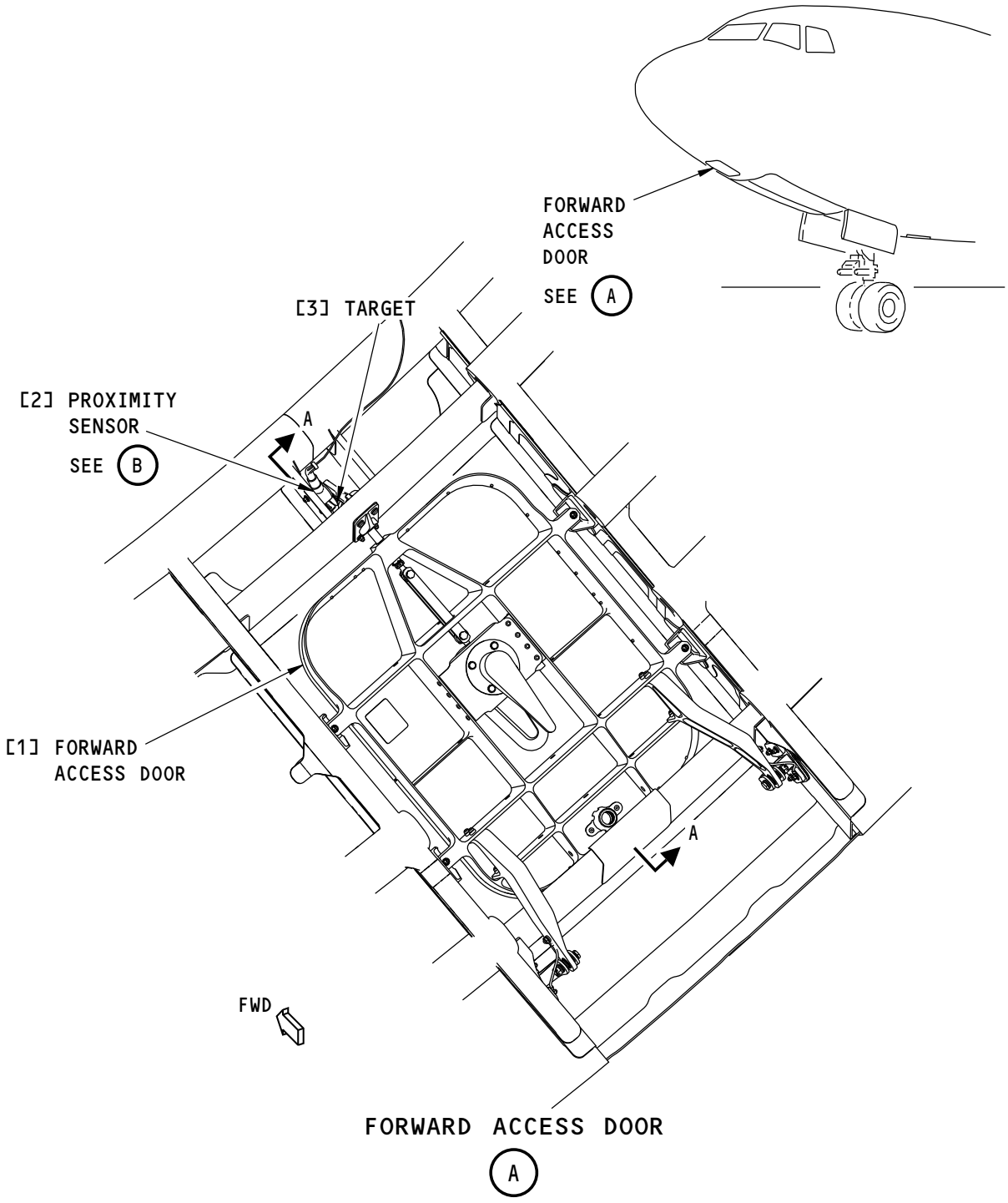
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383911 S0000134885_V2

Forward Access Door Proximity Sensor
Figure 202/52-71-05-990-803 (Sheet 1 of 3)

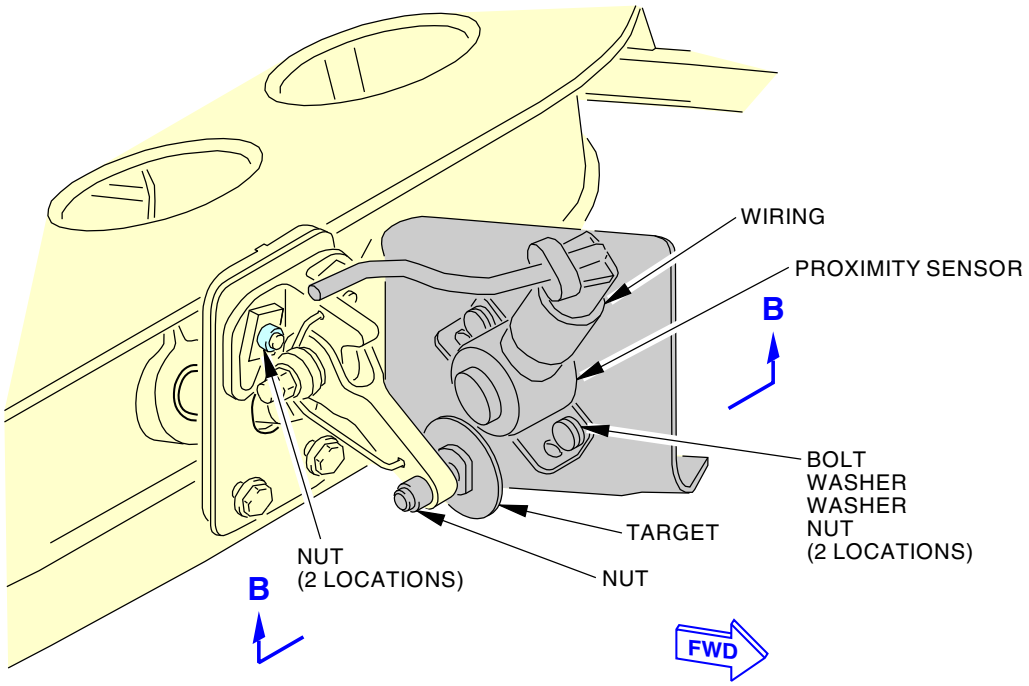
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2459636 S0000571783_V1

