CHAPTER

26

FIRE PROTECTION

CHAPTER 26
FIRE PROTECTION

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26-00-00		
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902	Sep 15/2021	
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905	Jan 15/2023	
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26-00-00 (cont)		
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26-11-01		
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26-15-00		
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26-15-02		
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26-18-01		
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26-21-00		
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R 507	Sep 15/2023	
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DDG 26-14-01 Lavatory Smoke Detection System Inoperative - Restoration TASK 26-00-00-440-806			902	SIA ALL
DDG 26-14-01-01 Lavatory Smoke Detector SELF TEST Switch Inoperative - Preparation TASK 26-00-00-040-809			902	SIA ALL
DDG 26-14-01-01 Lavatory Smoke Detector SELF TEST Switch Inoperative - Restoration TASK 26-00-00-440-807			903	SIA ALL
DDG 26-18-01A Wheel Well Fire Detection System Inoperative - Brake Temperature Monitoring System Operates Normally - Preparation TASK 26-00-00-040-802			903	SIA ALL
DDG 26-18-01A Wheel Well Fire Detection System Inoperative - Brake Temperature Monitoring System Operates Normally - Restoration TASK 26-00-00-440-802			905	SIA ALL
DDG 26-18-01B Wheel Well Fire Detection System Inoperative - Brake Temperature Monitoring System Inoperative Or Not Installed - Preparation TASK 26-00-00-040-803			906	SIA ALL
DDG 26-18-01B Wheel Well Fire Detection System Inoperative - Brake Temperature Monitoring System Inoperative Or Not Installed - Restoration TASK 26-00-00-440-803			907	SIA ALL
DDG 26-18-01-01 Wheel Well Fire Detection Loops Inoperative - Preparation TASK 26-00-00-040-804			909	SIA ALL
DDG 26-18-02-03 Wing-Body Overheat Test System Inoperative - Preparation TASK 26-00-00-040-810			910	SIA ALL

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DDG 26-19-01-01 Equipment Cooling Smoke Detector Inoperative - Preparation TASK 26-00-00-040-819			911	SIA ALL
DDG 26-19-01-01 Equipment Cooling Smoke Detector Inoperative - Restoration TASK 26-00-00-440-817			912	SIA ALL
DDG 26-19-01-02 Equipment Cooling Smoke Detection EQUIP SMOKE Light Inoperative - Preparation TASK 26-00-00-040-820			913	SIA ALL
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DDG 26-20-01-02 APU Bottle Discharged Light Inoperative - Preparation TASK 26-00-00-040-821			914	SIA ALL
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DDG 26-20-02 Engine/APU Fire Extinguisher Test System Inoperative - Restoration TASK 26-00-00-440-818			917	SIA ALL
DDG 26-23-01-01 Lower Cargo Compartment DISCH Light Inoperative - Preparation TASK 26-00-00-040-811			917	SIA ALL
DDG 26-23-01-01 Lower Cargo Compartment DISCH Light Inoperative - Restoration TASK 26-00-00-440-809			919	SIA ALL
DDG 26-23-01-02 Lower Cargo Compartment Extinguisher Bottle Pressure Switch Inoperative - Preparation TASK 26-00-00-040-812			919	SIA ALL

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SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
DDG 26-23-01-02 Lower Cargo Compartment Extinguisher Bottle Pressure Switch Inoperative - Restoration TASK 26-00-00-440-810			920	SIA ALL
DDG 26-23-01-03 Lower Cargo Compartment EXT Light Inoperative - Preparation TASK 26-00-00-040-814			922	SIA ALL
DDG 26-23-01-03 Lower Cargo Compartment EXT Light Inoperative - Restoration TASK 26-00-00-440-812			923	SIA ALL
DDG 26-24-01B Lavatory Fire Extinguisher System Inoperative - Preparation TASK 26-00-00-040-807			923	SIA ALL
DDG 26-24-01B Lavatory Fire Extinguisher System Inoperative - Restoration TASK 26-00-00-440-805			924	SIA ALL
DDG 26-26-01 Portable Fire Extinguishers Inoperative - Preparation TASK 26-00-00-040-801			924	SIA ALL
DDG 26-26-01 Portable Fire Extinguishers Inoperative - Restoration TASK 26-00-00-440-801			925	SIA ALL
ENGINE AND APU FIRE CONTROL PANEL - REMOVAL/INSTALLATION	26-00-01		401	SIA ALL
Engine and APU Fire Control Panel Removal TASK 26-00-01-000-801			401	SIA ALL
Engine and APU Fire Control Panel Installation TASK 26-00-01-400-801			404	SIA ALL
Engine and APU Fire Shutoff Switch Assembly Removal TASK 26-00-01-000-802			406	SIA ALL
Engine and APU Fire Shutoff Switch Assembly Installation TASK 26-00-01-400-802			410	SIA ALL
CARGO FIRE CONTROL PANEL - REMOVAL/INSTALLATION	26-00-02		401	SIA ALL
Cargo Fire Control Panel Removal TASK 26-00-02-000-801			401	SIA ALL

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SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
Cargo Fire Control Panel Installation TASK 26-00-02-400-801			403	SIA ALL
DETECTION - ADJUSTMENT/TEST	26-10-00		501	SIA ALL
Fire and Overheat Detection System - Operational Test TASK 26-10-00-710-801			501	SIA ALL
Overheat Detection Test Using Handheld LCRZ Meter TASK 26-10-00-700-802			516	SIA ALL
Overheat Detection Test Using UN-ATE Tool by Technologies Harness Scanner TASK 26-10-00-700-803			523	SIA ALL
ENGINE AND APU FIRE DETECTION CONTROL MODULE, M279 - MAINTENANCE PRACTICES	26-10-01		201	SIA ALL
Engine and APU Fire Detection Control Module - Deactivation TASK 26-10-01-040-801			201	SIA ALL
Engine and APU Fire Detection Control Module - Activation TASK 26-10-01-440-801			204	SIA ALL
ENGINE AND APU FIRE DETECTION CONTROL MODULE, M279 - REMOVAL/INSTALLATION	26-10-01		401	SIA ALL
Engine and APU Fire Detection Module Removal TASK 26-10-01-000-801			401	SIA ALL
Engine and APU Fire Detection Module Installation TASK 26-10-01-400-801			404	SIA ALL
ENGINE FIRE DETECTION - MAINTENANCE PRACTICES	26-11-00		201	SIA ALL
Engine Fire Detection - Deactivation TASK 26-11-00-040-801			201	SIA ALL
Engine Fire Detection - Activation TASK 26-11-00-440-801			204	SIA ALL
ENGINE FIRE DETECTION - ADJUSTMENT/TEST	26-11-00		501	SIA ALL
Engine Fire Detection - Operational Test TASK 26-11-00-710-801			501	SIA ALL

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SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
Engine Fire Detection Loop Resistance - System Test TASK 26-11-00-730-801			506	SIA ALL
Engine Fire Detection Circuit - System Test TASK 26-11-00-730-802			510	SIA ALL
ENGINE FIRE DETECTORS - REMOVAL/INSTALLATION	26-11-01		401	SIA ALL
Engine Fire Detector Element Removal TASK 26-11-01-000-801			401	SIA ALL
Engine Fire Detector Element Installation TASK 26-11-01-400-801			411	SIA ALL
Engine Fire Detector Assembly Removal TASK 26-11-01-000-802			413	SIA ALL
Engine Fire Detector Assembly Installation TASK 26-11-01-400-802			415	SIA ALL
Combustor Burn Through Fire Detector Assembly Removal TASK 26-11-01-000-803			417	SIA ALL
Combustor Burn Through Fire Detector Assembly Installation TASK 26-11-01-400-803			421	SIA ALL
ENGINE FIRE DETECTORS - INSPECTION/CHECK	26-11-01		601	SIA ALL
Engine Fire Detector Inspection TASK 26-11-01-211-801			601	SIA ALL
ENGINE FIRE DETECTOR HARNESS - REMOVAL/INSTALLATION	26-11-02		401	SIA ALL
Engine Fire Detection Harness Removal TASK 26-11-02-000-801			401	SIA ALL
Engine Fire Detection Harness Installation TASK 26-11-02-400-801			430	SIA ALL
LAVATORY SMOKE DETECTION - ADJUSTMENT/TEST	26-14-00		501	SIA ALL
Lavatory Smoke Detection - Self Test TASK 26-14-00-710-801			501	SIA ALL
Lavatory Smoke Detection - Smoke Test TASK 26-14-00-730-801			502	SIA ALL

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SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
LAVATORY SMOKE DETECTOR - REMOVAL/INSTALLATION	26-14-01		401	SIA ALL
Lavatory Smoke Detector Removal TASK 26-14-01-000-801			401	SIA ALL
Lavatory Smoke Detector Installation TASK 26-14-01-400-801			403	SIA ALL
LAVATORY SMOKE DETECTOR - CLEANING/PAINTING	26-14-01		701	SIA ALL
Lavatory Smoke Detector Cleaning TASK 26-14-01-100-801			701	SIA ALL
APU FIRE DETECTION - MAINTENANCE PRACTICES	26-15-00		201	SIA ALL
APU Fire Detection - Deactivation TASK 26-15-00-040-801			201	SIA ALL
APU Fire Detection - Activation TASK 26-15-00-440-801			205	SIA ALL
APU FIRE DETECTION - ADJUSTMENT/TEST	26-15-00		501	SIA ALL
APU Fire Detection - Operational Test TASK 26-15-00-710-801			501	SIA ALL
APU Fire Detection Loop Resistance - System Test TASK 26-15-00-730-801			507	SIA ALL
APU Fire Detection Circuit - System Test TASK 26-15-00-730-802			511	SIA ALL
APU OVERHEAT DETECTORS - REMOVAL/INSTALLATION	26-15-01		401	SIA ALL
APU Overheat Detector Element Removal TASK 26-15-01-000-801			401	SIA ALL
APU Overheat Detector Element Installation TASK 26-15-01-400-801			407	SIA ALL
APU Overheat Detector Assembly Removal TASK 26-15-01-000-802			409	SIA ALL
APU Overheat Detector Assembly Installation TASK 26-15-01-400-802			411	SIA ALL

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SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
APU OVERHEAT DETECTORS - INSPECTION/CHECK	26-15-01		601	SIA ALL
APU Overheat Detectors Inspection TASK 26-15-01-210-801			601	SIA ALL
APU FIRE WARNING HORN - REMOVAL/INSTALLATION	26-15-02		401	SIA ALL
APU Fire Warning Horn Removal TASK 26-15-02-000-801			401	SIA ALL
APU Fire Warning Horn Installation TASK 26-15-02-400-801			404	SIA ALL
CARGO BAY SMOKE DETECTION - ADJUSTMENT/TEST	26-16-00		501	SIA ALL
Cargo Bay Smoke Detection - Operational Test TASK 26-16-00-710-801			501	SIA ALL
Cargo Bay Smoke Detection - Smoke Test TASK 26-16-00-730-801			507	SIA ALL
CARGO BAY SMOKE DETECTOR - REMOVAL/INSTALLATION	26-16-01		401	SIA ALL
Cargo Bay Smoke Detector Removal TASK 26-16-01-000-801			401	SIA ALL
Cargo Bay Smoke Detector Installation TASK 26-16-01-400-801			405	SIA ALL
CARGO BAY SMOKE DETECTOR - CLEANING/PAINTING	26-16-01		701	SIA ALL
Clean the Cargo Bay Smoke Detectors TASK 26-16-01-100-801			701	SIA ALL
CARGO ELECTRONIC UNIT - REMOVAL/INSTALLATION	26-16-02		401	SIA ALL
Cargo Electronic Unit Removal TASK 26-16-02-000-801			401	SIA ALL
Cargo Electronic Unit Installation TASK 26-16-02-400-801			405	SIA ALL
Cargo Electronic Unit Installation Test TASK 26-16-02-710-801			405	SIA ALL

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SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
WHEEL WELL, WING AND LOWER AFT BODY OVERHEAT DETECTION SYSTEM - MAINTENANCE PRACTICES	26-18-00		201	SIA ALL
Wheel Well, Wing and Lower Aft Body Overheat Detection System - Deactivation TASK 26-18-00-040-801			201	SIA ALL
Wheel Well, Wing and Lower Aft Body Overheat Detection System - Activation TASK 26-18-00-440-801			204	SIA ALL
WHEEL WELL, WING AND LOWER AFT BODY OVERHEAT DETECTION SYSTEM - ADJUSTMENT/TEST	26-18-00		501	SIA ALL
Wheel Well and Lower Aft Body Overheat Detection System - Operational Test TASK 26-18-00-710-801			501	SIA ALL
Wing and Lower Aft Body Overheat Detection System - Operational Test TASK 26-18-00-710-802			508	SIA ALL
COMPARTMENT OVERHEAT DETECTION CONTROL UNIT, M237 - REMOVAL/INSTALLATION	26-18-01		401	SIA ALL
Compartment Overheat Detection Control Unit Removal TASK 26-18-01-000-801			401	SIA ALL
Compartment Overheat Detection Control Unit Installation TASK 26-18-01-400-801			404	SIA ALL
COMPARTMENT OVERHEAT DETECTION CONTROL UNIT, M237 - ADJUSTMENT/TEST	26-18-01		501	SIA ALL
Compartment Overheat Detection Control Unit, M237 - BITE Test TASK 26-18-01-740-801			501	SIA ALL
Compartment Overheat System Automated Test with WiN MS Aero FLi Test Kit TASK 26-18-01-700-801			507	SIA ALL

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FIRE PROTECTION

SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
WING, WHEEL WELL, AND LOWER AFT BODY OVERHEAT DETECTION SENSING ELEMENT - REMOVAL/INSTALLATION	26-18-02		401	SIA ALL
Wheel Well, Wing and Lower Aft Body Overheat Sensor Element - Removal TASK 26-18-02-000-801			401	SIA ALL
Wheel Well, Wing and Lower Aft Body Overheat Sensor Element - Installation TASK 26-18-02-400-801			423	SIA ALL
WING, WHEEL WELL, AND LOWER AFT BODY OVERHEAT DETECTION SENSING ELEMENT - ADJUSTMENT/TEST	26-18-02		501	SIA ALL
Wing, Wheel Well and Lower Aft Body Overheat Sensing Element Test TASK 26-18-02-720-801			501	SIA ALL
E/E COOLING SMOKE DETECTION - ADJUSTMENT/TEST	26-19-00		501	SIA ALL
E/E Cooling Smoke Detection - Operational Test TASK 26-19-00-710-801			501	SIA ALL
E/E Cooling Smoke Detector - Operational Test TASK 26-19-00-710-802			507	SIA ALL
Equipment Supply Smoke Detector - Removal/Installation	26-19-01		401	SIA ALL
Equipment Supply Smoke Detector Removal TASK 26-19-01-000-801			401	SIA ALL
Equipment Supply Smoke Detector Installation TASK 26-19-01-400-801			404	SIA ALL
Equipment Exhaust Smoke Detector - Removal/Installation	26-19-02		401	SIA ALL
Equipment Exhaust Smoke Detector Removal TASK 26-19-02-000-801			401	SIA ALL
Equipment Exhaust Smoke Detector Installation TASK 26-19-02-400-801			405	SIA ALL

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SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
FIRE EXTINGUISHING BOTTLE PRESSURE GAUGE - INSPECTION/CHECK	26-20-00		601	SIA ALL
Engine Fire Extinguishing Bottle Check TASK 26-20-00-210-801			601	SIA ALL
APU Fire Extinguishing Bottle Check TASK 26-20-00-210-802			606	SIA ALL
ENGINE FIRE EXTINGUISHING - MAINTENANCE PRACTICES	26-21-00		201	SIA ALL
Engine Fire Extinguishing System - Deactivation TASK 26-21-00-040-801			201	SIA ALL
Engine Fire Extinguishing System - Activation TASK 26-21-00-440-801			204	SIA ALL
ENGINE FIRE EXTINGUISHING - ADJUSTMENT/TEST	26-21-00		501	SIA ALL
Engine Fire Extinguishing Bottle Squib Circuit Test TASK 26-21-00-730-801			501	SIA ALL
Engine Fire Extinguishing Bottle Pressure Switch Circuit Test TASK 26-21-00-730-802			509	SIA ALL
Engine Fire Extinguishing Discharge Line Flow Test TASK 26-21-00-720-801			509	SIA ALL
Engine Fire Extinguishing Discharge Line Pressure Test TASK 26-21-00-730-803			516	SIA ALL
Engine Fire Switch System Shutdown Test TASK 26-21-00-720-802			520	SIA ALL
ENGINE FIRE EXTINGUISHING BOTTLE - REMOVAL/INSTALLATION	26-21-01		401	SIA ALL
Engine Fire Extinguishing Bottle Removal TASK 26-21-01-000-801			401	SIA ALL
Engine Fire Extinguishing Bottle Installation TASK 26-21-01-400-801			408	SIA ALL

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SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
ENGINE FIRE EXTINGUISHING BOTTLE - INSPECTION/CHECK	26-21-01		601	SIA ALL
Engine Fire Extinguisher Distribution System Inspection TASK 26-21-01-210-801			601	SIA ALL
ENGINE FIRE EXTINGUISHER BOTTLE SQUIB - REMOVAL/INSTALLATION	26-21-02		401	SIA ALL
Engine Fire Extinguisher Bottle Squib Removal TASK 26-21-02-000-801			401	SIA ALL
Engine Fire Extinguisher Bottle Squib Installation TASK 26-21-02-400-801			405	SIA ALL
APU FIRE EXTINGUISHING - ADJUSTMENT/TEST	26-22-00		501	SIA ALL
APU Fire Extinguishing Bottle Squib Circuit Test TASK 26-22-00-730-801			501	SIA ALL
APU Fire Extinguishing Bottle Pressure Switch Circuit Test TASK 26-22-00-730-802			511	SIA ALL
APU Fire Switch System Shutdown Test TASK 26-22-00-720-801			511	SIA ALL
APU FIRE EXTINGUISHING BOTTLE - REMOVAL/INSTALLATION	26-22-01		401	SIA ALL
APU Fire Extinguishing Bottle Removal TASK 26-22-01-000-801			401	SIA ALL
APU Fire Extinguishing Bottle Installation TASK 26-22-01-400-801			406	SIA ALL
APU FIRE EXTINGUISHING BOTTLE - INSPECTION/CHECK	26-22-01		601	SIA ALL
APU Fire Bottle Inspection TASK 26-22-01-210-801			601	SIA ALL
APU FIRE EXTINGUISHING BOTTLE SQUIB - REMOVAL/INSTALLATION	26-22-02		401	SIA ALL
APU Fire Extinguishing Bottle Squib Removal TASK 26-22-02-000-801			401	SIA ALL
APU Fire Extinguishing Bottle Squib Installation TASK 26-22-02-400-801			405	SIA ALL

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SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
REMOTE APU CONTROL PANEL - REMOVAL/INSTALLATION	26-22-03		401	SIA ALL
Remote APU Control Panel Removal TASK 26-22-03-000-801			401	SIA ALL
Remote APU Control Panel Installation TASK 26-22-03-400-801			405	SIA ALL
REMOTE APU CONTROL PANEL - INSPECTION/CHECK	26-22-03		601	SIA ALL
Remote APU Control Panel TASK 26-22-03-210-801			601	SIA ALL
CARGO FIRE EXTINGUISHING - MAINTENANCE PRACTICES	26-23-00		201	SIA ALL
Cargo Compartment Fire Extinguishers and Squibs - Deactivation TASK 26-23-00-040-801			201	SIA ALL
Cargo Compartment Fire Extinguishers and Squibs - Activation TASK 26-23-00-440-801			203	SIA ALL
CARGO FIRE EXTINGUISHING - ADJUSTMENT/TEST	26-23-00		501	SIA ALL
Cargo Fire Extinguishing Bottle Squib - Circuit Test TASK 26-23-00-730-801			501	SIA ALL
Cargo Fire Extinguishing Bottle Pressure Switch Circuit Test TASK 26-23-00-730-802			512	SIA ALL
Cargo Fire Extinguishing Discharge Line Flow Test TASK 26-23-00-720-801			513	SIA ALL
Cargo Fire Extinguishing Discharge Line Pressure Test TASK 26-23-00-730-803			516	SIA ALL
CARGO COMPARTMENT FIRE EXTINGUISHER BOTTLE - REMOVAL/INSTALLATION	26-23-01		401	SIA ALL
Cargo Fire Extinguisher Bottle Removal TASK 26-23-01-000-801			401	SIA ALL

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CHAPTER 26
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SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
Cargo Fire Extinguisher Bottle Installation TASK 26-23-01-400-801			408	SIA ALL
Cargo Fire Extinguisher Bottle Removal - With Tool TASK 26-23-01-000-802			414	SIA ALL
Cargo Fire Extinguisher Bottle Installation - With Tool TASK 26-23-01-400-802			417	SIA ALL
CARGO COMPARTMENT FIRE EXTINGUISHER BOTTLE SYSTEM - CLEANING/PAINTING	26-23-01		701	SIA ALL
Cargo Fire Extinguishing System Cleaning TASK 26-23-01-100-801			701	SIA ALL
CARGO COMPARTMENT FIRE EXTINGUISHER BOTTLE SQUIB - REMOVAL/INSTALLATION	26-23-02		401	SIA ALL
Cargo Fire Extinguisher Bottle Squib Removal TASK 26-23-02-000-801			401	SIA ALL
Cargo Fire Extinguisher Bottle Squib Installation TASK 26-23-02-400-801			407	SIA ALL
CARGO FIRE EXTINGUISHING FILTER/DRYER - REMOVAL/INSTALLATION	26-23-04		401	SIA ALL
Cargo Fire Extinguishing Filter/Dryer Removal TASK 26-23-04-000-801			401	SIA ALL
Cargo Fire Extinguishing Filter/Dryer Installation TASK 26-23-04-400-801			404	SIA ALL
LAVATORY WASTE COMPARTMENT FIRE EXTINGUISHING - MAINTENANCE PRACTICES	26-24-01		201	SIA ALL
Lavatory Waste Compartment Fire Extinguishing Bottle Removal/Installation TASK 26-24-01-900-801			201	SIA ALL
Lavatory Waste Compartment Fire Extinguishing Bottle Inspection/Check TASK 26-24-01-200-801			205	SIA ALL

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SUBJECT	CHAPTER SECTION SUBJECT	CONF	PAGE	EFFECT
LAVATORY WASTE COMPARTMENT - INSPECTION/CHECK	26-24-01		601	SIA ALL
Lavatory Waste Compartment Temperature Indicator Strip Inspection TASK 26-24-01-210-801			601	SIA ALL
HALON FIRE EXTINGUISHERS - REMOVAL/INSTALLATION	26-26-01		401	SIA 001, 002
Halon Fire Extinguisher Removal TASK 26-26-01-020-801			401	SIA 001, 002
Halon Fire Extinguisher - Installation TASK 26-26-01-430-801			403	SIA 001, 002
HALON FIRE EXTINGUISHER - INSPECTION/CHECK	26-26-01		601	SIA 001, 002
Halon Fire Extinguisher - Inspection/Check TASK 26-26-01-200-801			601	SIA 001, 002
WATER FIRE EXTINGUISHERS- REMOVAL/INSTALLATION	26-26-02		401	SIA ALL
Water Fire Extinguisher Removal TASK 26-26-02-000-801			401	SIA ALL
Water Fire Extinguisher Installation TASK 26-26-02-400-801			403	SIA ALL
WATER FIRE EXTINGUISHERS - INSPECTION/CHECK	26-26-02		601	SIA ALL
Water Fire Extinguishers - Inspection TASK 26-26-02-200-801			601	SIA ALL
CLEAN AGENT FIRE EXTINGUISHER - REMOVAL/INSTALLATION	26-26-03		401	SIA 003-999
Clean Agent Fire Extinguisher - Removal TASK 26-26-03-000-801			401	SIA 003-999
Clean Agent Fire Extinguisher - Installation TASK 26-26-03-400-801			404	SIA 003-999
CLEAN AGENT FIRE EXTINGUISHER - INSPECTION/CHECK	26-26-03		601	SIA 003-999
Clean Agent Fire Extinguisher - Inspection TASK 26-26-03-200-801			601	SIA 003-999

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FIRE PROTECTION - DDG MAINTENANCE PROCEDURES

1. General

A. This procedure has maintenance tasks for the Master Minimum Equipment List (MMEL) maintenance requirements as shown in the Dispatch Deviations Guide (DDG). These tasks are used to 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 components in the fire protection system:

(1) DDG 26-14-01 Lavatory Smoke Detection System Inoperative - Preparation

(2) DDG 26-14-01 Lavatory Smoke Detection System Inoperative - Restorataion

(3) DDG 26-14-01-01 Lavatory Smoke Detector SELF TEST Switch Inoperative - Preparation

(4) DDG 26-14-01-01 Lavatory Smoke Detector SELF TEST Switch Inoperative - Restoration

(5) DDG 26-18-01A Wheel Well Fire Detection System Inoperative - Brake Temperature Monitoring System Operates Normally - Preparation

(6) DDG 26-18-01A Wheel Well Fire Detection System Inoperative - Brake Temperature Monitoring System Operates Normally - Restoration

(7) DDG 26-18-01B Wheel Well Fire Detection System Inoperative - Brake Temperature Monitoring System Inoperative or Not Installed - Preparation

(8) DDG 26-18-01B Wheel Well Fire Detection System Inoperative - Brake Temperature Monitoring System Inoperative or Not Installed - Restoration

(9) DDG 26-18-01-01 Wheel Well Fire Detection Loops Inoperative - Preparation

(10) DDG 26-18-02-03 Wing-Body Overheat Test System Inoperative - Preparation

(11) DDG 26-18-02-03 Wing-Body Overheat Test System Inoperative - Restoration

(12) DDG 26-19-01-01 Equipment Cooling Smoke Detector Inoperative - Preparation

(13) DDG 26-19-01-01 Equipment Cooling Smoke Detector Inoperative - Restoration

(14) DDG 26-19-01-02 Equipment Cooling Smoke Detection EQUIP SMOKE Light Inoperative - Preparation

(15) DDG 26-19-01-02 Equipment Cooling Smoke Detection EQUIP SMOKE Light Inoperative - Restoration

(16) DDG 26-20–01–02 APU Bottle Discharged light Inoperative - Preparation

(17) DDG 26-20–01–02 APU Bottle Discharged light Inoperative - Restoration

(18) DDG 26-20-02 Engine/APU Fire Extinguisher Test System Inoperative - Preparation

(19) DDG 26-20-02 Engine/APU Fire Extinguisher Test System Inoperative - Restoration

(20) DDG 26-23-01-01 Lower Cargo Compartment DISCH Light Inoperative - Preparation

(21) DDG 26-23-01-01 Lower Cargo Compartment DISCH Light Inoperative - Restoration

(22) DDG 26-23-01-02 Lower Cargo Compartment Extinguisher Bottle Pressure Switch Inoperative - Preparation

(23) DDG 26-23-01-02 Lower Cargo Compartment Extinguisher Bottle Pressure Switch Inoperative - Restoration

(24) DDG 26-23-01-03 Lower Cargo Compartment EXT Light Inoperative - Preparation

(25) DDG 26-23-01-03 Lower Cargo Compartment EXT Light Inoperative - Restoration

(26) DDG 26-24-01B Lavatory Fire Extinguisher System Inoperative - Preparation

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(27) DDG 26-24-01B Lavatory Fire Extinguisher System Inoperative - Restoration

(28) DDG 26-26-01 Portable Fire Extinguishers Inoperative - Preparation

(29) DDG 26-26-01 Portable Fire Extinguishers Inoperative - Restoration.

TASK 26-00-00-040-808

2. DDG 26-14-01 Lavatory Smoke Detection System Inoperative - Preparation

A. General

(1) This task gives the maintenance steps which prepare the airplane for flight with the lavatory smoke detection system inoperative.

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Lavatory Deactivation

SUBTASK 26-00-00-040-014

(1) Do the steps that follow:

(a) Empty the lavatory waste receptacle.

(b) Close and lock the lavatory door.

(c) Install an INOPERATIVE - DO NOT ENTER placard on the lavatory door.

NOTE: Lavatory use or inspections by crew members is allowed.

——— END OF TASK ———

TASK 26-00-00-440-806

3. DDG 26-14-01 Lavatory Smoke Detection System Inoperative - Restoration

A. General

(1) This task puts the airplane back to its usual condition after operation with the lavatory smoke detection system inoperative.

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Lavatory Smoke Detection System Activation

SUBTASK 26-00-00-040-015

(1) Remove the INOP placard from the lavatory door.

SUBTASK 26-00-00-800-001

(2) Unlock the lavatory door.

——— END OF TASK ———

TASK 26-00-00-040-809

4. DDG 26-14-01-01 Lavatory Smoke Detector SELF TEST Switch Inoperative - Preparation

A. General

(1) This task gives the maintenance steps which prepare the airplane for flight with the lavatory smoke detector self test switch inoperative.

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B. References

Reference	Title
26-14-00-730-801	Lavatory Smoke Detection - Smoke Test (P/B 501)

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Lavatory Smoke Detector Deactivation

SUBTASK 26-00-00-040-016

(1) For each smoke detector, do the lavatory smoke detection system test (TASK 26-14-00-730-801).

(a) The test switch may be inoperative provided that each lavatory smoke detector is verified to pass the smoke test.

——— END OF TASK ———

TASK 26-00-00-440-807

5. DDG 26-14-01-01 Lavatory Smoke Detector SELF TEST Switch Inoperative - Restoration

A. General

(1) This task puts the airplane back to its usual condition after operation with a lavatory smoke detector SELF TEST switch inoperative.

B. References

Reference	Title
26-14-01 P/B 401	LAVATORY SMOKE DETECTOR - REMOVAL/INSTALLATION

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Lavatory Smoke Detector Activation

SUBTASK 26-00-00-400-003

(1) Replace the lavatory smoke detector (PAGEBLOCK 26-14-01/401).

——— END OF TASK ———

TASK 26-00-00-040-802

6. DDG 26-18-01A Wheel Well Fire Detection System Inoperative - Brake Temperature Monitoring System Operates Normally - Preparation

A. General

(1) This task gives the maintenance steps that prepare the airplane for flight with the wheel well fire detection system inoperative and the brake temperature monitoring system (BTMS) operates normally.

B. References

Reference	Title
22-11-33-000-801	Flight Control Computer Removal (P/B 401)
22-11-33-400-801	Flight Control Computer Installation (P/B 401)
26-18-00-710-801	Wheel Well and Lower Aft Body Overheat Detection System - Operational Test (P/B 501)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

E. Wheel Well Fire Detection System Deactivation

SUBTASK 26-00-00-010-001

(1) Get access to the wheel well fire detection system compartment.

(a) Open this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

SUBTASK 26-00-00-740-001

(2) Deactivate the wheel well fire detection system, use one of the two methods.

SUBTASK 26-00-00-040-002

(3) Method 1: deactivate WHEEL WELL light and wheel well fire detection system input to fire warning system.

(a) Remove the two light bulbs from the WHEEL WELL light on the P8-1 panel.

1) Install an INOP - FIRE BELL DISCONNECTED placard on the light switch.

(b) Install a WHEEL WELL FIRE DETECTION SYSTEM INOP placard on the OVHT/FIRE TEST switch, on the P8-1 overheat and fire protection panel.

(c) Disconnect the fire bell:

1) Remove Flight Control Computer (FCC) B to get access to the wiring for the fire bell (TASK 22-11-33-000-801).

2) Disconnect the wires from D742, pin 16 and pin 25 on the E1-4 shelf.

3) Cap and stow the wires.

4) Install the FCC B (TASK 22-11-33-400-801).

(d) Install a WHEEL WELL WARNING LIGHT AND BELL INOP placard on the captain's and first officer's FIRE WARN lights, on the P7 panel.

SUBTASK 26-00-00-040-003

(4) Method 2: deactivate the detection elements of the wheel well fire detection system.

NOTE: NOTE: When in dual loop (normal mode) operations, both MWW LOOP A and MWW LOOP B sensors are required to be in a state other than STANDBY in order annunciate a wheel well fire. If only one sensor is faulted (MWW LOOP A or MWW LOOP B), it is recommended to put the CODM to the single loop configuration (TASK 26-00-00-040-804). This is to maintain wheel well fire detection system coverage rather than disabling the wheel well fire detection system entirely.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(a) Disconnect the terminal lugs A and B on both sides of the M270 and M3068 detection elements.

(b) Do this task: Wheel Well and Lower Aft Body Overheat Detection System - Operational Test, TASK 26-18-00-710-801.

1) Make sure that all tests pass except for the wheel well fire function with the disabled element.

(c) Stow the wiring and terminal lugs on either side of M270 and M3068 detection elements.

SUBTASK 26-00-00-410-011

(5) Close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

——— END OF TASK ———

TASK 26-00-00-440-802

7. DDG 26-18-01A Wheel Well Fire Detection System Inoperative - Brake Temperature Monitoring System Operates Normally - Restoration

A. General

(1) This task puts the airplane back to its usual condition after operation with the wheel well fire detection systems inoperative and the brake temperature monitoring system (BTMS) operates normally.

B. References

Reference	Title
22-11-33-000-801	Flight Control Computer Removal (P/B 401)
22-11-33-400-801	Flight Control Computer Installation (P/B 401)

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Wheel Well Fire Detection Systems Activation

SUBTASK 26-00-00-040-004

(1) Install the two light bulbs in the WHEEL WELL light on the P8-1 panel.

(a) Remove an INOP - FIRE BELL DISCONNECTED placard from the switch.

SUBTASK 26-00-00-040-025

(2) Remove a WHEEL WELL FIRE DETECTION SYSTEM INOP placard from the OVHT/FIRE TEST switch, on the P8-1 overheat and fire protection panel.

SUBTASK 26-00-00-010-002

(3) Remove Flight Control Computer (FCC) B to get access to the wiring for the fire bell (TASK 22-11-33-000-801).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-00-00-930-001

(4) Install the wire on D742, pin 16 and pin 25 on the E1-4 shelf.

(a) Remove the WHEEL WELL WARNING LIGHT AND BELL INOP placard from the captain's and first officer's FIRE WARN lights, on the P7 panel.

SUBTASK 26-00-00-410-001

(5) Install FCC B (TASK 22-11-33-400-801).

SUBTASK 26-00-00-420-006

(6) If it is necessary, install the terminal lugs A and B on both sides of the M270 and M3068 detection elements.

——— END OF TASK ———

TASK 26-00-00-040-803

8. DDG 26-18-01B Wheel Well Fire Detection System Inoperative - Brake Temperature Monitoring System Inoperative Or Not Installed - Preparation

A. General

(1) This task gives the maintenance steps that prepare the airplane for flight with the wheel well fire detection system inoperative and the brake temperature monitoring system (BTMS) operates inoperative or not installed.

B. References

Reference	Title
22-11-33-000-801	Flight Control Computer Removal (P/B 401)
22-11-33-400-801	Flight Control Computer Installation (P/B 401)
26-18-00-710-801	Wheel Well and Lower Aft Body Overheat Detection System - Operational Test (P/B 501)

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

E. Wheel Well Fire Detection System Deactivation

SUBTASK 26-00-00-010-003

(1) Get access to the wheel well fire detection system compartment.

(a) Open this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

SUBTASK 26-00-00-740-002

(2) Deactivate the wheel well fire detection system, use one of the two methods.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-00-00-040-005

(3) Method 1: deactivate WHEEL WELL light and wheel well fire detection system input to fire warning system.

(a) Remove the two light bulbs from the WHEEL WELL light on the P8-1 panel.

1) Install an INOP - FIRE BELL DISCONNECTED placard on the light switch.

(b) Install a WHEEL WELL FIRE DETECTION SYSTEM INOP placard on the OVHT/FIRE TEST switch, on the P8-1 overheat and fire protection panel.

(c) Disconnect the fire bell.

1) Remove Flight Control Computer (FCC) B to get access to the wiring for the fire bell (TASK 22-11-33-000-801).

2) Disconnect the wires from D742, pin 16 and pin 25 on the E1-4 shelf.

3) Cap and stow the wires.

4) Install the FCC B (TASK 22-11-33-400-801).

(d) Install a WHEEL WELL WARNING LIGHT AND BELL INOP placard on the captain's and first officer's FIRE WARN lights, on the P7 panel.

SUBTASK 26-00-00-040-006

(4) Method 2: deactivate the detection elements of the wheel well fire detection system.

NOTE: When in dual loop (normal mode) operations, both MWW LOOP A and MWW LOOP B sensors are required to be in a state other than STANDBY in order annunciate a wheel well fire. If only one sensor is faulted (MWW LOOP A or MWW LOOP B), it is recommended to put the CODM to the single loop configuration (TASK 26-00-00-040-804). This is to maintain wheel well fire detection system coverage rather than disabling the wheel well fire detection system entirely.

(a) Disconnect the terminal lugs A and B on both sides of the M270 and M3068 detection elements.

(b) Do this task: Wheel Well and Lower Aft Body Overheat Detection System - Operational Test, TASK 26-18-00-710-801.

1) Make sure that all tests pass except for the wheel well fire function with the disabled element.

(c) Stow the wiring and terminal lugs on either side of M270 and M3068 detection elements.

SUBTASK 26-00-00-410-012

(5) Close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

——— END OF TASK ———

TASK 26-00-00-440-803

9. DDG 26-18-01B Wheel Well Fire Detection System Inoperative - Brake Temperature Monitoring System Inoperative Or Not Installed - Restoration

A. General

(1) This task puts the airplane back to its usual condition after operation with the wheel well fire detection systems inoperative.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

B. References

Reference	Title
22-11-33-000-801	Flight Control Computer Removal (P/B 401)
22-11-33-400-801	Flight Control Computer Installation (P/B 401)

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

E. Wheel Well Fire Detection Systems Activation

SUBTASK 26-00-00-010-013

(1) Get access to the wheel well fire detection system compartment.

(a) Open this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

SUBTASK 26-00-00-040-007

(2) Install the two light bulbs in the WHEEL WELL light on the P8-1 panel.

(a) Remove an INOP - FIRE BELL DISCONNECTED placard from the switch.

SUBTASK 26-00-00-040-026

(3) Remove a WHEEL WELL FIRE DETECTION SYSTEM INOP placard from the OVHT/FIRE TEST switch, on the P8-1 overheat and fire protection panel.

SUBTASK 26-00-00-010-004

(4) Remove Flight Control Computer (FCC) B to get access to the wiring for the fire bell (TASK 22-11-33-000-801).

SUBTASK 26-00-00-930-002

(5) Install the wire on D742, pin 16 and pin 25 on the E1-4 shelf.

(a) Remove the WHEEL WELL WARNING LIGHT AND BELL INOP placard from the captain's and first officer's FIRE WARN lights, on the P7 panel.

SUBTASK 26-00-00-410-002

(6) Install FCC B (TASK 22-11-33-400-801).

SUBTASK 26-00-00-420-007

(7) If it is necessary, install the terminal lugs A and B on both sides of the M270 and M3068 detection elements.

SUBTASK 26-00-00-410-014

(8) Close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

ECCN 9E991 BOEING PROPRIETARY - See title page for details

END OF TASK

TASK 26-00-00-040-804

10. DDG 26-18-01-01 Wheel Well Fire Detection Loops Inoperative - Preparation

A. General

(1) This task gives the maintenance steps that prepare the airplane for flight with the wheel well fire detection loops inoperative.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

D. Wheel Well Fire Detection System Deactivation

SUBTASK 26-00-00-010-005

(1) Get access to the wheel well fire detection system Compartment Overheat Detection Module (CODM).

Open this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

SUBTASK 26-00-00-040-008

(2) On the E1-4 rack, do a CODM local test, LOC TEST and record the indication of a fault for the main wheel well, MWW, sensor loops.

SUBTASK 26-00-00-040-009

(3) Make sure that the CODM is in the single loop configuration.

(a) Make sure that the "SINGLE LOOP OPS" appears on the CODM front panel display.

(b) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

(c) On the P8 overheat and fire protection panel, hold the TEST switch in the OVHT/FIRE position.

(d) Make sure that these indications occur:

1) The fire warning bell comes on.

2) The master FIRE WARN lights come on.

3) The WHEEL WELL light comes on.

(4) Release the TEST switch.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(5) Make sure that these indications occur:

(a) The fire warning bell stops.

(b) The master FIRE WARN lights go off.

(c) The WHEEL WELL light goes off.

(6) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

SUBTASK 26-00-00-410-013

(7) Close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

——— END OF TASK ———

TASK 26-00-00-040-810

11. DDG 26-18-02-03 Wing-Body Overheat Test System Inoperative - Preparation

A. General

(1) This task gives the maintenance steps which prepare the airplane for flight with the Wing Body Overheat Test System inoperative.

B. Location Zones

Zone	Area
131	Center Section Wing Box, Body Station 540.00 to Body Station 663.75 - Left
132	Center Section Wing Box, Body Station 540.00 to Body Station 663.75 - Right
192	Lower Wing-To-Body Fairing - Under Wing Box
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Check the Wing-Body Overheat Test System

SUBTASK 26-00-00-040-017

(1) Apply heat from an applicable heat source, for a period of about 30 seconds, at any point along the left and right wing-body overheat detector single loop sensing elements.

NOTE: The test heat device must not produce heat more than 450°F (232°C). This temperature limit should be followed in the event that fuel vapors exist in the area.

SUBTASK 26-00-00-040-018

(2) When a detector element in the left system is heated, make sure that these lights come on:

(a) Left WING-BODY OVERHEAT light on the Air Conditioning Panel (P5).

(b) The AIR COND light on the glareshield P7.

(c) The MASTER CAUTION lights.

SUBTASK 26-00-00-040-019

(3) When a detector element in the right system is heated, make sure that these lights come on:

(a) Right WING-BODY OVERHEAT light on the Air Conditioning Panel (P5).

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(b) The AIR COND light on the glareshield P7.

(c) The MASTER CAUTION lights.

SUBTASK 26-00-00-420-008

(4) Install the TEST SWITCH INOP placard on the OVHT TEST switch on the Air Conditioning panel, P5-10.

——— END OF TASK ———

TASK 26-00-00-440-808

12. DDG 26-18-02-03 Wing-Body Overheat Test System Inoperative - Restoration

A. General

(1) This task puts the airplane back to its usual condition after operation with the Wing/Body Overheat Test Systems Inoperative.

B. Location Zones

Zone	Area
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Wing/Body Overheat Test Systems Activation

SUBTASK 26-00-00-040-020

(1) Remove the TEST SWITCH INOP placard from the OVHT TEST switch on the Air Conditioning Panel, P5-10.

——— END OF TASK ———

TASK 26-00-00-040-819

13. DDG 26-19-01-01 Equipment Cooling Smoke Detector Inoperative - Preparation

A. General

(1) This task gives the maintenance steps which prepare the airplane for flight with the Electronic Equipment (EE) cooling smoke detectors inoperative.

B. References

Reference	Title
26-19-00-710-802	E/E Cooling Smoke Detector - Operational Test (P/B 501)

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right

D. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

E. Smoke Detector Deactivation

SUBTASK 26-00-00-740-003

(1) Do these steps to make sure that one EE cooling smoke detector operates correctly (TASK 26-19-00-710-802):

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(a) Open this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

(b) On the forward panel of J23 box, push and release the EQUIP COOL SMK DET TEST button (S1204).

(c) Make sure that the green EQUIP COOL SMK DET SPLY light (L1293) or the green EQUIP COOL SMK DET EXH light (L1294) comes on.

SUBTASK 26-00-00-860-010

(2) If the EQUIP COOL SMK DET SPLY light (L1293) does not come on, then do this step:

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

F/O Electrical System Panel, P6-5

Row	Col	Number	Name
A	11	C04014	EQPT COOL SMOKE DET SUPPLY

SUBTASK 26-00-00-860-011

(3) If the EQUIP COOL SMK DET EXH light (L1294) does not come on, then do this step:

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	13	C04013	EQPT COOL SMOKE DET EXHAUST

SUBTASK 26-00-00-410-010

(4) Close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

——— END OF TASK ———

TASK 26-00-00-440-817

14. DDG 26-19-01-01 Equipment Cooling Smoke Detector Inoperative - Restoration

A. General

(1) This task puts the airplane back to its usual condition after operation with the equipment cooling smoke detector inoperative.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right

C. Equipment Cooling Smoke Detector Activation

SUBTASK 26-00-00-860-012

(1) Remove the applicable safety locks and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	13	C04013	EQPT COOL SMOKE DET EXHAUST

ECCN 9E991 BOEING PROPRIETARY - See title page for details

F/O Electrical System Panel, P6-5

Row	Col	Number	Name
A	11	C04014	EQPT COOL SMOKE DET SUPPLY

END OF TASK

TASK 26-00-00-040-820

15. DDG 26-19-01-02 Equipment Cooling Smoke Detection EQUIP SMOKE Light Inoperative - Preparation

A. General

(1) This task gives the maintenance steps which prepare the airplane for flight with the equipment cooling EQUIP SMOKE light inoperative.

B. References

Reference	Title
26-19-00-710-802	E/E Cooling Smoke Detector - Operational Test (P/B 501)

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Equipment Cooling Smoke Detection Test

SUBTASK 26-00-00-740-004

(1) Make sure that the equipment cooling smoke detectors are operating correctly (TASK 26-19-00-710-802).

SUBTASK 26-00-00-420-009

(2) Install an INDICATOR INOP placard on the EQUIP SMOKE light on the overhead panel, P5.

END OF TASK

TASK 26-00-00-440-819

16. DDG 26-19-01-02 Equipment Cooling Smoke Detection EQUIP SMOKE Light Inoperative - Restoration

A. General

(1) This task puts the airplane back to its usual condition after operation with the equipment cooling smoke detection EQUIP SMOKE light inoperative.

B. Location Zones

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

C. Equipment Cooling SMOKE LIGHT Activation

SUBTASK 26-00-00-020-010

(1) Remove the INDICATOR INOP placard from the EQUIP SMOKE light on the overhead panel, P5.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-00-00-040-821

17. DDG 26-20-01-02 APU Bottle Discharged Light Inoperative - Preparation

(Figure 901)

A. General

(1) This task prepares the airplane for flight with the APU bottle discharged light inoperative.

B. Location Zones

Zone	Area
210	Subzone - Control Compartment - Body Station 178.00 to Body Station 259.50
311	Area Aft of Pressure Bulkhead - Left

C. Access Panels

Number	Name/Location
311BL	Stabilizer Trim Access Door

D. APU Bottle Discharged Light Deactivation

SUBTASK 26-00-00-040-024

(1) Do these steps to make sure that the APU bottle pressure is acceptable for dispatch:

(a) Open this access panel:

Number	Name/Location
311BL	Stabilizer Trim Access Door

(b) Make sure that the pressure on the gauge is greater than 400 psig (2758 kPa).

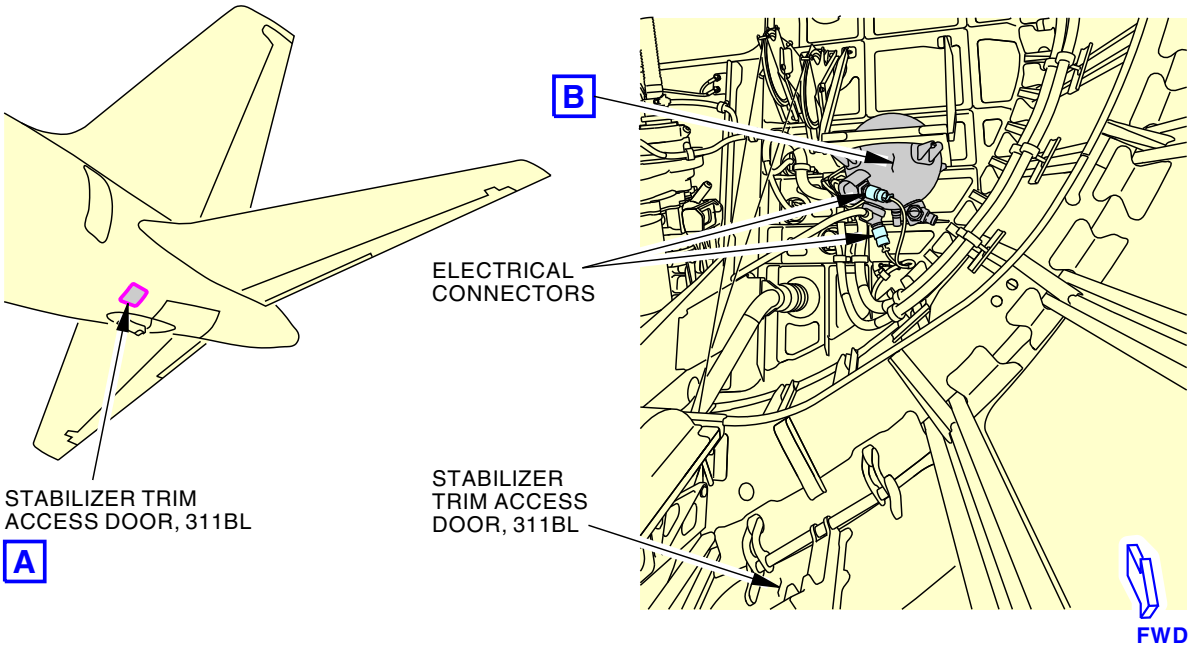
(c) Close this access panel:

Number	Name/Location
311BL	Stabilizer Trim Access Door

(d) Install an INDICATOR INOP placard on the APU BOTTLE DISCHARGED light on P8-1 panel.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



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APU Fire Extinguishing Bottle Inspection
Figure 901/26-00-00-990-801

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-00-00-440-820

18. DDG 26-20-01-02 APU Bottle Discharged Light Inoperative - Restoration

A. General

(1) This task restores the airplane to its usual condition.

B. Location Zones

Zone	Area
210	Subzone - Control Compartment - Body Station 178.00 to Body Station 259.50
311	Area Aft of Pressure Bulkhead - Left

C. APU Bottle Discharged Light Activation

SUBTASK 26-00-00-440-005

(1) Remove the INDICATOR INOP placard from the APU BOTTLE DISCHARGED light on the P8-1 fire protection panel.

——— END OF TASK ———

TASK 26-00-00-040-805

19. DDG 26-20-02 Engine/APU Fire Extinguisher Test System Inoperative - Preparation

A. General

(1) This task gives the maintenance steps which prepare the airplane for flight with the Engine/APU Fire Extinguisher Test System Inoperative.

(2) For each inoperative squib test circuit, make sure that the failure is in the squib test circuit by making sure that the squib circuit operates normally once each flight day.

B. References

Reference	Title
26-21-00-730-801	Engine Fire Extinguishing Bottle Squib Circuit Test (P/B 501)
26-22-00-730-801	APU Fire Extinguishing Bottle Squib Circuit Test (P/B 501)

C. Location Zones

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

D. Engine/APU Extinguisher System Deactivation

SUBTASK 26-00-00-040-010

(1) Make sure that the Engine/APU fire extinguisher squib circuit operates correctly. Do the applicable task:

- Engine Fire Extinguishing Bottle Squib Circuit Test, TASK 26-21-00-730-801
- APU Fire Extinguishing Bottle Squib Circuit Test, TASK 26-22-00-730-801

SUBTASK 26-00-00-930-003

(2) Install a TEST INOP placard on the EXT TEST switch, on the P8-1 panel.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-00-00-440-818

20. DDG 26-20-02 Engine/APU Fire Extinguisher Test System Inoperative - Restoration

A. General

(1) This task puts the airplane back to its usual condition after operation with the Engine/APU Squib Test Inoperative.

B. Location Zones

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

C. Engine/APU Extinguisher System Activation

SUBTASK 26-00-00-930-004

(1) Remove the TEST INOP placard from the EXT TEST switch, on the P8-1 panel.

——— END OF TASK ———

TASK 26-00-00-040-811

21. DDG 26-23-01-01 Lower Cargo Compartment DISCH Light Inoperative - Preparation

A. General

(1) This task gives the maintenance steps that prepare the airplane for flight with the lower cargo compartment DISCH light inoperative.

B. References

Reference	Title
26-00-02-000-801	Cargo Fire Control Panel Removal (P/B 401)
26-00-02-400-801	Cargo Fire Control Panel Installation (P/B 401)

C. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Lower Cargo Compartment DISCH Light Deactivation

SUBTASK 26-00-00-000-001

(1) Do this task: Cargo Fire Control Panel Removal, TASK 26-00-02-000-801.

SUBTASK 26-00-00-020-011

(2) Do the steps that follow for an inoperative DISCH light circuit to make sure that the fire extinguisher bottles have an adequate charge:

NOTE: It is necessary to use a 28VDC circuit test lamp with pigtail leads that terminate in pin contacts in an applicable holder. To make the lamp, lamp P/N 116-565-1042-001 (28 volt, 40 milliamps) or the equivalent is suggested, but you can use an applicable lamp or a digital multimeter.

(a) For bottle 1, do these steps:

ECCN 9E991 BOEING PROPRIETARY - See title page for details

1) Open this circuit breaker and install safety tag:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	17	C01526	CARGO FIRE EXT 1

2) Connect the test lamp or digital multimeter between the airplane side of connector D12760, pin 48 (the +28 volt source for bottle 1) and pin 28 (pressure switch ground).

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	17	C01526	CARGO FIRE EXT 1

4) If the test lamp stays off or digital multimeter shows an OPEN circuit, the fire extinguisher bottle has an adequate charge.

5) Open this circuit breaker and install safety tag:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	17	C01526	CARGO FIRE EXT 1

6) Remove the test lamp.

7) Remove the safety tag and close this circuit breaker:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	17	C01526	CARGO FIRE EXT 1

(b) For bottle 2, do these steps:

1) Open this circuit breaker and install safety tag:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2

2) Connect the test lamp or digital multimeter between the airplane side of connector D12760, pin 45 (the +28 volt source for bottle 2) and pin 28 (pressure switch ground).

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2

4) If the test lamp stays off or digital multimeter shows an OPEN circuit, the fire extinguisher bottle has an adequate charge.

5) Open this circuit breaker and install safety tag:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2

6) Remove the test lamp.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

7) Remove the safety tag and close this circuit breaker:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2

SUBTASK 26-00-00-400-004

(3) Do this task: Cargo Fire Control Panel Installation, TASK 26-00-02-400-801.

——— END OF TASK ———

TASK 26-00-00-440-809

22. DDG 26-23-01-01 Lower Cargo Compartment DISCH Light Inoperative - Restoration

A. General

(1) This task puts the airplane back to its usual condition after operation with the Lower Cargo Compartment DISCH Light Inoperative.

B. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Lower Cargo Compartment DISCH Light Activation

SUBTASK 26-00-00-020-008

(1) Remove the INDICATOR INOP placard from the DISCH light on the cargo fire panel, P8.

——— END OF TASK ———

TASK 26-00-00-040-812

23. DDG 26-23-01-02 Lower Cargo Compartment Extinguisher Bottle Pressure Switch Inoperative - Preparation

A. General

(1) This task gives maintenance steps that prepare the airplane for flight with the lower cargo compartment extinguisher bottle pressure switch inoperative.

B. References

Reference	Title
26-23-01-000-801	Cargo Fire Extinguisher Bottle Removal (P/B 401)
26-23-01-400-801	Cargo Fire Extinguisher Bottle Installation (P/B 401)

C. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right
211	Flight Compartment - Left

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(Continued)

Zone	Area
212	Flight Compartment - Right

D. Lower Cargo Compartment Extinguisher Bottle Pressure Switch Deactivation

SUBTASK 26-00-00-020-004

WARNING DO NOT TOUCH THE PINS ON THE SQUIB. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

(1) Do the steps that follow to deactivate the applicable extinguisher bottle pressure switch:

(a) Do this task: Cargo Fire Extinguisher Bottle Removal, TASK 26-23-01-000-801.

(b) Disconnect the electrical connectors from the bottle.

(c) Cap and stow the bottle pressure switch electrical connector (D16576 or D16582).

SUBTASK 26-00-00-280-001

(2) Weigh the applicable extinguisher bottle on a scale that is accurate to within +/-0.1 lb (0.0 kg).

(a) For P/N 473957-4 and 475976-1, make sure that the bottle weight is within 0.25 lb (0.11 kg) of the service weight marked on the bottle name plate.

(b) For P/N 475975-1, make sure that the bottle weight is within 0.13 lb (0.06 kg) of the service weight marked on the bottle name plate.

SUBTASK 26-00-00-420-002

(3) Do this task: Cargo Fire Extinguisher Bottle Installation, TASK 26-23-01-400-801.

SUBTASK 26-00-00-930-005

(4) Install the applicable extinguisher bottle pressure switch INOP Placard on the P8 cargo fire panel.

——— END OF TASK ———

TASK 26-00-00-440-810

24. DDG 26-23-01-02 Lower Cargo Compartment Extinguisher Bottle Pressure Switch Inoperative - Restoration

A. General

(1) This task puts the airplane back to its usual condition after operation with the lower cargo compartment extinguisher bottle pressure switch inoperative.

B. References

Reference	Title
50-11-02-000-801	Forward Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
50-11-02-400-801	Forward Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)

C. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
125	Air Conditioning Distribution Bay - Left

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(Continued)

Zone	Area
126	Air Conditioning Distribution Bay - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Access Panels

Number	Name/Location
821	Forward Cargo Door

E. Lower Cargo Compartment Extinguisher Bottle Pressure Switch Activation

SUBTASK 26-00-00-860-001

(1) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1

SUBTASK 26-00-00-010-007

(2) Open this access panel:

Number	Name/Location
821	Forward Cargo Door

SUBTASK 26-00-00-010-012

(3) Remove the lining at the aft end of the forward cargo compartment to get access to the air conditioning distribution bay (TASK 50-11-02-000-801).

SUBTASK 26-00-00-440-002

(4) Do the steps that follow to activate the applicable extinguisher bottle pressure switch:

(a) Remove the cap from the pressure switch electrical connector.

WARNING DO NOT TOUCH THE PINS ON THE SQUIB. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

(b) Connect the applicable extinguisher bottle pressure switch electrical connector to the pressure switch.

SUBTASK 26-00-00-410-004

(5) Install the liner at the aft end of the forward cargo compartment to the air conditioning distribution bay (TASK 50-11-02-400-801).

SUBTASK 26-00-00-410-005

(6) Close this access panel:

Number	Name/Location
821	Forward Cargo Door

SUBTASK 26-00-00-930-006

(7) Remove the applicable Extinguisher Bottle pressure switch INOP placard on the Cargo Fire panel (P8).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-00-00-860-002

(8) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1

END OF TASK

TASK 26-00-00-040-814

25. DDG 26-23-01-03 Lower Cargo Compartment EXT Light Inoperative - Preparation

A. General

(1) This task gives the maintenance steps that prepare the airplane for flight with the lower cargo compartment EXT light inoperative.

B. References

Reference	Title
26-00-02-000-801	Cargo Fire Control Panel Removal (P/B 401)
26-00-02-400-801	Cargo Fire Control Panel Installation (P/B 401)

C. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Lower Cargo Compartment EXT Light Deactivation

SUBTASK 26-00-00-000-002

(1) Do this task: Cargo Fire Control Panel Removal, TASK 26-00-02-000-801.

SUBTASK 26-00-00-750-002

WARNING KEEP PERSONNEL AWAY FROM THE EXTINGUISHER BOTTLE AREA DURING THE SQUIB CIRCUIT TEST. USE A MAXIMUM CURRENT OF 40 MILLIAMPS DURING THE TEST. USE ONLY TEST LAMP P/N 116-565-1042-001 (28 VOLT, 40 MILLIAMPS) OR ITS EQUIVALENT. DO NOT USE A MULTIMETER. IF THE EXTINGUISHER BOTTLE RELEASES THE EXTINGUISHING MATERIAL, IT CAN CAUSE INJURIES TO PERSONNEL.

(2) Do the steps that follow to make sure that the EXT light SQUIB circuit operates correctly:

NOTE: If the test lamp comes on, the squib circuit is good.

(a) Connect the test lamp between D12760 pin 48 (the +28 volt source for bottle 1) and pin 26 (EXT 1 FWD squib).

1) Make sure that the test lamp comes on.

(b) Connect the test lamp between D12760 pin 48 (the +28 volt source for bottle 1) and pin 24 (EXT 1 AFT squib).

1) Make sure that the test lamp comes on.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(c) Connect the test lamp between D12760 pin 45 (the +28 volt source for bottle 2) and pin 12 (EXT 2 FWD squib).

1) Make sure that the test lamp comes on.

(d) Connect the test lamp between D12760 pin 45 (the +28 volt source for bottle 2) and pin 23 (EXT 2 AFT squib).

1) Make sure that the test lamp comes on.

(e) Remove the test lamp.

SUBTASK 26-00-00-400-005

(3) Do this task: Cargo Fire Control Panel Installation, TASK 26-00-02-400-801.

——— END OF TASK ———

TASK 26-00-00-440-812

26. DDG 26-23-01-03 Lower Cargo Compartment EXT Light Inoperative - Restoration

A. General

(1) This task puts the airplane back to its usual condition after operation with the Lower Cargo Compartment EXT Light Inoperative.

B. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Lower Cargo Compartment EXT Light Activation

SUBTASK 26-00-00-020-009

(1) Remove the INDICATOR INOP placard from the FWD and AFT EXT lights on the Cargo Fire Panel, P8.

——— END OF TASK ———

TASK 26-00-00-040-807

27. DDG 26-24-01B Lavatory Fire Extinguisher System Inoperative - Preparation

A. General

(1) This task gives the maintenance steps which prepare the airplane for flight with the lavatory fire extinguisher system inoperative.

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Lavatory Deactivation

SUBTASK 26-00-00-040-012

(1) If the lavatory fire extinguisher system does not operate, do these steps.

(a) Empty the lavatory waste receptacle.

(b) Close and lock the lavatory door.

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(c) Install an INOPERATIVE - DO NOT ENTER placard on the lavatory door.

NOTE: Lavatory use or inspections by crew members is allowed.

——— END OF TASK ———

TASK 26-00-00-440-805

28. DDG 26-24-01B Lavatory Fire Extinguisher System Inoperative - Restoration

A. General

(1) This task puts the airplane back to its usual condition after operation with the Lavatory Fire Extinguisher System Inoperative.

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Lavatory Fire Extinguisher System Activation

SUBTASK 26-00-00-800-002

(1) Unlock the lavatory door.

SUBTASK 26-00-00-040-013

(2) Remove the INOP placard from the lavatory door.

——— END OF TASK ———

TASK 26-00-00-040-801

29. DDG 26-26-01 Portable Fire Extinguishers Inoperative - Preparation

A. General

(1) This task gives the maintenance steps which prepare the airplane for flight with the inoperative portable fire extinguishers.

B. References

Reference	Title
26-26-01-020-801	Halon Fire Extinguisher Removal (P/B 401)
26-26-02-000-801	Water Fire Extinguisher Removal (P/B 401)
26-26-03-000-801	Clean Agent Fire Extinguisher - Removal (P/B 401)

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Portable Fire Extinguisher Deactivation

SUBTASK 26-00-00-020-001

(1) Do the applicable task to remove the inoperative portable fire extinguisher:

SIA 001, 002

- Halon Fire Extinguisher Removal, TASK 26-26-01-020-801

SIA ALL

- Water Fire Extinguisher Removal, TASK 26-26-02-000-801.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SIA 003-999

- Clean Agent Fire Extinguisher - Removal, TASK 26-26-03-000-801.

SIA ALL

SUBTASK 26-00-00-040-001

(2) Stow the extinguisher.

(a) Put the extinguisher in a bag.

(b) Make sure that the extinguisher can not be used by mistake.

NOTE: The extinguisher will be removed from the airplane at the next available maintenance base.

SUBTASK 26-00-00-610-001

(3) Make sure that the necessary supply of serviceable extinguishers is available throughout the airplane.

——— END OF TASK ———

TASK 26-00-00-440-801

30. DDG 26-26-01 Portable Fire Extinguishers Inoperative - Restoration

A. General

(1) This task puts the airplane back to its usual condition after operation with the inoperative Portable Fire Extinguishers.

B. References

Reference	Title
26-26-01-430-801	Halon Fire Extinguisher - Installation (P/B 401)
26-26-02-400-801	Water Fire Extinguisher Installation (P/B 401)
26-26-03-400-801	Clean Agent Fire Extinguisher - Installation (P/B 401)

C. Reactivation of the Inoperative Portable Fire Extinguishers

SUBTASK 26-00-00-420-001

(1) Do the applicable task to install the portable fire extinguisher:

SIA 001, 002

- Halon Fire Extinguisher - Installation, TASK 26-26-01-430-801

SIA ALL

- Water Fire Extinguisher Installation, TASK 26-26-02-400-801.

SIA 003-999

- Clean Agent Fire Extinguisher - Installation, TASK 26-26-03-400-801.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

ENGINE AND APU FIRE CONTROL PANEL - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) Engine and APU Fire Control Panel Removal

(2) Engine and APU Fire Control Panel Installation

(3) Engine and APU Fire Shutoff Switch Assembly Removal

(4) Engine and APU Fire Shutoff Switch Assembly Installation.

B. The Engine and APU Fire Control Panel is installed on the P8 aisle control stand in the flight compartment.

TASK 26-00-01-000-801

2. Engine and APU Fire Control Panel Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the Engine and APU Fire Control Panel.

B. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)

C. Location Zones

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

D. Prepare for the Removal

SUBTASK 26-00-01-860-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1
B	19	C01344	APU FIRE SW POWER
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
B	3	C00360	FUEL SPAR VALVE ENG 2
B	4	C00359	FUEL SPAR VALVE ENG 1

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SUBTASK 26-00-01-860-002

(2) If it is necessary, set the engine fuel levers to IDLE to get access to remove the engine and APU fire control panel [1].

E. Engine and APU Fire Control Panel Removal

SUBTASK 26-00-01-860-009

CAUTION

DO NOT TOUCH THE CONTROL UNIT BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE CONTROL UNIT.

(1) Before you touch the engine and APU fire control panel [1], do this task: ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802.

SUBTASK 26-00-01-020-001

(2) Loosen the four quarter turn fasteners that attach the engine and APU fire control panel [1] to the frame.

SUBTASK 26-00-01-020-002

(3) Slide the engine and APU fire control panel [1] from the frame.

SUBTASK 26-00-01-020-003

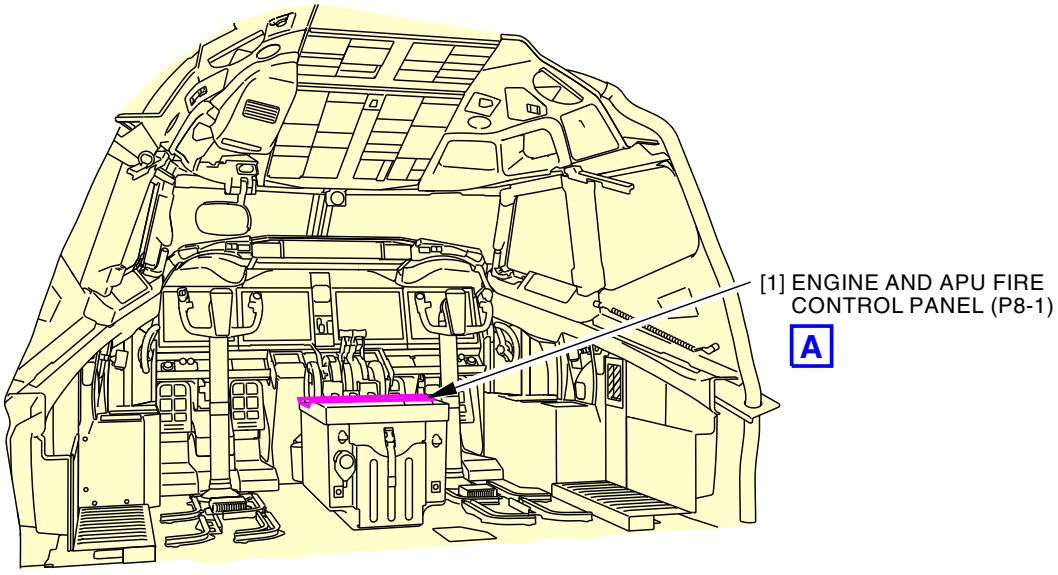
(4) Tag and remove the five electrical connectors.

SUBTASK 26-00-01-860-003

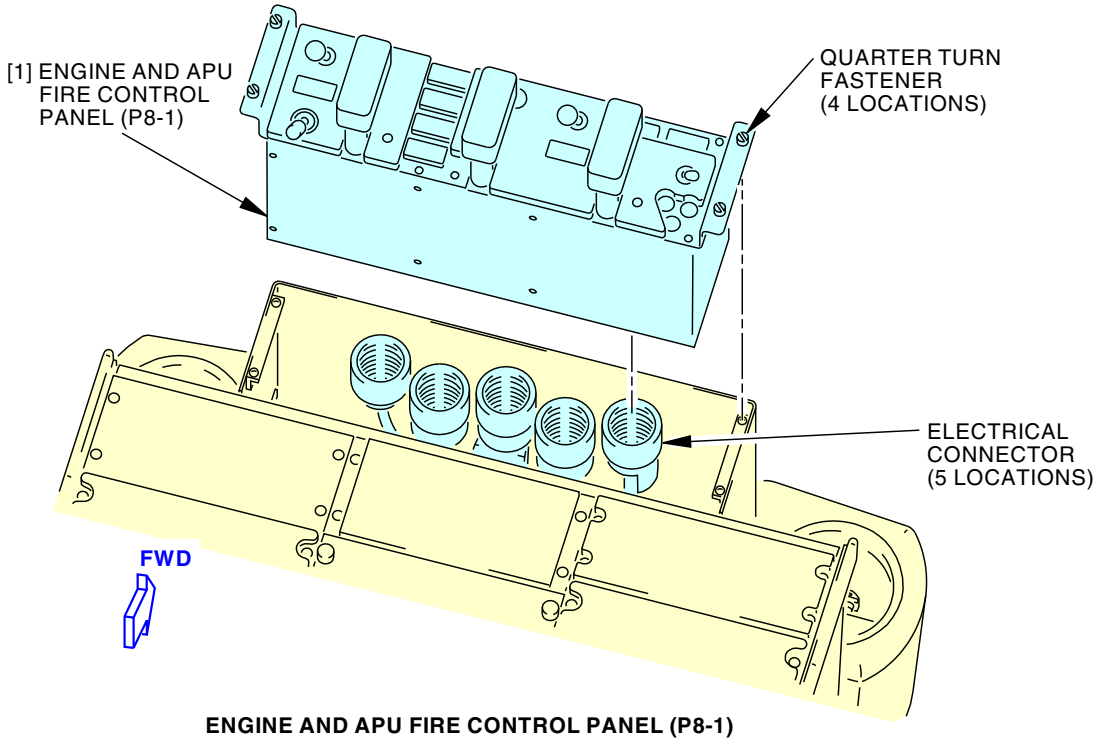
(5) Make sure that the engine fuel levers switch to CUTOFF.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



FLIGHT COMPARTMENT



ENGINE AND APU FIRE CONTROL PANEL (P8-1)

A

2412058 S00061529827_V2

Fire Control Panel Installation
Figure 401/26-00-01-990-801

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TASK 26-00-01-400-801

3. Engine and APU Fire Control Panel Installation

(Figure 401)

A. General

(1) This task gives instructions to install the Engine and APU Fire Control Panel.

B. References

Reference	Title
20-40-12-400-802	ESDS Handling for Metal Encased Unit Installation (P/B 201)
26-10-00-710-801	Fire and Overheat Detection System - Operational Test (P/B 501)
26-18-00-710-801	Wheel Well and Lower Aft Body Overheat Detection System - Operational Test (P/B 501)
26-21-00-720-802	Engine Fire Switch System Shutdown Test (P/B 501)
26-21-00-730-801	Engine Fire Extinguishing Bottle Squib Circuit Test (P/B 501)
26-21-00-730-802	Engine Fire Extinguishing Bottle Pressure Switch Circuit Test (P/B 501)
26-22-00-720-801	APU Fire Switch System Shutdown Test (P/B 501)
26-22-00-730-801	APU Fire Extinguishing Bottle Squib Circuit Test (P/B 501)
26-22-00-730-802	APU Fire Extinguishing Bottle Pressure Switch Circuit Test (P/B 501)

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Engine and APU fire control panel	26-00-01-01-010	SIA ALL

D. Location Zones

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

E. Prepare for the Installation

SUBTASK 26-00-01-860-005

(1) If it is necessary, set the engine fuel levers to IDLE to get access to install the engine and APU fire control panel [1].

F. Engine and APU Fire Control Panel Installation

SUBTASK 26-00-01-860-010

CAUTION DO NOT TOUCH THE CONTROL UNIT BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE CONTROL UNIT.

(1) Before you touch the engine and APU fire control panel [1], do this task: ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

SUBTASK 26-00-01-200-001

(2) Make sure that the pins are not bent or damaged and the connector is not damaged.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-00-01-420-001

(3) Install the five connectors in accordance with tag information and remove the tags.

SUBTASK 26-00-01-020-004

(4) Slide the engine and APU fire control panel [1] into the frame and secure with the four quarter turn fasteners.

SUBTASK 26-00-01-860-006

(5) Make sure that the engine fuel levers switch to CUTOFF.

G. Engine and APU Fire Detection Control Unit Installation Test

SUBTASK 26-00-01-720-001

(1) Do this task: Fire and Overheat Detection System - Operational Test, TASK 26-10-00-710-801.

SUBTASK 26-00-01-720-002

(2) Do this task: Engine Fire Switch System Shutdown Test, TASK 26-21-00-720-802.

SUBTASK 26-00-01-710-001

(3) Do this task: Engine Fire Extinguishing Bottle Squib Circuit Test, TASK 26-21-00-730-801.

SUBTASK 26-00-01-720-003

(4) Do this task: Engine Fire Extinguishing Bottle Pressure Switch Circuit Test, TASK 26-21-00-730-802.

SUBTASK 26-00-01-720-004

(5) Do this task: APU Fire Switch System Shutdown Test, TASK 26-22-00-720-801.

SUBTASK 26-00-01-720-005

(6) Do this task: APU Fire Extinguishing Bottle Squib Circuit Test, TASK 26-22-00-730-801.

SUBTASK 26-00-01-720-006

(7) Do this task: APU Fire Extinguishing Bottle Pressure Switch Circuit Test, TASK 26-22-00-730-802.

SUBTASK 26-00-01-710-002

(8) Do this task: Wheel Well and Lower Aft Body Overheat Detection System - Operational Test, TASK 26-18-00-710-801.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 26-00-01-860-007

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1
B	19	C01344	APU FIRE SW POWER
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

ECCN 9E991 BOEING PROPRIETARY - See title page for details

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
B	3	C00360	FUEL SPAR VALVE ENG 2
B	4	C00359	FUEL SPAR VALVE ENG 1

——— END OF TASK ———

TASK 26-00-01-000-802

4. Engine and APU Fire Shutoff Switch Assembly Removal

(Figure 402)

A. General

(1) This task gives instructions to remove the engine and APU fire shutoff switch assembly.

B. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)

C. Location Zones

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

D. Prepare for the Removal

SUBTASK 26-00-01-865-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1
B	19	C01344	APU FIRE SW POWER
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

E. Engine and APU Fire Shutoff Switch Removal

SUBTASK 26-00-01-860-011

CAUTION DO NOT TOUCH THE CONTROL UNIT BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE CONTROL UNIT.

(1) Before you touch the engine and APU fire control panel [1], do this task: ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802.

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SUBTASK 26-00-01-030-001

(2) Loosen the quarter turn fasteners securing the engine and APU fire control panel [1] to the frame.

SUBTASK 26-00-01-030-002

(3) Slide the engine and APU fire control panel [1] carefully from the frame insert, enough to gain access to the connectors of the engine and APU fire shutoff switches [8].

SUBTASK 26-00-01-030-003

(4) Disconnect the electrical connector from the applicable engine and APU fire shutoff switch [8].

SUBTASK 26-00-01-030-004

(5) Put a protective cover on the connector of the applicable engine and APU fire shutoff switch [8].

SUBTASK 26-00-01-030-005

(6) Remove the cover [9].

(a) Remove the screws [10] that attach the cover [9] to the engine and APU fire control panel [1].

SUBTASK 26-00-01-020-005

(7) If it is necessary, remove the lightplate [4].

(a) Remove the screws [6] that attach the lightplate [4] to the baseplate of the engine and APU fire control panel [1].

SUBTASK 26-00-01-020-006

(8) If it is necessary, remove the lightplate [5].

(a) Remove the bell cutout handle [2].

1) Remove the screws [3] that attach the bell cutout handle [2] to the switch rod.

(b) Remove the screws [6] that attach the lightplate [5] to the baseplate of the engine and APU fire control panel [1].

SUBTASK 26-00-01-020-007

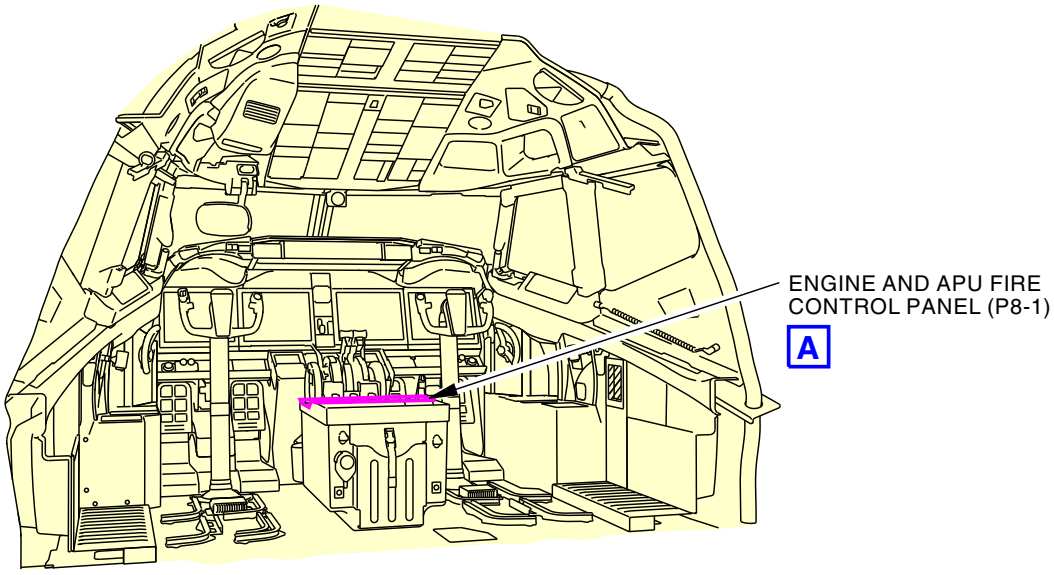
(9) Remove the screws [7] that hold the engine and APU fire shutoff switch [8] to the baseplate of the engine and APU fire control panel [1].

SUBTASK 26-00-01-030-006

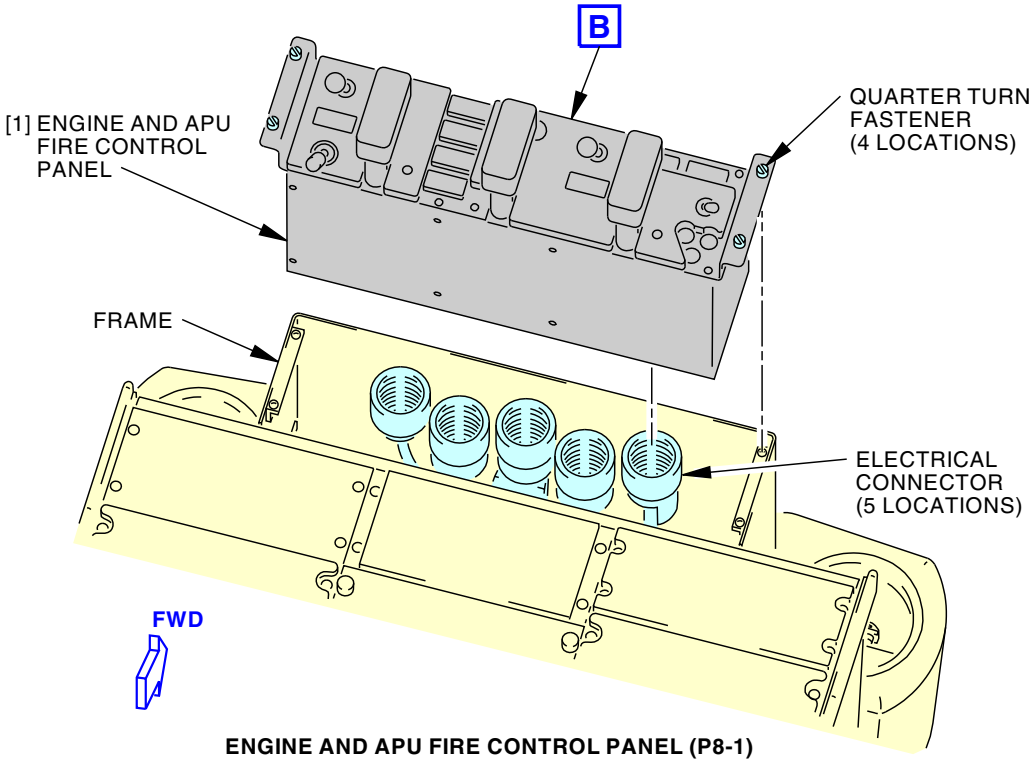
(10) Slide the applicable engine and APU fire shutoff switch [8] and remove it.

——— END OF TASK ———

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FLIGHT COMPARTMENT



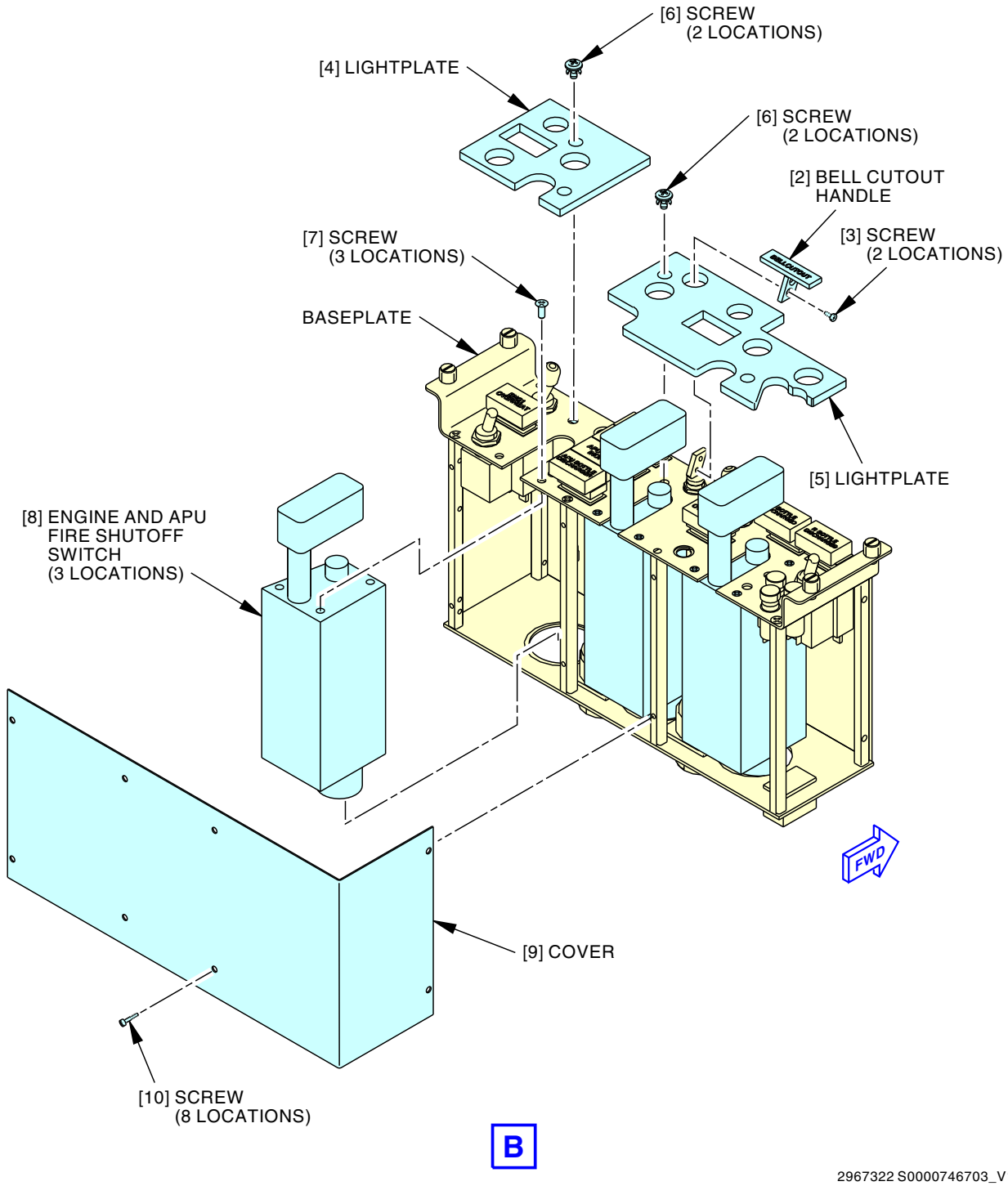
ENGINE AND APU FIRE CONTROL PANEL (P8-1)

A

2412059 S00061529830_V3

Engine and APU Fire Shutoff Switch Assembly Installation
Figure 402/26-00-01-990-802 (Sheet 1 of 2)

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Engine and APU Fire Shutoff Switch Assembly Installation
Figure 402/26-00-01-990-802 (Sheet 2 of 2)

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TASK 26-00-01-400-802

5. Engine and APU Fire Shutoff Switch Assembly Installation

(Figure 402)

A. General

(1) This task gives instructions to install the engine and APU fire shutoff switch assembly.

B. References

Reference	Title
20-40-12-400-802	ESDS Handling for Metal Encased Unit Installation (P/B 201)
26-21-00-720-802	Engine Fire Switch System Shutdown Test (P/B 501)
26-22-00-720-801	APU Fire Switch System Shutdown Test (P/B 501)

C. Consumable Materials

Reference	Description	Specification
A00142	Sealant - Temperature Resistant, Fuel Pressure, And Weather Sealant	BMS5-44
A50110	Sealant - Fuel Tank	BMS5-45 Class B-2

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
8	Engine and APU fire shutoff switch	26-00-01-01-030	SIA ALL

E. Location Zones

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

F. Engine and APU Fire Shutoff Switch Installation

SUBTASK 26-00-01-860-012

CAUTION DO NOT TOUCH THE CONTROL UNIT BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE CONTROL UNIT.

(1) Before you touch the engine and APU fire control panel [1], do this task: ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

SUBTASK 26-00-01-420-002

(2) Make sure that the fire shutoff switch electrical connector is accessible for installation to the engine and APU fire shutoff switch [8].

(a) If the electrical connector is not accessible, carefully slide the engine and APU fire control panel [1] out.

SUBTASK 26-00-01-420-003

(3) Put the engine and APU fire shutoff switch [8] in its position in the engine and APU fire control panel [1].

NOTE: There are indexing pins on the switch.

SUBTASK 26-00-01-420-004

(4) Install the screws [7] to attach the engine and APU fire shutoff switch [8] to the baseplate of the engine and APU fire control panel [1].

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SUBTASK 26-00-01-420-008

(5) If it was removed, install the lightplate [4], do these steps:

(a) Put the lightplate [4] in its position on the baseplate.

(b) Install the screws [6] to attach the lightplate [4] to the baseplate.

SUBTASK 26-00-01-420-009

(6) If it was removed, install the lightplate [5], do these steps:

(a) Put the lightplate [5] in its position on the baseplate.

(b) Install the screws [6] to attach the lightplate [5] to the baseplate.

(c) Install the bell cutout handle [2].

1) Install the screws [3] to attach the bell cutout handle [2] to the switch rod.

SUBTASK 26-00-01-420-010

(7) Install the cover [9], do these steps:

(a) If it is necessary, remove the old sealant from the cover [9].

(b) Put the cover [9] in its position.

(c) Install the screws [10] to attach the cover [9] to the engine and APU fire control panel [1].

(d) Apply sealant, A00142, or sealant, A50110, between the cover [9] and baseplate.

1) Make sure that the engine and APU fire control panel [1] is sealed in its entirety around the perimeter of the baseplate and covers.

NOTE: This is to provide a moisture-tight seal.

SUBTASK 26-00-01-420-005

(8) Remove the protective cover from the electrical connector of the applicable engine and APU fire shutoff switch [8].

SUBTASK 26-00-01-420-006

(9) Examine the electrical connector for bent, broken pins, dirt or damage.

(a) If it is necessary, clean or repair the electrical connector.

SUBTASK 26-00-01-430-001

(10) Connect the electrical connector to the applicable engine and APU fire shutoff switch [8].

SUBTASK 26-00-01-420-007

(11) Slide the engine and APU fire control panel [1] into the frame and secure with the quarter-turn fasteners.

G. Electrical System Installation Test

SUBTASK 26-00-01-700-001

(1) Do this task, as applicable: Engine Fire Switch System Shutdown Test, TASK 26-21-00-720-802 or APU Fire Switch System Shutdown Test, TASK 26-22-00-720-801.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 26-00-01-860-008

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

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(Continued)

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1
B	19	C01344	APU FIRE SW POWER
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

——— END OF TASK ———

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CARGO FIRE CONTROL PANEL - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) Cargo Fire Control Panel Removal

(2) Cargo Fire Control Panel Installation.

B. The Cargo Fire Control Panel is installed on the P8 aisle control stand in the flight compartment.

TASK 26-00-02-000-801

2. Cargo Fire Control Panel Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the Cargo Fire Control Panel.

B. Location Zones

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

C. Prepare for the Removal

SUBTASK 26-00-02-860-001

(1) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	8	C00701	EMER PANEL LTG
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT
F	13	C01179	INDICATOR MASTER DIM SECT 7

D. Cargo Fire Control Panel Removal

SUBTASK 26-00-02-020-001

(1) Loosen the four quarter turn fasteners that attach the cargo fire control panel [1] to the frame.

SUBTASK 26-00-02-020-002

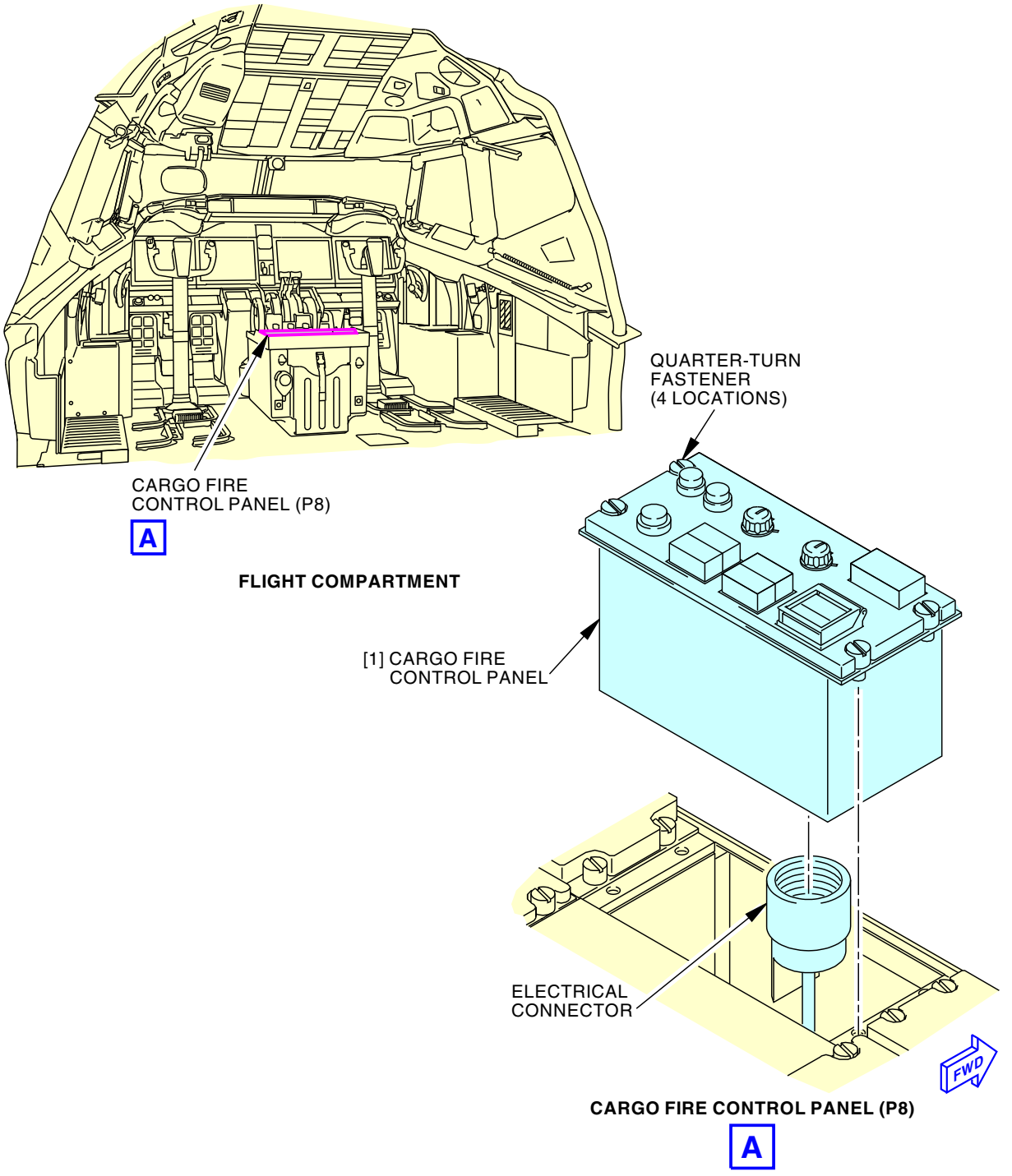
(2) Slide the cargo fire control panel [1] from the frame.

SUBTASK 26-00-02-020-003

(3) Tag and remove the electrical connectors.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Cargo Fire Control Panel Installation
Figure 401/26-00-02-990-801

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-00-02-400-801

3. Cargo Fire Control Panel Installation

(Figure 401)

A. General

(1) This task gives instructions to install the Cargo Fire Control Panel.

B. References

Reference	Title
26-23-00-730-802	Cargo Fire Extinguishing Bottle Pressure Switch Circuit Test (P/B 501)

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Cargo fire control panel	26-00-02-01-010	SIA ALL
		31-11-91-01E-105	SIA ALL

D. Location Zones

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

E. Prepare for the Installation

SUBTASK 26-00-02-860-002

(1) Make sure that these circuit breakers are open and have safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	8	C00701	EMER PANEL LTG
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT
F	13	C01179	INDICATOR MASTER DIM SECT 7

F. Cargo Fire Control Panel Installation

SUBTASK 26-00-02-420-001

(1) Install the connectors on the fire control panel and remove the tags.

SUBTASK 26-00-02-020-004

(2) Slide thecargo fire control panel [1] into the frame and attach with the four quarter turn fasteners.

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SUBTASK 26-00-02-860-003

(3) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	8	C00701	EMER PANEL LTG
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT
F	13	C01179	INDICATOR MASTER DIM SECT 7

G. Cargo Fire Control Panel Installation Test

SUBTASK 26-00-02-720-001

(1) Push the TEST switch on the Cargo Fire Control Panel.

(a) Make sure the DETECTOR FAULT light stays off.

(b) Make sure the red FWD and AFT ARM lights come on.

(c) Make sure the FWD and AFT EXT lights come on.

(d) Make sure the DISCHARGE light comes on.

SUBTASK 26-00-02-720-002

(2) Do this task: Cargo Fire Extinguishing Bottle Pressure Switch Circuit Test, TASK 26-23-00-730-802.

——— END OF TASK ———

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DETECTION - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

(1) An operational test of the fire and overheat detection system

(2) An overheat detection test using handheld LCRZ meter

(3) An overheat detection test using UN-ATE tool by Technologies Harness Scanner.

B. The operational test uses the test switches on the Engine and APU Fire Control Panel, P8-1, in the flight compartment. It also uses the test switch on the Fire Detection Control Unit, M279, in the Electrical and Electronics Compartment.

C. The fire and overheat detection system consists of the following systems:

(1) The engine fire detection system

(2) The APU fire detection system

(3) The wheel well, wing, and aft lower body (compartment) overheat detection system.

TASK 26-10-00-710-801

2. Fire and Overheat Detection System - Operational Test

(Figure 501 or Figure 502)

A. General

(1) The operational test makes sure that the engine, APU, and compartment fire/overheat detection systems operate correctly. The operational test uses only equipment that is installed on the airplane and it does not disturb the airplane systems. The operational test consists of these tests:

(a) The FIRE/OVHT test for loops A and B.

(b) The FIRE/OVHT test for loop A.

(c) The FIRE/OVHT test for loop B.

(d) The FAULT/INOP test for loops A and B.

(e) The test for an Engine 1 Detection Fault.

(f) The test for an Engine 2 Detection Fault.

(g) The test for an APU Detection Fault.

(h) The Air Mode Test for the APU Remote Control Panel, P28.

(2) This test will do a check of all the systems affected by the detection test switches on the Engine and APU Fire Control Panel. In other words, when you do the detection tests, you will look for every indication that is affected by the test.

(3) A brief system description is included at the end of the procedure, refer to Table 501, Table 502, Table 503.

B. References

Reference	Title
32-09-00-860-801	Put the Airplane in the Air Mode (P/B 201)
32-09-00-860-802	Return the Airplane to the Ground Mode (P/B 201)

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

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(Continued)

Zone	Area
118	Electrical and Electronics Compartment - Right
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Prepare for the Operational Test

SUBTASK 26-10-00-860-002

(1) Make sure that these circuit breakers are closed:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
B	12	C00132	MASTER CAUTION ANNUNCIATOR BUS 1
B	13	C00131	MASTER CAUTION ANNUNCIATOR BAT
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT
D	12	C00310	INDICATOR MASTER DIM BAT
D	13	C00311	INDICATOR MASTER DIM BUS 1
D	14	C00312	INDICATOR MASTER DIM BUS 2
E	11	C00313	INDICATOR MASTER DIM SECT 1
E	12	C00314	INDICATOR MASTER DIM SECT 2
E	13	C00315	INDICATOR MASTER DIM SECT 3
E	14	C00316	INDICATOR MASTER DIM SECT 4
F	11	C00317	INDICATOR MASTER DIM SECT 5
F	12	C00318	INDICATOR MASTER DIM SECT 6

SUBTASK 26-10-00-860-003

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY

SUBTASK 26-10-00-860-004

(3) Make sure the MASTER CAUTION lights and the OVHT/FIRE lights on the Pilots Glareshield, P7, are not on.

E. Do the FIRE/OVHT Test for Loops A and B

SUBTASK 26-10-00-710-001

(1) Make sure the two OVHT DET switches on the Engine and APU Fire Control Panel, P8-1, are in the NORMAL positions.