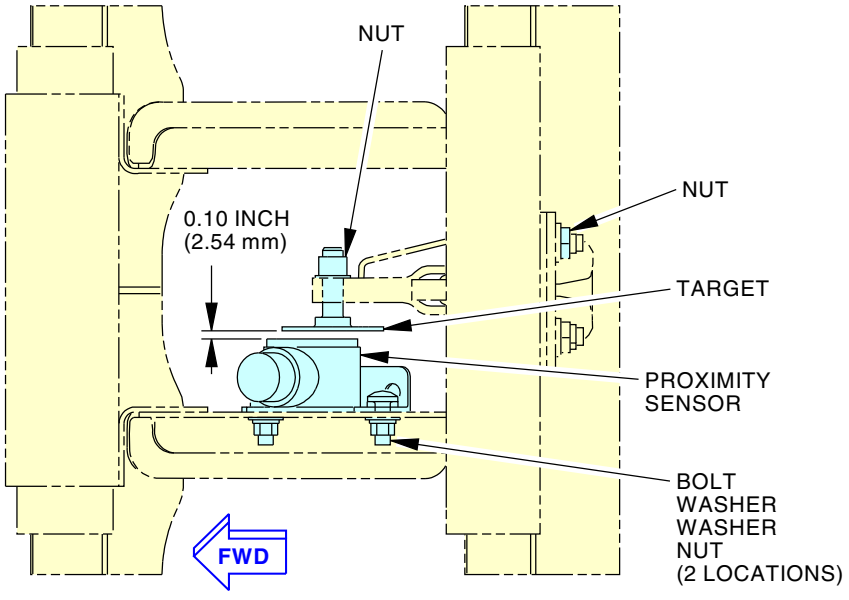
Forward Access Door Proximity Sensor
Figure 202/52-71-05-990-803 (Sheet 2 of 3)

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PROXIMITY SENSOR

B



B-B

383913 S0000134887_V2

Forward Access Door Proximity Sensor
Figure 202/52-71-05-990-803 (Sheet 3 of 3)

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MAIN EQUIPMENT CENTER ACCESS DOOR WARNING SYSTEM - MAINTENANCE PRACTICES

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal, installation and adjustment of the door indication proximity sensor.

(2) An operational test of the main equipment center access door closed, latched and locked proximity sensor.

Table 201/52-71-06-993-803

MAIN EQUIPMENT CENTER ACCESS DOOR INDICATION PROXIMITY SENSOR	
SENSOR	**NAME**
S52019	Closed, Latched and Locked

TASK 52-71-06-900-801

2. Closed, Latched and Locked Proximity Sensor Removal, Installation and Adjustment

(Figure 201)

A. General

(1) The closed, latched and locked proximity sensor is found on the fuselage frame near the latch pin receptacle. The target is the latch pin.

(2) The sensor detects that the door is fully closed and latched.

B. Consumable Materials

Reference	Description	Specification
C00259	Coating - Chemical And Solvent Resistant Finish, Corrosion Inhibiting Primer	BMS10-11 Type I
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Sensor	52-71-05-01-030	ARO ALL
10	Shim	52-71-05-01-025	ARO ALL

D. Location Zones

Zone	Area
117	Main Equipment Center, Left

E. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

F. Prepare for the Removal

SUBTASK 52-71-06-860-001

(1) Open this access door to the fully open position:

Number	Name/Location
117AL	Main Equipment Center Access Door

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G. Removal

SUBTASK 52-71-06-020-001

(1) Remove the sensor [2] as follows:

(a) Disconnect the wiring [8] from the sensor [2].

(b) Remove the bolts [4], washers [5], washers [6], and nuts [7] that attach the sensor [2] to its bracket [3].

(c) Remove the sensor [2].

H. Installation

SUBTASK 52-71-06-420-001

(1) Install the sensor [2] as follows:

(a) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the bolts [4], washers [5], washers [6], and nuts [7] that attach the sensor [2] to its bracket [3].

(b) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the sensor [2] and its bracket [3].

(c) Hold the sensor [2] in its correct position and install the bolts [4], washers [5], washers [6], and nuts [7] to attach the sensor [2] to its bracket [3].

(d) Connect the wiring [8] to the sensor [2].

I. Adjustment

SUBTASK 52-71-06-420-002

(1) Adjust the sensor [2] as follows:

(a) Make sure the clearance between the sensor [2] and the latch pin receptacle centerline is as shown, View A-A (Figure 201).

(b) Adjust the clearance of the sensor [2] as follows:

1) Remove the bolts [4], washers [5], washers [6], and nuts [7] that attach the sensor [2] to its bracket [3].

2) Add or remove the laminations of shim [10] between the sensor [2] and the bracket [3].

3) Apply the primer, C00259 to the bare laminations of shim [10].

4) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the bolts [4], washers [5], washers [6], and nuts [7] that attach the sensor [2] to its bracket [3].

5) Apply the corrosion inhibiting material, G50136 to the mating surfaces of the sensor [2] and its bracket [3].

6) Hold the sensor [2] in its correct position and install the bolts [4], washers [5], washers [6], and nuts [7] to attach the sensor [2] to its bracket [3].

J. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-06-860-002

(1) Close this access door:

Number	Name/Location
117AL	Main Equipment Center Access Door

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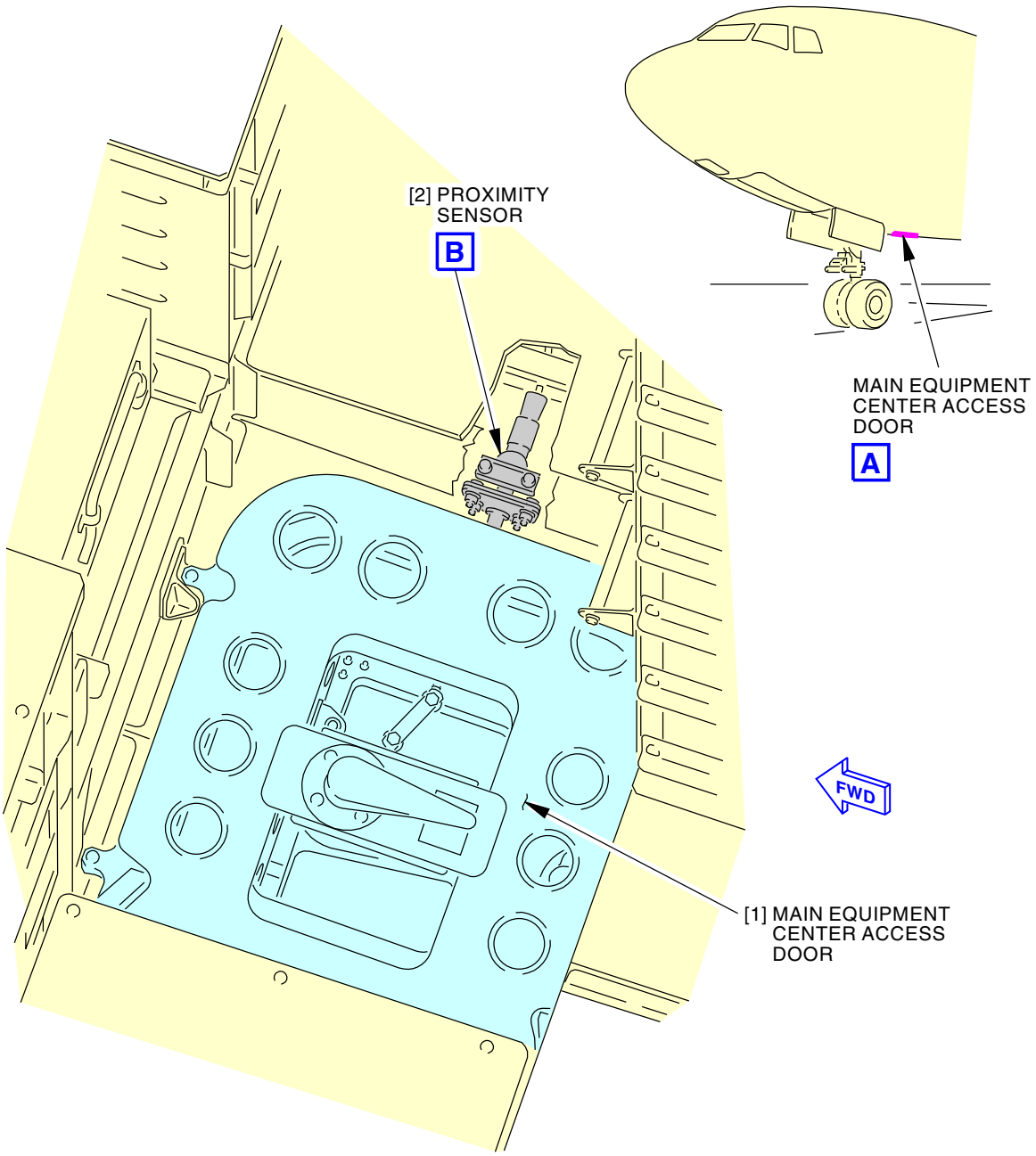
K. Installation Test

SUBTASK 52-71-06-730-001

(1) Do this task: Main Equipment Center Access Door Closed, Latched and Locked Proximity Sensor Operational Test, TASK 52-71-06-710-801.