SUBTASK 26-10-00-710-002

(2) Move and hold the TEST switch on the Engine and APU Fire Control Panel to the OVHT/FIRE position.

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(a) On the Engine and APU Fire Control Panel, make sure these lights come on:
   1) Engine 1 Fire Handle light (Red).
   2) Engine 2 Fire Handle light (Red).
   3) APU Fire Handle light (Red).
   4) ENG 1 OVERHEAT light (Amber).
   5) ENG 2 OVERHEAT light (Amber).

(b) On the Pilot's Glareshield, P7, make sure these lights come on:
   1) The Captain's and First Officer's MASTER CAUTION lights (Amber).
   2) The Captain's and First Officer's FIRE WARN lights (Red).
   3) The OVHT/DET light (Amber).

(c) Make sure you hear the bell in the Aural Warning Module, M315, in the flight compartment.

(d) Make sure the APU fire warning horn, M277, in the right main wheel well comes on.

(e) Make sure the APU Remote Fire red light, on the APU remote control panel, P28, in the right main wheel well flashes on and off at approximately one cycle per second.

(f) Push the BELL CUTOUT switch on the Engine and APU Fire Control Panel, P8-1.

NOTE: If you push the HORN CUTOUT switch on the P28 panel, or either of the FIRE WARN lights on the P7 panel, the same conditions will occur. The BELL CUTOUT switch, the HORN CUTOUT switch, and the FIRE WARN switch cause the same resets but from different locations.

   1) Make sure you do not hear the bell in the Aural Warning Module, M315, in the flight compartment.
   2) Make sure the two FIRE WARN lights on the Pilot's Glareshield, P7, go off.
   3) Make sure the APU fire warning horn in the right main wheel well stops.
   4) Make sure the APU Remote Fire red light on the P28 panel in the right main wheel well comes on and does not flash.

SUBTASK 26-10-00-710-003

(3) Release the TEST switch on the Engine and APU Fire Control Panel.

(a) On the Engine and APU Fire Control Panel, make sure these lights go off:
   1) Engine 1 Fire Handle light (Red).
   2) Engine 2 Fire Handle light (Red).
   3) APU Fire Handle light (Red).
   4) ENG 1 OVERHEAT light (Amber).
   5) ENG 2 OVERHEAT light (Amber).

(b) On the Pilot's Glareshield, P7, make sure these lights go off:
   1) The Captain's and First Officer's MASTER CAUTION lights (Amber).
   2) The Captain's and First Officer's FIRE WARN lights (Red).
   3) The OVHT/DET light (Amber).

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F. Do the FIRE/OVHT Test for Loop A

SUBTASK 26-10-00-710-004

(1) Move the two OVHT DET switches on the Engine and APU Fire Control Panel, P8-1, to the A positions.

SUBTASK 26-10-00-710-005

(2) Move and hold the TEST switch on the Engine and APU Fire Control Panel to the OVHT/FIRE position.

(a) On the Engine and APU Fire Control Panel, make sure these lights come on:

1) Engine 1 Fire Handle light (Red).
2) Engine 2 Fire Handle light (Red).
3) APU Fire Handle light (Red).
4) ENG 1 OVERHEAT light (Amber).
5) ENG 2 OVERHEAT light (Amber).

(b) On the Pilot's Glareshield, P7, make sure these lights come on:

1) The Captain's and First Officer's MASTER CAUTION lights (Amber).
2) The Captain's and First Officer's FIRE WARN lights (Red).
3) The OVHT/DET light (Amber).

(c) Make sure the bell in the Aural Warning Module, M315, comes on.

(d) Make sure the APU fire warning horn, M277, in the right main wheel well comes on.

(e) Make sure the APU Remote Fire red light on the APU remote control panel, P28, in the right main wheel well flashes on and off at approximately one cycle per second.

SUBTASK 26-10-00-710-006

(3) Release the TEST switch on the Engine and APU Fire Control Panel.

G. Do the FIRE/OVHT Test for Loop B

SUBTASK 26-10-00-710-007

(1) Move the two OVHT DET switches on the Engine and APU Fire Control Panel, P8-1, to the B positions.

SUBTASK 26-10-00-710-008

(2) Move and hold the TEST switch on the Engine and APU Fire Control Panel to the OVHT/FIRE position.

(a) On the Engine and APU Fire Control Panel, make sure these lights come on:

1) Engine 1 Fire Handle light (Red).
2) Engine 2 Fire Handle light (Red).
3) APU Fire Handle light (Red).
4) ENG 1 OVERHEAT light (Amber).
5) ENG 2 OVERHEAT light (Amber).

(b) On the Pilot's Glareshield, P7, make sure these lights come on:

1) The Captain's and First Officer's MASTER CAUTION lights (Amber).
2) The Captain's and First Officer's FIRE WARN lights (Red).
3) The OVHT/DET light (Amber).

(c) Make sure the bell in the Aural Warning Module, M315, comes on.

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(d) Make sure the APU fire warning horn, M277, in the right main wheel well comes on.

(e) Make sure the APU Remote Fire red light on the APU remote control panel, P28, in the right main wheel well flashes on and off at approximately one cycle per second.

SUBTASK 26-10-00-710-009

(3) Release the TEST switch on the Engine and APU Fire Control Panel.

H. Do the FAULT/INOP Test for Loops A and B

SUBTASK 26-10-00-710-010

(1) Move the two OVHT DET switches on the Engine and APU Fire Control Panel, P8-1, to the NORMAL positions.

SUBTASK 26-10-00-710-011

(2) Move and hold the TEST switch on the Engine and APU Fire Control Panel to the FAULT/INOP position.

(a) On the Engine and APU Fire Control Panel, make sure these lights come on:

1) FAULT light (Amber).

2) APU DET INOP light (Amber).

(b) On the Pilot's Glareshield, P7, make sure these lights come on:

1) The Captain's and First Officer's MASTER CAUTION lights (Amber).

2) The OVHT/DET light (Amber).

(c) On the Engine and APU Fire Detection Control Unit, M279, on the E2-2 shelf in the Electrical and Electronics Compartment, make sure these lights come on:

1) ENGINE 1 LOOP A (Amber).

2) ENGINE 1 LOOP B (Amber).

3) ENGINE 2 LOOP A (Amber).

4) ENGINE 2 LOOP B (Amber).

5) APU (Amber).

6) The four FAULT CODE lights are ON-ON-ON-ON.

SUBTASK 26-10-00-710-012

(3) Release the TEST switch on the Engine and APU Fire Control Panel.

(a) On the Engine and APU Fire Control Panel, make sure these lights are off:

1) FAULT light (Amber).

2) APU DET INOP light (Amber).

(b) On the Pilot's Glareshield, P7, make sure these lights are off:

1) The Captain's and First Officer's MASTER CAUTION lights (Amber).

2) The OVHT/DET light (Amber).

(c) On the Engine and APU Fire Detection Control Unit, M279, in the Electrical and Electronics Compartment, make sure these lights are off:

1) ENGINE 1 LOOP A (Amber).

2) ENGINE 1 LOOP B (Amber).

3) ENGINE 2 LOOP A (Amber).

4) ENGINE 2 LOOP B (Amber).

5) APU (Amber).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

6) The four FAULT CODE lights are OFF-OFF-OFF-OFF.

I. Do the Test for an Engine 1 Detection Fault

SUBTASK 26-10-00-860-005

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

(a) On the Engine and APU Fire Control Panel, P8-1, make sure the FAULT light (Amber) is on.

(b) On the Fire Detection Control Module, M279, in the Electrical and Electronics Compartment, make sure these lights come on:

1) ENGINE 1 LOOP A (Amber).

2) ENGINE 1 LOOP B (Amber).

3) The four FAULT CODE lights are ON-OFF-ON-OFF.

SUBTASK 26-10-00-860-006

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

(a) On the Engine and APU Fire Control Module, make sure the FAULT light (Amber) is off.

(b) On the Fire Detection Control Module, in the Electrical and Electronics Compartment, make sure these lights go off:

1) ENGINE 1 LOOP A (Amber).

2) ENGINE 1 LOOP B (Amber).

3) The four FAULT CODE lights are OFF-OFF-OFF-OFF.

J. Do the Test for an Engine 2 Detection Fault

SUBTASK 26-10-00-860-007

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	22	C00407	FIRE PROTECTION DETECTION ENG 2

(a) On the Engine and APU Fire Control Panel, P8-1, make sure the FAULT light (Amber) is on.

(b) On the Fire Detection Control Module, M279, in the Electrical and Electronics Compartment, make sure these lights come on:

1) ENGINE 2 LOOP A (Amber).

2) ENGINE 2 LOOP B (Amber).

3) The four FAULT CODE lights are ON-OFF-ON-OFF.

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SUBTASK 26-10-00-860-008

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	22	C00407	FIRE PROTECTION DETECTION ENG 2

(a) On the Engine and APU Fire Control Panel, make sure the FAULT light (Amber) is off.

(b) On the Fire Detection Control Module, in the Electrical and Electronics Compartment, make sure these lights go off (Figure 501 or Figure 502).

1) ENGINE 2 LOOP A (Amber).

2) ENGINE 2 LOOP B (Amber).

3) The four FAULT CODE lights are OFF-OFF-OFF-OFF.

K. Do the Test for an APU Detection Fault

SUBTASK 26-10-00-860-009

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	23	C00403	FIRE PROTECTION DETECTION APU

(a) On the Pilot's Glareshield, P7, make sure the Captain's and First Officer's MASTER CAUTION lights (Amber) are on.

(b) On the Pilot's Glareshield, make sure the OVHT/DET light (Amber) is on.

(c) On the Engine and APU Fire Control Panel, P8-1, make sure the APU DET INOP light (Amber) is on.

(d) On the Fire Detection Control Module, M279, in the Electrical and Electronics Compartment, make sure the APU FAULT AREA light (Amber) comes on.

(e) On the Fire Detection Control Module, make sure the four FAULT CODE lights are ON-OFF-ON-OFF.

SUBTASK 26-10-00-860-010

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	23	C00403	FIRE PROTECTION DETECTION APU

(a) On the Pilot's Glareshield, make sure the Captain's and First Officer's MASTER CAUTION lights (Amber) are off.

(b) On the Pilot's Glareshield, make sure the OVHT/DET light (Amber) is off.

(c) On the Engine and APU Fire Control Panel, make sure the APU DET INOP light (Amber) is off.

(d) On the Fire Detection Control Module, in the Electrical and Electronics Compartment, make sure the APU FAULT AREA light (Amber) is off.

(e) On the Fire Detection Control Module, make sure the four FAULT CODE lights are OFF-OFF-OFF-OFF.

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L. Do the Air Mode Test for the APU Remote Control Panel, P28

SUBTASK 26-10-00-860-011

(1) Do this task: Put the Airplane in the Air Mode, TASK 32-09-00-860-801.

SUBTASK 26-10-00-710-013

(2) Move and hold the TEST switch on the Engine and APU Fire Control Panel, P8-1, to the OVHT/FIRE position.

NOTE: Other indications will occur. Ignore all the indications that are not listed in the steps that follow.

(a) Make sure the APU fire warning horn in the right main wheel well does not come on.

(b) Make sure the red light on the APU remote control panel, P28, in the right main wheel well flashes on and off at approximately one cycle per second.

(c) Push the HORN CUTOUT switch on the APU remote control panel.

(d) Make sure the red light on the APU remote control panel stays on and does not flash.

SUBTASK 26-10-00-710-014

(3) Release the TEST switch on the Engine and APU Fire Control Panel.

SUBTASK 26-10-00-860-012

(4) Do this task: Return the Airplane to the Ground Mode, TASK 32-09-00-860-802.

M. Put the Airplane Back to its Usual Condition

SUBTASK 26-10-00-860-013

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY

N. System Description

SUBTASK 26-10-00-800-001

(1) The Engine and APU Fire Detection Systems are monitored and controlled by the Fire Detection Control Module, M279, in the Electrical and Electronics Compartment. The Compartment Overheat System is monitored and controlled by the Compartment Overheat Detection Controller, M237, in the Electrical and Electronics Compartment. The Module and the Controller send fire, overheat, and fault signals to the Engine and APU Fire Control Panel, P8-1, and the Pilot's Glareshield, P7, in the flight compartment. The module also sends an APU fire signal to the APU Remote Control Panel, P28, in the right main wheel well.

(a) The Engine and APU Fire, Overheat, and Fault Warning Indications are as follows:

Table 501/26-10-00-993-801

System	Condition	Indication	Location
ENGINE 1	FIRE	Engine 1 Fire Handle Light (red)	P8-1
		MASTER CAUTION Lights (amber)	P7
		FIRE WARN Lights (red)	P7
		Flight Compartment Fire Bell	M315
ENGINE 2	FIRE	Engine 2 Fire Handle Light (red)	P8-1

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Table 501/26-10-00-993-801 (Continued)

System	Condition	Indication	Location
		MASTER CAUTION Lights (amber)	P7
		FIRE WARN Lights (red)	P7
————————	————————	Flight Compartment Fire Bell	M315
ENGINE 1	OVER-HEAT	ENG 1 OVERHEAT Light (amber)	P8-1
		MASTER CAUTION Lights (amber)	P7
		OVHT/DET Light (amber)	P7
ENGINE 2	OVER-HEAT	ENG 2 OVERHEAT Light (amber)	P8-1
		MASTER CAUTION Lights (amber)	P7
		OVHT/DET Light (amber)	P7
ENGINE 1	FAULT	FAULT Light (amber)	P8-1
		ENGINE NO. 1 LOOP A Light (amber)	M279
		ENGINE NO. 1 LOOP B Light (amber)	M279
ENGINE 2	FAULT	FAULT Light (amber)	P8-1
		ENGINE NO. 2 LOOP A Light (amber)	M279
		ENGINE NO. 2 LOOP B Light (amber)	M279
APU	FIRE	APU Fire Handle Light (red)	P8-1
		MASTER CAUTION Lights (amber)	P7
		FIRE WARN Lights (red)	P7
		Flight Compartment Fire Bell	M315
		Right Wheel Well APU Fire Warning Horn	M277
		APU Remote Fire Light (red)	P28
APU	OVER-HEAT	MASTER CAUTION Light (amber)	P7
		OVHT/DET Light (amber)	P7
APU	FAULT	APU DET INOP Light (amber)	P8-1
		APU FAULT AREA Light (amber)	M279

(b) The Engine Fire Detection system has dual sensors in each loop and operates in "AND" logic. Therefore, both loops must sense a fire or a fault before the fire or fault indication is shown. The following table is a summary of the indications that will be given for the various conditions of the sensing loops:

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Table 502/26-10-00-993-802

LOOP 1	LOOP 2	INDICATIONS
NORMAL	NORMAL	NONE
NORMAL	INOP	NONE
NORMAL	FAULT	NONE
NORMAL	FIRE	NONE
INOP	NORMAL	NONE
INOP	INOP	NONE
INOP	FAULT	FAULT
INOP	FIRE	FIRE
FAULT	NORMAL	NONE
FAULT	INOP	FAULT
FAULT	FAULT	FAULT
FAULT	FIRE	FIRE
FIRE	NORMAL	NONE
FIRE	INOP	FIRE
FIRE	FAULT	FIRE
FIRE	FIRE	FIRE

(c) The following table shows all the fire, overheat, and fault indications in the flight compartment. These are the indications that will occur when the OVHT DET switches are in the normal position and you set the TEST switch to the FIRE/OVHT position, then to the NORMAL position, then to the FAULT INOP position, and then to the NORMAL position:

Table 503/26-10-00-993-803

INDICATOR	LOC	FIRE/ OVHT	NORMAL	FAULT/ INOP	NORMAL
Engine "1" Light	P8-1	ON	OFF	OFF	OFF
Engine "2" Light	P8-1	ON	OFF	OFF	OFF
"APU" Light	P8-1	ON	OFF	OFF	OFF
"ENG 1 OVHT" Light	P8-1	ON	OFF	OFF	OFF
"ENG 2 OVHT" Light	P8-1	ON	OFF	OFF	OFF
"WHEEL WELL" Light	P8-1	ON	OFF	OFF	OFF
"APU DET INOP" Light	P8-1	OFF	OFF	ON	OFF
"FAULT" Light	P8-1	OFF	OFF	ON	OFF
"FIRE WARN" Light *[1]	P7	ON	OFF	OFF	OFF
"MASTER CAUTION" Light	P7	ON	*[2]	ON	*[2]
"OVHT/DET" Light	P7	ON	*[2]	ON	*[2]

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Table 503/26-10-00-993-803 (Continued)

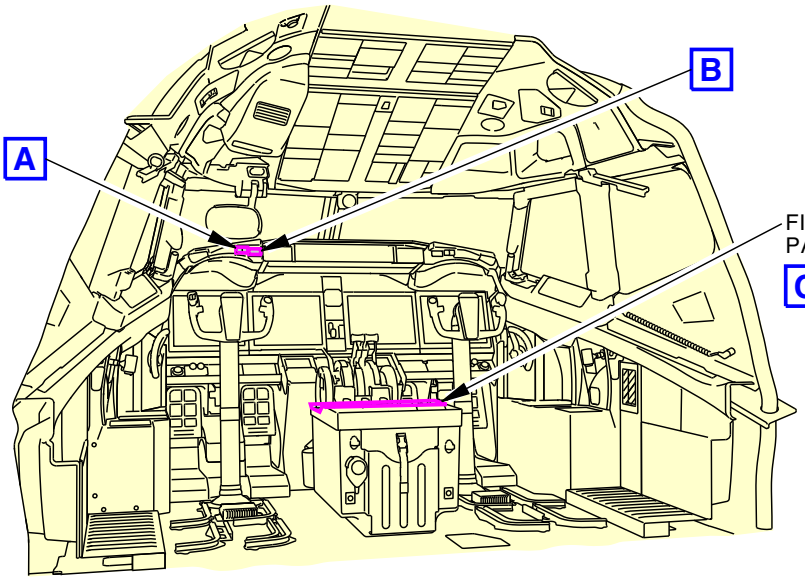
INDICATOR	LOC	FIRE/ OVHT	NORMAL	FAULT/ INOP	NORMAL
Flight Compt Bell *[1]	M315	ON	OFF	OFF	OFF
Wheel Well Bell *[1]	M277	ON	OFF	OFF	OFF
Remote Fire Light *[1]	P28	ON	OFF	OFF	OFF

*[1] Reset by pulling the "BELL CUTOUT" switch or by pushing the "FIRE/WARN" light, or by pushing the "HORN CUTOUT" switch on the P28 panel.

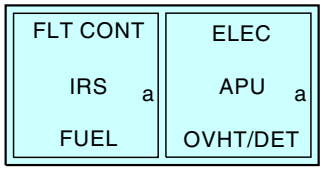
*[2] Reset by pushing the "MASTER/CAUTION" light.

END OF TASK

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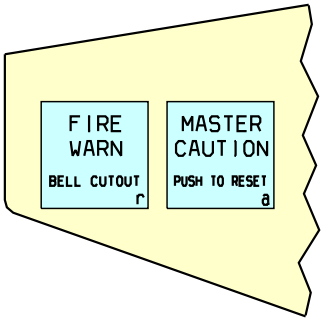


FLIGHT COMPARTMENT



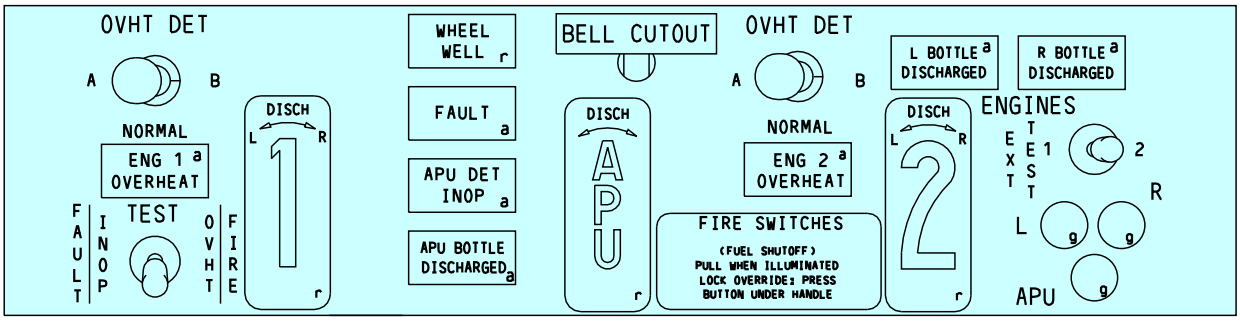
CAPTAIN'S WARNING
LIGHTS (P7)

B



CAPTAIN'S FIRE
WARNING SWITCH (P7)
(FIRST OFFICER'S IS OPPOSITE)

A



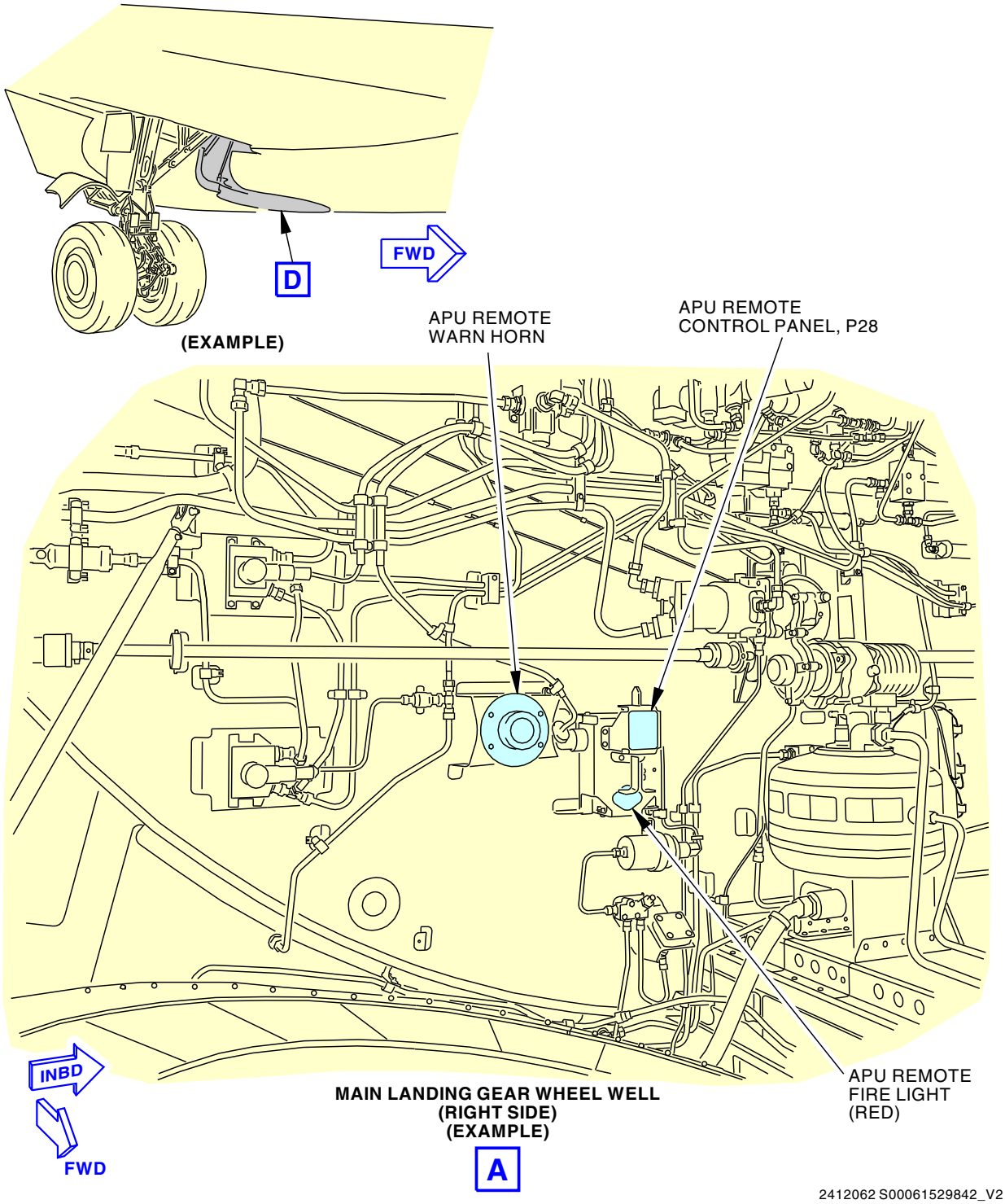
FIRE CONTROL PANEL (P8-1)

C

2412061 S00061529841_V2

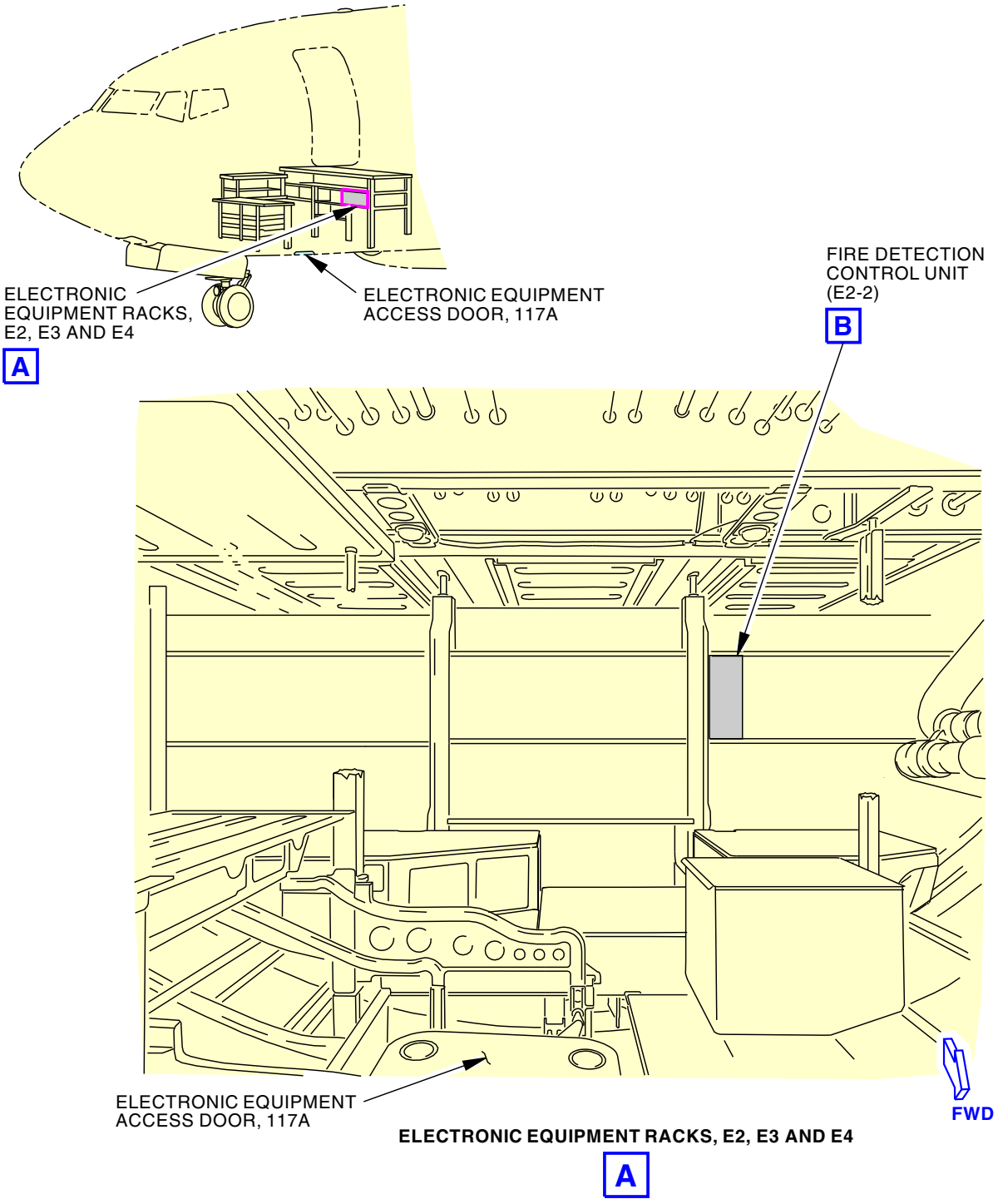
Auxiliary Power Unit (APU) Fire Detection Test
Figure 501/26-10-00-990-801 (Sheet 1 of 2)

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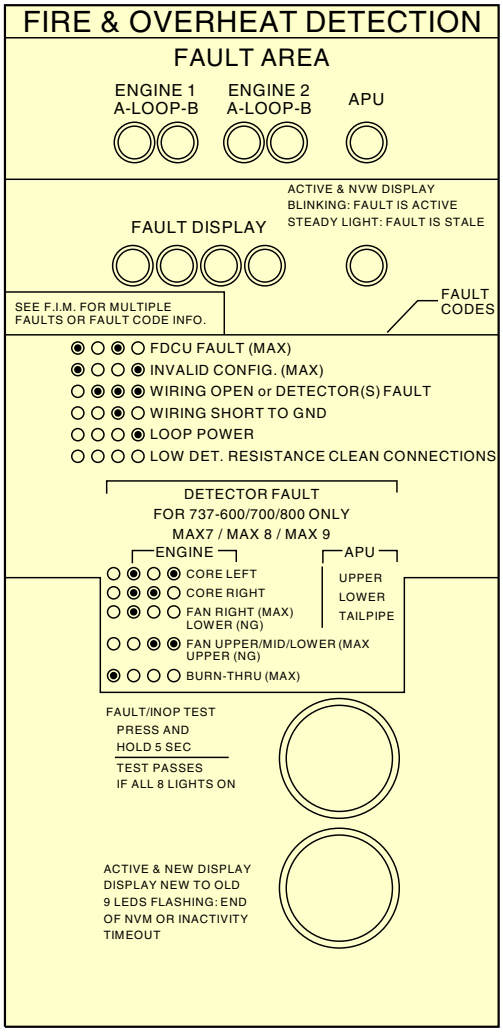
Auxiliary Power Unit (APU) Fire Detection Test
Figure 501/26-10-00-990-801 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Engine and APU Fire Detection Control Unit Installation
Figure 502/26-10-00-990-802 (Sheet 1 of 2)

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FIRE DETECTION CONTROL UNIT

B

2412064 S00061529844_V2

Engine and APU Fire Detection Control Unit Installation
Figure 502/26-10-00-990-802 (Sheet 2 of 2)

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TASK 26-10-00-700-802

3. Overheat Detection Test Using Handheld LCRZ Meter

A. General

(1) This task consists of the following procedures using a 1v/1kHz AC LCRZ impedance meter:

(a) Instructions for the health check of the compartment overheat loop detectors and wiring.

1) This procedure is used to detect shorts, open, and degraded overheat loop detectors in the wing and body overheat detection system.

(b) Instructions for locating faulty detector or wiring for compartment overheat loop that reads less than nominal range.

1) This procedure is used to isolate an entire loop to a degraded or failed detector, or to a wiring problem.

B. References

Reference	Title
22-11-33-000-801	Flight Control Computer Removal (P/B 401)
22-11-33-400-801	Flight Control Computer Installation (P/B 401)
24-22-00-860-801	Supply Electrical Power (P/B 201)
24-22-00-860-802	Remove Electrical Power (P/B 201)
26-18-01-000-801	Compartment Overheat Detection Control Unit Removal (P/B 401)
26-18-01-400-801	Compartment Overheat Detection Control Unit Installation (P/B 401)
26-18-02-000-801	Wheel Well, Wing and Lower Aft Body Overheat Sensor Element - Removal (P/B 401)
26-18-02-400-801	Wheel Well, Wing and Lower Aft Body Overheat Sensor Element - Installation (P/B 401)
WDM 26-12-11	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-17158	Controller - Loop Opt Part #: 9240 SI Supplier: FBCN9
COM-17417	Controller - Loop Part #: 20549 SI Supplier: FBCN9
COM-20443	Meter - LCR and Z (Inductance, Capacitance, Resistance and Impedance) Part #: 880 Supplier: 08098
SPL-12921	Test Equipment - Compartment Overheat Detection Module Part #: C26007-98 Supplier: 81205

D. Consumable Materials

Reference	Description	Specification
B00130	Alcohol - Isopropyl	TT-I-735

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E. Location Zones

Zone	Area
118	Electrical and Electronics Compartment - Right

F. Prepare for Overheat Detection Loop Health Check and Troubleshooting

SUBTASK 26-10-00-860-016

(1) Do this task: Remove Electrical Power, TASK 24-22-00-860-802.

NOTE: Electrical power must be off to prevent incorrect LCRZ meter readings because of Electromagnetic Interference (EI).

SUBTASK 26-10-00-860-017

(2) Make sure that the battery switch is in the OFF position on the P5 overhead panel.

SUBTASK 26-10-00-860-018

(3) Make sure that all ground power is disconnected.

SUBTASK 26-10-00-020-003

(4) Remove the M237 compartment overheat detection control unit (TASK 26-18-01-000-801).

SUBTASK 26-10-00-480-013

(5) Install the overheat detection module test equipment, SPL-12921, on the compartment overheat detection control unit mount.

SUBTASK 26-10-00-020-004

(6) If the overheat detection module test equipment, SPL-12921, is not available, remove the flight control computer B if it is necessary (TASK 22-11-33-000-801).

NOTE: Removal of flight control computer B is for easier access to the overheat detection control unit electrical connector.

SUBTASK 26-10-00-480-014

CAUTION

DO NOT USE A NON-EQUIVALENT METER, OR A DC METER, FOR THE LOOP ELEMENTS. IF YOU DO NOT OBEY, DAMAGE CAN OCCUR.

(7) If the loop controller, COM-17158, or Inductance, Capacitance, Resistance and Impedance (LCRZ) meter, COM-20443, is used, do the following steps:

(a) Connect the black test lead to the black receptacle port.

(b) Connect the red test lead to the red receptacle port.

SUBTASK 26-10-00-480-015

CAUTION

DO NOT USE A NON-EQUIVALENT METER, OR A DC METER, FOR THE LOOP ELEMENTS. IF YOU DO NOT OBEY, DAMAGE CAN OCCUR.

(8) If the loop controller, COM-17417, is used, do the following steps:

(a) Connect the black test lead to the black receptacle port.

(b) Connect the red test lead to the red receptacle port.

(c) Connect the blue test lead to the blue receptacle port.

G. Overheat Detection Loop Health Check with COM-17158

SUBTASK 26-10-00-480-016

(1) Connect the black lead to aircraft ground.

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SUBTASK 26-10-00-480-017

(2) Connect the red test lead to pin on compartment overheat detection controller receptacle D742 in Table 504.

Table 504/26-10-00-993-806 Overheat Detection Loop Health Check

Compartment Overheat Detection Controller Receptacle D742 Pin*[1]	Expected Reading (Impedance)
2	24k ohms +/- 5k
4	20k ohms +/- 5k
8	24k ohms +/- 5k
9	28k ohms +/- 5k
10	20k ohms +/- 5k
11	20k ohms +/- 5k
12	20k ohms +/- 5k
13	14k ohms +/- 5k
21	30k ohms +/- 5k
24	30k ohms +/- 5k
27	14k ohms +/- 5k
29	28k ohms +/- 5k
30	28k ohms +/- 5k
31	30k ohms +/- 5k
32	37k ohms +/- 5k
33	37k ohms +/- 5k
34	30k ohms +/- 5k
35	28k ohms +/- 5k
36	17k ohms +/- 5k
37	17k ohms +/- 5k
39	28k ohms +/- 5k
40	28k ohms +/- 5k
41	24k ohms +/- 5k
42	24k ohms +/- 5k

*[1] Refer to WDM 26-12-11 .

SUBTASK 26-10-00-700-020

(3) Prepare the loop controller, COM-17158.

(a) For each measurement, do these steps:

1) Allow reading to stabilize and record reading.

2) Set the switch to TEST then back to ISOL to reset unit.

3) Allow reading to stabilize and record reading.

4) Make sure that both readings are similar to provide accurate results.

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(b) Check for a short or degraded detector by taking the measurements per Table 504.

1) If a reading is greater than the expected reading, check the wiring between the D742 connector and the first detector in the loop for an open circuit condition.

2) If a reading is between 5k ohms and the nominal range, a scheduled repeat test for degradation or replacement of the detector is recommended at the operator's convenience.

NOTE: This indicates that one of the detectors is degraded. The degraded detector may continue to degrade resulting in intermittent failures until it completely fails, that is typically within 180 days.

a) To isolate to the degraded detector, proceed to section “Locating Faulty Detector or Wiring For Overheat Detection Loop”.

3) If a reading is < 5k ohms, do the following steps to isolate the problem:

NOTE: This indicates that either one of the detectors is shorted between the center conductor and ground, or that there is a problem in the wiring.

a) To isolate to the degraded detector, proceed to section “Locating Faulty Detector or Wiring For Overheat Detection Loop”.

SUBTASK 26-10-00-080-007

(4) Disconnect the black test lead from ground.

SUBTASK 26-10-00-080-008

(5) Disconnect the black test lead from the loop controller, COM-17158, and connect to the green receptacle port.

SUBTASK 26-10-00-480-018

(6) Connect the red test lead and green test lead to pins on compartment overheat detection controller receptacle D742 in Table 505.

Table 505/26-10-00-993-807 Overheat Loop Detection Open Check

Compartment Overheat Detection Controller Receptacle D742 Pin*[1]	Expected Reading
2 to 8	< 15 ohms
4 to 12	< 15 ohms
9 to 29	< 25 ohms
10 to 11	< 15 ohms
13 to 27	< 25 ohms
39 to 40	< 15 ohms
30 to 35	< 15 ohms
31 to 34	< 15 ohms
21 to 24	< 15 ohms
36 to 37	< 25 ohms
41 to 42	< 15 ohms
32 to 33	< 15 ohms

*[1] Refer to WDM 26-12-11 .

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SUBTASK 26-10-00-700-021

(7) Set the loop controller, COM-17158, switch to the CONT position.

(a) For each measurement, do these steps:

1) Allow reading to stabilize and record reading.

2) Set the switch to the TEST position then back to the CONT position to reset unit.

3) Allow reading to stabilize and record reading.

4) Make sure that both readings are similar to provide accurate results.

SUBTASK 26-10-00-700-022

(8) Check for an open detector or circuit by taking the measurements per Table 505.

(a) If a reading is > 15 ohms, do continuity checks of the applicable loop segments to isolate to the failed loop or wiring.

NOTE: If a reading is greater than 15 ohms, it is possible that the detector connectors and/or the mating electrical lead connectors are contaminated or there is corrosion on the electrical leads. Contaminated connectors can be cleaned using alcohol, B00130 and blown dry with low pressure air or nitrogen.

(b) Replace the faulty detector, or repair wiring, as applicable.

H. Overheat Detection Loop Health Check with COM-20443

SUBTASK 26-10-00-480-019

(1) Connect the black lead to aircraft ground.

SUBTASK 26-10-00-480-020

(2) Connect the red test lead to pin of connector in Table 504.

SUBTASK 26-10-00-700-023

(3) Prepare the Inductance, Capacitance, Resistance and Impedance (LCRZ) meter, COM-20443.

(a) Press the power button for one second to turn on meter.

(b) Press PRI/AUTO button until “Z” is displayed (for impedance measurement).

(c) Press FREQ/REC button until 1 kHz is displayed.

(d) Press the SEC/LEV button for 2 seconds to access the test voltage level options.

1) Press the SEC/LEV button momentarily to toggle setting to 1V.

(e) Press the RATE/P-S button momentarily until “SLOW” is displayed for a more stable reading.

(f) Press and hold L/C/R/P-S button for 2 seconds.

1) Press the L/C/R/P-S button momentarily to toggle to PAL (parallel) mode.

(g) For each measurement allow reading to stabilize and record reading.

SUBTASK 26-10-00-700-024

(4) Check for a short or degraded detector by taking the measurements per Table 504.

(a) If a reading is greater than the expected reading, check the wiring between the D742 connector and the first detector in the loop for an open circuit condition.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(b) If a reading is between 5k ohms and the nominal range, a scheduled repeat test for degradation or replacement of the detector is recommended at the operator's convenience.

NOTE: This indicates that one of the detectors is degraded. The degraded detector may continue to degrade resulting in intermittent failures until it completely fails, that is typically within 180 days.

1) To isolate to the degraded detector, proceed to section “Locating Faulty Detector or Wiring for Overheat Detection Loop”.

(c) If a reading is < 5k ohms, do the following steps to isolate the problem:

NOTE: This indicates that either one of the detectors is shorted between the center conductor and ground, or that there is a problem in the wiring.

1) To isolate to the degraded detector, proceed to section “Locating Faulty Detector or Wiring for Overheat Detection Loop”.

SUBTASK 26-10-00-080-009

(5) Disconnect the black test lead from ground.

SUBTASK 26-10-00-480-021

(6) Connect the red test lead and black test lead to pins on D742 connector in Table 505.

SUBTASK 26-10-00-700-025

(7) Set the Inductance, Capacitance, Resistance and Impedance (LCRZ) meter, COM-20443, to measure continuity via DCR (DC Resistance).

(a) If it is necessary, press the power button for two seconds to turn on meter.

(b) Press the PRI/AUTO button until DCR is displayed to select direct current resistance measurement.

(c) For each measurement allow reading to stabilize and record reading.

SUBTASK 26-10-00-700-026

(8) Check for an open detector or circuit by taking the measurements per Table 505.

(a) If a reading is > 15 ohms, do continuity checks of the applicable loop segments to isolate to the failed loop or wiring.

NOTE: If a reading is greater than 15 ohms, it is possible that the detector connectors and/or the mating electrical lead connectors are contaminated or there is corrosion on the electrical leads. Contaminated connectors can be cleaned using alcohol, B00130 and blown dry with low pressure air or nitrogen.

(b) Replace the faulty detector, or repair wiring, as applicable.

I. Overheat Detection Loop Health Check with COM-17417

SUBTASK 26-10-00-480-022

(1) Connect the black lead to aircraft ground.

SUBTASK 26-10-00-480-023

(2) Connect the red test lead to pin on compartment overheat detection controller receptacle D742 in Table 504.

SUBTASK 26-10-00-700-027

(3) Press the INSULATION button on loop controller, COM-17417.

(a) For each measurement, allow reading to stabilize and record reading.

(b) Check for a short or degraded detector by taking the measurements per Table 504.

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1) If a reading is greater than the expected reading, check the wiring between the D742 connector and the first detector in the loop for an open circuit condition.

2) If a reading is between 5k ohms and the nominal range, a scheduled repeat test for degradation or replacement of the detector is recommended at the operator's convenience.

NOTE: This indicates that one of the detectors is degraded. The degraded detector may continue to degrade resulting in intermittent failures until it completely fails, that is typically within 180 days.

a) To isolate to the degraded detector, proceed to section “Locating Faulty Detector or Wiring For Overheat Detection Loop”.

3) If a reading is < 5k ohms, do the following steps to isolate the problem:

NOTE: This indicates that either one of the detectors is shorted between the center conductor and ground, or that there is a problem in the wiring.

a) To isolate to the degraded detector, proceed to section “Locating Faulty Detector or Wiring For Overheat Detection Loop”.

4) If all of the readings are within tolerance, continue to the next pin per Table 504.

SUBTASK 26-10-00-080-010

(4) Disconnect the black test lead from ground.

SUBTASK 26-10-00-080-011

(5) Disconnect the black test lead from the loop controller, COM-17417, and connect to the blue receptacle port.

SUBTASK 26-10-00-480-024

(6) Connect the red test lead and blue test lead to pins on compartment overheat detection controller receptacle D742 in Table 505.

SUBTASK 26-10-00-700-028

(7) Press the CONTINUITY push-button on the loop controller, COM-17417.

(a) For each measurement, allow reading to stabilize and record reading.

SUBTASK 26-10-00-700-029

(8) Check for an open detector or circuit by taking the measurements per Table 505.

(a) If a reading is > 15 ohms, do continuity checks of the applicable loop segments to isolate to the failed loop or wiring.

NOTE: If a reading is greater than 15 ohms, it is possible that the detector connectors and/or the mating electrical lead connectors are contaminated or there is corrosion on the electrical leads. Contaminated connectors can be cleaned using alcohol, B00130 and blown dry with low pressure air or nitrogen.

(b) Replace the faulty detector, or repair wiring, as applicable.

J. Locating Faulty Detector or Wiring For Overheat Detection Loop

SUBTASK 26-10-00-700-030

(1) For the applicable loop section, disconnect the loop at the approximate half way point (WDM 26-12-11).

NOTE: This will allow you to determine that side is faulty. For example, for the loop that connects to pins 4 and 12 of connector D742, disconnect between detectors M1761 and M3057.

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SUBTASK 26-10-00-700-031

(2) Check the readings again at each pin at the rack connector.

(a) The side that shows the lower reading is the faulty side.

(b) The resistance values should roughly double from the original expected value.

NOTE: For example, if the original expected reading was 21k ohms ± 5k ohms and you measured 5k ohms, when you disconnect the loops at the halfway point, the resistance should be +42k ohms on each side on a good system. If one side reads 42k ohms, and the other side reads 5k ohms, the faulty side is the one reading 5k ohms.

1) Note the faulty side and reconnect the loop segments that were disconnected in the previous step.

2) Disconnect the loop at the approximate half way point of the faulty side.

3) Check the readings again at each pin at the connector rack.

a) The side that has the lower reading is the faulty side.

4) If it is necessary, continue to check to isolate to the faulty loop section.

5) Replace the faulty detector (TASK 26-18-02-000-801 and TASK 26-18-02-400-801), or repair wiring (Standard Wiring Practices Manual (SWPM)), as applicable.

NOTE: Value for individual loops is 100k ohms, but this number varies by length. A very long section, 200+ inches, could read 100k ohms or below.

K. Put the Airplane Back to Its Usual Condition

SUBTASK 26-10-00-080-012

(1) Remove the overheat detection module test equipment, SPL-12921, from the compartment overheat detection control unit mount.

SUBTASK 26-10-00-420-002

(2) If the flight control computer B was removed, install the flight control computer B (TASK 22-11-33-400-801).

SUBTASK 26-10-00-410-002

(3) Install the compartment overheat detection control unit (TASK 26-18-01-400-801).

SUBTASK 26-10-00-860-015

(4) Do this task: Supply Electrical Power, TASK 24-22-00-860-801.

——— END OF TASK ———

TASK 26-10-00-700-803

4. Overheat Detection Test Using UN-ATE Tool by Technologies Harness Scanner

(Figure 503)

A. General

(1) This task gives the instructions to do a health check of the compartment overheat loop detectors and wiring using the UN-ATE tool.

(a) This procedure is used to detect shorts, open, and degraded overheat loop detectors in the wing and body overheat detection system.

B. References

Reference	Title
24-22-00-860-801	Supply Electrical Power (P/B 201)

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(Continued)

Reference	Title
24-22-00-860-802	Remove Electrical Power (P/B 201)
26-18-01-000-801	Compartment Overheat Detection Control Unit Removal (P/B 401)
26-18-01-400-801	Compartment Overheat Detection Control Unit 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-17989	Wiring Tester - Automated Wireless Part #: UN-ATE BASIC Supplier: 87Z60
SPL-17990	Interface Cable - UN-ATE Aircraft Bleed OH Loop Part #: A42 Supplier: 87Z60
SPL-17991	Software Module - Bleed Overheat Loop Part #: SS-B737MX-BOHL Supplier: 87Z60

D. Location Zones

Zone	Area
118	Electrical and Electronics Compartment - Right

E. Prepare for the Test

SUBTASK 26-10-00-020-005

(1) Do this task: Remove Electrical Power, TASK 24-22-00-860-802.

NOTE: Electrical power must be off to prevent incorrect fault indications or fault messages from occurring.

SUBTASK 26-10-00-860-014

(2) Make sure that the battery switch is in the OFF position on the P-5 overhead panel.

SUBTASK 26-10-00-760-001

(3) Make sure that all ground power is disconnected.

SUBTASK 26-10-00-020-006

(4) Remove the M237 compartment overheat detection control unit (TASK 26-18-01-000-801).

SUBTASK 26-10-00-480-025

(5) Insert the interface cable, SPL-17990, to the M237 compartment overheat detection control unit's connector on the airplane, with the optional electronic dust cap to verify if there is any power on the connector.

(a) If the electronic dust cap has power, remove the power.

SUBTASK 26-10-00-020-007

(6) If no power is confirmed, remove the electronic dust cap and connect the wiring tester, COM-17989, to the interface cable, SPL-17990.

(a) Do not ground the test box unit for the bleed overheat loop test.

NOTE: This may introduce error on the overheat loop readings.

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SUBTASK 26-10-00-480-026

(7) Log into to the tablet to provide testing and traceability.

(a) Start up the software module, SPL-17991, and login with your user ID.

(b) Identify the location of the aircraft being maintained.

(c) Select the aircraft model.

(d) Select the aircraft subsystem (example: bleed OH loop).

(e) Identify the reason for your test (training/diagnostic/preventative).

(f) The software will now guide you into the set-up with pictograph.

F. Overheat Detection Test with UN-ATE

NOTE: Do not ground the test box unit for the bleed overheat loop test.

SUBTASK 26-10-00-700-032

(1) UN-ATE will make a scan to provide an overview of all OH loops.

(a) Select “Scan” on the UN-ATE software module, SPL-17991.

1) The wiring tester, COM-17989, will automatically make impedance measurements on each loop circuit and present results as per wiring diagram.

NOTE: Each loop circuit will have three impedance measurements such as the Table 506 below.

Table 506/26-10-00-993-808 Overheat Loop Impedance Measurements

Measurement type	Impedance result	
Inner to inner core	Resistance (ohm)	Capacitance (nF)
One side inner to ground	Resistance (ohm)	Capacitance (nF)
Other side inner to ground	Resistance (ohm)	Capacitance (nF)

2) The wiring tester, COM-17989, will analyze the three measurement results of each loop circuit and highlight in color the problematic results based on the following condition scenarios in Table 507 below.

Table 507/26-10-00-993-809 Overheat Detection Loop Health Check

Wiring Example	Condition Scenarios	Resistance (ohm)	Capacitance (nF)	Loop health status	Reference procedure step
Loop Inner to Inner core	1	< 12 ohms*[1]	-	Good inner core	-
	2	> 12 ohms*[1]	-	Outside tolerance	Step (3)
	3	Any reading	1 to 100 nF	Opened inner core	Step (4)
Loop Inner to ground on both sides	4	1 M ohms-	1 to 100 nF	Excellent loop	Step (2)
	5	< 15 k ohms	1 to 100 nF	Shortened bad loop	Step (5)

*[1] The resistance values provided here are only arbitrary. The prescribed maximum tolerance values for each circuit will be populated into the baseline signature reference.

SUBTASK 26-10-00-700-033

(2) Healthy loop - All measurements are within their tolerance.

(a) Once the scan completed, wiring tester, COM-17989, shows NO HIGHLIGHT on any loop circuit indicating all loop circuit are HEALTHY.

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(b) Go to Step (7).

SUBTASK 26-10-00-700-034

(3) Loop inner core measurement outside of tolerance.

(a) The wiring tester, COM-17989, flags an OUT OF TOLERANCE inner to inner core loop circuit.

1) This problem may be an indication of the degrading wire/loop connection (corrosion, pin insert, etc).

2) The procedure is to validate with conventional procedures and visual inspection.

SUBTASK 26-10-00-700-035

(4) Opened inner core loop fault location procedure.

(a) The UN-ATE flags an OPENED or discontinuity along the loop inner core.

NOTE: The wiring tester, COM-17989's fault detection feature is used to locate the discontinuity point.

1) Select the problematic loop and select FIRELOOP DIAGNOSTIC and then IDENTITY BAD LOOP to locate the closest point to the open fault location.

NOTE: The wiring tester, COM-17989's diagnostic feature may take up to ten minutes to process. Once the process is completed, the closest overheat fireloop segment causing the fault is highlighted.

2) Confirm the damage part (wire or fireloop segment) that cause the problem, do these steps:

a) Go to the fireloop segment located by the wiring tester, COM-17989, and do a check for any visible damage that may cause the discontinuity in the loop.

b) Manually disconnect one side of the fireloop segment closest to the wiring tester, COM-17989, located point.

c) Connect the INNER core lead at both sides of the connector to the ground (aircraft chassis) using two short cables with alligator clips and lead adaptors.

NOTE: This location is the manually grounded point.

d) In the software module, SPL-17991, select REFRESH IMPEDANCE to re-measure the three impedance measurements of the selected loop (inner to inner core and inner to ground x 2).

e) Do the following steps to confirm if the fault is located at the RIGHT or LEFT side of the previously grounded point according to the measurement results in Table 508 below:

Table 508/26-10-00-993-810 Opened Inner Core Loop Check

Scenario	Measurement	Resistance (ohm)	Capacitance (nF)	Fault Location
-	Inner to inner	-	-	-
1	1st Inner to ground	XX ohm	-	Fault at the RIGHT side of the grounded point
	2nd Inner to ground	-	XX nF	
2	1st Inner to ground	-	XX nF	Fault at the LEFT side of the grounded point
	2nd Inner to ground	XX ohm	-	

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<1> Go to the previously grounded point undo the grounding and reconnect the disconnected fireloop segment.

<2> Move to the next wire/fireloop segment (RIGHT or LEFT according to the previous deduction) and disconnect one side of the that segment and connect the inner core leads to the ground.

NOTE: This location is the second grounding point.

<3> In the software module, SPL-17991, redo the measurement by selecting REFRESH IMPEDANCE.

<4> Confirm the side (RIGHT or LEFT) of the faulty segment.

NOTE: After this step, the faulty part may be precisely located. In some cases, other disconnecting and grounding processes may be required, especially in cases where multiple wire segments are inserted between overheat fireloop segments.

f) Once the faulty part located, confirmed its condition using conventional Boeing or operator procedure.

g) Replace or repair the part.

h) Do the complete scan in Step (1) again to confirm the repair.

SUBTASK 26-10-00-700-036

(5) Shorted bad loop fault location procedure.

(a) The wiring tester, COM-17989, flags a SHORTED loop or alteration of the loop insulation quality.

NOTE: The wiring tester, COM-17989's fault detection feature is used to locate the short point.

(b) Select the problematic loop and select FIRELOOP DIAGNOSTIC and then IDENTIFY BAD LOOP to locate the closest point to the short fault location.

NOTE: The wiring tester, COM-17989's diagnostic feature may take up to ten minutes to process. Once the process is completed, the closest wire/fireloop segment causing the fault is highlighted.

(c) Confirm the damage part (wire or fireloop segment) that cause the problem, do these steps:

1) Go to the wire/fireloop segment located by the wiring tester, COM-17989, and check for any visible damage that may cause the short in the loop.

2) Manually disconnect one side of the fireloop segment closest to the wiring tester, COM-17989, located point.

NOTE: This location is the floating point.

3) In the software module, SPL-17991, select REFRESH IMPEDANCE to measure the three impedance measurements of the selected loop (inner to inner core and inner to ground x 2).

4) Do the following steps to confirm if the fault is located at the RIGHT or LEFT side of the previously floating point according to the measurement results in Table 509 below:

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Table 509/26-10-00-993-811 Shorted Bad Loop Check

Scenario	Measurement	Resistance (ohm)	Capacitance (nF)	Fault Location
-	Inner to inner	-	-	-
1	1st Inner to ground	Short Resistance ohm	-	Fault at the LEFT side of the floating point
	2nd Inner to ground	-	XX nF	
2	1st Inner to ground	-	XX nF	Fault at the LEFT side of the floating point
	2nd Inner to ground	Short Resistance ohm		

a) Go to the previously floating point and reconnect the disconnected wire/fireloop segment.

b) Move to the next wire/fireloop segment (RIGHT or LEFT according to the previous deduction) and disconnect one side of that segment.

NOTE: This location is the second floating point.

c) In the software module, SPL-17991, redo the measurement by selecting REFRESH IMPEDANCE.

d) Confirm the side (RIGHT or LEFT) of the faulty segment.

NOTE: After this step, the faulty part may be precisely located. In some cases, other disconnecting processes may be required, especially if the short resistance is between 10 k ohms to 15 k ohms.

5) Once the faulty part located, confirmed its condition using conventional Boeing/Airline procedures.

6) Replace or repair part.

7) Do the complete scan in Step (1) again to confirm the repair.

SUBTASK 26-10-00-700-038

(6) Analysis and documentation.

(a) You have now completed the wiring tester, COM-17989's diagnostic and should document your work.

1) Insert your detailed comments about the repairs performed in the wiring tester, COM-17989's test notes (optional).

2) Save the test results.

a) Click on the proper tab that best describes the diagnostic tests results.

NOTE: These comments are preset and will be correlated to the reason of your test in the Prepare for the Test Section, Step (6) (not relevant, no issue found, found my problem, potential degradation).

b) The wiring tester, COM-17989, will save it using traceability data (aircraft type, sub-system, serial number, date).

G. Put the Airplane Back to Its Usual Condition

SUBTASK 26-10-00-080-013

(1) Disconnect the wiring tester, COM-17989, from the interface cable, SPL-17990.

SUBTASK 26-10-00-080-014

(2) Disconnect the interface cable, SPL-17990, from the M237 compartment overheat detection control unit connector on the airplane.

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SUBTASK 26-10-00-420-003

(3) Install the M237 compartment overheat detection control unit (TASK 26-18-01-400-801).

SUBTASK 26-10-00-840-001

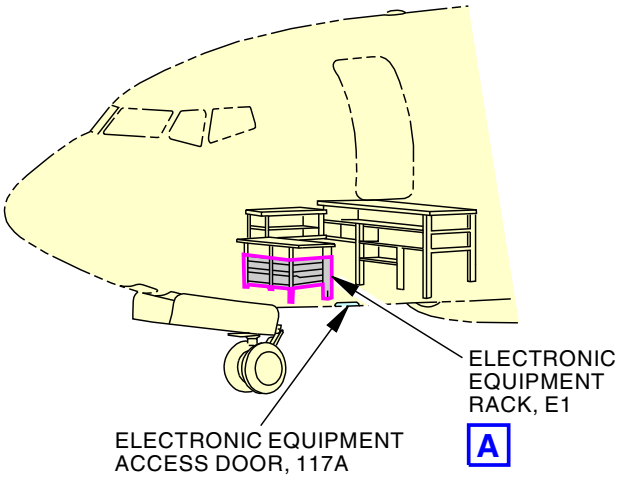
(4) Make sure that the battery switch is in the ON position on the P-5 overhead panel.

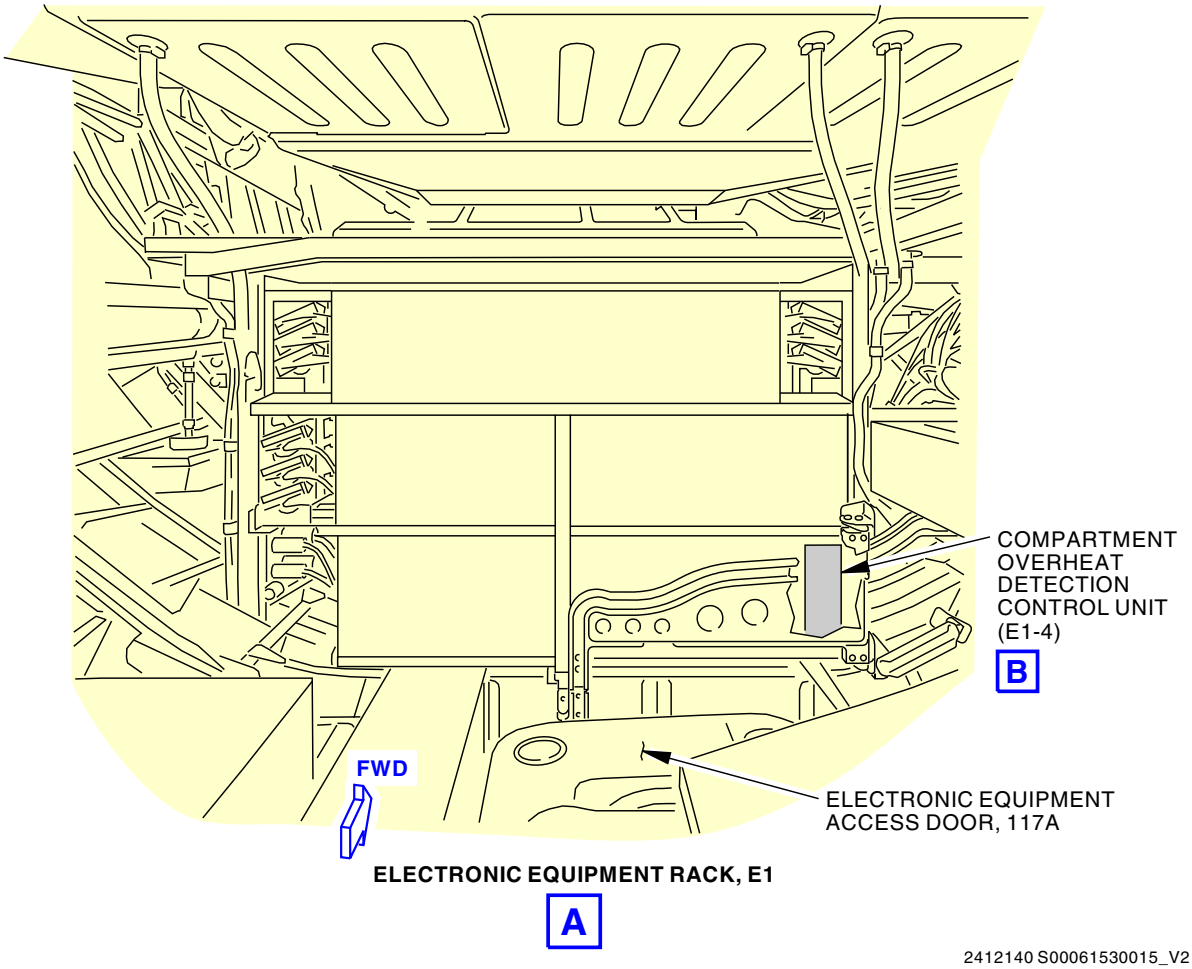
SUBTASK 26-10-00-840-002

(5) Do this task: Supply Electrical Power, TASK 24-22-00-860-801.

——— END OF TASK ———

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Compartment Overheat Detection Control Unit Location
Figure 503/26-10-00-990-803

ECCN 9E991 BOEING PROPRIETARY - See title page for details

ENGINE AND APU FIRE DETECTION CONTROL MODULE, M279 - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) Engine and APU fire detection control module - deactivation.

(2) Engine and APU fire detection control module - activation.

TASK 26-10-01-040-801

2. Engine and APU Fire Detection Control Module - Deactivation

A. General

(1) This task will deactivate the engine and APU fire detection control module, M279.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Engine and APU Fire Detection Control Module Deactivation

SUBTASK 26-10-01-020-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

D. Engine and APU Fire Detection Control Module - Tryout

NOTE: This tryout is to make sure that the engine and APU fire detection control module is in a zero energy state.

SUBTASK 26-10-01-210-001

(1) On the Engine and APU Fire Control Panel, P8-1, make sure that the FAULT light (Amber) is on.

SUBTASK 26-10-01-210-002

(2) On the Fire Detection Control Module, M279, in the Electrical and Electronics Compartment, make sure that these lights come on:

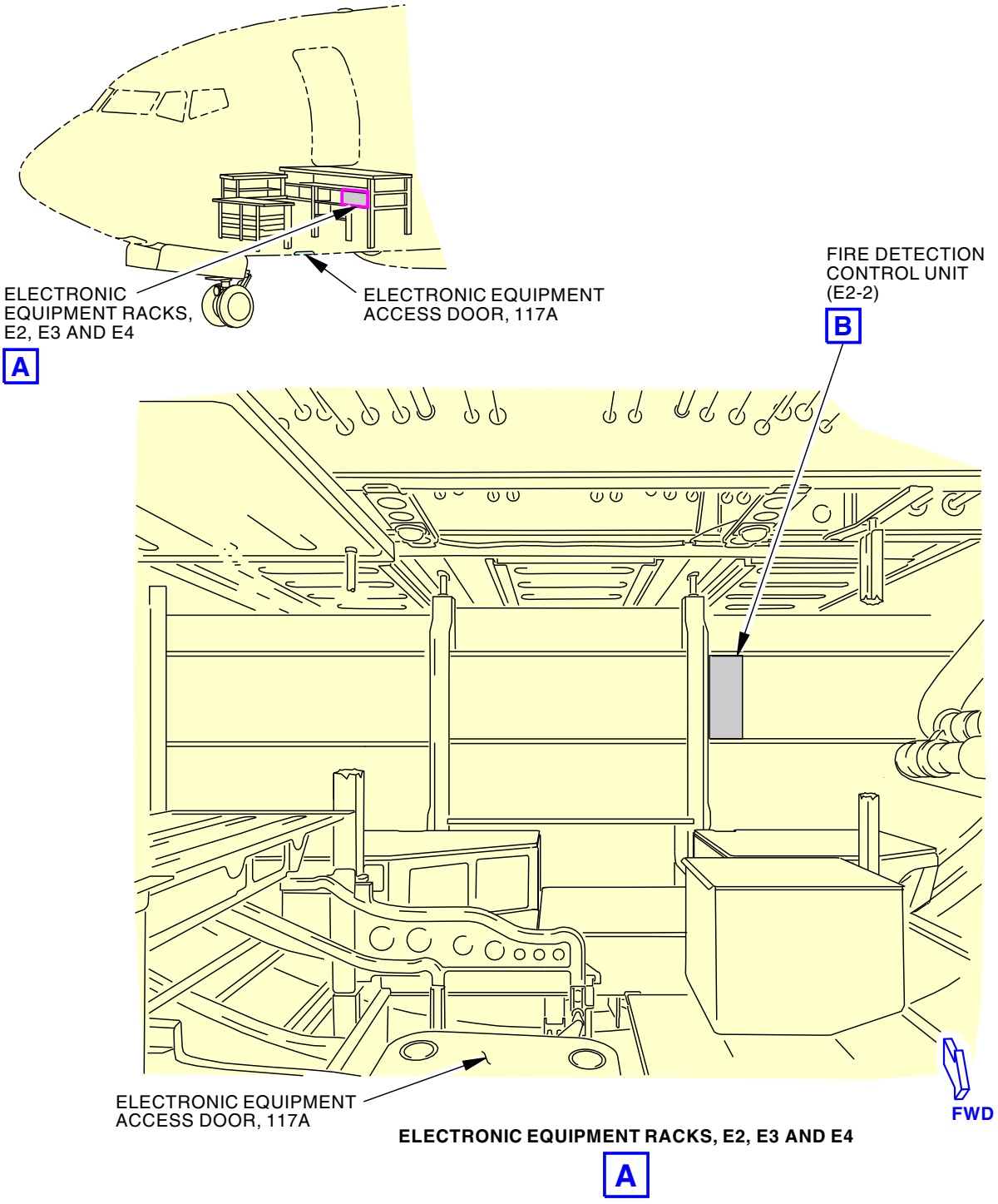
(a) ENGINE 1 LOOP A (Amber).

(b) ENGINE 1 LOOP B (Amber).

(c) The four FAULT CODE lights are OFF-OFF-ON-OFF.

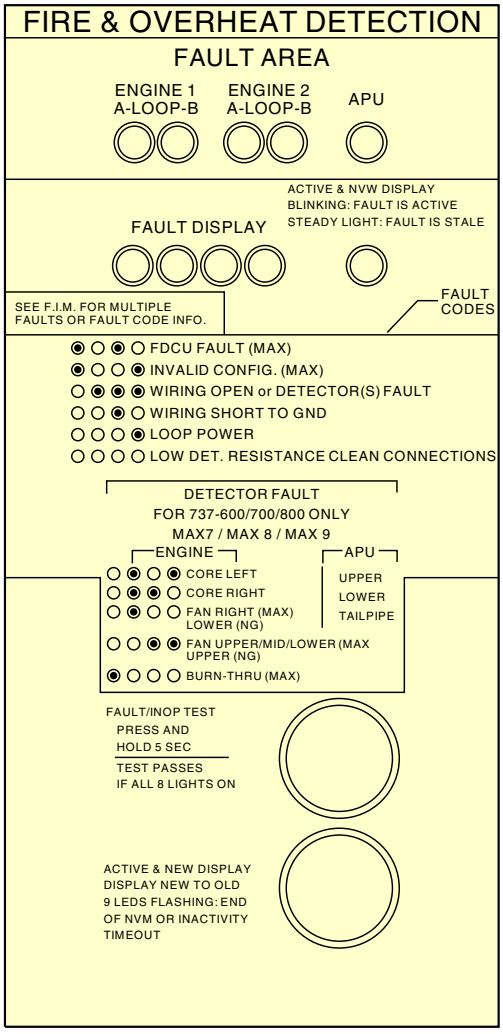
——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Engine and APU Fire Detection Control Module
Figure 201/26-10-01-990-801 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



FIRE DETECTION CONTROL UNIT

B

2412064 S00061529844_V2

Engine and APU Fire Detection Control Module
Figure 201/26-10-01-990-801 (Sheet 2 of 2)

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TASK 26-10-01-440-801

3. Engine and APU Fire Detection Control Module - Activation

(Figure 201)

A. General

(1) This task will activate the engine and APU fire detection control module.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Engine and APU Fire Detection Control Module Activation

SUBTASK 26-10-01-420-001

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

ENGINE AND APU FIRE DETECTION CONTROL MODULE, M279 - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the Engine and APU Fire Detection Control Module (M279).

(2) An installation of the Engine and APU Fire Detection Control Module.

B. The Engine and APU Fire Detection Control Module is installed on the E2-2 shelf in the electronic equipment compartment.

TASK 26-10-01-000-801

2. Engine and APU Fire Detection Module Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the Engine and APU Fire Detection Module.

B. References

Reference	Title
20-10-07-000-801	E/E Box Removal (P/B 401)

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

D. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

E. Prepare for the Removal

SUBTASK 26-10-01-860-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

SUBTASK 26-10-01-010-001

(2) Open this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

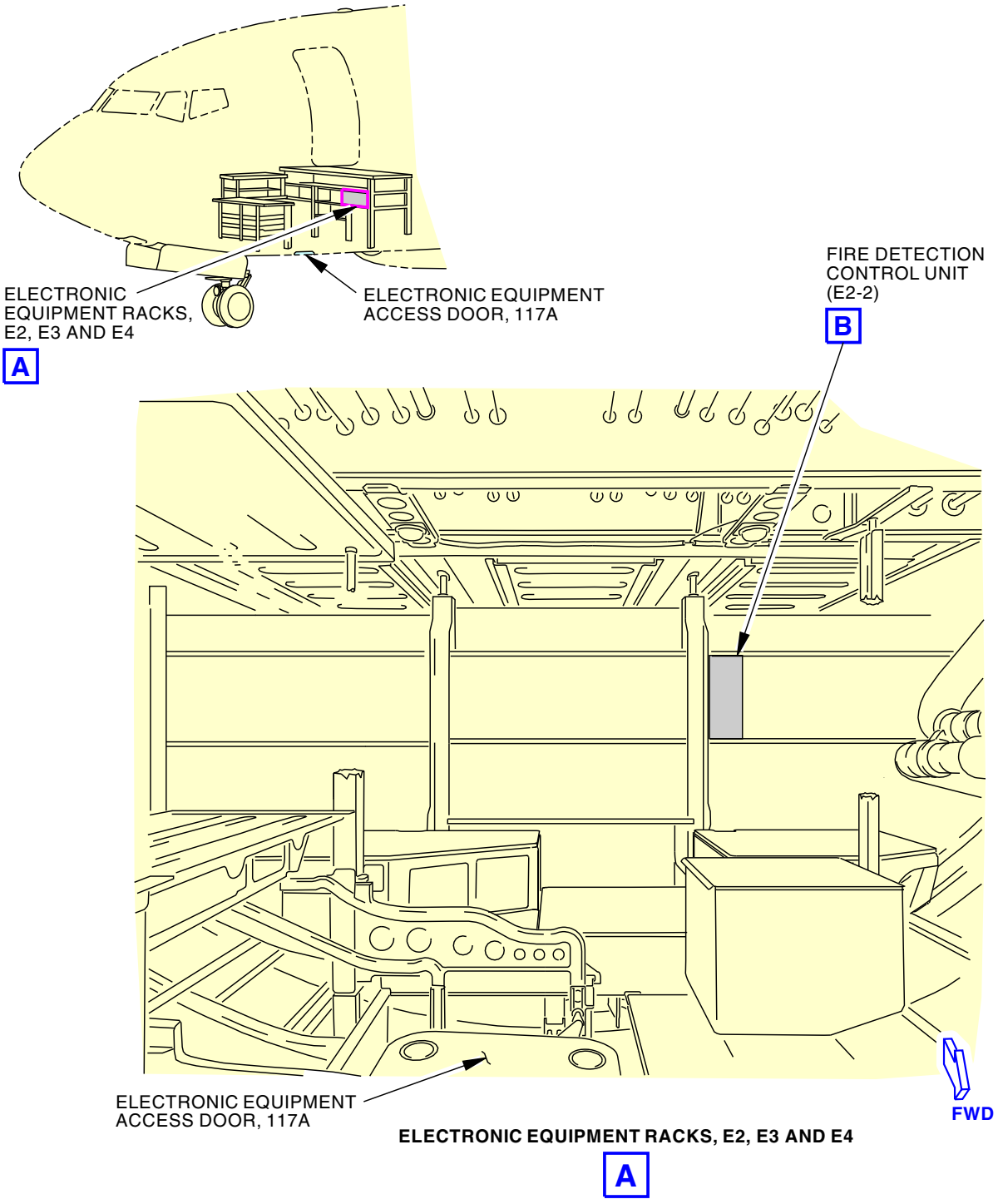
F. Engine and APU Fire Detection Module Removal.

SUBTASK 26-10-01-020-002

(1) To remove the fire detection control unit [1], do this task: E/E Box Removal, TASK 20-10-07-000-801.

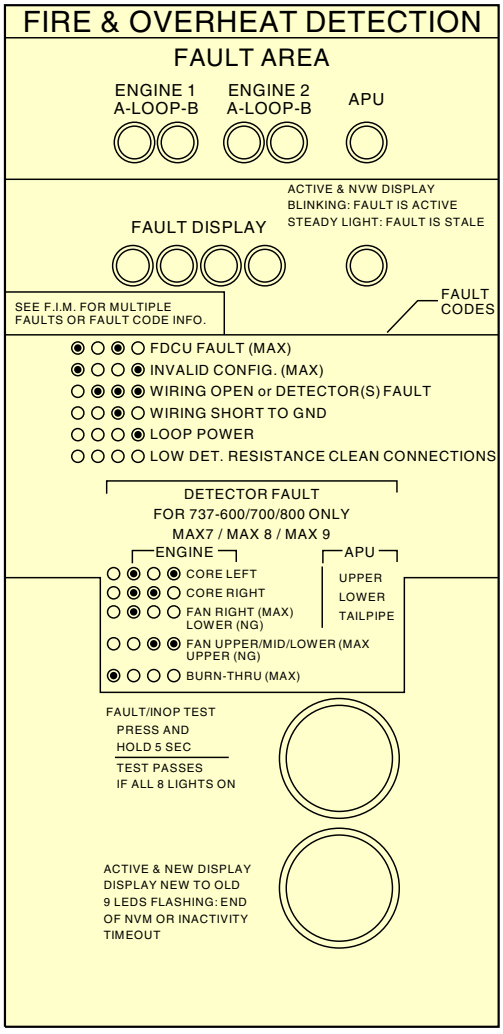
END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Engine and APU Fire Detection Control Unit Installation
Figure 401/26-10-01-990-802 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



FIRE DETECTION CONTROL UNIT

B

2412064 S00061529844_V2

Engine and APU Fire Detection Control Unit Installation
Figure 401/26-10-01-990-802 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-10-01-400-801

3. Engine and APU Fire Detection Module Installation

(Figure 401)

A. General

(1) This task gives instructions to install the Engine and APU Fire Detection Module.

B. References

Reference	Title
20-10-07-400-801	E/E Box Installation (P/B 401)
26-11-00-710-801	Engine Fire Detection - Operational Test (P/B 501)
26-15-00-710-801	APU Fire Detection - Operational Test (P/B 501)

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Fire detection control unit	26-10-01-02-010	SIA ALL

D. Location Zones

Zone	Area
118	Electrical and Electronics Compartment - Right

E. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

F. Engine and APU Fire Detection Control Module Installation

SUBTASK 26-10-01-420-002

(1) To install the fire detection control unit [1], do this task: E/E Box Installation, TASK 20-10-07-400-801.

G. Engine and APU Fire Detection Control Unit Installation Test

SUBTASK 26-10-01-860-002

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

SUBTASK 26-10-01-710-001

(2) Do this task: Engine Fire Detection - Operational Test, TASK 26-11-00-710-801.

SUBTASK 26-10-01-710-002

(3) Do this task: APU Fire Detection - Operational Test, TASK 26-15-00-710-801.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 26-10-01-010-002

(1) Close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

ENGINE FIRE DETECTION - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) Engine fire detection - deactivation.

(2) Engine fire detection - activation.

TASK 26-11-00-040-801

2. Engine Fire Detection - Deactivation

A. General

(1) This task will deactivate the engine fire detection system.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Procedure

SUBTASK 26-11-00-020-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

D. Engine Fire Detection - Tryout

NOTE: This tryout is to make sure that the engine fire detection system is in a zero energy state.

SUBTASK 26-11-00-210-001

(1) Move and hold the TEST switch on the Engine and APU Fire Control Panel to the OVHT/FIRE position.

(a) On the Engine and APU Fire Control Panel, make sure that none of these lights come on:

1) Engine 1 Fire Handling light.

2) Engine 2 Fire Handling light.

3) ENG 1 OVERHEAT light.

4) ENG 2 OVERHEAT light.

(b) On the Pilot's Glareshield, P7, make sure that none of these lights come on:

1) The Captain's and First Officer's MASTER CAUTION lights.

2) The Captain's and First Officer's FIRE WARN lights.

3) The OVHT/DET light.

(c) Make sure that the flight compartment fire bell in the Aural Warning Module, M315, does not come on.

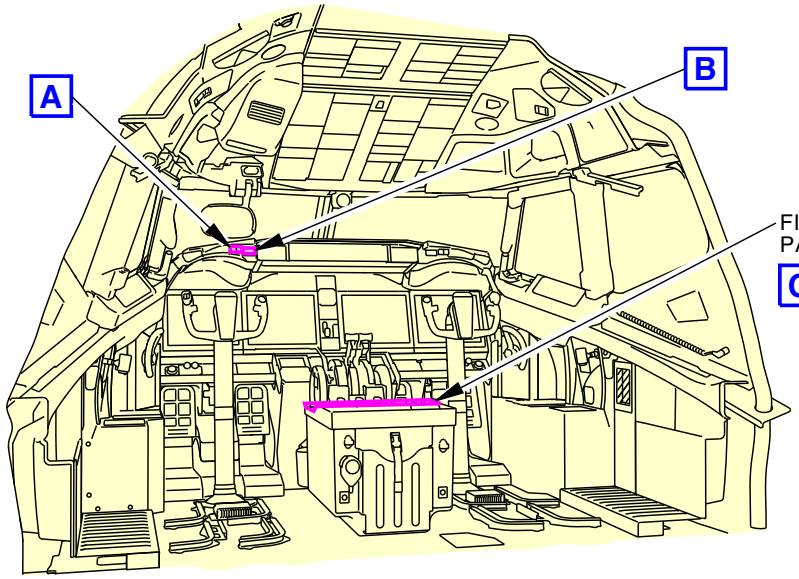
ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-11-00-210-002

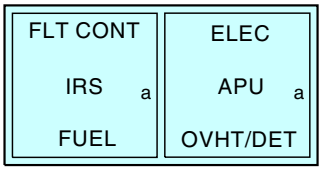
(2) Release the TEST switch on the Engine and APU Fire Control Panel.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

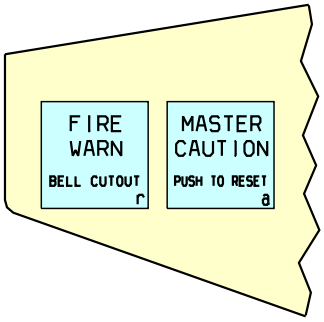


FLIGHT COMPARTMENT



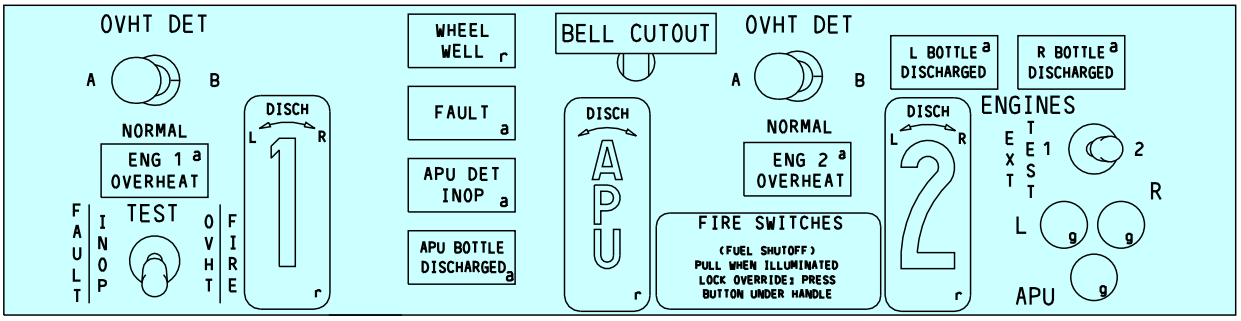
CAPTAIN'S WARNING
LIGHTS (P7)

B



CAPTAIN'S FIRE
WARNING SWITCH (P7)
(FIRST OFFICER'S IS
OPPOSITE)

A



FIRE CONTROL PANEL (P8-1)

C

2412065 S00061529856_V1

Engine Fire Detection System
Figure 201/26-11-00-990-801

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-11-00-440-801

3. Engine Fire Detection - Activation

(Figure 201)

A. General

(1) This task will activate the engine fire detection system.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Procedure

SUBTASK 26-11-00-420-001

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

ENGINE FIRE DETECTION - ADJUSTMENT/TEST

1. General

A. This procedure contains scheduled maintenance task data.

B. This procedure consists of these tasks:

(1) Engine Fire Detection - Operational Test.

(2) Engine Fire Detection Loop Resistance - System Test.

(3) Engine Fire Detection Circuit - System Test.

TASK 26-11-00-710-801

2. Engine Fire Detection - Operational Test

(Figure 501, Figure 502)

A. General

(1) The Operational Test does a check of the Engine Fire Detection System without disturbing the detection system and it only uses the equipment that is on the airplane. This test will verify the circuit from the Engine and APU Fire Control Panel, P8-1, to the Engine and APU Fire Detection Control Module, M279. The test will verify that the Engine and APU Fire Detection Control Module, which continuously monitors the detection loops, operates correctly.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Prepare for the Operational Test

SUBTASK 26-11-00-860-003

(1) Open this circuit breaker:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY

SUBTASK 26-11-00-710-001

(2) Make sure the two OVHT DET switches on the Engine and APU Fire Control Panel, P8-1, in the flight compartment are in the NORMAL positions.

D. Do the FIRE/OVHT Test

(Figure 501)

SUBTASK 26-11-00-710-002

(1) Move and hold the TEST switch on the Engine and APU Fire Control Panel to the OVHT/FIRE position.

(a) On the Engine and APU Fire Control Panel, make sure these lights come on:

1) Engine 1 Fire Handle light (Red).

2) Engine 2 Fire Handle light (Red).

3) APU Fire Handle light (Red)

4) ENG 1 OVERHEAT light (Amber).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

5) ENG 2 OVERHEAT light (Amber).

(b) On the Pilot's Glareshield, P7, make sure these lights come on:

1) The Captain's and First Officer's MASTER CAUTION lights (Amber).

2) The Captain's and First Officer's FIRE WARN lights (Red).

3) The OVHT/DET light (Amber).

(c) Make sure the lights on the left and right Engine Start Levers, on the Engine Start Lever Panel, P10, come on.

(d) Make sure the flight compartment fire bell in the Aural Warning Module, M315, comes on.

SUBTASK 26-11-00-710-003

(2) Release the TEST switch on the Engine and APU Fire Control Panel.

(a) On the Engine and APU Fire Control Panel, make sure these lights go off:

1) Engine 1 Fire Handle light (Red).

2) Engine 2 Fire Handle light (Red).

3) APU Fire Handle light (Red)

4) ENG 1 OVERHEAT light (Amber).

5) ENG 2 OVERHEAT light (Amber).

(b) On the Pilot's Glareshield, make sure these lights go off:

1) The Captain's and First Officer's MASTER CAUTION lights (Amber).

2) The Captain's and First Officer's FIRE WARN lights (Red).

3) The OVHT/DET light (Amber).

(c) Make sure the lights on the left and right Engine Start Levers, on the Engine Start Lever Panel, P10, go off.

(d) Make sure that the fire bell in the flight compartment on the Aural Warning Module, M315, stops.

NOTE: Fire Bell may take up to 2 seconds to stop after TEST switch is released.

E. Do the FAULT/INOP Test

(Figure 501)

SUBTASK 26-11-00-710-004

(1) Move and hold the TEST switch on the Engine and APU Fire Control Panel to the FAULT/INOP position.

(a) On the Engine and APU Fire Control Panel, make sure these lights come on:

1) FAULT light (Amber).

2) APU DET INOP (Amber)

(b) On the Pilot's Glareshield, P7, make sure these lights come on:

1) The Captain's and First Officer's MASTER CAUTION lights (Amber).

2) The OVHT/DET light (Amber).

SUBTASK 26-11-00-710-005

(2) Release the TEST switch on the Engine and APU Fire Control Panel.

(a) On the Engine and APU Fire Control Panel, make sure these lights are off:

1) FAULT light (Amber).

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2) APU DET INOP (Amber)

(b) On the Pilot's Glareshield, P7, make sure these lights are off:

1) The Captain's and First Officer's MASTER CAUTION lights (Amber).

2) The OVHT/DET light (Amber).

F. Do the FAULT/INOP Test from the Engine and APU Fire Detection Control Module, M279

(Figure 502)

SUBTASK 26-11-00-710-006

(1) Push and hold the FAULT/INOP TEST switch on the Engine and APU Fire Detection Control Module, in the Electrical and Electronics Compartment.

(a) On the Engine and APU Fire Detection Control Module, make sure these lights come on:

1) ENGINE 1 LOOP A (Amber).

2) ENGINE 1 LOOP B (Amber).

3) ENGINE 2 LOOP A (Amber).

4) ENGINE 2 LOOP B (Amber).

5) APU (Amber)

6) The four FAULT CODE lights are ON-ON-ON-ON.

SUBTASK 26-11-00-710-007

(2) Release the FAULT/INOP TEST switch on the Engine and APU Fire Detection Control Module.

(a) On the Engine and APU Fire Detection Control Module, make sure these lights are off:

1) ENGINE 1 LOOP A (Amber).

2) ENGINE 1 LOOP B (Amber).

3) ENGINE 2 LOOP A (Amber).

4) ENGINE 2 LOOP B (Amber).

5) APU (Amber)

6) The four FAULT CODE lights are OFF-OFF-OFF-OFF.

G. Put the Airplane Back to its Usual Condition

SUBTASK 26-11-00-860-004

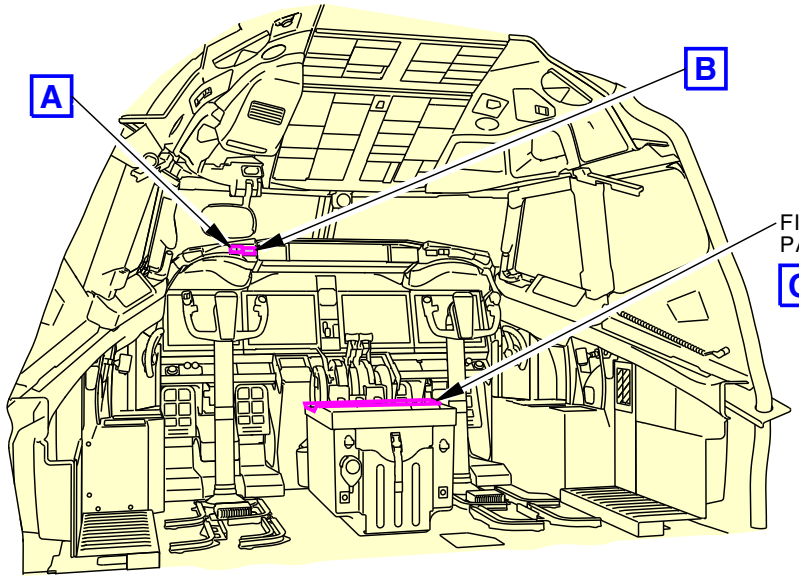
(1) Make sure that this circuit breaker is closed:

F/O Electrical System Panel, P6-2

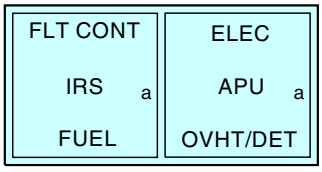
Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

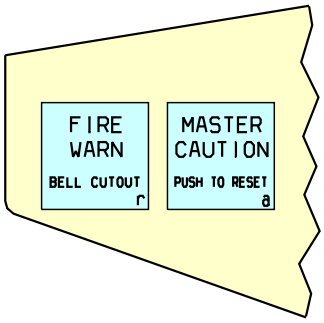


FLIGHT COMPARTMENT



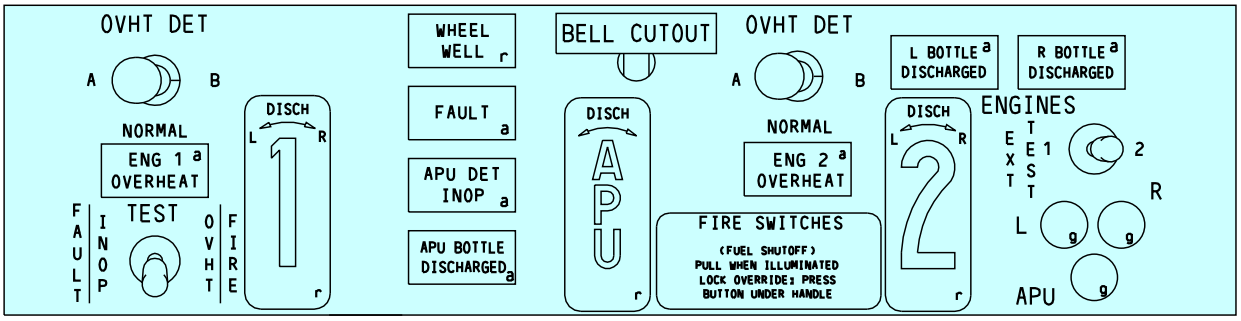
CAPTAIN'S WARNING
LIGHTS (P7)

B



CAPTAIN'S FIRE
WARNING SWITCH (P7)
(FIRST OFFICER'S IS
OPPOSITE)

A



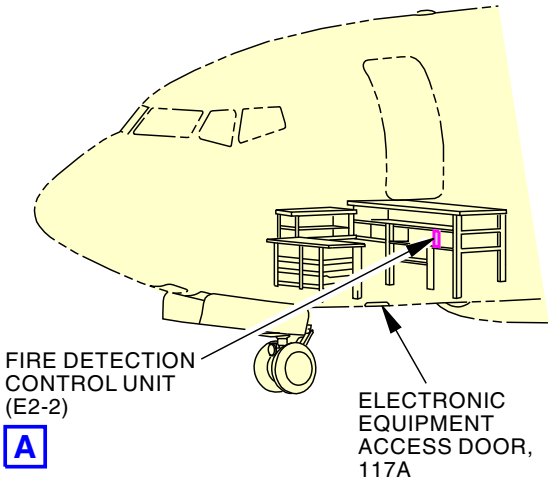
FIRE CONTROL PANEL (P8-1)

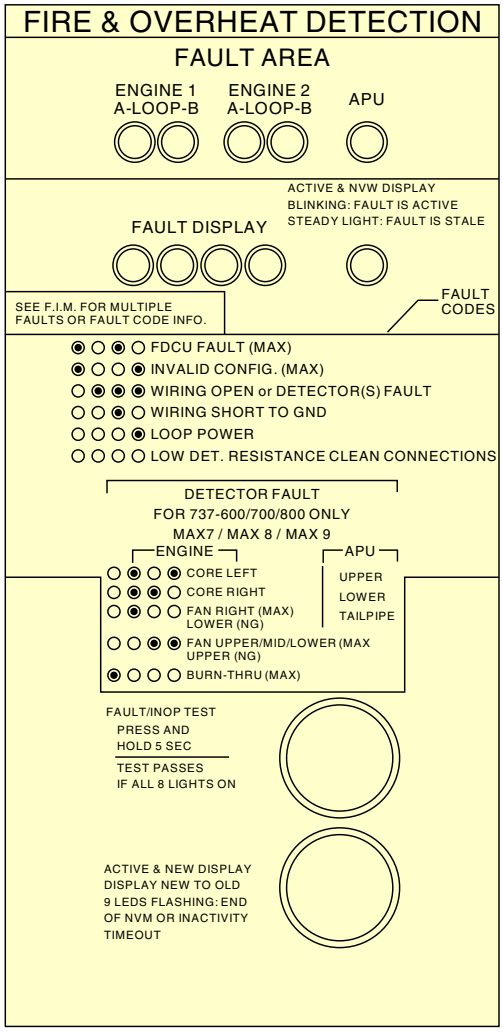
C

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Engine Fire Detection Operational Test
Figure 501/26-11-00-990-802

ECCN 9E991 BOEING PROPRIETARY - See title page for details





FIRE DETECTION CONTROL UNIT

A

2412066 S00061529861_V1

Engine and APU Fire Detection Control Module, M279
Figure 502/26-11-00-990-805

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-11-00-730-801

3. Engine Fire Detection Loop Resistance - System Test

(Figure 503)

A. General

(1) The Loop Resistance Test does a check of the Engine Fire Detection Loop Circuit. It disturbs the engine fire detection system by removing the Engine and APU Fire Detection Control Module, M279. Some test equipment will also be necessary.

B. References

Reference	Title
26-10-01-000-801	Engine and APU Fire Detection Module Removal (P/B 401)
26-10-01-400-801	Engine and APU Fire Detection Module 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-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 #: 21 Supplier: 89536 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
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

E. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

ECCN 9E991 BOEING PROPRIETARY - See title page for details

F. Prepare for the Loop Resistance Test

SUBTASK 26-11-00-860-006

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

SUBTASK 26-11-00-010-001

(2) Get access to the Electronic Equipment Bay:

Open this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

G. Engine Fire Detection Loop Resistance Test

SUBTASK 26-11-00-020-002

(1) Do this task: Engine and APU Fire Detection Module Removal, TASK 26-10-01-000-801.

SUBTASK 26-11-00-730-001

(2) Use a digital/analog multimeter, COM-1793 to measure the resistance across pin 25 of connector D1002 and airplane ground.

(a) Make sure that the resistance is 881 ±40 ohms.

SUBTASK 26-11-00-730-002

(3) Use a digital/analog multimeter, COM-1793 to measure the resistance across pin 12 of connector D1002 and airplane ground.

(a) Make sure that the resistance is 881 ±40 ohms.

SUBTASK 26-11-00-730-003

(4) Use a digital/analog multimeter, COM-1793 to measure the resistance across pin 25 of connector D998 and airplane ground.

(a) Make sure that the resistance is 881 ±40 ohms.

SUBTASK 26-11-00-730-004

(5) Use a digital/analog multimeter, COM-1793 to measure the resistance across pin 12 of connector D998 and airplane ground.

(a) Make sure that the resistance is 881 ±40 ohms.

SUBTASK 26-11-00-420-002

(6) Do this task: Engine and APU Fire Detection Module Installation, TASK 26-10-01-400-801.

H. Put the Airplane Back to its Usual Condition

SUBTASK 26-11-00-410-001

(1) Close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-11-00-860-007

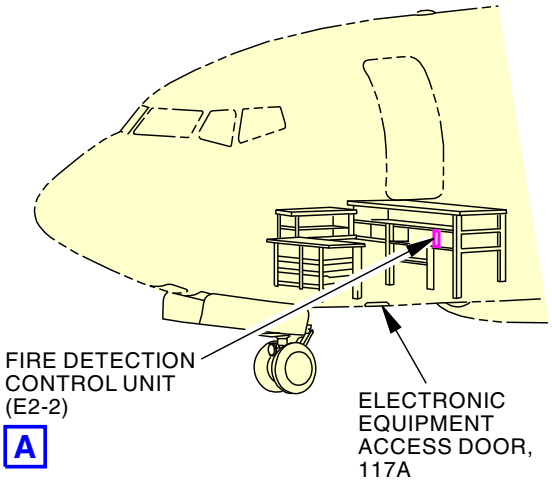
(2) Close these circuit breakers:

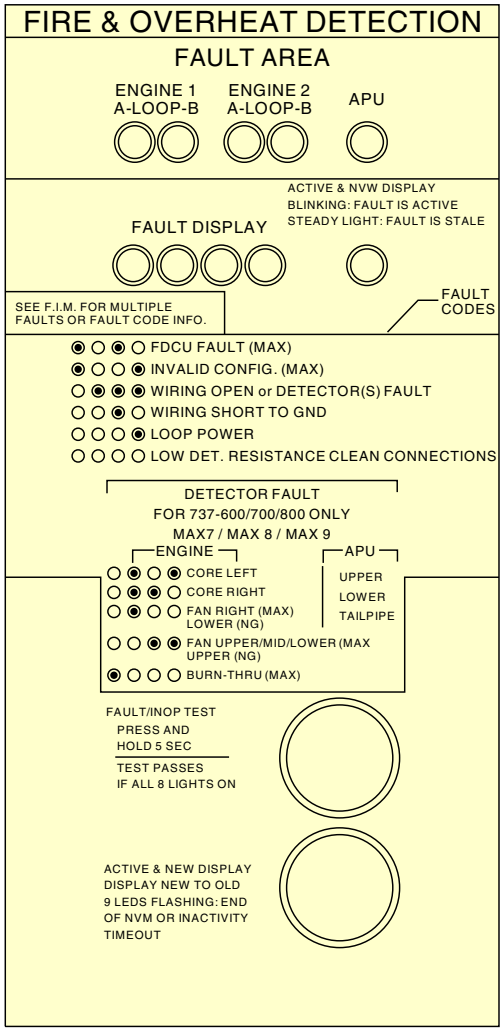
F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details





FIRE DETECTION CONTROL UNIT

A

2412066 S00061529861_V1

Engine Fire Detection Resistance Test
Figure 503/26-11-00-990-803

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-11-00-730-802

4. Engine Fire Detection Circuit - System Test

(Figure 501, Figure 504)

A. General

(1) The Circuit Test does a check of all the Engine Fire Detection System. It does not disturb the engine fire detection system but test equipment will be necessary.