——— END OF TASK ———

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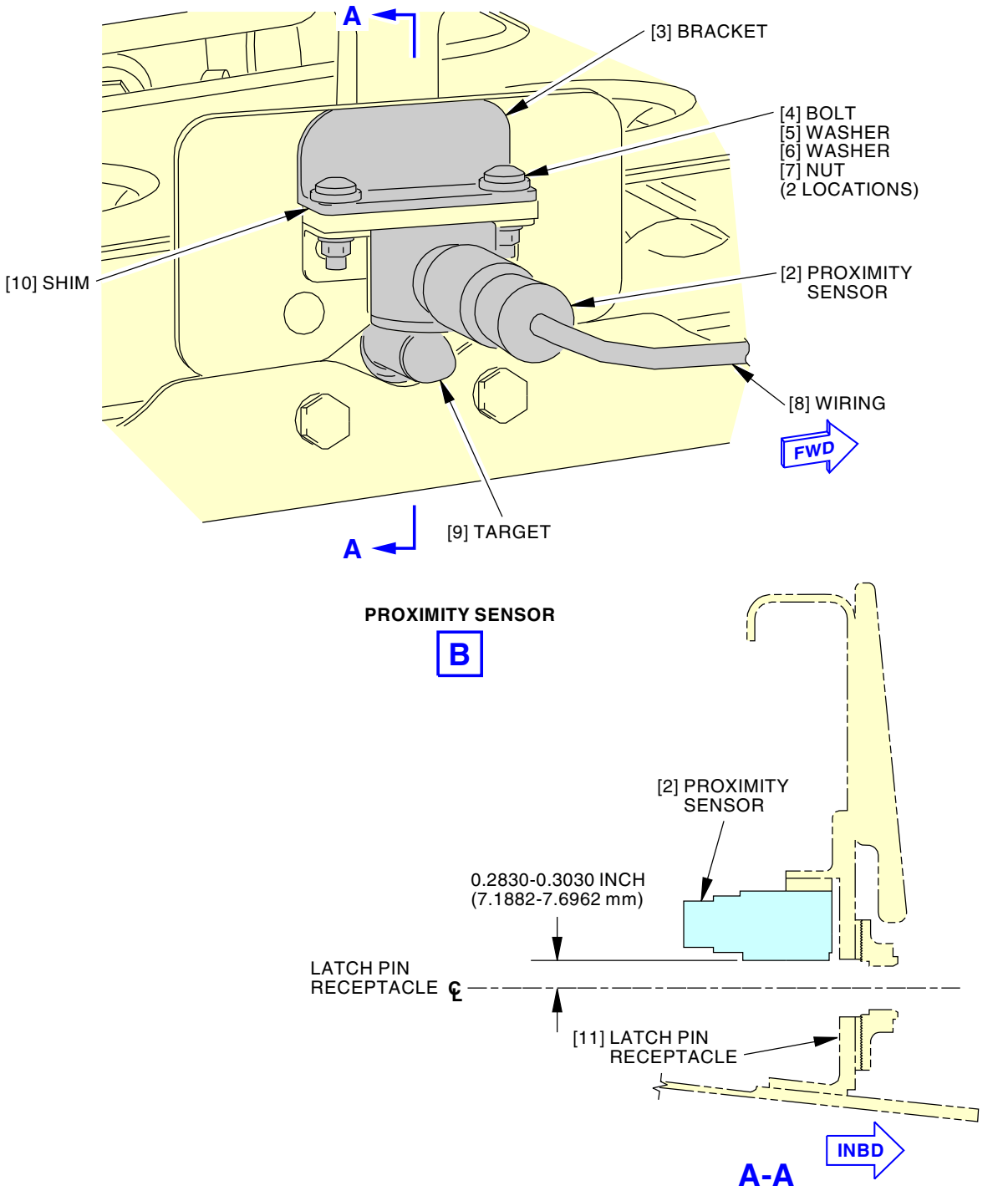
MAIN EQUIPMENT CENTER ACCESS DOOR

A

C87146 S0006426275_V2

Main Equipment Center Access Door Warning System
Figure 201/52-71-06-990-802 (Sheet 1 of 2)

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Main Equipment Center Access Door Warning System
Figure 201/52-71-06-990-802 (Sheet 2 of 2)

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TASK 52-71-06-710-801

3. Main Equipment Center Access Door Closed, Latched and Locked Proximity Sensor Operational Test

A. General

(1) This task is an operational test of the main equipment center access door closed, latched and locked proximity sensor.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
31-61-00-800-814	Showing Alert Messages (P/B 201)

C. Location Zones

Zone	Area
117	Main Equipment Center, Left

D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

E. Prepare for the Test

SUBTASK 52-71-06-860-003

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

F. Test

SUBTASK 52-71-06-860-004

(1) Make sure all the doors are fully closed, latched and locked.

SUBTASK 52-71-06-210-001

(2) Make sure that no EICAS messages show for the doors. To show the messages, do this task: Showing Alert Messages, TASK 31-61-00-800-814.

SUBTASK 52-71-06-730-002

(3) Do a test on the closed, latched and locked proximity sensor for this access door:

Number	Name/Location
117AL	Main Equipment Center Access Door

(a) Open the door.

(b) Make sure the applicable EICAS alert message shows (Table 202).

NOTE: If two or more doors of any kind are not closed, latched and locked, the EICAS alert message DOORS will show and the individual message for the door will not show.

(c) Close the door.

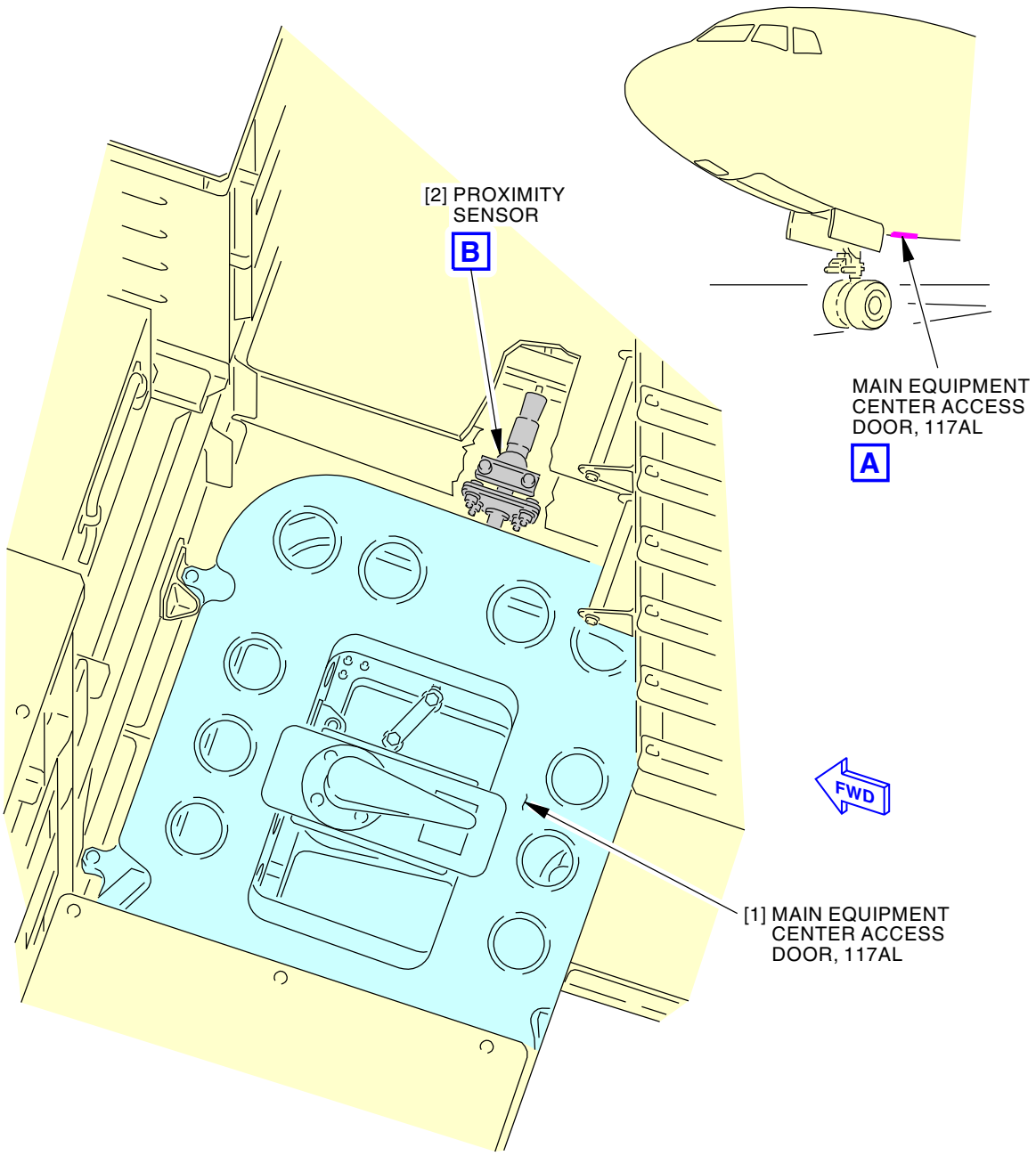
(d) Make sure the applicable EICAS alert message does not show.

Table 202/52-71-06-993-802 Main Equipment Center Access Door EICAS Alert Message

DOOR	EICAS ALERT MESSAGE
Main Equipment Center Access Door	DOOR E/E ACCESS

END OF TASK

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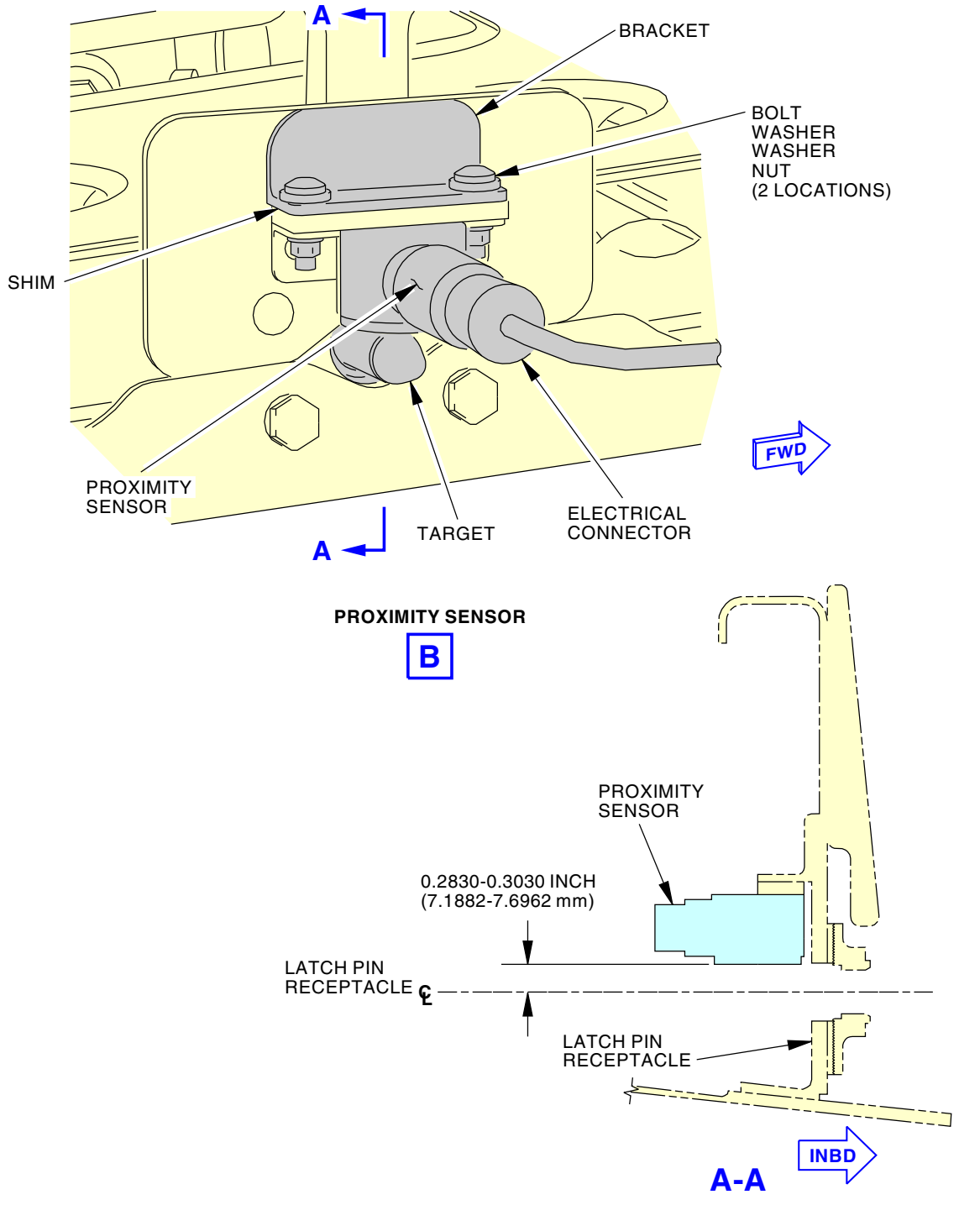
MAIN EQUIPMENT CENTER ACCESS DOOR, 117AL