B. References

Reference	Title
71-11-04-010-801-G00	Open the Fan Cowl Panels (Selection) (P/B 201)
71-11-04-410-801-G00	Close the Fan Cowl Panels (Selection) (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-1655	Equipment - Test, APU/Engine Fire Detection System Part #: C26005-1 Supplier: 81205

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right
411	Engine 1 - Engine
421	Engine 2 - Engine

E. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

F. Prepare for the Circuit Test

SUBTASK 26-11-00-860-009

(1) Make sure that these circuit breakers are closed:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
B	12	C00132	MASTER CAUTION ANNUNCIATOR BUS 1
B	13	C00131	MASTER CAUTION ANNUNCIATOR BAT
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(Continued)

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	12	C00310	INDICATOR MASTER DIM BAT
D	13	C00311	INDICATOR MASTER DIM BUS 1
D	14	C00312	INDICATOR MASTER DIM BUS 2
D	15	C01401	LANDING GEAR AIR/GND RELAY
E	11	C00313	INDICATOR MASTER DIM SECT 1
E	12	C00314	INDICATOR MASTER DIM SECT 2
E	13	C00315	INDICATOR MASTER DIM SECT 3
E	14	C00316	INDICATOR MASTER DIM SECT 4
F	11	C00317	INDICATOR MASTER DIM SECT 5
F	12	C00318	INDICATOR MASTER DIM SECT 6

SUBTASK 26-11-00-860-010

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY

SUBTASK 26-11-00-010-002

(3) Get access to the Electronic Equipment Bay:

Open this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

SUBTASK 26-11-00-010-003

(4) Do this task: Open the Fan Cowl Panels (Selection), TASK 71-11-04-010-801-G00.

SUBTASK 26-11-00-730-006

(5) Make sure that the two OVHT DET switches, on the Engine and APU Fire Control Panel, P8-1, are in the NORMAL positions.

SUBTASK 26-11-00-480-001

(6) On Engine 1 (2), connect the test box equipment, SPL-1655 to the two terminal lugs (A/1 and B/2) of the FAN LOWER Fire Detector, M3061, and airplane ground.

NOTE: This test is written for engine 1. The test is the same for engine 2, except as noted by the data in parenthesis. Use the data in parenthesis to do the test for engine 2.

(a) Make sure that all the toggle switches on the test box are in the NORMAL positions.

(b) Connect one pair of alligator clips to each loop:

1) Connect one alligator clip to the responder bracket or to a grounding lug.

2) Connect the other alligator clip to the responder lug.

G. Do a test of the fault indication circuit

SUBTASK 26-11-00-730-007

(1) On the test box, move the ENGINE LOOP A/1 GND FAULT switch to the GND FAULT position.

(a) On the Engine and APU Fire Detection Control Module, M279, make sure that these conditions occur:

1) The ENGINE 1 (2) LOOP A FAULT AREA light comes on.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

2) The four FAULT CODE lights are OFF-OFF-ON-OFF.

SUBTASK 26-11-00-730-008

(2) On the test box, move the ENGINE LOOP B/2 GND FAULT switch to the GND FAULT position.

(a) Make sure that the FAULT light on the Engine and APU Fire Control Panel, P8-1, comes on.

(b) On the Engine and APU Fire Detection Control Module, M279, make sure that these conditions occur:

1) The ENGINE 1 (2) LOOP A FAULT AREA light comes on.

2) The ENGINE 1 (2) LOOP B FAULT AREA light comes on.

3) The four FAULT CODE lights are OFF-OFF-ON-OFF.

SUBTASK 26-11-00-730-009

(3) On the test box, move the ENGINE LOOP A/1 AND B/2 GND FAULT switches to the NORMAL position.

(a) Make sure that the FAULT light on the Engine and APU Fire Control Panel, P8-1, goes off.

(b) On the Engine and APU Fire Detection Control Module, M279, make sure that these conditions occur:

1) The ENGINE 1 (2) LOOP A FAULT AREA light goes off.

2) The ENGINE 1 (2) LOOP B FAULT AREA light goes off.

3) The four FAULT CODE lights are OFF-OFF-OFF-OFF.

H. Do a test of the overheat indication circuit

SUBTASK 26-11-00-730-010

(1) On the test box, move the ENGINE LOOP A/1 AND B/2 OVHT switches to the OVHT position.

(a) Make sure that the ENG 1 (2) OVERHEAT light on the Engine and APU Fire Control Panel, P8-1, comes on.

(b) On the Pilot's Glareshield, P7, make sure that these conditions occur:

1) The Captain and the First Officer's MASTER CAUTION light come on.

2) The OVHT DET light comes on.

SUBTASK 26-11-00-730-011

(2) On the test box, move the ENGINE LOOP A/1 AND B/2 OVHT switches to the NORMAL position.

(a) Make sure the ENG 1 (2) OVERHEAT light on the Engine and APU Fire Control Panel, P8-1, goes off.

(b) On the Pilot's Glareshield, P7, make sure that these conditions occur:

1) The Captain and First Officer's MASTER CAUTION light goes off.

2) The OVHT DET light goes off.

I. Do a test of the fire indication circuit

SUBTASK 26-11-00-730-012

(1) On the test box, move the ENGINE LOOP A/1 AND B/2 FIRE switches to the FIRE position.

(a) Make sure that the engine 1 (2) Fire Handle light, on the Engine and APU Fire Control Panel, P8-1, comes on.

(b) On the Pilot's Glareshield, P7, make sure that these conditions occur:

ECCN 9E991 BOEING PROPRIETARY - See title page for details

1) The Captain and the First Officer's MASTER CAUTION light comes on.

2) The Captain and First Officer's FIRE WARN light comes on.

(c) Make sure that the flight compartment fire bell, on the Aural Warning Module, M315, comes on.

SUBTASK 26-11-00-730-013

(2) On the test box, move the ENGINE LOOP A/1 AND B/2 FIRE switches to the NORMAL position.

(a) Make sure that the engine 1 (2) Fire Handle light, on the Engine and APU Fire Control Panel, P8-1, goes off.

(b) On the Pilot's Glareshield, P7, make sure that these conditions occur:

1) The Captain and First Officer's MASTER CAUTION light goes off.

2) The Captain and First Officer's FIRE WARN light goes off.

(c) Make sure that the flight compartment fire bell, on the Aural Warning Module, M315, stops.

SUBTASK 26-11-00-480-002

(3) On Engine 1 (2), disconnect the test box equipment, SPL-1655 from the two terminal lugs (A/1 and B/2) of the FAN LOWER Fire Detector, M3061, and airplane ground.

SUBTASK 26-11-00-730-014

(4) Make sure that you do the circuit test for engine 1 and engine 2.

J. Put the airplane back to its usual condition.

SUBTASK 26-11-00-410-002

(1) Do this task: Close the Fan Cowl Panels (Selection), TASK 71-11-04-410-801-G00.

SUBTASK 26-11-00-410-003

(2) Close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

SUBTASK 26-11-00-860-011

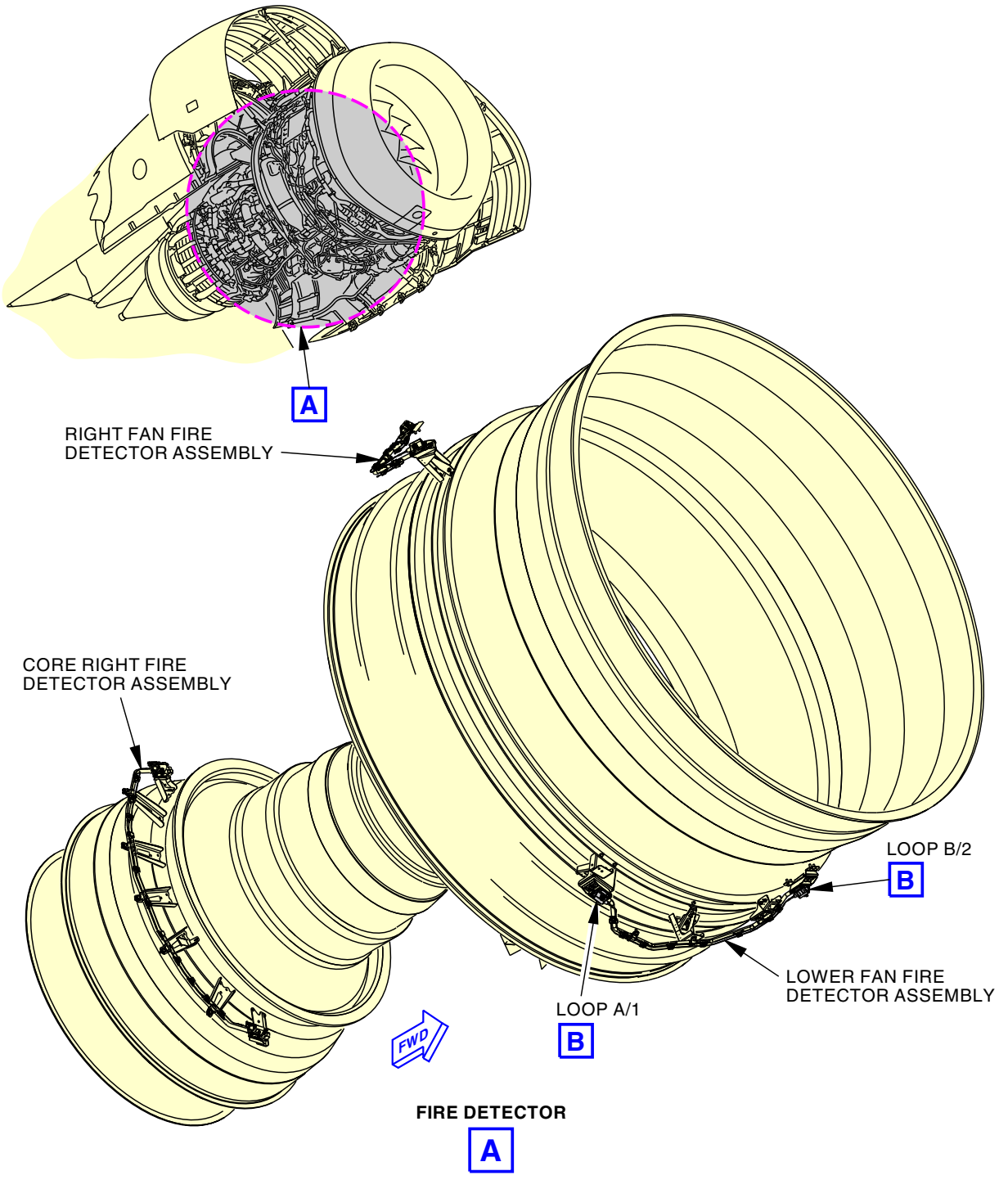
(3) Close this circuit breaker:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY

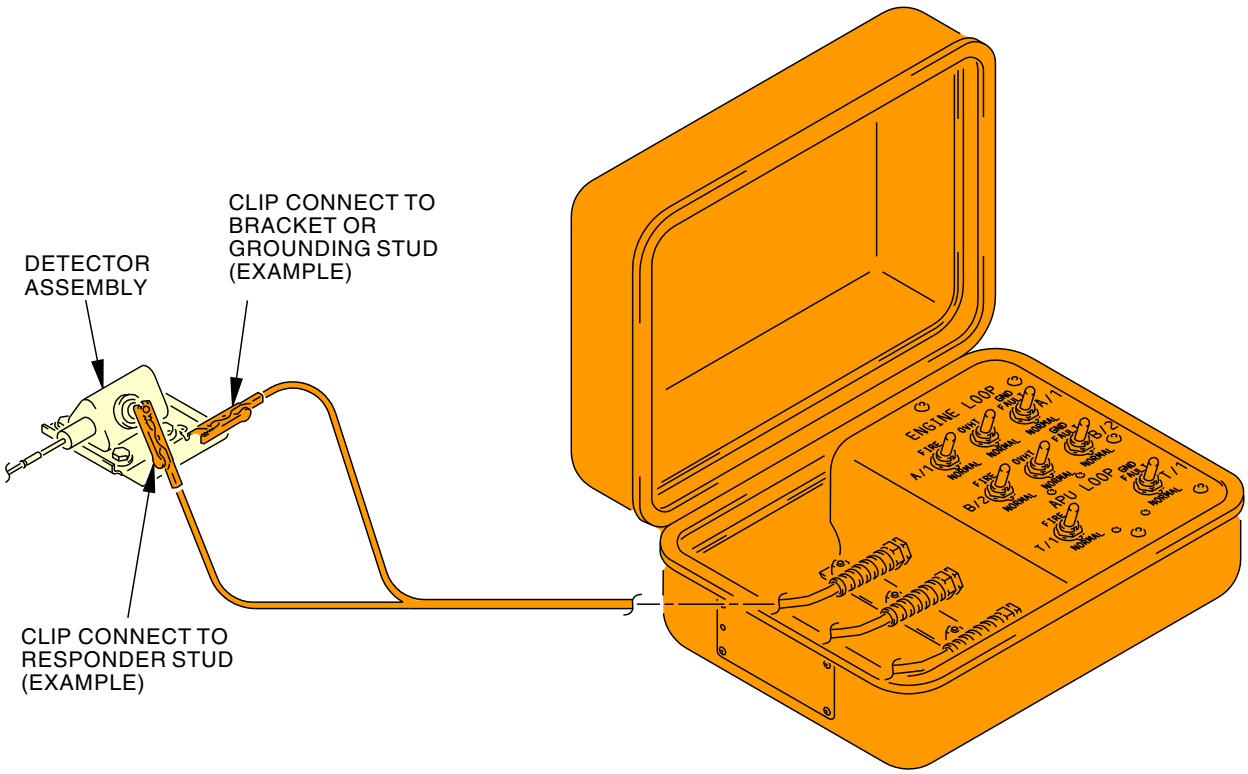
END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Engine Fire Detection Circuit Test
Figure 504/26-11-00-990-804 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



(EXAMPLE)

B

2412068 S00061529864_V1

Engine Fire Detection Circuit Test
Figure 504/26-11-00-990-804 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

ENGINE FIRE DETECTORS - REMOVAL/INSTALLATION

1. General

A. This procedure has the following tasks:

(1) An engine fire detector element removal

(2) An engine fire detector element installation

(3) An engine fire detector assembly removal

(4) An engine fire detector assembly installation

(5) A combustor burn through fire detector assembly removal

(6) A combustor burn through fire detector assembly installation.

B. All of the engine fire detectors are dual loop detectors. Each fire detector assembly has two elements which can be removed separately.

C. There are seven different fire detectors on each engine:

(1) One is installed in the upper fan area.

(2) One is installed in the left mid fan area.

(3) One is installed in the lower fan area.

(4) One is installed in the right fan area.

(5) One is installed in the left engine core.

(6) One is installed in the right engine core.

(7) A combustor burn through detector is installed on the engine pylon lower area.

TASK 26-11-01-000-801

2. Engine Fire Detector Element Removal

(Figure 401)

A. General

(1) This task gives the instructions to remove the engine fire detector element.

B. References

Reference	Title
71-11-04-010-801-G00	Open the Fan Cowl Panels (Selection) (P/B 201)
78-31-00-010-801-G00	Open the Thrust Reverser (Selection) (P/B 201)

C. Location Zones

Zone	Area
411	Engine 1 - Engine
421	Engine 2 - Engine

D. Prepare for the Removal

SUBTASK 26-11-01-010-001

(1) To access the fan fire detector assemblies, do this task: Open the Fan Cowl Panels (Selection), TASK 71-11-04-010-801-G00.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-11-01-010-002

WARNING DO THESE SPECIFIED TASKS IN THE CORRECT SEQUENCE BEFORE YOU OPEN THE THRUST REVERSERS: RETRACT THE LEADING EDGE, DO THE DEACTIVATION PROCEDURES FOR THE LEADING EDGE AND THE THRUST REVERSER (FOR GROUND MAINTENANCE), AND OPEN THE FAN COWL PANELS. IF YOU DO NOT OBEY THE ABOVE SEQUENCE, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) To access the core fire detector assemblies, do this task: Open the Thrust Reverser (Selection), TASK 78-31-00-010-801-G00.

SUBTASK 26-11-01-860-001

(3) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

E. Engine Fire Detector Element Removal

SUBTASK 26-11-01-020-001

(1) Do these steps to remove a fire detector element [7]:

CAUTION WITH THE SPLIT BOBBIN HARNESS, HOLD THE LUGS IN ITS POSITION WHEN YOU INSTALL OR REMOVE THE NUTS. IF YOU DO NOT OBEY, LUGS CAN TURN AND DAMAGE TO EQUIPMENT CAN OCCUR.

(a) Remove the nut [2] and washer [3] from the responder stud.

CAUTION WITH THE SPLIT BOBBIN HARNESS, HOLD THE LUGS IN ITS POSITION WHEN YOU INSTALL OR REMOVE THE NUTS. IF YOU DO NOT OBEY, LUGS CAN TURN AND DAMAGE TO EQUIPMENT CAN OCCUR.

(b) Remove the nut [4] and washer [5] from the ground stud.

(c) Disconnect the leads [6] from the studs.

(d) Loosen the screw [15] on each double loop clamp [13] and single loop clamp [14].

(e) Remove the fire detector element [7] from each double loop clamp [13] and single loop clamp [14].

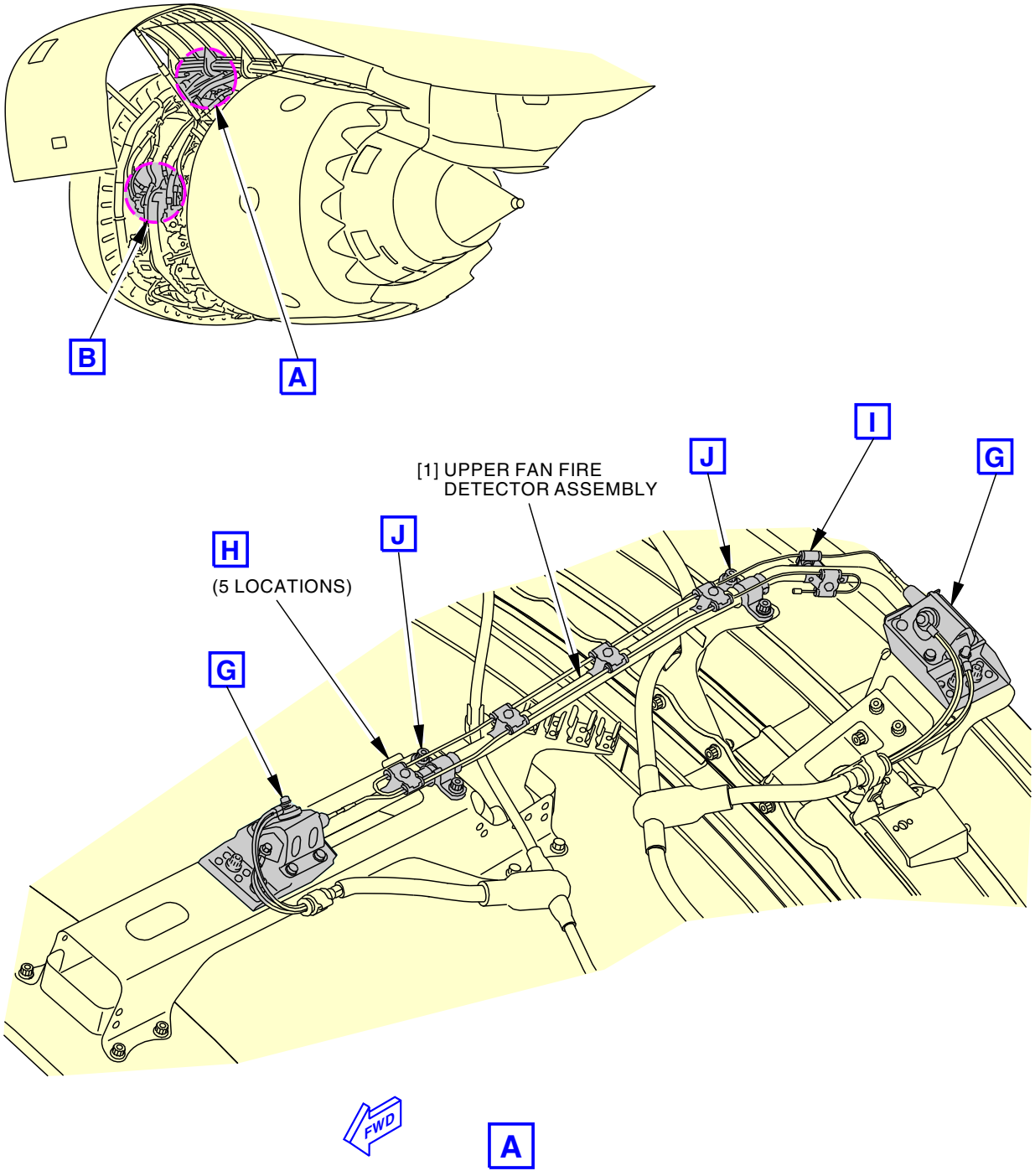
(f) Remove the grommets [16] from the fire detector element [7] to use on the new element.

(g) Remove the four screws [9], washers [10], and nuts [11] that attach the fire detector housing [8] to the mounting bracket.

(h) Remove the fire detector element [7].

END OF TASK

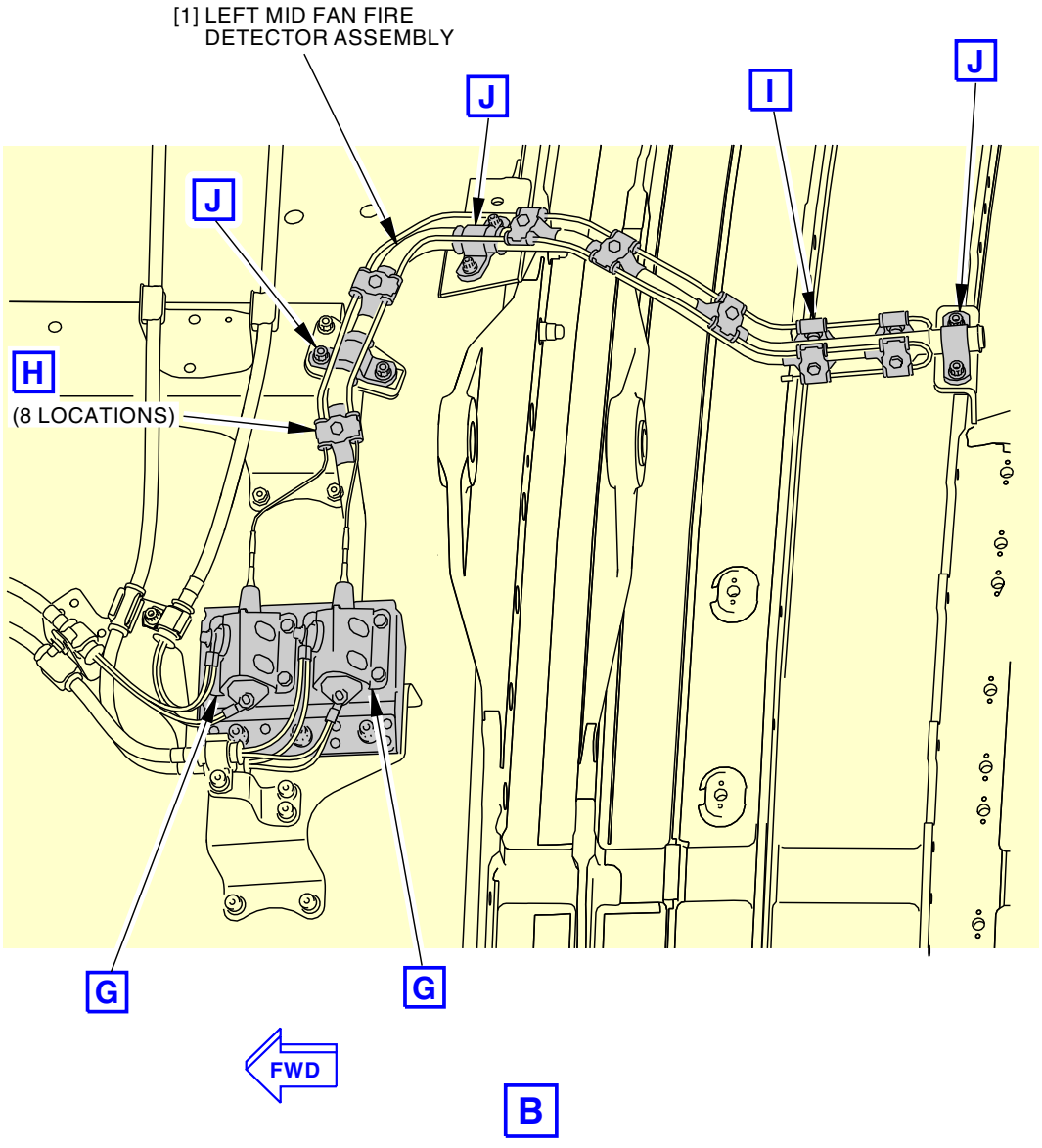
ECCN 9E991 BOEING PROPRIETARY - See title page for details



2412069 S00061529868_V2

Engine Fire Detector Element Installation
Figure 401/26-11-01-990-801 (Sheet 1 of 8)

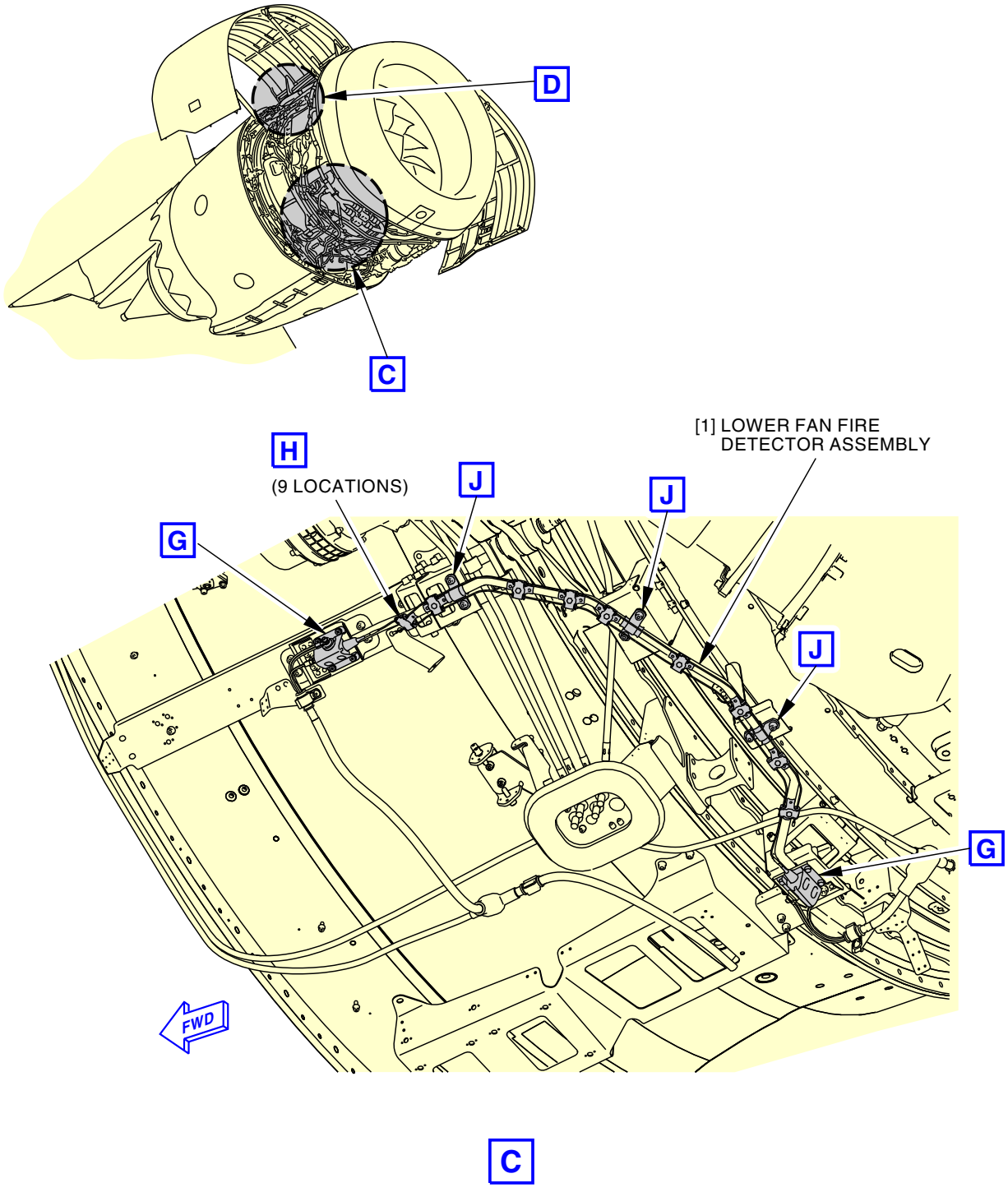
ECCN 9E991 BOEING PROPRIETARY - See title page for details



2534994 S0000601281_V2

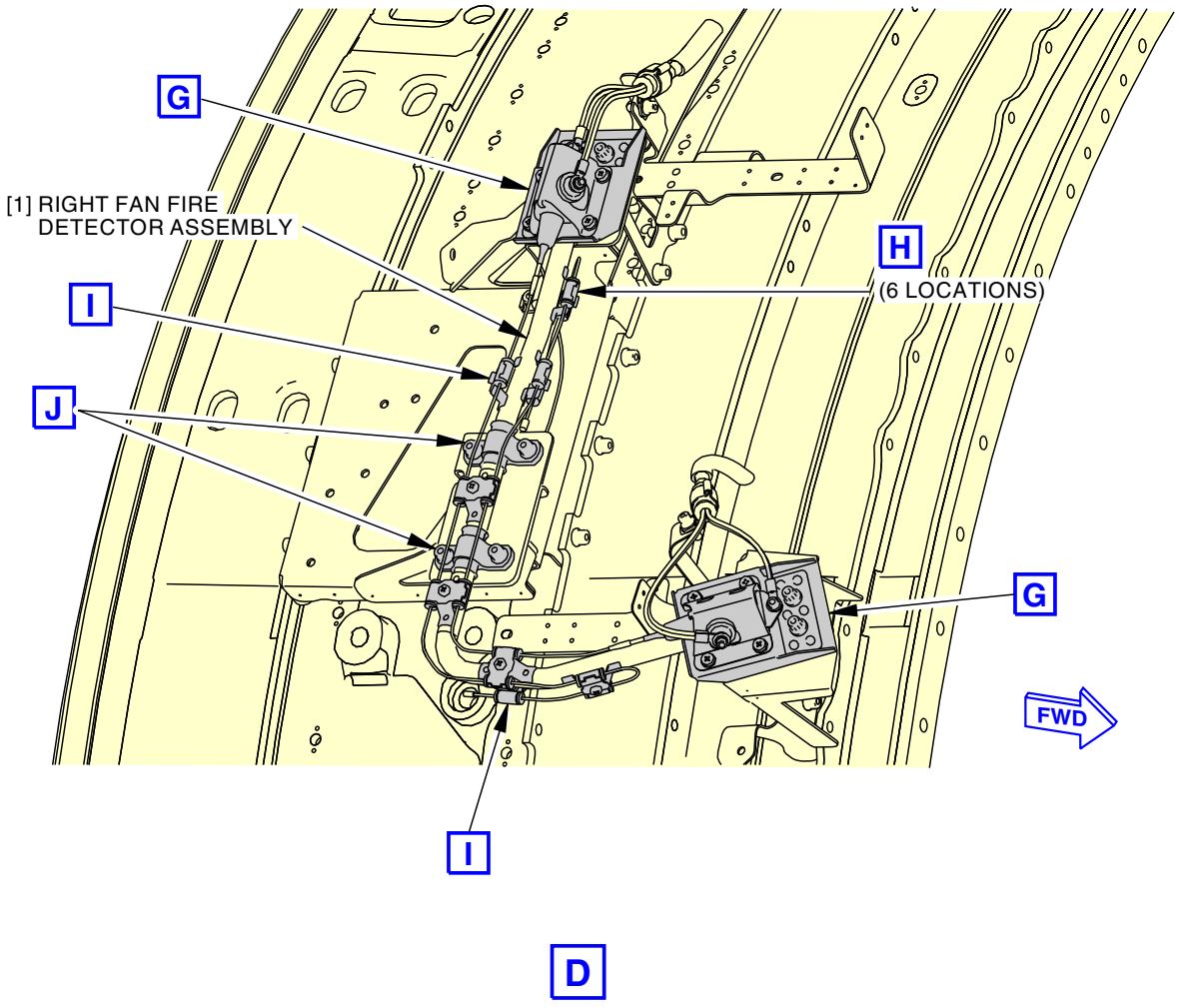
Engine Fire Detector Element Installation
Figure 401/26-11-01-990-801 (Sheet 2 of 8)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Engine Fire Detector Element Installation
Figure 401/26-11-01-990-801 (Sheet 3 of 8)

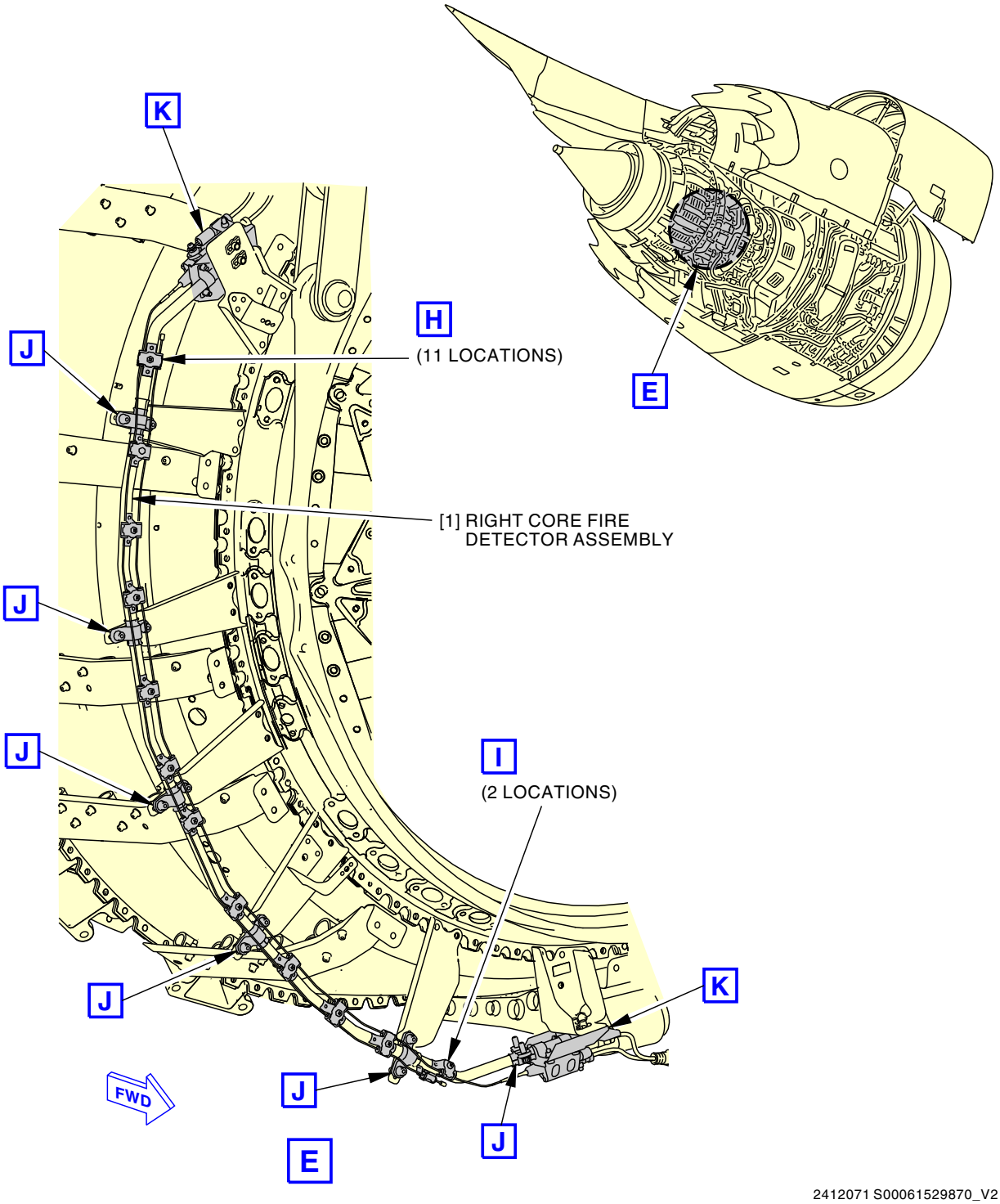
ECCN 9E991 BOEING PROPRIETARY - See title page for details



2534999 S0000601282_V2

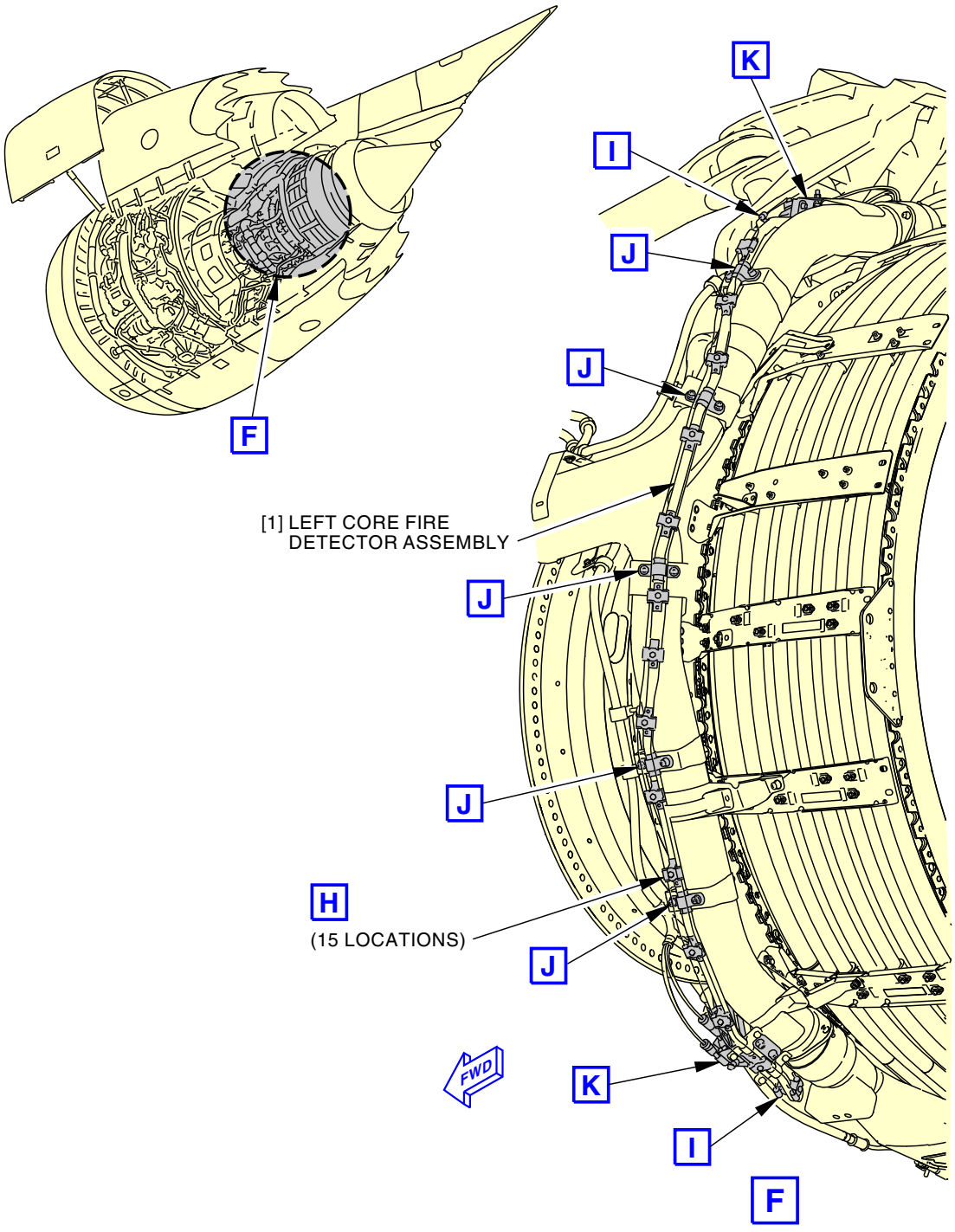
Engine Fire Detector Element Installation
Figure 401/26-11-01-990-801 (Sheet 4 of 8)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



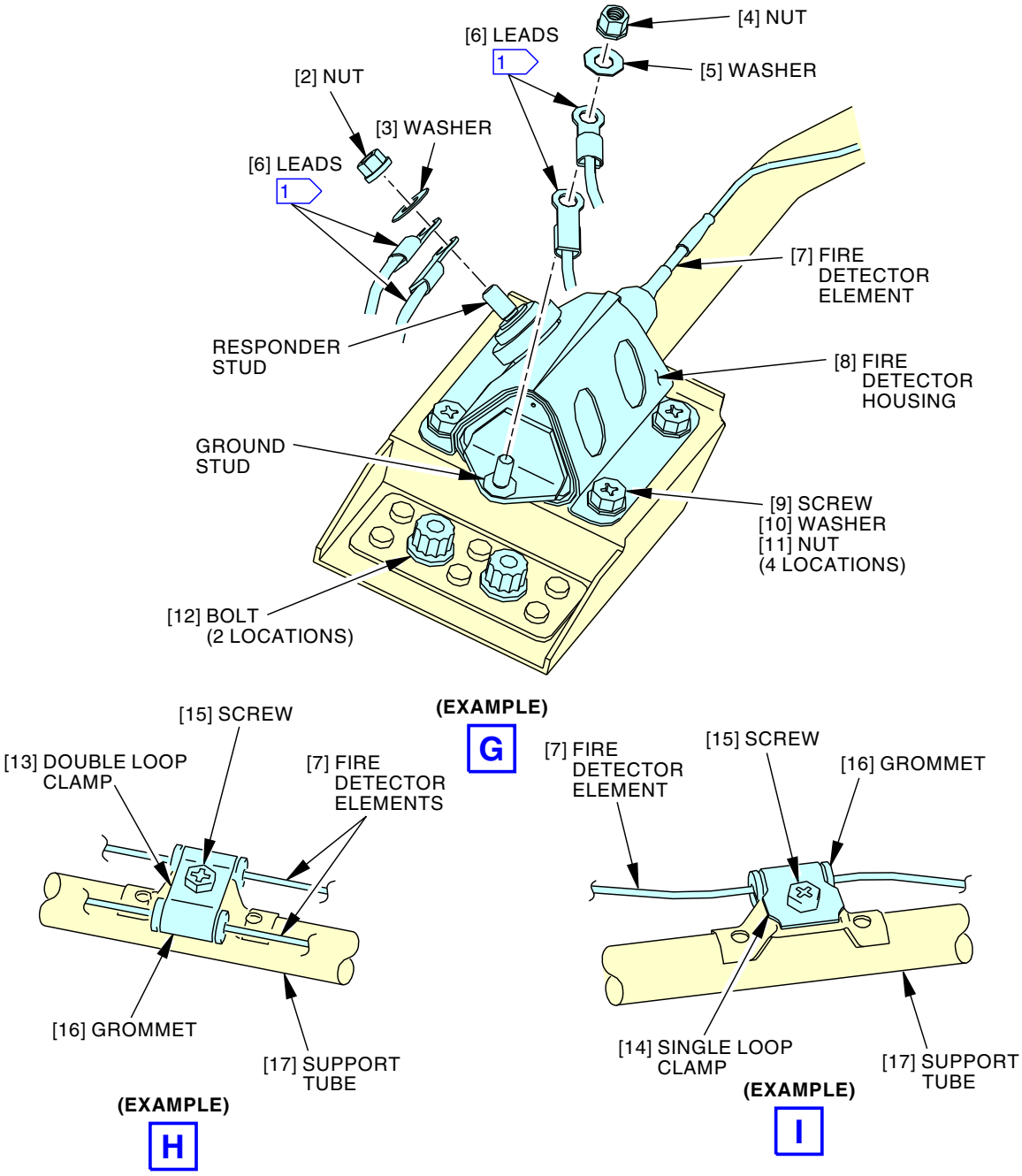
Engine Fire Detector Element Installation
Figure 401/26-11-01-990-801 (Sheet 5 of 8)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Engine Fire Detector Element Installation
Figure 401/26-11-01-990-801 (Sheet 6 of 8)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

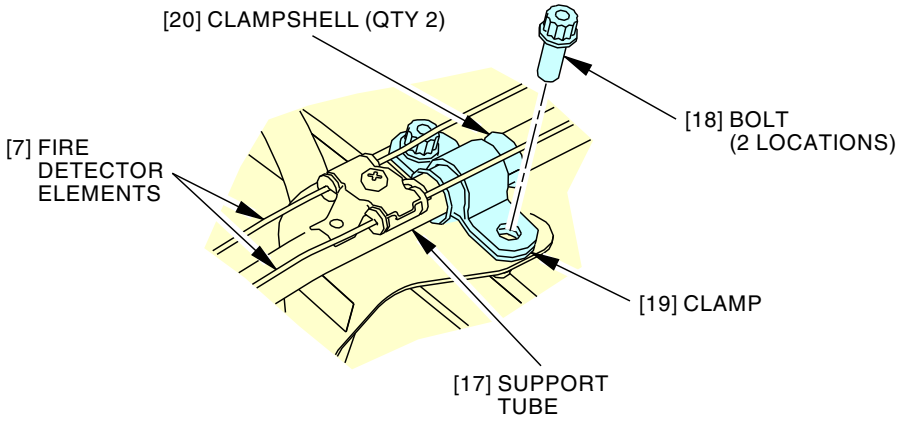


1 A BREAKOUT WIRE TIE MAY BE ADDED TO PREVENT RIDING CONDITION.
(LOWER FAN CASE FIRE DETECTOR ASSEMBLY ONLY)

2412074 S00061529873_V3

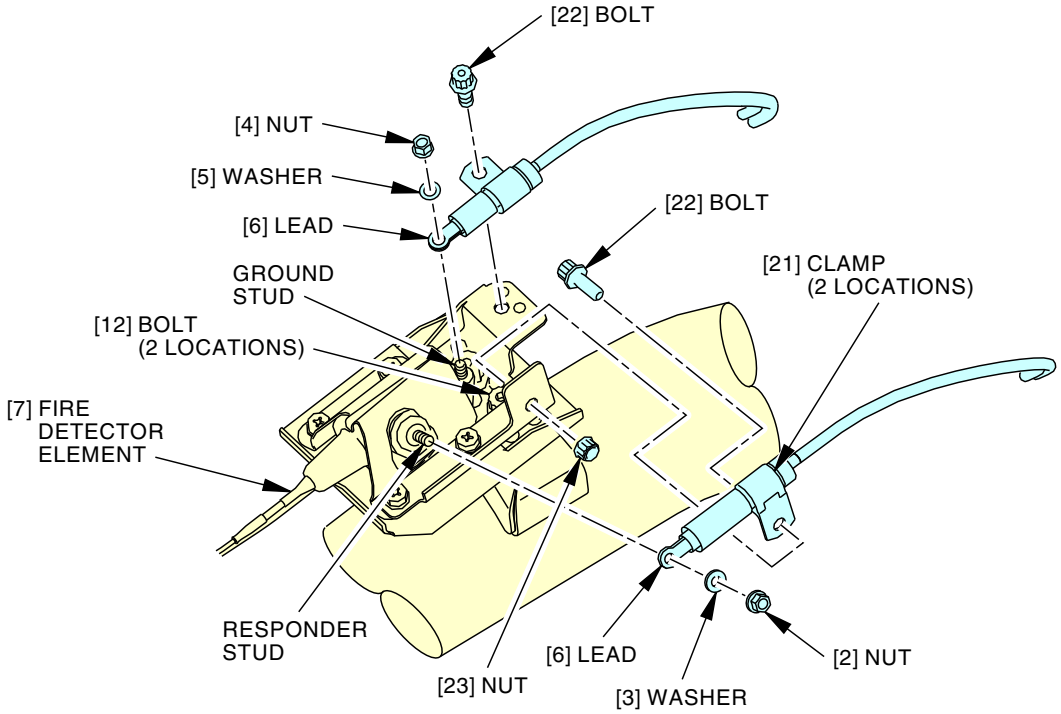
Engine Fire Detector Element Installation
Figure 401/26-11-01-990-801 (Sheet 7 of 8)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



(EXAMPLE)

J



(EXAMPLE)

K

2412073 S00061529872_V3

Engine Fire Detector Element Installation
Figure 401/26-11-01-990-801 (Sheet 8 of 8)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-11-01-400-801

3. Engine Fire Detector Element Installation

(Figure 401)

A. General

(1) This task gives the instructions to install the engine fire detector element.

B. References

Reference	Title
26-11-00-710-801	Engine Fire Detection - Operational Test (P/B 501)
71-11-04-410-801-G00	Close the Fan Cowl Panels (Selection) (P/B 201)
78-31-00-010-802-G00	Close the Thrust Reverser (Selection) (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-1550	Bonding Meter - 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 #: M1B Supplier: 3AD17 Part #: T477W (C15292) Supplier: 06659

D. Consumable Materials

Reference	Description	Specification
B00083	Solvent - VM&P Naphthas	TT-N-95 Type II, ASTM D-3735 Type III

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
7	Fire detector element	26-11-01-05-045	SIA ALL
		26-11-01-10-055	SIA ALL
		26-11-01-15-035	SIA ALL
		26-11-01-20-055	SIA ALL
		26-11-01-26-060	SIA ALL
		26-11-01-31-070	SIA ALL

F. Location Zones

Zone	Area
411	Engine 1 - Engine
421	Engine 2 - Engine

G. Engine Fire Detector Element Installation

SUBTASK 26-11-01-420-001

(1) Do these steps to install a fire detector element [7]:

(a) Position the fire detector element [7] along the support tube [17].

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(b) Put the fire detector housing [8] in the correct position on the mounting bracket.

(c) Install the four screws [9], washers [10], and nuts [11] that attach the fire detector housing [8] to the mounting bracket.

1) Tighten the nuts [11] to 30 in-lb (3.39 N·m) - 35 in-lb (3.95 N·m).

(d) Put the grommets [16] on the fire detector element [7] at each double loop clamp [13] and single loop clamp [14] location.

(e) Put the fire detector element [7] into each double loop clamp [13] and single loop clamp [14] along the fire detector assembly [1].

(f) Make sure that the end of the detector element extends less than 1 in. (25 mm) past the last grommet [16].

1) If the fire detector element [7] extends more than 1 in. (25 mm), adjust the length of the fire detector element [7] between each double loop clamp [13] and single loop clamp [14] so that any slack is evenly distributed.

(g) Make sure that there is at least 0.12 in. (3.05 mm) between the fire detector element [7] and the support tube [17].

(h) Tighten the screw [15] on each applicable double loop clamp [13] and single loop clamp [14] snug against the grommets [16].

1) Make sure that the screw [15] extends a minimum of 1-1/2 threads through the nut.

2) Make sure that the end of the screw [15] does not touch the support tube [17].

(i) Install the leads [6] to the applicable studs.

CAUTION

WITH THE SPLIT BOBBIN HARNESS, HOLD THE LUGS IN ITS POSITION WHEN YOU INSTALL OR REMOVE THE NUTS. IF YOU DO NOT OBEY, LUGS CAN TURN AND DAMAGE TO EQUIPMENT CAN OCCUR.

(j) Install the nut [2] to the responder stud.

1) Tighten the nut [2] to 50 in-lb (5.65 N·m) - 54 in-lb (6.10 N·m).

CAUTION

WITH THE SPLIT BOBBIN HARNESS, HOLD THE LUGS IN ITS POSITION WHEN YOU INSTALL OR REMOVE THE NUTS. IF YOU DO NOT OBEY, LUGS CAN TURN AND DAMAGE TO EQUIPMENT CAN OCCUR.

(k) Install the nut [4] to the ground stud.

1) Tighten the nut [4] to 25 in-lb (2.82 N·m) - 29 in-lb (3.28 N·m).

SUBTASK 26-11-01-280-001

(2) Using the intrinsically safe approved bonding meter, COM-1550, do a check of the resistance between the fire detector housing [8] and the airplane structure.

(a) Make sure that the resistance is less than 0.010 ohm.

(b) If the resistance is more than 0.010 ohm, clean the bonding surfaces with the solvent, B00083, and do the check again.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

H. Put the Airplane Back to Its Usual Condition

SUBTASK 26-11-01-410-003

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

SUBTASK 26-11-01-410-004

WARNING OBEY THE INSTRUCTIONS IN THE PROCEDURE TO CLOSE THE THRUST REVERSERS. IF YOU DO NOT OBEY THE INSTRUCTIONS, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) To close the thrust reverser, do this task: Close the Thrust Reverser (Selection), TASK 78-31-00-010-802-G00.

SUBTASK 26-11-01-410-005

(3) To close the fan cowl panel, do this task: Close the Fan Cowl Panels (Selection), TASK 71-11-04-410-801-G00.

I. Engine Fire Detector Element Installation Test

SUBTASK 26-11-01-710-001

(1) Do this task: Engine Fire Detection - Operational Test, TASK 26-11-00-710-801.

——— END OF TASK ———

TASK 26-11-01-000-802

4. Engine Fire Detector Assembly Removal

(Figure 401)

A. General

(1) This task gives the instructions to remove the engine fire detector assembly.

B. References

Reference	Title
71-11-04-010-801-G00	Open the Fan Cowl Panels (Selection) (P/B 201)
78-31-00-010-801-G00	Open the Thrust Reverser (Selection) (P/B 201)

C. Location Zones

Zone	Area
411	Engine 1 - Engine
421	Engine 2 - Engine

D. Prepare for the Removal

SUBTASK 26-11-01-010-005

(1) To access the fan fire detector assemblies, do this task: Open the Fan Cowl Panels (Selection), TASK 71-11-04-010-801-G00.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-11-01-010-006

WARNING DO THESE SPECIFIED TASKS IN THE CORRECT SEQUENCE BEFORE YOU OPEN THE THRUST REVERSERS: RETRACT THE LEADING EDGE, DO THE DEACTIVATION PROCEDURES FOR THE LEADING EDGE AND THE THRUST REVERSER (FOR GROUND MAINTENANCE), AND OPEN THE FAN COWL PANELS. IF YOU DO NOT OBEY THE ABOVE SEQUENCE, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) To access the core fire detector assemblies, do this task: Open the Thrust Reverser (Selection), TASK 78-31-00-010-801-G00.

SUBTASK 26-11-01-860-003

(3) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

E. Fire Detector Assembly Removal

SUBTASK 26-11-01-020-002

(1) Do these steps to remove one of the fire detector assemblies [1]:

NOTE: The fire detector assembly includes the support tube with the fire detector elements installed and the mounting hardware.

CAUTION WITH THE SPLIT BOBBIN HARNESS, HOLD THE LUGS IN ITS POSITION WHEN YOU INSTALL OR REMOVE THE NUTS. IF YOU DO NOT OBEY, LUGS CAN TURN AND DAMAGE TO EQUIPMENT CAN OCCUR.

(a) Remove the nut [2] and washer [3] from each responder stud.

CAUTION WITH THE SPLIT BOBBIN HARNESS, HOLD THE LUGS IN ITS POSITION WHEN YOU INSTALL OR REMOVE THE NUTS. IF YOU DO NOT OBEY, LUGS CAN TURN AND DAMAGE TO EQUIPMENT CAN OCCUR.

(b) Remove the nut [4] and washer [5] from each ground stud.

(c) Remove the bolts [22], clamps [21], and nuts [23] that hold the leads [6] to the core fire detector bracket.

(d) Remove the leads [6] from the studs.

(e) Remove the bolts [18], clamps [19], and clampshells [20] that hold the support tube [17] in its position.

(f) Remove the bolts [12] that hold the detector in its position.

(g) Remove the fire detector assembly [1].

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-11-01-400-802

5. Engine Fire Detector Assembly Installation

(Figure 401)

A. General

(1) This task gives the instructions to install the engine fire detector assembly.

B. References

Reference	Title
26-11-00-710-801	Engine Fire Detection - Operational Test (P/B 501)
71-11-04-410-801-G00	Close the Fan Cowl Panels (Selection) (P/B 201)
78-31-00-010-802-G00	Close the Thrust Reverser (Selection) (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-1550	Bonding Meter - 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 #: M1B Supplier: 3AD17 Part #: T477W (C15292) Supplier: 06659

D. Consumable Materials

Reference	Description	Specification
B00083	Solvent - VM&P Naphthas	TT-N-95 Type II, ASTM D-3735 Type III

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Fire detector assembly	26-11-01-01-050	SIA ALL
		26-11-01-02-050	SIA ALL
		26-11-01-05-045	SIA ALL
		26-11-01-10-055	SIA ALL
		26-11-01-15-035	SIA ALL
		26-11-01-20-055	SIA ALL
		26-11-01-26-060	SIA ALL
		26-11-01-31-070	SIA ALL

F. Location Zones

Zone	Area
411	Engine 1 - Engine
421	Engine 2 - Engine

G. Engine Fire Detector Assembly Installation

SUBTASK 26-11-01-420-002

(1) Do these steps to install one of the fire detector assemblies [1]:

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(a) Make sure that the ends of the fire detector assembly [1] and the brackets are clean.

(b) Position the fire detector assembly [1] on the engine.

(c) Make sure that the preload between the fire detector assembly [1] and the attach points is not more than 10 ft-lb (13.6 N·m).

(d) Install the bolts [12] that hold the fire detector assembly [1] to the engine.

1) Tighten the bolts [12] to 78 in-lb (8.8 N·m) - 82 in-lb (9.3 N·m).

(e) Install the bolts [18], clamp [19], and clampshells [20] that hold the support tube [17] in its position.

1) Tighten the bolts [18] to 78 in-lb (8.8 N·m) - 82 in-lb (9.3 N·m).

(f) Make sure that there is at least 0.12 in. (3.05 mm) between the fire detector fire detector elements [7] and the support tube [17].

(g) Install the leads [6] to the applicable stud.

CAUTION

WITH THE SPLIT BOBBIN HARNESS, HOLD THE LUGS IN ITS POSITION WHEN YOU INSTALL OR REMOVE THE NUTS. IF YOU DO NOT OBEY, LUGS CAN TURN AND DAMAGE TO EQUIPMENT CAN OCCUR.

(h) Install the nut [4] and washer [5] to each ground stud.

1) Tighten the nut [4] to 25 in-lb (3 N·m) - 29 in-lb (3 N·m).

CAUTION

WITH THE SPLIT BOBBIN HARNESS, HOLD THE LUGS IN ITS POSITION WHEN YOU INSTALL OR REMOVE THE NUTS. IF YOU DO NOT OBEY, LUGS CAN TURN AND DAMAGE TO EQUIPMENT CAN OCCUR.

(i) Install the nut [2] and washer [3] to each responder stud.

1) Tighten the nuts [2] to 50 in-lb (6 N·m) - 54 in-lb (6 N·m).

CAUTION

DO NOT LET WIRES GET IN THE BOBBIN SPACE OR BETWEEN THE BOBBIN AND THE CLAMP, IF YOU HAVE A SPLIT BOBBIN HARNESS. IF YOU DO NOT OBEY, WIRES CAN RUB AGAINST THE CLAMPS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(j) Install the bolts [22], clamps [21], and nuts [23] that hold the leads [6] to the core fire detector bracket.

SUBTASK 26-11-01-280-002

(2) Use the intrinsically safe approved bonding meter, COM-1550, do a check of the resistance between the fire detector housing [8] and the airplane structure.

(a) Make sure that the resistance is less than 0.010 ohm.

(b) If the resistance is more than 0.010 ohm, clean the bonding surfaces with the solvent, B00083, and do the check again.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 26-11-01-860-004

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(Continued)

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

SUBTASK 26-11-01-410-006

WARNING OBEY THE INSTRUCTIONS IN THE PROCEDURE TO CLOSE THE THRUST REVERSERS. IF YOU DO NOT OBEY THE INSTRUCTIONS, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) To close the thrust reverser, do this task: Close the Thrust Reverser (Selection), TASK 78-31-00-010-802-G00.

SUBTASK 26-11-01-410-007

(3) To close the fan cowl panel, do this task: Close the Fan Cowl Panels (Selection), TASK 71-11-04-410-801-G00.

I. Engine Fire Detector Assembly Installation Test

SUBTASK 26-11-01-710-002

(1) Do this task: Engine Fire Detection - Operational Test, TASK 26-11-00-710-801.

END OF TASK

TASK 26-11-01-000-803

6. Combustor Burn Through Fire Detector Assembly Removal

(Figure 402)

A. General

(1) This task gives the instructions to remove the engine combustor burn through fire detector assembly.

B. References

Reference	Title
71-11-04-010-801-G00	Open the Fan Cowl Panels (Selection) (P/B 201)
78-31-00-010-801-G00	Open the Thrust Reverser (Selection) (P/B 201)

C. Location Zones

Zone	Area
411	Engine 1 - Engine
421	Engine 2 - Engine

D. Prepare for the Removal

SUBTASK 26-11-01-020-006

(1) It is recommended to remove the applicable fan cowl panel, do this task: Open the Fan Cowl Panels (Selection), TASK 71-11-04-010-801-G00.

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SUBTASK 26-11-01-020-003

WARNING DO THESE SPECIFIED TASKS IN THE CORRECT SEQUENCE BEFORE YOU OPEN THE THRUST REVERSERS: RETRACT THE LEADING EDGE, DO THE DEACTIVATION PROCEDURES FOR THE LEADING EDGE AND THE THRUST REVERSER (FOR GROUND MAINTENANCE), AND OPEN THE FAN COWL PANELS. IF YOU DO NOT OBEY THE ABOVE SEQUENCE, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) To access the combustor burn through fire detector, do this task: Open the Thrust Reverser (Selection), TASK 78-31-00-010-801-G00.

SUBTASK 26-11-01-020-004

(3) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

E. Engine Combustor Burn Through Fire Detector Assembly Removal

SUBTASK 26-11-01-020-005

(1) Do these steps to remove the engine combustor burn through fire detector assembly [1].

NOTE: The fire detector assembly includes the support tube with the detector elements installed and the mounting hardware.

(a) Remove the nuts [2] and washers [3] from the two responder studs.

(b) Remove the nuts [4] and washers [5] from the two ground studs.

(c) Disconnect the leads [6] from the responder and ground studs.

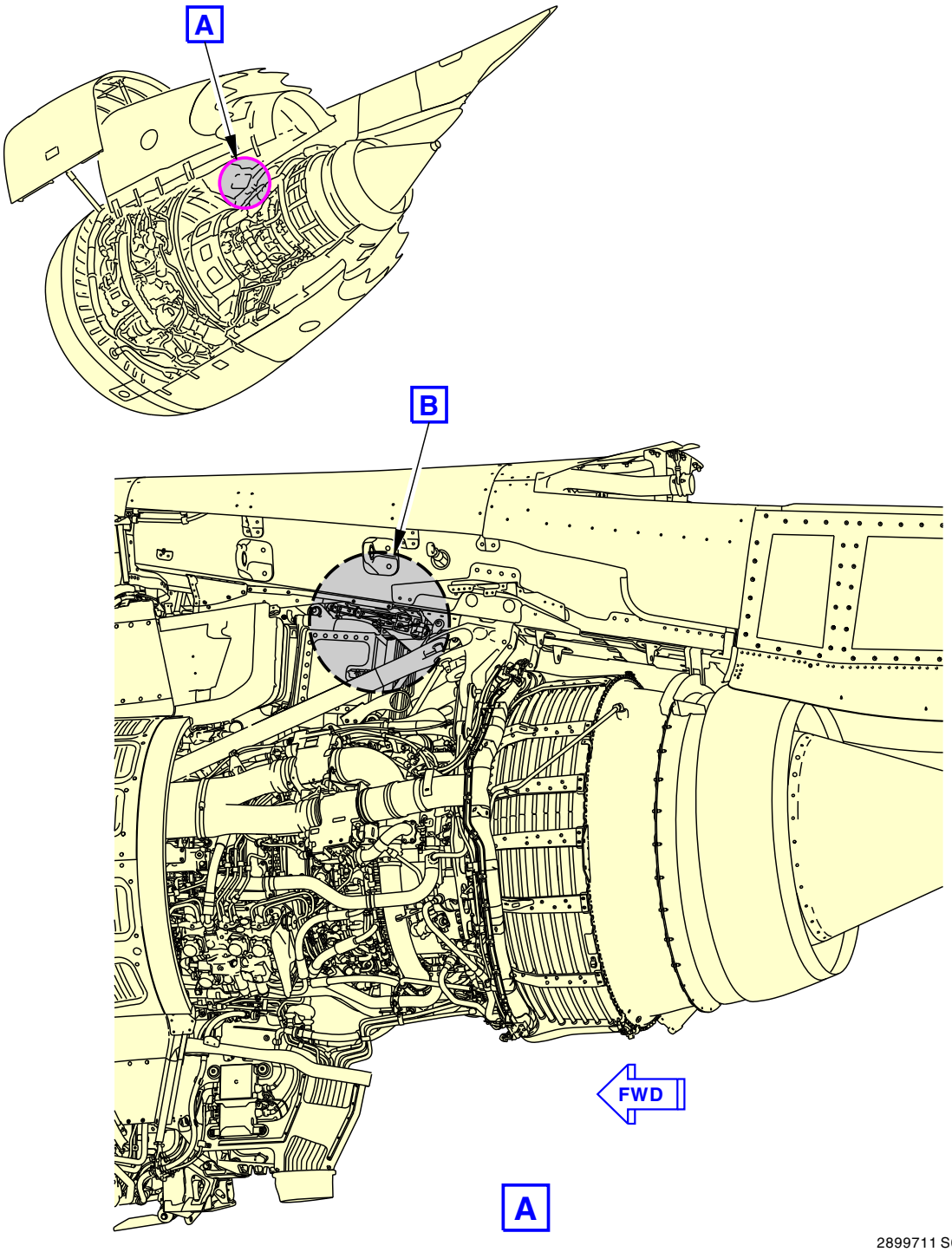
(d) Remove the bolt [26] from the support tube [17].

(e) Remove the bolts [12] from the fire detector assembly [1].

(f) Remove the fire detector assembly [1] from the engine pylon strut.

——— END OF TASK ———

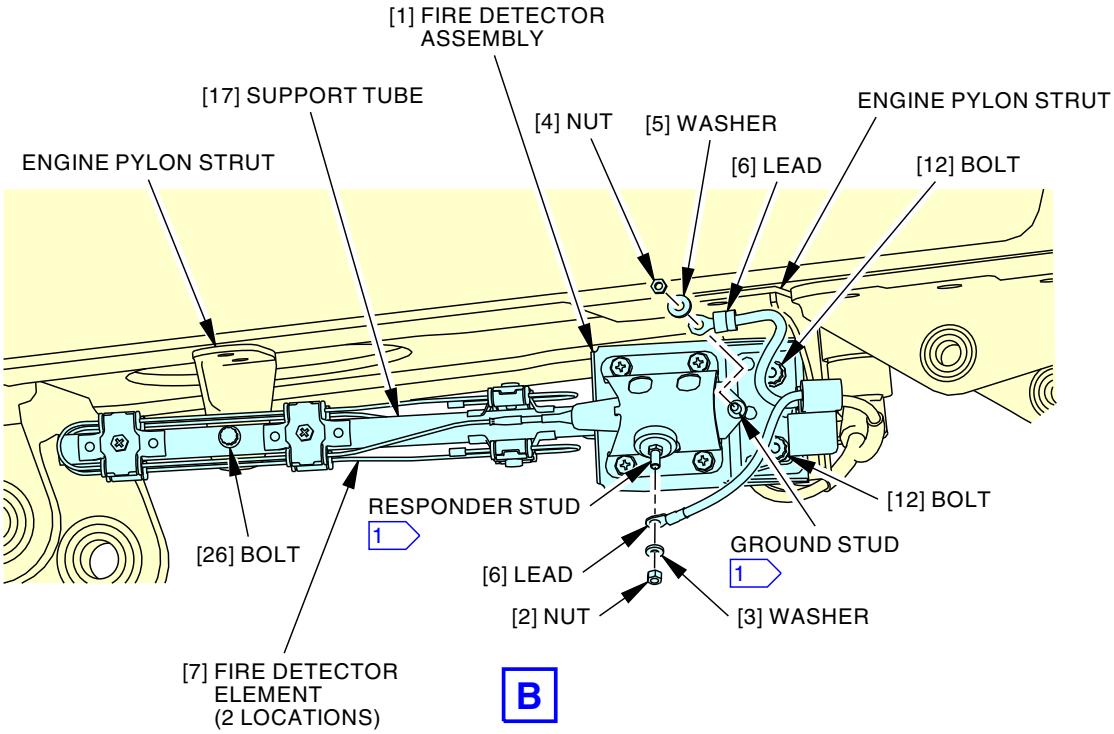
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Combustor Burn Through Fire Detector Assembly
Figure 402/26-11-01-990-802 (Sheet 1 of 2)

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1 SECOND LOCATION OF GROUND AND RESPONDER STUD IS ON THE REVERSE SIDE.

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Combustor Burn Through Fire Detector Assembly
Figure 402/26-11-01-990-802 (Sheet 2 of 2)

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TASK 26-11-01-400-803

7. Combustor Burn Through Fire Detector Assembly Installation

(Figure 402)

A. General

(1) This task gives the instructions to install the engine combustor burn through fire detector assembly.

B. References

Reference	Title
26-11-00-710-801	Engine Fire Detection - Operational Test (P/B 501)
71-11-04-410-801-G00	Close the Fan Cowl Panels (Selection) (P/B 201)
78-31-00-010-802-G00	Close the Thrust Reverser (Selection) (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-1550	Bonding Meter - 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 #: M1B Supplier: 3AD17 Part #: T477W (C15292) Supplier: 06659

D. Consumable Materials

Reference	Description	Specification
B00083	Solvent - VM&P Naphthas	TT-N-95 Type II, ASTM D-3735 Type III
B00130	Alcohol - Isopropyl	TT-I-735
B50073	Alcohol - Isopropyl	ASTM D 770
D00006	Compound - Antiseize Pure Nickel Special - Never-Seez NSBT	
D50237	Compound - Antiseize, Pure Nickel Special - Never Seez NSBT	BAC5008
D50294	Compound - Antiseize, Pure Nickel Special - Never Seez	BAC5008
G50262	Wiper - Cleaning	BMS15-5

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Fire detector assembly	26-11-01-01-050	SIA ALL
		26-11-01-02-050	SIA ALL
		26-11-01-05-045	SIA ALL
		26-11-01-10-055	SIA ALL
		26-11-01-15-035	SIA ALL
		26-11-01-20-055	SIA ALL

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(Continued)

AMM Item	Description	AIPC Reference	AIPC Effectivity
1 (cont.)		26-11-01-26-060	SIA ALL
		26-11-01-31-070	SIA ALL

F. Location Zones

Zone	Area
411	Engine 1 - Engine
421	Engine 2 - Engine

G. Engine Combustor Burn Through Fire Detector Assembly Installation

SUBTASK 26-11-01-420-003

(1) Do these steps to install the engine combustor burn through fire detector assembly [1]:

NOTE: The fire detector assembly includes the support tube with the detector elements installed and the mounting hardware.

(a) Use a wiper, G50262, together with alcohol, B50073, or alcohol, B00130, to clean the contact surfaces of the engine pylon strut and fire detector assembly [1].

(b) Install the two bolts [12] to the fire detector assembly [1]:

1) Apply a layer of Never Seez NSBT, D50237, Never-Seez NSBT compound, D00006, or Never Seez, D50294, to the threads of the bolts [12].

2) Tighten the bolts [12] to 75.0 ±2.0 in-lb (8.5 ±0.2 N·m).

(c) Install the bolt [26] to the support tube [17]:

1) Apply a layer of Never Seez NSBT, D50237, Never-Seez NSBT compound, D00006, or Never Seez, D50294, to the thread of the bolt [26].

2) Tighten the bolt [26] to 25.0 ±2.0 in-lb (2.8 ±0.2 N·m).

(d) Connect the leads [6] to the two ground studs and two responder studs.

(e) Install the nuts [4] and washers [5] to the two ground studs:

1) Use a wiper, G50262, together with alcohol, B50073, or alcohol, B00130, to clean the ground studs and nuts [4].

2) Tighten the nuts [4] to 27.0 ±2.0 in-lb (3.1 ±0.2 N·m).

(f) Install the nuts [2] and washers [3] to the two responder studs:

1) Use a wiper, G50262, together with alcohol, B50073, or alcohol, B00130, to clean the responder studs and nuts [2].

2) Tighten the nuts [2] to 50 in-lb (6 N·m) - 54 in-lb (6 N·m).

(g) Make sure that there is at least 0.12 in. (3.05 mm) between the fire detector element [7] and the support tube [17].

SUBTASK 26-11-01-420-004

(2) Use the intrinsically safe approved bonding meter, COM-1550, to do a check of the resistance between the fire detector housing [8] and the airplane structure.

(a) Make sure that the resistance is less than 0.010 ohm.

(b) If the resistance is more than 0.010 ohm, clean the bonding surfaces with the solvent, B00083, and do the check again.

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H. Put the Airplane Back to Its Usual Condition

SUBTASK 26-11-01-420-005

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

SUBTASK 26-11-01-410-001

WARNING

OBEY THE INSTRUCTIONS IN THE PROCEDURE TO CLOSE THE THRUST REVERSERS. IF YOU DO NOT OBEY THE INSTRUCTIONS, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) To close the thrust reverser, do this task: Close the Thrust Reverser (Selection), TASK 78-31-00-010-802-G00.

SUBTASK 26-11-01-410-002

(3) To close the fan cowl panel, do this task: Close the Fan Cowl Panels (Selection), TASK 71-11-04-410-801-G00.

I. Engine Fire Detector Assembly Installation Test

SUBTASK 26-11-01-420-006

(1) Do this task: Engine Fire Detection - Operational Test, TASK 26-11-00-710-801.

——— END OF TASK ———

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ENGINE FIRE DETECTORS - INSPECTION/CHECK

1. General

A. This procedure has this task:

(1) An inspection of the wires to the forward transponder of the upper fan case engine fire overheat detector for contact with the strut insulation blanket.

TASK 26-11-01-211-801

2. Engine Fire Detector Inspection

A. References

Reference	Title
26-11-01-990-801	Figure: Engine Fire Detector Element Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
G50541	Tubing - Heat Shrinkable, Teflon Sleeve (TFE-R-5/8-X)	AS23053/12
G50544	Tubing - Heat Shrinkable, Teflon Sleeve (TFE-R-1/2-X)	AS23053/12

C. Engine Fire Detector Inspection

SUBTASK 26-11-01-212-001

(1) Make sure that there is no contact between the forward transponder of the upper fan case engine fire/overheat detector and the strut insulation blanket (detail F of Figure 26-11-01-990-801).

SUBTASK 26-11-01-300-001

(2) If there is contact and the wire insulation is damaged, repair the wire as described below and change the routing of the wire as shown on detail F of Figure 26-11-01-990-801.

(a) If no contact is found and the wires are routed as shown on detail F of Figure 26-11-01-990-801, no further action is required.

SUBTASK 26-11-01-030-001

(3) Disconnect the lug from the fire/overheat transponder.

SUBTASK 26-11-01-300-002

(4) Cut a sufficient length of TFE-R 5/8-X tubing, G50541 or TFE-R-1/2-X tubing, G50544 to cover the worn area. The sleeve must be long enough to exceed the length of the damage by approximately 0.4 in. (10.2 mm).

SUBTASK 26-11-01-300-003

(5) Heat the sleeve at 700°F (371°C) maximum until shrinking operation is completed.

SUBTASK 26-11-01-430-001

(6) Reconnect the lug on the fire detection transponder.

(a) For MW3016 detector, make sure the minimum clearance between the fire detection wires and strut insulation bracket is 0.15 in. (3.81 mm) (Figure 26-11-01-990-801).

——— END OF TASK ———

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ENGINE FIRE DETECTOR HARNESS - REMOVAL/INSTALLATION

1. General

A. The engine fire detection harnesses are W200 and W300. Both of the harnesses connect to one loop of the two engine fire detectors.

B. This procedure has these tasks:

(1) A removal of the engine fire detection harnesses (W200 and W300)

(2) An installation of the engine fire detection harnesses (W200 and W300).

TASK 26-11-02-000-801

2. Engine Fire Detection Harness Removal

(Figure 401, Figure 402, and Figure 403)

A. General

(1) The removal procedure for harness W200 and W300 is the same.

(2) W200 is a component of loop A of the engine fire detection circuit.

(3) W300 is a component of loop B of the engine fire detection circuit.

B. References

Reference	Title
72-23-06-000-801-G00	Fan Frame Strut Panels Removal (P/B 401)
78-31-00-010-801-G00	Open the Thrust Reverser (Selection) (P/B 201)

C. Location Zones

Zone	Area
411	Engine 1 - Engine
421	Engine 2 - Engine

D. Prepare for the Removal

SUBTASK 26-11-02-040-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

SUBTASK 26-11-02-010-001

WARNING DO THESE SPECIFIED TASKS IN THE CORRECT SEQUENCE BEFORE YOU OPEN THE THRUST REVERSERS: RETRACT THE LEADING EDGE, DO THE DEACTIVATION PROCEDURES FOR THE LEADING EDGE AND THE THRUST REVERSER (FOR GROUND MAINTENANCE), AND OPEN THE FAN COWL PANELS. IF YOU DO NOT OBEY THE ABOVE SEQUENCE, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Do this task: Open the Thrust Reverser (Selection), TASK 78-31-00-010-801-G00.

SUBTASK 26-11-02-010-008

(3) Open the access to the fan and core firewalls.

SUBTASK 26-11-02-020-010

(4) Remove the blanket [101] from the strut 5 outer fitting [109] (View B, Figure 402).

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SUBTASK 26-11-02-000-001

(5) Remove the harness (harness W200 [1] and/or harness W300 [2]) from the harness strut (6:00 o'clock) [104] as follows (Figure 402 and Figure 403):

(a) Remove the Fan Frame Strut 5 Panel (left) (TASK 72-23-06-000-801-G00).

(b) Remove the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], and strut 5 bracket lower block [503] from the strut 5 outer fitting [109] as follows:

1) Remove the five bolts [106] that attach the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], and strut 5 bracket lower block [503] to the strut 5 outer fitting [109].

2) Cut and remove the sealant between the assembly of the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], strut 5 bracket lower block [503], and strut 5 outer fitting [109].

3) Move the assembly of the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], and strut 5 bracket lower block [503] rearward from the electrical harnesses.

4) Remove the two nuts [107] and two bolts [108] to disassemble the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], and strut 5 bracket lower block [503].

5) Cut and remove the sealant on the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], strut 5 bracket lower block [503], and around the harnesses.

6) Remove the harnesses from the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], and strut 5 bracket lower block [503].

7) Remove any remaining sealant residue.

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(c) Remove the harness support block [504], harness support block [505], and harness support block [506] from the harness strut (6:00 o'clock) [104] as follows:

1) Remove the four bolts [111] and four nuts [110] that attach the harness support block [504], harness support block [505], and harness support block [506] to the harness strut (6:00 o'clock) [104].

2) Cut and remove the sealant between the assembly of the harness support block [504], harness support block [505], harness support block [506], and harness strut (6:00 o'clock) [104].

3) Move the assembly of the harness support block [504], harness support block [505], and harness support block [506] upward and away from the harness strut (6:00 o'clock) [104].

4) Remove the two nuts [112] and two bolts [113] to disassemble the harness support block [504], harness support block [505], and harness support block [506].

5) Cut and remove the sealant on the harness support block [504], harness support block [505], harness support block [506], and around the harnesses.

6) Remove the harnesses from the harness support block [504], harness support block [505], and harness support block [506].

7) Remove any remaining sealant residue.

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(d) Remove the left outer metallic block [507], left inner metallic block [508], right inner metallic block [509], and right outer metallic block [510] from the harness strut (6:00 o'clock) [104] as follows:

1) Remove the four bolts [124] that attach the left outer metallic block [507], left inner metallic block [508], right inner metallic block [509], and right outer metallic block [510] to the harness strut (6:00 o'clock) [104].

2) Cut and remove the sealant between the assembly of the left outer metallic block [507], left inner metallic block [508], right inner metallic block [509], right outer metallic block [510], and harness strut (6:00 o'clock) [104].

3) Move the assembly of the left outer metallic block [507], left inner metallic block [508], right inner metallic block [509], and right outer metallic block [510] upward and away from the harness strut (6:00 o'clock) [104].

4) Remove the four nuts [126] and four bolts [125] to disassemble the left outer metallic block [507], left inner metallic block [508], right inner metallic block [509], and right outer metallic block [510].

5) Cut and remove the sealant on the left outer metallic block [507], left inner metallic block [508], right inner metallic block [509], right outer metallic block [510], and around the harnesses.

6) Remove the harnesses from the left outer metallic block [507], left inner metallic block [508], right inner metallic block [509], and right outer metallic block [510].

7) Remove any remaining sealant residue.

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E. Engine Fire Detection Harness Removal

SUBTASK 26-11-02-020-001

(1) Remove the harness W200 [1] and/or harness W300 [2] (Figure 401):

CAUTION MAKE SURE THAT THE ELECTRICAL CONNECTORS ARE CLEAN BEFORE YOU DISCONNECT OR CONNECT THEM. CONTAMINATION OF ELECTRICAL CONNECTORS CAN CAUSE DAMAGE TO EQUIPMENT.

CAUTION USE PLIERS THAT HAVE TEFLON JAWS TO TIGHTEN THE ELECTRICAL CONNECTORS. DO NOT USE PLIERS THAT HAVE METAL JAWS. METAL JAWS CAN CAUSE DAMAGE TO THE ELECTRICAL CONNECTORS.

(a) Disconnect the harness connector from the pylon receptacle.

(b) Disengage the harness W200 [1] and/or harness W300 [2] from the engine clips [11].

(c) Remove the screws [12] and open the hinged clamps [13] that attach harness W200 [1] and/or harness W300 [2] to the fan engine brackets.

(d) Remove the nuts [14] and washers [15] that attach the terminal lugs and ground lugs to the fan fire detectors.

(e) Remove the screws [16] that attach the harness bracket to the core engine bracket.

(f) Remove the screws [17] and clamps [18] that attach harness W200 [1] and/or harness W300 [2] to the core engine brackets.

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(g) Remove the bolts [19], nuts [20], and clamps [21] that attach the terminal and ground lug wires to the core fire detector brackets.

CAUTION

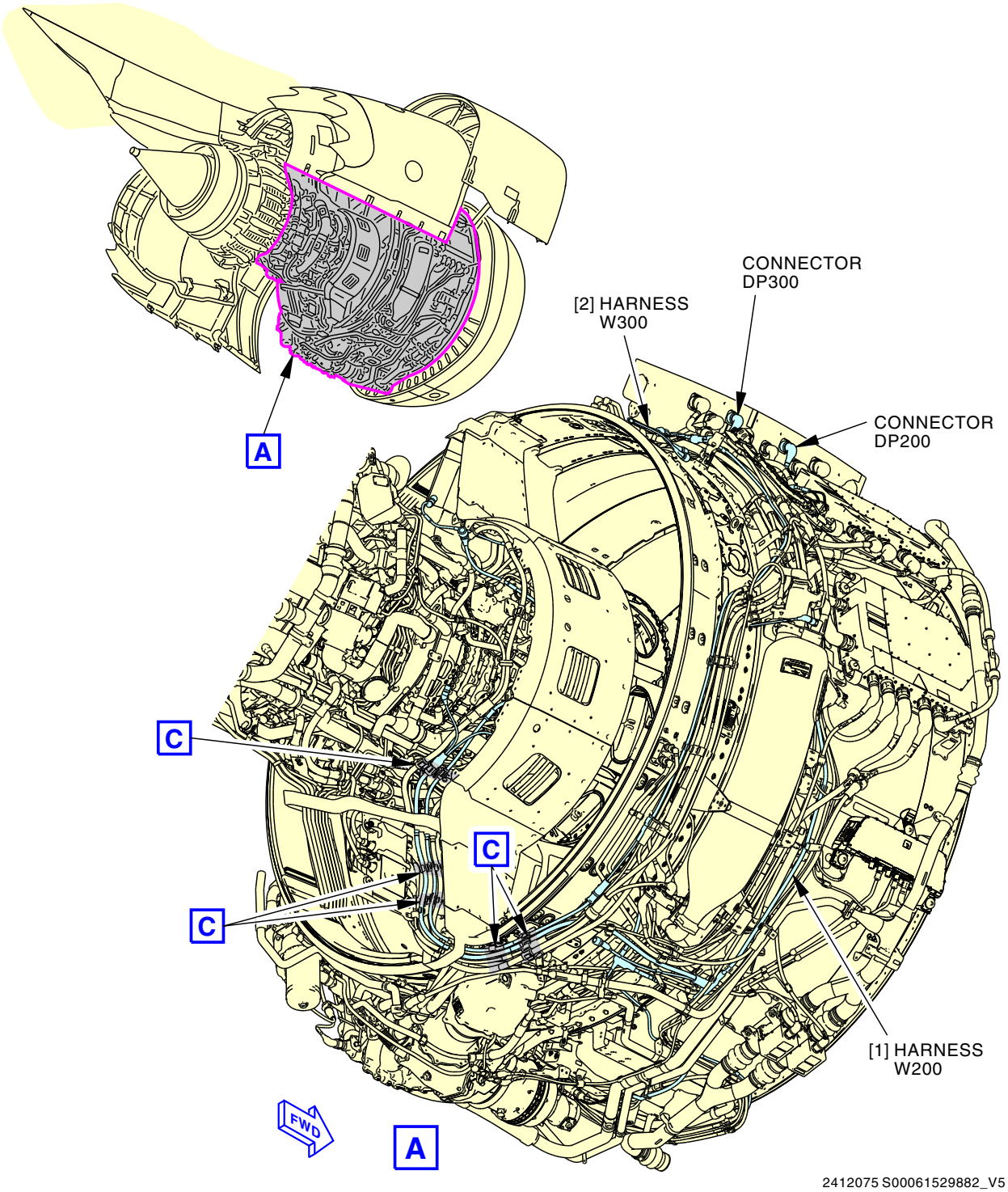
WITH THE SPLIT BOBBIN HARNESS, HOLD THE LUGS IN ITS POSITION WHEN YOU INSTALL OR REMOVE THE NUTS. IF YOU DO NOT OBEY, LUGS CAN TURN AND DAMAGE TO EQUIPMENT CAN OCCUR.

(h) Remove the nuts [22] and washers [23] that attach the terminal and ground lugs to the core fire detectors.

(i) Remove harness W200 [1] and/or harness W300 [2] from the engine.