A

383892 S0000134888_V3

Main Equipment Center Access Door Latched Proximity Sensor
Figure 202/52-71-06-990-803 (Sheet 1 of 2)

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Main Equipment Center Access Door Latched Proximity Sensor
Figure 202/52-71-06-990-803 (Sheet 2 of 2)

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OFF-WING ESCAPE SLIDE COMPARTMENT DOOR WARNING SYSTEM - MAINTENANCE PRACTICES

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure has these tasks:

(1) A removal, installation, and adjustment of the door closed proximity sensor for the off-wing escape slide compartment door.

(2) A functional test of the door closed proximity sensor and the door locked switch for the off-wing escape slide compartment door.

TASK 52-71-07-820-801

2. Off-Wing Escape Slide Compartment Door Closed Proximity Sensor Removal, Installation and Adjustment

A. References

Reference	Title
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
25-65-10-010-801	Open the Escape Slide Compartment Door (P/B 201)
25-65-10-400-801	Close the Escape Slide Compartment Door (P/B 201)

B. Consumable Materials

Reference	Description	Specification
G02020	Clay, Modeling	

C. Location Zones

Zone	Area
197	Aft Wing-to-Body Fairings, Left
198	Aft Wing-to-Body Fairings, Right

D. Prepare for the Removal

SUBTASK 52-71-07-040-001

(1) Do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

SUBTASK 52-71-07-010-001

(2) Do this task: Open the Escape Slide Compartment Door, TASK 25-65-10-010-801.

SUBTASK 52-71-07-020-001

(3) Remove the screws [2] that attach the threshold panel [3] to the fuselage structure.

E. Removal

SUBTASK 52-71-07-020-002

(1) Remove the proximity sensor [6] as follows:

(a) Disconnect the wiring from the proximity sensor [6].

(b) Remove the lockwire [5] on the nut [7].

(c) Remove the nut [7] and washer [8] that attach the proximity sensor [6] to the bracket [9].

(d) Remove the proximity sensor [6].

F. Installation

SUBTASK 52-71-07-420-001

(1) Install the proximity sensor [6] as follows:

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(a) Put the threaded end of the proximity sensor [6] through the hole in the bracket [9].

(b) Install the nut [7] and washer [8] to attach the proximity sensor [6] to the bracket [9].

(c) Install the lockwire [5] on the nut [7] and bracket [9].

(d) Connect the wiring to the proximity sensor [6].

G. Adjustment

SUBTASK 52-71-07-220-001

(1) Measure the clearance between the proximity sensor [6] and the target [12] as follows:

(a) Put a small amount of clay, G02020 on the target [12].

(b) Close, then open the escape slide compartment door [11].

These are the tasks:

Close the Escape Slide Compartment Door, TASK 25-65-10-400-801,

Open the Escape Slide Compartment Door, TASK 25-65-10-010-801.

(c) Measure the thickness of the clay, G02020 at the center of the target.

(d) If the clearance between the proximity sensor [6] and the target [12] is not as shown, View A-A (Figure 201), adjust the clearance.

SUBTASK 52-71-07-820-002

(2) Adjust the clearance between the proximity sensor [6] and the target [12] as follows:

(a) Loosen the bolt [4] that attaches the bracket [9] to the fuselage structure.

NOTE: Do not loosen the shoulder bolt [10].

(b) Move the bracket [9] inboard or outboard to get the correct clearance.

(c) Tighten the bolt [4] and measure the clearance again.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-07-410-001

(1) Install the screws [2] to attach the threshold panel [3] to the fuselage structure.

SUBTASK 52-71-07-410-002

(2) Do this task: Close the Escape Slide Compartment Door, TASK 25-65-10-400-801.

SUBTASK 52-71-07-440-001

(3) Do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

——— END OF TASK ———

TASK 52-71-07-710-801

3. Off-Wing Escape Slide Compartment Door - Indication Functional Test

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
25-65-10-010-801	Open the Escape Slide Compartment Door (P/B 201)
25-65-10-400-801	Close the Escape Slide Compartment Door (P/B 201)
31-61-00-800-814	Showing Alert Messages (P/B 201)

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B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1690	Actuators/Deactuators Set - Proximity Sensor Part #: 8-758-01 Supplier: 08748 Part #: A27092-70 Supplier: 81205 Opt Part #: A32102-25 Supplier: 81205 Opt Part #: KHT8-758-01 Supplier: 08748

C. Location Zones

Zone	Area
197	Aft Wing-to-Body Fairings, Left
198	Aft Wing-to-Body Fairings, Right

D. Prepare for the Test

SUBTASK 52-71-07-860-001

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 52-71-07-420-002

(2) Do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.

SUBTASK 52-71-07-840-001

(3) If necessary, do this task: Close the Escape Slide Compartment Door, TASK 25-65-10-400-801.

SUBTASK 52-71-07-710-002

(4) Make sure that no EICAS alert messages show for the escape slide compartment door. To show the messages, do this task: Showing Alert Messages, TASK 31-61-00-800-814.

E. Test

SUBTASK 52-71-07-710-003

(1) Do a test on the escape slide compartment door closed proximity sensor as follows:

(a) Do this task: Open the Escape Slide Compartment Door, TASK 25-65-10-010-801.

(b) Make sure the EICAS alert message DOOR WING SLIDE L or DOOR WING SLIDE R shows.

(c) Move the handle on the escape slide door latch actuator to the closed position (TASK 25-65-10-400-801).

NOTE: Keep the escape slide compartment door open.

(d) Make sure the EICAS alert message and status message DOOR WING SLIDE L or DOOR WING SLIDE R show.

(e) Move the handle on the escape slide door latch actuator to the open position (TASK 25-65-10-010-801).

(f) Do this task: Close the Escape Slide Compartment Door, TASK 25-65-10-400-801.

(g) Make sure that no EICAS alert messages show for the escape slide compartment door.

SUBTASK 52-71-07-720-001

(2) Do a test on the escape slide compartment door locked switch as follows:

NOTE: The switch is installed in the escape slide compartment door latch actuator.

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(a) Make sure that the escape slide compartment door is closed, latched, and locked (TASK 25-65-10-400-801).

(b) Make sure that no EICAS alert messages show for the escape slide compartment door.

(c) Do this task: Open the Escape Slide Compartment Door, TASK 25-65-10-010-801.

(d) Install the proximity sensor actuator from the proximity sensor test set, SPL-1690 on the escape slide compartment door closed proximity sensor.

NOTE: When the proximity sensor actuator is installed, only the door locked switch can cause an EICAS status message.

(e) Make sure the EICAS status message DOOR WING SLIDE LK L or DOOR WING SLIDE LK R shows.

(f) Remove the proximity sensor actuator from the escape slide compartment door closed proximity sensor.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-07-410-003

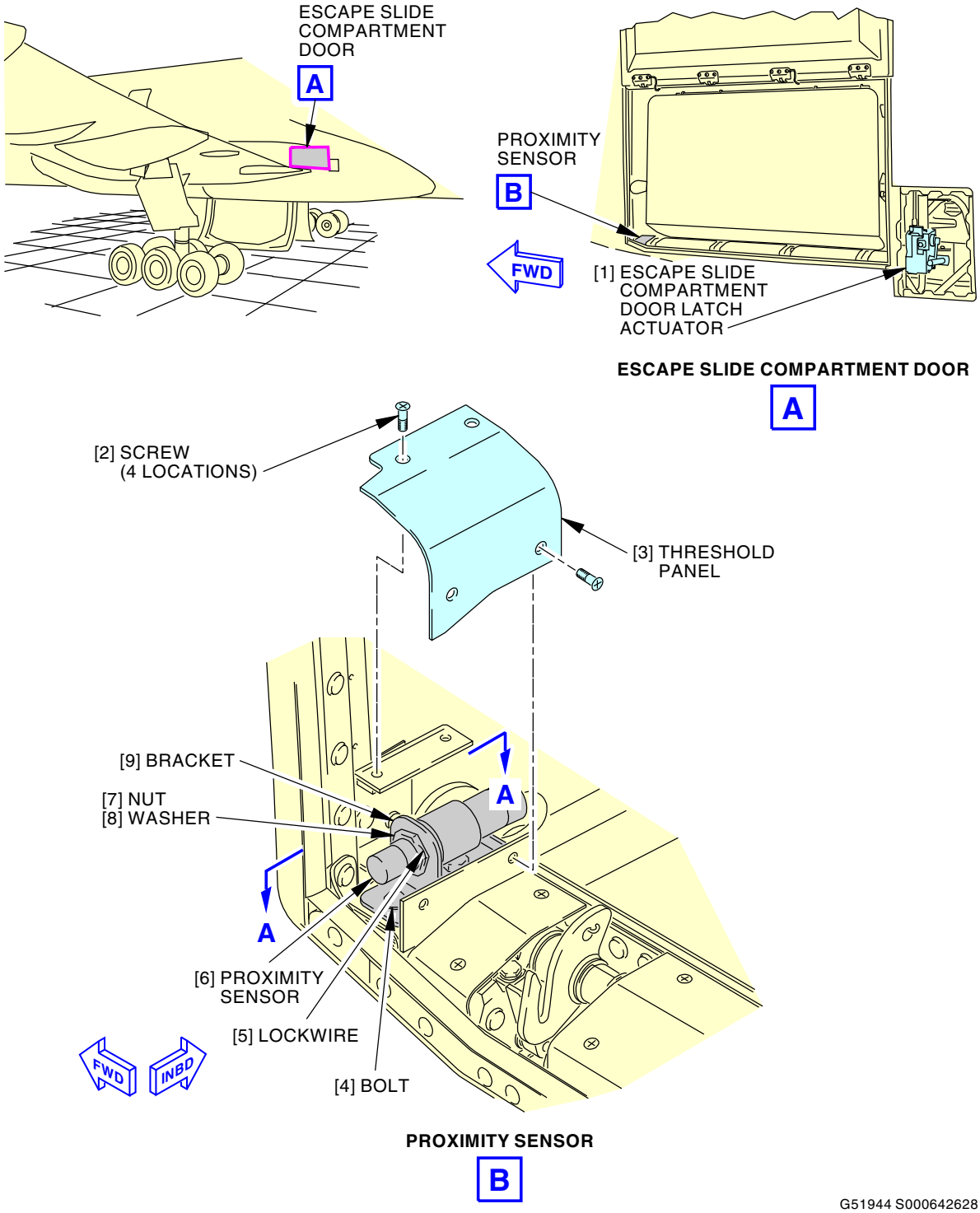
(1) Do this task: Close the Escape Slide Compartment Door, TASK 25-65-10-400-801.