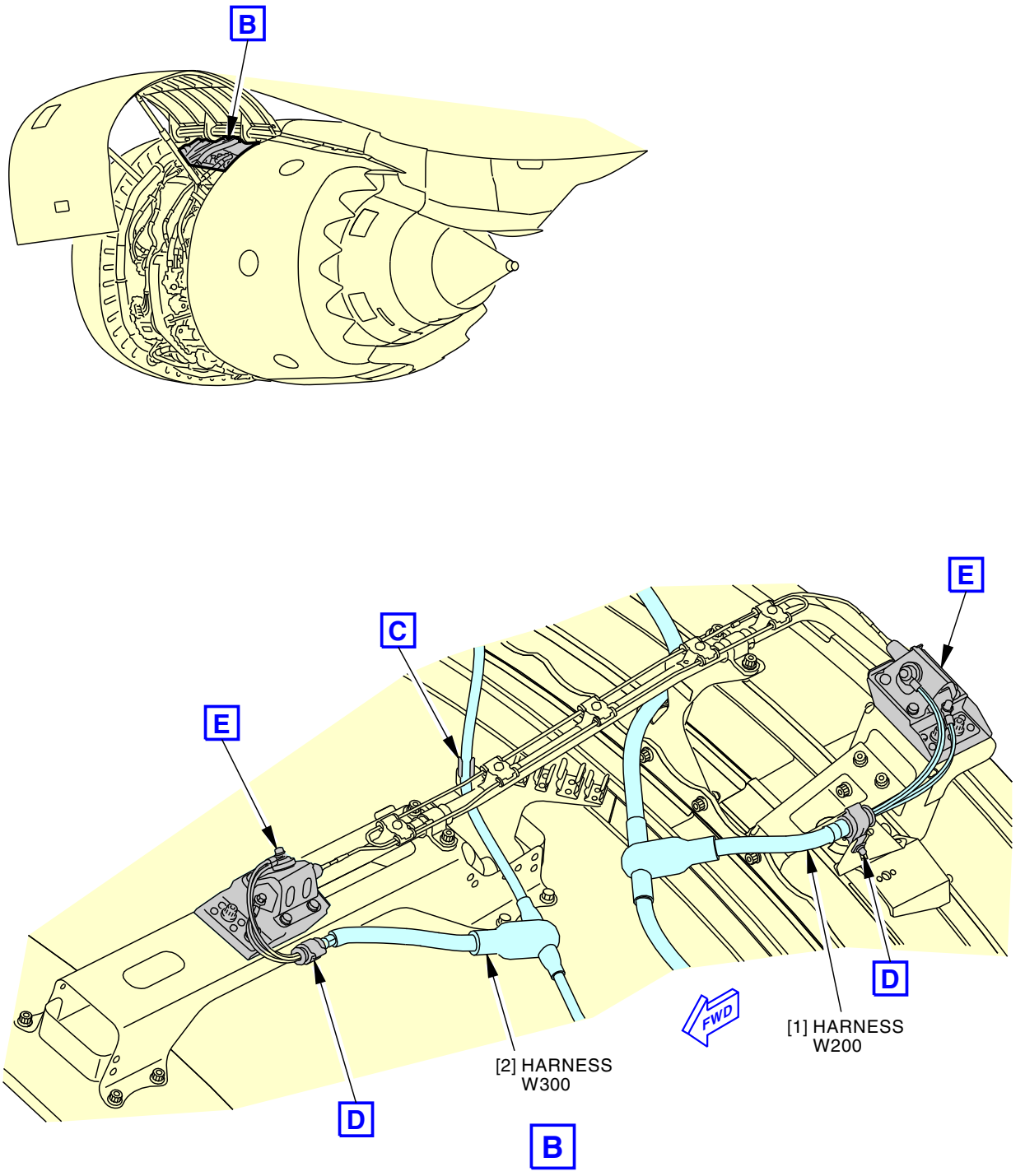
——— END OF TASK ———

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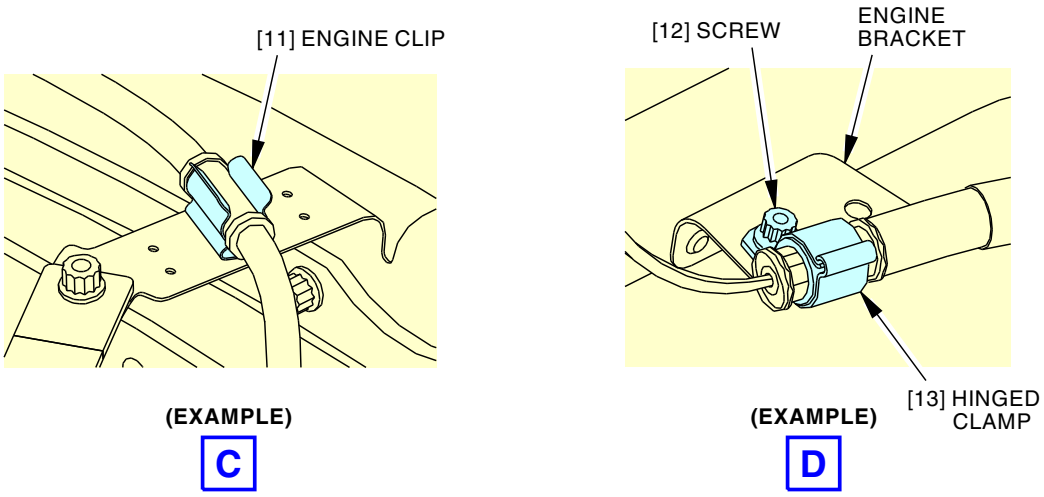
Engine Fire Detection Harnesses Installation
Figure 401/26-11-02-990-801 (Sheet 1 of 5)

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Engine Fire Detection Harnesses Installation
Figure 401/26-11-02-990-801 (Sheet 2 of 5)

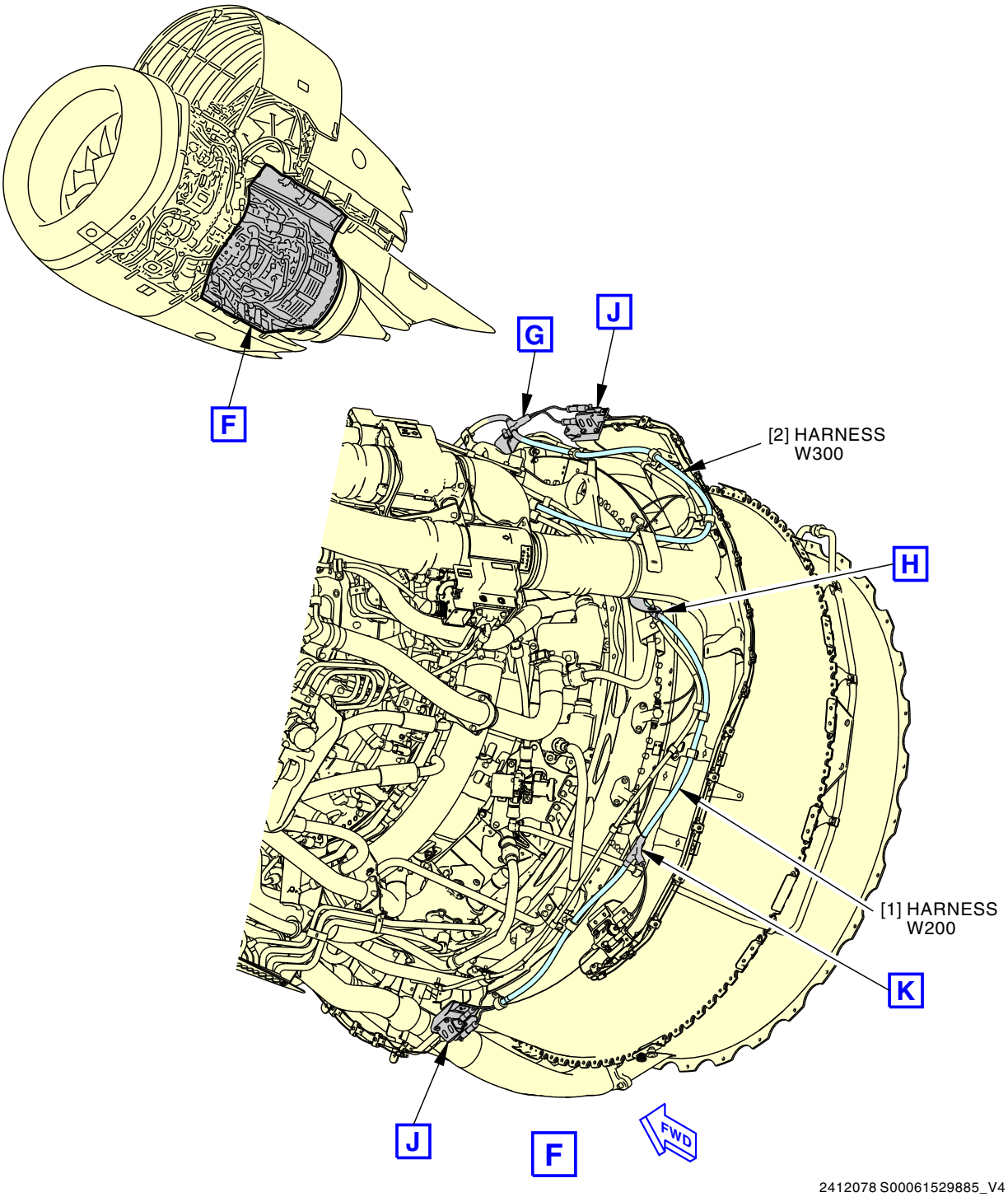
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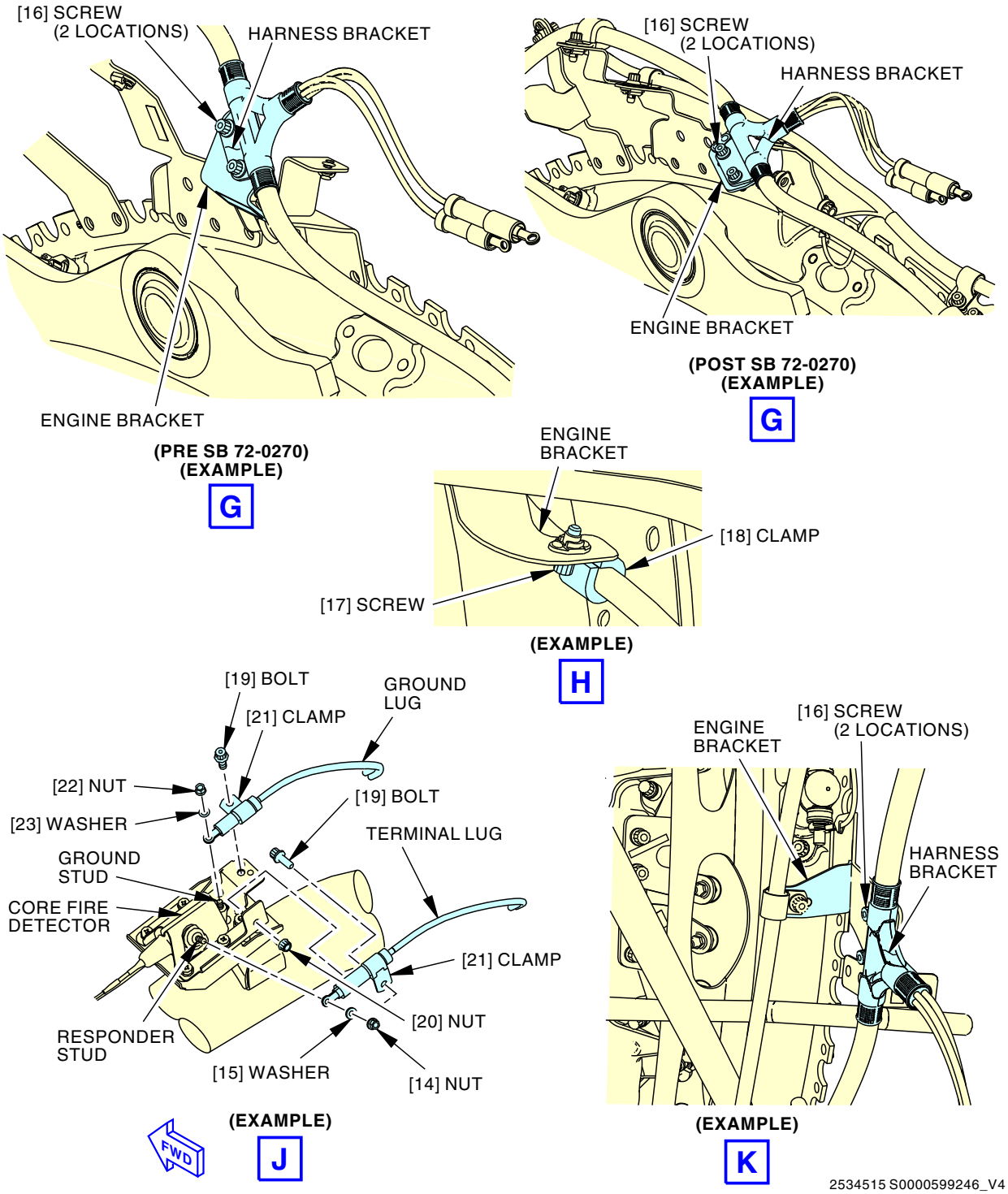
Engine Fire Detection Harnesses Installation
Figure 401/26-11-02-990-801 (Sheet 3 of 5)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



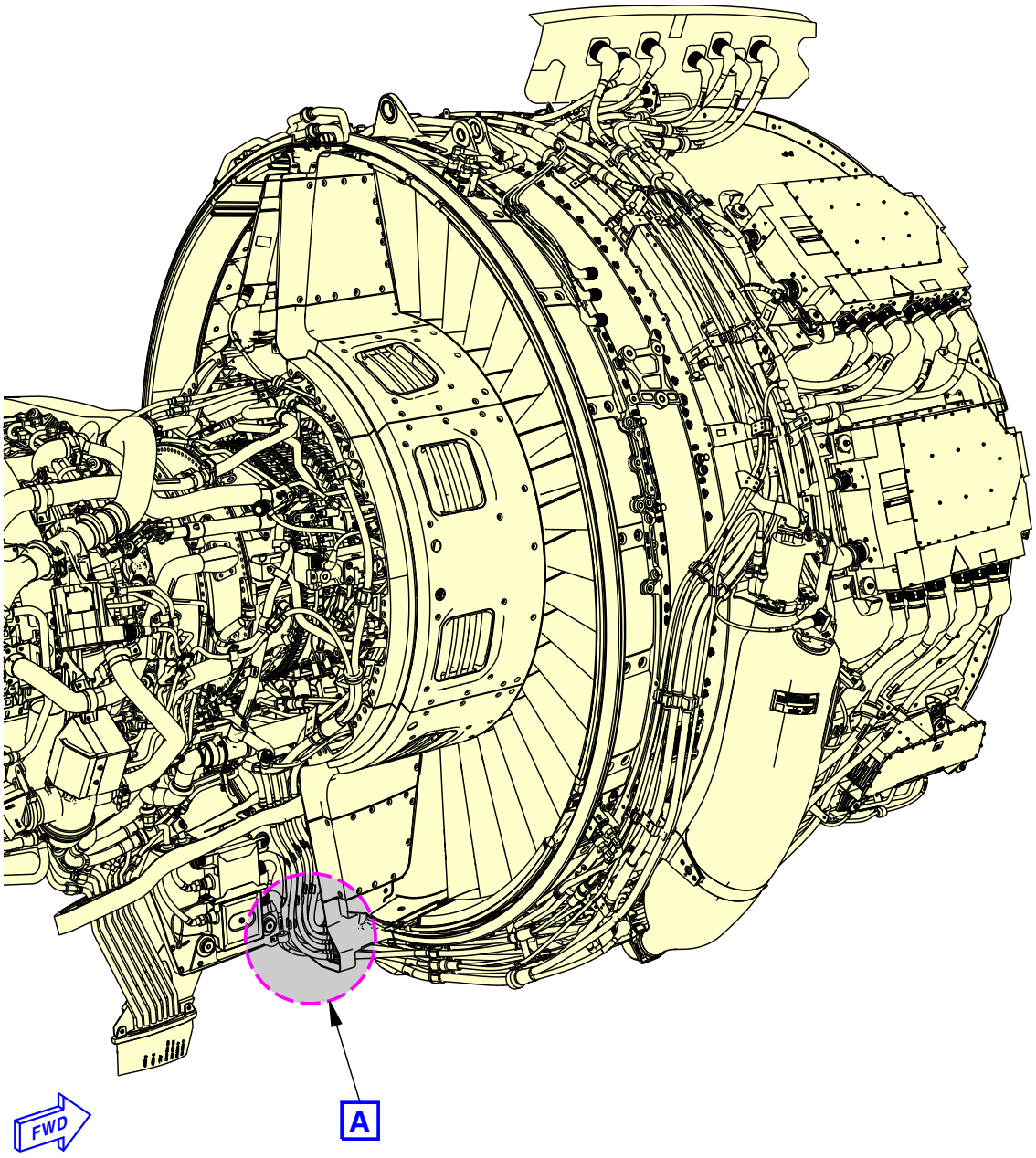
Engine Fire Detection Harnesses Installation
Figure 401/26-11-02-990-801 (Sheet 4 of 5)

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Engine Fire Detection Harnesses Installation
Figure 401/26-11-02-990-801 (Sheet 5 of 5)

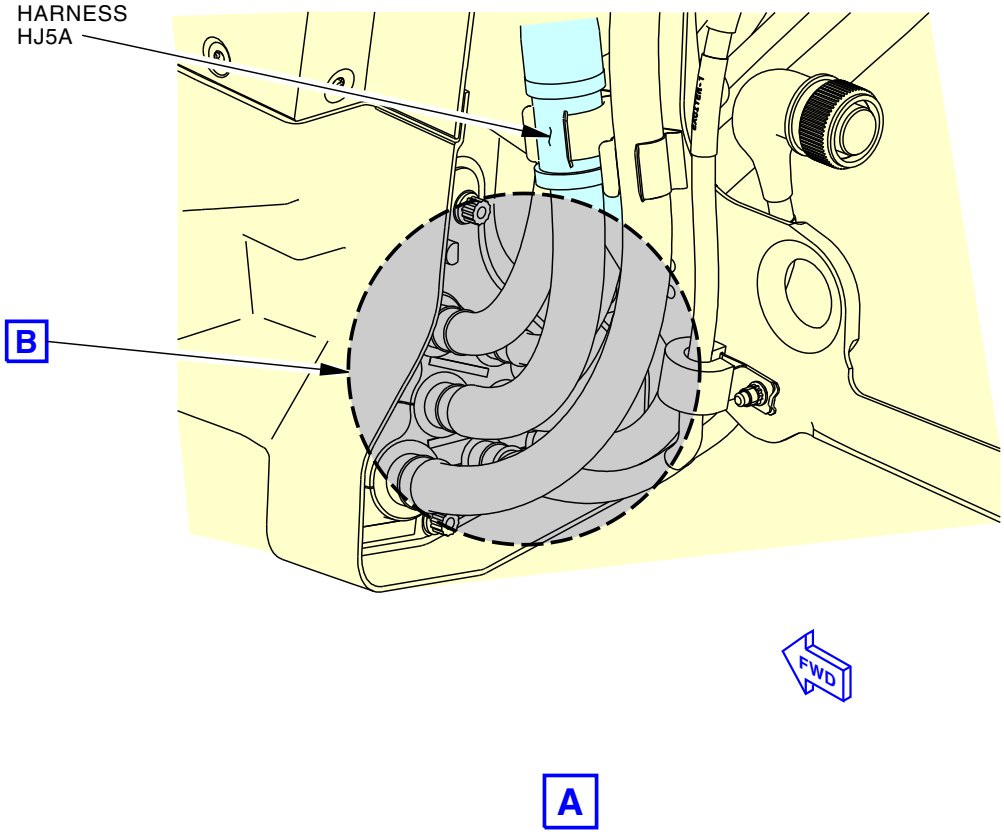
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Strut Bracket Block Installation
Figure 402/26-11-02-990-824 (Sheet 1 of 9)

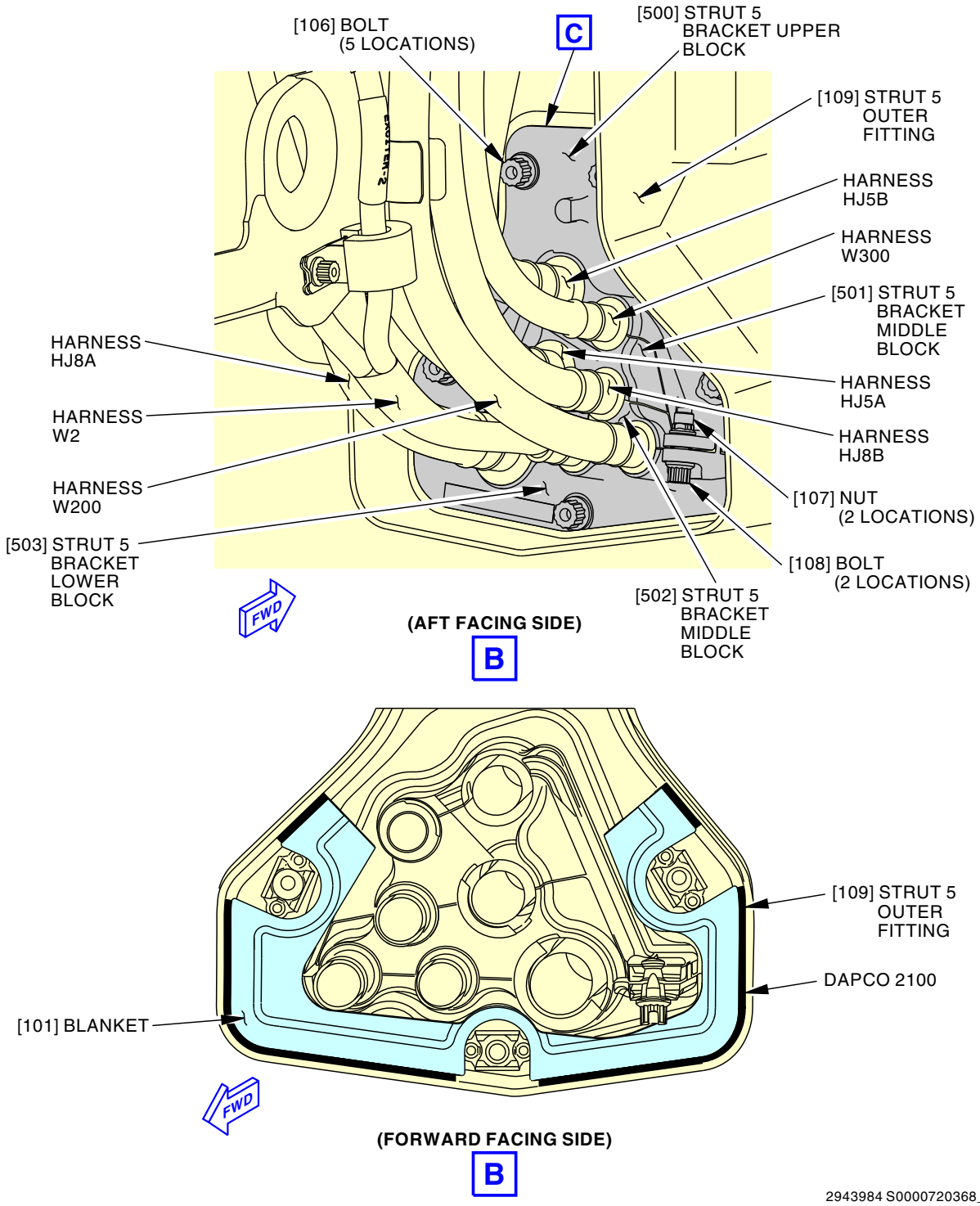
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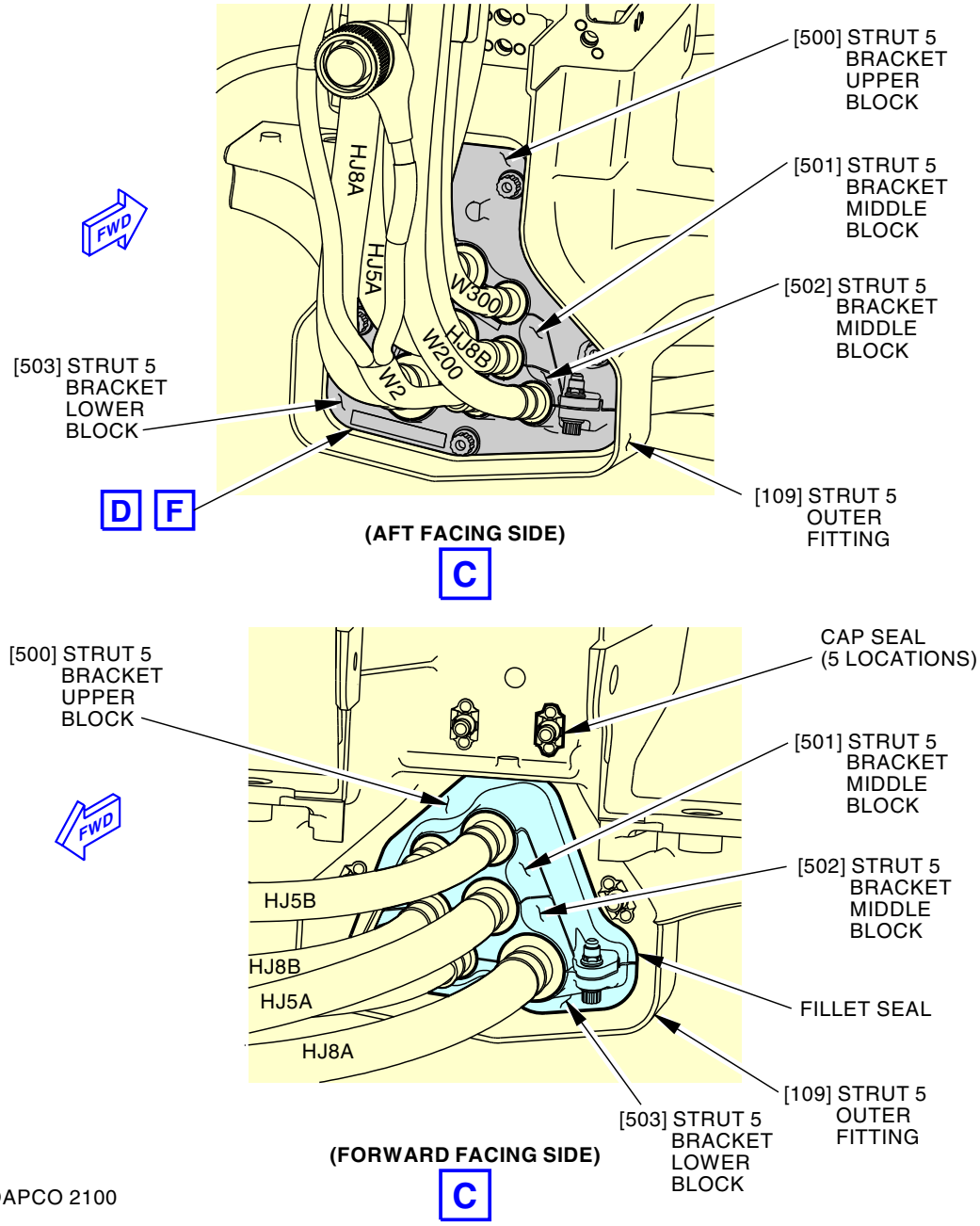
Strut Bracket Block Installation
Figure 402/26-11-02-990-824 (Sheet 2 of 9)

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Strut Bracket Block Installation
Figure 402/26-11-02-990-824 (Sheet 3 of 9)

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NOTE:

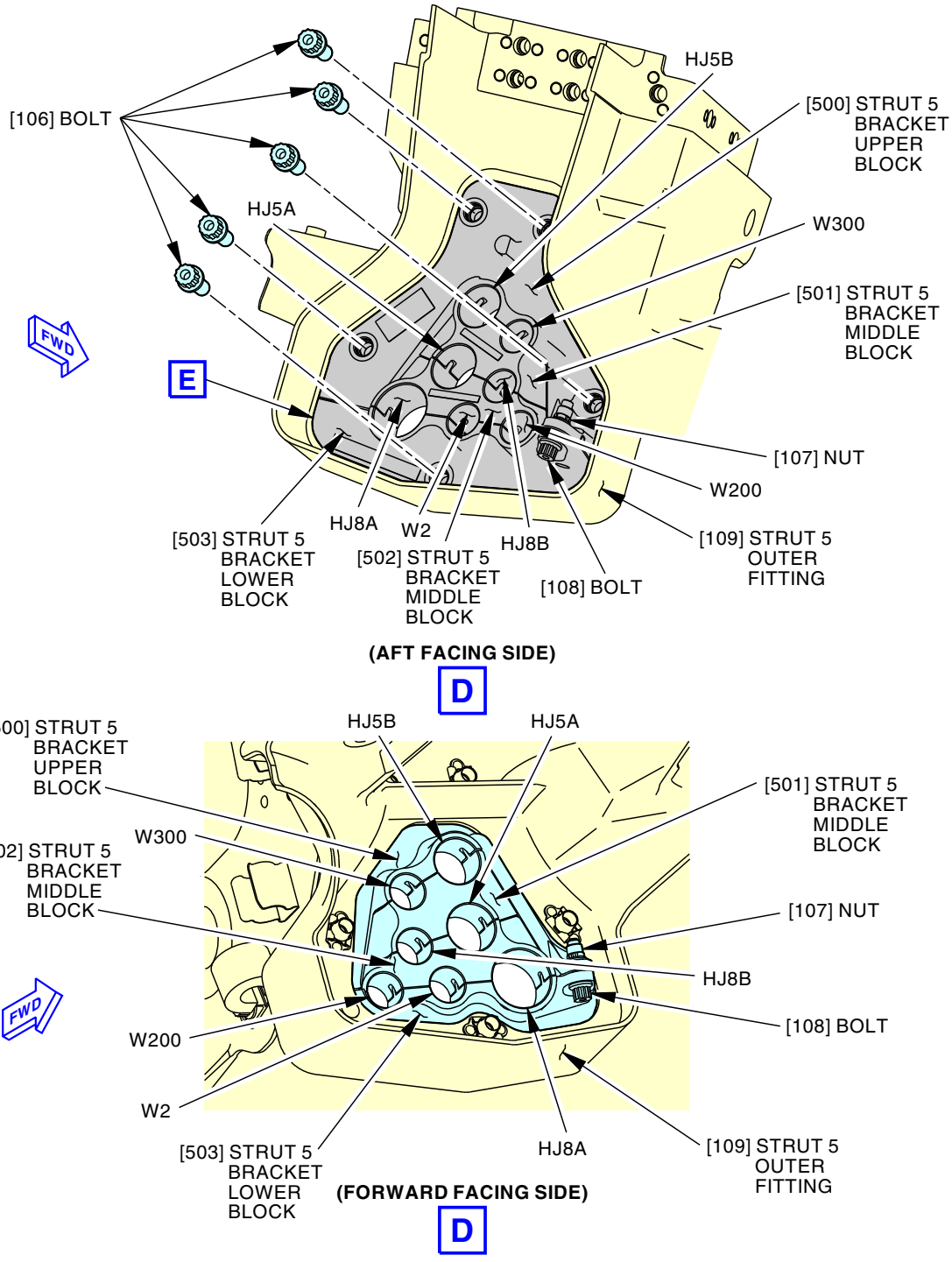
FAY SEAL PER AMM 51-22-00 ON INNER CONTOUR OF THE FITTING (AFT SIDE). SEALANT SQUEEZE-OUT SHOULD BE CONTINUOUS AND EVEN.

IT IS ACCEPTABLE TO APPLY THE FILLET SEAL ALONG INNER CONTOUR OF THE FITTING ON THE FORWARD SIDE.

2937801 S0000713390_V3

Strut Bracket Block Installation
Figure 402/26-11-02-990-824 (Sheet 4 of 9)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

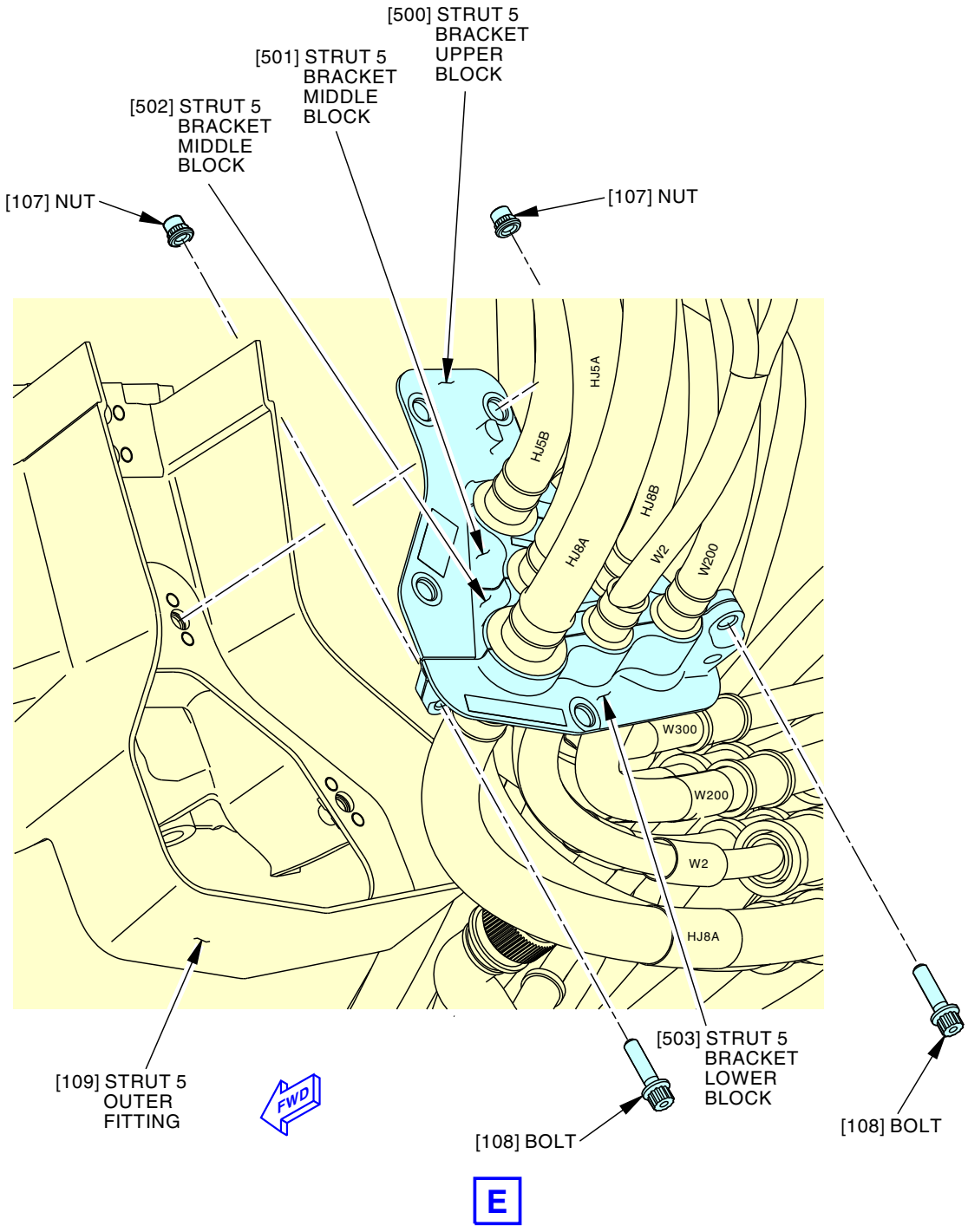


NOTE:
HARNESSES NOT SHOWN

2943980 S0000720369_V2

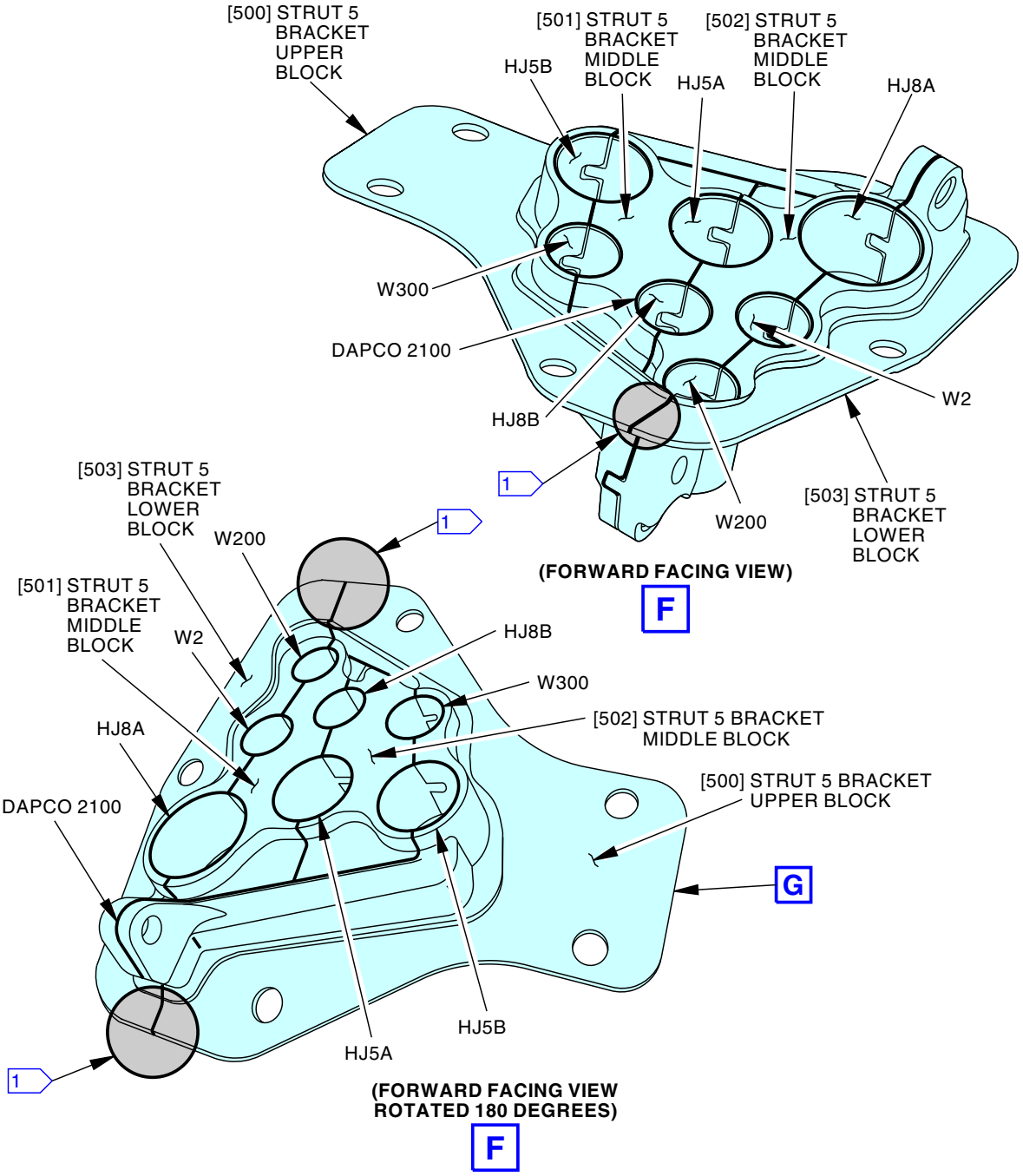
Strut Bracket Block Installation
Figure 402/26-11-02-990-824 (Sheet 5 of 9)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Strut Bracket Block Installation
Figure 402/26-11-02-990-824 (Sheet 6 of 9)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



NOTE:

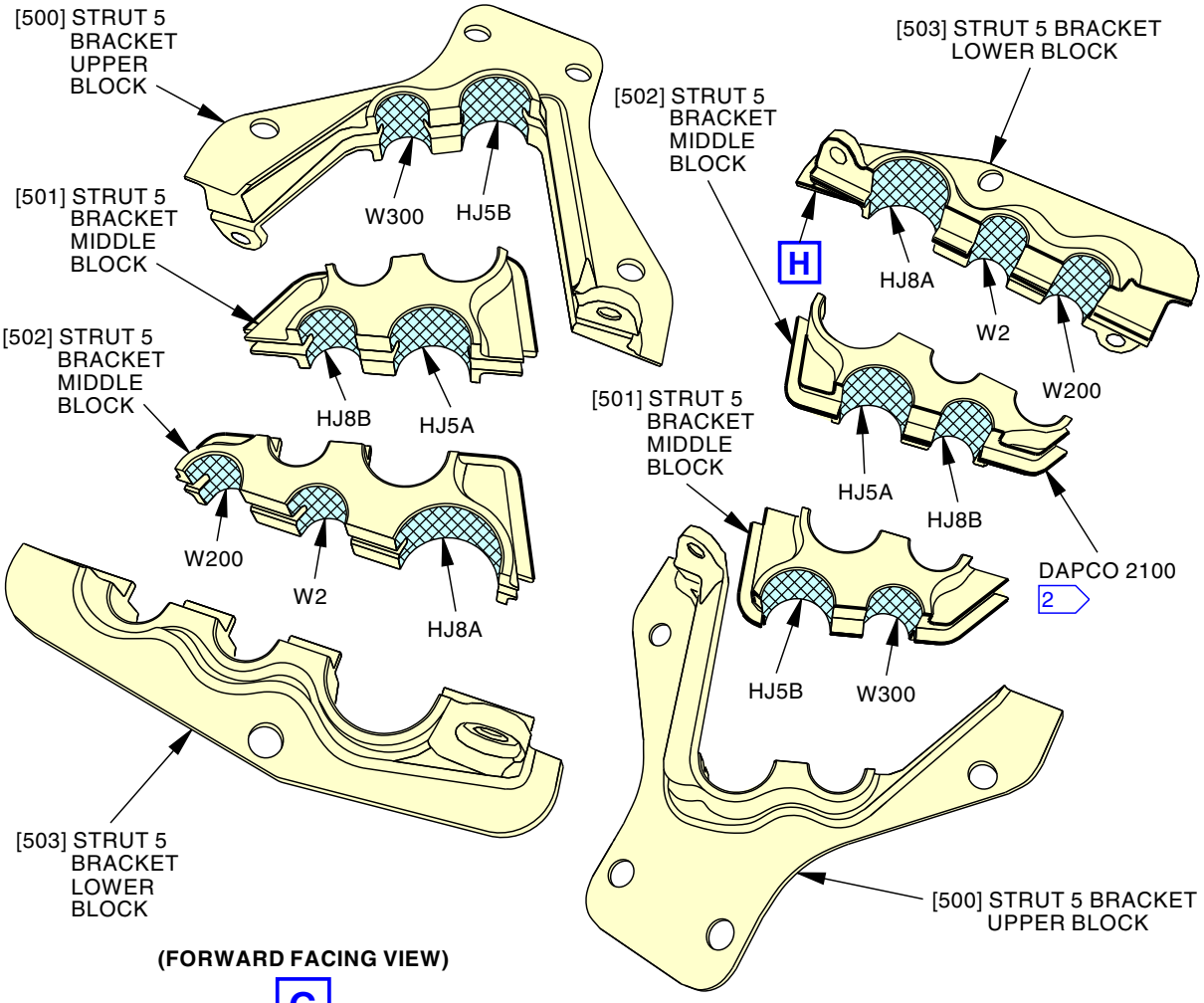
HARNESSES NOT SHOWN.

1 SEALANT SQUEEZE OUT IS FLUSH WITH SURFACE.

2937800 S0000713389_V3

Strut Bracket Block Installation
Figure 402/26-11-02-990-824 (Sheet 7 of 9)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



DAPCO 2100

NOTE:

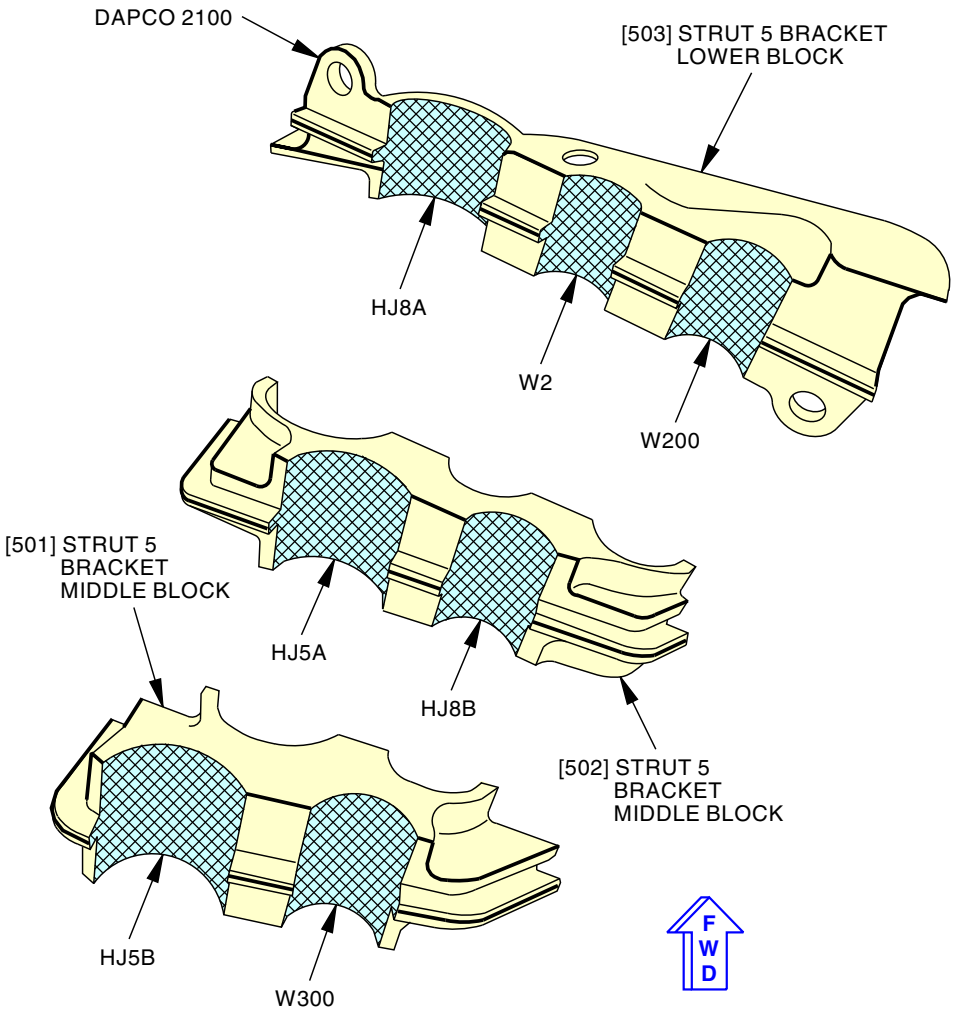
SEALANT PROVIDES FAY SEAL BETWEEN WIRE HARNESS AND BLOCKS AND SHOULD BE APPLIED TO THE BOTH SIDES OF BLOCKS.

2 SEALANT APPLIED TO ONE SIDE (TOP OR BOTTOM) OF THE BLOCKS.

2937799 S0000713388_V3

Strut Bracket Block Installation
Figure 402/26-11-02-990-824 (Sheet 8 of 9)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

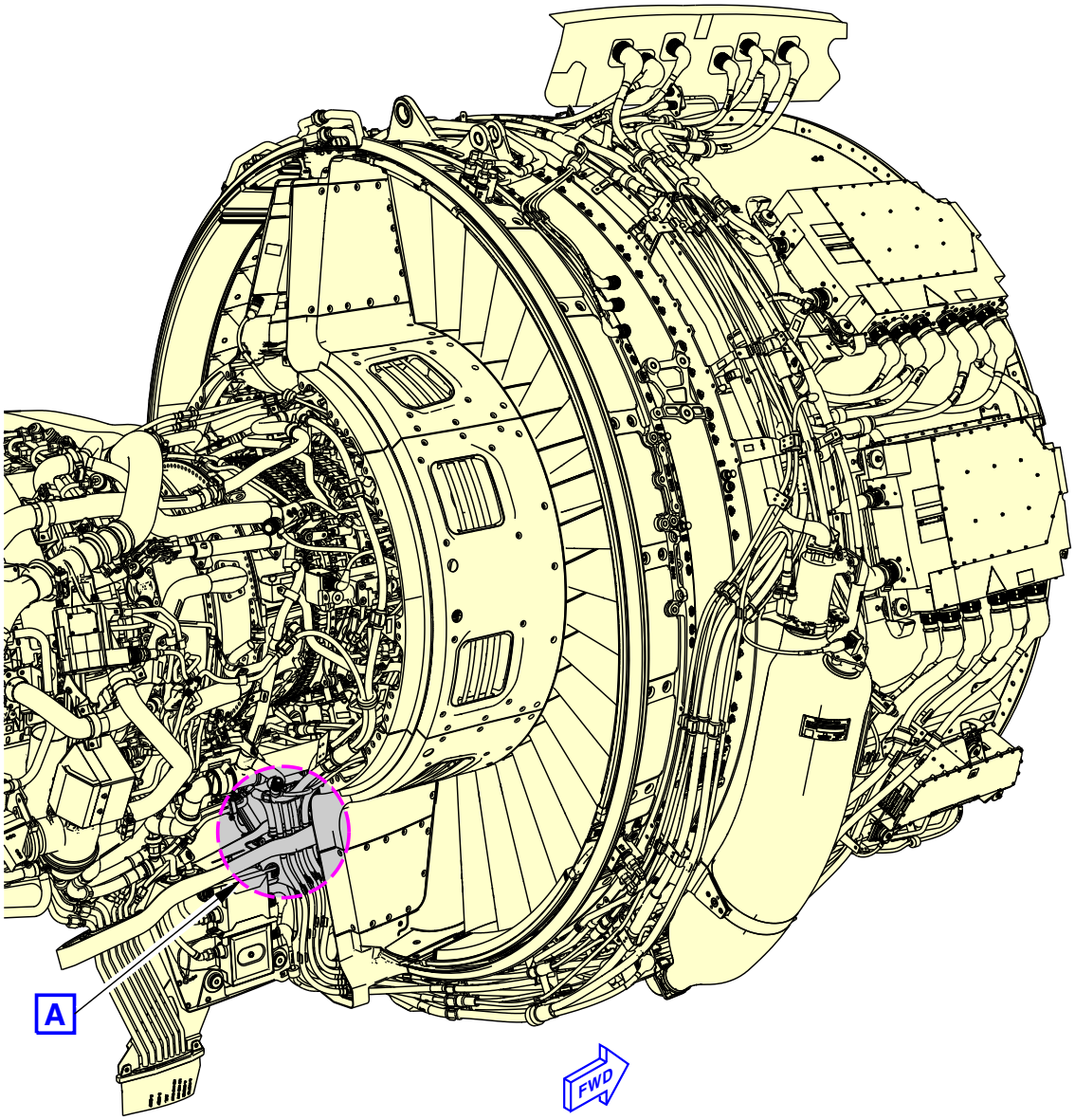


H

2949941 S0000726813_V1

Strut Bracket Block Installation
Figure 402/26-11-02-990-824 (Sheet 9 of 9)

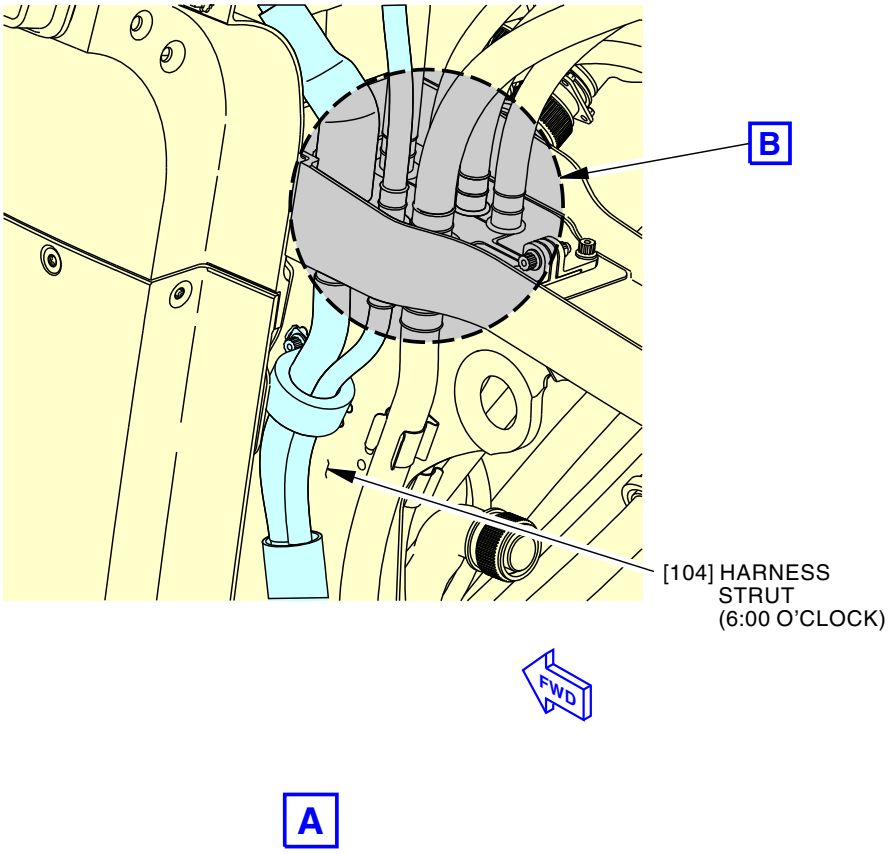
ECCN 9E991 BOEING PROPRIETARY - See title page for details



ICN-LEAP-1B-732201-D-58828-00045-A-001-01
2938818 S0000714836_V2

Harness Support Block Installation
Figure 403/26-11-02-990-825 (Sheet 1 of 11)

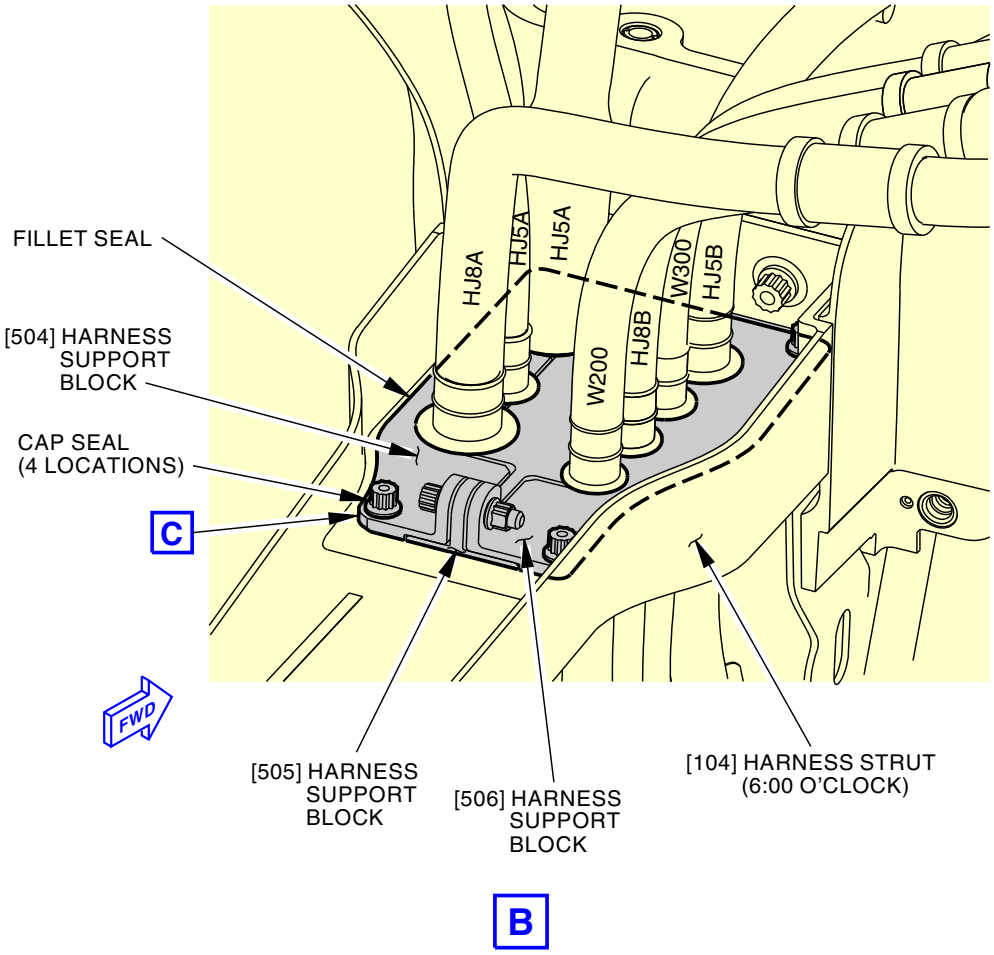
ECCN 9E991 BOEING PROPRIETARY - See title page for details



2952925 S0000730238_V1

Harness Support Block Installation
Figure 403/26-11-02-990-825 (Sheet 2 of 11)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



LEGEND:

——— DAPCO 2100

NOTE:

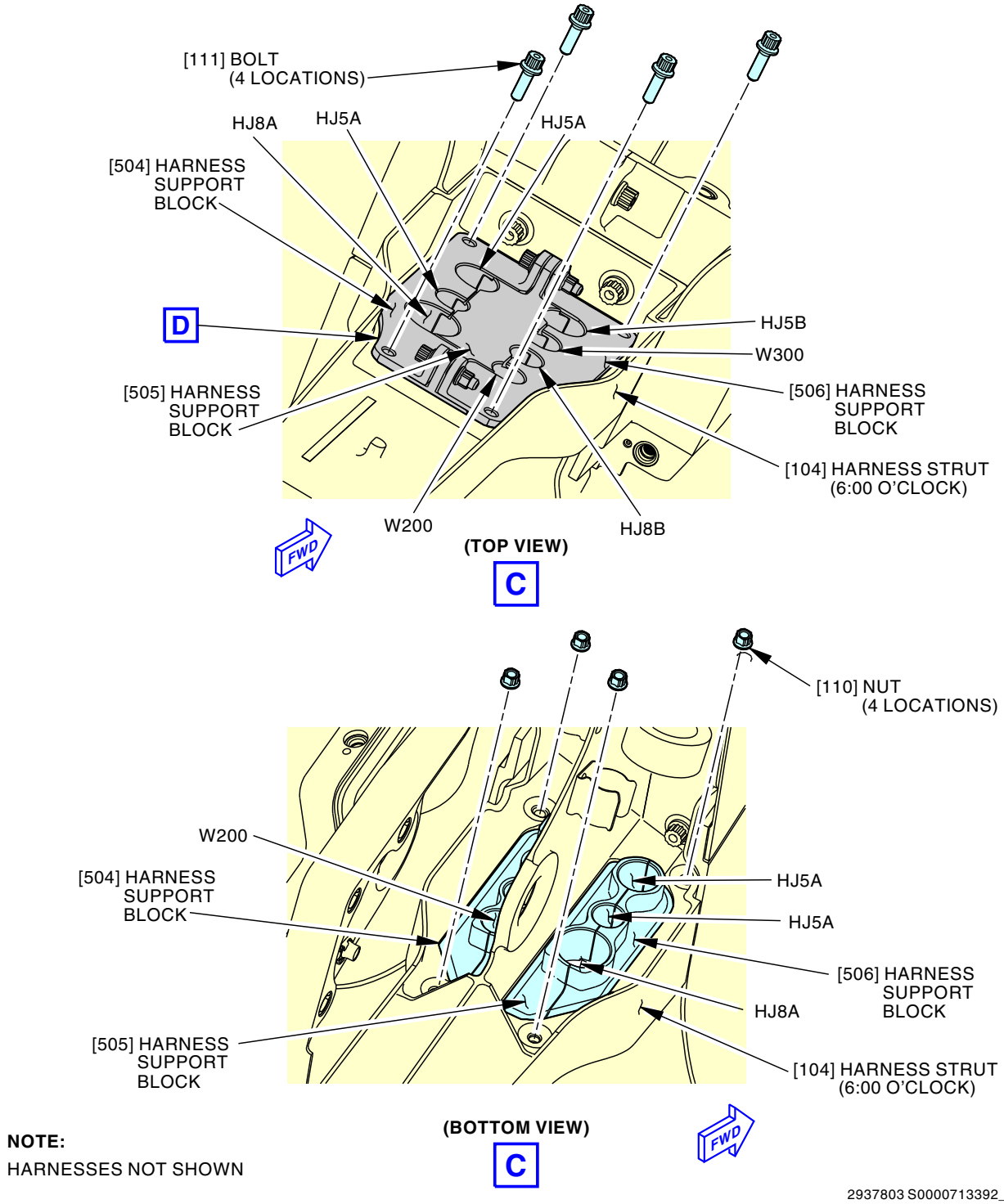
THE FILLET SEAL IS FINISH OF THE SQUEEZE OUT AROUND THE CONTOUR OF THE HARNESS SUPPORT BLOCK. IT IS ACCEPTABLE TO APPLY A FILLET SEAL AROUND THE CONTOUR OF THE BLOCK AFTER IT IS INSTALLED.

THIS VIEW SHOWS DAPCO 2100 APPLICATION WHEN ALL HARNESS SUPPORT BLOCKS HAVE BEEN REMOVED.

2937807 S0000713396_V4

Harness Support Block Installation
Figure 403/26-11-02-990-825 (Sheet 3 of 11)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

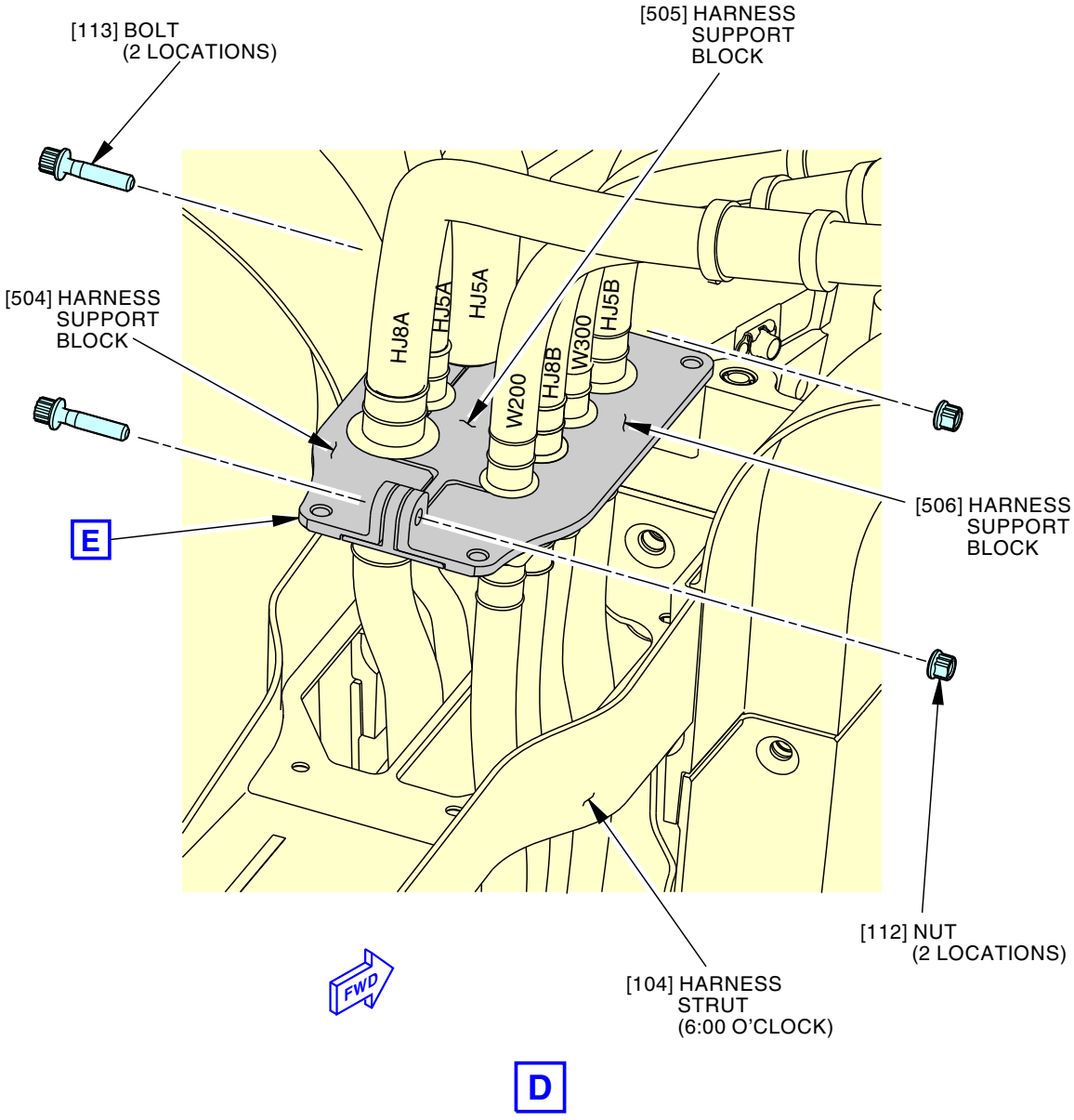


NOTE:
HARNESSES NOT SHOWN

2937803 S0000713392_V2

Harness Support Block Installation
Figure 403/26-11-02-990-825 (Sheet 4 of 11)

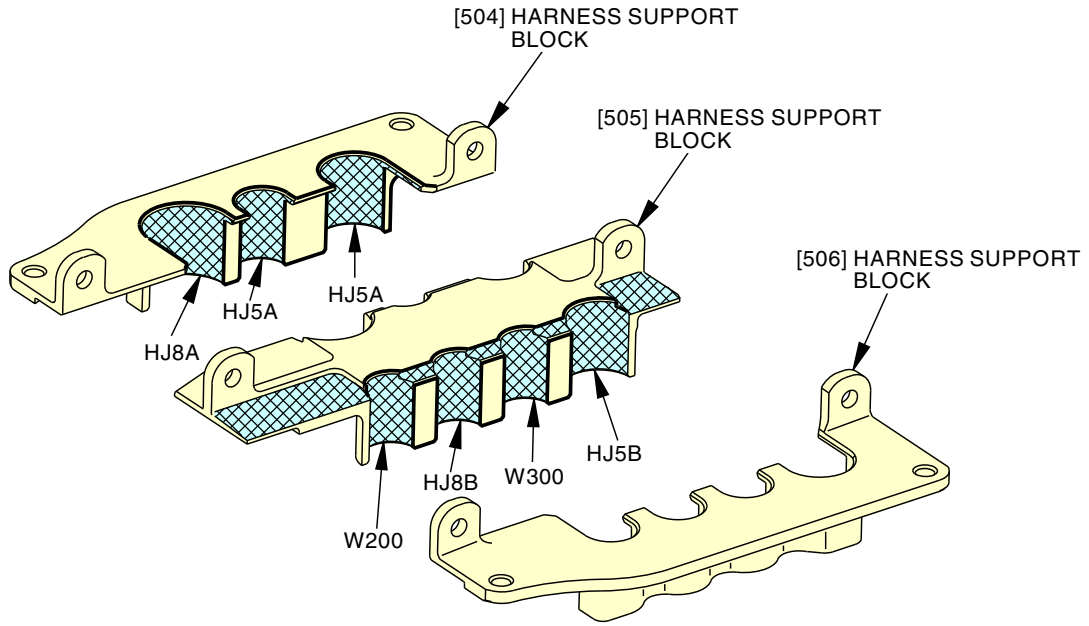
ECCN 9E991 BOEING PROPRIETARY - See title page for details



2937804 S0000713393_V2

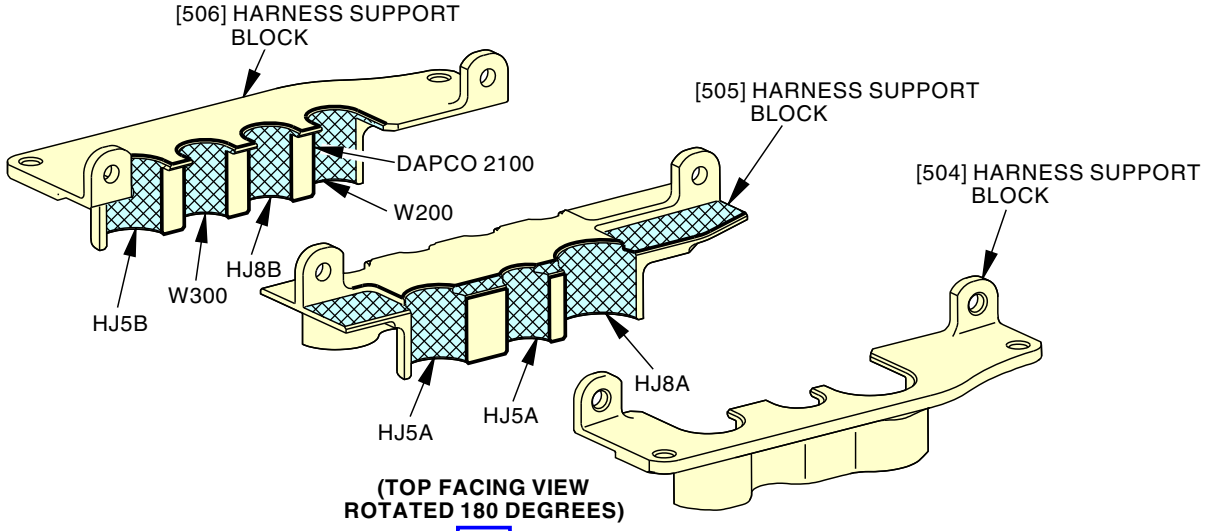
Harness Support Block Installation
Figure 403/26-11-02-990-825 (Sheet 5 of 11)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



(TOP FACING VIEW)

E



(TOP FACING VIEW ROTATED 180 DEGREES)

E

LEGEND:

DAPCO 2100

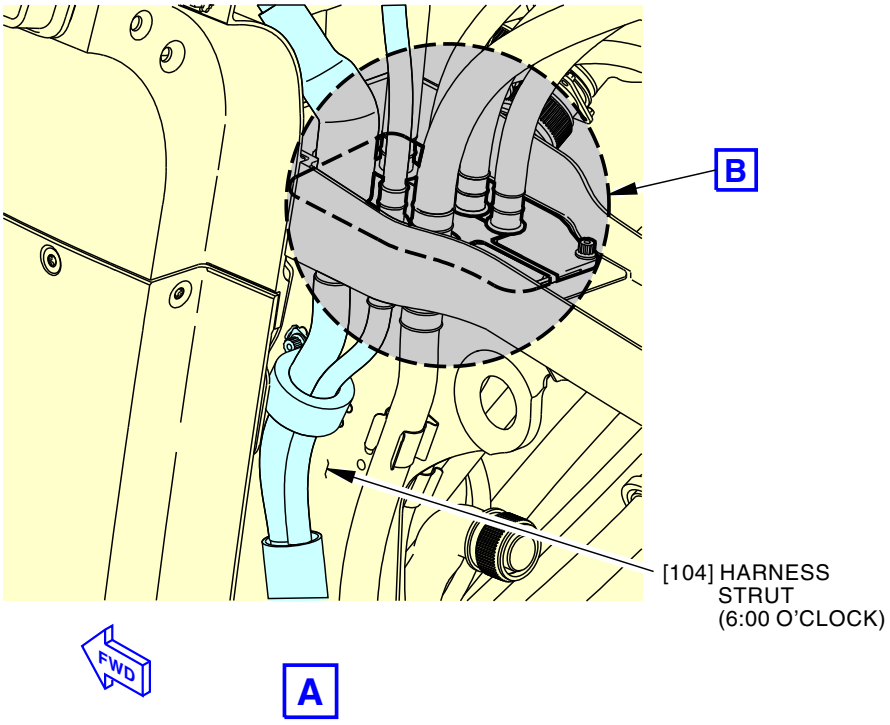
NOTE:

THIS VIEW SHOWS DAPCO 2100 APPLICATION WHEN ALL HARNESS SUPPORT BLOCKS HAVE BEEN REMOVED.

2937805 S0000713394_V4

Harness Support Block Installation
Figure 403/26-11-02-990-825 (Sheet 6 of 11)

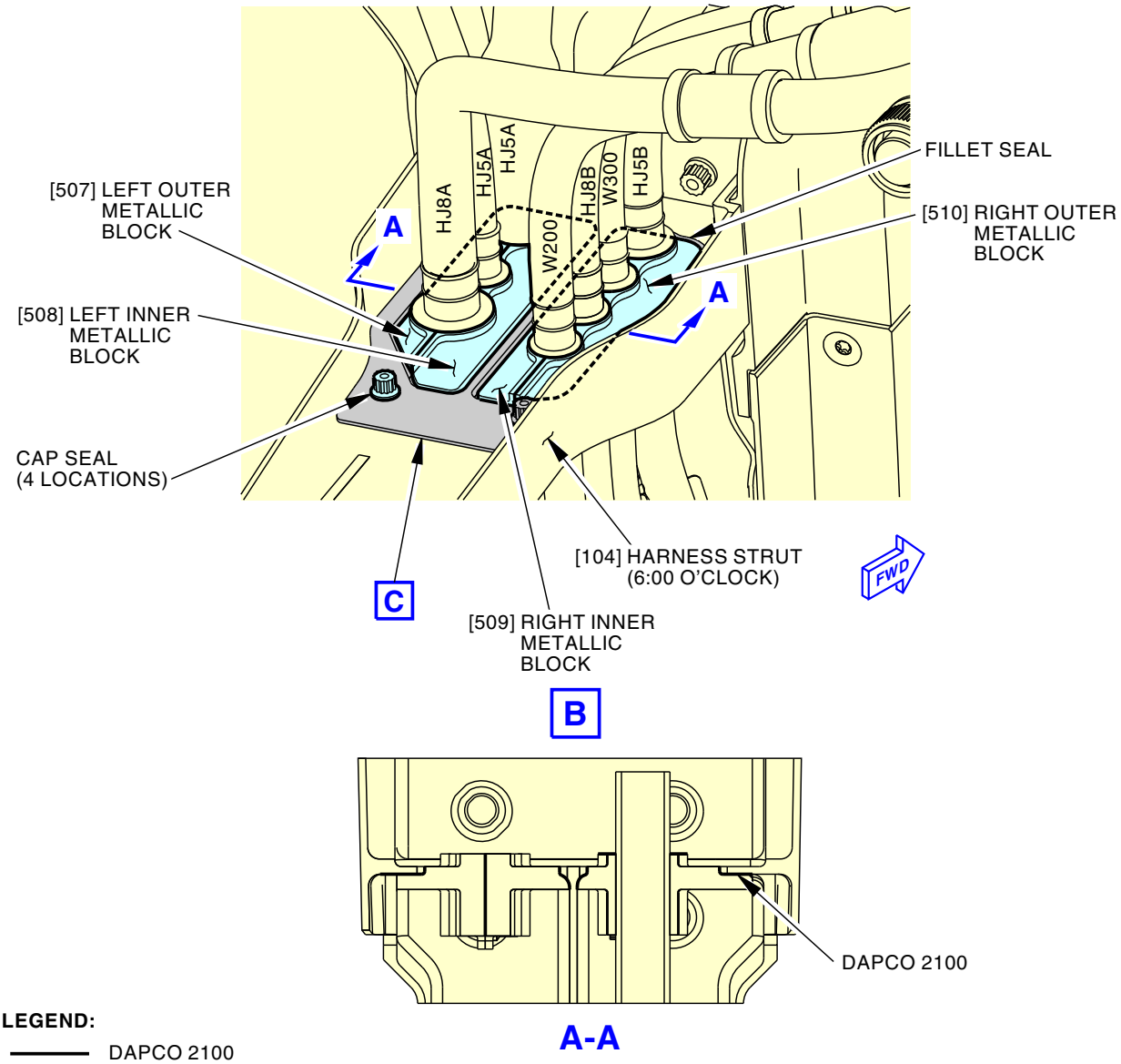
ECCN 9E991 BOEING PROPRIETARY - See title page for details



2962032 S0000739201_V1

Harness Support Block Installation
Figure 403/26-11-02-990-825 (Sheet 7 of 11)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



LEGEND:

——— DAPCO 2100

NOTE:

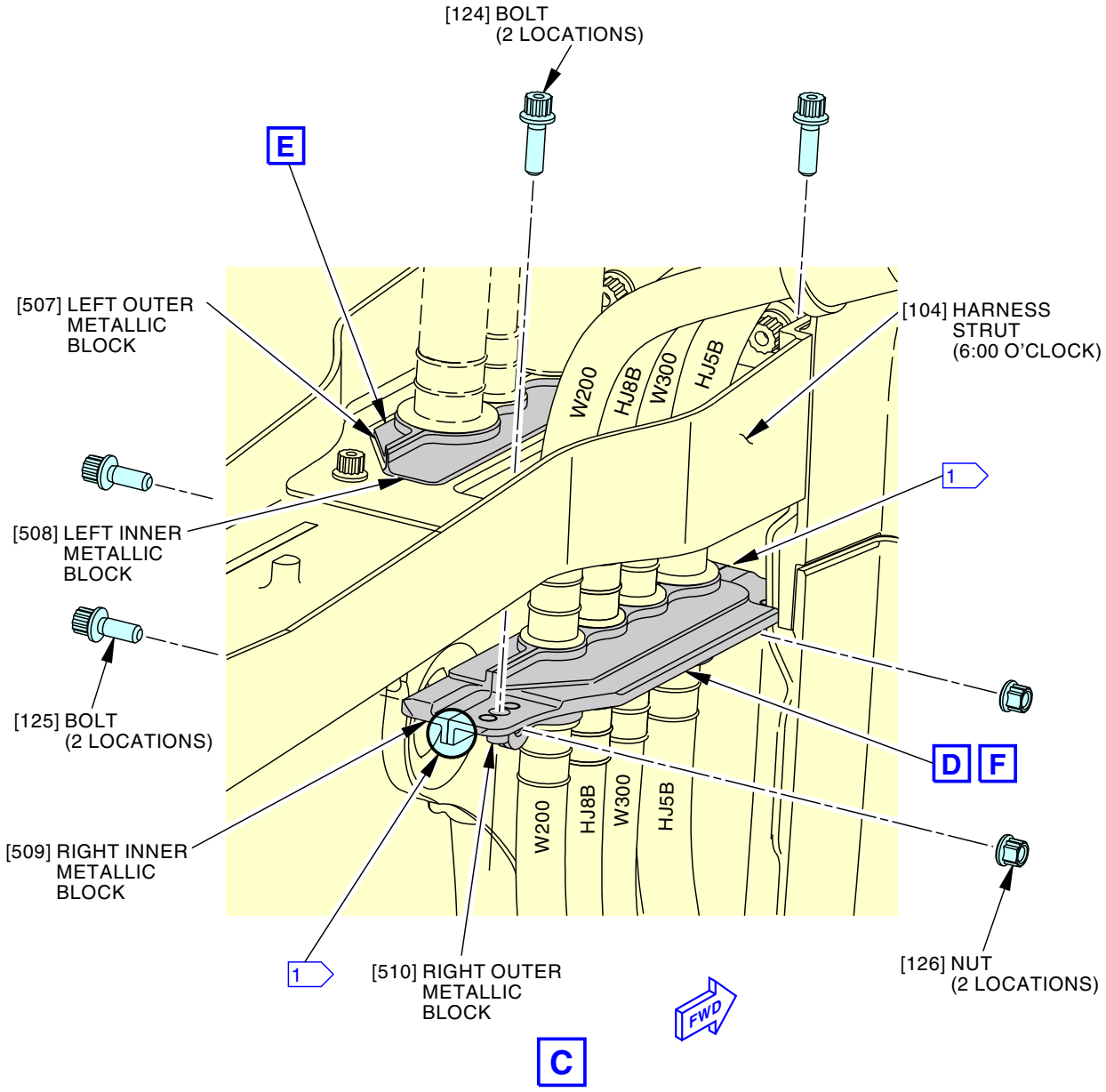
THE FILLET SEAL IS FINISH OF THE SQUEEZE OUT AROUND THE CONTOUR OF THE METALLIC BLOCKS. IT IS ACCEPTABLE TO APPLY A FILLET SEAL AROUND THE CONTOUR OF THE BLOCK AFTER IT IS INSTALLED.

THIS VIEW SHOWS DAPCO 2100 APPLICATION WHEN BOTH RIGHT AND LEFT METALLIC BLOCKS HAVE BEEN REMOVED.

ICNLEAP1B732201D5882800059A00101
2962033 S0000739202_V2

Harness Support Block Installation
Figure 403/26-11-02-990-825 (Sheet 8 of 11)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



NOTE:

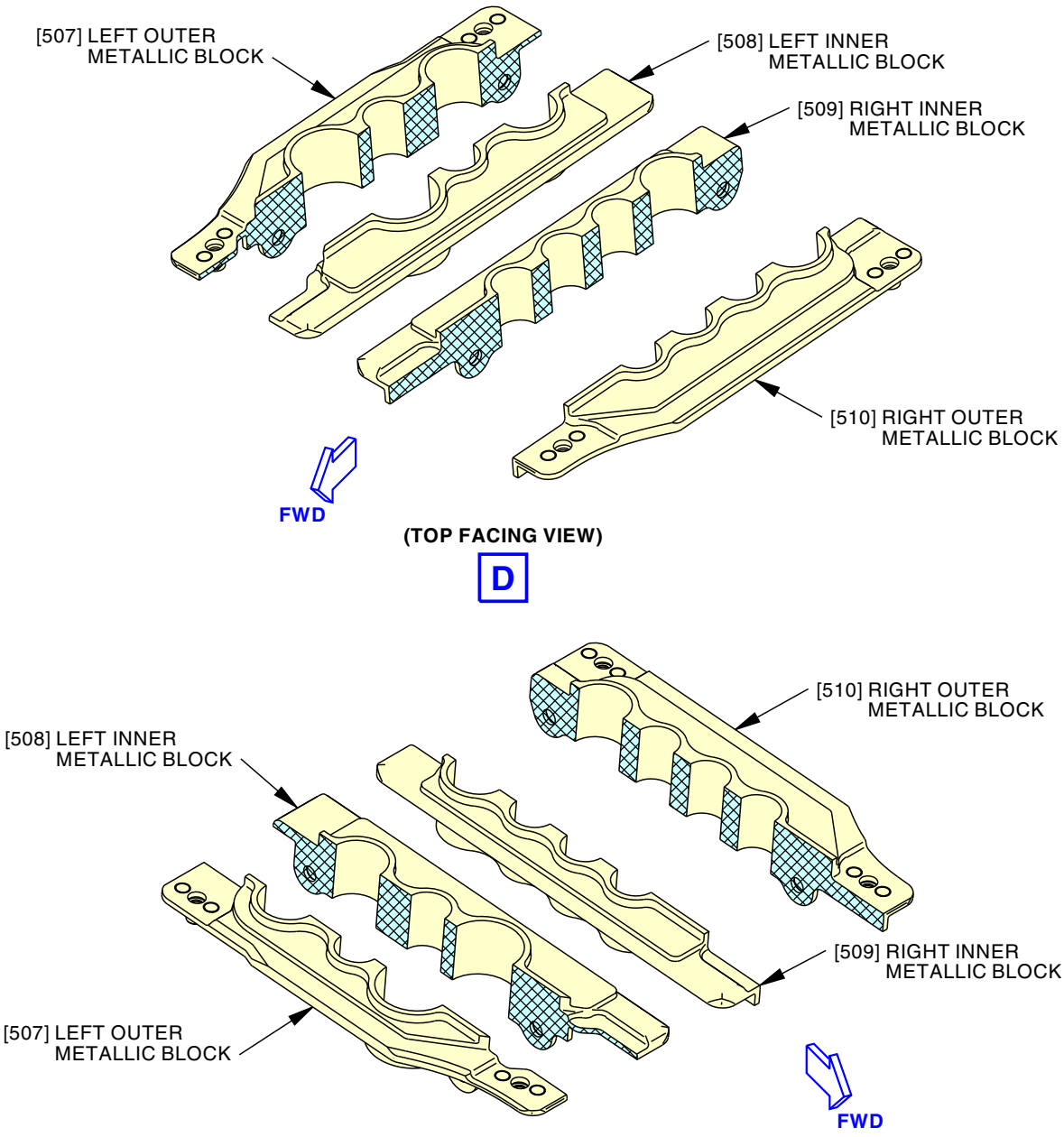
THIS VIEW IS SPECIFIC FOR RIGHT INNER AND OUTER METALLIC BLOCKS. SAME LOGIC IS APPLIED FOR LEFT INNER AND OUTER METALLIC BLOCKS.

1 SEALANT SQUEEZE OUT IS FLUSH WITH SURFACE.

ICNLEAP1B732201D5882800063A00101
2962034 S0000739203_V2

Harness Support Block Installation
Figure 403/26-11-02-990-825 (Sheet 9 of 11)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



LEGEND:

DAPCO 2100

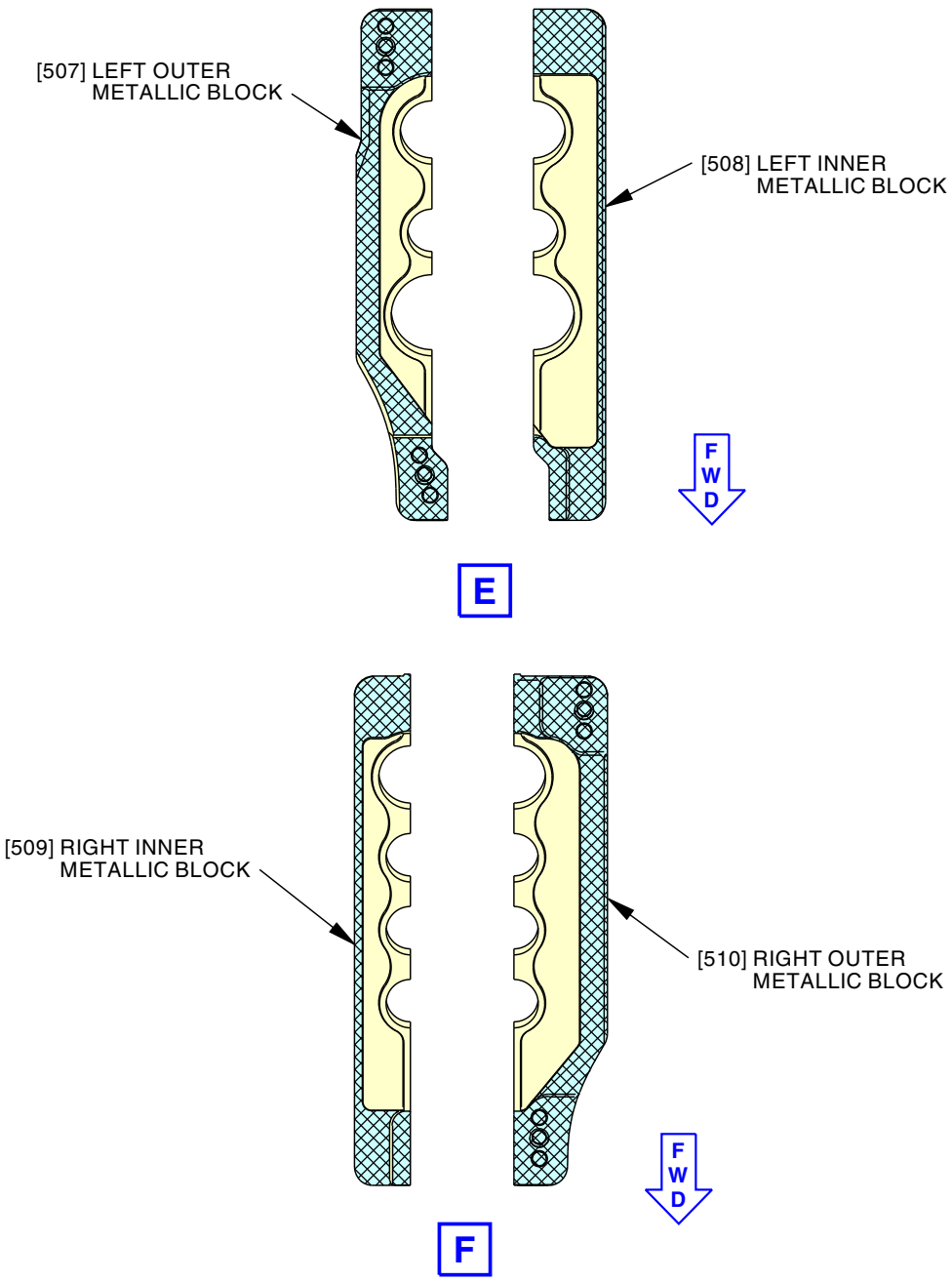
NOTE:

THIS VIEW SHOWS DAPCO 2100 APPLICATION WHEN ALL HARNESS SUPPORT BLOCKS HAVE BEEN REMOVED.

2994643 S0000770273_V1

Harness Support Block Installation
Figure 403/26-11-02-990-825 (Sheet 10 of 11)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



LEGEND:

DAPCO 2100

NOTE:

THIS VIEW SHOWS DAPCO 2100 APPLICATION WHEN ALL HARNESS SUPPORT BLOCKS HAVE BEEN REMOVED.

2994658 S0000770274_V1

Harness Support Block Installation
Figure 403/26-11-02-990-825 (Sheet 11 of 11)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-11-02-400-801

3. Engine Fire Detection Harness Installation

(Figure 401, Figure 402, and Figure 403)

A. General

(1) The installation procedure for harness W200 and W300 is the same.

(2) W200 is a component of loop A of the engine fire detection circuit.

(3) W300 is a component of loop B of the engine fire detection circuit.

B. References

Reference	Title
26-11-00-710-801	Engine Fire Detection - Operational Test (P/B 501)
70-00-01-910-803-G00	Electrical Connector Disconnection and Connection (P/B 201)
72-23-06-400-801-G00	Fan Frame Strut Panels Installation (P/B 401)
78-31-00-010-802-G00	Close the Thrust Reverser (Selection) (P/B 201)

C. Tools/Equipment

Reference	Description
STD-664	Pliers - Teflon-jawed (or Equivalent Soft-Jawed)

D. Consumable Materials

Reference	Description	Specification
A50396	Sealant - Dapco 2200 Primerless Silicone Firewall Sealant	BMS5-63 Type II Class B-1/2
A50483 [CP2927]	Silicone Paste - Primerless, For Fire Resistance application ((Dapco 2100 Firewall Sealant)	
D00418	Oil - Aircraft Turbine Engine Synthetic Base	MIL-PRF-7808
D00601 [CP2101]	Vaseline - Graphite Mineral	
D00637	Oil - Engine - Eastman Turbo Oil 2389	MIL-PRF-7808L grade 3
D50294	Compound - Antiseize, Pure Nickel Special - Never Seez	BAC5008
D50338	Oil - Engine - Hatcol 3211	MIL-PRF-23699 Class STD (Standard)
D50377	Oil - Lubricating, Aircraft Turbine Engine, Synthetic Base	MIL-PRF-23699

E. Engine Fire Detection Harness Installation

SUBTASK 26-11-02-210-002

(1) During the installation, make sure that the harness W200 [1] and harness W300 [2] are not stressed or damaged.

SUBTASK 26-11-02-420-007

(2) Make sure that all components are clean and free of old sealant prior to adding new sealant.

SUBTASK 26-11-02-420-001

(3) Install the harness W200 [1] and/or harness W300 [2]:

(a) Put the harness W200 [1] and/or harness W300 [2] in position on the engine through the fan and core firewall openings (Figure 401).

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CAUTION MAKE SURE THAT THE ELECTRICAL CONNECTORS AND RECEPTACLES ARE CLEAN AND CLEAR OF UNWANTED MATERIALS BEFORE YOU DISCONNECT, OR CONNECT THEM. CONTAMINATION OF THE ELECTRICAL CONNECTORS AND RECEPTACLES CAN CAUSE DAMAGE TO EQUIPMENT.

CAUTION USE PLIERS THAT HAVE TEFLON JAWS TO TIGHTEN THE ELECTRICAL CONNECTORS. DO NOT USE PLIERS THAT HAVE METAL JAWS. METAL JAWS CAN CAUSE DAMAGE TO THE ELECTRICAL CONNECTORS.

(b) Use the teflon-jawed pliers, STD-664, to connect the harness W200 [1] and/or harness W300 [2] to the pylon (TASK 70-00-01-910-803-G00).

(c) Distribute the slack all along the attachment points on the engine.

CAUTION WITH THE SPLIT BOBBIN HARNESS, HOLD THE LUGS IN ITS POSITION WHEN YOU INSTALL OR REMOVE THE NUTS. IF YOU DO NOT OBEY, LUGS CAN TURN AND DAMAGE TO EQUIPMENT CAN OCCUR.

(d) Attach the terminal lugs to the responder studs on the core fire detectors with the washers [15] and nuts [14] (View J, Figure 401).

1) Tighten the nuts [14] to 50 in-lb (6 N·m) - 54 in-lb (6 N·m).

CAUTION WITH THE SPLIT BOBBIN HARNESS, HOLD THE LUGS IN ITS POSITION WHEN YOU INSTALL OR REMOVE THE NUTS. IF YOU DO NOT OBEY, LUGS CAN TURN AND DAMAGE TO EQUIPMENT CAN OCCUR.

(e) Attach the ground lugs to the ground studs on the core fire detectors with the washers [23] and nuts [22].

1) Tighten the nuts [22] to 25 in-lb (2.82 N·m) - 29 in-lb (3.28 N·m).

CAUTION DO NOT LET WIRES GET IN THE BOBBIN SPACE OR BETWEEN THE BOBBIN AND THE CLAMP, IF YOU HAVE A SPLIT BOBBIN HARNESS. IF YOU DO NOT OBEY, WIRES CAN RUB AGAINST THE CLAMPS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(f) Attach the terminal and ground lug wires to the core fire detector brackets with the clamps [21], nuts [20], and bolts [19].

1) Lubricate the bolts [19] with Never Seez, D50294.

2) Tighten the nuts [20] to 23 in-lb (2.60 N·m) - 27 in-lb (3.05 N·m).

(g) Attach the harness W200 [1] and/or harness W300 [2] to the core engine brackets with the clamps [18] and screws [17] (View H, Figure 401).

1) Lubricate the screws [17] with aircraft turbine engine oil, D00418 (preferred), or Eastman Turbo Oil 2389, D00637 (alternate), orOil - lubricating, D50377 (preferred), or Hatcol 3211, D50338 (alternate).

2) Tighten the screws [17] to 35 in-lb (3.95 N·m).

(h) Attach the harness bracket to the engine bracket with the screws [16] (View G and View K, Figure 401).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

1) Lubricate the screws [16] with aircraft turbine engine oil, D00418, or Oil - lubricating, D50377.

2) Tighten the screws [16] to 55 in-lb (6.21 N·m).

(i) Attach the terminal lugs to the responder studs on the fan fire detectors with the washers [15] and nuts [14] (View E, Figure 401).

1) If the leads are different sizes, install the lead with the small hole under the lead with the large hole.

2) Tighten the nuts [14] to 30.00 in-lb (3.39 N·m) - 34.00 in-lb (3.84 N·m).

(j) Install the harness W200 [1] and/or harness W300 [2] on the harness strut (6:00 o'clock) [104] as follows (Figure 402 and Figure 403):

SIA ALL PRE SB 737-CFM-LEAP-1B-72-0288

1) Install the harness support block [504], harness support block [505], and harness support block [506] on the harness strut (6:00 o'clock) [104] as follows:

a) Lubricate the four bolts [111] with the graphite mineral vaseline, D00601 [CP2101].

b) Apply Dapco 2100 sealant, A50483 [CP2927], on the harness support block [504], harness support block [505], harness support block [506], and around the harnesses (View E, Figure 403).

c) Make sure that the harness W200 [1] and/or harness W300 [2] and harnesses are in the correct position on the harness support block [504], harness support block [505], and harness support block [506] (View D, Figure 403).

d) Install the two bolts [113] and two nuts [112] to assemble the harness support block [504], harness support block [505], and harness support block [506] in the correct position with the harnesses.

e) Tighten the nuts [112] to 42.0 in-lb (4.75 N·m) - 46.5 in-lb (5.25 N·m).

CAUTION MAKE SURE THAT YOU REMOVE UNWANTED SEALANT FROM THE BOTTOM SIDE OF THE ASSEMBLY. THIS CAN DECREASE THE RISK OF IGNITION DURING A FIRE. IF YOU DO NOT OBEY, DAMAGE TO EQUIPMENT CAN OCCUR.

f) Make sure that there is minimum amount of the squeeze-out on the lower side.

<1> Make sure that the sealant squeeze-out is finished flush with the surface.

g) Install the harness support block [504], harness support block [505], and harness support block [506] in the correct position on the harness strut (6:00 o'clock) [104].

h) Apply Dapco 2100 sealant, A50483 [CP2927], between the assembly of the harness support block [504], harness support block [505], harness support block [506], and harness strut (6:00 o'clock) [104] (View B, Figure 403).

i) Install the four bolts [111] and four nuts [110] that attach the assembly of the harness support block [504], harness support block [505], and harness support block [506] to the harness strut (6:00 o'clock) [104].

j) Tighten the nuts [110] to 42.0 in-lb (4.75 N·m) - 46.5 in-lb (5.25 N·m).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SIA ALL PRE SB 737-CFM-LEAP-1B-72-0288 (Continued)

CAUTION MAKE SURE THAT YOU REMOVE UNWANTED SEALANT FROM THE BOTTOM SIDE OF THE ASSEMBLY. THIS CAN DECREASE THE RISK OF IGNITION DURING A FIRE. IF YOU DO NOT OBEY, DAMAGE TO EQUIPMENT CAN OCCUR.

k) Make sure that there is minimum amount of the squeeze-out on the lower side.

l) Apply more sealant to form a correct fillet seal around the contour of the harness support block [504], harness support block [505], harness support block [506], and harness strut (6:00 o'clock) [104].

CAUTION MAKE SURE THAT THE BOLTS ARE CLEAN BEFORE YOU APPLY SEALANT TO THEM. IF YOU DO NOT REMOVE UNWANTED MATERIALS, THE SEALANT WILL NOT BOND. THIS CAN CAUSE DAMAGE TO EQUIPMENT.

m) Clean the four nuts [110] and four bolts [111] that will have sealant applied to them.

n) Apply Dapco 2100 sealant, A50483 [CP2927], to the heads of the four bolts [111].

SIA ALL POST SB 737-CFM-LEAP-1B-72-0288

2) Remove any remaining of old sealant residue left on the harnesses or harness strut (6:00 o'clock) [104].

3) Install the left outer metallic block [507] and left inner metallic block [508] on the harness strut (6:00 o'clock) [104] as follows:

a) Lubricate the two bolts [124] and two bolts [125] with graphite mineral vaseline, D00601 [CP2101].

b) Apply Dapco 2100 sealant, A50483 [CP2927], on the mating faces between the left outer metallic block [507] and left inner metallic block [508].

NOTE: Dapco 2100 sealant, A50483 [CP2927], must be evenly applied in large quantity on each hatching area to make sure that there is enough Dapco 2100 sealant, A50483 [CP2927], between parts after the squeeze out when assembling and tightening the bolts and nuts.

c) Apply Dapco 2100 sealant, A50483 [CP2927], on the mating faces between the left outer metallic block [507], left inner metallic block [508], and harness strut (6:00 o'clock) [104].

d) Install the two bolts [125] and two nuts [126] to assemble the left outer metallic block [507] and left inner metallic block [508] in the correct position with the harnesses.

e) Tighten the two nuts [126] to 41.8 in-lb (4.72 N·m) - 46.2 in-lb (5.22 N·m).

f) Install the left outer metallic block [507] and left inner metallic block [508] in the correct position on the harness strut (6:00 o'clock) [104] by the bottom side.

g) Install the two bolts [124] that attach the left outer metallic block [507] and left inner metallic block [508] to the harness strut (6:00 o'clock) [104].

h) Tighten the bolts [124] to 41.8 in-lb (4.72 N·m) - 46.2 in-lb (5.22 N·m).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SIA ALL POST SB 737-CFM-LEAP-1B-72-0288 (Continued)

i) Remove the squeezed out excedent and remainings of Dapco 2100 sealant, A50483 [CP2927], using a profiler tool, a swipe or with fingers using protective gloves.

CAUTION MAKE SURE THAT YOU REMOVE UNWANTED SEALANT FROM THE BOTTOM SIDE OF THE ASSEMBLY. THIS CAN DECREASE THE RISK OF IGNITION DURING A FIRE. IF YOU DO NOT OBEY, DAMAGE TO EQUIPMENT CAN OCCUR.

j) Make sure that there is minimum amount of the squeeze-out on the bottom side.

<1> Make sure that the sealant squeeze-out is finished flush with the surface.

<2> Make sure that the visible faces of the bolts [124] and harness strut (6:00 o'clock) [104] are clean and clear of graphite mineral vaseline, D00601 [CP2101].

k) Apply Dapco 2100 sealant, A50483 [CP2927], fillet around the head of the two bolts [124], in contact with the harness strut (6:00 o'clock) [104].

l) Apply Dapco 2100 sealant, A50483 [CP2927], fillet around each electrical harness, between the metal bobbin of each wire harness and top side of left outer metallic block [507] and left inner metallic block [508].

4) Install the new right inner metallic block [509] and right outer metallic block [510] on the bracket assembly as follows:

a) Lubricate the bolts [124] and bolts [125] with graphite mineral vaseline, D00601 [CP2101].

b) Apply Dapco 2100 sealant, A50483 [CP2927], on the mating faces between the right inner metallic block [509] and right outer metallic block [510].

NOTE: Dapco 2100 sealant, A50483 [CP2927], must be evenly applied in large quantity on each hatching area to make sure that there is enough Dapco 2100 sealant, A50483 [CP2927], between parts after the squeeze out when assembling and tightening the bolts and nuts.

c) Apply Dapco 2100 sealant, A50483 [CP2927], on the mating faces between the right inner metallic block [509], right outer metallic block [510], and harness strut (6:00 o'clock) [104].

d) Install the two bolts [125] and two nuts [126] to assemble the right inner metallic block [509] and right outer metallic block [510] in the correct position with the harnesses.

e) Tighten the two nuts [126] to 41.8 in-lb (4.72 N·m) - 46.2 in-lb (5.22 N·m).

f) Install the right inner metallic block [509] and right outer metallic block [510] in the correct position on the harness strut (6:00 o'clock) [104] by the bottom side.

g) Install the two bolts [124] that attach the right inner metallic block [509] and right outer metallic block [510] to the harness strut (6:00 o'clock) [104].

h) Tighten the bolts [124] to 41.8 in-lb (4.72 N·m) - 46.2 in-lb (5.22 N·m).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SIA ALL POST SB 737-CFM-LEAP-1B-72-0288 (Continued)

i) Remove the squeezed out excedent and remainings of Dapco 2100 sealant, A50483 [CP2927], using a profiler tool, a swipe or with fingers using protective gloves.

CAUTION MAKE SURE THAT YOU REMOVE UNWANTED SEALANT FROM THE BOTTOM SIDE OF THE ASSEMBLY. THIS CAN DECREASE THE RISK OF IGNITION DURING A FIRE. IF YOU DO NOT OBEY, DAMAGE TO EQUIPMENT CAN OCCUR.

j) Make sure that there is minimum amount of the squeeze-out on the bottom side.

<1> Make sure that the sealant squeeze-out is finished flush with the surface.

<2> Make sure that the visible faces of the bolts [124] and harness strut (6:00 o'clock) [104] are clean and clear of graphite mineral vaseline, D00601 [CP2101].

k) Apply Dapco 2100 sealant, A50483 [CP2927], fillet around the head of the two bolts [124], in contact with the harness strut (6:00 o'clock) [104].

l) Apply Dapco 2100 sealant, A50483 [CP2927], fillet around each electrical harness, between the metal bobbin of each wire harness and top side of right inner metallic block [509] and right outer metallic block [510].

SIA ALL

5) Install the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], and strut 5 bracket lower block [503] on the strut 5 outer fitting [109] as follows:

a) Lubricate the five bolts [106] and two nuts [107] with the graphite mineral vaseline, D00601 [CP2101].

b) Apply Dapco 2100 sealant, A50483 [CP2927], to the one side (either top or bottom) of the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], and strut 5 bracket lower block [503].

NOTE: Fay seal applies to the two sides of the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], and strut 5 bracket lower block [503].

c) Make sure that the harness W200 [1] and/or harness W300 [2] and harnesses are in the correct position on the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], and strut 5 bracket lower block [503] (View E, Figure 402).

d) Install the two bolts [108] and two nuts [107] to assemble the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], and strut 5 bracket lower block [503].

e) Tighten the nuts [107] to 42.0 in-lb (4.75 N·m) - 46.5 in-lb (5.25 N·m).

f) Make sure that the fillet seal of the squeeze-out is on the forward facing side.

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CAUTION MAKE SURE THAT YOU REMOVE UNWANTED SEALANT FROM THE AFT SIDE OF THE ASSEMBLY. THIS CAN DECREASE THE RISK OF IGNITION DURING A FIRE. IF YOU DO NOT OBEY, DAMAGE TO EQUIPMENT CAN OCCUR.

g) Make the sealant squeeze-out flush with the surface on the outer edges of the strut 5 bracket upper block [500] and strut 5 bracket lower block [503] (View F, Figure 402).

h) Install the assembly of the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], and strut 5 bracket lower block [503] in a correct position on the strut 5 outer fitting [109].

i) Apply Dapco 2100 sealant, A50483 [CP2927], between the assembly of the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], strut 5 bracket lower block [503], and strut 5 outer fitting [109] (View C, Figure 402).

j) Install the five bolts [106] that attach the assembly of the strut 5 bracket upper block [500], strut 5 bracket middle block [501], strut 5 bracket middle block [502], and strut 5 bracket lower block [503] to the strut 5 outer fitting [109].

k) Tighten the bolts [106] to 67.45 in-lb (7.6 N·m) - 74.55 in-lb (8.4 N·m).

CAUTION MAKE SURE THAT YOU REMOVE UNWANTED SEALANT FROM THE AFT SIDE OF THE ASSEMBLY. THIS CAN DECREASE THE RISK OF IGNITION DURING A FIRE. IF YOU DO NOT OBEY, DAMAGE TO EQUIPMENT CAN OCCUR.

l) Make sure that there is a minimum amount of the squeeze-out on the aft side around the edges of the block assembly and that the sealant is flush with the block assembly (View C, Figure 402).

m) Make sure that the squeeze-out on the forward facing side is finished as a fillet seal.

CAUTION MAKE SURE THAT THE BOLTS ARE CLEAN BEFORE YOU APPLY SEALANT TO THEM. IF YOU DO NOT REMOVE UNWANTED MATERIALS, THE SEALANT WILL NOT BOND. THIS CAN CAUSE DAMAGE TO EQUIPMENT.

n) Clean the nut plate side of the bolts [106] and nut plates.

o) Apply Dapco 2100 sealant, A50483 [CP2927], to the nut plate side of the bolts [106] and nut plates.

(k) Attach the ground lugs to the ground studs on the fan fire detectors with washers [23] and nuts [22] (View E, Figure 401).

1) Tighten the nuts [22] to 25 in-lb (2.82 N·m) - 29 in-lb (3.28 N·m).

(l) Attach the harness W200 [1] and/or harness W300 [2] to the fan engine brackets with the hinged clamps [13] and screws [12] (View D, Figure 401).

1) Tighten the screws [12] to 41.8 in-lb (4.72 N·m) - 46.2 in-lb (5.22 N·m).

(m) Engage the harness W200 [1] and/or harness W300 [2] in the engine clips [11] (View C, Figure 401).

(n) Install the Fan Frame Strut 5 Panel (left) (TASK 72-23-06-400-801-G00).

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SUBTASK 26-11-02-400-001

(4) Attach the blanket [101] to the strut 5 outer fitting [109].

(a) Apply Dapco 2100 sealant, A50483 [CP2927], between blanket [101] and strut 5 outer fitting [109] (View B, Figure 402).

NOTE: Dapco 2200 firewall sealant, A50396, may use as optional. If this consumable meets the local regulatory requirements of the operator, it is acceptable as a chemical sealant for further usage.

SUBTASK 26-11-02-410-001

(5) Close the access to the fan and core firewalls.

(a) Make sure that the harnesses are in the correct position in the fire wall passage holes.

F. Fan Fire Detection Harness Installation Test

SUBTASK 26-11-02-440-001

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

SUBTASK 26-11-02-710-001

(2) Do this task: Engine Fire Detection - Operational Test, TASK 26-11-00-710-801.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 26-11-02-010-003

WARNING OBEY THE PROCEDURE TO CLOSE THE THRUST REVERSERS. IF YOU DO NOT OBEY THE PROCEDURE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do this task: Close the Thrust Reverser (Selection), TASK 78-31-00-010-802-G00.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

LAVATORY SMOKE DETECTION - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

(1) Lavatory Smoke Detection - Self Test

(2) Lavatory Smoke Detection - Smoke Test.

B. This procedure does a test of the lavatory smoke detectors.

TASK 26-14-00-710-801

2. Lavatory Smoke Detection - Self Test

(Figure 501 or Figure 502)

A. Self Test using the self test switch on the smoke detectors

SUBTASK 26-14-00-710-001

(1) Push and hold the SELF TEST switch on the smoke detector with a small screwdriver, or other appropriate tool.

SUBTASK 26-14-00-710-002

(2) Make sure that these alarm indications occur:

(a) Lavatories:

1) The LED status indicator turns to a solid red light on the smoke detector.

2) You can hear the smoke detector alarm horn in the lavatory.

(b) Passenger compartment:

1) The lavatory call reset switch flashes on the outside of the lavatory, above the door.

2) The attendant chime is heard through the Passenger Address (PA) system.

3) The attendant light comes on.

4) The amber master call light on the exit locator sign is flashing.

(c) Attendant Control Panel:

1) The environment menu immediately displays.

2) The environment menu selection button flashes orange continuously.

3) A smoke detection warning message shows in the Smoke Detector Monitor window of the Attendant Smoke Detection Control panels.

NOTE: A warning message indicates which lavatory smoke detectors have been activated. Both forward and aft control panels show the same warning message.

(d) Flight compartment:

1) The amber LAVATORY SMOKE light on the miscellaneous alert section of the forward overhead panel comes on.

2) The MASTER CAUTION light comes on.

SUBTASK 26-14-00-710-003

(3) Release the SELF TEST switch.

(a) Push and release the MASTER CAUTION reset button to clear the light indication on the glareshield panel, P7.