SUBTASK 52-71-07-860-002

(2) Do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.

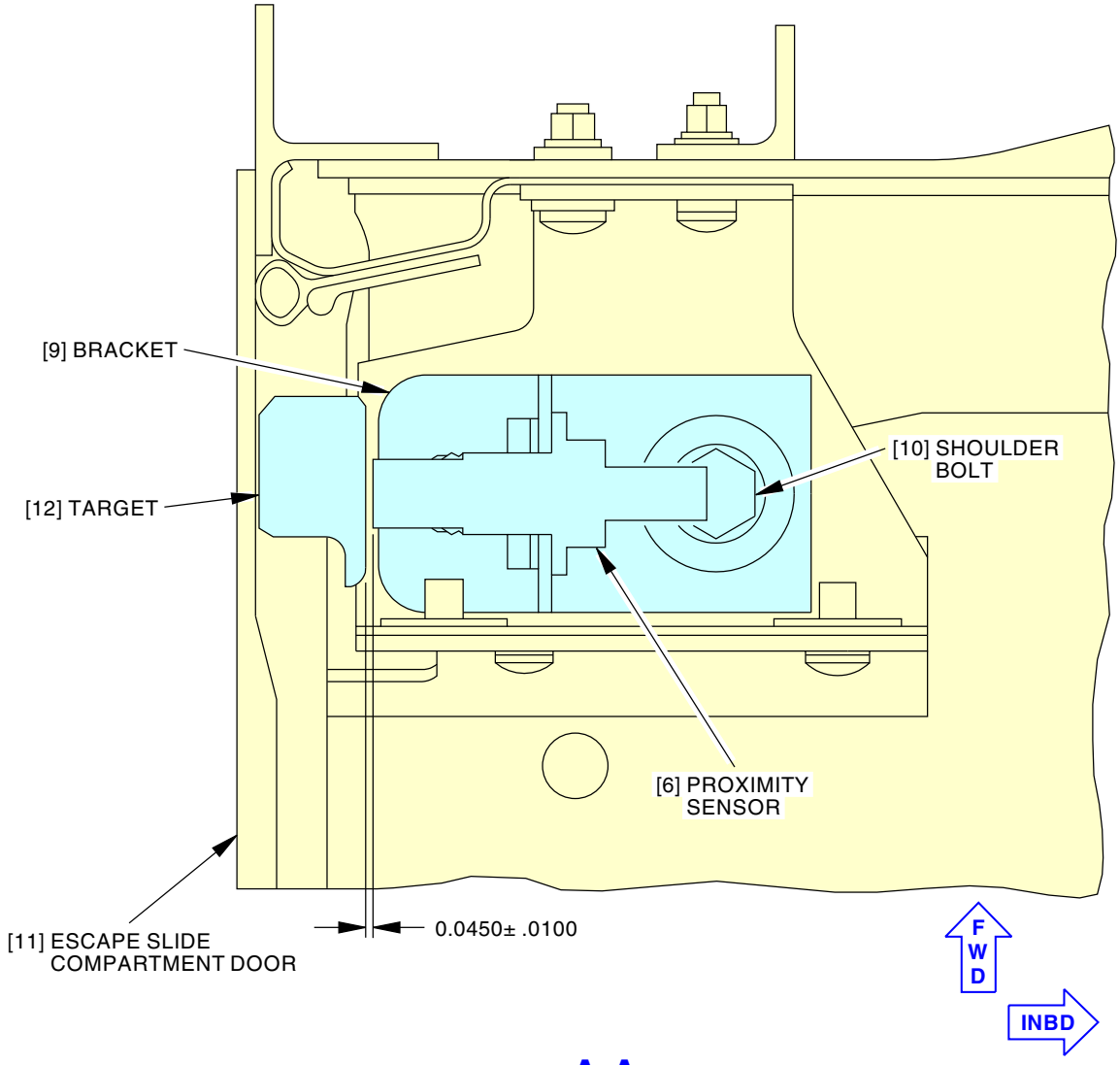
——— END OF TASK ———

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Off-Wing Escape Slide Compartment Door Warning System
Figure 201/52-71-07-990-801 (Sheet 1 of 2)

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Off-Wing Escape Slide Compartment Door Warning System
Figure 201/52-71-07-990-801 (Sheet 2 of 2)

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