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(b) Make sure that all external alarm indications stop.

——— END OF TASK ———

TASK 26-14-00-730-801

3. Lavatory Smoke Detection - Smoke Test

(Figure 501 or Figure 502)

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
COM-11202	Smoke Generator - Lavatory/Crew Rest Smoke Detector (or 737 Cargo Area Type Smoke Detectors) Part #: HO-25S Supplier: 61908 Part #: SOLOA10 Supplier: 1WU32 Opt Part #: SOLOA3 Supplier: 1WU32 Opt Part #: SOLOA4 Supplier: 1WU32

B. Location Zones

Zone	Area
220	Subzone - Passenger Compartment - Body Station 259.50 to 360.00
240	Subzone - Passenger Compartment - Body Station 663.75 to Body Station 1016.00

C. Smoke Test

SUBTASK 26-14-00-860-005

(1) Make sure that the LED status indicator on the lavatory smoke detector is a solid green light.

SUBTASK 26-14-00-730-001

(2) Use a smoke generator, COM-11202, to make smoke adjacent to the lavatory smoke detector.

SUBTASK 26-14-00-750-001

(3) Make sure that these alarm indications occur:

(a) Lavatories:

1) The LED status indicator on the smoke detector is a solid red light.

2) You can hear the alarm horn from the smoke detector.

SUBTASK 26-14-00-750-003

(4) Make sure these alarm indications occur in the passenger compartment:

(a) The lavatory call reset switch flashes on the outside of the lavatory, above the door.

(b) The attendant chime is heard through the passenger address (PA) system.

(c) The amber master call light on the exit locator sign is flashing.

SUBTASK 26-14-00-750-004

(5) Make sure these alarm indications occur in the flight compartment:

(a) The amber LAVATORY SMOKE light on the Miscellaneous Alert section of the forward overhead panel comes on.

(b) The MASTER CAUTION light comes on.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-14-00-750-002

(6) Make sure that these Attendant Control Panel alarm indications occur:

(a) The environment menu immediately displays.

(b) The environment menu selection button flashes orange continuously.

(c) A smoke detection warning message shows in the smoke detector monitor window of the attendant smoke detection control panels.

NOTE: A warning message indicates which lavatory smoke detectors have been activated. Both forward and aft control panels show the same warning message.

(d) The attendant chime is heard through the Passenger Address (PA) system.

SUBTASK 26-14-00-730-002

(7) Push the horn cancel switch on the smoke detector with an applicable tool.

(a) Make sure that all of the alarm indications stop.

SUBTASK 26-14-00-860-006

(8) Clear the smoke from the lavatory.

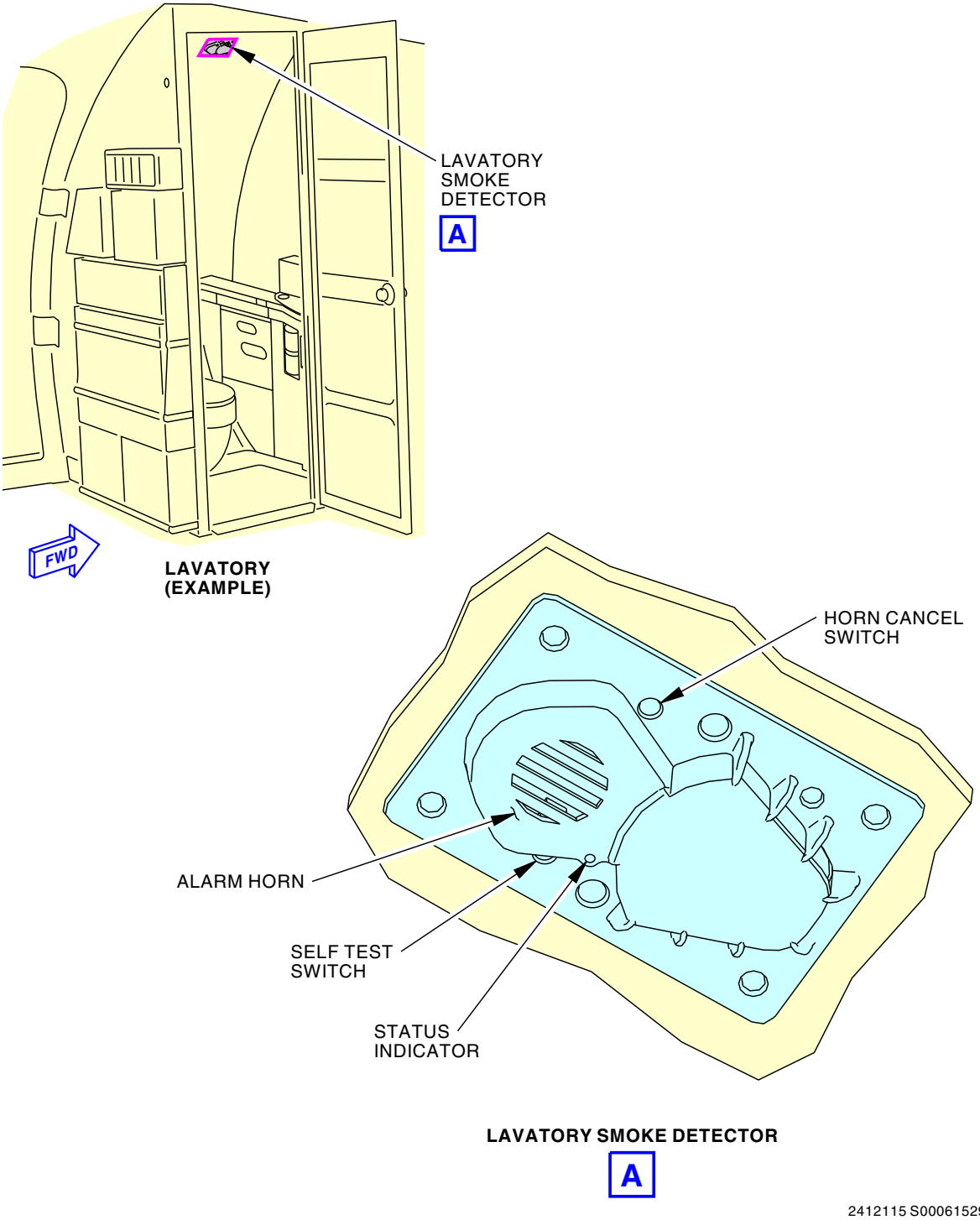
NOTE: If the smoke is not cleared from the lavatory within 60 seconds, the smoke indications will occur again.

SUBTASK 26-14-00-730-003

(9) Do the smoke test again for each of the other lavatory smoke detectors.

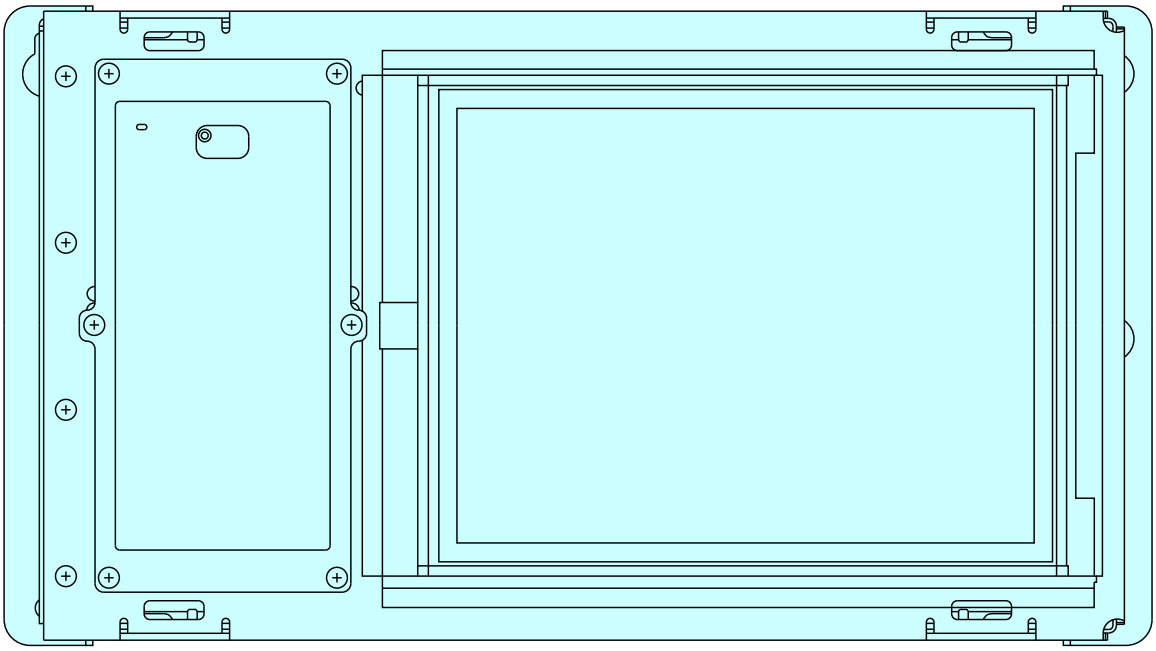
——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Lavatory Smoke Detection Adjustment
Figure 501/26-14-00-990-801

ECCN 9E991 BOEING PROPRIETARY - See title page for details



**ATTENDANT SMOKE DETECTION CONTROL PANEL
(TYPICAL)**

2587633 S0000625489_V1

**Attendant Smoke Detection Control Panel
Figure 502/26-14-00-990-802**

ECCN 9E991 BOEING PROPRIETARY - See title page for details

LAVATORY SMOKE DETECTOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the lavatory smoke detector.

(2) An installation of the lavatory smoke detector.

TASK 26-14-01-000-801

2. Lavatory Smoke Detector Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the Lavatory Smoke Detector.

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Prepare for the Removal

SUBTASK 26-14-01-860-001

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	12	C01125	LAVATORY SMOKE

D. Lavatory Smoke Detector Removal

SUBTASK 26-14-01-020-002

(1) Remove the screws [14] and spacers [15] that attach the smoke detector [11] to the mounting bracket [13].

SUBTASK 26-14-01-020-001

(2) Disconnect the electrical connector [12].

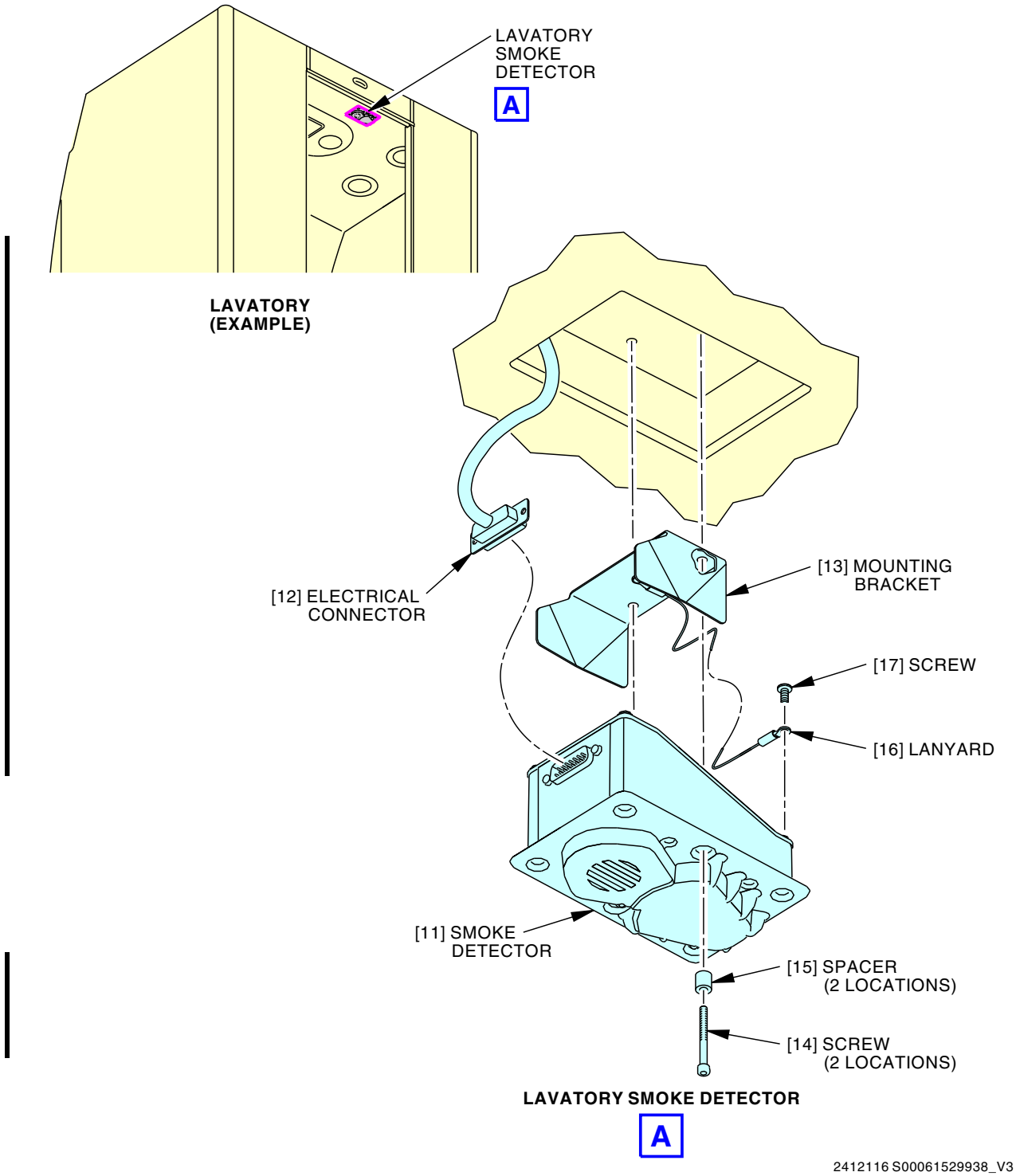
SUBTASK 26-14-01-020-003

(3) Remove the smoke detector [11] and mounting bracket [13] from the ceiling.

NOTE: You do not have to remove the mounting bracket from the smoke detector. The new smoke detector will usually have a mounting bracket attached to it.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Lavatory Smoke Detector Installation
Figure 401/26-14-01-990-801

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-14-01-400-801

3. Lavatory Smoke Detector Installation

(Figure 401)

A. General

(1) This task gives instructions to install the Lavatory Smoke Detector.

B. References

Reference	Title
26-14-00-710-801	Lavatory Smoke Detection - Self Test (P/B 501)
26-14-00-730-801	Lavatory Smoke Detection - Smoke Test (P/B 501)

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Prepare for the Installation

SUBTASK 26-14-01-860-002

(1) Make sure that this circuit breaker is open and has safety tag:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	12	C01125	LAVATORY SMOKE

E. Lavatory Smoke Detector Installation

SUBTASK 26-14-01-420-005

(1) Do these steps before you put the smoke detector [11] in its position in the ceiling:

(a) If the lanyard [16] is not connected to the smoke detector [11], attach the lanyard [16] from the mounting bracket [13] to the smoke detector [11] with the screw [17].

1) Tighten the screw [17] to 5 in-lb (0.56 N·m) - 6 in-lb (0.68 N·m).

(b) If the mounting bracket [13] is not connected to the smoke detector [11], attach the mounting bracket [13] to the smoke detector [11] with the spacers [15] and screws [14].

1) Do not tighten the screws [14] at this time.

NOTE: The mounting bracket must be attached loosely to the smoke detector.

(c) Connect the electrical connector [12] to the smoke detector [11].

SUBTASK 26-14-01-420-001

(2) Put and hold the smoke detector [11] and mounting bracket [13] in the correct position in the ceiling.

SUBTASK 26-14-01-420-004

(3) Install the screws [14] to connect the smoke detector [11] to the mounting bracket [13].

SUBTASK 26-14-01-420-002

(4) Tighten the two screws [14] to 9 in-lb (1.02 N·m) - 10 in-lb (1.13 N·m).

SUBTASK 26-14-01-860-003

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	12	C01125	LAVATORY SMOKE

ECCN 9E991 BOEING PROPRIETARY - See title page for details

F. Lavatory Smoke Detector Installation Test

SUBTASK 26-14-01-710-001

(1) Do this task: Lavatory Smoke Detection - Self Test, TASK 26-14-00-710-801.

SUBTASK 26-14-01-730-001

(2) Do this task: Lavatory Smoke Detection - Smoke Test, TASK 26-14-00-730-801.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

LAVATORY SMOKE DETECTOR - CLEANING/PAINTING

1. General

A. This procedure has this task:

(1) A cleaning of the lavatory smoke detector.

TASK 26-14-01-100-801

2. Lavatory Smoke Detector Cleaning

(Figure 701)

A. General

(1) This task gives the instructions to clean the Lavatory Smoke Detector.

(2) Each lavatory has a smoke detector installed in the ceiling.

B. References

Reference	Title
26-14-00-710-801	Lavatory Smoke Detection - Self Test (P/B 501)
26-14-00-730-801	Lavatory Smoke Detection - Smoke Test (P/B 501)
26-14-01-000-801	Lavatory Smoke Detector Removal (P/B 401)
26-14-01-400-801	Lavatory Smoke Detector Installation (P/B 401)

C. Tools/Equipment

Reference	Description
STD-123	Brush - Soft Bristle
STD-4107	Source - Air, Clean, Dry, 0 to 60 psi
STD-6402	Swab - Cotton

D. Consumable Materials

Reference	Description	Specification
B50026	Soap - Clear Liquid Dishwashing	
B50073	Alcohol - Isopropyl	ASTM D 770
G01043	Cloth - Lint-free	
G50527	Water	

E. Location Zones

Zone	Area
200	Upper Half of Fuselage
211	Flight Compartment - Left
212	Flight Compartment - Right

F. Lavatory Smoke Detector Cleaning

SUBTASK 26-14-01-860-006

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	12	C01125	LAVATORY SMOKE

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-14-01-100-002

CAUTION

BE CAREFUL WHEN YOU REMOVE OR INSTALL THE SCREEN OF THE COVER ASSEMBLY AND LABYRINTH. THIS WILL HELP PREVENT SCRATCHES ON THE LABYRINTH. SCRATCHES ON THE LABYRINTH CAN CAUSE STRAY LIGHT REFLECTIONS AND INCORRECT CALIBRATIONS TO OCCUR.

(2) Clean the non-electrical parts.

CAUTION

ESDS COMPONENTS AND UNITS MUST BE PROTECTED FROM STATIC DISCHARGE DAMAGE AT ALL TIMES.

(a) Do these steps to clean all non-electrical parts:

WARNING

ISOPROPYL ALCOHOL IS FLAMMABLE. AVOID PROLONGED BREATHING OF VAPOR AND PROLONGED OR REPEATED CONTACT WITH SKIN. AVOID CONTACT WITH EYES. CLEAN PARTS IN WELL-VENTILATED AREA AND USE APPROVED SAFETY EQUIPMENT.

1) Clean the external surfaces with lint-free cloth, G01043, moist with alcohol, B50073.
2) Dry the surfaces with dry lint-free cloth, G01043.

(b) If it is necessary, clean the screen of the housing/screen assembly [1].

1) Remove the labyrinth assembly [2] from the housing/screen assembly [1] as follows:
   a) Remove the mounting bracket assembly (TASK 26-14-01-000-801).
   b) Remove the screws [3] and washers [4] that attach the cover [5] to the housing/screen assembly [1].
   c) Remove the slide-lock-posts [6] and washers [7] that attach the bonding jumer [9] to the connector [8].

      NOTE: The slide-lock-post can include one washer, one hex nut, and one slide-lock-post.

   d) Remove the remaining slide-lock-posts [6] and washers [7] that attach the connector [8] to the housing/screen assembly [1].

      NOTE: The slide-lock-post can include one hex nut, one lock washer, one flat washer, and one slide-lock-post.

   e) Pull the connector [8] back inside the housing/screen assembly [1].
   f) Remove the gasket [10].
   g) Remove the screws [11] and washers [12] that connect the labyrinth assembly [2] to the housing/screen assembly [1].
   h) Remove the labyrinth assembly [2].

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WARNING WHEN YOU USE THE COMPRESSED AIR TO CLEAN, TO COOL OR TO DRY, DO NOT EXCEED 30 PSIG (207 KPA). MAKE SURE YOU WEAR EYE PROTECTION AND DO NOT DIRECT COMPRESSED AIR AT YOURSELF AND OTHERS. INJURY TO PERSONNEL CAN OCCUR.

2) Use a soft bristle brush, STD-123, or dry, clean air source 0 to 60 psi, STD-4107, at maximum pressure of 30 psig (207 kPa) to remove unwanted materials from the screen.

SUBTASK 26-14-01-100-003

(3) Clean the electrical parts.

(a) Clean the connectors and other electrical components as follows:

WARNING ISOPROPYL ALCOHOL IS FLAMMABLE. AVOID PROLONGED BREATHING OF VAPOR AND PROLONGED OR REPEATED CONTACT WITH SKIN. AVOID CONTACT WITH EYES. CLEAN PARTS IN WELL-VENTILATED AREA AND USE APPROVED SAFETY EQUIPMENT.

1) Clean the circuit card and connectors with the soft bristle brush, STD-123, and alcohol, B50073.

WARNING WHEN YOU USE THE COMPRESSED AIR TO CLEAN, TO COOL OR TO DRY, DO NOT EXCEED 30 PSIG (207 KPA). MAKE SURE YOU WEAR EYE PROTECTION AND DO NOT DIRECT COMPRESSED AIR AT YOURSELF AND OTHERS. INJURY TO PERSONNEL CAN OCCUR.

CAUTION BE CAREFUL WHEN YOU REMOVE OR INSTALL THE SCREEN OF THE COVER ASSEMBLY AND LABYRINTH. THIS WILL HELP PREVENT SCRATCHES ON THE LABYRINTH. SCRATCHES ON THE LABYRINTH CAN CAUSE STRAY LIGHT REFLECTIONS AND INCORRECT CALIBRATIONS TO OCCUR.

2) Dry the parts with the dry, clean air source 0 to 60 psi, STD-4107, at a maximum pressure of 30 psig (207 kPa).

SUBTASK 26-14-01-100-004

(4) Clean the labyrinth assembly [2].

CAUTION BE CAREFUL WHEN YOU REMOVE OR INSTALL THE SCREEN OF THE COVER ASSEMBLY AND LABYRINTH. THIS WILL HELP PREVENT SCRATCHES ON THE LABYRINTH. SCRATCHES ON THE LABYRINTH CAN CAUSE STRAY LIGHT REFLECTIONS AND INCORRECT CALIBRATIONS TO OCCUR.

CAUTION ESDS COMPONENTS AND UNITS MUST BE PROTECTED FROM STATIC DISCHARGE DAMAGE AT ALL TIMES.

(a) Remove the fasteners [13], washers [14], and nuts [15] that attach the labyrinth top [16] to the labyrinth assembly [2].

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(b) Make a solution of soap and water with one part soap, B50026, and twenty parts water, G50527.

CAUTION DO NOT PUT THE LABYRINTH FULLY IN THE SOAP AND WATER SOLUTION WHEN YOU CLEAN THE LABYRINTH. LARGE QUANTITIES OF THE SOAP AND WATER SOLUTION CAN CAUSE DAMAGE TO THE LABYRINTH.

(c) Clean the unwanted material from the inner area of the labyrinth with the soft bristle brush, STD-123, and dry, clean air source 0 to 60 psi, STD-4107.

NOTE: You can also use the soap and water solution. Remove the soap and water solution with clean water.

(d) Clean the inner area of the labyrinth with a clean cotton swab, STD-6402, moist with the soap and water solution.

(e) Dry the lenses with a clean and dry cotton swab, STD-6402.

(f) Remove the remaining soap or contamination from the lenses.

(g) Make sure that the labyrinth assembly [2] is fully dry before you assemble the smoke detector.

SUBTASK 26-14-01-420-006

CAUTION BE CAREFUL WHEN YOU REMOVE OR INSTALL THE SCREEN OF THE COVER ASSEMBLY AND LABYRINTH. THIS WILL HELP PREVENT SCRATCHES ON THE LABYRINTH. SCRATCHES ON THE LABYRINTH CAN CAUSE STRAY LIGHT REFLECTIONS AND INCORRECT CALIBRATIONS TO OCCUR.

CAUTION ESDS COMPONENTS AND UNITS MUST BE PROTECTED FROM STATIC DISCHARGE DAMAGE AT ALL TIMES.

(5) Install the labyrinth assembly [2] to the housing/screen assembly [1] as follows:

(a) Install the fasteners [13], washers [14], and nuts [15] to attach the labyrinth top [16] to the labyrinth assembly [2].

1) Tighten the nuts [15] to 4 in-lb (0.45 N·m) - 5 in-lb (0.56 N·m).

(b) Install the screws [11] and washers [12] to attach the labyrinth assembly [2] to the housing/screen assembly [1].

1) Tighten the screws [11] to 8 in-lb (0.90 N·m) - 9 in-lb (1.02 N·m).

(c) Install the gasket [10] on the connector [8].

(d) Put the connector [8] into the opening in the housing/screen assembly [1].

(e) Install the slide-lock-posts [6] and washers [7] to attach the connector [8] to the housing/screen assembly [1].

NOTE: The slide-lock-post can include one hex nut, one lock washer, one flat washer, and one slide-lock-post.

1) Make sure that the gasket [10] is between the connector [8] and inner side of the housing/screen assembly [1].

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(f) Install the slide-lock-posts [6], washers [7], and bonding jumer [9] to attach the connector [8] to the housing/screen assembly [1].

NOTE: The slide-lock-post can include one washer, one hex nut, and one slide-lock-post.

(g) Tighten the slide-lock-posts [6] to 5 in-lb (0.56 N·m) - 6 in-lb (0.68 N·m).

(h) Install the screws [3] and washers [4] to attach the cover [5] to the housing/screen assembly [1].

1) Tighten the screws [3] to the 5 in-lb (0.56 N·m) - 6 in-lb (0.68 N·m).

(i) Install the mounting bracket assembly (TASK 26-14-01-400-801).

G. Put the Airplane Back to Its Usual Condition

SUBTASK 26-14-01-860-005

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	12	C01125	LAVATORY SMOKE

H. Lavatory Smoke Detector Test

SUBTASK 26-14-01-710-002

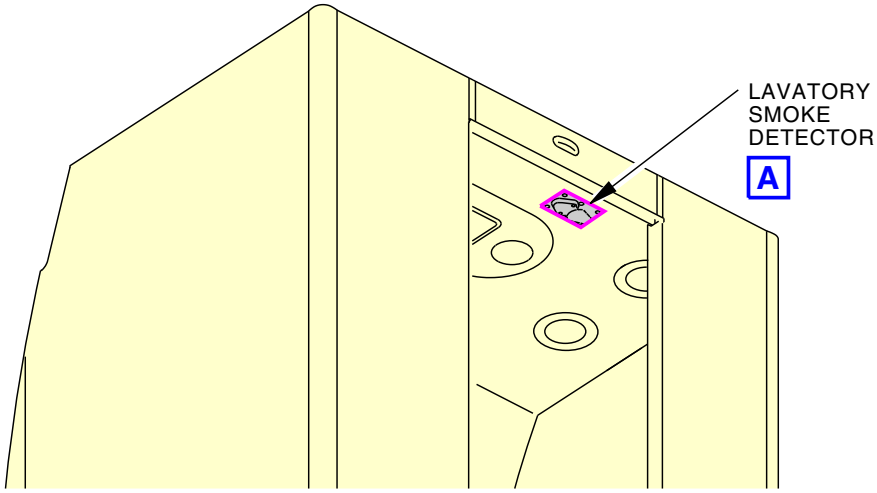
(1) Do this task: Lavatory Smoke Detection - Self Test, TASK 26-14-00-710-801.

SUBTASK 26-14-01-710-003

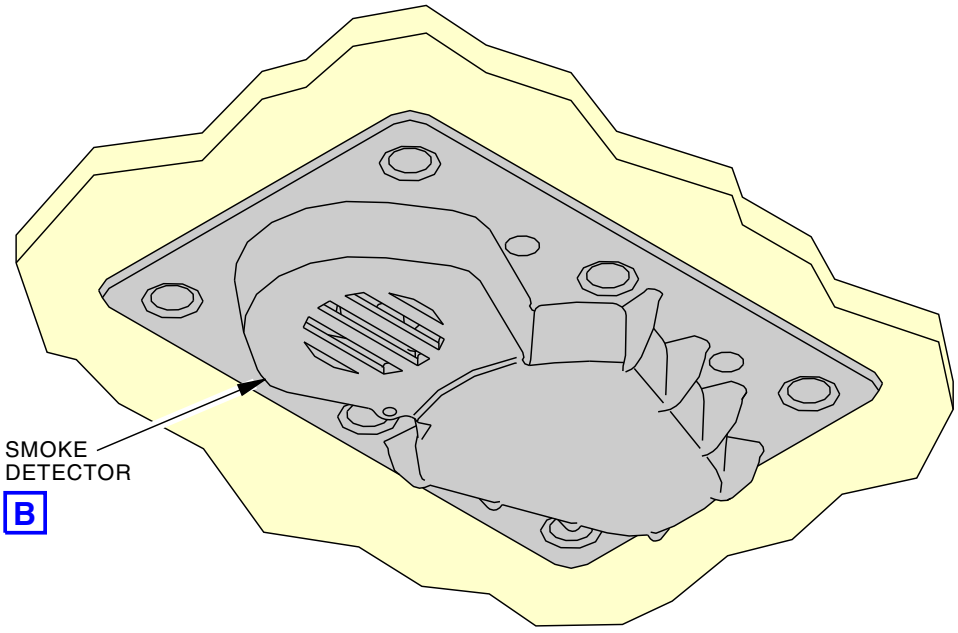
(2) Do this task: Lavatory Smoke Detection - Smoke Test, TASK 26-14-00-730-801.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



**LAVATORY
(EXAMPLE)**



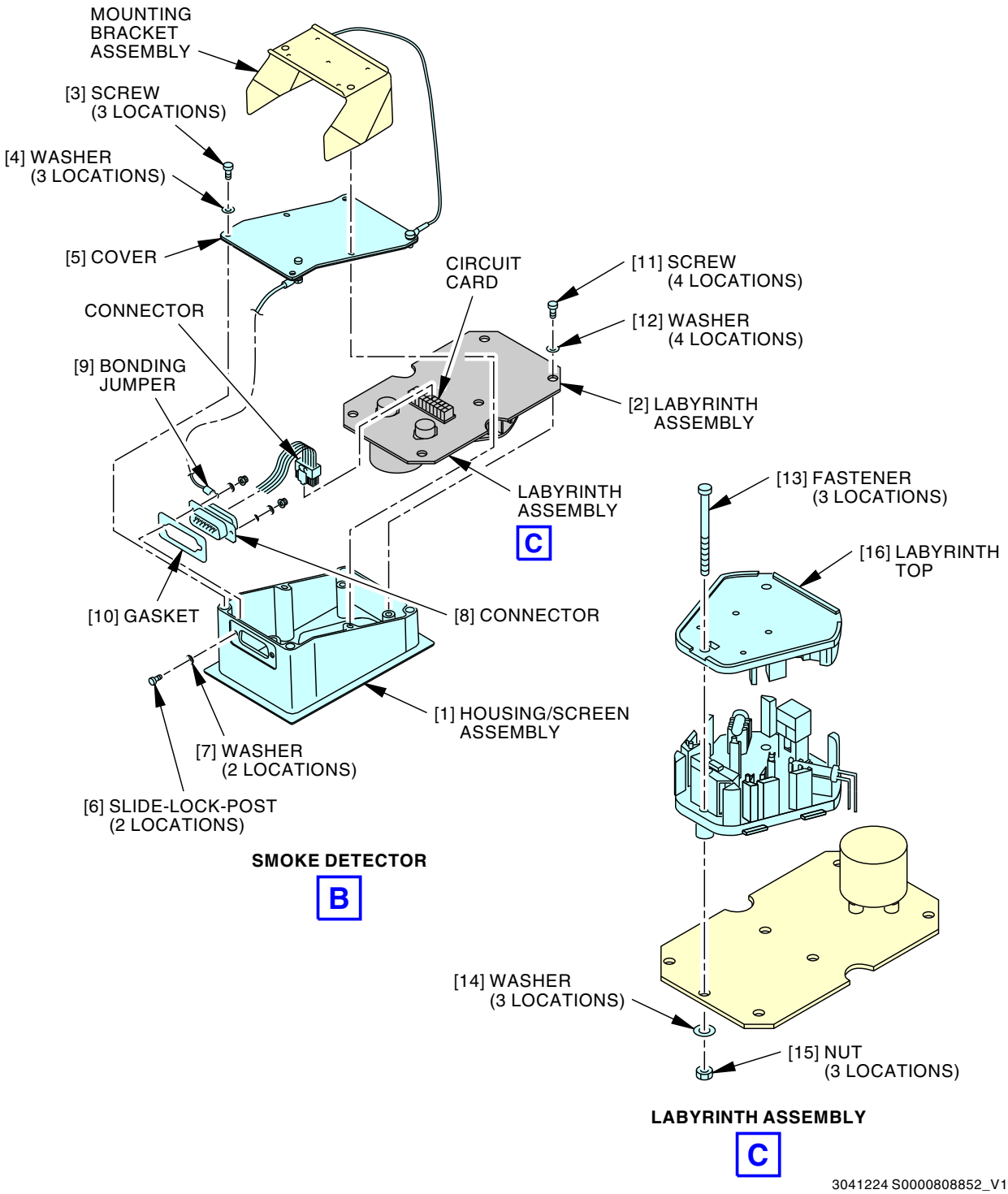
**LAVATORY SMOKE DETECTOR
(EXAMPLE)**

A

2412117 S00061529942_V3

**Lavatory Smoke Detector Cleaning
Figure 701/26-14-01-990-802 (Sheet 1 of 2)**

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Lavatory Smoke Detector Cleaning
Figure 701/26-14-01-990-802 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

APU FIRE DETECTION - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) APU fire detection - deactivation.

(2) APU fire detection - activation.

TASK 26-15-00-040-801

2. APU Fire Detection - Deactivation

A. General

(1) This task gives instructions to deactivate the APU fire detection system.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Procedure

SUBTASK 26-15-00-020-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

D. APU Fire Detection - Tryout

NOTE: This tryout is to make sure that the APU fire detection system is in a zero energy state.

SUBTASK 26-15-00-210-001

(1) Move and hold the TEST switch on the Fire Control Panel, P8-1, to the OVHT/FIRE position.

(a) On the Fire Control Panel, make sure that none of these lights come on:

1) APU Fire Switch light.

(b) On the Pilot's Glareshield, P7, make sure that none of these lights come on:

1) The Captain's and First Officer's MASTER CAUTION lights.

2) The Captain's and First Officer's FIRE WARN lights.

3) The OVHT/DET light.

(c) Make sure the flight compartment fire bell in the Aural Warning Module, M315, does not come on.

(d) In the right main wheel well, make sure these conditions occur:

1) The APU remote fire light, on the P28 panel, does not come on.

2) The APU fire warning horn does not come on.

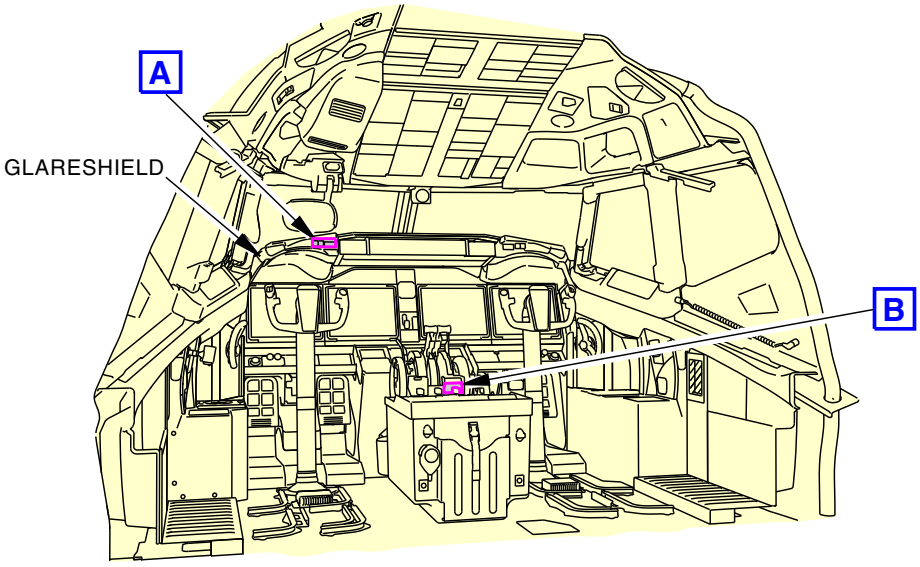
ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-15-00-210-002

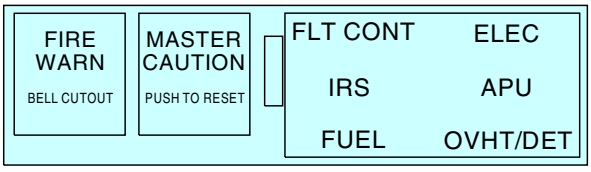
(2) Release the TEST switch on the Engine and APU Fire Control Panel.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

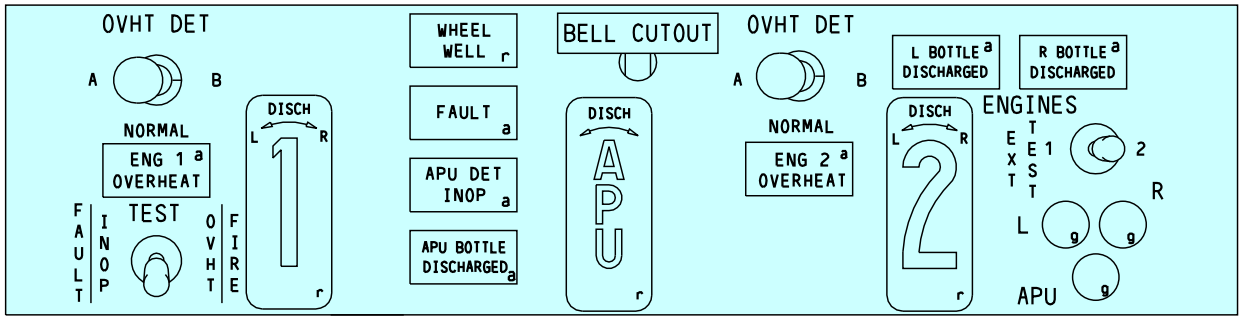


FLIGHT COMPARTMENT



ANNUNCIATOR LAYOUT, CAPTAIN'S

A



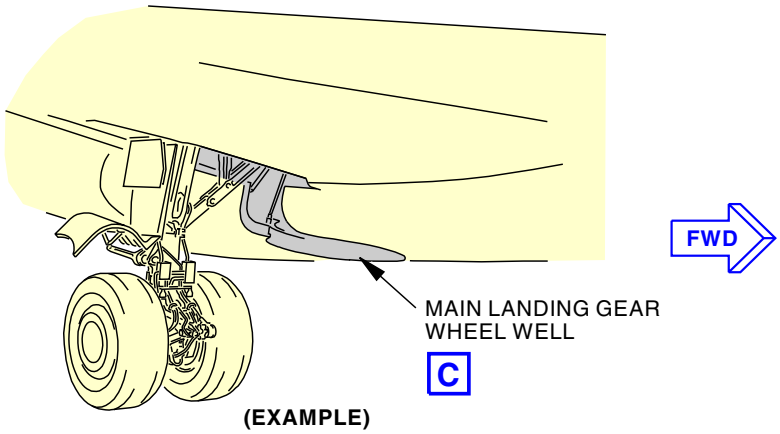
FIRE CONTROL PANEL (P8-1)

B

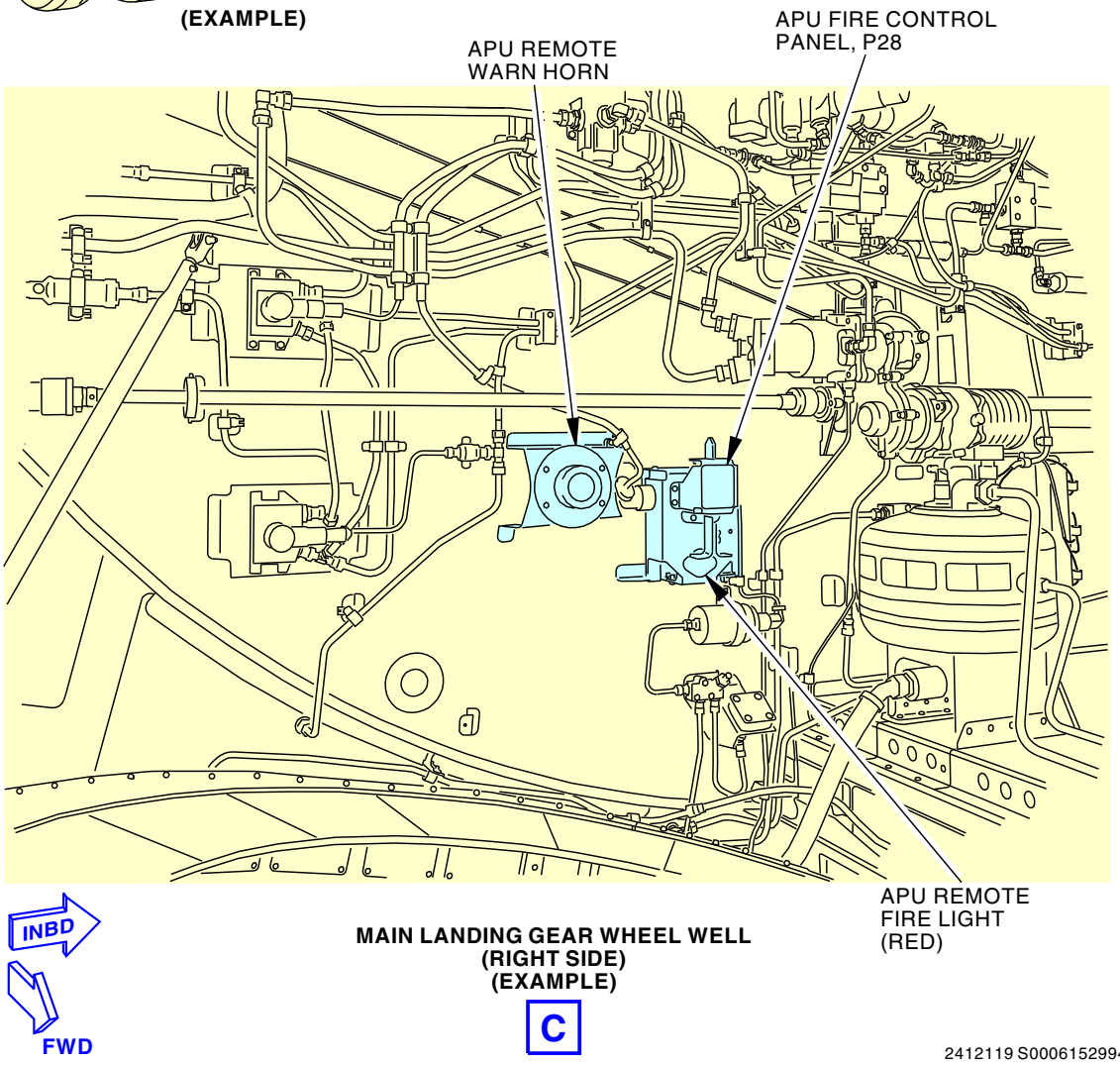
2412118 S00061529947_V1

APU Fire Detection System
Figure 201/26-15-00-990-801 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



(EXAMPLE)



MAIN LANDING GEAR WHEEL WELL
(RIGHT SIDE)
(EXAMPLE)

C

2412119 S00061529948_V3

APU Fire Detection System
Figure 201/26-15-00-990-801 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-15-00-440-801

3. APU Fire Detection - Activation

(Figure 201)

A. General

(1) This task gives instructions to activate the APU fire detection system.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Procedure

SUBTASK 26-15-00-420-001

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

APU FIRE DETECTION - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

(1) APU Fire Detection - Operational Test

(2) APU Fire Detection Loop Resistance - System Test

(3) APU Fire Detection Circuit - System Test.

TASK 26-15-00-710-801

2. APU Fire Detection - Operational Test

(Figure 501)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This test does a check of the Auxiliary Power Unit (APU) Fire Detection System without disturbing the detection system and it only uses the equipment that is on the airplane. This test will verify the circuit from the Engine and APU Fire Detection Control Module, M279 to the Fire Control Panel, P8-1, and to the APU Fire Control Panel, P28. The test will verify that the Engine and APU Fire Detection Control Module, that continuously monitors the detection loops, operates correctly.

NOTE: The FIRE WARN lights and the ALARM BELL are not activated if the APU fire detection system is inoperative. Only if the engines and APU are functioning properly will the FIRE WARN lights and ALARM BELL be activated. The circuit design precludes latent failure modes due to the parallel path of the test circuit and the actuation circuit.

NOTE: If AC power is removed (no power on main buses) and if there is a faulty APU LOOP, the FIRE BELL, the FIRE WARNING light, the MASTER CAUTION and the OVHT/DET lights are not activated.

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-14687	Cover - Warning Horn, APU Fire Detection Part #: C26010-1 Supplier: 81205

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

ECCN 9E991 BOEING PROPRIETARY - See title page for details

D. Prepare for the Operational Test

SUBTASK 26-15-00-860-002

(1) Open these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

E. FIRE/OVHT Test

SUBTASK 26-15-00-860-004

(1) Put the warning horn cover, SPL-14687, on the APU remote warning horn (located in the main landing gear wheel).

SUBTASK 26-15-00-710-001

(2) Move and hold the TEST switch on the Fire Control Panel, P8-1, to the OVHT/FIRE position to activate the audible signals and the warning lights.

NOTE: When performing the Fire/OVHT Test with a faulted APU fire detector loop, the MASTER CAUTION lights are off, the FIRE WARN and OVHT/DET lights are off, the Fire Bell does not sound and the APU DET INOP light will be on.

NOTE: Ignore the indication lights for the engine and wheel well detection system and the indications on the Engine and APU Fire Detection Control Module, M279, in the Electronic Equipment Bay.

(a) On the Engine and APU Fire Control Panel, P8–1, make sure that this light come on:

1) APU Fire Switch light (Red).

(b) On the Pilot's Glareshield Panel, P7, make sure that these lights come on:

1) The Captain's and First Officer's MASTER CAUTION lights (Amber).
2) The Captain's and First Officer's FIRE WARN lights (Red).
3) The OVHT/DET light (Amber).

(c) Make sure that the flight compartment fire bell in the Aural Warning Module, M315, comes on.

(d) In the right main wheel well, make sure that these conditions occur:

1) The APU remote fire light (red), on the APU Fire Control Panel, P28 panel, flashes on and off continuously.
2) The APU fire remote warning horn comes on.

SUBTASK 26-15-00-710-002

(3) Release the TEST switch on the Engine and APU Fire Control Panel, P8-1.

(a) On the Engine and APU Fire Control Panel, P8-1, make sure that this light go off:

1) APU Fire Switch light (Red).

(b) On the Pilot's Glareshield, make sure that these lights go off:

1) The Captain's and First Officer's MASTER CAUTION lights (Amber).
2) The Captain's and First Officer's FIRE WARN lights (Red).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

3) The OVHT/DET light (Amber).

(c) Make sure that the flight compartment fire bell in the Aural Warning Module, M315, stops.

(d) In the right main wheel well, make sure that these conditions occur:

1) The APU remote fire light (red), on the APU Fire Control Panel, P28, goes off.

2) The APU fire remote warning horn stops.

F. FAULT/INOP Test from the Engine and APU Fire Control Panel, P8-1

SUBTASK 26-15-00-710-003

(1) Move and hold the TEST switch on the Engine and APU Fire Control Panel to the FAULT/INOP position.

NOTE: Ignore the indication lights for the engine detection system and the indications on the Engine and APU Fire Detection Control Module, M279, in the Electronic Equipment Bay.

(a) On the Engine and APU Fire Control Panel, make sure that these lights come on:

1) APU DET INOP light (Amber).

NOTE: When performing the FAULT/INOP Test with a faulted APU detector loop, the APU DET INOP light will stay on, the MASTER CAUTION lights are off and the FAULT light will come on during the test.

2) FAULT light (Amber).

(b) On the Pilot's Glareshield, P7, make sure that these lights come on:

1) The Captain's and First Officer's MASTER CAUTION lights (Amber).

2) The OVHT/DET light (Amber).

SUBTASK 26-15-00-710-004

(2) Release the TEST switch on the Engine and APU Fire Control Panel.

(a) On the Engine and APU Fire Control Panel, make sure that these lights are off:

1) APU DET INOP light (Amber).

2) FAULT light (Amber).

(b) On the Pilot's Glareshield, P7, make sure that these lights are off:

1) The Captain's and First Officer's MASTER CAUTION lights (Amber).

2) The OVHT/DET light (Amber).

G. FAULT/INOP Test from the Engine and APU Fire Detection Control Module, M279.

(Figure 502)

SUBTASK 26-15-00-710-005

(1) Push and hold the FAULT/INOP TEST switch on the Engine and APU Fire Detection Control Module, in the Electrical and Electronics Compartment.

NOTE: Ignore the indications for the engine detection system and the indications that will occur in the flight compartment on the Engine and APU Fire Control Panel, P8-1, and the Pilot's Glareshield, P7.

(a) On the Engine and APU Fire Detection Control Module, make sure that these lights come on:

1) APU (Amber).

2) The four FAULT CODE lights are ON-ON-ON-ON.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-15-00-710-006

(2) Release the FAULT/INOP TEST switch on the Engine and APU Fire Detection Control Module.

(a) On the Engine and APU Fire Detection Control Module, make sure that these lights are off:

1) APU (Amber).

2) The four FAULT CODE lights are OFF-OFF-OFF-OFF.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 26-15-00-940-001

(1) Remove the warning horn cover, SPL-14687, from the APU remote warning horn (located in the main landing gear wheel).

SUBTASK 26-15-00-860-005

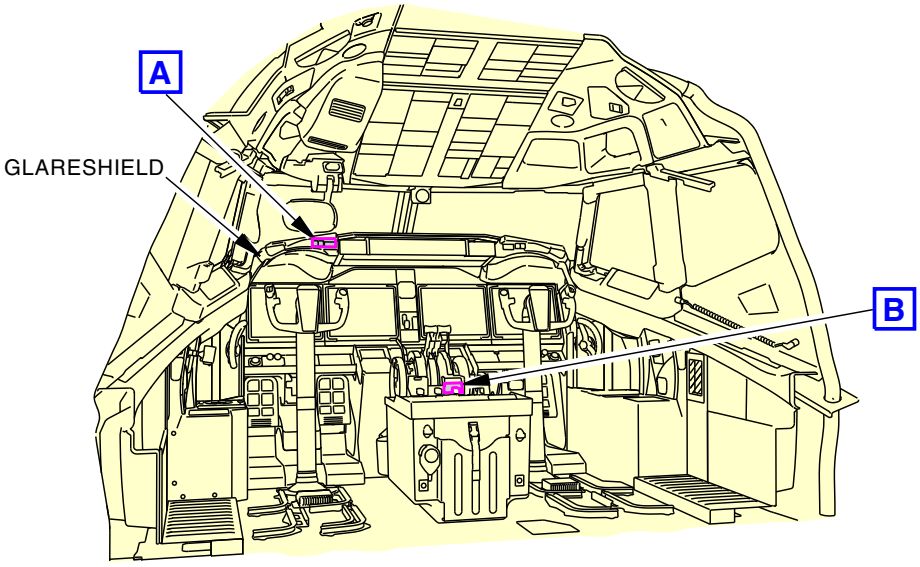
(2) Make sure that these circuit breakers are closed:

F/O Electrical System Panel, P6-2

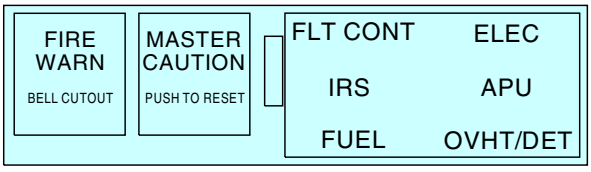
Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

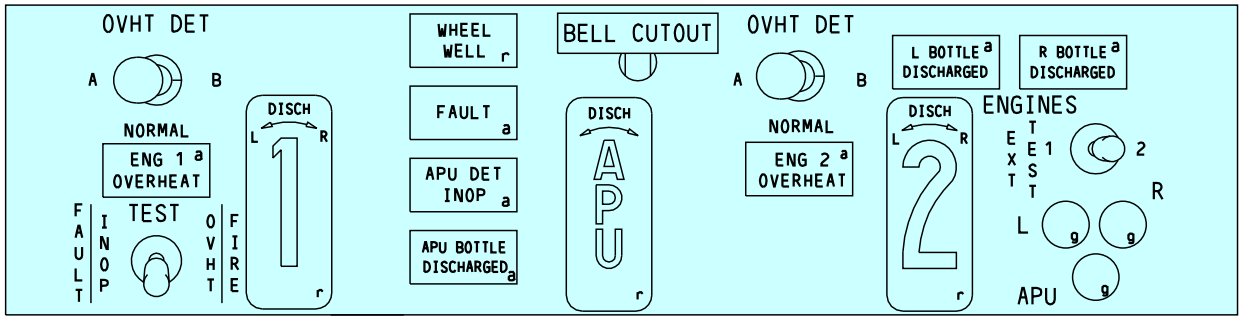


FLIGHT COMPARTMENT



ANNUNCIATOR LAYOUT, CAPTAIN'S

A



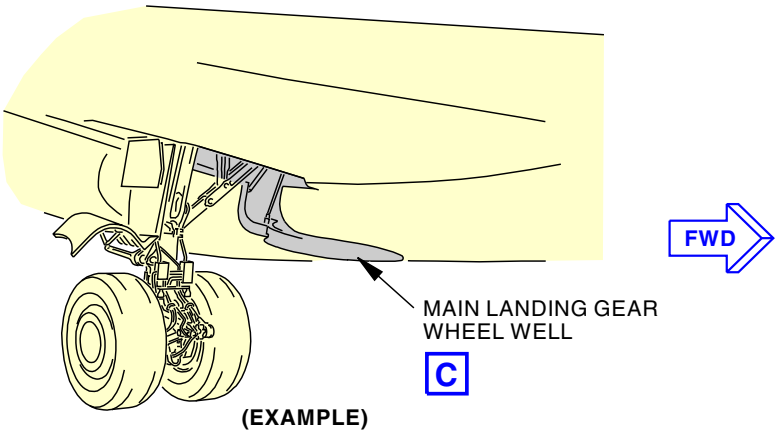
FIRE CONTROL PANEL (P8-1)

B

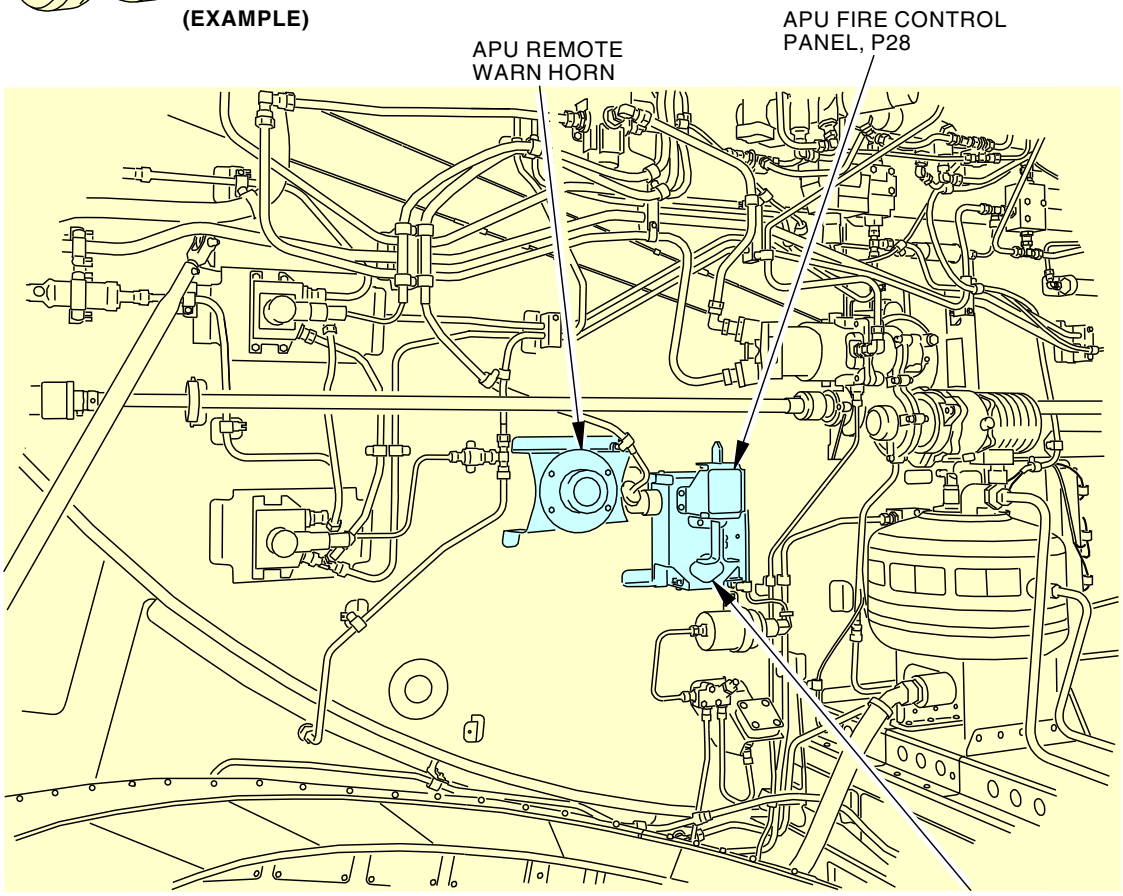
2412118 S00061529947_V1

Auxiliary Power Unit (APU) Fire Detection Operational Test
Figure 501/26-15-00-990-802 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



(EXAMPLE)



MAIN LANDING GEAR WHEEL WELL
(RIGHT SIDE)
(EXAMPLE)

C

2412119 S00061529948_V3

Auxiliary Power Unit (APU) Fire Detection Operational Test
Figure 501/26-15-00-990-802 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-15-00-730-801

3. APU Fire Detection Loop Resistance - System Test

(Figure 502)

A. General

(1) This test does a check of the APU fire detection loop circuit. It disturbs the engine fire detection system by removal of the Engine and APU Fire Detection Control Module, M279.

B. References

Reference	Title
26-10-01-000-801	Engine and APU Fire Detection Module Removal (P/B 401)
26-10-01-400-801	Engine and APU Fire Detection Module Installation (P/B 401)
32-09-00-860-802	Return the Airplane to the Ground Mode (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-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 #: 21 Supplier: 89536 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
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

E. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

F. Prepare for the System Test

SUBTASK 26-15-00-860-007

(1) Make sure the airplane is in ground mode (TASK 32-09-00-860-802).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-15-00-860-008

(2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

(3) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

SUBTASK 26-15-00-010-001

(4) To get access to the Electronic Equipment Bay, do this step.

(a) Open this access door:

Number	Name/Location
117A	Electronic Equipment Access Door

G. APU Fire Detection Loop Resistance System Test

SUBTASK 26-15-00-020-002

(1) Do this task: Engine and APU Fire Detection Module Removal, TASK 26-10-01-000-801.

SUBTASK 26-15-00-730-001

(2) Use a digital/analog multimeter, COM-1793, to measure the resistance across pin 25 of connector D1000 and airplane ground.

(a) Make sure the resistance is 1009 ±45 ohms.

SUBTASK 26-15-00-420-002

(3) Do this task: Engine and APU Fire Detection Module Installation, TASK 26-10-01-400-801.

SUBTASK 26-15-00-860-009

(4) Close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

(5) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(Continued)

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

SUBTASK 26-15-00-710-007

(6) Make sure the APU FAULT AREA light on the Engine and APU Fire Detection Control Module, M279, is off.

SUBTASK 26-15-00-710-008

(7) Make sure the APU DET INOP light on the Engine and APU Fire Control Panel, P8-1, is off.

SUBTASK 26-15-00-710-009

(8) Push the Captain's or First Officer's MASTER CAUTION light, on the Pilot's Glareshield Panel, P7.

SUBTASK 26-15-00-710-010

(9) Make sure the Captain's and First Officer's MASTER CAUTION light, on the Pilot's Glareshield Panel, P7, is off.

SUBTASK 26-15-00-710-011

(10) Make sure the OVHT/DET light, on the Pilot's Glareshield Panel, P7, is off.

H. Put the Airplane Back to Its Usual Condition

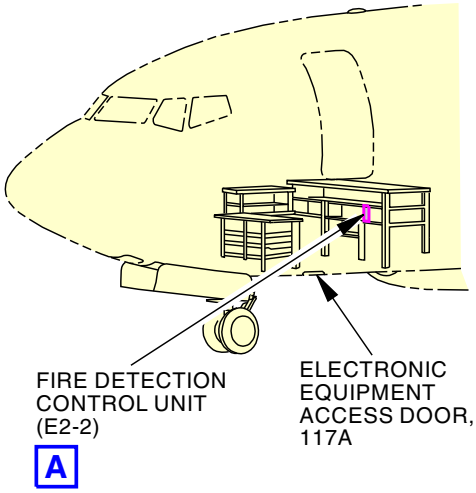
SUBTASK 26-15-00-410-001

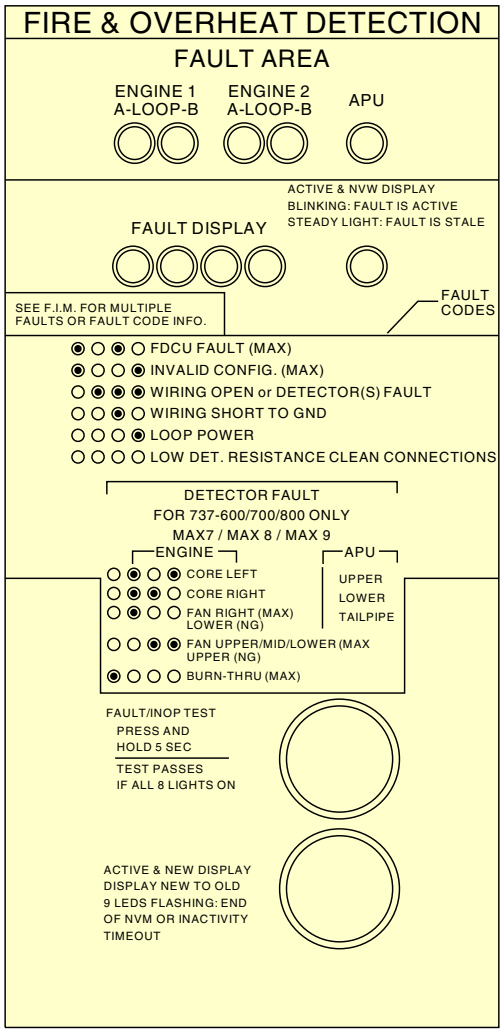
(1) Close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details





FIRE DETECTION CONTROL UNIT

A

2412120 S00061529953_V2

Auxiliary Power Unit (APU) Fire Detection Resistance Test
Figure 502/26-15-00-990-803

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-15-00-730-802

4. APU Fire Detection Circuit - System Test

(Figure 501, Figure 503)

A. General

(1) This test does a check of the entire APU fire detection system. It disturbs the APU fire detection system and requires additional test equipment.

(2) The APU Fire Detection - Operational Test, TASK 26-15-00-710-801, does a test to make sure that the Engine and APU Fire Detection Control Module, which continuously monitors the detection loops, operates correctly. This operational test is done without a breakout box.

(3) The task: APU Fire Detection Loop Resistance - System Test, TASK 26-15-00-730-801, does a test of the resistance (only) of the APU fire detection loop circuit. This resistance test is done without a breakout box.

B. References

Reference	Title
24-22-00-860-801	Supply Electrical Power (P/B 201)
26-10-01-000-801	Engine and APU Fire Detection Module Removal (P/B 401)
26-10-01-400-801	Engine and APU Fire Detection Module Installation (P/B 401)
32-09-00-860-802	Return the Airplane to the Ground Mode (P/B 201)
49-11-00-860-802	APU Usual Shutdown (P/B 201)
49-61-12-000-801	Electronic Control Unit Removal (P/B 401)
49-61-12-400-801	Electronic Control Unit 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-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 #: 21 Supplier: 89536 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-1655	Equipment - Test, APU/Engine Fire Detection System Part #: C26005-1 Supplier: 81205
SPL-14687	Cover - Warning Horn, APU Fire Detection Part #: C26010-1 Supplier: 81205

ECCN 9E991 BOEING PROPRIETARY - See title page for details

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right
315	APU Compartment - Left
316	APU Compartment - Right

E. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door
315A	APU Cowl Door

F. Prepare for the System Test

SUBTASK 26-15-00-860-010

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-801.

SUBTASK 26-15-00-860-011

(2) Make sure the APU is not operating (TASK 49-11-00-860-802).

SUBTASK 26-15-00-860-012

(3) Make sure the airplane is in ground mode (TASK 32-09-00-860-802).

SUBTASK 26-15-00-860-013

(4) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

(5) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

SUBTASK 26-15-00-010-002

(6) Open these access panels:

Number	Name/Location
117A	Electronic Equipment Access Door
315A	APU Cowl Door

SUBTASK 26-15-00-480-001

(7) Connect the test box equipment, SPL-1655, to the terminal lug of the APU LOWER Fire Detector, M1756, and airplane ground (Figure 503 (Sheet 2)).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(a) Make sure all the toggle switches on the test box are in the NORMAL positions.

(b) Connect one alligator clip to the responder bracket or to a grounding lug.

(c) Connect the other alligator clip to the responder lug.

SUBTASK 26-15-00-480-002

(8) Put the warning horn cover, SPL-14687, on the APU remote warning horn (located in the main landing gear wheel well).

SUBTASK 26-15-00-860-014

(9) Do this task: Engine and APU Fire Detection Module Removal, TASK 26-10-01-000-801.

SUBTASK 26-15-00-760-001

(10) Use a digital/analog multimeter, COM-1793, to measure the resistance across pin 25 of connector D1000 and airplane ground.

(a) Make sure the resistance is 1009 ±45 ohms.

SUBTASK 26-15-00-860-015

(11) Do this task: Engine and APU Fire Detection Module Installation, TASK 26-10-01-400-801.

SUBTASK 26-15-00-860-016

(12) Close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1
B	19	C01344	APU FIRE SW POWER

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

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	14	C00033	AUX POWER UNIT CONT

SUBTASK 26-15-00-860-017

(14) Make sure the APU FAULT AREA light on the Engine and APU Fire Detection Control Module, M279, is off.

SUBTASK 26-15-00-860-018

(15) Make sure the APU DET INOP light on the Engine and APU Fire Control Panel, P8-1, is off.

G. Fault Indication Circuit Test

SUBTASK 26-15-00-860-019

(1) Push the Captain's or First Officer's MASTER CAUTION light, on the Pilot's Glareshield, P7.

SUBTASK 26-15-00-860-020

(2) Make sure the Captain's and First Officer's MASTER CAUTION light, on the Pilot's Glareshield is off.

SUBTASK 26-15-00-860-021

(3) Make sure the OVHT/DET light, on the Pilot's Glareshield is off.

SUBTASK 26-15-00-730-002

(4) On the test box, move the APU LOOP GND FAULT switch to the GND FAULT position.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(a) Make sure the APU DET INOP light (amber) on the Fire Control Panel, P8-1, comes on.

(b) On the Engine and APU Fire Detection Control Module, M279, make sure these conditions occur:

1) The APU LOOP FAULT AREA light comes on.

2) Fault Codes “OFF-OFF-OFF-OFF” (red) for WIRING SHORT TO GND.

SUBTASK 26-15-00-730-003

(5) On the test box, move the APU LOOP GND FAULT switch to the NORMAL position.

(a) Make sure the APU DET INOP light on the Fire Control Panel, P8-1, is off.

(b) On the Engine and APU Fire Detection Control Module, M279, make sure these conditions occur:

1) The APU LOOP FAULT AREA light comes on.

2) Fault Codes “OFF-OFF-OFF-OFF” (red) for WIRING SHORT TO GND.

H. APU Fire Indication Circuit Test

SUBTASK 26-15-00-730-004

(1) On the test box, move the APU LOOP FIRE switch to the FIRE position.

(a) Make sure the "APU" Fire Handle light (red), on the Fire Control Panel, P8-1, comes on.

(b) On the Pilot's Glareshield, P7, make sure these conditions occur:

1) Both the Captain and First Officer's MASTER WARN lights (red) come on.

(c) Make sure the flight compartment fire bell, on the Warning Module, M315, comes on (rings).

SUBTASK 26-15-00-730-005

(2) On the test box, move the APU LOOP FIRE switches to the NORMAL position.

(a) Make sure the "APU" Fire Handle light, on the Engine and APU Fire Control Panel, P8-1, is off.

(b) On the Pilot's Glareshield, P7, make sure these conditions occur:

1) Both he Captain and First Officer's FIRE WARN lights are off.

(c) Make sure the flight compartment fire bell, on the Warning Module, M315, stops (silenced).

SUBTASK 26-15-00-860-022

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

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	14	C00033	AUX POWER UNIT CONT

SUBTASK 26-15-00-860-023

(4) On the test box, move the APU LOOP GND FAULT switch to the GND FAULT position.

(a) Make sure these Fire Detection Control Unit (M279) lights come on:

NOTE: See the decal on the front panel of M279 for the fault codes.

1) 'APU LOOP FAULT AREA' light (amber).

2) Fault Codes “OFF-OFF-ON-OFF” (red) for WIRING SHORT TO GND.

SUBTASK 26-15-00-860-024

(5) On the test box, move the APU LOOP GND FAULT switch to the NORMAL position.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(a) Make sure these Fire Detection Control Unit (M279) lights are off:

1) 'APU LOOP FAULT AREA' light (amber).

2) Fault Codes “OFF-OFF-OFF-OFF” (red) for WIRING SHORT TO GND.

SUBTASK 26-15-00-860-025

(6) On the test box, move the APU LOOP GND FAULT switch to the FIRE position.

(a) Make sure these conditions occur in the main wheel well:

1) The APU Remote Fire light (red) on the P28 APU Fire Control panel is flashing on and off at approximately one cycle each second.

2) The APU Fire Warning horn (M277) sounds.

SUBTASK 26-15-00-860-026

(7) On the test box, move the APU LOOP GND FAULT switch to the NORMAL position.

(a) Make sure these conditions occur in the main wheel well:

1) The APU Remote Fire light (red) on the P28 APU Fire Control panel is off.

2) The APU Fire Warning horn (M277) does not sound.

SUBTASK 26-15-00-860-027

(8) Do this task: Electronic Control Unit Removal, TASK 49-61-12-000-801.

SUBTASK 26-15-00-860-028

(9) Connect a digital/analog multimeter, COM-1793, with a 4K Ohm resistor assembly, to measure the voltage across pin B2 of connector D3599B and airplane ground.

NOTE: Connector D3599B is where the APU Electronic Control Unit M1709 was installed on the CVR/ECU rack.

SUBTASK 26-15-00-800-001

(10) On the test box, move the APU LOOP FIRE switches to the FIRE position.

(a) Make sure the voltage (across pin B2) is more than or equal to 24 VDC.

SUBTASK 26-15-00-860-029

(11) On the test box, move the APU LOOP FIRE switches to the NORMAL position.

(a) Make sure the voltage (across pin B2) is 0 ± 2 VDC.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 26-15-00-020-003

(1) Remove the warning horn cover, SPL-14687, on the APU remote warning horn (located in the main landing gear wheel well).

SUBTASK 26-15-00-860-030

(2) Remove the digital/analog multimeter, COM-1793, with the 4K Ohm resistor assembly from pin B2 of connector D3599B and airplane ground.

SUBTASK 26-15-00-480-003

(3) Remove the equipment, SPL-1655, from the terminal lug of the APU LOWER Fire Detector, M1756, and airplane ground.

SUBTASK 26-15-00-420-003

(4) Do this task: Electronic Control Unit Installation, TASK 49-61-12-400-801.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-15-00-860-031

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

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	14	C00033	AUX POWER UNIT CONT

SUBTASK 26-15-00-860-032

(6) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

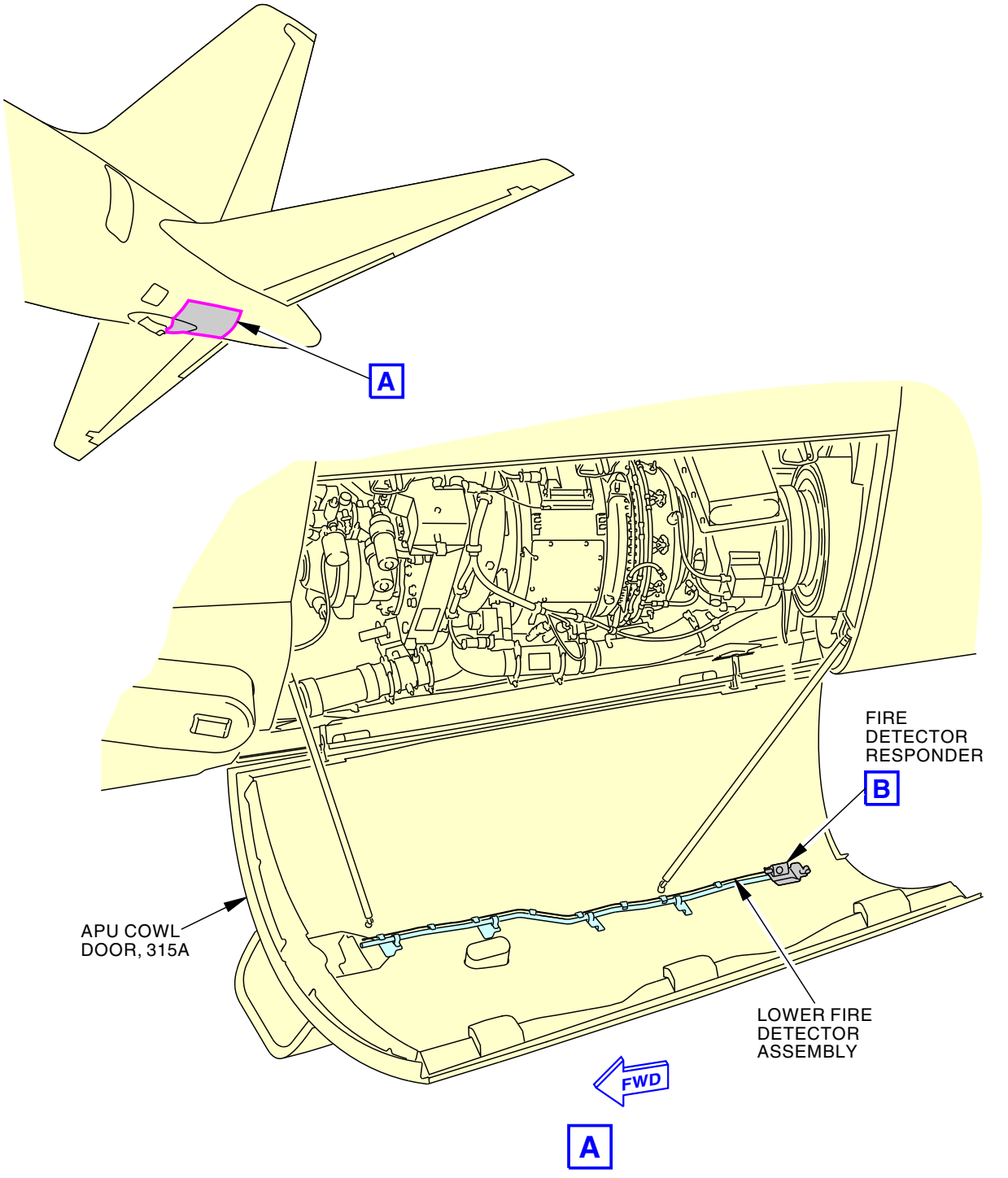
SUBTASK 26-15-00-410-002

(7) Close these access panels:

Number	Name/Location
117A	Electronic Equipment Access Door
315A	APU Cowl Door

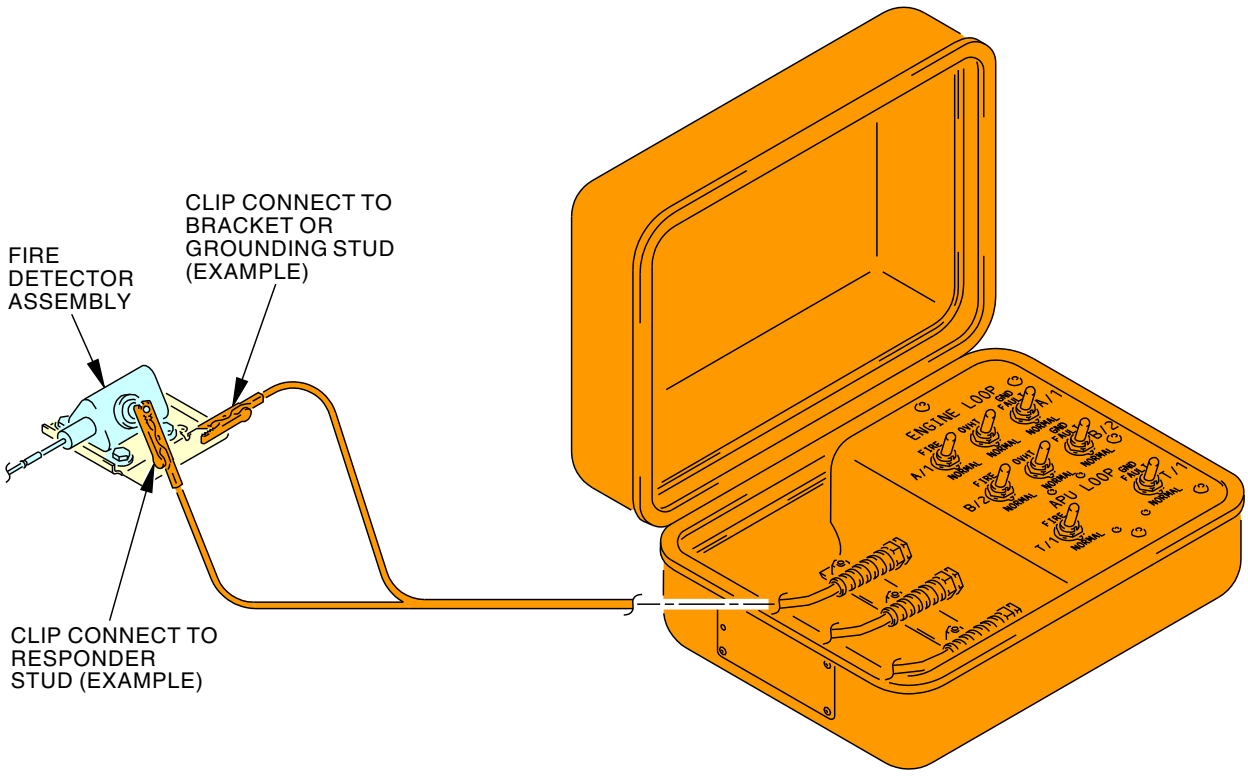
——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Auxiliary Power Unit (APU) Fire Detection Circuit Test
Figure 503/26-15-00-990-804 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

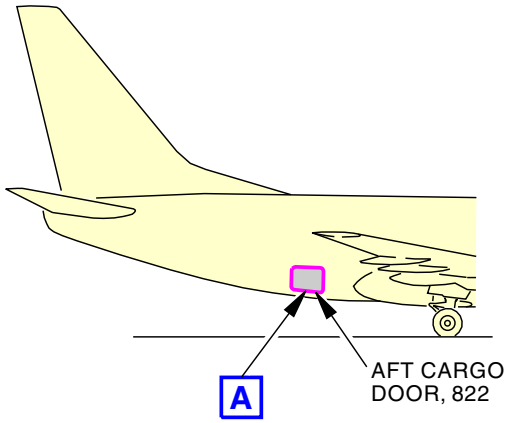


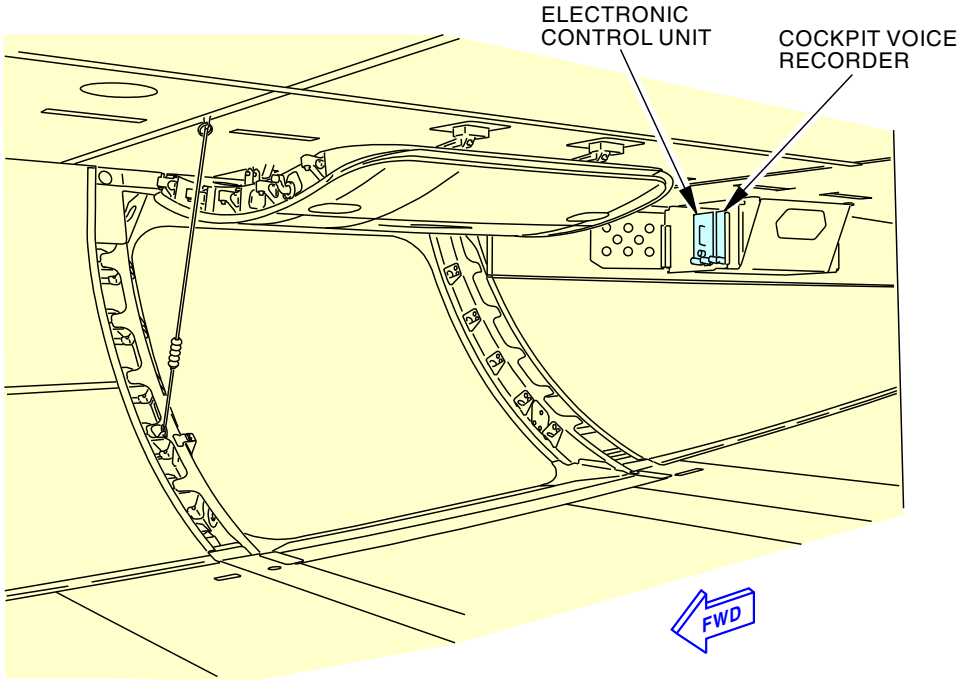
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2412122 S00061529956_V1

Auxiliary Power Unit (APU) Fire Detection Circuit Test
Figure 503/26-15-00-990-804 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details





AFT CARGO COMPARTMENT

A

2412123 S00061529957_V1

Electronic Control Unit Test
Figure 504/26-15-00-990-805

ECCN 9E991 BOEING PROPRIETARY - See title page for details

APU OVERHEAT DETECTORS - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) Removal of the APU overheat detector elements.

(2) Installation of the APU overheat detector elements.

(3) Removal of the APU overheat detector assemblies.

(4) Installation of the APU overheat detector assemblies.

B. There are three overheat detectors in the APU compartment. One overheat detector is installed on the APU door. The second is installed on the upper firewall panel in the APU compartment. The third detector is installed above the APU exhaust duct. The overheat detectors are single loop detectors.

TASK 26-15-01-000-801

2. APU Overheat Detector Element Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the APU Overheat Detector Element.

B. Location Zones

Zone	Area
212	Flight Compartment - Right
315	APU Compartment - Left
316	APU Compartment - Right
317	Tail Cone Compartment - Left
318	Tail Cone Compartment - Right

C. Access Panels

Number	Name/Location
315A	APU Cowl Door
318BR	Tailcone Access Door

D. Prepare for the Removal

SUBTASK 26-15-01-840-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	23	C00403	FIRE PROTECTION DETECTION APU
B	19	C01344	APU FIRE SW POWER

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	14	C00033	AUX POWER UNIT CONT

SUBTASK 26-15-01-010-001

(2) To get access to the upper or lower APU detector, open this access panel:

Number	Name/Location
315A	APU Cowl Door

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-15-01-010-002

(3) To get access to the APU tailpipe overheat detector, open this access panel:

Number	Name/Location
318BR	Tailcone Access Door

E. APU Overheat Detector Element Removal

SUBTASK 26-15-01-000-001

(1) Do these steps to remove the detector element [7] from the detector housing:

(a) Loosen the screw [10] on each clamp [9].

(b) Remove the nut [5] and washer [4] from the terminal lug.

(c) Disconnect the lead from the terminal lug.

(d) Remove the four bolts [2] from the overheat detector housing.

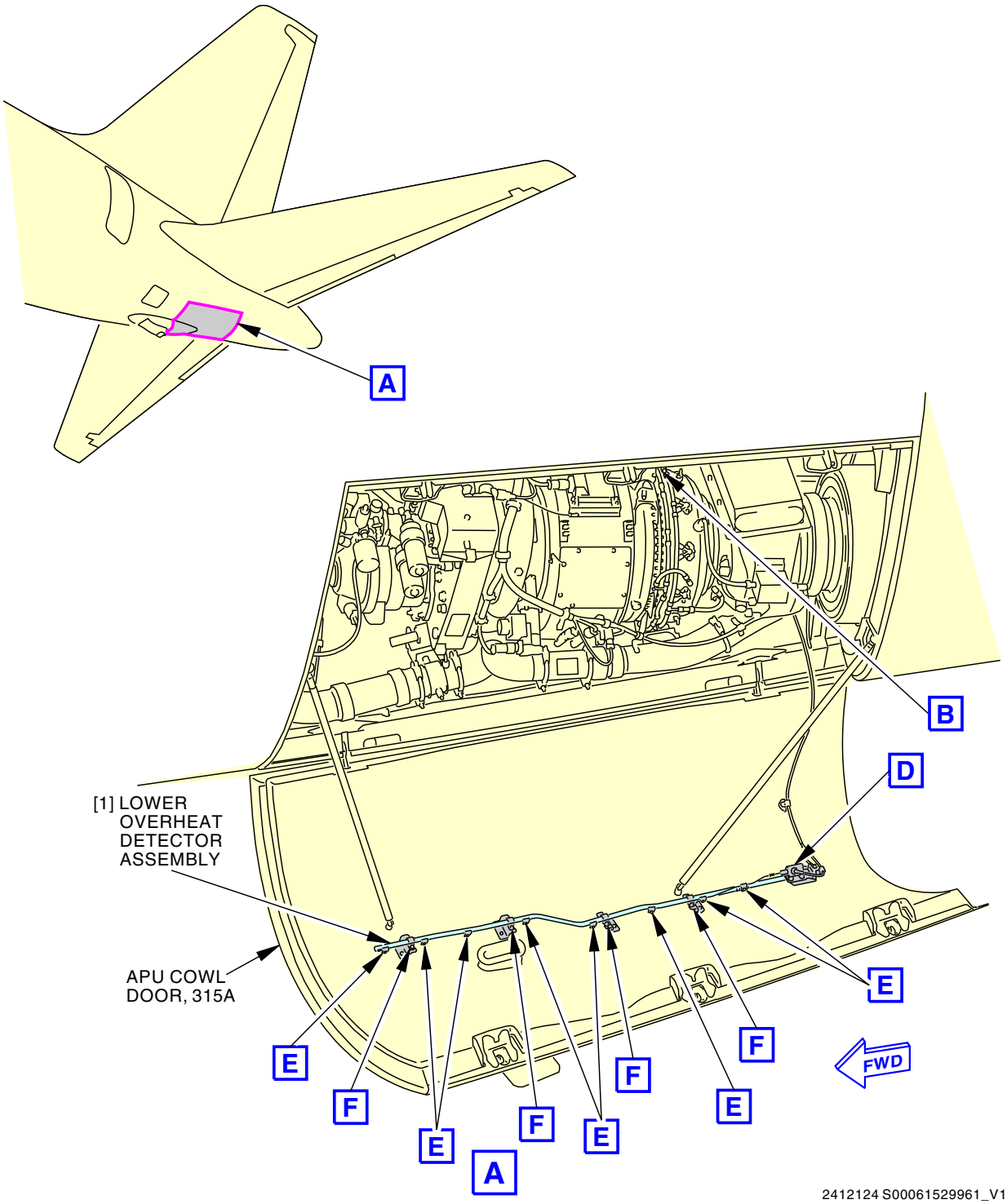
(e) Remove the element [7] from the clamp [9].

(f) Remove the grommets [8] from the element [7] to use on the new element.

(g) Remove the element [7].

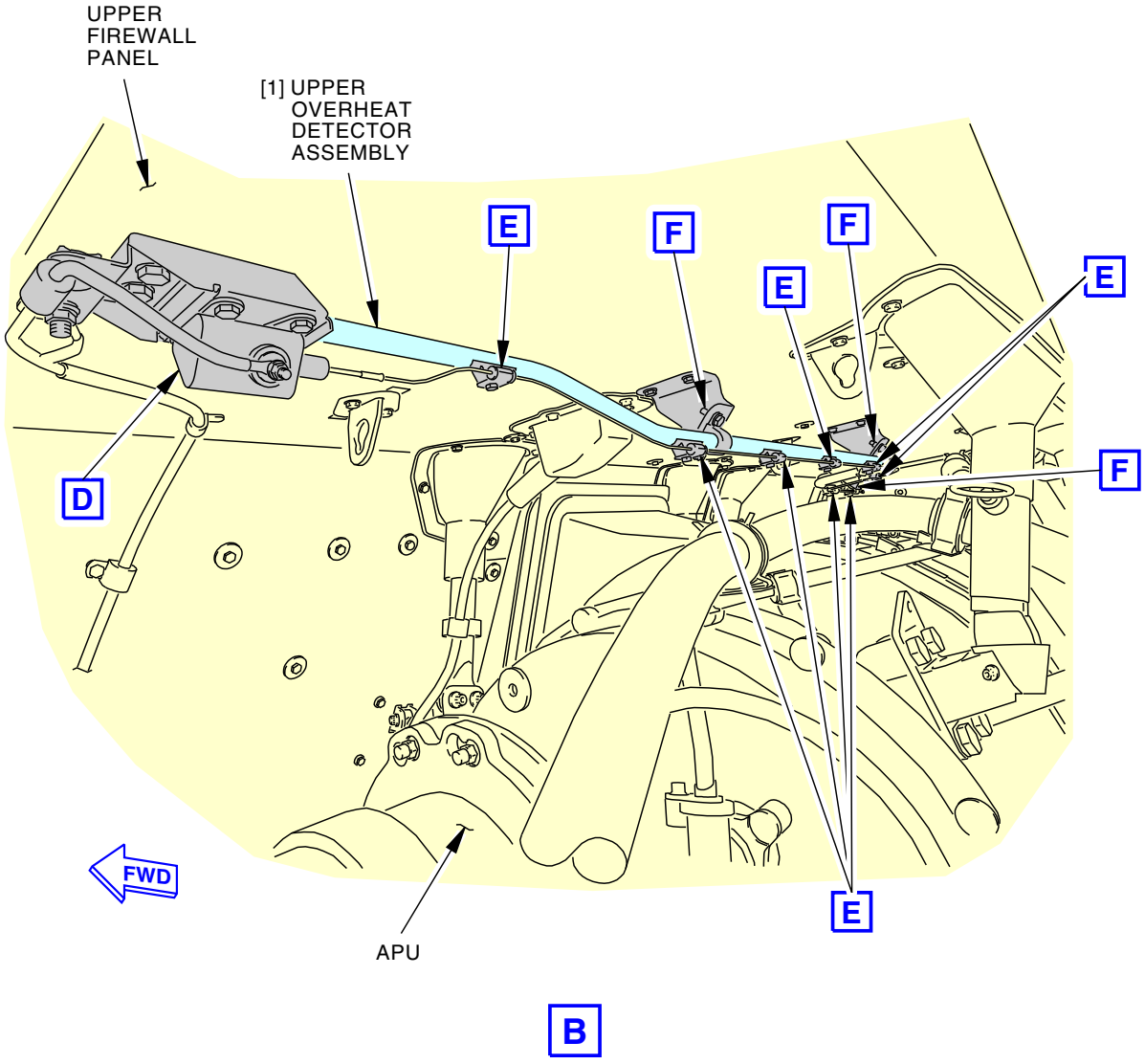
——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Auxiliary Power Unit (APU) Overheat Detector Installation
Figure 401/26-15-01-990-801 (Sheet 1 of 4)

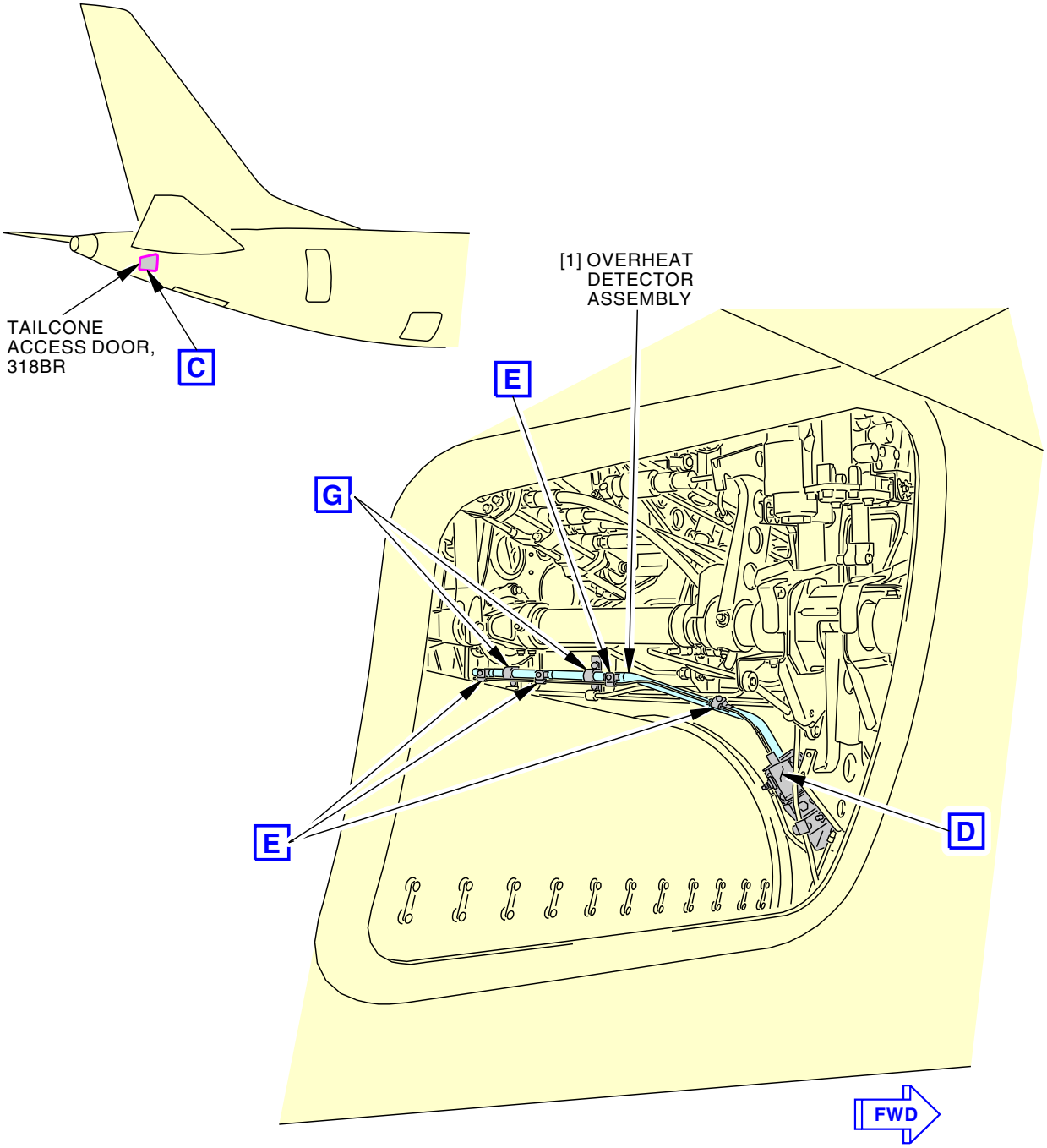
ECCN 9E991 BOEING PROPRIETARY - See title page for details



2412125 S00061529962_V1

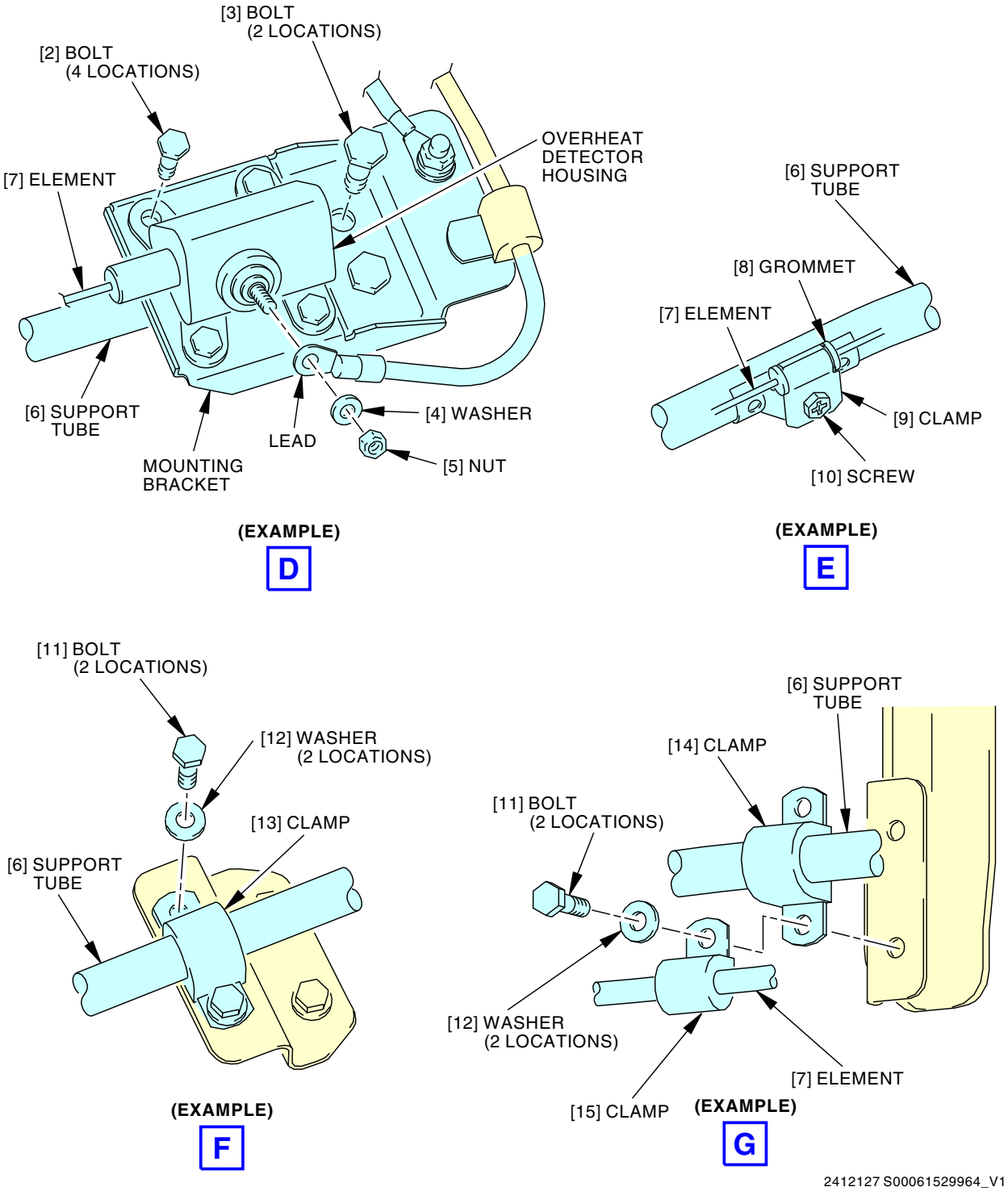
Auxiliary Power Unit (APU) Overheat Detector Installation
Figure 401/26-15-01-990-801 (Sheet 2 of 4)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Auxiliary Power Unit (APU) Overheat Detector Installation
Figure 401/26-15-01-990-801 (Sheet 3 of 4)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Auxiliary Power Unit (APU) Overheat Detector Installation
Figure 401/26-15-01-990-801 (Sheet 4 of 4)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-15-01-400-801

3. APU Overheat Detector Element Installation

(Figure 401)

A. General

(1) This task gives instructions to install the APU Overheat Detector Element.

B. References

Reference	Title
26-15-00-710-801	APU Fire Detection - Operational Test (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
COM-1550	Bonding Meter - 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 #: M1B Supplier: 3AD17 Part #: T477W (C15292) Supplier: 06659

D. Consumable Materials

Reference	Description	Specification
A50154	Silcoset 152 - cold cure, white, silicone compound	
B00083	Solvent - VM&P Naphthas	TT-N-95 Type II, ASTM D-3735 Type III
D00004	Compound - Antiseize, Graphite-Petrolatum	SAE AMS 2518

E. Location Zones

Zone	Area
212	Flight Compartment - Right
315	APU Compartment - Left
316	APU Compartment - Right
317	Tail Cone Compartment - Left
318	Tail Cone Compartment - Right

F. Access Panels

Number	Name/Location
315A	APU Cowl Door
318BR	Tailcone Access Door

ECCN 9E991 BOEING PROPRIETARY - See title page for details

G. Prepare for the Installation

SUBTASK 26-15-01-840-002

(1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	23	C00403	FIRE PROTECTION DETECTION APU
B	19	C01344	APU FIRE SW POWER

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	14	C00033	AUX POWER UNIT CONT

SUBTASK 26-15-01-010-003

(2) To get access to the upper or lower APU detector, open this access panel:

Number	Name/Location
315A	APU Cowl Door

SUBTASK 26-15-01-010-004

(3) To get access to the APU tailpipe overheat detector, open this access panel:

Number	Name/Location
318BR	Tailcone Access Door

H. APU Overheat Detector Element Installation

SUBTASK 26-15-01-420-001

(1) Do these steps to install an overheat detector element [7]:

(a) Make sure the detector housing and mounting bracket are clean.

(b) Put the overheat detector element [7] in position along the support tube [6].

(c) Put the overheat detector housing in the correct position on the mounting bracket.

(d) Install the bolts [2] that attach the overheat detector housing to the mounting bracket.

1) Tighten the bolts to 45.0 ±5.0 in-lb (5.1 ±0.6 N·m).

(e) Install the grommets [8] on the detector element [7] at each clamp [9] location.

(f) Install the element [7] in the clamp [9].

(g) Make sure the end of the detector element [7] ends less than 1 in. (25 mm) past the last grommet [8].

1) If the detector element [7] extends more than 1 in. (25 mm), adjust the length of the element [7] between each clamp [9] so that all slack is evenly distributed.

(h) Make sure there is a minimum of 0.12 in. (3.0 mm) between the overheat detector element [7] and the support tube [6].

CAUTION

FOR THE LAST ASSEMBLY, USE LUBRICATED SCREWS. IF SCREWS ARE REUSED, OR IF NON-LUBRICATED SCREWS ARE USED THEY CAN FREEZE BECAUSE OF HIGH TEMPERATURES. THE THREADS ON THESE SCREWS MUST HAVE A LAYER OF COMPOUND, D00004, BEFORE INSTALLATION.

(i) Apply compound, D00004, to the screw [10] threads.

(j) Tighten the screw [10] on each clamp [9] until 1-1/2 to 3 threads extend through the nut.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

1) Make sure the grommets [8] and clamp [9] are tight.

2) Make sure the ends of the screws [10] do not touch the support tube [6].

(k) Apply compound, D00004, to the threads of the terminal lug.

(l) Put the lead in position on the terminal lug, and attach with a washer [4] and nut [5].

(m) Tighten the nut to 35.0 ±3.0 in-lb (4.0 ±0.4 N·m).

(n) Apply Silcoset 152 adhesive, A50154 to the terminal lugs.

SUBTASK 26-15-01-280-001

(2) Do a check of the resistance between the element stud and the airplane structure.

(a) Use an intrinsically safe approved bonding meter, COM-1550, or equivalent, which can measure 0.0001 ohm (0.1 milliohm).

(b) Make sure the resistance is less than 0.0025 ohm (2.5 milliohms).

(c) If the resistance is 0.0025 ohm (2.5 milliohms) or more, clean the bonding surfaces with the solvent, B00083, and do the check again.

I. APU Overheat Detector Assembly Installation Test

SUBTASK 26-15-01-840-003

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	23	C00403	FIRE PROTECTION DETECTION APU
B	19	C01344	APU FIRE SW POWER

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	14	C00033	AUX POWER UNIT CONT

SUBTASK 26-15-01-710-001

(2) Do this task: APU Fire Detection - Operational Test, TASK 26-15-00-710-801.

J. Put the Airplane Back to Its Usual Condition

SUBTASK 26-15-01-010-005

(1) Close this access panel:

Number	Name/Location
318BR	Tailcone Access Door

SUBTASK 26-15-01-010-006

(2) Close this access panel:

Number	Name/Location
315A	APU Cowl Door

END OF TASK

TASK 26-15-01-000-802

4. APU Overheat Detector Assembly Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the APU Overheat Detector Assembly.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

B. Location Zones

Zone	Area
212	Flight Compartment - Right
315	APU Compartment - Left
316	APU Compartment - Right
317	Tail Cone Compartment - Left
318	Tail Cone Compartment - Right

C. Access Panels

Number	Name/Location
315A	APU Cowl Door
318BR	Tailcone Access Door

D. Prepare for the Removal

SUBTASK 26-15-01-840-004

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	23	C00403	FIRE PROTECTION DETECTION APU
B	19	C01344	APU FIRE SW POWER

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	14	C00033	AUX POWER UNIT CONT

SUBTASK 26-15-01-010-007

(2) To get access to the upper or lower APU detector, open this access door:

Number	Name/Location
315A	APU Cowl Door

SUBTASK 26-15-01-010-008

(3) To get access to the APU tailpipe overheat detector, open this access door:

Number	Name/Location
318BR	Tailcone Access Door

E. APU Overheat Detector Assembly Removal

SUBTASK 26-15-01-000-002

(1) Do these steps to remove the detector assembly [1] from the APU compartment.

(a) Remove the nut [5] and washer [4] from the terminal lug.

(b) Disconnect the lead from the terminal lug.

(c) Remove the bolts [3] from the overheat detector housing.

(d) Remove the bolts [11] and washers [12] that attach each clamp [13] to the APU compartment.

1) Remove the clamp [13] from the support tube [6].

(e) Remove the bolts [11] and washer [12] that attach each clamp [15] and clamp [14] to the APU compartment.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(f) Remove the detector assembly [1] from the APU compartment.

——— END OF TASK ———

TASK 26-15-01-400-802

5. APU Overheat Detector Assembly Installation

(Figure 401)

A. General

(1) This task gives instructions to install the APU Overheat Detector Assembly.

B. References

Reference	Title
26-15-00-710-801	APU Fire Detection - Operational Test (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
COM-1550	Bonding Meter - 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 #: M1B Supplier: 3AD17 Part #: T477W (C15292) Supplier: 06659

D. Consumable Materials

Reference	Description	Specification
A50154	Silcoset 152 - cold cure, white, silicone compound	
B00083	Solvent - VM&P Naphthas	TT-N-95 Type II, ASTM D-3735 Type III

E. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right
315	APU Compartment - Left
316	APU Compartment - Right
317	Tail Cone Compartment - Left
318	Tail Cone Compartment - Right

F. Access Panels

Number	Name/Location
315A	APU Cowl Door
318BR	Tailcone Access Door

ECCN 9E991 BOEING PROPRIETARY - See title page for details

G. Prepare for the Installation

SUBTASK 26-15-01-840-005

(1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	23	C00403	FIRE PROTECTION DETECTION APU
B	19	C01344	APU FIRE SW POWER

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	14	C00033	AUX POWER UNIT CONT

SUBTASK 26-15-01-010-009

(2) To get access to the upper or lower APU detector, open this access door:

Number	Name/Location
315A	APU Cowl Door

SUBTASK 26-15-01-010-010

(3) To get access to the APU tailpipe overheat detector, open this access door:

Number	Name/Location
318BR	Tailcone Access Door

H. APU Overheat Detector Assembly Installation

SUBTASK 26-15-01-420-002

(1) Do these steps to install a overheat detector assembly [1]:

(a) Put the detector assembly [1] in position in the APU compartment and install the clamps [13] on the support tube [6].

1) Attach each clamp [13] with two bolts [11] and washers [12].

2) Tighten the bolts [11] to 35.0 ±3.0 in-lb (4.0 ±0.4 N·m).

(b) Put the detector assembly [1] in position in the APU compartment and install the clamp [14] and clamp [15] on the support tube [6].

1) Attach each clamp [14] and clamp [15] with the bolts [11] and washers [12].

2) Tighten the bolts [11] to 35.0 ±3.0 in-lb (4.0 ±0.4 N·m).

(c) Install the two bolts [3] that attach the overheat detector housing to the APU compartment.

(d) Tighten the bolts [3] to 80.0 ±8.0 in-lb (9 ±1 N·m).

(e) Put the lead in position on the terminal lug, and attach it with a washer [4] and nut [5].

(f) Tighten the nut [5] to 35.0 ±3.0 in-lb (4.0 ±0.4 N·m).

(g) Apply Silcoset 152 adhesive, A50154, to the terminal lugs.

SUBTASK 26-15-01-280-002

(2) Do a check of the resistance between the stud and the airplane structure.

(a) Use an intrinsically safe approved bonding meter, COM-1550, or equivalent, which can measure 0.0001 ohm (0.1 milliohm).

(b) Make sure that the resistance is less than 0.0025 ohm (2.5 milliohms).

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(c) If the resistance is more than 0.0025 ohm (2.5 milliohms) or more, clean the bonding surfaces with the solvent, B00083, and do the check again.

I. APU Overheat Detector Assembly Installation Test

SUBTASK 26-15-01-840-006

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	23	C00403	FIRE PROTECTION DETECTION APU
B	19	C01344	APU FIRE SW POWER

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	14	C00033	AUX POWER UNIT CONT

SUBTASK 26-15-01-710-002

(2) Do this task: APU Fire Detection - Operational Test, TASK 26-15-00-710-801.

J. Put the Airplane Back to Its Usual Condition

SUBTASK 26-15-01-010-011

(1) Close this access door:

Number	Name/Location
315A	APU Cowl Door

SUBTASK 26-15-01-010-012

(2) Close this access door:

Number	Name/Location
318BR	Tailcone Access Door

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

APU OVERHEAT DETECTORS - INSPECTION/CHECK

1. General

A. This procedure has this task:

(1) Inspection of the APU Overheat Detectors.

TASK 26-15-01-210-801

2. APU Overheat Detectors Inspection

A. Location Zones

Zone	Area
315	APU Compartment - Left
316	APU Compartment - Right
317	Tail Cone Compartment - Left
318	Tail Cone Compartment - Right

B. Access Panels

Number	Name/Location
315A	APU Cowl Door
318BR	Tailcone Access Door

C. APU Overheat Detectors Inspection

SUBTASK 26-15-01-010-013

(1) To get access to the upper or lower APU detector, open this access door:

Number	Name/Location
315A	APU Cowl Door

SUBTASK 26-15-01-010-014

(2) To get access to the APU tailpipe overheat detector, open this access door:

Number	Name/Location
318BR	Tailcone Access Door

SUBTASK 26-15-01-210-001

(3) Do a general visual inspection of the APU overheat detectors.

(a) Make sure the APU overheat detectors are in good condition.

D. Put the Airplane Back to Its Usual Condition

SUBTASK 26-15-01-010-015

(1) Close these access doors:

Number	Name/Location
315A	APU Cowl Door
318BR	Tailcone Access Door

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

APU FIRE WARNING HORN - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) APU Fire Warning Horn Removal

(2) APU Fire Warning Horn Installation.

B. The APU Fire Warning Horn M277 is in the P28 APU Fire Control Panel.

TASK 26-15-02-000-801

2. APU Fire Warning Horn Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the APU Fire Warning Horn.

B. Location Zones

Zone	Area
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right

C. Prepare for the Removal

SUBTASK 26-15-02-010-001

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	23	C00403	FIRE PROTECTION DETECTION APU

D. APU Fire Warning Horn Removal

SUBTASK 26-15-02-020-001

(1) Tag each electrical wire terminal [4] with its location.

SUBTASK 26-15-02-020-002

(2) Loosen the electrical wire terminals [4].

SUBTASK 26-15-02-020-003

(3) Disconnect the electrical wire terminals [4] from the APU fire warning horn [1].

SUBTASK 26-15-02-020-004

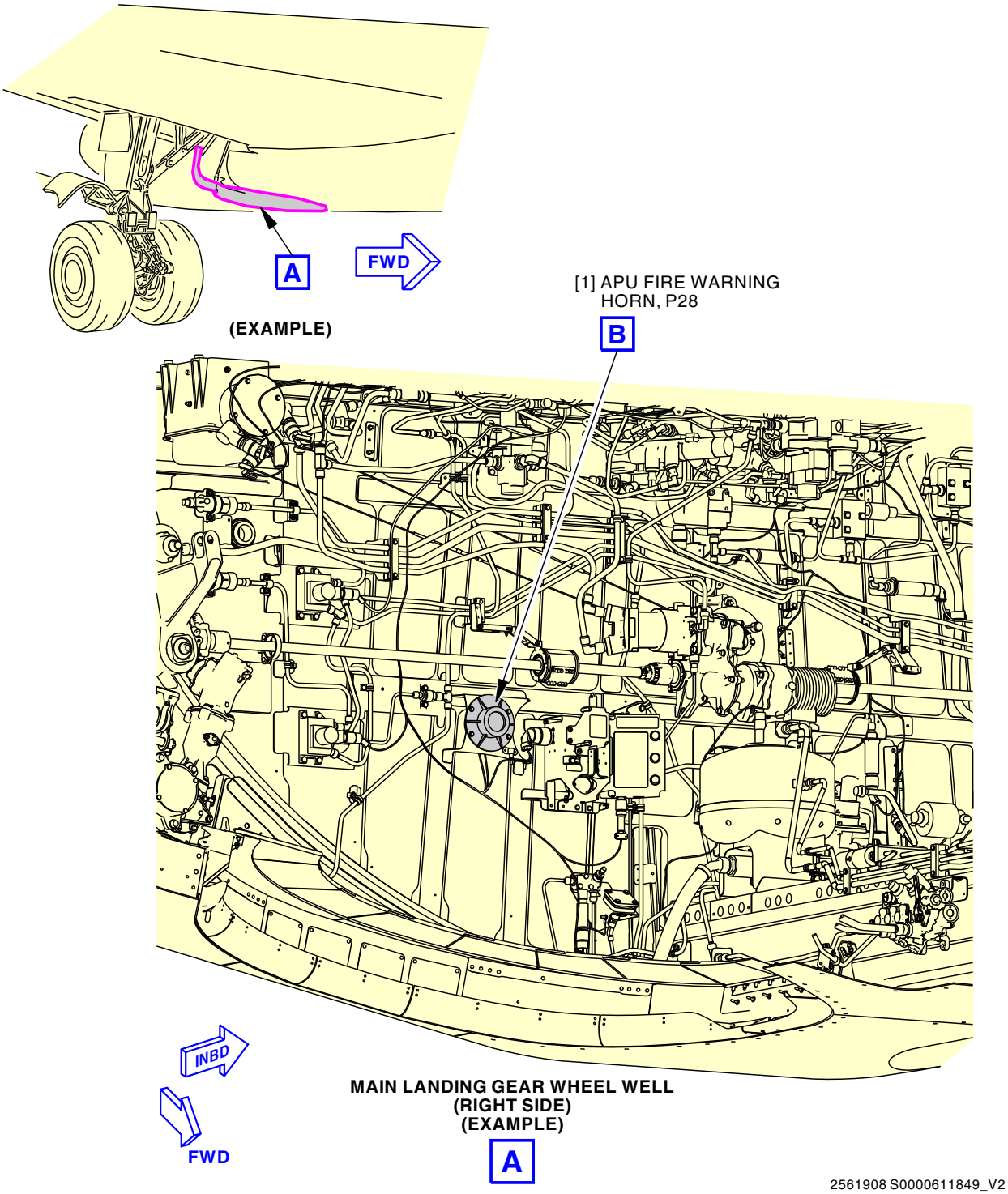
(4) Remove the four screws [2] and four washers [3] that connect the APU fire warning horn [1] to the P28 panel bracket.

SUBTASK 26-15-02-020-005

(5) Remove the APU fire warning horn [1].

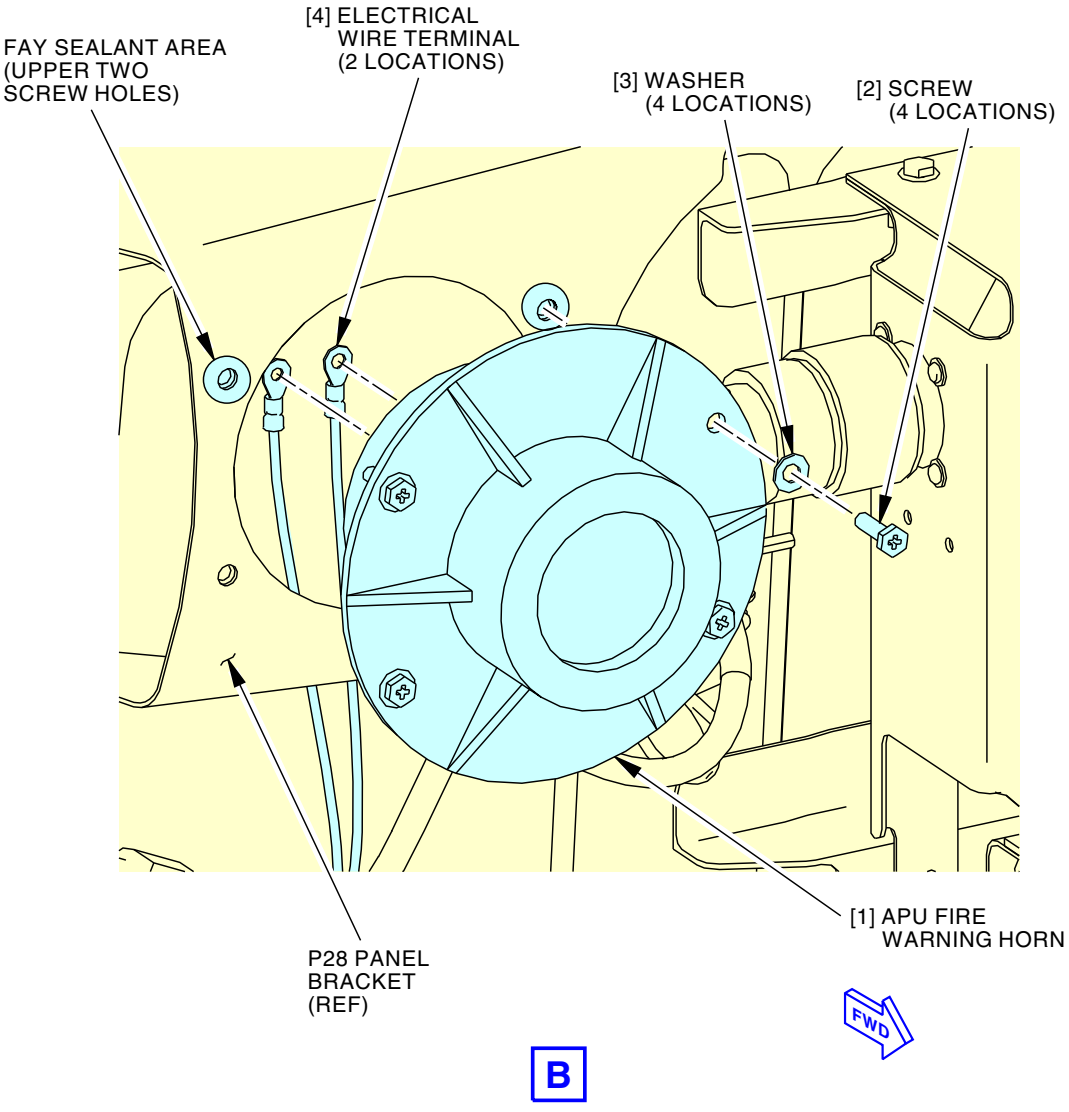
END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



APU Fire Warning Horn Installation
Figure 401/26-15-02-990-801 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



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APU Fire Warning Horn Installation
Figure 401/26-15-02-990-801 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-15-02-400-801

3. APU Fire Warning Horn Installation

(Figure 401)

A. General

(1) This task gives instructions to install the APU Fire Warning Horn.

B. References

Reference	Title
20-10-34-120-801	Hand Clean Metal Surfaces with Abrasives (P/B 701)
26-15-00-710-801	APU Fire Detection - Operational Test (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
COM-1550	Bonding Meter - 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 #: M1B Supplier: 3AD17 Part #: T477W (C15292) Supplier: 06659
STD-765	Scraper - Plastic

D. Consumable Materials

Reference	Description	Specification
A50110	Sealant - Fuel Tank	BMS5-45 Class B-2

E. Location Zones

Zone	Area
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right

F. Prepare for the Installation

SUBTASK 26-15-02-010-002

(1) Make sure that this circuit breaker is open and has safety tag:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	23	C00403	FIRE PROTECTION DETECTION APU

G. APU Fire Warning Horn Installation

SUBTASK 26-15-02-010-003

(1) Get access to the P28 panel bracket.

SUBTASK 26-15-02-020-007

(2) Remove any existing sealant with plastic scraper, STD-765.

SUBTASK 26-15-02-100-001

(3) Prepare the upper two screw hole mating surfaces between the P28 panel bracket and the APU fire warning horn [1].

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(a) Do this task: Hand Clean Metal Surfaces with Abrasives, TASK 20-10-34-120-801.

SUBTASK 26-15-02-420-001

(4) Fay surface seal the APU fire warning horn [1] to the P28 panel bracket with sealant, A50110.

SUBTASK 26-15-02-420-002

(5) Install the four screws [2] and four washers [3] that attach the APU fire warning horn [1] to the P28 panel bracket.

SUBTASK 26-15-02-420-003

(6) Connect the electrical wire terminals [4] to the APU fire warning horn [1].

SUBTASK 26-15-02-020-006

(7) Remove the location tags from the electrical wire terminals [4].

SUBTASK 26-15-02-700-001

(8) Measure the bonding resistance between the P28 panel bracket and the APU fire warning horn [1] with an intrinsically safe approved bonding meter, COM-1550.

(a) Make sure that the measured resistance is not more than 0.50 milliohms (0.00050 ohms).

SUBTASK 26-15-02-410-001

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	23	C00403	FIRE PROTECTION DETECTION APU

H. APU Fire Warning Horn Installation Test

SUBTASK 26-15-02-480-001

(1) Do this task: APU Fire Detection - Operational Test, TASK 26-15-00-710-801.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

CARGO BAY SMOKE DETECTION - ADJUSTMENT/TEST

1. General

A. Both cargo bays have smoke detectors installed in the ceiling. When the concentration of smoke at the sensor gets to a preset threshold, the smoke detector alarm occurs.

B. This procedure consists of these tasks:

(1) Cargo Bay Smoke Detection - Operational Test.

(2) Cargo Bay Smoke Detection - Smoke Test.

(3) Cargo Electronic Unit (CEU) - BITE Test

TASK 26-16-00-710-801

2. Cargo Bay Smoke Detection - Operational Test

(Figure 501)

A. Prepare for the Operational Test

SUBTASK 26-16-00-860-020

(1) Make sure that these circuit breakers are closed:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

B. Cargo Bay Smoke Detection Operational Test

SUBTASK 26-16-00-860-021

(1) Make sure FWD and AFT DET SELECT switches on the Cargo Fire Control Panel are set to NORM.

SUBTASK 26-16-00-710-001

(2) Push and hold the TEST switch on the Cargo Fire Control Panel.

(a) On the Cargo Fire Control panel, look for these indications:

1) The ARM FWD and AFT red lights comes on.

2) The DISCH light comes on.

3) The EXT FWD and EXT AFT light comes on.

4) The DETECTOR FAULT light is off.

(b) On the Pilot's Glareshield, P7, make sure these lights come on:

1) The Captain's and First Officer's FIRE WARN lights (Red).

(c) Make sure you can hear the flight compartment fire bell.

SUBTASK 26-16-00-730-001

(3) Push the Captain's or First Officer's FIRE WARN switch.

NOTE: If you push the either of the FIRE WARN lights on the P7 panel, or the BELL CUTOUT switch on the Engine and APU Fire Control panel, the same conditions will occur. The FIRE WARN and BELL CUTOUT switches cause the same resets but from different locations.

(a) On the Pilot's Glareshield, P7, make sure these lights go off:

ECCN 9E991 BOEING PROPRIETARY - See title page for details

1) The Captain's and First Officer's FIRE WARN lights (Red).

(b) Make sure you can not hear the fire bell.

SUBTASK 26-16-00-860-003

(4) Release the TEST switch.

(a) On the Cargo Bay Fire Control panel, look for these indications:

1) The ARM FWD and AFT red lights goes off.

2) The DISCH light goes off.

3) The EXT FWD and AFT lights go off.

SUBTASK 26-16-00-860-022

(5) Set the FWD and AFT DET SELECT switches to “A”.

SUBTASK 26-16-00-710-002

(6) Push and hold the TEST switch.

(a) On the Cargo Fire Control panel, look for these indications:

1) The ARM FWD and AFT red light comes on.

2) The DISCH light comes on.

3) The EXT FWD and EXT AFT light comes on.

4) The DETECTOR FAULT light is off.

(b) On the Pilot's Glareshield, P7, make sure these lights come on:

1) The Captain's and First Officer's FIRE WARN lights (Red).

(c) Make sure you hear the flight compartment fire bell.

SUBTASK 26-16-00-730-026

(7) Push the Captain's or First Officer's FIRE WARN switch.

NOTE: If you push the either of the FIRE WARN lights on the P7 panel, or the BELL CUTOUT switch on the Engine and APU Fire Control panel, the same conditions will occur. The FIRE WARN and BELL CUTOUT switches cause the same resets but from different locations.

(a) On the Pilot's Glareshield, P7, make sure these lights go off:

1) The Captain's and First Officer's FIRE WARN lights (Red).

(b) Make sure you do not hear the fire bell.

SUBTASK 26-16-00-860-023

(8) Release the TEST switch.

(a) On the Cargo Bay Fire Control panel, look for these indications:

1) The ARM FWD and AFT red lights goes off.

2) The DISCH light goes off.

3) The EXT FWD and AFT lights go off.

SUBTASK 26-16-00-860-024

(9) Set the FWD and AFT DET SELECT switches to “B”.

SUBTASK 26-16-00-710-003

(10) Push and hold the TEST switch.

(a) On the Cargo Fire Control panel, look for these indications:

1) The ARM FWD and AFT red lights comes on.

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2) The DISCH light comes on.

3) The EXT FWD and EXT AFT light comes on.

4) The DETECTOR FAULT light is off.

(b) On the Pilot's Glareshield, P7, make sure these lights come on:

1) The Captain's and First Officer's FIRE WARN lights (Red).

(c) Make sure you hear the flight compartment fire bell.

SUBTASK 26-16-00-730-027

(11) Push the Captain's or First Officer's FIRE WARN switch.

NOTE: If you push the either of the FIRE WARN lights on the P7 panel, or the BELL CUTOUT switch on the Engine and APU Fire Control panel, the same conditions will occur. The FIRE WARN and BELL CUTOUT switches cause the same resets but from different locations.

(a) On the Pilot's Glareshield, P7, make sure these lights go off:

1) The Captain's and First Officer's FIRE WARN lights (Red).

(b) Make sure that you do not hear the fire bell.

SUBTASK 26-16-00-860-025

(12) Release the TEST switch.

(a) On the Cargo Bay Fire Control panel, look for this indication:

1) The ARM FWD and AFT red light goes off.

2) The DISCH light goes off.

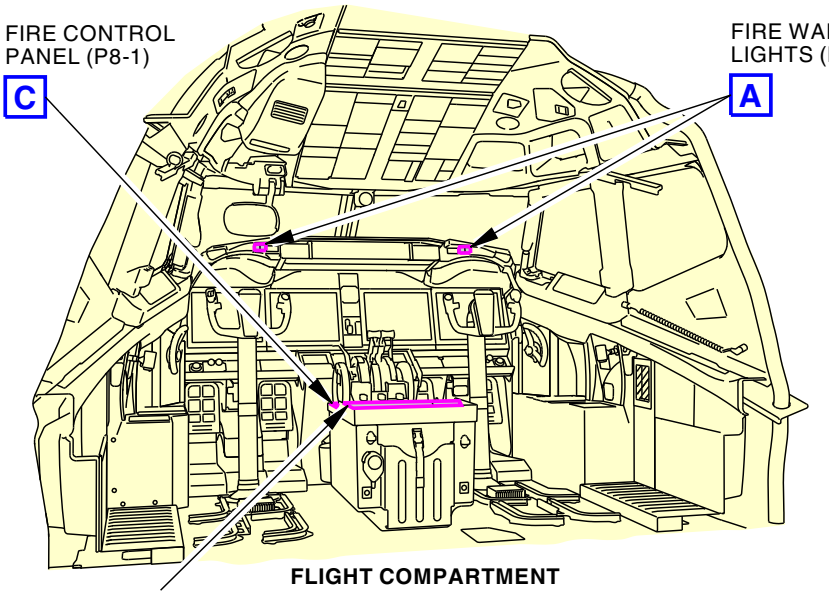
3) The EXT FWD and EXT AFT light goes off.

SUBTASK 26-16-00-860-026

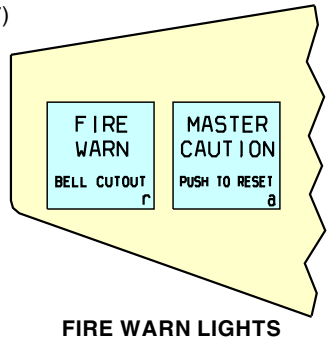
(13) Set the FWD and AFT DET SELECT switches to back to NORM.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

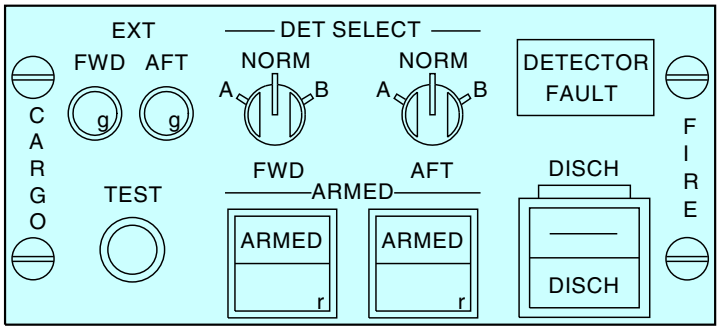


FLIGHT COMPARTMENT



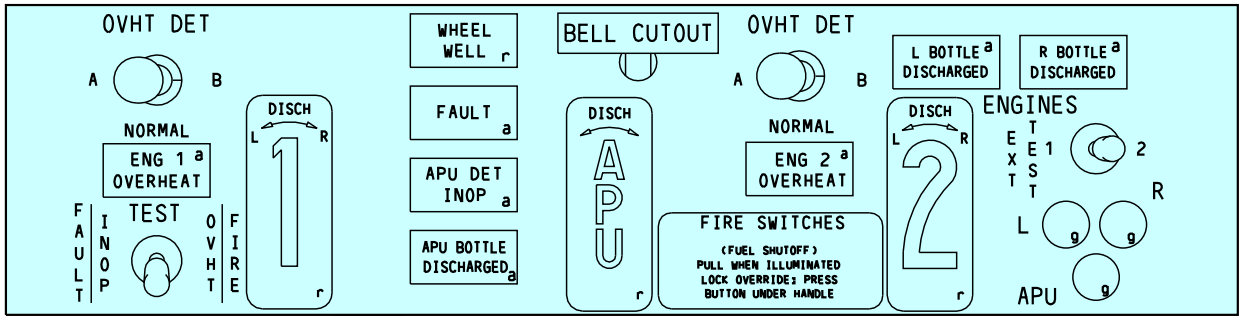
FIRE WARN LIGHTS (P7) (EXAMPLE)

A



CARGO FIRE CONTROL PANEL (P8)

B



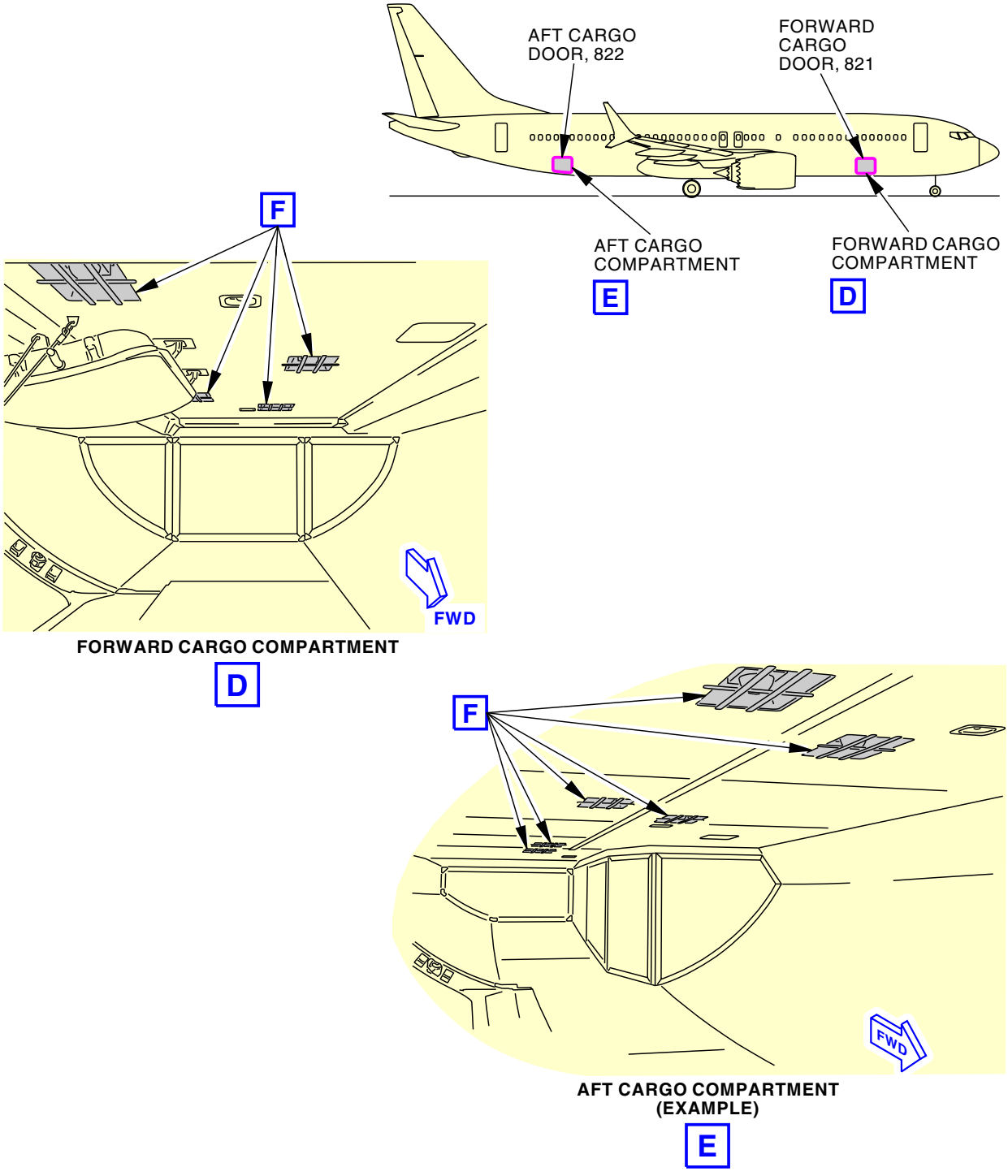
FIRE CONTROL PANEL (P8-1)

C

2412128 S00061529978_V1

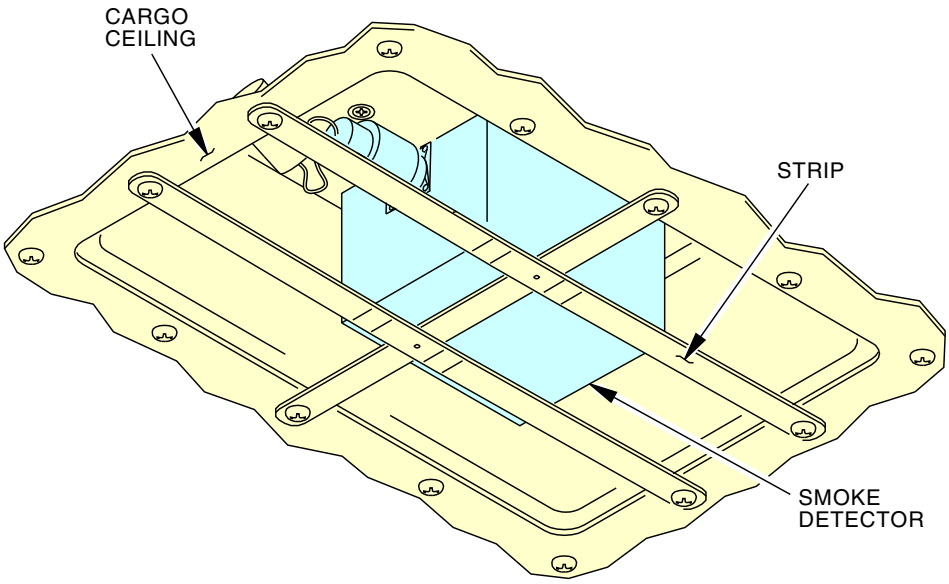
Cargo Bay Smoke Detection Test
Figure 501/26-16-00-990-802 (Sheet 1 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Cargo Bay Smoke Detection Test
Figure 501/26-16-00-990-802 (Sheet 2 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



(EXAMPLE)

F

2412130 S00061529983_V2

Cargo Bay Smoke Detection Test
Figure 501/26-16-00-990-802 (Sheet 3 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-16-00-730-801

3. Cargo Bay Smoke Detection - Smoke Test

(Figure 501)

A. General

(1) When the DET SEL switch is set to A, and any smoke detector in loop A detects smoke, an alarm will occur. Similarly, when the DET SEL switch is set to B, and the B loop detects smoke, the alarm will occur. When the DET SEL switch is set to NORM, smoke must be detected by a smoke detector in loop A and loop B (any smoke detector in both loops, they do not have to be a pair) before the alarm will occur.

NOTE: If you apply too much smoke to a smoke detector, the excess smoke could affect adjacent smoke detectors. Try to limit the quantity of smoke applied to each smoke detector.

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-11202	Smoke Generator - Lavatory/Crew Rest Smoke Detector (or 737 Cargo Area Type Smoke Detectors) Part #: HO-25S Supplier: 61908 Part #: SOLOA10 Supplier: 1WU32 Opt Part #: SOLOA3 Supplier: 1WU32 Opt Part #: SOLOA4 Supplier: 1WU32

C. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
141	Aft Cargo Compartment - Left
142	Aft Cargo Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Prepare for the Test

SUBTASK 26-16-00-860-005

(1) Make sure that these circuit breakers are closed:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

SUBTASK 26-16-00-860-019

(2) Wait ten seconds for the smoke detectors to run internal self-testing.

E. Forward Cargo Bay Smoke Detection Smoke Test

NOTE: The subsequent test procedures are for each smoke detector pair in the FWD cargo compartment.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-16-00-860-006

(1) On the P8 cargo fire control panel, set the FWD DET SELECT switch to A position.

SUBTASK 26-16-00-730-002

(2) Use a smoke generator, COM-11202, to apply smoke to the A loop smoke detector for the pair in the test (Table 501).

SUBTASK 26-16-00-730-003

(3) Make sure that these indications occur:

(a) On the P8 cargo fire control panel, the FWD CARGO FIRE light (red) comes on.

(b) On the P7 pilot's glareshield, the Captain's and First Officer's FIRE WARN lights (red) come on.

(c) In the flight compartment, the fire bell comes on.

SUBTASK 26-16-00-730-004

(4) On the P8 cargo fire control panel, set the FWD DET SELECT switch to NORM position.

(a) Make sure that the FWD CARGO FIRE light and FIRE WARN lights go off, and the fire bell turns off within 10 seconds.

SUBTASK 26-16-00-860-008

(5) Clear the smoke from the A loop smoke detector.

SUBTASK 26-16-00-860-011

(6) On the P8 cargo fire control panel, set the FWD DET SELECT switch to B position.

SUBTASK 26-16-00-730-006

(7) Use a smoke generator, COM-11202, to apply smoke to the B loop smoke detector for the pair in the test (Table 501).

SUBTASK 26-16-00-730-007

(8) Make sure that these indications occur:

(a) On the P8 cargo fire control panel, the FWD CARGO FIRE light (red) comes on.

(b) On the P7 pilot's glareshield, the Captain's and First Officer's FIRE WARN lights (red) come on.

(c) In the flight compartment, the fire bell comes on.

SUBTASK 26-16-00-730-008

(9) On the P8 cargo fire control panel, set the FWD DET SELECT switch to NORM.

(a) Make sure that the FWD CARGO FIRE light and FIRE WARN lights go off, and the fire bell turns off within 10 seconds.

SUBTASK 26-16-00-860-012

(10) Clear the smoke from the B loop smoke detector.

SUBTASK 26-16-00-730-009

(11) Use a smoke generator, COM-11202, to apply smoke to both A and B loop smoke detectors for the pair in the test.

SUBTASK 26-16-00-730-010

(12) Make sure that these indications occur:

(a) On the P8 cargo fire control panel, the FWD CARGO FIRE light (red) comes on.

(b) On the P7 pilot's glareshield, the Captain's and First Officer's FIRE WARN lights (red) come on.

(c) In the flight compartment, the fire bell comes on.

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SUBTASK 26-16-00-860-013

(13) Clear the smoke from the A and B loop smoke detectors.

SUBTASK 26-16-00-730-011

(14) Make sure that the FWD CARGO FIRE light and FIRE WARN lights go off, and the fire bell turns when the smoke is gone.

SUBTASK 26-16-00-730-012

(15) On the P8 cargo fire control panel, set the FWD DET SELECT switch to A position.

(a) Make sure that the FWD CARGO FIRE light and FIRE WARN lights stay off, and the fire bell does not sound.

SUBTASK 26-16-00-730-013

(16) On the P8 cargo fire control panel, set the FWD DET SELECT switch to B position.

(a) Make sure that the FWD CARGO FIRE light and FIRE WARN lights stay off, and the fire bell does not sound.

SUBTASK 26-16-00-730-005

(17) Do the Smoke Test for each smoke detector pair in the FWD cargo compartment (Table 501).

Table 501/26-16-00-993-801

SMOKE DETECTOR PAIR	FWD DET SWITCH POSITION	AFT DET SWITCH POSITION	CARGO BAY	LOCATION	EQUIPMENT NUMBER
A1	A	NORM	FWD	FWD LEFT	M2238
B1	B	NORM	FWD	FWD RIGHT	M2240
A2	A	NORM	FWD	AFT LEFT	M2239
B2	B	NORM	FWD	AFT RIGHT	M2241

F. Aft Cargo Bay Smoke Detection Smoke Test

NOTE: The subsequent test procedures are for each smoke detector pair in the AFT cargo compartment.

SUBTASK 26-16-00-860-014

(1) On the P8 cargo fire control panel, set the AFT DET SELECT switch to A position.

SUBTASK 26-16-00-730-014

(2) Use a smoke generator, COM-11202, to apply smoke to the A loop smoke detector for the pair in the test (Table 502).

SUBTASK 26-16-00-730-015

(3) Make sure that these indications occur:

(a) On the P8 cargo fire control panel, the AFT CARGO FIRE light (red) comes on.

(b) On the P7 pilot's glareshield, the Captain's and First Officer's FIRE WARN lights (red) come on.

(c) In the flight compartment, the fire bell comes on.

SUBTASK 26-16-00-730-016

(4) On the P8 cargo fire control panel, set the AFT DET SELECT switch to NORM position.

(a) Make sure that the AFT CARGO FIRE light and FIRE WARN lights go off, and the fire bell turns off within 10 seconds.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-16-00-860-015

(5) Clear the smoke from the A loop smoke detector.

SUBTASK 26-16-00-860-016

(6) On the P8 cargo fire control panel, set the AFT DET SELECT switch to B position (Table 502).

SUBTASK 26-16-00-730-017

(7) Use a smoke generator, COM-11202, to apply smoke to the B loop smoke detector for the pair in the test.

SUBTASK 26-16-00-730-018

(8) Make sure that these indications occur:

(a) On the P8 cargo fire control panel, the AFT CARGO FIRE light (red) comes on.

(b) On the P7 pilot's glareshield, the Captain's and First Officer's FIRE WARN lights (red) come on.

(c) In the flight compartment, the fire bell comes on.

SUBTASK 26-16-00-730-019

(9) On the P8 cargo fire control panel, set the AFT DET SELECT switch to NORM position.

(a) Make sure that the AFT CARGO FIRE light and FIRE WARN lights go off, and the fire bell turns off within 10 seconds.

SUBTASK 26-16-00-860-017

(10) Clear the smoke from the B loop smoke detector.

SUBTASK 26-16-00-730-020

(11) Use a smoke generator, COM-11202, to apply smoke to both A and B loop smoke detectors for the pair in the test (Table 502).

SUBTASK 26-16-00-730-021

(12) Make sure that these indications occur:

(a) On the P8 cargo fire control panel, the AFT CARGO FIRE light (red) comes on.

(b) On the P7 pilot's glareshield, the Captain's and First Officer's FIRE WARN lights (red) come on.

(c) In the flight compartment, the fire bell comes on.

SUBTASK 26-16-00-860-018

(13) Clear the smoke from the A and B loop smoke detectors.

SUBTASK 26-16-00-730-022

(14) Make sure that the AFT CARGO FIRE light and FIRE WARN lights go off, and the fire bell turns off when the smoke is cleared.

SUBTASK 26-16-00-730-023

(15) On the P8 cargo fire control panel, set the AFT DET SELECT switch to A position.

(a) Make sure that the AFT CARGO FIRE light and FIRE WARN lights stay off, and the fire bell does not sound.

SUBTASK 26-16-00-730-024

(16) On the P8 cargo fire control panel, set the AFT DET SELECT switch to B position.

(a) Make sure that the AFT CARGO FIRE light and FIRE WARN lights stay off, and the fire bell does not sound.

SUBTASK 26-16-00-730-025

(17) Do the Smoke Test for each smoke detector pair in the AFT cargo compartment (Table 502).

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Table 502/26-16-00-993-802

SMOKE DETECTOR PAIR	FWD DET SWITCH POSITION	AFT DET SWITCH POSITION	CARGO BAY	LOCATION	EQUIPMENT NUMBER
A1	NORM	A	AFT	FWD LEFT	M2242
B1	NORM	B	AFT	FWD RIGHT	M2245
A2	NORM	A	AFT	MID LEFT	M2243
B2	NORM	B	AFT	MID RIGHT	M2246
A3	NORM	A	AFT	AFT RIGHT (AFT)	M2244
B3	NORM	B	AFT	AFT RIGHT (FWD)	M2247

G. Put the Airplane Back to Its Usual Condition

SUBTASK 26-16-00-860-009

(1) On the P8 cargo fire control panel, set the FWD DET SELECT and AFT DET SELECT switches to NORM position.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

CARGO BAY SMOKE DETECTOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) Removal of the cargo bay smoke detector.

(2) Installation of the cargo bay smoke detector.

TASK 26-16-01-000-801

2. Cargo Bay Smoke Detector Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the Cargo Bay Smoke Detector.

B. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)
20-40-12-400-802	ESDS Handling for Metal Encased Unit Installation (P/B 201)
26-16-01-100-801	Clean the Cargo Bay Smoke Detectors (P/B 701)

C. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
141	Aft Cargo Compartment - Left
142	Aft Cargo Compartment - Right

D. Prepare for the Removal

SUBTASK 26-16-01-860-001

(1) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

E. Cargo Bay Smoke Detector Removal

SUBTASK 26-16-01-860-006

CAUTION DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

(1) Before the smoke detector [2] is touched, do the procedure for devices that are sensitive to electrostatic discharge, as follows:

- ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802
- ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-16-01-020-001

(2) Remove the screws [3] that hold the screen [1] to the cargo ceiling.

SUBTASK 26-16-01-020-002

(3) Remove the screws [4] that hold the smoke detector [2] to the detector pan.

SUBTASK 26-16-01-020-003

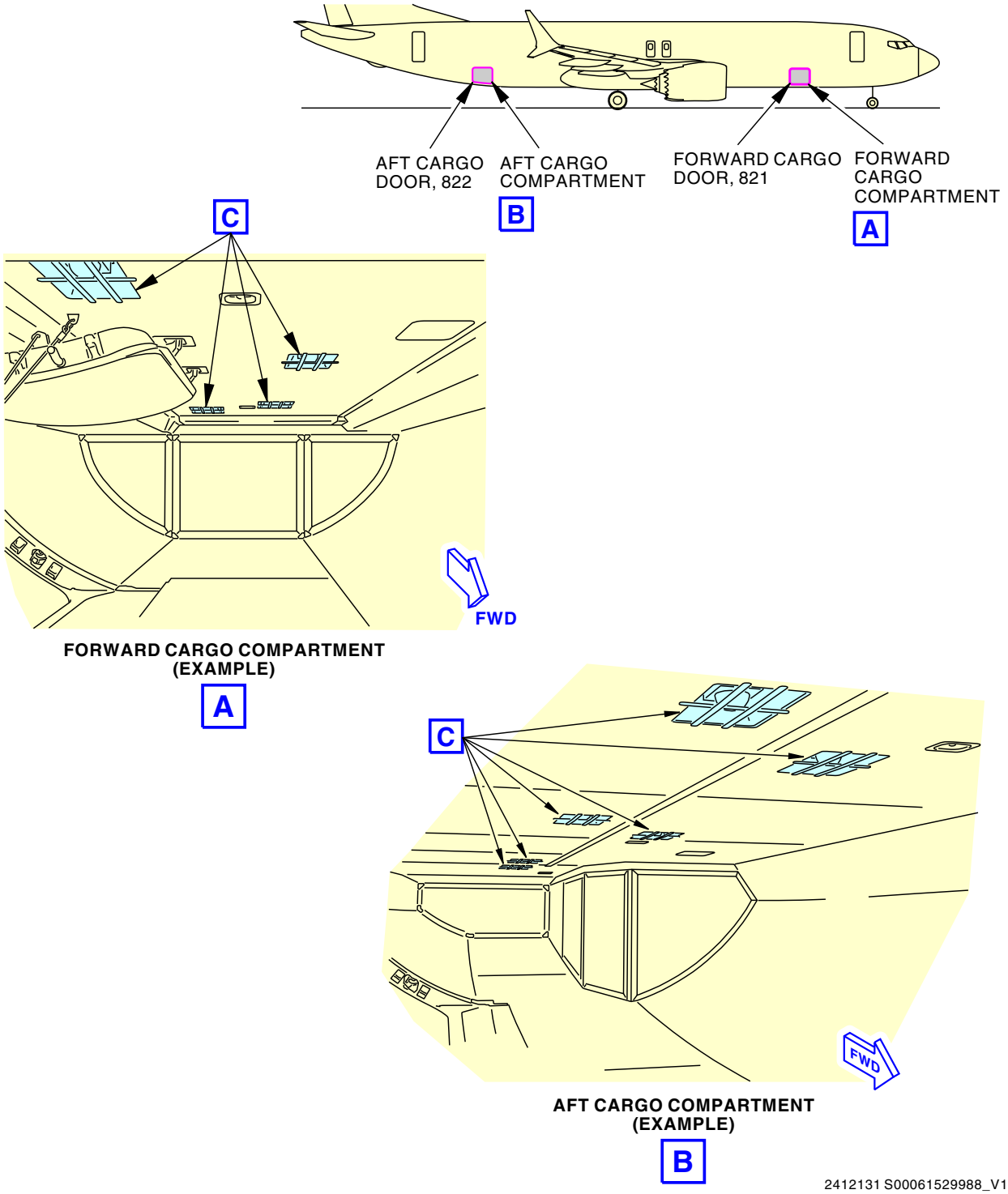
(4) Disconnect the electrical connector from the smoke detector [2].

SUBTASK 26-16-01-160-001

(5) If it is necessary, do this task: Clean the Cargo Bay Smoke Detectors, TASK 26-16-01-100-801.

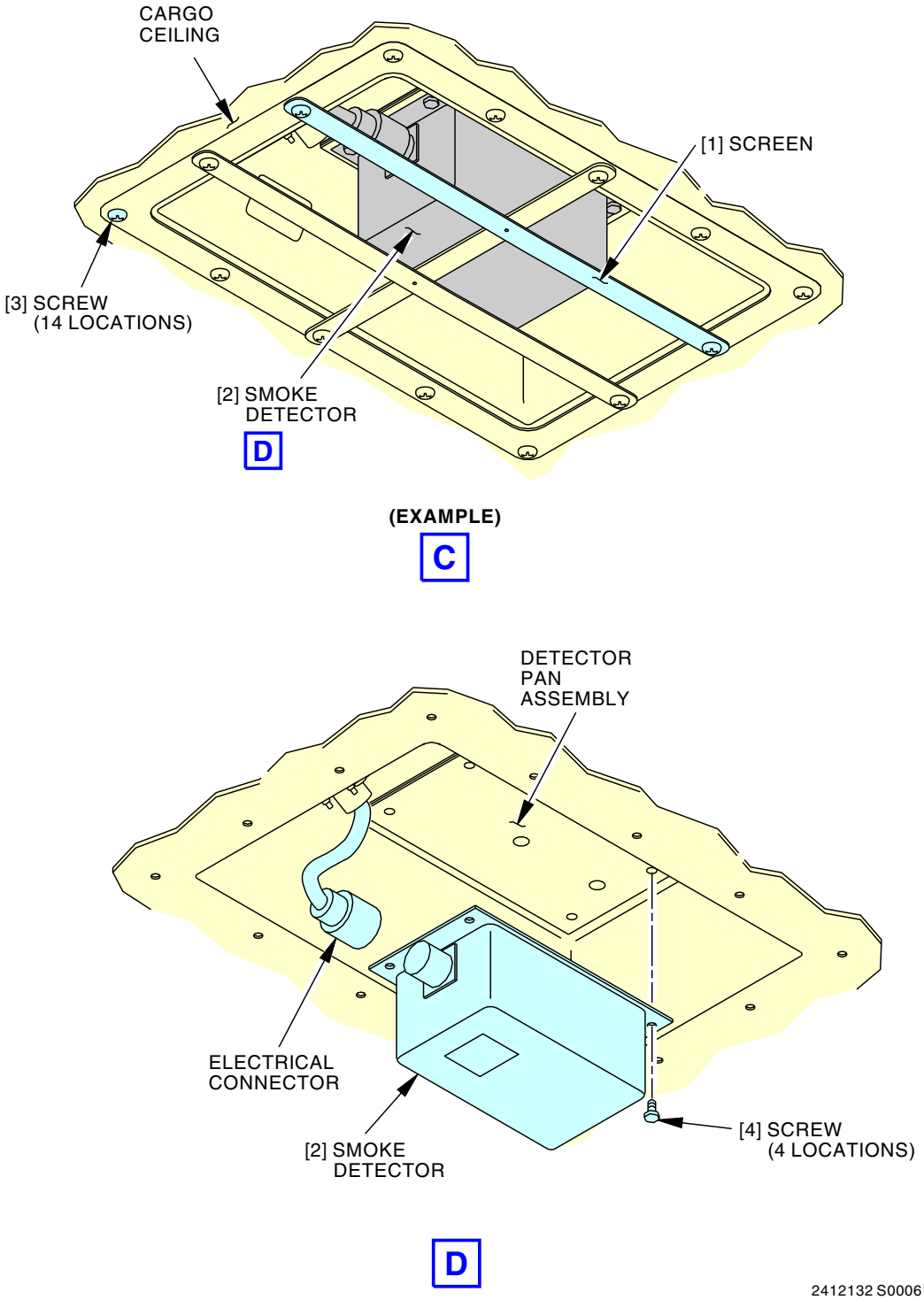
——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Cargo Bay Smoke Detector Installation
Figure 401/26-16-01-990-801 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Cargo Bay Smoke Detector Installation
Figure 401/26-16-01-990-801 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-16-01-400-801

3. Cargo Bay Smoke Detector Installation

(Figure 401)

A. General

(1) This task gives instructions to install the Cargo Bay Smoke Detector.

B. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)
20-40-12-400-802	ESDS Handling for Metal Encased Unit Installation (P/B 201)
26-16-00-710-801	Cargo Bay Smoke Detection - Operational Test (P/B 501)

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Screen	26-16-01-05-080	SIA ALL
		26-16-01-05-085	SIA ALL
		26-16-01-08-090	SIA ALL
		26-16-01-08-095	SIA ALL
2	Smoke detector	26-16-01-05-210	SIA ALL
		26-16-01-08-220	SIA ALL

D. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
141	Aft Cargo Compartment - Left
142	Aft Cargo Compartment - Right

E. Prepare for the Installation

SUBTASK 26-16-01-860-002

(1) Make sure that these circuit breakers are open:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

F. Cargo Bay Smoke Detector Installation

SUBTASK 26-16-01-860-007

CAUTION

DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

(1) Before the smoke detector [2] is touched, do the procedure for devices that are sensitive to electrostatic discharge, as follows:

- ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802

ECCN 9E991 BOEING PROPRIETARY - See title page for details

- ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

SUBTASK 26-16-01-420-001

(2) Connect the electrical connector to the smoke detector [2].

SUBTASK 26-16-01-420-002

(3) Put the smoke detector [2] in position on the detector pan.

(a) Install the screws [4].

SUBTASK 26-16-01-420-003

(4) Put the screen [1] in position on the cargo ceiling.

(a) Install the screws [3].

G. Cargo Bay Smoke Detector Installation Test

SUBTASK 26-16-01-860-003

(1) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

SUBTASK 26-16-01-710-001

(2) Do this task: Cargo Bay Smoke Detection - Operational Test, TASK 26-16-00-710-801.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

CARGO BAY SMOKE DETECTOR - CLEANING/PAINTING

1. General

A. This procedure has a task that cleans the cargo bay smoke detectors.

B. Each cargo bay has smoke detectors installed in the ceiling. The cleaning procedure is the same for each smoke detector.

TASK 26-16-01-100-801

2. Clean the Cargo Bay Smoke Detectors

A. References

Reference	Title
26-16-00-710-801	Cargo Bay Smoke Detection - Operational Test (P/B 501)

B. Tools/Equipment

Reference	Description
STD-123	Brush - Soft Bristle
STD-1086	Gloves - Rubber
STD-3939	Air Source - Regulated, Dry Filtered, 0 to 10 psig

C. Consumable Materials

Reference	Description	Specification
B00065	Alcohol - Denatured, Ethyl (Ethanol)	AMS 3002 (Supersedes O-A-396)
B50073	Alcohol - Isopropyl	ASTM D 770
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	AMS3819 Class 1 Grade A or B Form 1 (Supersede BMS15-5 CL A)

D. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
141	Aft Cargo Compartment - Left
142	Aft Cargo Compartment - Right

E. Clean the Smoke Detector

SUBTASK 26-16-01-860-004

(1) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-16-01-160-002

WARNING

WHEN YOU CLEAN THE SMOKE DETECTOR AND SENSOR, MAKE SURE THAT THE AREA HAS SUFFICIENT AIRFLOW. KEEP THE ALCOHOL AWAY FROM HEAT, SPARKS OR FLAMES. DO NOT BREATHE THE FUMES FROM THE ALCOHOL. PUT ON RUBBER GLOVES. ALCOHOL IS A FLAMMABLE AND POISONOUS SOLVENT WHICH CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

WARNING

ISOPROPYL ALCOHOL IS AN AGENT THAT IS FLAMMABLE, EXPLOSIVE, AND POISONOUS. MAKE SURE ALL PERSONS OBEY ALL OF THE PRECAUTIONS WHEN ISOPROPYL ALCOHOL IS USED.

- GAS/AIR MIXTURES MORE THAN THE LOWER EXPLOSIVE LIMIT (LEL) CAN CAUSE AN EXPLOSION IF HIGH HEAT, SPARKS, OR FLAMES SUPPLY IGNITION.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET ISOPROPYL ALCOHOL IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

(2) Put on rubber glove, STD-1086.

SUBTASK 26-16-01-160-003

(3) Remove the dirt from the exterior of the smoke detector with the cotton wiper, G00034, soaked with alcohol, B00065.

SUBTASK 26-16-01-210-001

CAUTION

BLOW THE AIR LIGHTLY INTO THE SENSOR ASSEMBLY. TOO MUCH FORCE CAN CAUSE STATIC ELECTRICITY ON THE ELECTRODES WHICH CAN CAUSE DAMAGE TO THE SMOKE SENSOR.

(4) Use soft bristle brush, STD-123, and compressed nitrogen at a maximum pressure of 15 psig (103 kPa), or with the 0 to 10 psig air source, STD-3939, lightly blow any dirt or particles out of the sensor assembly.

NOTE: Scheduled cleaning is not necessary, but the smoke detector labyrinth must be kept clean to operate accurately.

(a) Clean the connector.

(b) Clean the dust screens.

(c) Clean the inner area of the labyrinth.

1) Remove the smoke detector cover.

NOTE: Refer to the applicable CMM for the instructions. It is not necessary to fully disassemble the smoke detector to clean the inner area of the labyrinth.

2) Clean unwanted material from the inner area of the labyrinth with a soft bristle brush, STD-123, and nitrogen (or clean, dry air).

3) Install the smoke detector cover.

SUBTASK 26-16-01-160-004

(5) Clean the electrical connector pins with alcohol, B50073.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-16-01-860-005

(6) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

SUBTASK 26-16-01-710-002

(7) Do the operational test of the cargo bay smoke detection (TASK 26-16-00-710-801).

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

CARGO ELECTRONIC UNIT - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) Removal of the Cargo Electrical Unit (CEU).

(2) Installation of the CEU.

B. The CEU is installed in the ceiling of each cargo bay.

TASK 26-16-02-000-801

2. Cargo Electronic Unit Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the Cargo Electronic Unit (CEU).

B. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
141	Aft Cargo Compartment - Left

C. Prepare for the Removal

SUBTASK 26-16-02-860-001

(1) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

SUBTASK 26-16-02-020-001

(2) To get access to the CEUs, remove the screws [4] that attach the cover [7] to the cargo bay ceiling.

D. CEU Removal

SUBTASK 26-16-02-860-002

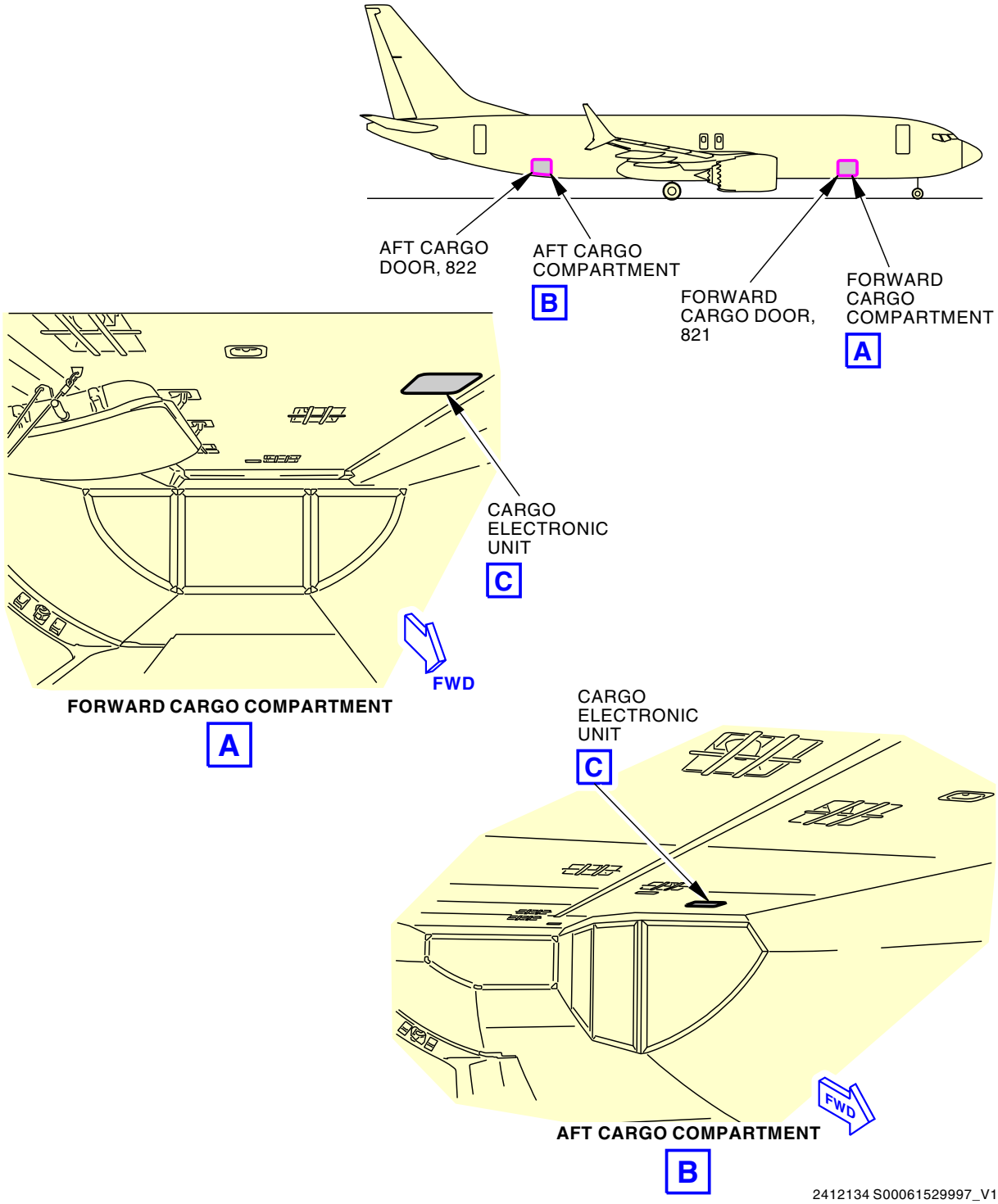
(1) Remove the bolts [2] that attach the cargo electronic unit [1] to the airplane.

SUBTASK 26-16-02-020-002

(2) Disconnect the electrical connectors from the cargo electronic unit [1].

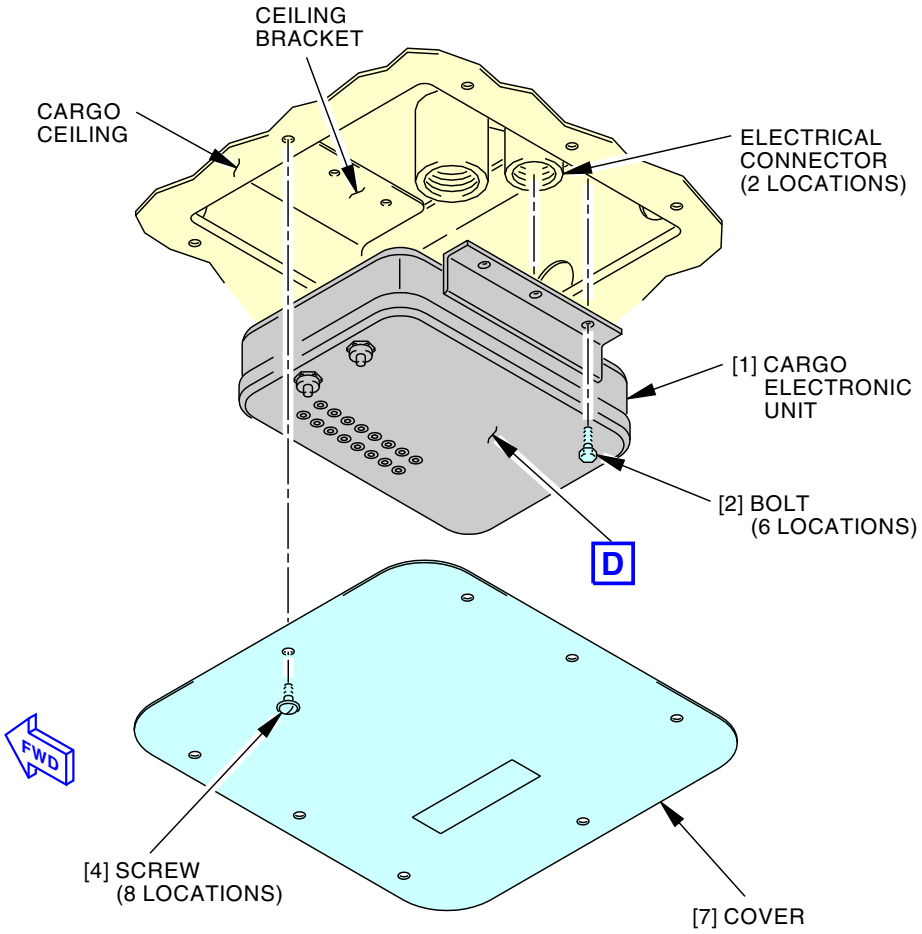
——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Cargo Electronic Unit Installation
Figure 401/26-16-02-990-801 (Sheet 1 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



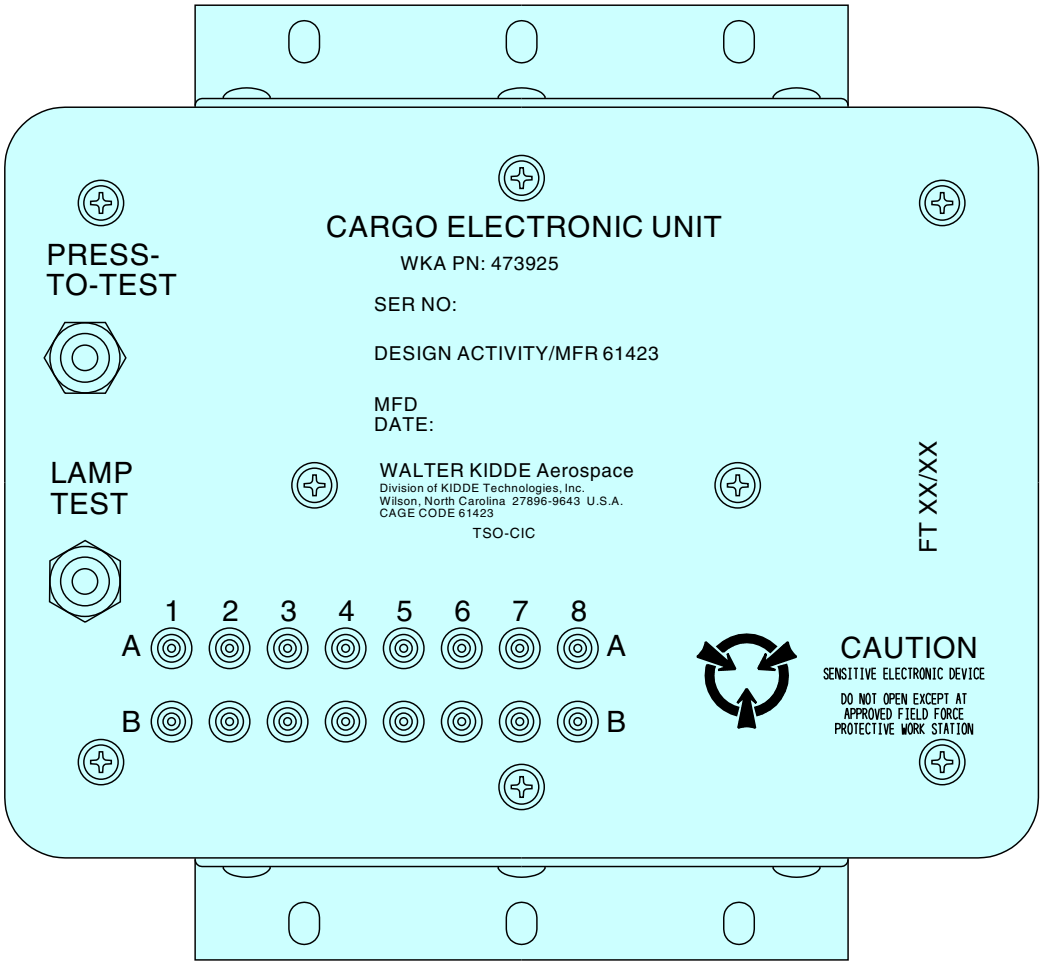
CARGO ELECTRONIC UNIT (EXAMPLE)

C

2412135 S00061529998_V2

Cargo Electronic Unit Installation
Figure 401/26-16-02-990-801 (Sheet 2 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



D

2412136 S00061529999_V1

Cargo Electronic Unit Installation
Figure 401/26-16-02-990-801 (Sheet 3 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-16-02-400-801

3. Cargo Electronic Unit Installation

(Figure 401)

A. General

(1) This task gives instructions for the installation of the forward or aft Cargo Electronic Unit (CEU).

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Cargo electronic unit	26-16-02-01-050	SIA ALL
		26-16-02-10-050	SIA ALL

C. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
141	Aft Cargo Compartment - Left

D. CEU Installation

SUBTASK 26-16-02-420-001

(1) Connect the airplane electrical connectors to the electrical connectors on the cargo electronic unit [1].

SUBTASK 26-16-02-420-002

(2) Put the cargo electronic unit [1] in position on the airplane bracket and attach it with bolts [2].

E. Put the Airplane Back to Its Usual Condition

SUBTASK 26-16-02-860-004

(1) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

SUBTASK 26-16-02-710-005

(2) Do this task: Cargo Electronic Unit Installation Test, TASK 26-16-02-710-801.

——— END OF TASK ———

TASK 26-16-02-710-801

4. Cargo Electronic Unit Installation Test

(Figure 401)

A. Prepare for the Test

SUBTASK 26-16-02-020-003

(1) If they are installed, remove the screws [4] that attach the cover [7] to the cargo bay ceiling.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

B. Test

SUBTASK 26-16-02-710-001

(1) Push and hold the LAMP TEST switch on the CEU.

(a) Make sure all A and B loop smoke detector indicators on the CEU come on.

SUBTASK 26-16-02-710-002

(2) Release the LAMP TEST switch.

(a) Make sure all A and B loop smoke detector indicators on the CEU come off.

SUBTASK 26-16-02-710-003

(3) Push and hold the PRESS TO TEST switch on the CEU for a minimum of five seconds.

(a) Make sure all A and B loop smoke detector indicators on the CEU come on.

NOTE: Properly functioning smoke detectors and unused positions respond by lighting up their corresponding indicator. Unlit indicators represent non-functioning smoke detectors.

(b) Make sure that the flight compartment fire bell in the Aural Warning Module, M315, does not come on.

SUBTASK 26-16-02-710-004

(4) Release the PRESS TO TEST switch.

C. Put the Airplane Back to Its Usual Condition

SUBTASK 26-16-02-420-003

(1) Put the cover [7] in position on the cargo ceiling and attach it with screws [4].

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

WHEEL WELL, WING AND LOWER AFT BODY OVERHEAT DETECTION SYSTEM - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) Wheel well, wing and lower aft body overheat detection system - deactivation.

(2) Wheel well, wing and lower aft body overheat detection system - activation.

TASK 26-18-00-040-801

2. Wheel Well, Wing and Lower Aft Body Overheat Detection System - Deactivation

A. General

(1) This task will deactivate the wheel well, wing and lower aft body overheat detection system.

B. Location Zones

Zone	Area
129	Keel Beam (Part) - Section 43
131	Center Section Wing Box, Body Station 540.00 to Body Station 663.75 - Left
132	Center Section Wing Box, Body Station 540.00 to Body Station 663.75 - Right
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
139	Keel Beam, (Part) Body Station 540.00 to Body Station 727.00
141	Aft Cargo Compartment - Left
142	Aft Cargo Compartment - Right
149	Keel Beam (Part) Body Station 727.00 to Body Station 743.95
191	Lower Wing-To-Body Fairing - Forward of Wing Box
192	Lower Wing-To-Body Fairing - Under Wing Box
311	Area Aft of Pressure Bulkhead - Left
431	Engine 1 - Forward Strut Fairing
441	Engine 2 - Forward Strut Fairing
511	Left Wing - Leading Edge To Front Spar
521	Left Wing - Leading Edge to Front Spar
611	Right Wing - Leading Edge to Front Spar
621	Right Wing - Leading Edge to Front Spar

C. Procedure

SUBTASK 26-18-00-020-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

D. Wheel Well, Wing and Lower Aft Body Overheat Detection System - Tryout

NOTE: This tryout is to make sure that the power to the wheel well, wing and lower aft body overheat detection system is in zero energy state.

SUBTASK 26-18-00-410-001

(1) Push and hold the OVHT TEST switch on the P5-10 panel for a minimum of 5 seconds.

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(a) Make sure that neither of the two WING-BODY OVERHEAT lights comes on.

(b) On the P7 panel, make sure that the AIR COND light does not come on.

(c) On the P7 panel, make sure that the captain's and the first officer's MASTER CAUTION lights do not come on.

SUBTASK 26-18-00-020-002

(2) Release the OVHT TEST switch.

SUBTASK 26-18-00-410-002

(3) Put and hold the TEST switch to the OVHT/FIRE position on the P8-1 panel.

(a) Make sure that the WHEEL WELL light does not come on.

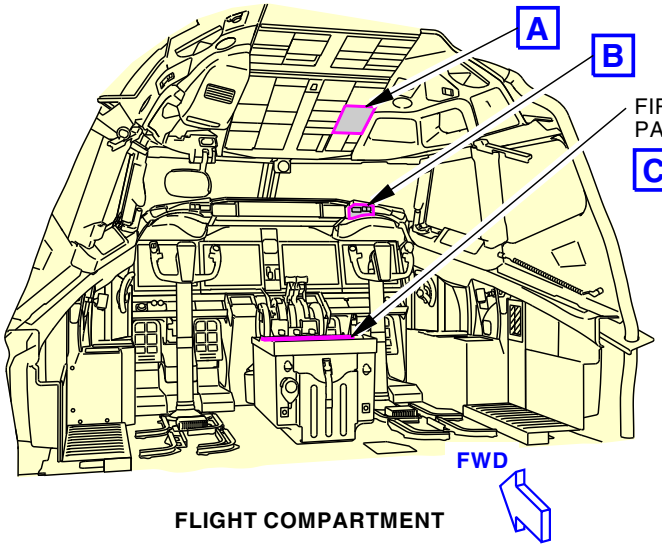
(b) Make sure that the flight compartment fire bell does not come on.

SUBTASK 26-18-00-020-003

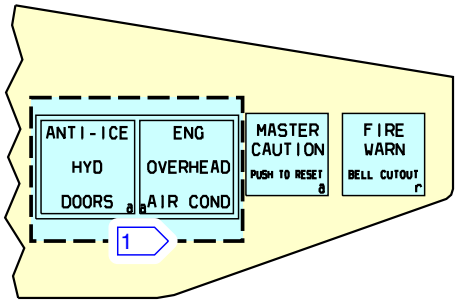
(4) Release the TEST switch.

——— END OF TASK ———

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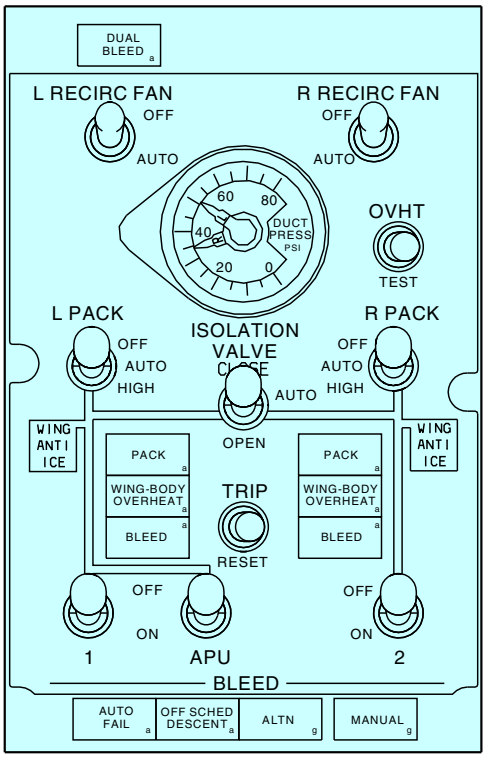


FLIGHT COMPARTMENT



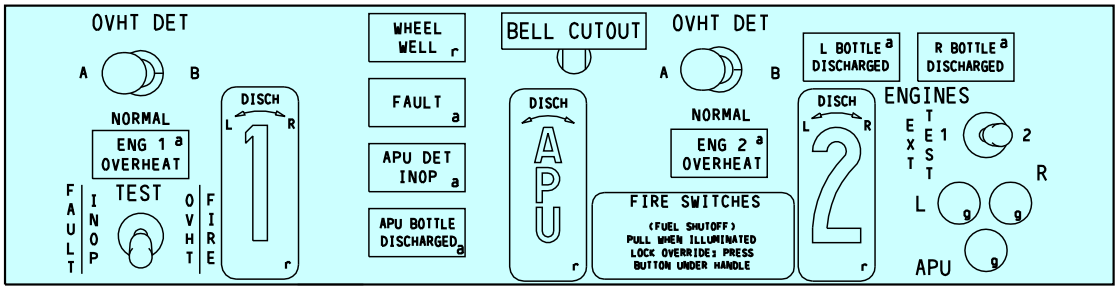
FIRST OFFICER'S WARNING LIGHTS (P7)
(CAPTAIN'S FIRE WARN AND MASTER CAUTION LIGHTS ARE OPPOSITE)

B



BLEED AIR CONTROL MODULE (P5)

A



FIRE CONTROL PANEL (P8-1)

C

1 FIRST OFFICER'S

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Wheel Well, Wing and Lower Aft Body Overheat Detection System
Figure 201/26-18-00-990-801

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-18-00-440-801

3. Wheel Well, Wing and Lower Aft Body Overheat Detection System - Activation

(Figure 201)

A. General

(1) This task will activate the wheel well, wing and lower aft body overheat detection system.

B. Location Zones

Zone	Area
129	Keel Beam (Part) - Section 43
131	Center Section Wing Box, Body Station 540.00 to Body Station 663.75 - Left
132	Center Section Wing Box, Body Station 540.00 to Body Station 663.75 - Right
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
139	Keel Beam, (Part) Body Station 540.00 to Body Station 727.00
141	Aft Cargo Compartment - Left
142	Aft Cargo Compartment - Right
149	Keel Beam (Part) Body Station 727.00 to Body Station 743.95
191	Lower Wing-To-Body Fairing - Forward of Wing Box
192	Lower Wing-To-Body Fairing - Under Wing Box
311	Area Aft of Pressure Bulkhead - Left
431	Engine 1 - Forward Strut Fairing
441	Engine 2 - Forward Strut Fairing
511	Left Wing - Leading Edge To Front Spar
521	Left Wing - Leading Edge to Front Spar
611	Right Wing - Leading Edge to Front Spar
621	Right Wing - Leading Edge to Front Spar

C. Procedure

SUBTASK 26-18-00-420-001

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

WHEEL WELL, WING AND LOWER AFT BODY OVERHEAT DETECTION SYSTEM - ADJUSTMENT/TEST

1. General

A. The procedures that follow contain the tests for the wheel well, wing and lower aft body overheat detection system, which will be referred to as the overheat detection system throughout the procedures.

B. This procedure consists of this task:

(1) An operational test of the overheat detection system.

TASK 26-18-00-710-801

2. Wheel Well and Lower Aft Body Overheat Detection System - Operational Test

(Figure 501)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This procedure does a check of the Overheat Fire Detection System without disturbing the detection system and it only uses the equipment that is on the airplane.

(2) This procedure can be performed on the flight deck, or in the E/E bay.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Prepare for the Operational Test

SUBTASK 26-18-00-860-002

(1) Make sure that these circuit breakers are closed:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
B	12	C00132	MASTER CAUTION ANNUNCIATOR BUS 1
B	13	C00131	MASTER CAUTION ANNUNCIATOR BAT
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT
D	12	C00310	INDICATOR MASTER DIM BAT
D	13	C00311	INDICATOR MASTER DIM BUS 1
D	14	C00312	INDICATOR MASTER DIM BUS 2
E	11	C00313	INDICATOR MASTER DIM SECT 1
E	12	C00314	INDICATOR MASTER DIM SECT 2
E	13	C00315	INDICATOR MASTER DIM SECT 3
E	14	C00316	INDICATOR MASTER DIM SECT 4
F	11	C00317	INDICATOR MASTER DIM SECT 5
F	12	C00318	INDICATOR MASTER DIM SECT 6

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(Continued)

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
F	13	C01179	INDICATOR MASTER DIM SECT 7
F	14	C01180	INDICATOR MASTER DIM SECT 8

SUBTASK 26-18-00-860-003

(2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

D. Overheat Detection System Operational Test - Flight Compartment

SUBTASK 26-18-00-710-001

(1) Move and hold the TEST switch on the Engine and APU Fire Control Panel to the OVHT/FIRE position.

(a) Make sure the WHEEL WELL light on the Engine and APU Fire Control Panel comes on.

(b) Make sure the Captain's and First Officer's FIRE WARN lights on the Pilot's Glareshield, P7, come on.

(c) Make sure the flight compartment fire bell in the Aural Warning Module, M315, comes on.

SUBTASK 26-18-00-710-012

(2) Push the BELL CUTOUT switch on the P8-1 panel.

(a) Make sure the fire bell goes off immediately.

(b) Make sure that both FIRE WARN lights go off.

(c) Make sure the WHEEL WELL light on the P8-1 panel remains on.

SUBTASK 26-18-00-710-013

(3) Set the LIGHTS switch on the pilots main panel, P1 to DIM.

(a) Make sure the WHEEL WELL light dims.

SUBTASK 26-18-00-710-014

(4) Set the LIGHTS switch on the pilots main panel, P1 to BRT.

(a) Make sure the WHEEL WELL light returns to its original brightness.

SUBTASK 26-18-00-710-002

(5) Release the TEST switch on the Engine and APU Fire Control Panel.

(a) Make sure the WHEEL WELL light on the Engine and APU Fire Control Panel goes off.

(b) Make sure the Captain's and First Officer's FIRE WARN lights on the Pilot's Glareshield remains off.

(c) Make sure the flight compartment fire bell in the Aural Warning Module, M315, remains off.

SUBTASK 26-18-00-710-016

(6) Push and hold the OVHT TEST switch on the air conditioning panel, P5-10, for at least 5 seconds.

(a) On the air conditioning panel, P5-10, make sure these lights come on:

ECCN 9E991 BOEING PROPRIETARY - See title page for details

1) The left WING-BODY OVERHEAT light.
2) The right WING-BODY OVERHEAT light.

(b) On the Pilot's Glareshield, P7, make sure these lights come on:
1) The AIR COND light.
2) The Captain's and First Officer's MASTER CAUTION lights.

SUBTASK 26-18-00-710-017

(7) Release the OVHT TEST switch on the air conditioning panel, P5-10.
(a) On the air conditioning panel, P5-10, make sure these lights go off:
1) The left WING-BODY OVERHEAT light.
2) The right WING-BODY OVERHEAT light.
(b) On the Pilot's Glareshield, P7, make sure that this light goes off:
1) The AIR COND light.

SUBTASK 26-18-00-710-018

(8) On the Pilot's Glareshield, P7, press the Captain's and First Officer's MASTER CAUTION lights.
(a) Make sure that the MASTER CAUTION lights goes off.

SUBTASK 26-18-00-710-015

(9) Do this task: Wing and Lower Aft Body Overheat Detection System - Operational Test, TASK 26-18-00-710-802.

E. Overheat Detection System Operational Test - E/E Bay

SUBTASK 26-18-00-710-005

(1) Push and release the DISPLAY TEST switch on the compartment overheat detection module, M237.
(a) Make sure all LED's come on, then goes off.

SUBTASK 26-18-00-710-006

(2) Push and release the LOCAL TEST switch on the compartment overheat detection module, M237.
(a) Make sure CONFIG MAX1 comes on while the test is in progress, then the TEST COMPLETE comes on to show there are no faults.

SUBTASK 26-18-00-710-007

(3) Push and release the MEMORY READ switch on the compartment overheat detection module, M237.
(a) Make sure END OF MEMORY comes on to show the test is complete.

SUBTASK 26-18-00-710-008

(4) Push and hold momentarily the MEMORY CLEAR switch on the compartment overheat detection module, M237.
(a) Make sure MEMORY CLEAR is displayed.
(b) Make sure the MAINT ADV light stays off.

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F. Put the Airplane Back to its Usual Condition.

SUBTASK 26-18-00-860-004

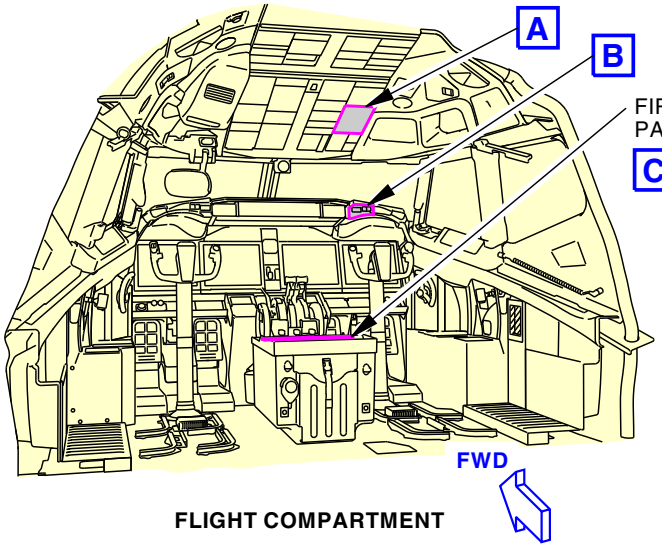
(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

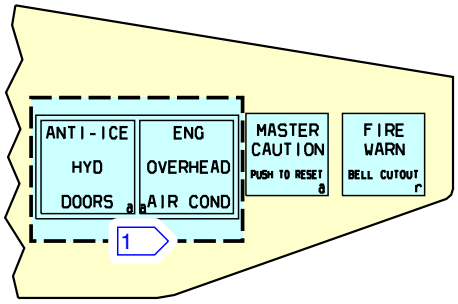
Row	Col	Number	Name
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

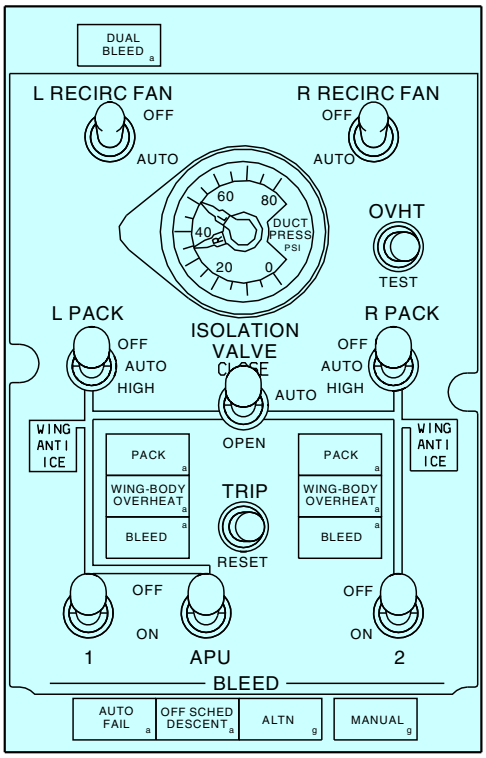


FLIGHT COMPARTMENT



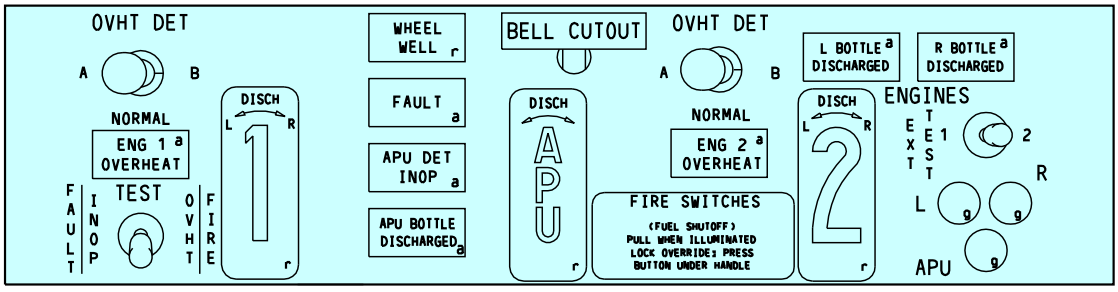
FIRST OFFICER'S WARNING LIGHTS (P7)
(CAPTAIN'S FIRE WARN AND MASTER CAUTION LIGHTS ARE OPPOSITE)

B



BLEED AIR CONTROL MODULE (P5)

A



FIRE CONTROL PANEL (P8-1)

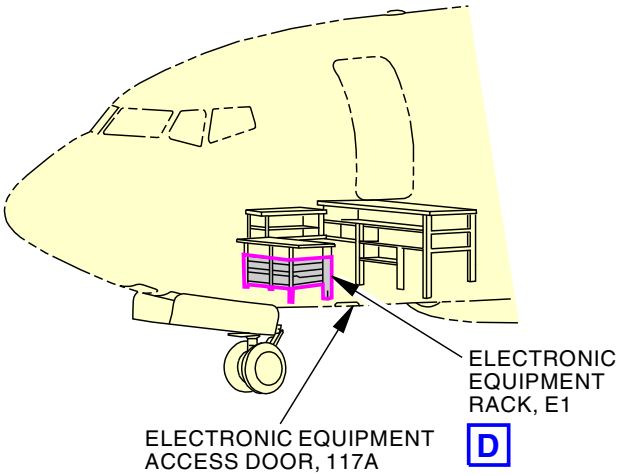
C

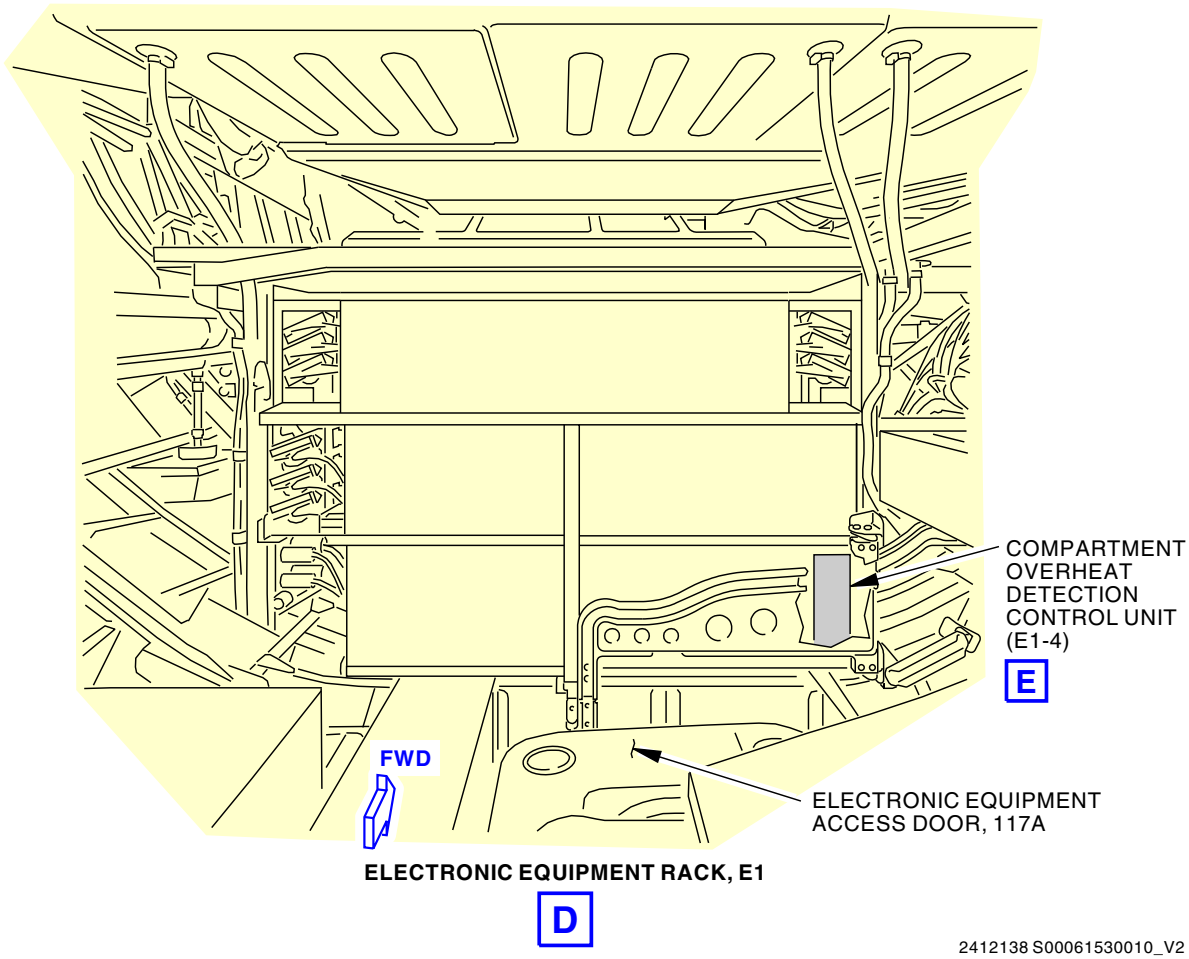
1 FIRST OFFICER'S

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Wheel Well, Wing and Lower Aft Body Overheat Detection System Operational Test
Figure 501/26-18-00-990-802 (Sheet 1 of 3)

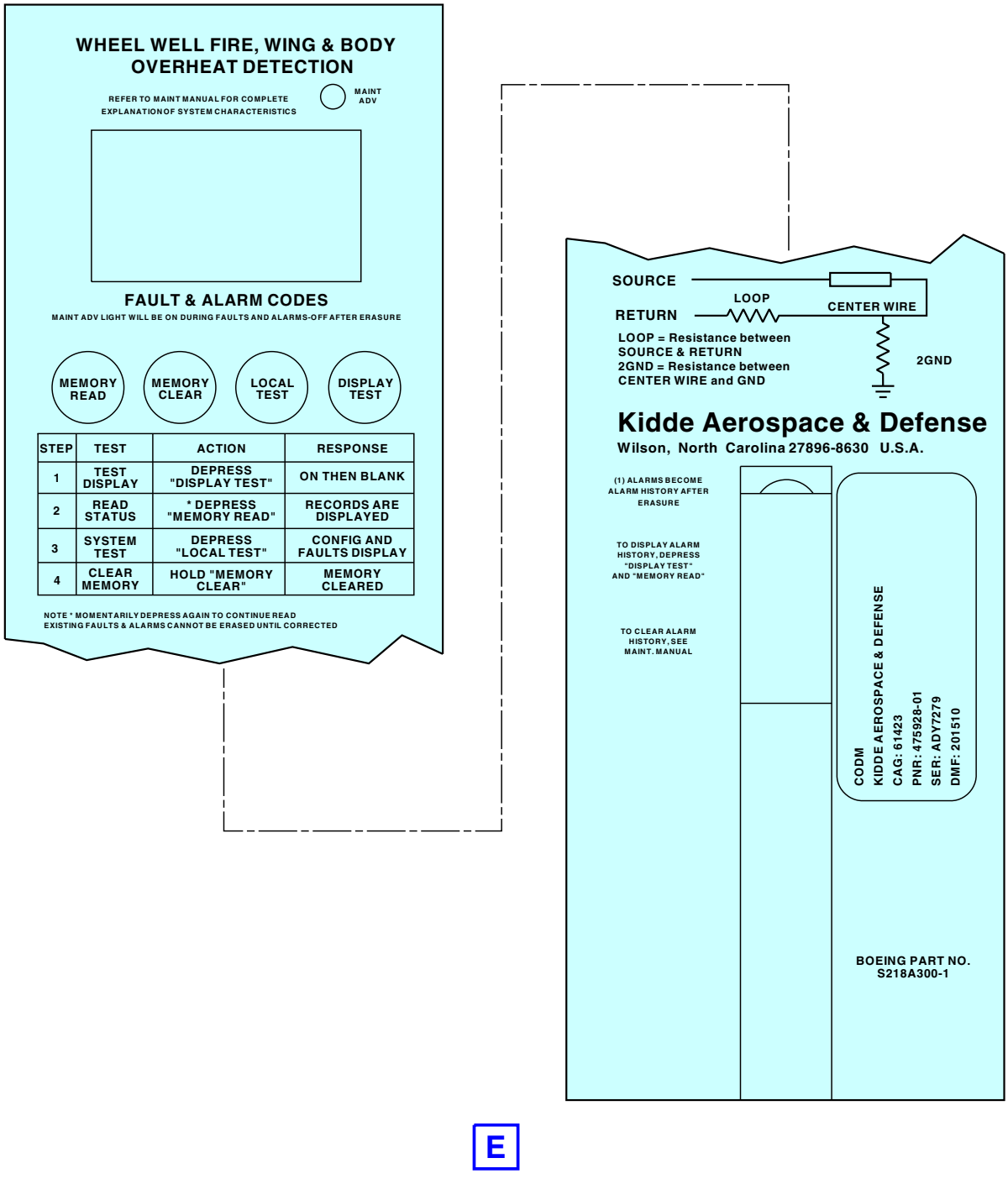
ECCN 9E991 BOEING PROPRIETARY - See title page for details





Wheel Well, Wing and Lower Aft Body Overheat Detection System Operational Test
Figure 501/26-18-00-990-802 (Sheet 2 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



E

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Wheel Well, Wing and Lower Aft Body Overheat Detection System Operational Test
Figure 501/26-18-00-990-802 (Sheet 3 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-18-00-710-802

3. Wing and Lower Aft Body Overheat Detection System - Operational Test

(Figure 501)

A. General

(1) The Operational Test does a check of the Overheat Fire Detection System without disturbing the detection system and it only uses the equipment that is on the airplane.

(2) The operational test can be performed on the flight deck.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Prepare for the Operational Test

SUBTASK 26-18-00-860-005

(1) Make sure that these circuit breakers are closed:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
B	12	C00132	MASTER CAUTION ANNUNCIATOR BUS 1
B	13	C00131	MASTER CAUTION ANNUNCIATOR BAT
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT
D	12	C00310	INDICATOR MASTER DIM BAT
D	13	C00311	INDICATOR MASTER DIM BUS 1
D	14	C00312	INDICATOR MASTER DIM BUS 2
E	11	C00313	INDICATOR MASTER DIM SECT 1
E	12	C00314	INDICATOR MASTER DIM SECT 2
E	13	C00315	INDICATOR MASTER DIM SECT 3
E	14	C00316	INDICATOR MASTER DIM SECT 4
F	11	C00317	INDICATOR MASTER DIM SECT 5
F	12	C00318	INDICATOR MASTER DIM SECT 6
F	13	C01179	INDICATOR MASTER DIM SECT 7
F	14	C01180	INDICATOR MASTER DIM SECT 8

SUBTASK 26-18-00-860-006

(2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

ECCN 9E991 BOEING PROPRIETARY - See title page for details

D. Overheat Detection System Operational Test - Flight Compartment

SUBTASK 26-18-00-710-009

(1) Push and hold the OVHT TEST switch on the air conditioning panel, P5-10, for at least 5 seconds.

(a) On the air conditioning panel, P5-10, make sure these lights come on:

1) The left WING-BODY OVERHEAT light.

2) The right WING-BODY OVERHEAT light.

(b) On the Pilot's Glareshield, P7, make sure these lights come on:

1) The AIR COND light.

2) The Captain's and First Officer's MASTER CAUTION lights.

SUBTASK 26-18-00-710-010

(2) Release the OVHT TEST switch on the air conditioning panel, P5-10.

(a) On the air conditioning panel, P5-10, make sure these lights go off:

1) The left WING-BODY OVERHEAT light.

2) The right WING-BODY OVERHEAT light.

(b) On the Pilot's Glareshield, P7, make sure that this light goes off:

1) The AIR COND light.

SUBTASK 26-18-00-710-011

(3) On the Pilot's Glareshield, P7, press the Captain's and First Officer's MASTER CAUTION lights.

(a) Make sure that the MASTER CAUTION lights goes off.

E. Put the Airplane Back to its Usual Condition.

SUBTASK 26-18-00-860-007

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

COMPARTMENT OVERHEAT DETECTION CONTROL UNIT, M237 - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the Compartment Overheat Detection Control Unit (M237), referred to as the control unit.

(2) An installation of the Compartment Overheat Detection Control Unit.

B. The Compartment Overheat Detection Control Unit is installed on the E1-4 shelf in the electronic equipment compartment.

TASK 26-18-01-000-801

2. Compartment Overheat Detection Control Unit Removal

(Figure 401)

A. General

(1) This task gives instructions for the removal of the compartment overheat detection control unit.

B. References

Reference	Title
20-10-07-000-801	E/E Box Removal (P/B 401)

C. Location Zones

Zone	Area
118	Electrical and Electronics Compartment - Right

D. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

E. Prepare for the Removal

SUBTASK 26-18-01-860-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

SUBTASK 26-18-01-010-001

(2) Open this access door:

Number	Name/Location
117A	Electronic Equipment Access Door

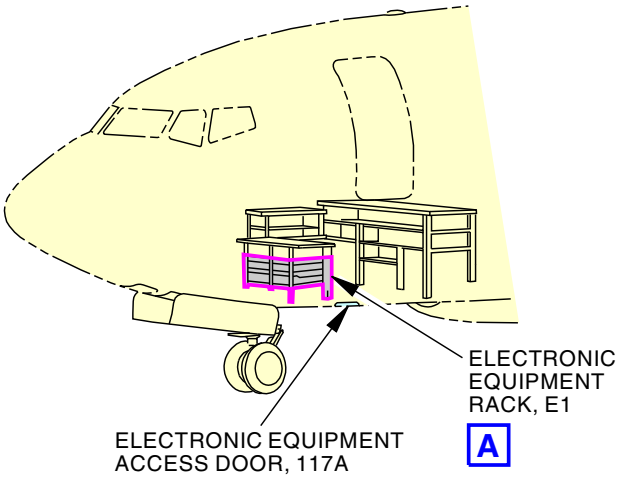
F. Compartment Overheat Detection Control Unit Removal

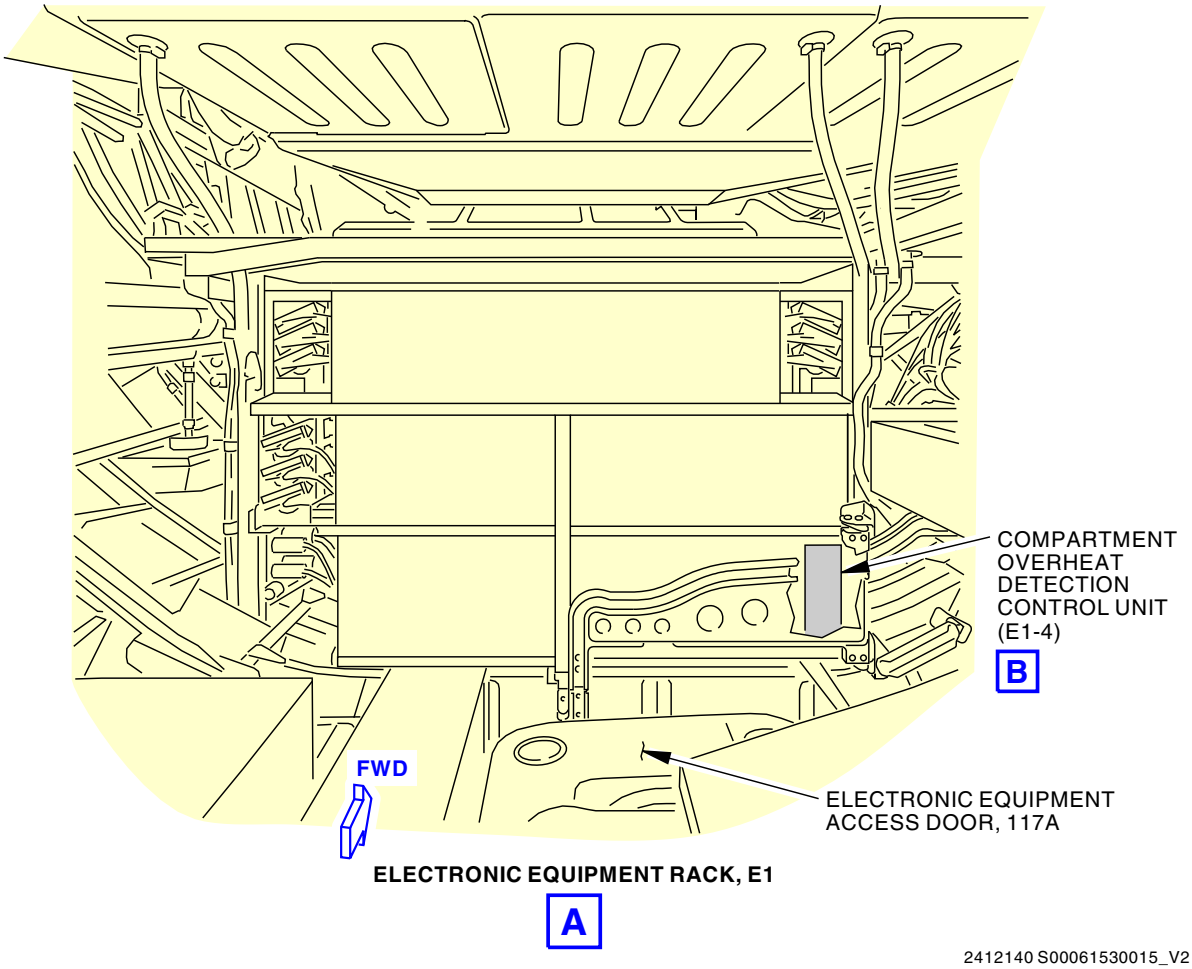
SUBTASK 26-18-01-020-001

(1) Remove the compartment overheat detection control unit [1] (TASK 20-10-07-000-801).

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

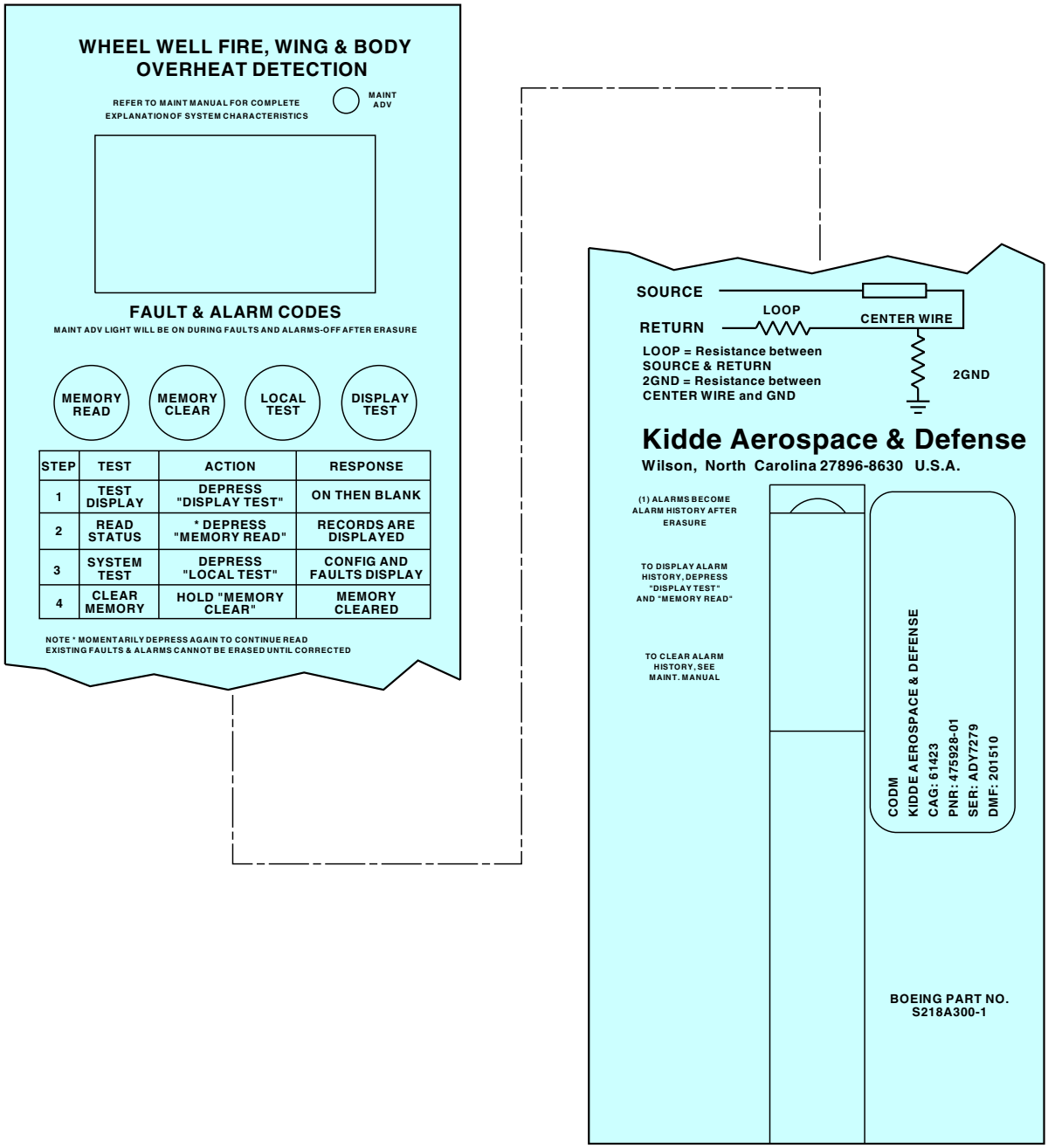




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Compartment Overheat Detection Control Unit Installation
Figure 401/26-18-01-990-801 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



COMPARTMENT OVERHEAT DETECTION CONTROL UNIT (E1-4)

B

2412141 S00061530016_V1

Compartment Overheat Detection Control Unit Installation
Figure 401/26-18-01-990-801 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-18-01-400-801

3. Compartment Overheat Detection Control Unit Installation

(Figure 401)

A. General

(1) This task gives instructions for the installation of the compartment overhead detection control unit.

B. References

Reference	Title
20-10-07-400-801	E/E Box Installation (P/B 401)
26-18-00-710-801	Wheel Well and Lower Aft Body Overheat Detection System - Operational Test (P/B 501)

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Compartment overheat detection control unit	26-18-01-01-010	SIA ALL

D. Location Zones

Zone	Area
118	Electrical and Electronics Compartment - Right

E. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

F. Prepare for the Installation

SUBTASK 26-18-01-860-002

(1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

SUBTASK 26-18-01-010-002

(2) Open this access door:

Number	Name/Location
117A	Electronic Equipment Access Door

G. Compartment Overheat Detection Control Unit Installation

SUBTASK 26-18-01-020-002

(1) Install the compartment overheat detection control unit [1] (TASK 20-10-07-400-801).

H. Compartment Overheat Detection Control Unit Installation Test

SUBTASK 26-18-01-860-003

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

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SUBTASK 26-18-01-710-001

(2) Do this task: Wheel Well and Lower Aft Body Overheat Detection System - Operational Test, TASK 26-18-00-710-801.

NOTE: Do the portion of the test for the E/E bay.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 26-18-01-010-003

(1) Close this access door:

Number	Name/Location
117A	Electronic Equipment Access Door

END OF TASK

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COMPARTMENT OVERHEAT DETECTION CONTROL UNIT, M237 - ADJUSTMENT/TEST

1. General

A. The Compartment Overheat Detection Control Unit, M237 is installed on the E1-4 shelf in the electronic equipment compartment.

B. This procedure has this task:

(1) The Compartment Overheat Detection Control Unit (M237), BITE Test.

C. Do not hold the control module switches in the CLOSED position for more than 10 seconds or the software could stop the test.

D. Unless the test specifies differently, continue from one step to the subsequent step in less than 60 seconds.

TASK 26-18-01-740-801

2. Compartment Overheat Detection Control Unit, M237 - BITE Test

Figure 501

A. General

(1) The wheel well fire, wing & body compartment overheat detection control unit, M237 is located on the E1-4 shelf in the electronic equipment (EE) compartment. The wheel well fire, wing & body overheat detection control unit will be referred to as the control module throughout this procedure. Access the front of panel of the control module to do the BITE test.

(2) This task gives instructions to performed these procedures with the control module:

(a) Display Test Procedure.

(b) Local Test Procedure.

(c) Memory Read Procedure.

(d) Memory Clear Procedure.

(e) Zone Resistance Test.

(3) Do not hold the control module switches in the CLOSED position for more than 10 seconds or the software could stop the test.

(4) Unless the test specifies differently, continue from one step to the subsequent step in less than 60 seconds.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. BITE Procedure

SUBTASK 26-18-01-740-001

(1) Do these steps to do the display test procedure:

(a) Push and release the DISPLAY TEST switch on the control module.

1) Make sure that all LED's come on, then go off.

SUBTASK 26-18-01-740-002

(2) Do these steps to do the local test procedure for the control module:

(a) Push and release the LOCAL TEST switch on the control module.

1) The CONFIG MAX1 comes on while the test is in progress, then the TEST COMPLETE comes on to show that there are no faults.

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2) If an alarm/fault condition is found, the display will show a fault code.

SUBTASK 26-18-01-740-003

(3) Do these steps to do the memory read procedure:

(a) Push and release the MEMORY READ switch on the control module.

1) Make sure that END OF MEMORY comes on to show the test is complete.

2) Push and release the MEMORY READ switch again until all the alarm/faults have been read.

NOTE: A minimum of 10 LRU failures can be stored in non-volatile memory.

3) Push and release the MEMORY READ switch again so the display shows no data.

SUBTASK 26-18-01-740-004

(4) Do these steps to do the memory clear procedure:

(a) Push and momentarily hold the MEMORY CLEAR switch on the control module.

(b) Make sure that MEMORY CLEAR is displayed.

(c) Make sure that the MAINT ADV light stays off.

NOTE: If there are fault codes in the memory, the display will show the last code that was recorded. If there are no fault codes in the memory, the display will show no data.

(d) Push and release the MEMORY CLEAR switch to clear the displayed code.

1) The display shows no data.

(e) Push and release the MEMORY READ switch again to display the next code.

1) Repeat the two steps above until no data shows.

NOTE: Alarm/fault codes can not be removed until the condition is corrected.

(f) Push the MEMORY READ switch again so the display shows no data and the MAINT ADV light is off.

SUBTASK 26-18-01-740-005

(5) Do these steps to do the Zone Resistance test (CODM BITE):

(a) Push and release the LOCAL TEST button on the front panel of the CODM.

1) The front panel of the CODM displays CONFIG MAX1 followed by L ENGINE STR.

(b) Continue to push and release LOCAL TEST. This will cycle through the different zones followed by LOOP ___ which shows the resistance value in the loop or 2GND_____ which shows the resistance value to ground.

NOTE: If the loops are functioning properly all zones will have a 2GND value of 5000.

(c) Make sure that the resistance value agree with the Table 501 below:

Table 501/26-18-01-993-801 Zone Resistance Test Data

KIDDE ALARM/FAULT CODES	RESISTANCE VALUE or FAULT MESSAGE	SENSORS
L ENGINE STR	< 15 Ohms	M1761, M1762, M3057
L ENGINE STR OPEN	OPEN	
L ENGINE STR OVHT	LOW	
L ENGINE STR SHRT	0	

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Table 501/26-18-01-993-801 Zone Resistance Test Data (Continued)

KIDDE ALARM/FAULT CODES	RESISTANCE VALUE or FAULT MESSAGE	SENSORS
L WING LE L WING LE OPEN L WING LE OVHT L WING LE SHRT	< 15 Ohms OPEN LOW 0	M268, M370
L PACK BAY L PACK BAY OPEN L PACK BAY OVHT L PACK BAY SHRT	< 15 Ohms OPEN LOW 0	M1911, M1909, M355
NITROGEN GEN NITROGEN GEN OPEN NITROGEN GEN OVHT NITROGEN GEN SHRT	< 15 Ohms OPEN LOW 0	M3067
KEELBEAM KEELBEAM OPEN KEELBEAM OVHT KEELBEAM SHRT	< 15 Ohms OPEN LOW 0	M272, M273
AFT CARGO AFT CARGO OPEN AFT CARGO OVHT AFT CARGO SHRT	< 20 Ohms OPEN LOW 0	M275, M347, M348, M1147
AFT BODY AFT BODY OPEN AFT BODY OVHT AFT BODY SHRT	< 15 Ohms OPEN LOW 0	M276
MWW LOOP A MWW LOOP A OPEN MWW LOOP A FIRE MWW LOOP A SHRT	< 15 Ohms OPEN LOW 0	M270
MWW LOOP B MWW LOOP B OPEN MWW LOOP B FIRE MWW LOOP B SHRT	< 15 Ohms OPEN LOW 0	M3068
R ENGINE STR R ENGINE STR OPEN R ENGINE STR OVHT R ENGINE STR SHRT	< 15 Ohms OPEN LOW 0	M1763, M1764, M3058
R WING LE R WING LE OPEN R WING LE OVHT R WING LE SHRT	< 15 Ohms OPEN LOW 0	M269, M371

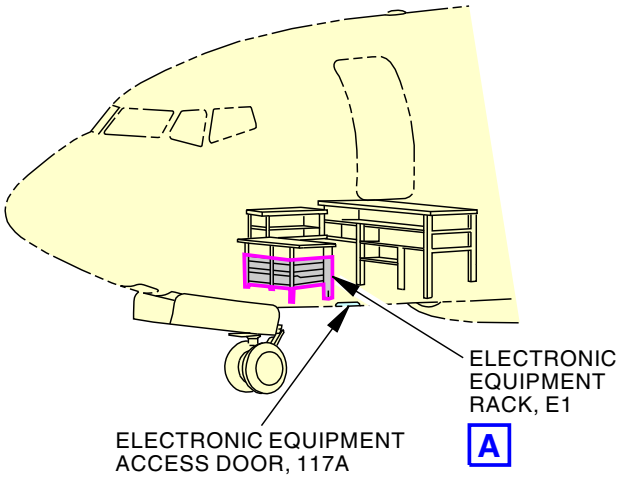
ECCN 9E991 BOEING PROPRIETARY - See title page for details

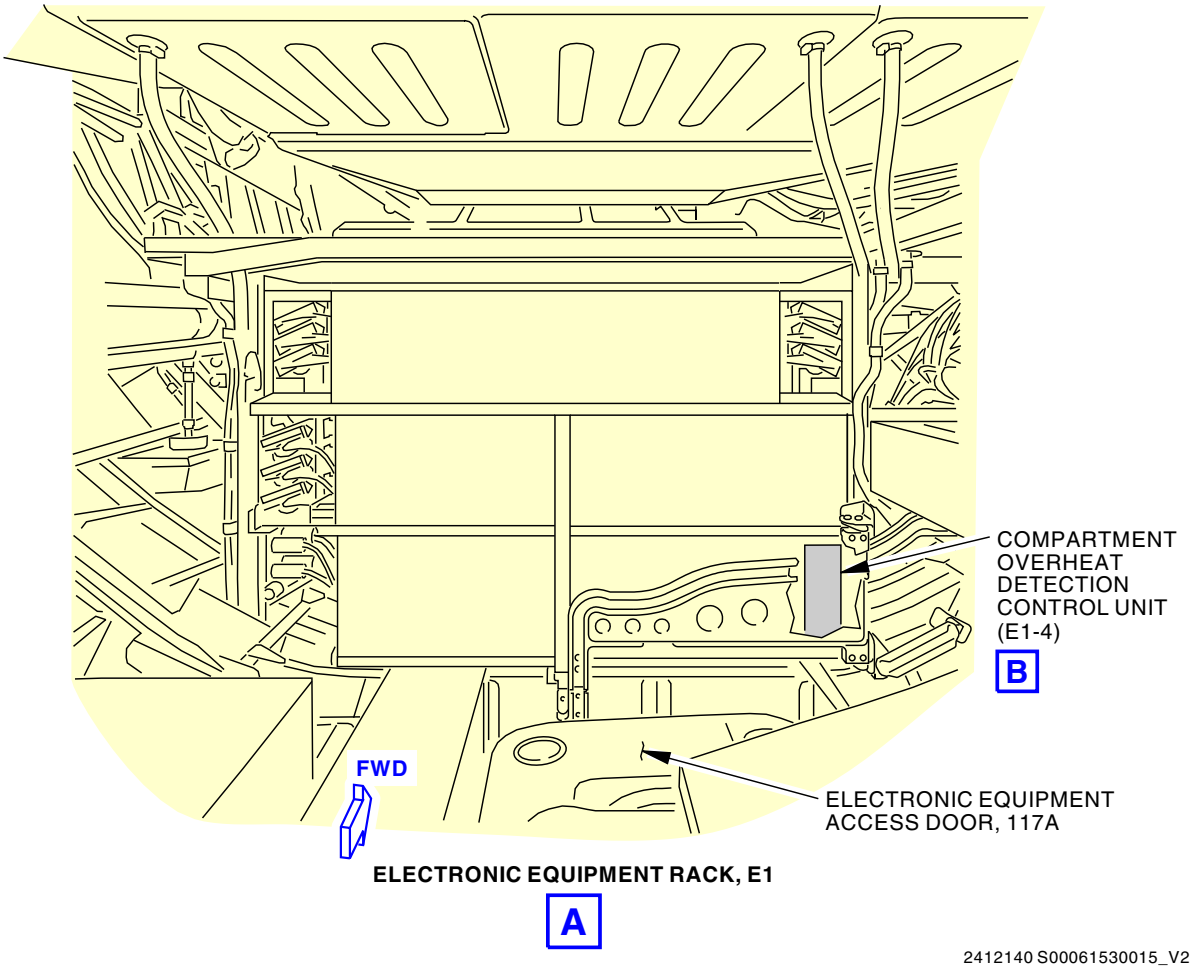
Table 501/26-18-01-993-801 Zone Resistance Test Data (Continued)

KIDDE ALARM/FAULT CODES	RESISTANCE VALUE or FAULT MESSAGE	SENSORS
R PACK BAY R PACK BAY OPEN R PACK BAY OVHT R PACK BAY SHRT	< 15 Ohms OPEN LOW 0	M356, M1910, M1912

——— END OF TASK ———

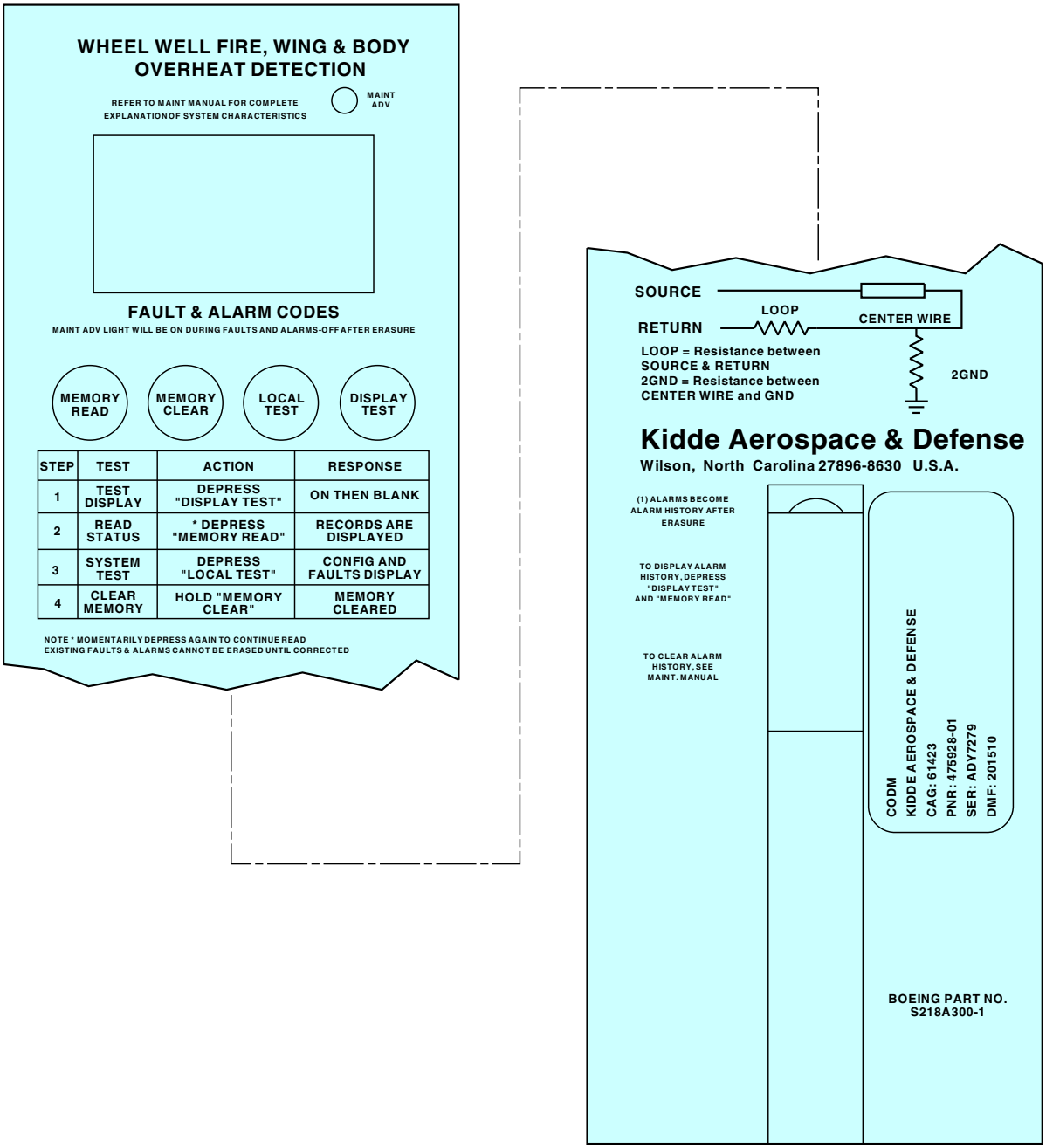
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Compartment Overheat Detection Control Unit M237
Figure 501/26-18-01-990-802 (Sheet 1 of 2)

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COMPARTMENT OVERHEAT DETECTION CONTROL UNIT (E1-4)

B

2412141 S00061530016_V1

Compartment Overheat Detection Control Unit M237
Figure 501/26-18-01-990-802 (Sheet 2 of 2)

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TASK 26-18-01-700-801

3. Compartment Overheat System Automated Test with WiN MS Aero FLi Test Kit

Figure 502

A. General

This task provides instructions on how to attach, test, and diagnose the Compartment Overheat System utilizing the WiN MS Aero FLi test set.

B. References

Reference	Title
24-22-00-860-801	Supply Electrical Power (P/B 201)
24-22-00-860-802	Remove Electrical Power (P/B 201)
26-18-01-000-801	Compartment Overheat Detection Control Unit Removal (P/B 401)
26-18-01-400-801	Compartment Overheat Detection Control Unit 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
SPL-23026	Tester - Overheat Detection Loop, Aero Fli Part #: 411001 Supplier: FB3T5

D. Location Zones

Zone	Area
118	Electrical and Electronics Compartment - Right

E. Prepare for the Compartment Overheat System Automated Test

SUBTASK 26-18-01-860-004

(1) Do this task: Remove Electrical Power, TASK 24-22-00-860-802.

NOTE: Failure to remove power from the aircraft will result in inaccurate test results.

SUBTASK 26-18-01-020-003

(2) Do this task: Compartment Overheat Detection Control Unit Removal, TASK 26-18-01-000-801.

SUBTASK 26-18-01-480-001

(3) Install the aero fli overheat detection loop tester, SPL-23026:

(a) Install the interface module on the Compartment Overheat Detection Control Unit rack.

(b) Connect the cable to the interface tablet and the interface module.

(c) Turn on the interface module.

(d) Turn on the interface tablet.

F. Compartment Overheat System Automated Test

SUBTASK 26-18-01-700-001

(1) Perform the automated test:

NOTE: For detailed instructions please refer to equipment user manual.

(a) Start the AERO FLi (or OHDL Studio) App.

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(b) Enter the applicable Operator, Station, and Aircraft ID.

NOTE: This will be used for PDF report.

(c) Select the applicable Program.

(d) Select Loop: [All].

(e) Select Static Test.

(f) Select the applicable loops that are to be scanned.

(g) Select Launch Scan.

1) If the scan takes longer than two minutes, restart the hardware.

(h) When scan is finished, select PDF Report.

(i) Review the PDF report to identify potential problems among the reported items.

1) If problems are found, the report will show the location of the problem.

2) Correct the problems and perform the automated test again.

3) When the problems have been corrected, there will be no problems listed in the report.

G. Put the Aircraft Back to its Usual Condition

SUBTASK 26-18-01-080-001

(1) Remove the Aero FLi interface module:

(a) Turn off the interface module.

(b) Turn off the interface tablet.

(c) Disconnect the interface cable.

(d) Remove the module from the rack.

SUBTASK 26-18-01-020-004

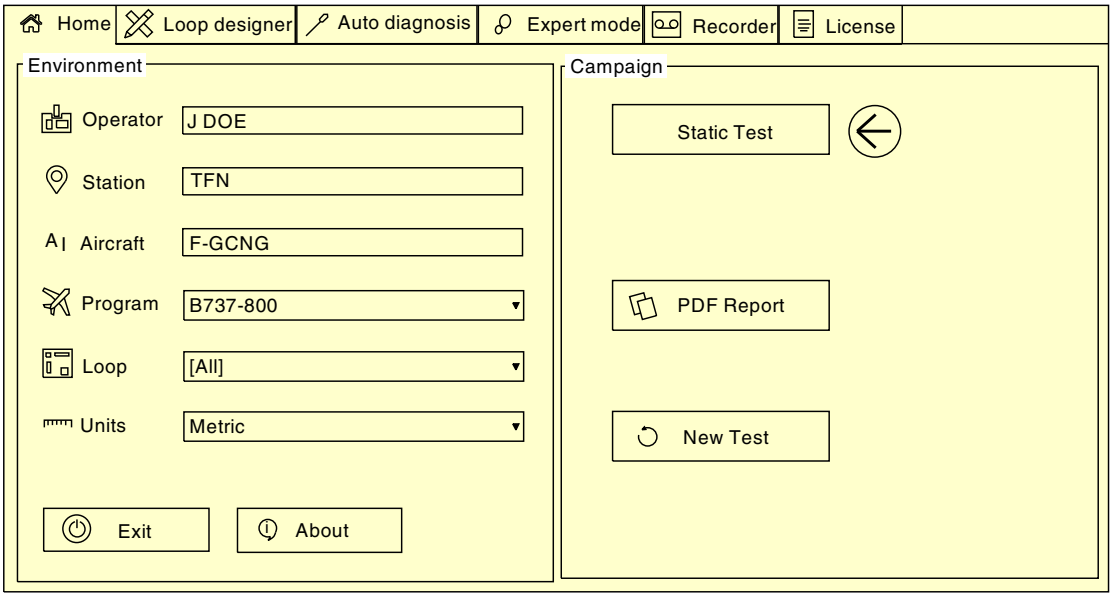
(2) Do this task: Compartment Overheat Detection Control Unit Installation, TASK 26-18-01-400-801.

SUBTASK 26-18-01-860-005

(3) Do this task: Supply Electrical Power, TASK 24-22-00-860-801.

——— END OF TASK ———

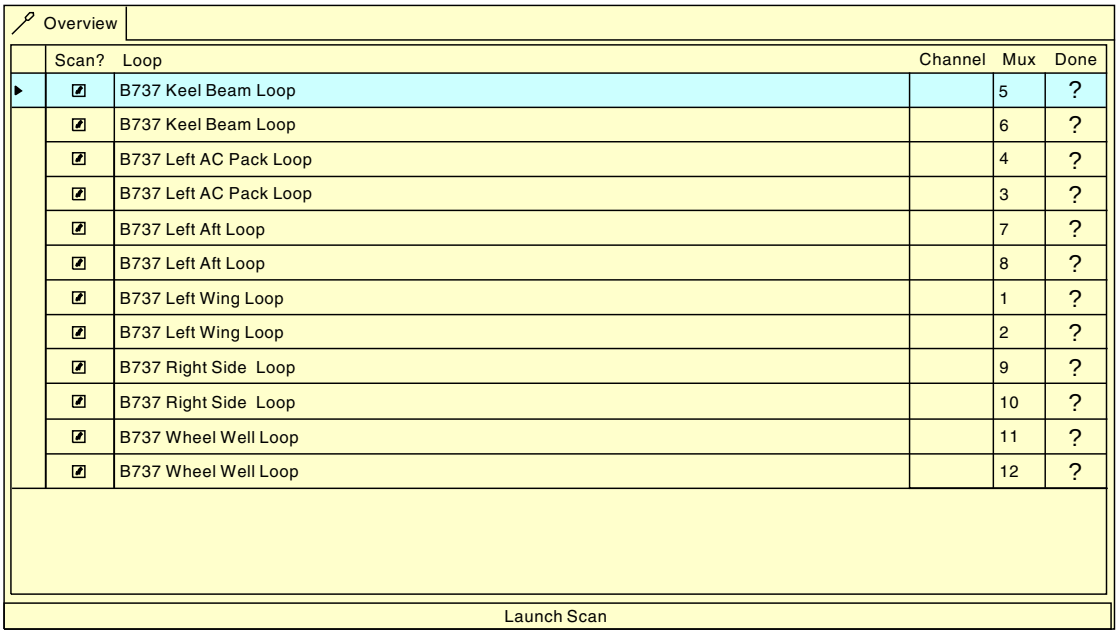
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3027682 S0000798887_V1

Compartment Overheat System Automated Test with WiN MS Aero FLi Test Kit
Figure 502/26-18-01-990-803 (Sheet 1 of 3)

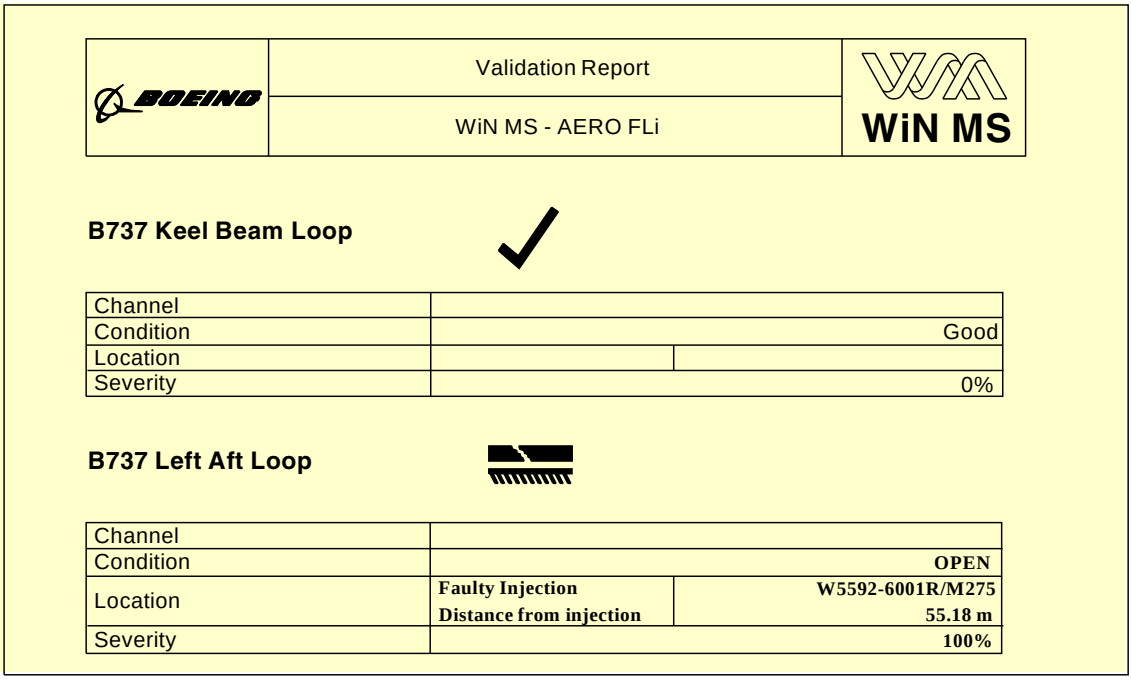
ECCN 9E991 BOEING PROPRIETARY - See title page for details



3027724 S0000798888_V1

Compartment Overheat System Automated Test with WiN MS Aero FLi Test Kit
Figure 502/26-18-01-990-803 (Sheet 2 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



3027725 S0000798889_V1

Compartment Overheat System Automated Test with WiN MS Aero FLi Test Kit
Figure 502/26-18-01-990-803 (Sheet 3 of 3)

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WING, WHEEL WELL, AND LOWER AFT BODY OVERHEAT DETECTION SENSING ELEMENT - REMOVAL/INSTALLATION

1. General

A. This section contains procedures to remove and install the long sensor elements, and the looped sensor elements.

(1) The long sensor elements are located in the wing area, the forward Air Conditioning (A/C) Pack Bay, the Wheel Well, and the Aft Body Area.

(2) The looped sensor elements are located in the mid and aft A/C pack, and along the strut.

B. The minimum element bend radius is 1 in. (25.4 mm). The best bend radius is three inches.

C. The sensor element must be straight and away from the connector for one inch before bending.

D. A list of all the compartment overheat detection sensing elements is shown in Table 401. Each loop is made up of one or more sensing elements that make a complete circuit with the Compartment Overheat Detection Module, M237. The loop is defined by the two pins in the electrical connector D742 that complete the circuit. The pins that define each loop are shown in the column "D742 PINS" of Table 401.

TASK 26-18-02-000-801

2. Wheel Well, Wing and Lower Aft Body Overheat Sensor Element - Removal

(Figure 401, Figure 402, Figure 403, Figure 404, Figure 405, Figure 406, Figure 407, Figure 408)

A. General

(1) This task gives instructions to remove the Wheel Well, Wing and Lower Aft Body Overheat Sensor Element.

B. References

Reference	Title
20-10-44-000-801	Lockwire, Cotter Pins, and Lockrings - Removal (P/B 401)
21-51-03-000-803	Heat Exchanger and Plenum/Diffuser Assembly - Removal (P/B 401)
27-81-00-860-803	Leading Edge Flaps and Slats Extension (P/B 201)
27-81-00-860-804	Leading Edge Flaps and Slats Retraction (P/B 201)

C. Location Zones

Zone	Area
129	Keel Beam (Part) - Section 43
131	Center Section Wing Box, Body Station 540.00 to Body Station 663.75 - Left
132	Center Section Wing Box, Body Station 540.00 to Body Station 663.75 - Right
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
139	Keel Beam, (Part) Body Station 540.00 to Body Station 727.00
141	Aft Cargo Compartment - Left
142	Aft Cargo Compartment - Right
149	Keel Beam (Part) Body Station 727.00 to Body Station 743.95
191	Lower Wing-To-Body Fairing - Forward of Wing Box
192	Lower Wing-To-Body Fairing - Under Wing Box
311	Area Aft of Pressure Bulkhead - Left
431	Engine 1 - Forward Strut Fairing

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(Continued)

Zone	Area
441	Engine 2 - Forward Strut Fairing
511	Left Wing - Leading Edge To Front Spar
521	Left Wing - Leading Edge to Front Spar
611	Right Wing - Leading Edge to Front Spar
621	Right Wing - Leading Edge to Front Spar

D. Prepare for the Removal

SUBTASK 26-18-02-860-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

SUBTASK 26-18-02-010-001

(2) Open the applicable access doors and panels (Table 401).

Table 401/26-18-02-993-801

LOOP	D742 PINS	EQPT NO.	Sensor Element	Figure	DETECTOR	OPEN/REMOVE FOR ACCESS
1	42, 41	M1912	element [13]	Figure 403	R AFT A/C PACK	ECS ACCESS DOOR, 192CR
		M1910	element [14]	Figure 403	R MID A/C PACK	ECS ACCESS DOOR, 192CR
		M356	element [15]	Figure 402	R FWD A/C PACK	ECS ACCESS DOOR, 192CR A/C PNEUMATIC TUBES
2	30, 35	M371	element [16]	Figure 401	R WING INBOARD	LE SLATS - EXTEND FULLY Leading Edge Flaps and Slats Extension, TASK 27-81-00-860-803 - RETRACT Leading Edge Flaps and Slats Retraction, TASK 27-81-00-860-804 ECS ACCESS DOOR, 192CR RAM AIR INLET LIP PANEL, 191HR FORWARD WING TO BODY FAIRING PANEL, 191FR INBOARD LEADING EDGE, REMOVABLE ACCESS PANEL, 611AB

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Table 401/26-18-02-993-801 (Continued)

LOOP	D742 PINS	EQPT NO.	Sensor Element	Figure	DETECTOR	OPEN/REMOVE FOR ACCESS
		M269	element [17]	Figure 401	R WING OUTBOARD	LE SLATS - EXTEND FULLY Leading Edge Flaps and Slats Extension, TASK 27-81-00-860-803 - RETRACT Leading Edge Flaps and Slats Retraction, TASK 27-81-00-860-804 ECS ACCESS DOOR, 192CR RAM AIR INLET LIP PANEL, 191HR FORWARD WING TO BODY FAIRING PANEL, 191FR INBOARD LEADING EDGE, REMOVABLE ACCESS PANEL, 611AB
3	11, 10	M1763	element [18]	Figure 404	R FWD STRUT	FORWARD STRUT FAIRING, 441BT
		M3058	element [18]	Figure 404	R MID STRUT	FORWARD STRUT FAIRING, 441BR
		M1764	element [18]	Figure 404	R AFT STRUT	OUTBOARD LEADING EDGE BLOWOUT ACCESS DOOR, 621AB
4	36, 37	M276	element [19]	Figure 406	AFT, SECTION 48	STAB TRIM ACCESS
5	13, 27	M275	element [20]	Figure 406	AFT, SECTION 47	AFT CARGO LINING
		M347	element [21]	Figure 406	AFT, SECTION 46	AFT CARGO LINING
		M1147	element [22]	Figure 406	AFT, SECTION 46	AFT CARGO LINING
		M348	element [23]	Figure 406	AFT, SECTION 46	AFT CARGO LINING
6	29, 9	M273	element [24]	Figure 407	AFT KEEL BEAM	PANELS BELOW BEAM LANDING GEAR TRANSFER VALVE HYDRAULIC LINES COVERS TO FORWARD BULKHEAD COVERS TO AFT BULKHEAD
		M272	element [25]	Figure 407	FWD KEELBEAM	
7	8, 2	M1911	element [26]	Figure 403	L AFT A/C PACK	ECS ACCESS DOOR, 192CL
		M1909	element [27]	Figure 403	L MID A/C PACK	ECS ACCESS DOOR, 192CL

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Table 401/26-18-02-993-801 (Continued)

LOOP	D742 PINS	EQPT NO.	Sensor Element	Figure	DETECTOR	OPEN/REMOVE FOR ACCESS
		M355	element [28]	Figure 402	L FWD A/C PACK	ECS ACCESS DOOR, 192CL A/C PNEUMATIC TUBES
8	39, 40	M370	element [16]	Figure 401	L WING INBOARD	LE SLATS - EXTEND FULLY Leading Edge Flaps and Slats Extension, TASK 27-81-00-860-803 - RETRACT Leading Edge Flaps and Slats Retraction, TASK 27-81-00-860-804 ECS ACCESS DOOR, 192CL RAM AIR INLET LIP PANEL, 191HL FORWARD WING TO BODY FAIRING PANEL, 191FL INBOARD LEADING EDGE, REMOVABLE ACCESS PANEL, 511AB
		M268	element [17]	Figure 401	L WING OUTBOARD	LE SLATS - EXTEND FULLY Leading Edge Flaps and Slats Extension, TASK 27-81-00-860-803 - RETRACT Leading Edge Flaps and Slats Retraction, TASK 27-81-00-860-804 ECS ACCESS DOOR, 192CL RAM AIR INLET LIP PANEL, 191HL FORWARD WING TO BODY FAIRING PANEL, 191FL INBOARD LEADING EDGE, REMOVABLE ACCESS PANEL, 511AB
9	4, 12	M1761	element [18]	Figure 404	L STRUT FWD	FORWARD STRUT FAIRING, 431BT
		M3057	element [18]	Figure 404	L MID STRUT	FORWARD STRUT FAIRING, 431BR
		M1762	element [18]	Figure 404	L STRUT AFT	OUTBOARD LEADING EDGE BLOWOUT ACCESS DOOR, 521AB
10	21, 24	M270	detector [29]	Figure 405	WHEEL WELL LOOP A	LANDING GEAR DOWN
11	31, 34	M3068	detector [29]	Figure 405	WHEEL WELL LOOP B	LANDING GEAR DOWN

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Table 401/26-18-02-993-801 (Continued)

LOOP	D742 PINS	EQPT NO.	Sensor Element	Figure	DETECTOR	OPEN/REMOVE FOR ACCESS
12	32, 33	M3067	element [41]	Figure 408	NITROGEN GEN	HEAT EXCHANGER INLET DUCT - Heat Exchanger and Plenum/Diffuser Assembly - Removal, TASK 21-51-03-000-803

SUBTASK 26-18-02-010-002

(3) Remove any airplane parts that are in the way (Table 401).

E. Long Sensor Element Removal

NOTE: This procedure only applies to the following sensors:

element [15], M356, R FWD A/C PACK
element [16], M370, L WING INBOARD
element [16], M371, R WING INBOARD
element [17], M268, L WING OUTBOARD
element [17], M269, R WING OUTBOARD
element [19], M276, AFT - SECTION 48
element [20], M275, AFT - SECTION 47
element [21], M347, AFT - SECTION 46
element [22], M1147, AFT - SECTION 46
element [23], M348, AFT - SECTION 46
element [24], M273, AFT KEELBEAM
element [25], M272, FWD KEELBEAM
element [28], M355, L FWD A/C PACK
detector [29], M270, WHEEL WELL LOOP A
detector [29], M3068, WHEEL WELL LOOP B.

SUBTASK 26-18-02-020-001

(1) Loosen all the bolts [6] securing the mounting clips [4] that hold the element in its position.

SUBTASK 26-18-02-020-002

(2) Remove the element from all the mounting clips [4].

SUBTASK 26-18-02-020-011

(3) Remove the grommet [5] from the element.

NOTE: Keep the grommet to reuse during installation procedure.

SUBTASK 26-18-02-030-002

(4) Do these steps at both ends of the applicable sensor element on the wing and lower aft body:

(a) Remove the lockwires [1] from the jamnut [2].

(b) If it is necessary, disconnect the coupling element connector or electrical connector and remove the jamnut [2].

(c) Disconnect the connector [3].

(d) Put covers on the open end of the connector [3] with tape or caps to prevent damage.

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SUBTASK 26-18-02-020-012

(5) Do these steps for sensor elements in the main wheel well:

I

(a) Remove the nut [43], two washers [44], and screw [45] from the terminal lug [10].

(b) Remove the lockwires [1] from the connector hex nut [42].

(c) Loosen the connector hex nut [42].

(d) Put covers on the open end of the connector [3] with tape or caps to prevent damage.

SUBTASK 26-18-02-020-003

(6) Hold the element carefully to keep it in its position and to prevent bends.

SUBTASK 26-18-02-020-004

(7) Do these steps for sensor elements on the aft keel beam:

(a) Tie a cord to the forward end of the element.

1) Make sure that the cord is longer than the element.

(b) Slowly pull the element aft through the keel beam.

1) Use the access holes below the keel beam to help guide the element through the holes in the structure.

(c) Remove the element from the cord and leave the cord in its position inside the keel beam.

SUBTASK 26-18-02-550-001

(8) Carefully roll the element into a 6 in. (15.2 cm) diameter coil.

(a) Use tape if it is necessary.

F. Looped Sensor Element Removal

NOTE: This procedure only applies to the following sensors:

element [13], M1912, R AFT A/C PACK
element [14], M1910, R MID A/C PACK
element [18], M1763, R FWD STRUT
element [18], M3058, R MID STRUT
element [18], M1764, R AFT STRUT
element [18], M1761, L FWD STRUT
element [18], M3057, L MID STRUT
element [18], M1762, L AFT STRUT
element [26], M1911, L AFT A/C PACK
element [27], M1909, L MID A/C PACK
element [41], M3067, NITROGEN GEN.

SUBTASK 26-18-02-020-005

(1) Remove the nuts [8], washers [9] and bolts [11] that secure each lead to the terminal lugs [10].

SUBTASK 26-18-02-020-009

(2) Remove the jumper [30] from the bracket [12].

(a) For the Air Conditioning (A/C) pack locations remove the screw [31] and washer [32].

(b) For the Strut locations remove the nut [33] and washer [34].

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-18-02-020-006

(3) For the Strut locations release the elements from the lower quick release clamps [35].

(a) Open the quick release clamps [35] to free the element.

(b) Remove the grommets [5] from the element.

NOTE: Keep the grommet to reuse during installation procedure.

SUBTASK 26-18-02-020-010

(4) Remove the bracket [12] with the element.

(a) For the A/C pack locations remove the screws [36] and washers [37].

(b) For the Strut locations remove the bolts [38] and washers [39].

SUBTASK 26-18-02-010-005

(5) Place the bracket [12] with the element on a clean work surface.

SUBTASK 26-18-02-010-006

(6) Release the element from the quick release clamp [35] on the bracket [12].

(a) Open the quick release clamp [35] to free the element.

(b) Remove the grommet [5] from the element.

NOTE: Keep the grommet to reuse during installation procedure.

SUBTASK 26-18-02-020-007

(7) Remove the lockwire [1] from the jamnuts [2] (TASK 20-10-44-000-801).

SUBTASK 26-18-02-010-007

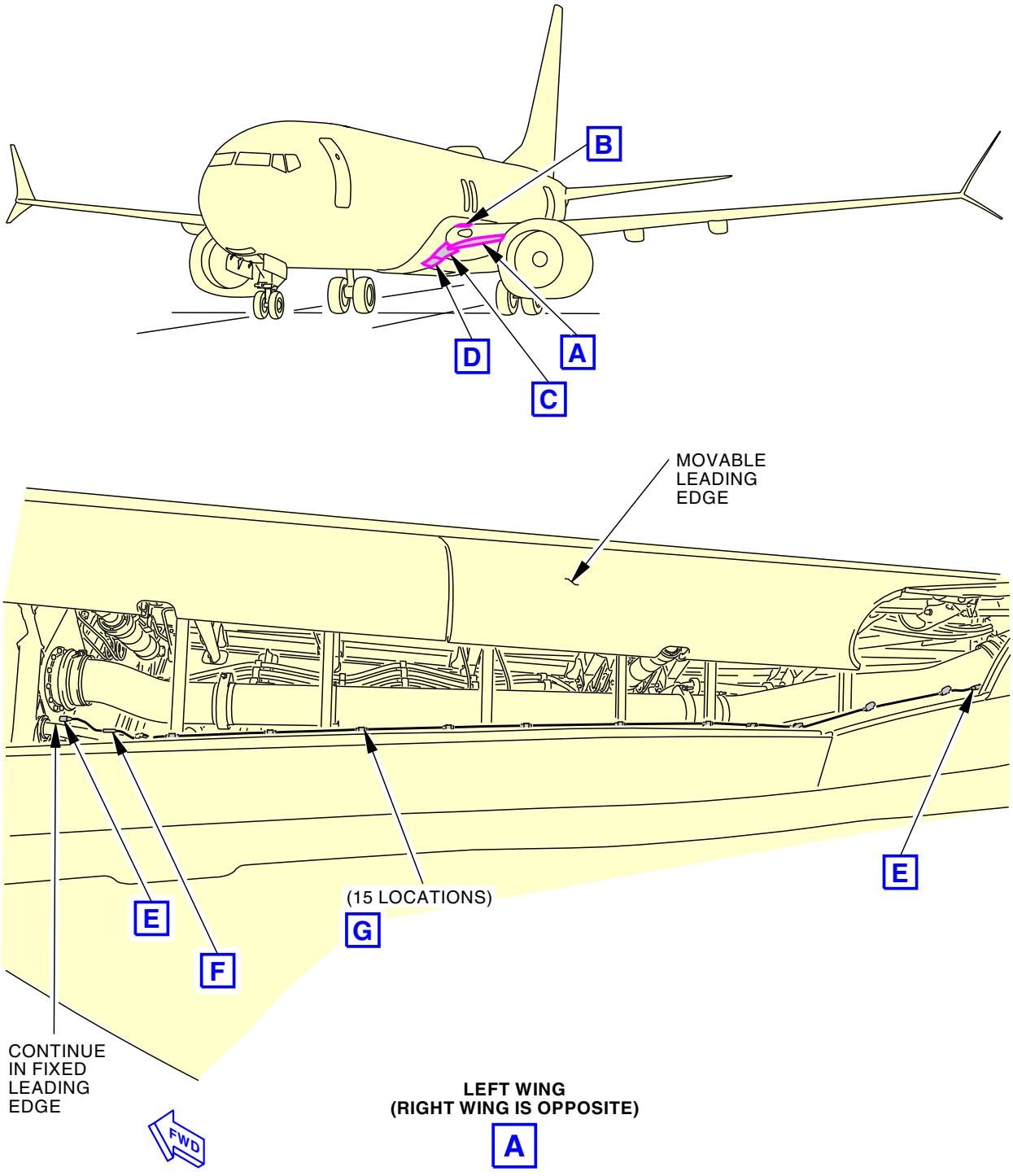
(8) Remove the jamnuts [2] which secure each connector [3] to the bracket [12].

SUBTASK 26-18-02-020-008

(9) Remove the element from the bracket [12].

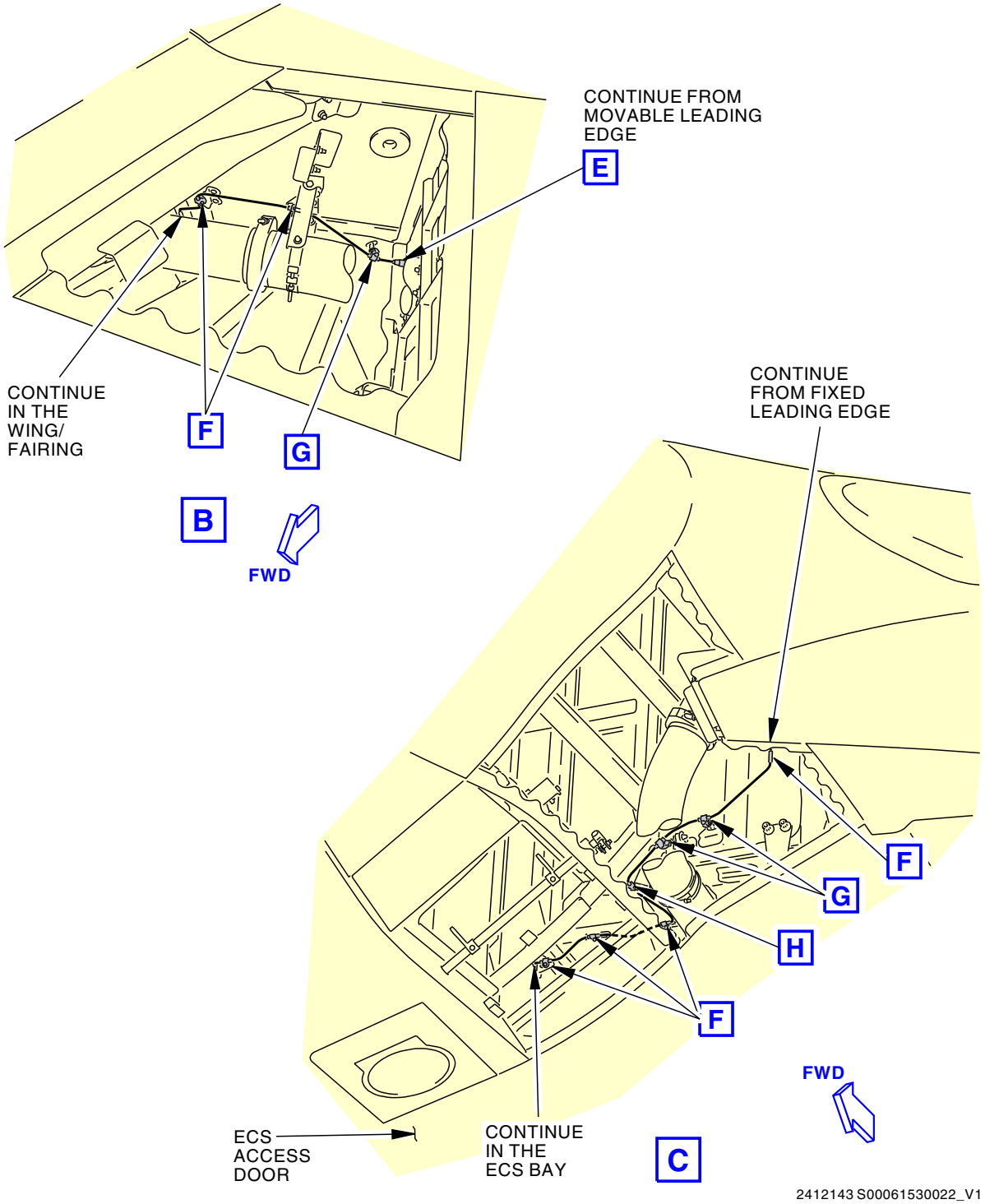
END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



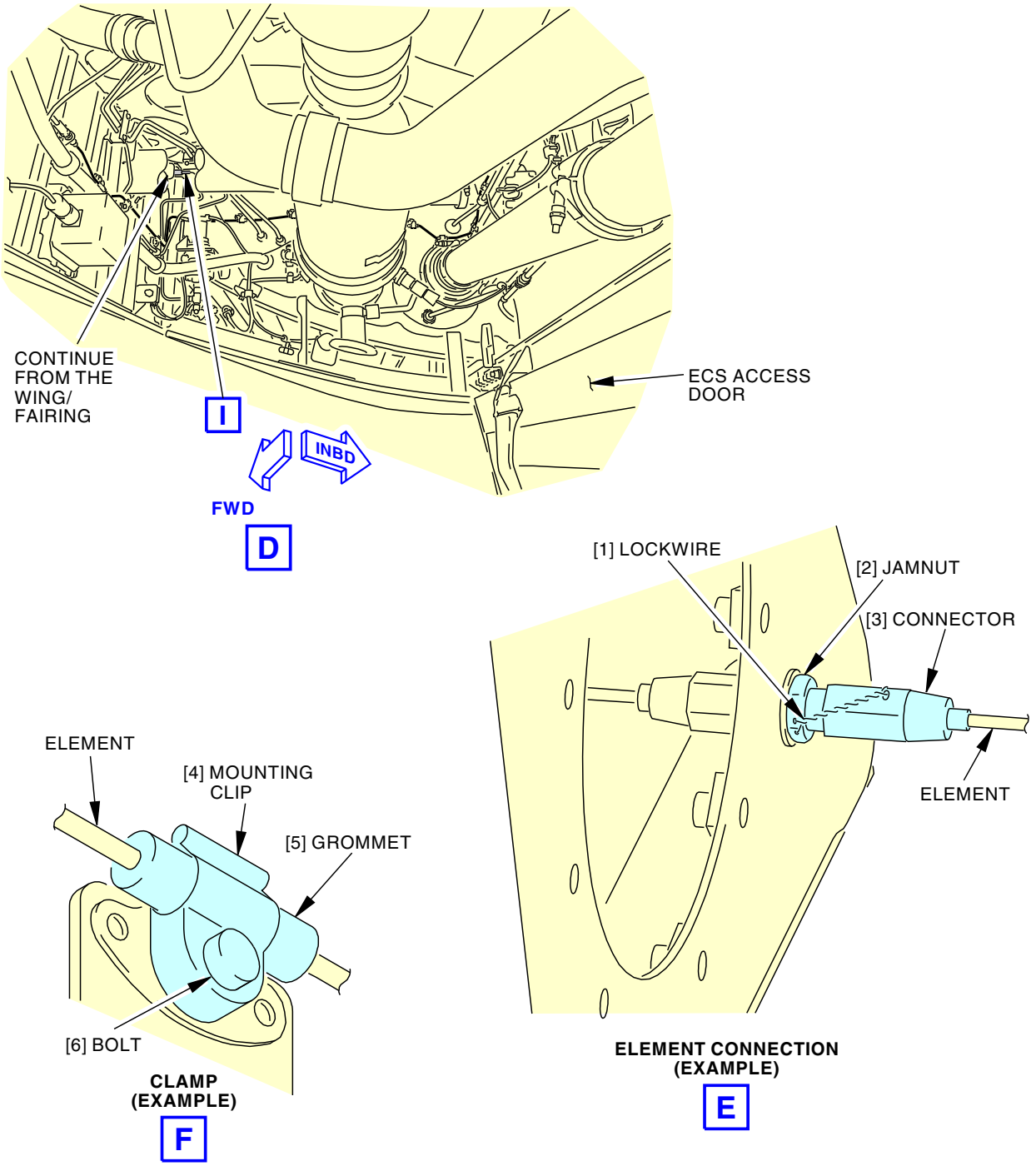
Wing and Lower Aft Body Overheat Detectors Installation
Figure 401/26-18-02-990-801 (Sheet 1 of 4)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Wing and Lower Aft Body Overheat Detectors Installation
Figure 401/26-18-02-990-801 (Sheet 2 of 4)

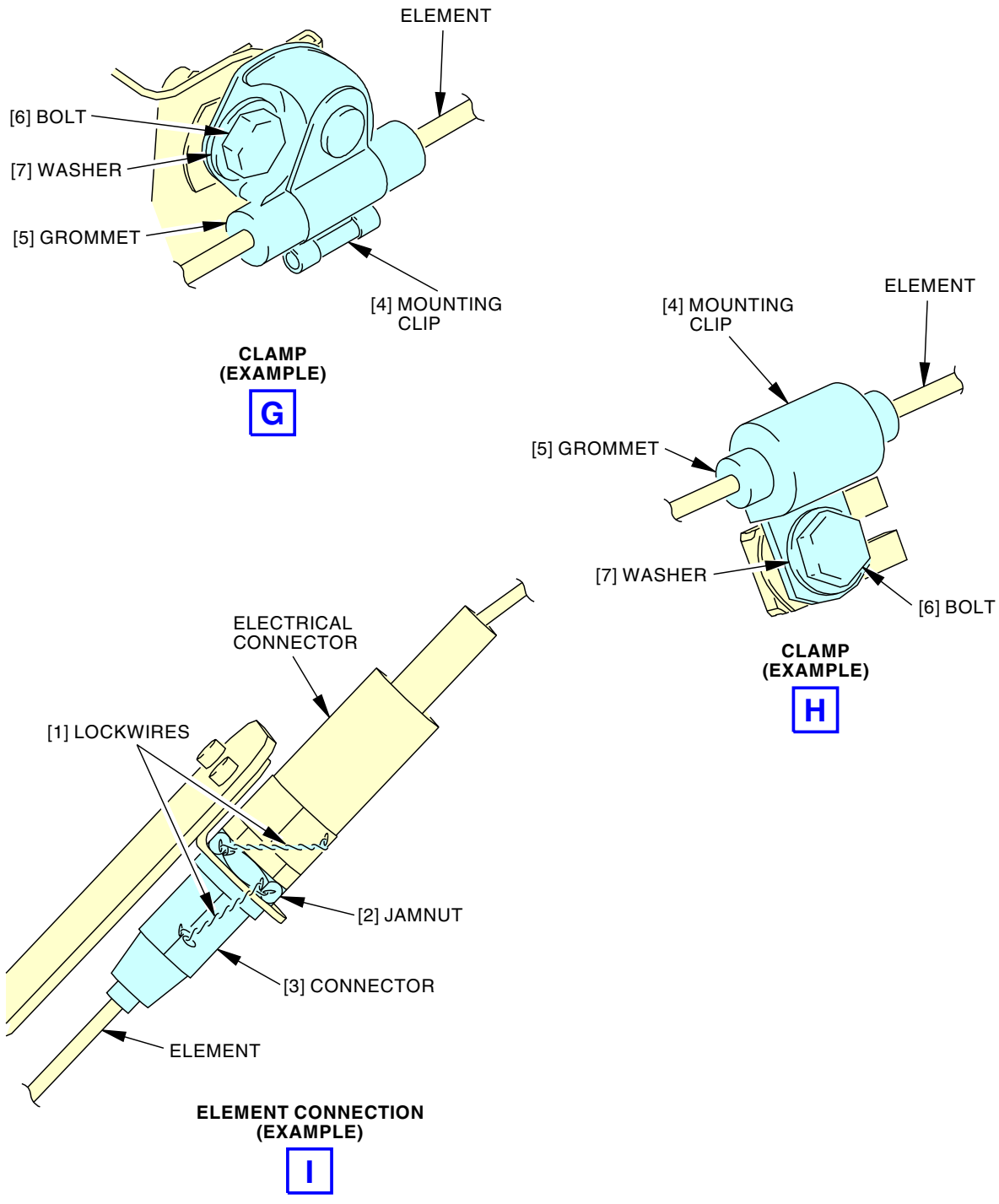
ECCN 9E991 BOEING PROPRIETARY - See title page for details



2412144 S00061530023_V2

Wing and Lower Aft Body Overheat Detectors Installation
Figure 401/26-18-02-990-801 (Sheet 3 of 4)

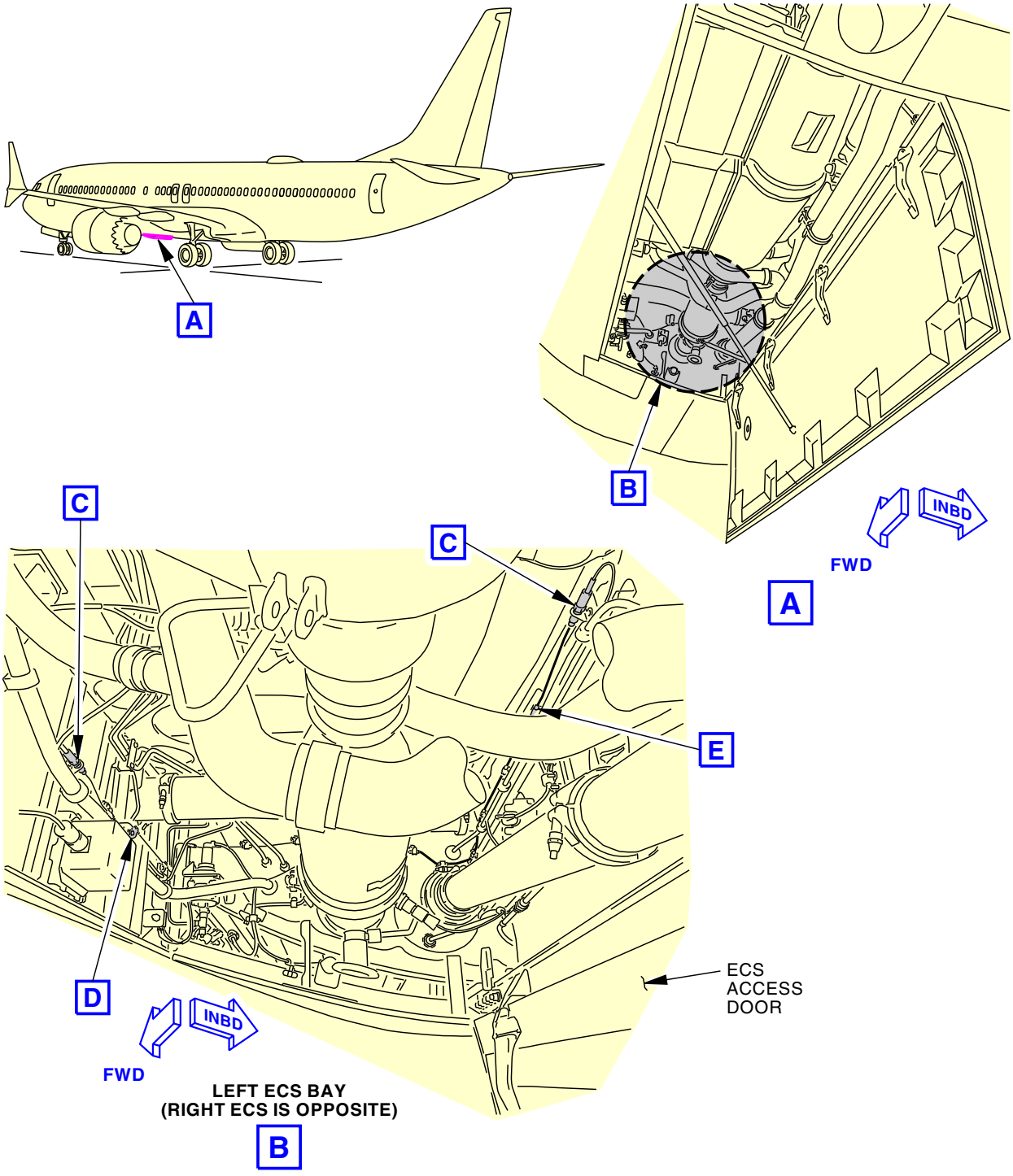
ECCN 9E991 BOEING PROPRIETARY - See title page for details



2412145 S00061530024_V2

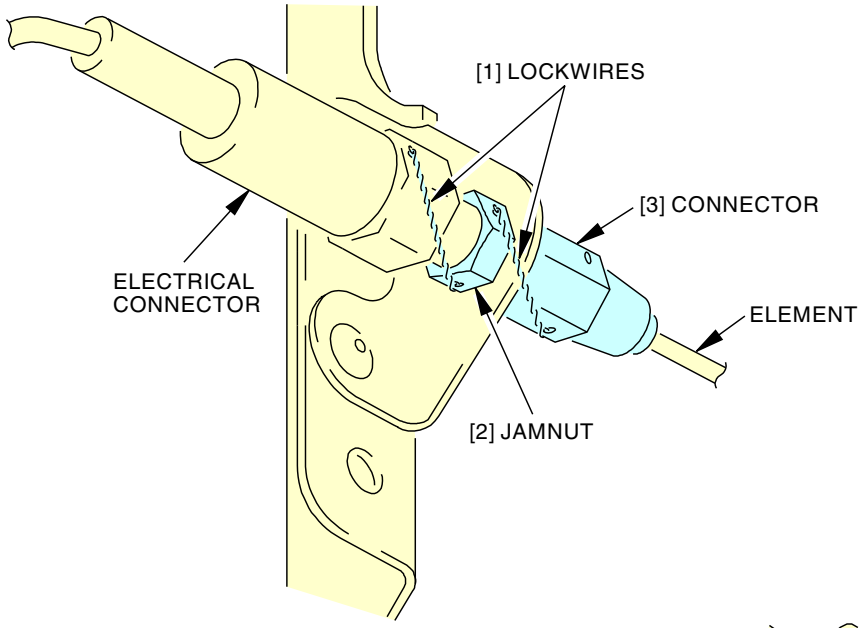
Wing and Lower Aft Body Overheat Detectors Installation
Figure 401/26-18-02-990-801 (Sheet 4 of 4)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



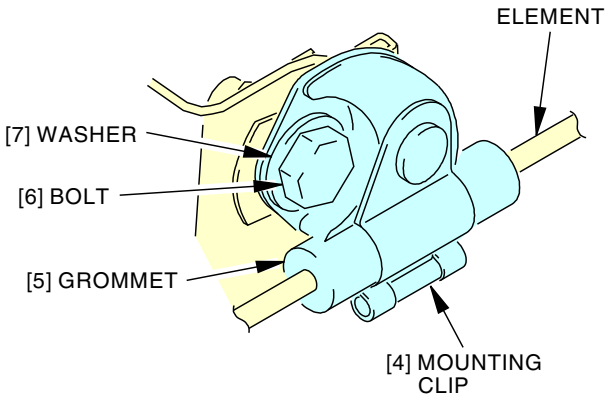
A/C Pack Overheat Detectors Installation
Figure 402/26-18-02-990-802 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



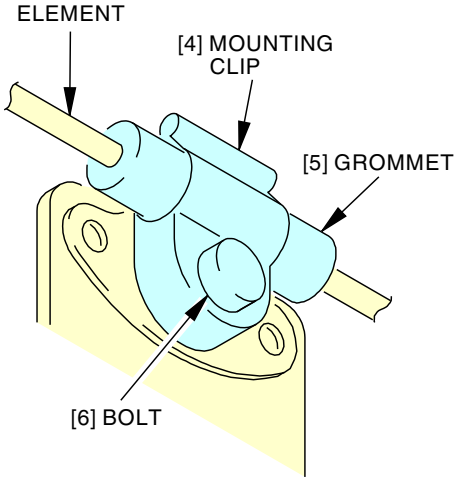
ELEMENT CONNECTION (EXAMPLE)

C



CLAMP (EXAMPLE)

D



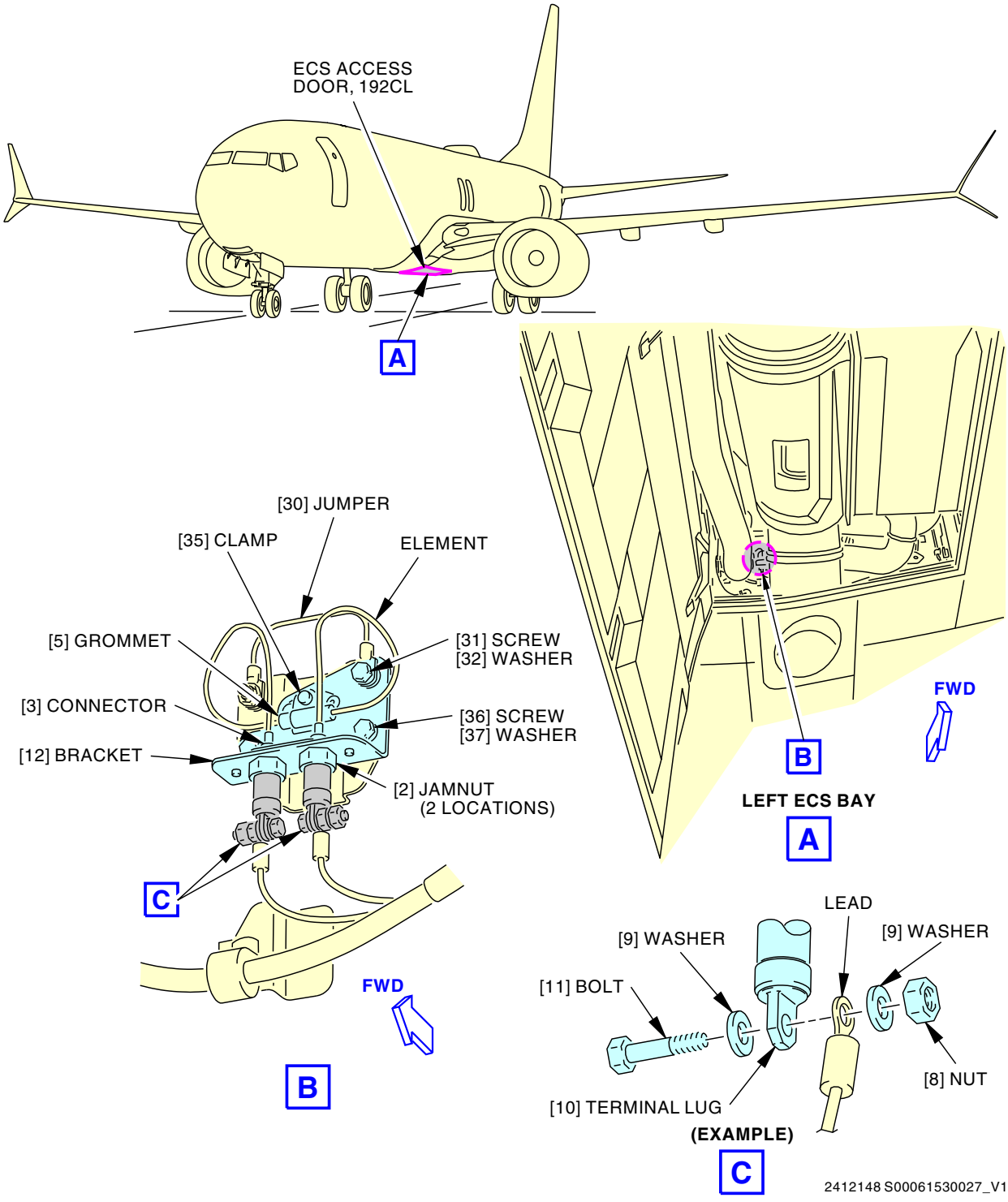
CLAMP (EXAMPLE)

E

2412147 S00061530026_V2

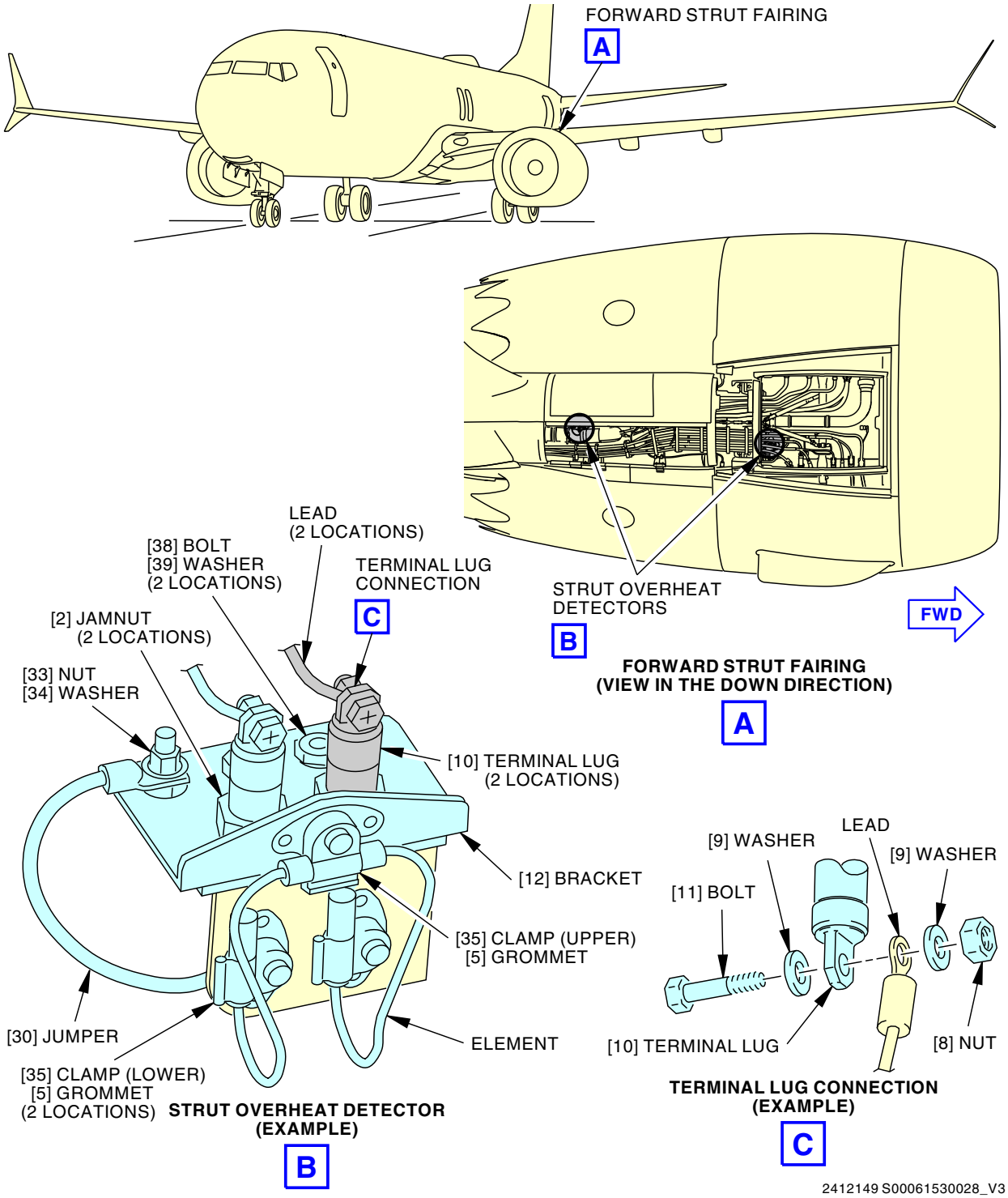
A/C Pack Overheat Detectors Installation
Figure 402/26-18-02-990-802 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



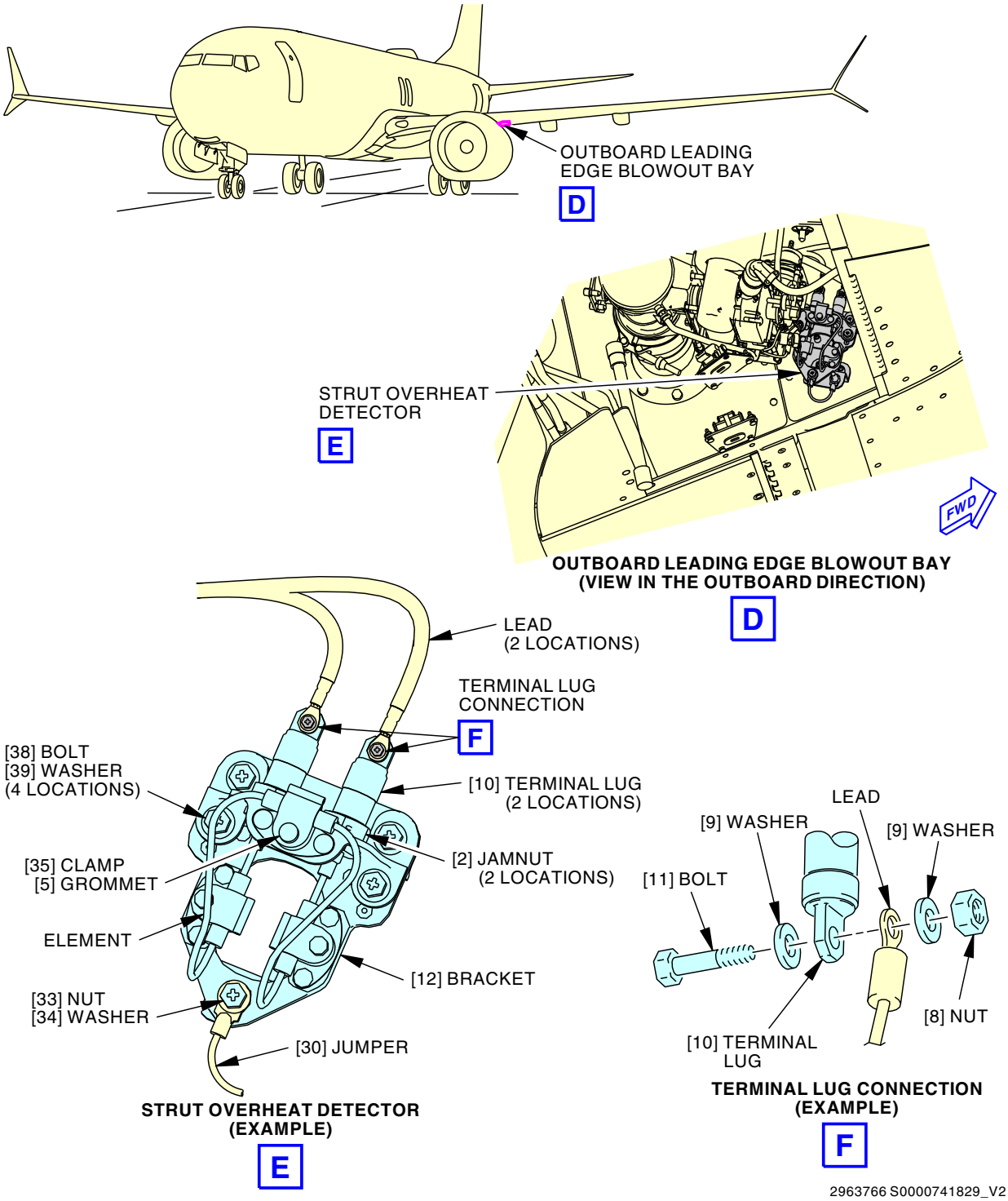
Mid and Aft A/C Pack Overheat Detectors Installation
Figure 403/26-18-02-990-803

ECCN 9E991 BOEING PROPRIETARY - See title page for details



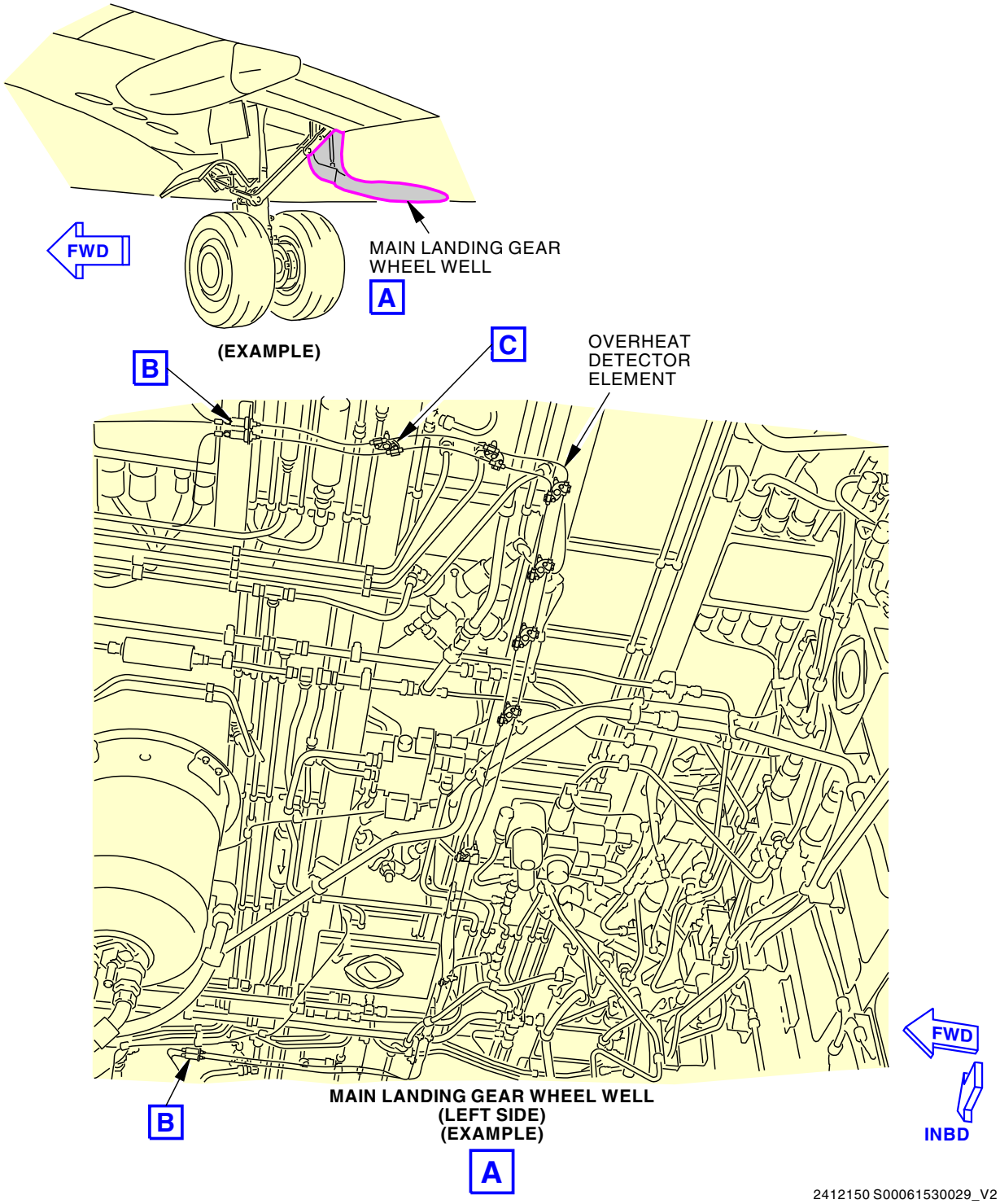
Strut Overheat Detectors Installation
Figure 404/26-18-02-990-804 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



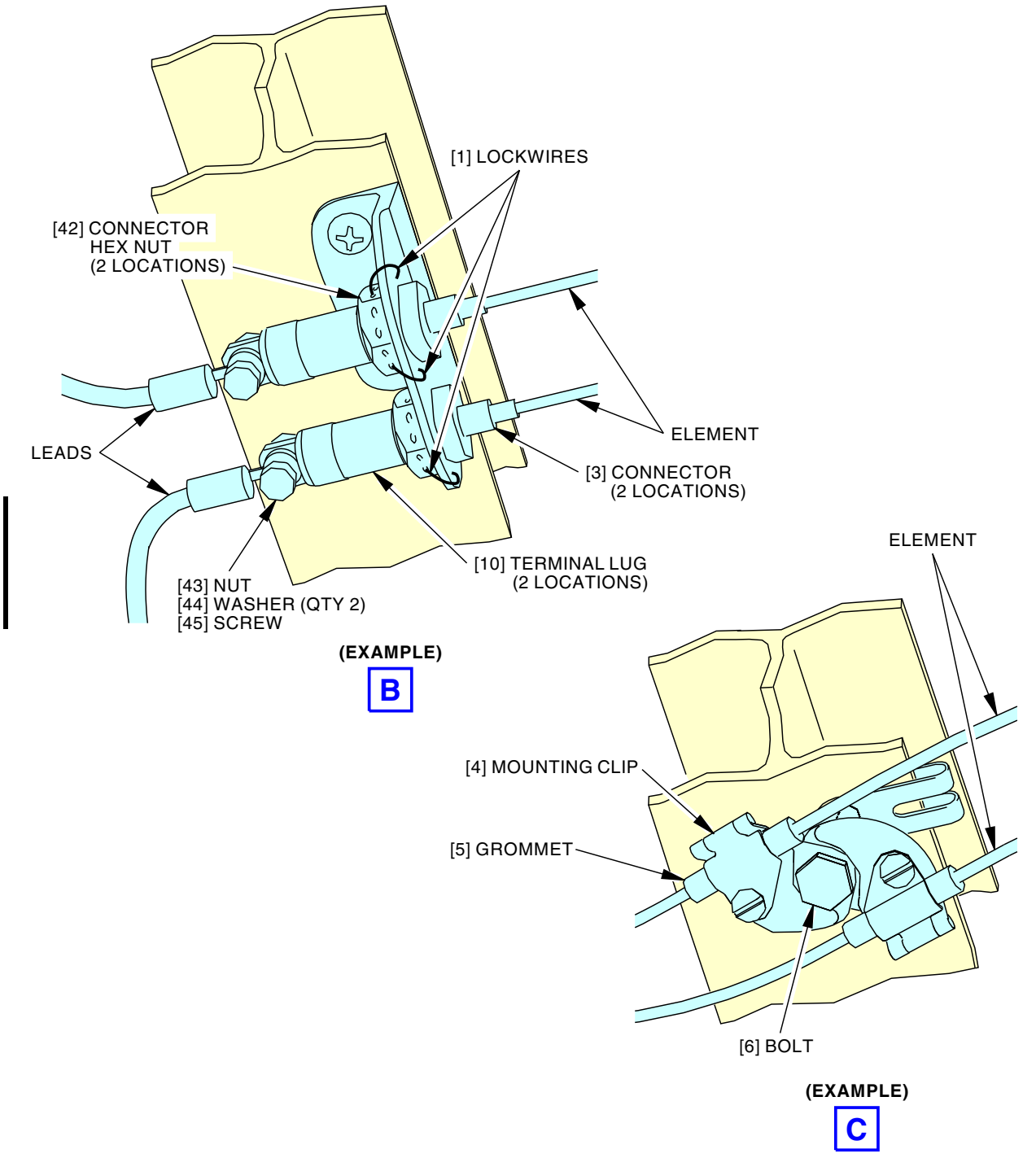
Strut Overheat Detectors Installation
Figure 404/26-18-02-990-804 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Wheel Well Overheat Detection Sensing Element Installation
Figure 405/26-18-02-990-805 (Sheet 1 of 2)

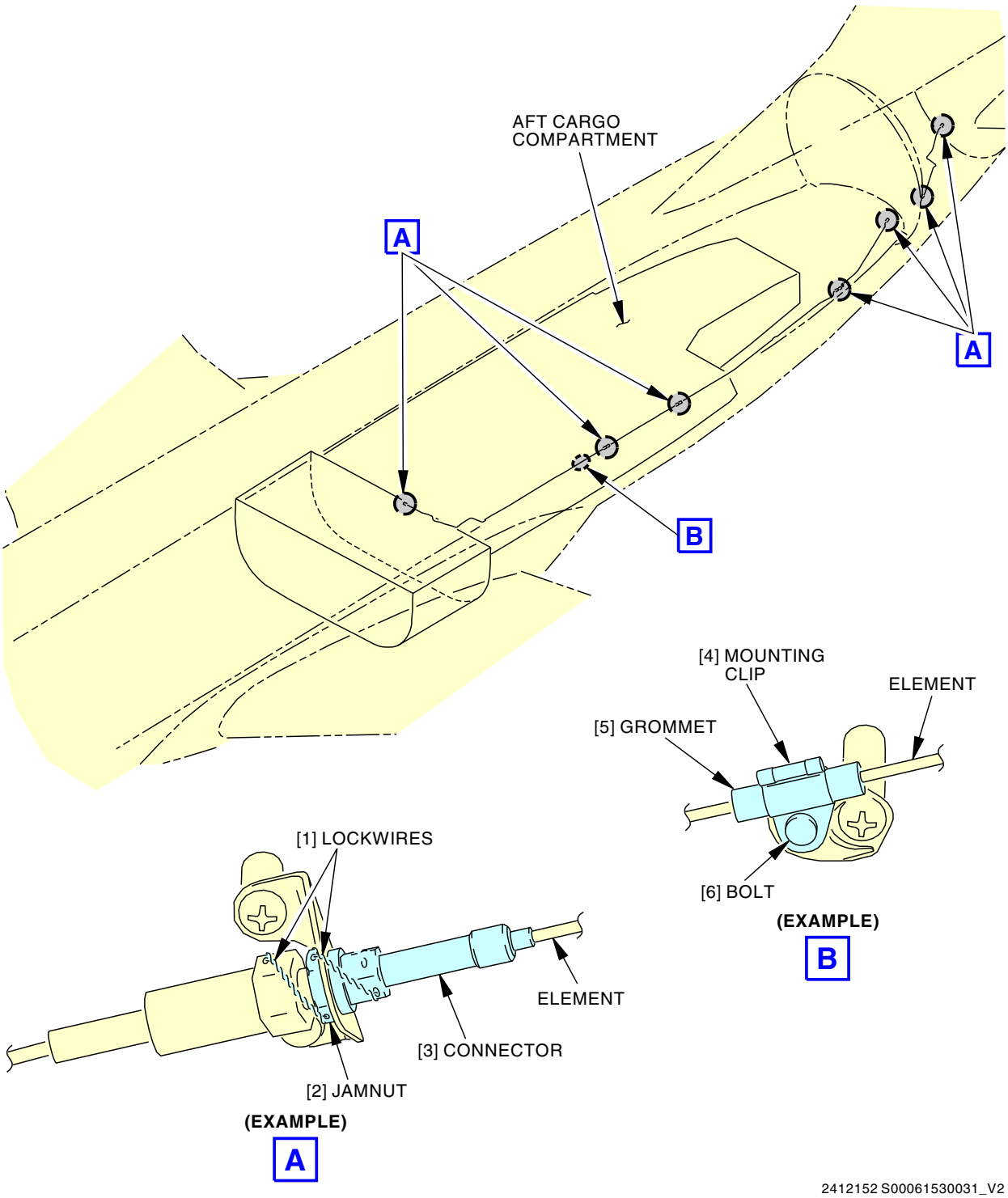
ECCN 9E991 BOEING PROPRIETARY - See title page for details



2412151 S00061530030_V3

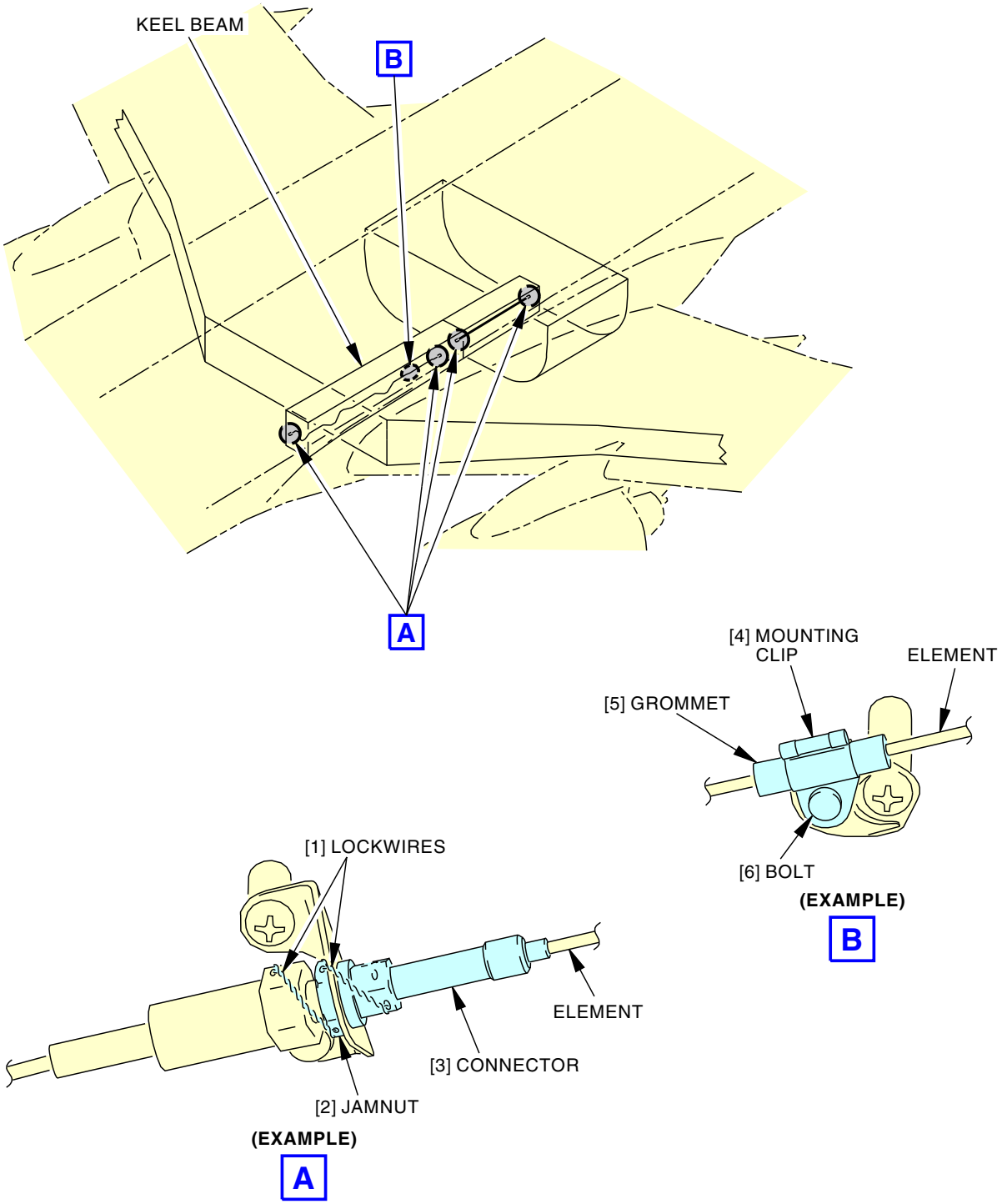
Wheel Well Overheat Detection Sensing Element Installation
Figure 405/26-18-02-990-805 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



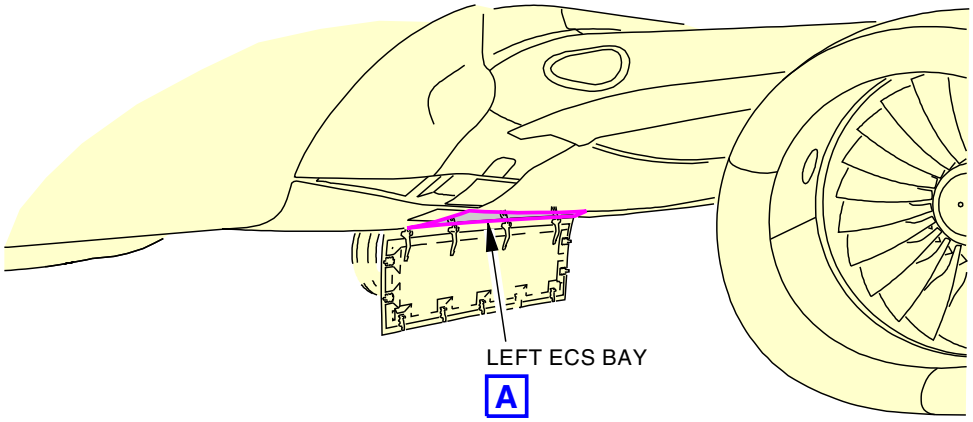
Aft Cargo Overheat Detectors Installation
Figure 406/26-18-02-990-806

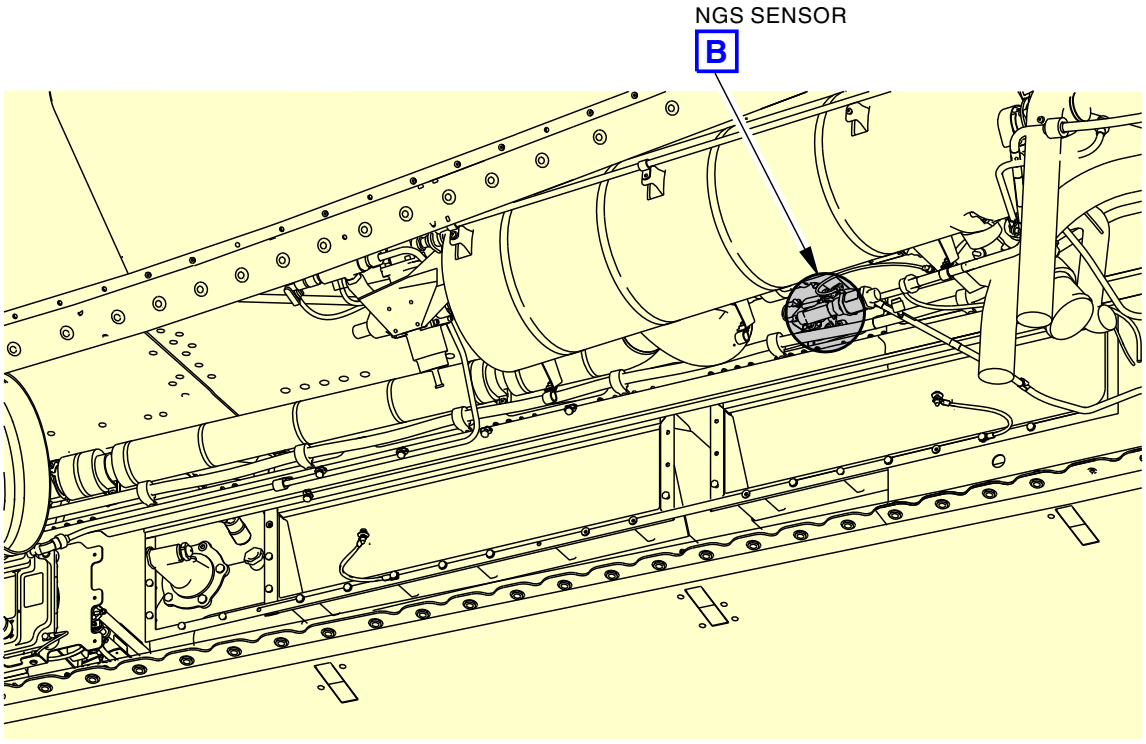
ECCN 9E991 BOEING PROPRIETARY - See title page for details



Keel Beam Overheat Detectors Installation
Figure 407/26-18-02-990-807

ECCN 9E991 BOEING PROPRIETARY - See title page for details



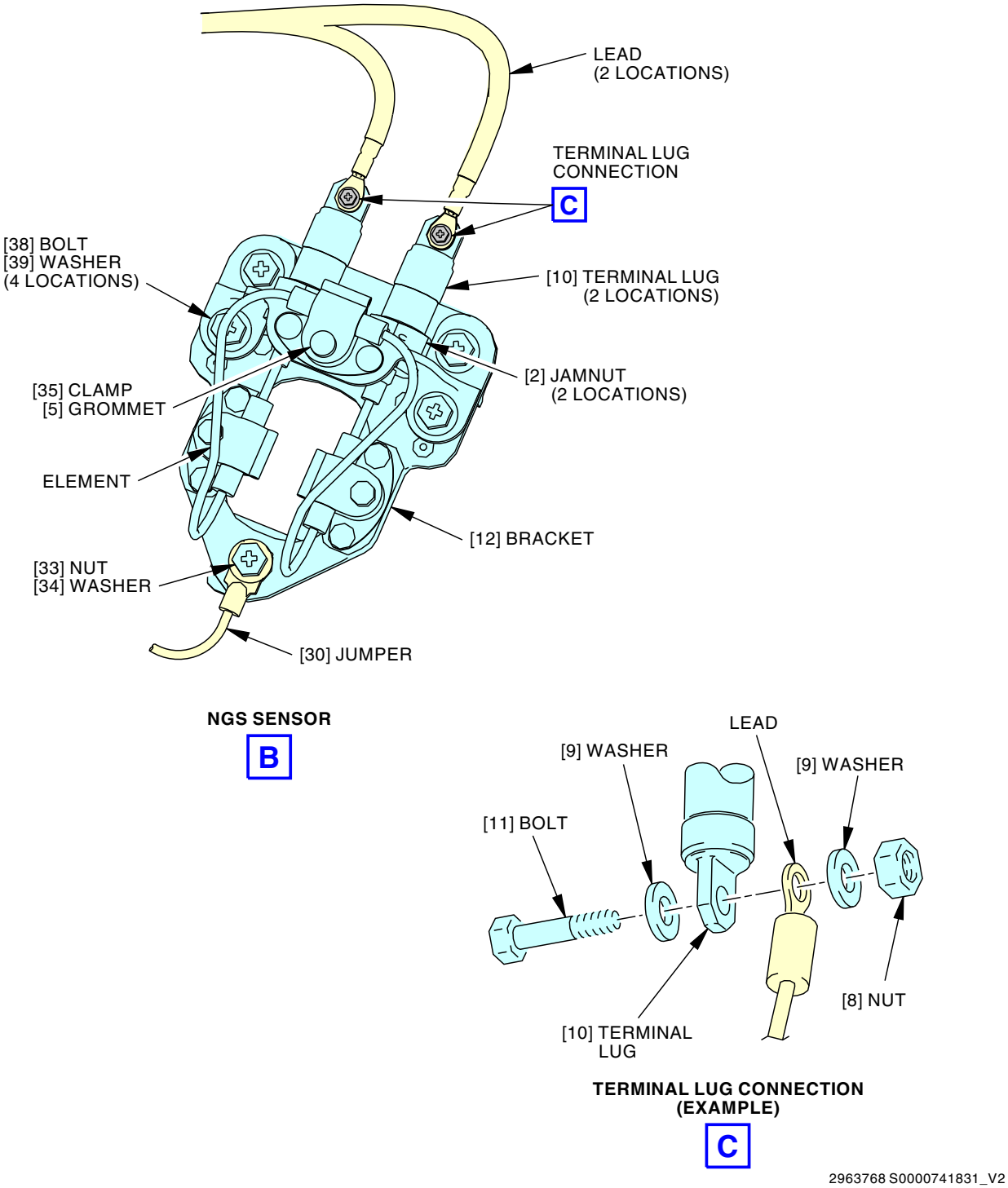


LEFT ECS BAY
(HEAT EXCHANGER INLET DUCT REMOVED FOR CLARITY)
A

2963767 S0000741830_V2

NGS Overheat Detector Installation
Figure 408/26-18-02-990-809 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



NGS Overheat Detector Installation
Figure 408/26-18-02-990-809 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-18-02-400-801

3. Wheel Well, Wing and Lower Aft Body Overheat Sensor Element - Installation

(Figure 401, Figure 402, Figure 403, Figure 404, Figure 405, Figure 406, Figure 407, Figure 408)

A. General

(1) This task gives instructions to install the wheel well, wing, and lower aft body overheat sensor element.

B. References

Reference	Title
20-10-44-400-801	Lockwire, Cotter Pins, and Lockrings - Installation (P/B 401)
20-40-11-760-801	Electrical Bonding (P/B 201)
26-18-00-710-801	Wheel Well and Lower Aft Body Overheat Detection System - Operational Test (P/B 501)
SWPM 20-20-00	ELECTRICAL BONDING PROCESSES

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-614	Bonding Meters - Non-Intrinsically Safe (For use in outside Class I, Divisions I & II non-hazardous locations. For hazardous locations, use COM-1550). Part #: 247000 Supplier: 00426 Part #: 620LK Supplier: 1CRL2 Part #: BLR-0003-XX Supplier: KC432 Part #: BT51 Supplier: 00426 Part #: M1 Supplier: 3AD17 Part #: M1B Supplier: 3AD17 Part #: T477W (C15292) Supplier: 06659 Opt Part #: 247001 Supplier: 00426

D. Consumable Materials

Reference	Description	Specification
A00160	Sealant - Firewall - Hydraulic Fluid Resistant	BMS5-63
A00230	Compound - Electrical Insulating Coating	BMS5-37
A00767	Sealant - Fuel Tank	BMS5-45
A50231	Sealant - Pressure And Environmental - Chromate Type	BMS5-95 Class B
A50337	Sealant - Fuel Tank	BMS5-45 Class B
A50359	Sealant - Low Density, Non-Chromate Type	BMS5-142 Type II Class B
B00130	Alcohol - Isopropyl	TT-I-735
B00316	Solvent - Aliphatic Naphtha (For Organic Coatings)	TT-N-95 Type I, ASTM D-3735 Type I
B50078	Solvent - Aliphatic Naphtha (For Organic Coatings)	TT-N-95 Type I (Supersedes BMS3-2 Type I)

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(Continued)

Reference	Description	Specification
B50079	Solvent - Aliphatic Naphtha (For Acrylic Plastics)	TT-N-95 Type II (Supersedes BMS3-2 Type II)
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	AMS3819 Class 1 Grade A or B Form 1 (Supersede BMS15-5 CL A)
G50262	Wiper - Cleaning	BMS15-5
G50347	Lockwire - MS20995NC32, Monel - 0.032 Inch (0.8128 mm) Diameter	NASM20995
G50470	Compound - Electrical Insulating (Dow Corning 4)	SAE AS8660 (Supersedes MIL-S-8660)

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
13	Element	26-18-02-12-050	SIA ALL
14	Element	26-18-02-11-050	SIA ALL
15	Element	26-18-02-13A-045	SIA ALL
16	Element	26-18-02-05-055	SIA ALL
17	Element	26-18-02-10B-045	SIA ALL
19	Element	26-18-02-04-025	SIA ALL
20	Element	26-18-02-01-010	SIA ALL
21	Element	26-18-02-01-015	SIA ALL
22	Element	26-18-02-03A-070	SIA ALL
23	Element	26-18-02-03A-075	SIA ALL
24	Element	26-18-02-09A-025	SIA ALL
25	Element	26-18-02-07A-030	SIA ALL
26	Element	26-18-02-12-050	SIA ALL
27	Element	26-18-02-11-050	SIA ALL
28	Element	26-18-02-13-045	SIA ALL
29	Detector	26-18-02-06-110	SIA 001-007
		26-18-02-17-090	SIA 008-999
41	Element	26-18-02-21-060	SIA ALL

F. Location Zones

Zone	Area
129	Keel Beam (Part) - Section 43
131	Center Section Wing Box, Body Station 540.00 to Body Station 663.75 - Left
132	Center Section Wing Box, Body Station 540.00 to Body Station 663.75 - Right
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
139	Keel Beam, (Part) Body Station 540.00 to Body Station 727.00
141	Aft Cargo Compartment - Left

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(Continued)

Zone	Area
142	Aft Cargo Compartment - Right
149	Keel Beam (Part) Body Station 727.00 to Body Station 743.95
191	Lower Wing-To-Body Fairing - Forward of Wing Box
192	Lower Wing-To-Body Fairing - Under Wing Box
311	Area Aft of Pressure Bulkhead - Left
431	Engine 1 - Forward Strut Fairing
441	Engine 2 - Forward Strut Fairing
511	Left Wing - Leading Edge To Front Spar
521	Left Wing - Leading Edge to Front Spar
611	Right Wing - Leading Edge to Front Spar
621	Right Wing - Leading Edge to Front Spar

G. Prepare for the Installation

SUBTASK 26-18-02-860-002

(1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

SUBTASK 26-18-02-010-003

(2) Make sure that the applicable access doors and panels are open (Table 401) (TASK 26-18-02-000-801).

SUBTASK 26-18-02-010-004

(3) Make sure that you remove the airplane parts that are in the way (Table 401) (TASK 26-18-02-000-801).

H. Long Sensor Element Installation

NOTE: This procedure only applies to the following sensors:

element [15], M356, R FWD A/C PACK

element [16], M370, L WING INBOARD

element [16], M371, R WING INBOARD

element [17], M268, L WING OUTBOARD

element [17], M269, R WING OUTBOARD

element [19], M276, AFT - SECTION 48

element [20], M275, AFT - SECTION 47

element [21], M347, AFT - SECTION 46

element [22], M1147, AFT - SECTION 46

element [23], M348, AFT - SECTION 46

element [24], M273, AFT KEELBEAM

element [25], M272, FWD KEELBEAM

element [28], M355, L FWD A/C PACK

detector [29], M270, WHEEL WELL LOOP A

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detector [29], M3068, WHEEL WELL LOOP B.

SUBTASK 26-18-02-420-001

CAUTION

WHEN YOU INSTALL THE ELEMENT, DO NOT BEND THE ELEMENT TO A RADIUS THAT IS LESS THAN 1 IN. (25.4 MM.). DO NOT LET A BEND IN 1 IN. (25.4 MM.) DISTANCE FROM THE EDGE OF THE QUICK-RELEASE CLAMP OR THE FLANGE ASSEMBLY. CONTOUR THE ELEMENT TO CLEAR ADJACENT PARTS AND STRUCTURES. HAVE THE ELEMENT LENGTH EQUALLY BETWEEN CLAMPS. IF THE BEND RADIUS IS LESS THAN ONE INCH, DAMAGE TO THE ELEMENT CAN OCCUR.

CAUTION

DO NOT TURN, PULL, OR ATTACH THE SENSING ELEMENT WITH A CLAMP. DO NOT MAKE SERVICEABLE KINKS, BENDS, OR DENTS STRAIGHT. IF YOU MAKE SERVICEABLE KINKS, BENDS, OR DENTS STRAIGHT, DAMAGE TO THE SENSING ELEMENT CAN OCCUR.

(1) Carefully put the element into position.

NOTE: This step will require two people.

(a) Carefully unwind the element.

1) Make sure that there are no kinks.

(b) Carefully bend the element to fit into its approximate position.

(c) Carefully put and hold the element in its position.

(d) Do these steps for sensor elements on the aft keel beam:

1) Tie the existing cord to the aft end of the new element.

2) Slowly pull the forward through the keel beam.

a) Use the access holes below the keel beam to help guide the element through the holes in the structure.

3) Remove the cord from the element.

SUBTASK 26-18-02-420-015

(2) Remove the caps from the end fittings of the electrical connectors [3].

SUBTASK 26-18-02-420-016

WARNING

DO THE STEPS BELOW IF THE AIRPLANE OPERATES WHERE DEICING FLUID THAT CONTAINS POTASSIUM FORMATE OR POTASSIUM ACETATE IS USED. ALSO, DO THE STEPS FOR ALL AIRPLANES THAT YOU FOUND CORROSION IN THE ELECTRICAL CONNECTORS IN THE MAIN WHEEL WELL. THE ELECTRICAL CONNECTORS ARE IN A SYSTEM THAT IS NECESSARY FOR SAFE FLIGHT.

(3) Examine the electrical connector [3] at each end of the heat detector for corrosion.

(a) If corrosion is present, replace the element.

SUBTASK 26-18-02-420-017

(4) Put covers on the open end of the electrical connectors [3] with caps to prevent damage.

SUBTASK 26-18-02-420-002

(5) Install the element into each of the mounting clips [4].

(a) Install the grommets [5] around the elements so that each grommet [5] is in the center of the mounting clip [4].

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(b) Install the grommets [5] into the mounting clips [4] so that the slit is at 90 degrees from the clip hinge except at bends where the slit is facing outside of the nearest bend.

1) Make sure that the mounting clips [4] and grommets [5] are attached to the element tightly.

2) If the used sensor element is in its position as a reference, remove it.

(c) Locate element in approximate installation position and temporarily support as necessary to maintain position.

(d) Tighten the bolts [6] to secure the mounting clips [4].

SIA 001-014

(e) For the Wing-to-body zone, make sure that the minimum clearance is as follows:

1) 0.5 in. (12.7 mm) between the element and structure, except at mounting clips [4].

2) 0.5 in. (12.7 mm) between the element and other systems, except at mounting clips [4].

3) 1.65 in. (41.91 mm) between the element and duct.

(f) For the Wing Leading Edge zone, make sure that the minimum clearance is as follows:

1) 0.25 in. (6.4 mm) between the element and structure, except at mounting clips [4].

2) 0.15 in. (3.81 mm) between the element and other systems, except at mounting clips [4].

3) 1.5 in. (38.10 mm) between the element and duct.

(g) For the Bulkhead zone, make sure that the minimum clearance is as follows:

1) 0.25 in. (6.4 mm) between the element and structure, except at mounting clips [4].

2) 0.5 in. (12.7 mm) between the element and other systems, except at mounting clips [4].

3) 1.5 in. (38.10 mm) between the element and duct.

SIA ALL

(h) For all the other zones, make sure that the minimum clearance is as follows:

SIA 007-999

1) 0.25 in. (6.4 mm) between the element and structure, except at mounting clips [4].

2) 0.25 in. (6.4 mm) between the element and other systems, except at mounting clips [4].

3) 1.5 in. (38.10 mm) between the element and duct.

SIA 001-006

4) 0.25 in. (6.4 mm) between the element and structure, except at mounting clips [4].

5) 0.5 in. (12.7 mm) between the element and other systems, except at mounting clips [4].

6) 3 in. (76.2 mm) between the element and duct.

SIA ALL

(i) Make sure that the minimum clearance between the elements is 0.5 in. (12.7 mm).

SUBTASK 26-18-02-420-003

(6) Remove the caps from the end fittings to connect the connectors [3].

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SUBTASK 26-18-02-210-001

(7) Make sure that the connectors [3] have ceramic inserts on both ends.

SUBTASK 26-18-02-210-002

(8) If it is applicable, make sure that the pins on the connectors [3] are centered, not bent, recessed, or damaged.

SUBTASK 26-18-02-100-001

(9) Clean the mating surfaces of the connectors [3], element, and structure (SWPM 20-20-00).

(a) Use a cotton wiper, G00034, made moist with alcohol, B00130.

(b) Immediately dry the surfaces with a new cotton wiper, G00034.

SUBTASK 26-18-02-390-001

(10) Apply Compound, G50470, to the internal components of the connectors [3] and ends of the element.

SUBTASK 26-18-02-420-005

(11) Do these steps to connect the connector [3]:

(a) Attach the connector [3].

(b) If it was removed, install the jamnut [2] or connector hex nut [42] and torque to 50 in-lb (5.6 N·m) - 60 in-lb (6.8 N·m).

(c) If it was disconnected, connect the coupling element connector or electrical connector.

(d) Install lockwires [1] on the jamnut [2] or connector hex nut [42] as follows:

NOTE: Lockwire diameter must fill between 1/3 and 3/4 of the hole diameter, 0.032 in. (0.813 mm) diameter minimum except for lockwire 0.020 in. (0.508 mm) in diameter can be used if the lockwire hole is 0.045 in. (1.143 mm) diameter or smaller, or the spacing between parts is less than 2 in. (51 mm) and lockwire hole diameter is between 0.045 in. (1.143 mm) and 0.062 in. (1.575 mm) diameter.

1) Install MS20995NC32 lockwire, G50347, on the connector hex nut [42] or jamnut [2] and connector [3].

2) If it is necessary, install MS20995NC32 lockwire, G50347, on the jamnut [2] and coupling element connector or electrical connector.

3) To obtain adequate tension without overstressing the lockwire [1], apply the number of twists per inch of lockwire as in Table 402.

Table 402/26-18-02-993-802 TWISTS PER INCH

RANGE OF WIRE DIAMETERS (IN)	LESS THAN 0.019	0.019 TO 0.026	0.027 TO 0.042	0.043 TO 0.065	MORE THAN 0.065
Twists per inch	11 to 14	9 to 12	7 to 10	5 to 8	4 to 7

SUBTASK 26-18-02-860-009

(12) Measure the electrical bonding resistance between airplane structure and overheat sensor elements.

(a) Use a non-intrinsically safe bonding meter, COM-614.

(b) Make sure that the electrical bonding resistance is 0.005 ohms (5 milliohm) or less.

SUBTASK 26-18-02-390-002

(13) Apply a fillet seal to all edges of the mating surfaces between the bracket and M270, M3068 sensors with sealant, A50337, sealant, A50231, or sealant, A50359 (SWPM 20-20-00).

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SUBTASK 26-18-02-420-006

(14) Do these steps for sensing elements in the main wheel well:

(a) Clean the terminal lug [10], nut [43], washers [44], and screw [45] with aliphatic naphtha, B50079, or aliphatic naphtha, B50078, or solvent, B00316, and wiper, G50262.

(b) Attach the terminal lug [10] with the nut [43], two washers [44], and screw [45].

(c) Tighten the screw [45] to the specified torque of 25 in-lb (2.8 N·m) - 35 in-lb (4.0 N·m).

(d) Apply compound, A00230, to the terminal of the long sensor element.

1) Make sure that the sealant covers all exposed metal from the insulator to the wiring.

NOTE: The sealant should not bridge the insulator.

SUBTASK 26-18-02-860-003

(15) Only the M270 and M3068 sensors require application of sealant, A50337, sealant, A50231, or sealant, A50359.

I. Looped Sensor Element Installation

NOTE: This procedure only applies to the following sensors:

element [13], M1912, R AFT A/C PACK

element [14], M1910, R MID A/C PACK

element [18], M1763, R FWD STRUT

element [18], M3058, R MID STRUT

element [18], M1764, R AFT STRUT

element [18], M1761, L STRUT FWD

element [18], M3057, L MID STRUT

element [18], M1762, L STRUT AFT

element [26], M1911, L AFT A/C PACK

element [27], M1909, L MID A/C PACK

element [41], M3067, NITROGEN GEN.

SUBTASK 26-18-02-100-002

(1) On a clean work surface clean the mating surfaces of the bracket [12] and element (SWPM 20-20-00).

(a) Use cotton wiper, G00034, made moist with alcohol, B00130.

(b) Immediately dry the surfaces with a new cotton wiper, G00034.

SUBTASK 26-18-02-420-007

CAUTION

WHEN YOU INSTALL THE ELEMENT, DO NOT BEND THE ELEMENT TO A RADIUS THAT IS LESS THAN 1 IN. (25.4 MM.). DO NOT LET A BEND IN 1 IN. (25.4 MM.) DISTANCE FROM THE EDGE OF THE QUICK-RELEASE CLAMP OR THE FLANGE ASSEMBLY. CONTOUR THE ELEMENT TO CLEAR ADJACENT PARTS AND STRUCTURES. HAVE THE ELEMENT LENGTH EQUALLY BETWEEN CLAMPS. IF THE BEND RADIUS IS LESS THAN ONE INCH, DAMAGE TO THE ELEMENT CAN OCCUR.

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(CAUTION PRECEDES)

CAUTION

DO NOT TURN, PULL, OR ATTACH THE SENSING ELEMENT WITH A CLAMP. DO NOT MAKE SERVICEABLE KINKS, BENDS, OR DENTS STRAIGHT. IF YOU MAKE SERVICEABLE KINKS, BENDS, OR DENTS STRAIGHT, DAMAGE TO THE SENSING ELEMENT CAN OCCUR.

(2) Position the element in the bracket [12] and quick release clamp [35].

NOTE: Make sure that the element is routed straight inside the clamps and minimum clearance is maintained as follow: 0.25 inches between the detector and adjacent structure or other systems; 1.5 inches between the detector and ducts.

SUBTASK 26-18-02-390-009

(3) For M1762 and M1764, apply a fay seal between the bracket and sensors with sealant, A50359, sealant, A50337, or sealant, A50231 (SWPM 20-20-00).

SUBTASK 26-18-02-420-008

(4) Secure each terminal lug [10] with jamnut [2].

(a) Do this for sensor elements M1909, M1910, M1911, M1912, M1762, M1764, and M3067:

1) Torque jamnuts [2] to 80 in-lb (9.0 N·m) - 100 in-lb (11.3 N·m).

(b) Do this for sensor elements M1761, M1763, M3058 and M3057:

1) Torque jamnuts [2] to 50 in-lb (5.6 N·m) - 60 in-lb (6.8 N·m).

(c) Measure the electrical bonding resistance between the detector element sensors and bracket for M1909, M1910, M1911, M1912, M1762, and M1764 sensors (TASK 20-40-11-760-801).

1) Use a non-intrinsically safe bonding meter, COM-614.

2) Make sure that the electrical bonding resistance is 0.005 ohms (5 milliohms) or less.

(d) Measure the electrical bonding resistance between the detector element sensors and bracket for M1761, M1763, M3057, and M3058 sensors (TASK 20-40-11-760-801).

1) Use a non-intrinsically safe bonding meter, COM-614.

2) Make sure that the electrical bonding resistance is 0.01 ohm (10 milliohms) or less.

(e) Install the lockwire [1] on the jamnuts [2], do this task: Lockwire, Cotter Pins, and Lockrings - Installation, TASK 20-10-44-400-801.

SUBTASK 26-18-02-420-009

(5) Install the element in the quick release clamp [35] on the bracket [12].

(a) Install the grommet [5] on the element.

(b) Position the grommet [5] in the center of the quick release clamp [35].

(c) Secure the quick release clamp [35].

SUBTASK 26-18-02-420-012

(6) Place the assembled bracket [12] and element in position.

(a) For the A/C pack locations secure with screws [36] and washers [37].

(b) For the strut locations secure with bolts [38] and washers [39].

SUBTASK 26-18-02-420-013

(7) For the strut locations secure the element to the lower quick release clamps [35].

(a) Install the grommets [5] on the element.

(b) Position the grommets [5] in the center of the quick release clamps [35].

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(c) Secure the quick release clamps [35].

SUBTASK 26-18-02-420-014

(8) Attach the jumper [30] to the bracket [12].

(a) For the A/C pack locations secure with screw [31] and washer [32].

(b) For the strut locations secure with nut [33] and washer [34].

SUBTASK 26-18-02-420-010

(9) Attach each terminal lug [10] to its corresponding lead and secure with a bolt [11], washers [9], and nut [8].

(a) Tighten nut [8].

SUBTASK 26-18-02-420-018

(10) Attach the jumper [30] to the structure.

SUBTASK 26-18-02-860-017

(11) Measure the electrical bonding resistance between airplane structure and M1909, M1910, M1911, M1912, M1762, M1764, M1761, M1763, M3057, M3058, and M3068 sensors.

(a) Use a non-intrinsically safe bonding meter, COM-614.

(b) Make sure that the electrical bonding resistance is 0.010 ohms (10 milliohms) or less.

SUBTASK 26-18-02-914-001

(12) Apply compound, A00230, or sealant, A00767, to the terminal of the overheat loop sensor.

(a) Make sure that the sealant covers all exposed metal from the insulator to the wiring.

NOTE: The sealant should not bridge the insulator.

SUBTASK 26-18-02-390-003

(13) Apply a fillet seal between the bracket [12] and jamnut [2] for M1761, M1763, M3057, and M3058 sensors with sealant, A00160 (SWPM 20-20-00).

J. Wheel Well, Wing and Lower Aft Body Overheat Sensor Element Installation Test

SUBTASK 26-18-02-860-004

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

SUBTASK 26-18-02-420-011

(2) Do this task: Wheel Well and Lower Aft Body Overheat Detection System - Operational Test, TASK 26-18-00-710-801.

K. Put the Airplane Back to Its Usual Condition

SUBTASK 26-18-02-410-001

(1) Install any airplane parts that were removed (Table 401) (TASK 26-18-02-000-801).

SUBTASK 26-18-02-410-002

(2) Close the applicable access doors and panels (Table 401) (TASK 26-18-02-000-801).

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

WING, WHEEL WELL, AND LOWER AFT BODY OVERHEAT DETECTION SENSING ELEMENT - ADJUSTMENT/TEST

1. General

A. This procedure provides the instructions to test the sensing elements for the wing, wheel well and lower aft body overheat detection system.

TASK 26-18-02-720-801

2. Wing, Wheel Well and Lower Aft Body Overheat Sensing Element Test

(Figure 501)

A. General

(1) Do a test of each sensing loop only when all of the units in the system are stable at ambient temperature. If you cannot complete the tests that follow on an element, replace the element.

B. References

Reference	Title
20-10-44-400-801	Lockwire, Cotter Pins, and Lockrings - Installation (P/B 401)
26-18-00-710-801	Wheel Well and Lower Aft Body Overheat Detection System - Operational Test (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
COM-1741	Meter - LCR (Inductance, Capacitance, Resistance; Use COM-20443 for OH bleed loop testing) Part #: 878B Supplier: 08098 Part #: 879B Supplier: 08098 Part #: 880 Supplier: 08098 Part #: U1733P Supplier: 1LQK8 Opt Part #: 875B Supplier: 08098 Opt Part #: 878A Supplier: 08098 Opt Part #: 879 Supplier: 08098
COM-20443	Meter - LCR and Z (Inductance, Capacitance, Resistance and Impedance) Part #: 880 Supplier: 08098

D. Location Zones

Zone	Area
129	Keel Beam (Part) - Section 43
131	Center Section Wing Box, Body Station 540.00 to Body Station 663.75 - Left
132	Center Section Wing Box, Body Station 540.00 to Body Station 663.75 - Right
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
139	Keel Beam, (Part) Body Station 540.00 to Body Station 727.00
141	Aft Cargo Compartment - Left
142	Aft Cargo Compartment - Right
149	Keel Beam (Part) Body Station 727.00 to Body Station 743.95

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(Continued)

Zone	Area
191	Lower Wing-To-Body Fairing - Forward of Wing Box
192	Lower Wing-To-Body Fairing - Under Wing Box
311	Area Aft of Pressure Bulkhead - Left
431	Engine 1 - Forward Strut Fairing
441	Engine 2 - Forward Strut Fairing
511	Left Wing - Leading Edge To Front Spar
521	Left Wing - Leading Edge to Front Spar
611	Right Wing - Leading Edge to Front Spar
621	Right Wing - Leading Edge to Front Spar

E. Sensing Element Continuity Test (Resistance Measurement)

SUBTASK 26-18-02-865-001

(1) Disconnect the connectors from the loop.

SUBTASK 26-18-02-860-013

(2) Connect the Inductance, Capacitance, Resistance and Impedance (LCRZ) meter, COM-20443, or LCR meter (Inductance, Capacitance, Resistance), COM-1741, to the center of the conductor at each end of the loop.

NOTE: This procedure does a test of center conductor continuity.

NOTE: A standard digital voltmeter can be used for the center conductor resistance.

(a) If the Inductance, Capacitance, Resistance and Impedance (LCRZ) meter, COM-20443, or LCR meter (Inductance, Capacitance, Resistance), COM-1741, is used, make sure that the meter is in DC resistance (DCR) mode.

SUBTASK 26-18-02-860-014

(3) Set the Inductance, Capacitance, Resistance and Impedance (LCRZ) meter, COM-20443, or LCR meter (Inductance, Capacitance, Resistance), COM-1741, to measure continuity through DCR mode.

SUBTASK 26-18-02-860-015

(4) Allow the reading to stabilize and record the reading.

SUBTASK 26-18-02-865-002

(5) Do the check for an open detector or circuit:

(a) Compare the values from the reading to the values from Table 501.

Table 501/26-18-02-993-803 Sensing Loop Test Data

KIDDE ALARM/FAULT CODES	LOOP CONNECTOR/PINS		LOOP CENTER CONDUCTOR RESISTANCE (< 130 ° F)	SENSORS
L ENGINE STR OPEN L ENGINE STR OVHT L ENGINE STR SHRT	D742, pin 4	D742, pin 12	< 15 ohms	M1761, M1762, M3057
L PACK BAY OPEN L PACK BAY OVHT L PACK BAY SHRT	D742, pin 2	D742, pin 8	< 15 ohms	M1911, M1909, M355

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Table 501/26-18-02-993-803 Sensing Loop Test Data (Continued)

KIDDE ALARM/FAULT CODES	LOOP CONNECTOR/PINS		LOOP CENTER CONDUCTOR RESISTANCE (< 130 ° F)	SENSORS
KEELBEAM OPEN KEELBEAM OVHT KEELBEAM SHRT	D742, pin 9	D742, pin 29	< 25 ohms	M272, M273
AFT CARGO APU OPEN AFT CARGO APU OVHT AFT CARGO APU SHRT	D742, pin 13	D742, pin 27	< 25 ohms	M275, M347, M348, M1147
R ENGINE STR OPEN R ENGINE STR OVHT R ENGINE STR SHRT	D742, pin 10	D742, pin 11	< 15 ohms	M1763, M1764, M3058
MWW LOOP A FIRE MWW LOOP A OPEN MWW LOOP A SHRT	D742, pin 21	D742, pin 24	< 15 ohms	M270
AFT BODY APU OPEN AFT BODY APU OVHT AFT BODY APU SHRT	D742, pin 36	D742, pin 37	< 25 ohms	M276
L WING LE OPEN L WING LE OVHT L WING LE SHRT	D742, pin 39	D742, pin 40	< 15 ohms	M268, M370
MWW LOOP B FIRE MWW LOOP B OPEN MWW LOOP B SHRT	D742, pin 31	D742, pin 34	< 15 ohms	M3068
NITROGEN GEN OPEN NITROGEN GEN OVHT NITROGEN GEN SHRT	D742, pin 32	D742, pin 33	< 15 ohms	M3067
R WING LE OPEN R WING LE OVHT R WING LE SHRT	D742, pin 30	D742, pin 35	< 15 ohms	M269, M371
R PACK BAY OPEN R PACK BAY OVHT R PACK BAY SHRT	D742, pin 41	D742, pin 42	< 15 ohms	M356, M1910, M1912

(b) If the reading is greater than the values shown in Table 501, do the continuity checks of the applicable loop segments to isolate to the failed loop or wiring.

(c) Replace the faulty detector or repair the wiring, as needed.

F. Sensing Element Pin to Case Test (Resistance Measurement)

SUBTASK 26-18-02-860-006

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY

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(Continued)

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

SUBTASK 26-18-02-720-001

(2) Disconnect the connectors from both ends of the sensors.

SUBTASK 26-18-02-860-016

(3) Connect the Inductance, Capacitance, Resistance and Impedance (LCRZ) meter, COM-20443, or LCR meter (Inductance, Capacitance, Resistance), COM-1741, to the center of the conductor and to the sheath of the sensor tube.

SUBTASK 26-18-02-720-002

(4) Set the Inductance, Capacitance, Resistance and Impedance (LCRZ) meter, COM-20443, or LCR meter (Inductance, Capacitance, Resistance), COM-1741, to R-mode (AC Resistance), parallel mode, and 1KHz.

NOTE: Do not use a Digital Multi Meter (DMM) for center conductor to outer case resistance checks on individual sensors. The data below is for LCR only.

NOTE: For individual sensing elements, continuity (center conductor to center conductor) can be measured using a standard digital voltmeter, or using DCR mode on Inductance, Capacitance, Resistance and Impedance (LCRZ) meter, COM-20443, or LCR meter (Inductance, Capacitance, Resistance), COM-1741.

(a) Measure the resistance from the center of the conductor to the case ground (outer side of the element) (Table 502).

NOTE: Conductance equals 1/Resistance.

Table 502/26-18-02-993-804 Sensing Element Conductance and Resistance Center Conductor to Case Test Data

SENSOR	SENSOR PART NO.	MAXIMUM CONDUCTANCE, MICRO-SIEMENS*[1]	MINIMUM RESISTANCE, (MEGOHMS) *[1]	MAXIMUM CONTINUITY, (MILLIOHMS)
M371	35574-4-255	0.74	1.35	563.00
M370	35574-4-255	0.74	1.35	563.00
M356	35594-4-255	0.94	1.06	703.00
M355	35594-4-255	0.94	1.06	703.00
M348	35658-4-255	1.58	0.63	1151.00
M347	35646-2-255	1.46	0.68	1067.00
M276	35555-4-255	0.55	1.82	423.00
M275	35575-2-255	0.75	1.33	570.00
	35599-2-255	0.99	1.01	738.00
M273	35555-4-255	0.55	1.82	423.00
M272	35626-4-255	1.26	0.79	927.00

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Table 502/26-18-02-993-804 Sensing Element Conductance and Resistance Center Conductor to Case Test Data (Continued)

SENSOR	SENSOR PART NO.	MAXIMUM CONDUCTANCE, MICRO-SIEMENS*[1]	MINIMUM RESISTANCE, (MEGOHMS) *[1]	MAXIMUM CONTINUITY, (MILLIOHMS)
M270	04-90010-110D	1.10	0.91	660.00
	35610-4-400	1.10	0.909	815.00
	35614-4-400	1.14	0.877	843.00
M269	35599-2-255	0.99	1.01	738.00
M268	35599-2-255	0.99	1.01	738.00
M1912	35712-80 (255)	1.20	0.833	885.00
M1911	35712-80 (255)	1.20	0.833	885.00
M1910	35712-80 (255)	1.20	0.833	885.00
M1909	35712-80 (255)	1.20	0.833	885.00
M1764	35712-75 (310)	2.24	0.417	820.00
	35712-79 (310)	0.60	1.67	820.00
M1763	35712-79 (310)	0.60	1.67	820.00
M1762	35712-75 (310)	2.24	0.417	820.00
	35712-79 (310)	0.60	1.67	820.00
M1761	35712-79 (310)	0.60	1.67	820.00
M1147	35675-2-255	1.75	1.67	1270.00
M3057	35712-79 (310)	0.60	1.67	820.00
M3058	35712-79 (310)	0.60	1.67	820.00
M3067	1060011-031A	1.20	0.833	885.00
M3068	04-90010-110D	1.10	0.91	660.00
	35610-4-400	1.10	0.91	815.00
	35614-4-400	1.14	0.88	843.00

*[1] from center conductor to ground

SUBTASK 26-18-02-720-003

(5) Connect the connectors to the sensor elements.

SUBTASK 26-18-02-720-004

(6) Tighten the jamnuts to 50 in-lb (5.6 N·m) - 60 in-lb (6.8 N·m).

SUBTASK 26-18-02-720-005

(7) Attach the lockwires to the sensor element connectors (TASK 20-10-44-400-801).

SUBTASK 26-18-02-720-006

(8) Repeat the sensing element continuity and sensing element pin to case test for each remaining loop.

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G. Zone Resistance Test (CODM BITE)

SUBTASK 26-18-02-740-004

(1) Push and release the LOCAL TEST button on the front panel of the CODM (Figure 501).

(a) The front panel of the CODM displays CONFIG MAX1 followed by L ENGINE STR.

SUBTASK 26-18-02-740-005

(2) Continue to push and release LOCAL TEST.

NOTE: This will cycle through the different zones followed by LOOP ___ that shows the resistance value in the loop or 2GND_____ that shows the resistance value to ground.

NOTE: If the loops are functioning properly all zones will have a 2GND value of 5000.

SUBTASK 26-18-02-740-003

(3) Make sure that the resistance value agree with the Table 503 below:

Table 503/26-18-02-993-805 Zone Resistance Test Data

KIDDE ALARM/FAULT CODES	RESISTANCE VALUE or FAULT MESSAGE	SENSORS
L ENGINE STR L ENGINE STR OPEN L ENGINE STR OVHT L ENGINE STR SHRT	< 15 Ohms OPEN LOW 0	M1761, M1762, M3057
L WING LE L WING LE OPEN L WING LE OVHT L WING LE SHRT	< 15 Ohms OPEN LOW 0	M268, M370
L PACK BAY L PACK BAY OPEN L PACK BAY OVHT L PACK BAY SHRT	< 15 Ohms OPEN LOW 0	M1911, M1909, M355
NITROGEN GEN NITROGEN GEN OPEN NITROGEN GEN OVHT NITROGEN GEN SHRT	< 15 Ohms OPEN LOW 0	M3067
KEELBEAM KEELBEAM OPEN KEELBEAM OVHT KEELBEAM SHRT	< 25 Ohms OPEN LOW 0	M272, M273
AFT CARGO APU AFT CARGO APU OPEN AFT CARGO APU OVHT AFT CARGO APU SHRT	< 25 Ohms OPEN LOW 0	M275, M347, M348, M1147
AFT BODY AFT BODY OPEN AFT BODY OVHT AFT BODY SHRT	< 25 Ohms OPEN LOW 0	M276

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Table 503/26-18-02-993-805 Zone Resistance Test Data (Continued)

KIDDE ALARM/FAULT CODES	RESISTANCE VALUE or FAULT MESSAGE	SENSORS
MWW LOOP A MWW LOOP A OPEN MWW LOOP A FIRE MWW LOOP A SHRT	< 15 Ohms OPEN LOW 0	M270
MWW LOOP B MWW LOOP B OPEN MWW LOOP B FIRE MWW LOOP B SHRT	< 15 Ohms OPEN LOW 0	M3068
R ENGINE STR R ENGINE STR OPEN R ENGINE STR OVHT R ENGINE STR SHRT	< 15 Ohms OPEN LOW 0	M1763, M1764, M3058
R WING LE R WING LE OPEN R WING LE OVHT R WING LE SHRT	< 15 Ohms OPEN LOW 0	M269, M371
R PACK BAY R PACK BAY OPEN R PACK BAY OVHT R PACK BAY SHRT	< 15 Ohms OPEN LOW 0	M356, M1910, M1912

H. Put the Airplane Back to Its Usual Condition

NOTE: Do the following only if a resistance measurement was performed.

SUBTASK 26-18-02-720-007

(1) Remove the wire and fittings from the loop connectors.

SUBTASK 26-18-02-720-008

(2) Tighten the jamnuts to 50 in-lb (5.6 N·m) - 60 in-lb (6.8 N·m).

SUBTASK 26-18-02-720-009

(3) Attach the lockwire to the element connectors (TASK 20-10-44-400-801).

SUBTASK 26-18-02-860-008

(4) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

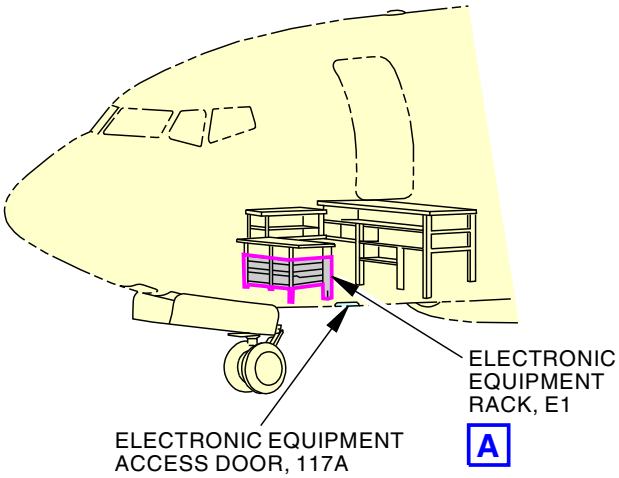
Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT

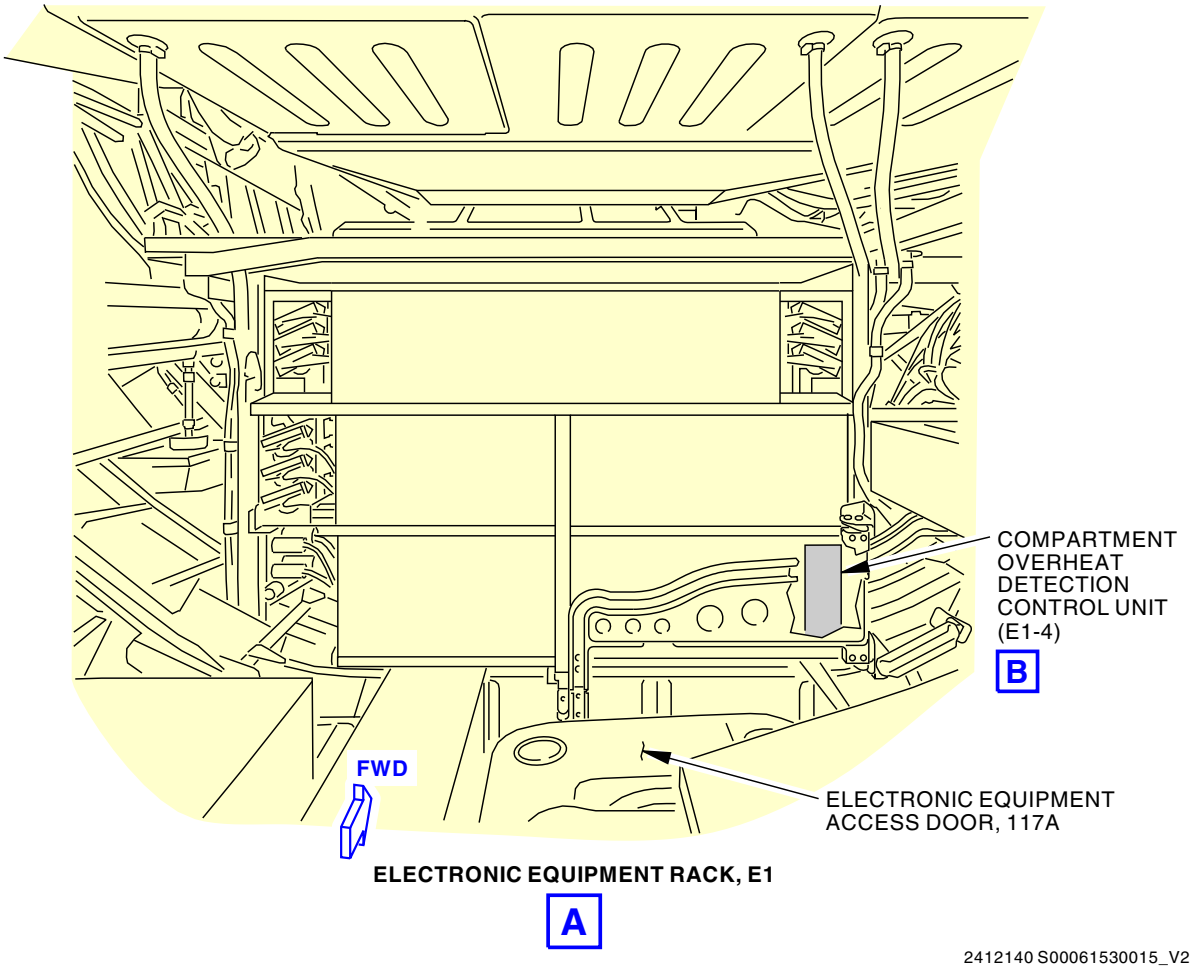
SUBTASK 26-18-02-710-001

(5) Do this task: Wheel Well and Lower Aft Body Overheat Detection System - Operational Test, TASK 26-18-00-710-801.

END OF TASK

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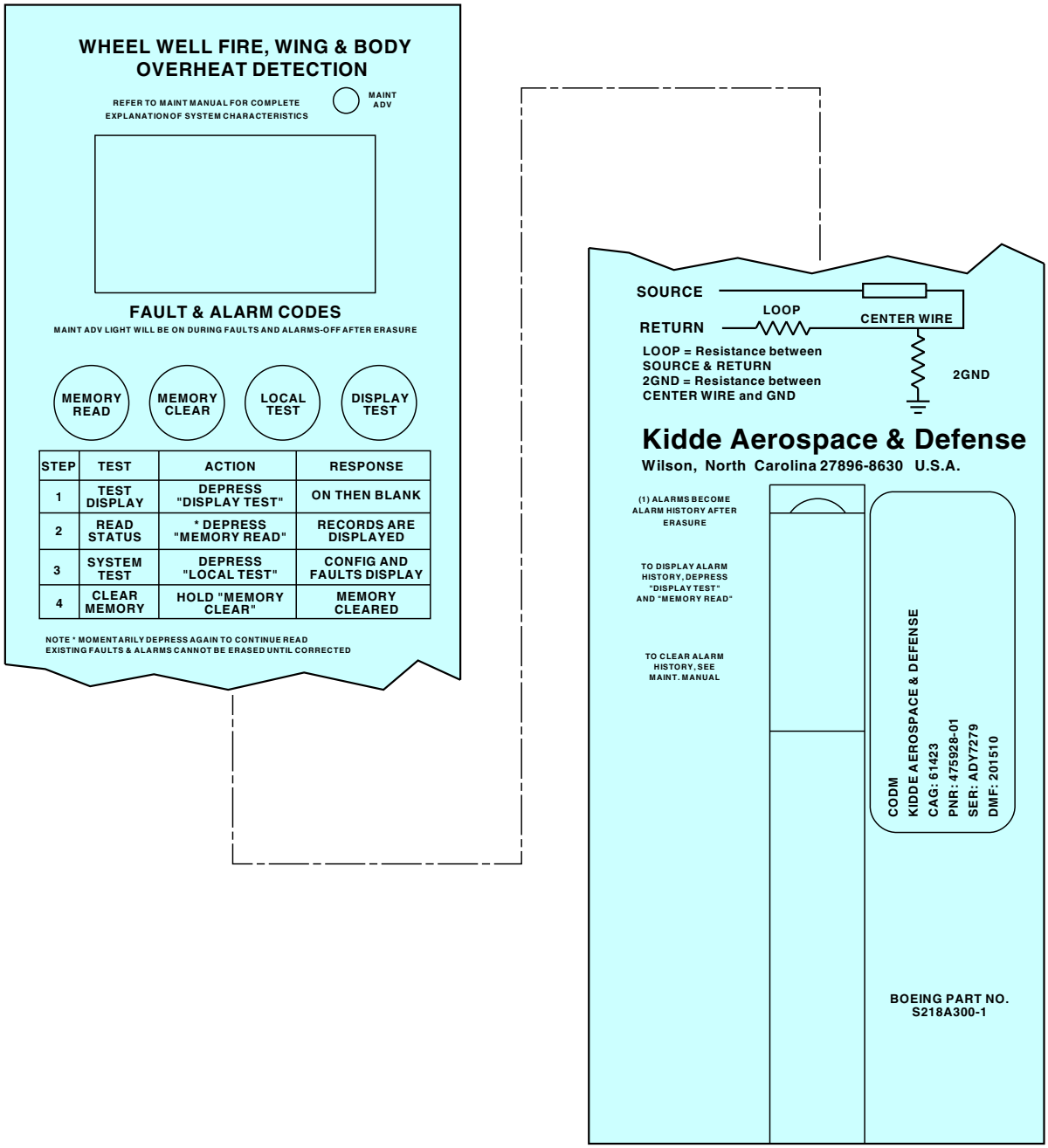




2412140 S00061530015_V2

Compartment Overheat Detection Control Unit M237
Figure 501/26-18-02-990-808 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



COMPARTMENT OVERHEAT DETECTION CONTROL UNIT (E1-4)

B

2412141 S00061530016_V1

Compartment Overheat Detection Control Unit M237
Figure 501/26-18-02-990-808 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

E/E COOLING SMOKE DETECTION - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

(1) E/E Cooling Smoke Detection - Operational Test

(2) E/E Cooling Smoke Detector - Operational Test

TASK 26-19-00-710-801

2. E/E Cooling Smoke Detection - Operational Test

(Figure 501)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) The operational test makes sure that the E/E Cooling Smoke Detection system operates correctly. The operational test uses only equipment installed on the airplane.

B. References

Reference	Title
21-25-02 P/B 401	RECIRCULATION FAN - REMOVAL/INSTALLATION
21-27-02 P/B 401	EQUIPMENT COOLING SUPPLY FAN - REMOVAL/INSTALLATION

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

D. E/E Cooling Smoke Detection Operational Test

SUBTASK 26-19-00-710-001

(1) Do these steps to do the EQUIP COOL SMOKE DETECTOR SUPPLY TEST:

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	13	C04013	EQPT COOL SMOKE DET EXHAUST

(b) Make sure that the S870 Supply Equipment Cooling Switch is set to NORMAL position.

(c) Make sure that these switches are in the correct positions:

SWITCH	POSITION
L RECIRC FAN	AUTO
R RECIRC FAN	AUTO
L PACK	AUTO
R PACK	AUTO

(d) Make sure that the airplane is in GROUND mode.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(e) Push and hold the S1204 Equip Cooling Smoke Test button for 2 to 3 seconds (Figure 501).

NOTE: Timing for subsequent verification steps start when the test button is pushed.

(f) Release the S1204 Equip Cooling Smoke Test button.

(g) Make sure that the L1293 Equip Cool Supl Smk Det Light, on the J23 panel in the E/E bay, comes on.

(h) Make sure that 2 seconds after the S1204 EQUIP COOL SMK DET TEST button is pushed, the L1554 EQUIP COOLING EQUIP SMOKE detection light, on the P5 Equipment Cooling panel, in the flight deck comes on (Figure 501).

(i) Make sure that 2 seconds after the S1204 Equip Cooling Smoke Test button is pushed, the M1322 Normal Supply Fan turns off (PAGEBLOCK 21-27-02/401).

(j) Make sure that 2 seconds after the S1204 Equip Cooling Smoke Test button is pushed, the M1440 L Cabin Air Recirc Fan shuts off (PAGEBLOCK 21-25-02/401).

(k) Make sure that 2 seconds after the S1204 Equip Cooling Smoke Test button is pushed, the M1441 R Cabin Air Recirc Fan shuts off (PAGEBLOCK 21-25-02/401).

(l) Make sure that approximately 302 seconds ± 30 seconds after the S1204 Equip Cooling Smoke Test button is pushed, the M1322 Normal Supply Fan turns back on.

(m) Push and hold the S1204 Equip Cooling Smoke Test button for 10 to 20 seconds immediately after the M1322 Normal Supply fan turns back on.

NOTE: This 10 second window after the supply fan turns back on is the system purge time, where recurrence of supply smoke will have no effect on the system state.

(n) Make sure that during the 10 second purge time window, the L1554 EQUIP COOL EQUIP SMOKE Det Light does not come on.

(o) Make sure that after the 10 second purge time window, the L1554 EQUIP COOL EQUIP SMOKE Det Light comes on.

(p) Release the S1204 Equip Cooling Smoke Test button after the L1554 EQUIP COOL EQUIP SMOKE Det Light comes on.

(q) Wait 330 seconds or longer before the next step.

1) Make sure that the L and R Cabin Recirc Fans turn back on.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	13	C04013	EQPT COOL SMOKE DET EXHAUST

SUBTASK 26-19-00-710-003

(2) Do these steps to do the EQUIP COOL SMOKE DET EXHAUST TEST:

(a) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	4	C00700	HEATERS DRAIN MAST AIR

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
C	16	C01356	LANDING GEAR AIR/GND SYS 1

ECCN 9E991 BOEING PROPRIETARY - See title page for details

F/O Electrical System Panel, P6-5

Row	Col	Number	Name
A	11	C04014	EQPT COOL SMOKE DET SUPPLY

(b) Make sure that these switches are in the correct positions:

SWITCH	POSITION
L RECIRC FAN	AUTO
R RECIRC FAN	AUTO
L PACK	AUTO
R PACK	AUTO

(c) Make sure that the airplane is in GROUND mode.

(d) Make sure that the LEFT FMCS BITE screen shows on the CDU-1 screen.

1) Push the INIT REF key on the CDU keyboard.
2) Push these Line Select Key (LSK):
   a) INDEX
   b) MAINT
   c) FMCS
   d) BITE.

(e) Make sure that the RIGHT FMCS BITE screen shows on the CDU-2 screen.

1) Push the INIT REF key on the CDU keyboard.
2) Push these LSK:
   a) INDEX
   b) MAINT
   c) FMCS
   d) BITE.

(f) Make sure that the FMC Transfer Switch is set to NORMAL position.

(g) Push LSK 4L (DISCRETES) on both CDUs.

NOTE: The status of LEFT and RIGHT discretes depend on cockpit and airplane conditions.

NOTE: If an analog discrete status is highlighted, a mismatch exists between the FMCs, and must be corrected before further testing can be accomplished. A momentary highlight after the change of a switch state is not considered a mismatch.

(h) Set the engine 1 BLEED switch or engine 2 BLEED switch to ON position.

(i) Make sure that on both CDUs that the LEFT ECS PACK H/L status shows LO, and the RIGHT ECS PACK H/L status shows LO.

(j) Push and hold the S1204 Equip Cooling Smoke Test button for 2 to 3 seconds (Figure 501).

NOTE: Timing for subsequent verification steps start when the test button is pushed.

(k) Release the S1204 Equip Cooling Smoke Test button.

1) Make sure that the L1294 Equip Cool Exhaust Smk Det Light comes on.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

2) Make sure that after 2 seconds, the L1554 EQUIP COOL EQUIP SMOKE Det Light comes on (Figure 501).

3) Make sure that after 2 seconds, the M1322 Normal Supply Fan turns off (PAGEBLOCK 21-27-02/401).

4) Make sure that after 2 seconds, the M1440 L Cabin Air Recirc Fan shuts off (PAGEBLOCK 21-25-02/401).

5) Make sure that after 2 seconds, the M1441 R Cabin Air Recirc Fan shuts off (PAGEBLOCK 21-25-02/401).

6) Make sure that after approximately 302 seconds ± 30 seconds, the M1322 Normal Supply Fan turns back on.

7) Make sure that after 2 seconds, the Master Caution operates.

8) Make sure that after 2 seconds, the OVERHEAD light on the right system annunciator panel comes on.

(l) Make sure that on the two CDUs the LEFT ECS PACK H/L and the RIGHT ECS PACK H/L condition show HI.

(m) After you release the S1204 test switch, for a maximum of 30 seconds, do this step:

1) Hold the P8-75 Cargo Fire Control module TEST switch while the L1554 EQUIP COOL EQUIP SMOKE Det Light is on (Figure 501).

(n) Make sure that the L1554 EQUIP COOL EQUIP SMOKE Det Light is suppressed and goes off.

(o) Release the P8-75 Cargo Fire Control module TEST switch.

(p) Make sure that the engine 1 BLEED switch and engine 2 BLEED switch are set to OFF position.

(q) Wait 330 seconds or longer before the next step.

1) Make sure that the L and R Cabin Recirc Fans turn back on.

(r) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	4	C00700	HEATERS DRAIN MAST AIR

F/O Electrical System Panel, P6-3

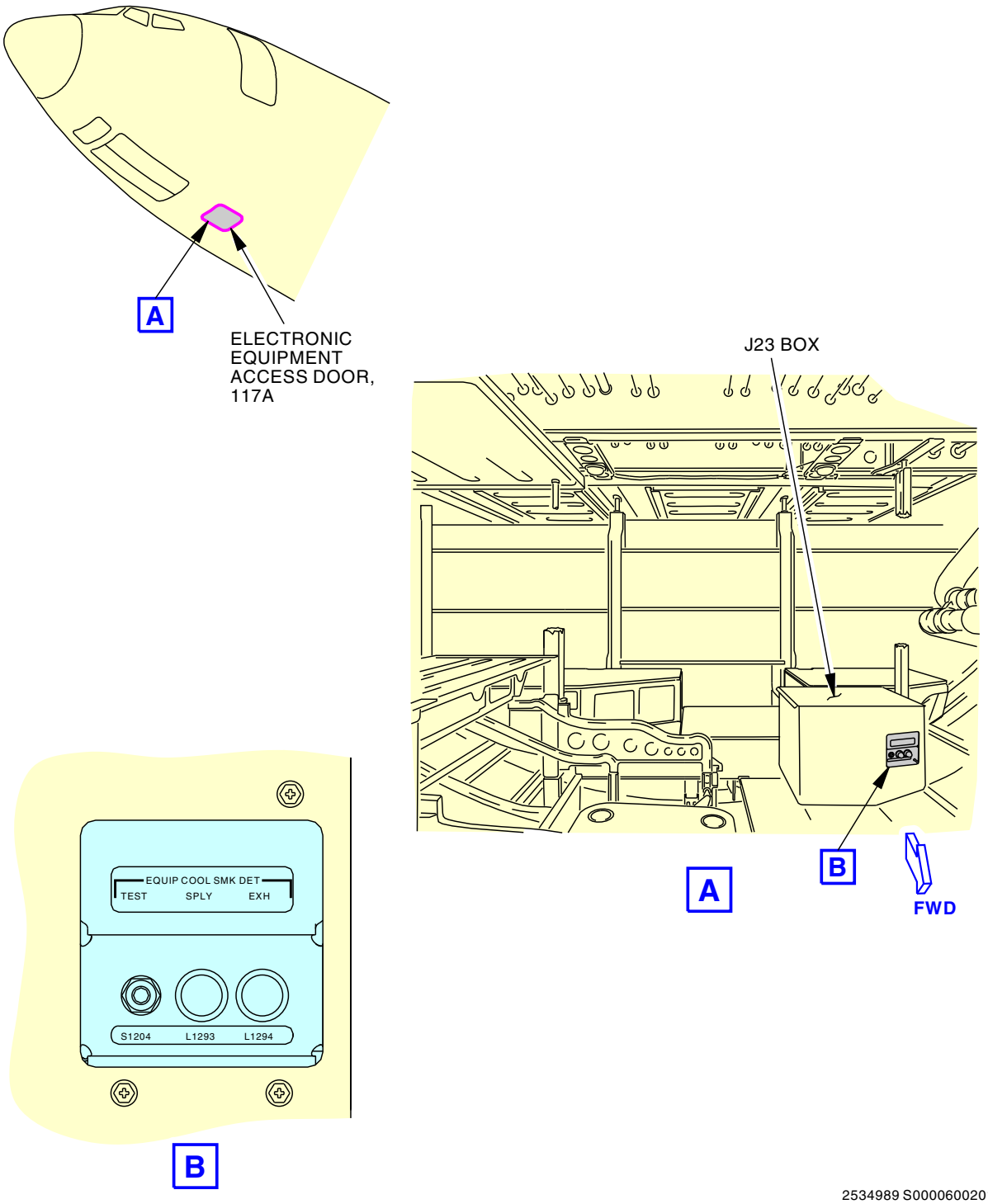
Row	Col	Number	Name
C	16	C01356	LANDING GEAR AIR/GND SYS 1

F/O Electrical System Panel, P6-5

Row	Col	Number	Name
A	11	C04014	EQPT COOL SMOKE DET SUPPLY

——— END OF TASK ———

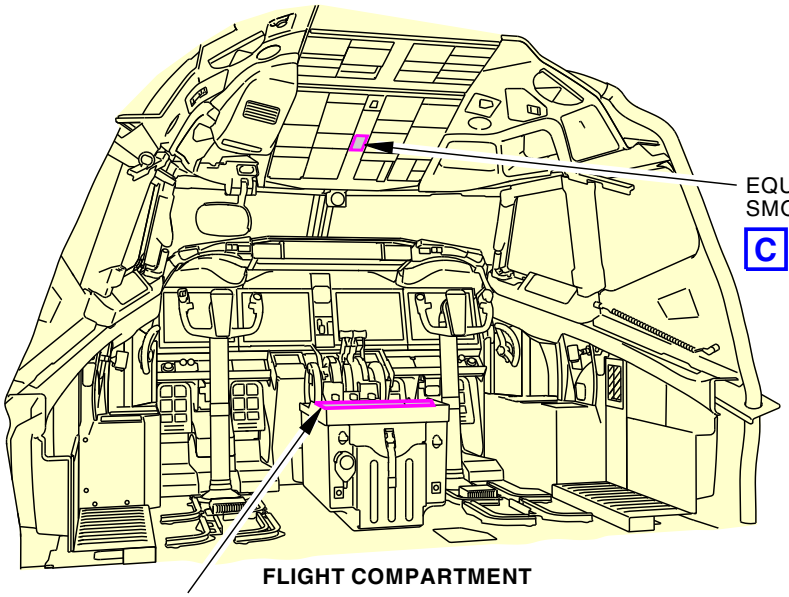
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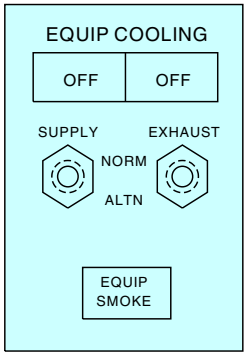
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E/E Cooling Smoke Detection - Operational Test
Figure 501/26-19-00-990-801 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

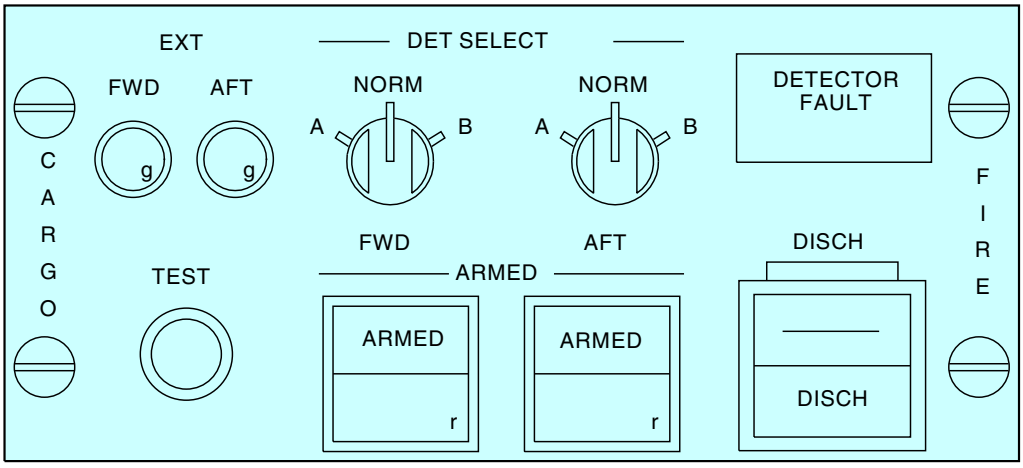


FLIGHT COMPARTMENT



EQUIP COOLING EQUIP SMOKE DETECTION (P5)

C



CARGO FIRE CONTROL MODULE (P8-75)

D

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E/E Cooling Smoke Detection - Operational Test
Figure 501/26-19-00-990-801 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-19-00-710-802

3. E/E Cooling Smoke Detector - Operational Test

NOTE: This procedure is a scheduled maintenance task.

A. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right

B. Prepare for Operational Test

SUBTASK 26-19-00-860-002

(1) Make sure that these circuit breakers are closed:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	13	C04013	EQPT COOL SMOKE DET EXHAUST

F/O Electrical System Panel, P6-5

Row	Col	Number	Name
A	11	C04014	EQPT COOL SMOKE DET SUPPLY

C. E/E Cooling Smoke Detector Operational Test

SUBTASK 26-19-00-710-002

(1) On the J23 panel in the E/E bay, do these steps to do the EQUIP COOL SMOKE DETECTOR SUPPLY TEST:

(a) Push then release the S1204 Equip Cooling Smoke Test button (Figure 501).

NOTE: If the Test button is held for more than 2 seconds, the cooling fans will go off. The cooling fans will come on again on after approximately 5 minutes.

(b) Make sure that the L1293 EQUIP COOL SPLY SMK DET light comes on.

(c) Make sure that the L1294 EQUIP COOL EXH SMK DET light comes on.

(d) Make sure that the L1293 EQUIP COOL SPLY SMK DET and L1294 EQUIP COOL EXH SMK DET lights go off immediately after you release the test button.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

Equipment Supply Smoke Detector - Removal/Installation

1. General

A. This procedure has these tasks:

(1) Removal of the equipment supply smoke detector.

(2) Installation of the equipment supply smoke detector.

TASK 26-19-01-000-801

2. Equipment Supply Smoke Detector Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the Equipment Supply Smoke Detector.

B. Location Zones

Zone	Area
118	Electrical and Electronics Compartment - Right

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

D. Prepare for the Removal

SUBTASK 26-19-01-860-001

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

F/O Electrical System Panel, P6-5

Row	Col	Number	Name
A	11	C04014	EQPT COOL SMOKE DET SUPPLY

SUBTASK 26-19-01-010-001

(2) Open this access door:

Number	Name/Location
117A	Electronic Equipment Access Door

E. Equipment Supply Smoke Detector Removal

SUBTASK 26-19-01-020-001

(1) Remove and discard the tiewrap from the tubing [2] and disconnect the tubing [2].

SUBTASK 26-19-01-020-005

(2) Install protective caps on the equipment supply smoke detector [1] tubing assemblies.

SUBTASK 26-19-01-020-002

(3) Disconnect the electrical connector [3].

SUBTASK 26-19-01-020-003

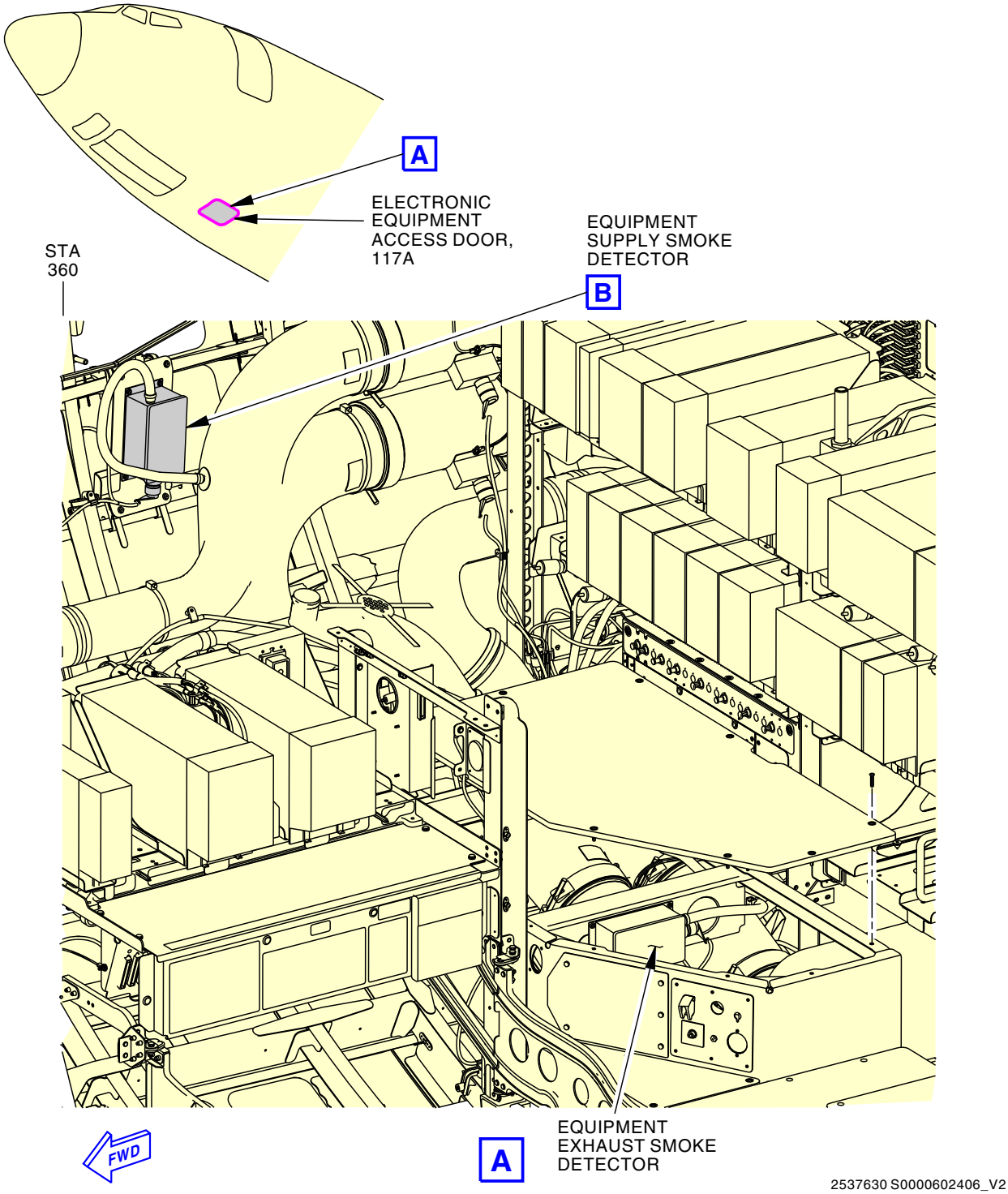
(4) Remove the four screws [4].

SUBTASK 26-19-01-020-004

(5) Remove the equipment supply smoke detector [1].

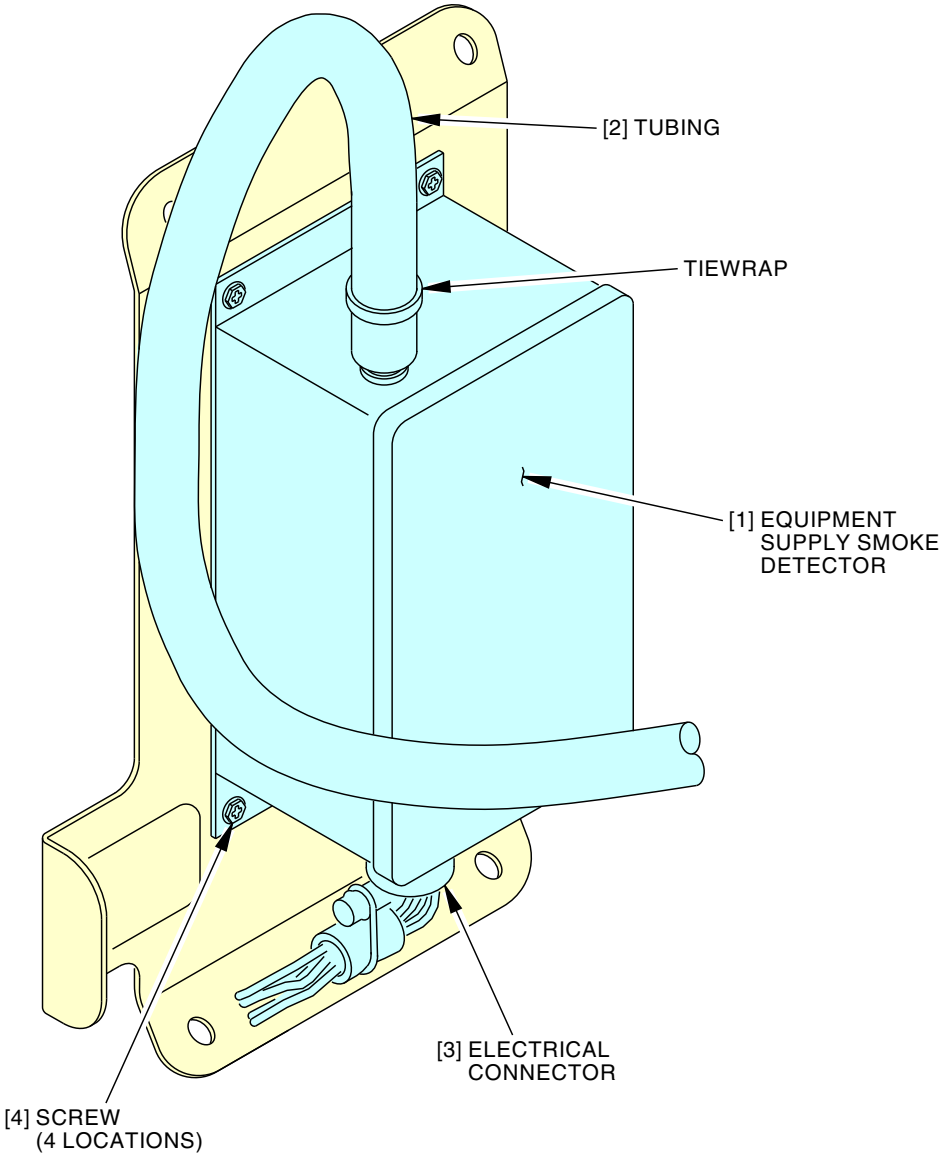
END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Equipment Supply Smoke Detector Installation
Figure 401/26-19-01-990-801 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



EQUIPMENT SUPPLY SMOKE DETECTOR

B

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Equipment Supply Smoke Detector Installation
Figure 401/26-19-01-990-801 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-19-01-400-801

3. Equipment Supply Smoke Detector Installation

(Figure 401)

A. General

(1) This task gives instructions to install the Equipment Supply Smoke Detector.

B. References

Reference	Title
26-19-00-710-802	E/E Cooling Smoke Detector - Operational Test (P/B 501)

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Equipment supply smoke detector	26-19-01-01-005	SIA ALL

D. Location Zones

Zone	Area
118	Electrical and Electronics Compartment - Right

E. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

F. Prepare for the Installation

SUBTASK 26-19-01-860-002

(1) Make sure that this circuit breaker is open and has safety tag:

F/O Electrical System Panel, P6-5

Row	Col	Number	Name
A	11	C04014	EQPT COOL SMOKE DET SUPPLY

SUBTASK 26-19-01-010-002

(2) Make sure that this access panel is open:

Number	Name/Location
117A	Electronic Equipment Access Door

G. Equipment Supply Smoke Detector Installation

SUBTASK 26-19-01-420-001

(1) Install the equipment supply smoke detector [1].

SUBTASK 26-19-01-420-002

(2) Install the four screws [4].

SUBTASK 26-19-01-420-003

(3) Connect the electrical connector [3].

SUBTASK 26-19-01-420-004

(4) Remove the protective caps from the equipment supply smoke detector [1] tubing assemblies.

SUBTASK 26-19-01-420-005

(5) Connect the tubing [2] to the top tubing assembly and install new tiewrap to the tubing [2].

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-19-01-860-003

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

F/O Electrical System Panel, P6-5

Row	Col	Number	Name
A	11	C04014	EQPT COOL SMOKE DET SUPPLY

SUBTASK 26-19-01-710-001

(7) Do this task: E/E Cooling Smoke Detector - Operational Test, TASK 26-19-00-710-802

H. Put the Airplane Back to Its Usual Condition

SUBTASK 26-19-01-410-001

(1) Close this access door:

Number	Name/Location
117A	Electronic Equipment Access Door

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

Equipment Exhaust Smoke Detector - Removal/Installation

1. General

A. This procedure has these tasks:

(1) Removal of the equipment exhaust smoke detector.

(2) Installation of the equipment exhaust smoke detector.

TASK 26-19-02-000-801

2. Equipment Exhaust Smoke Detector Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the Equipment Exhaust Smoke Detector.

B. Location Zones

Zone	Area
118	Electrical and Electronics Compartment - Right

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

D. Prepare for the Removal

SUBTASK 26-19-02-860-001

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	13	C04013	EQPT COOL SMOKE DET EXHAUST

SUBTASK 26-19-02-010-001

(2) Open this access door:

Number	Name/Location
117A	Electronic Equipment Access Door

E. Equipment Exhaust Smoke Detector Removal

SUBTASK 26-19-02-010-003

(1) Remove the eight screws [5] and the panel [6] to access the equipment exhaust smoke detector [1]

SUBTASK 26-19-02-020-001

(2) Remove and discard the tiewrap from the two tubings [2] and disconnect the two tubings [2].

SUBTASK 26-19-02-020-005

(3) Install protective caps on the equipment exhaust smoke detector [1] tubing assemblies.

SUBTASK 26-19-02-020-002

(4) Disconnect the electrical connector [3].

SUBTASK 26-19-02-020-003

(5) Remove the four screws [4].

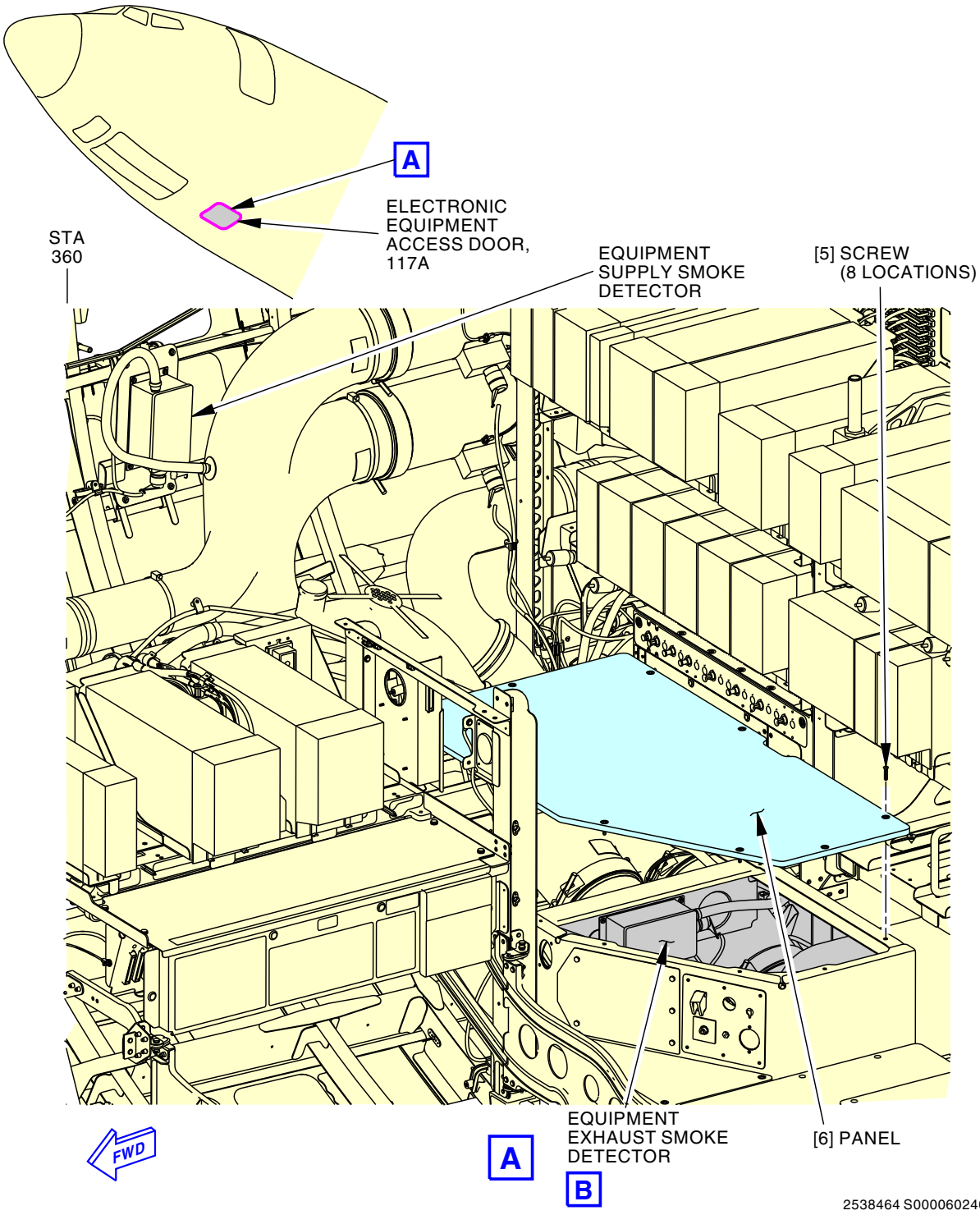
ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-19-02-020-004

(6) Remove the equipment exhaust smoke detector [1].

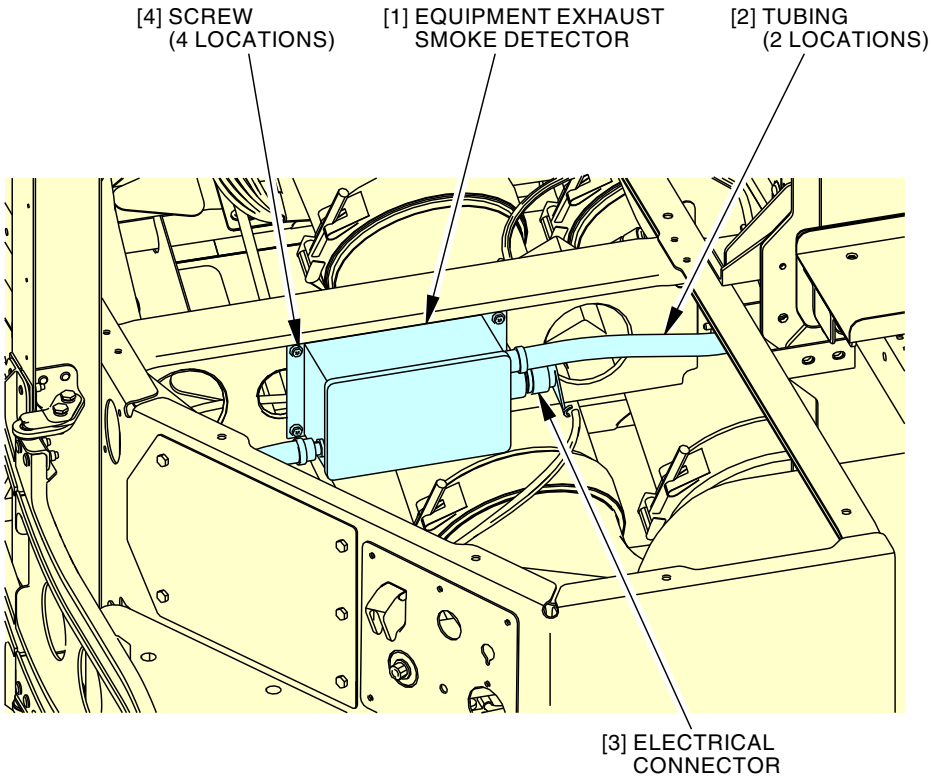
END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Equipment Exhaust Smoke Detector Installation
Figure 401/26-19-02-990-801 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



EQUIPMENT EXHAUST SMOKE DETECTOR

B

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Equipment Exhaust Smoke Detector Installation
Figure 401/26-19-02-990-801 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-19-02-400-801

3. Equipment Exhaust Smoke Detector Installation

(Figure 401)

A. General

(1) This task gives instructions to install the Equipment Exhaust Smoke Detector.

B. References

Reference	Title
26-19-00-710-802	E/E Cooling Smoke Detector - Operational Test (P/B 501)

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Equipment exhaust smoke detector	26-19-02-01-005	SIA ALL

D. Location Zones

Zone	Area
118	Electrical and Electronics Compartment - Right

E. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

F. Prepare for the Installation

SUBTASK 26-19-02-860-002

(1) Make sure that this circuit breaker is open and has safety tag:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	13	C04013	EQPT COOL SMOKE DET EXHAUST

SUBTASK 26-19-02-010-002

(2) Make sure that this access panel is open:

Number	Name/Location
117A	Electronic Equipment Access Door

G. Equipment Exhaust Smoke Detector Installation

SUBTASK 26-19-02-420-001

(1) Install the equipment exhaust smoke detector [1].

SUBTASK 26-19-02-420-002

(2) Install the four screws [4].

SUBTASK 26-19-02-410-001

(3) Connect the electrical connector [3].

SUBTASK 26-19-02-410-002

(4) Remove the protective caps from the equipment exhaust smoke detector [1] tubing assemblies.

SUBTASK 26-19-02-420-003

(5) Connect the two tubings [2] and install new tiewraps.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-19-02-860-003

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	13	C04013	EQPT COOL SMOKE DET EXHAUST

SUBTASK 26-19-02-710-001

(7) Do this task: E/E Cooling Smoke Detector - Operational Test, TASK 26-19-00-710-802.

SUBTASK 26-19-02-410-004

(8) Install the panel [6] and the eight screws [5].

H. Put the Airplane Back to Its Usual Condition

SUBTASK 26-19-02-410-003

(1) Close this access door:

Number	Name/Location
117A	Electronic Equipment Access Door

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

FIRE EXTINGUISHING BOTTLE PRESSURE GAUGE - INSPECTION/CHECK

1. General

A. This procedure has these tasks:

(1) A check of the engine fire extinguishing bottle

(2) A check of the Auxiliary Power Unit (APU) fire extinguishing bottle.

TASK 26-20-00-210-801

2. Engine Fire Extinguishing Bottle Check

(Figure 601 and Figure 602)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
26-21-01 P/B 401	ENGINE FIRE EXTINGUISHING BOTTLE - REMOVAL/INSTALLATION

B. Tools/Equipment

Reference	Description
STD-1336	Thermometer - Digital, 0-150 +/- 2 Degrees F, with a Probe, Thermocouple or Equivalent

C. Location Zones

Zone	Area
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
311	Area Aft of Pressure Bulkhead - Left

D. Fire Extinguishing Bottle Check

NOTE: This procedure is for fire extinguishing bottles with pressure gauges. No action is required if a pressure gauge is not installed.

SUBTASK 26-20-00-860-001

(1) Allow the fire bottle to reach ambient temperature.

NOTE: It may take several hours with the airplanes on the ground for the halon in the bottles to reach ambient temperature.

SUBTASK 26-20-00-010-001

(2) Get access to the engine fire bottles that are located on the aft bulkhead in the left main landing gear wheel well.

SUBTASK 26-20-00-970-001

CAUTION

KEEP MERCURY THERMOMETERS AWAY FROM THE AIRPLANE. IF THE THERMOMETER BREAKS, MERCURY CAN CAUSE DAMAGE TO THE AIRPLANE COMPONENTS.

(3) Use a 0-150 +/- 2 degrees F digital thermometer, STD-1336, to get the ambient air temperature by the fire bottle.

SUBTASK 26-20-00-210-001

(4) Find the acceptable pressure range for the current temperature in the temperature curve (Figure 602).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-20-00-210-002

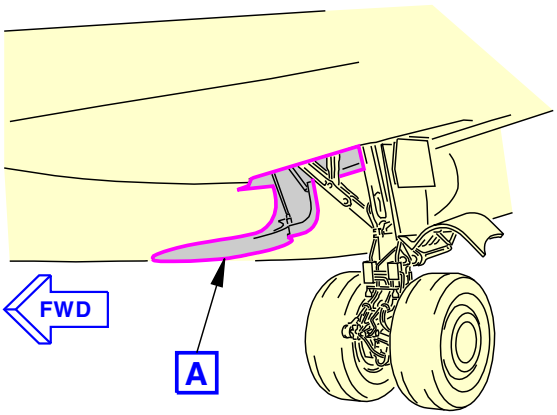
(5) Read the pressure gauge on the fire bottles.

(a) Make sure that the pressure on the gauge falls within the pressure limits.

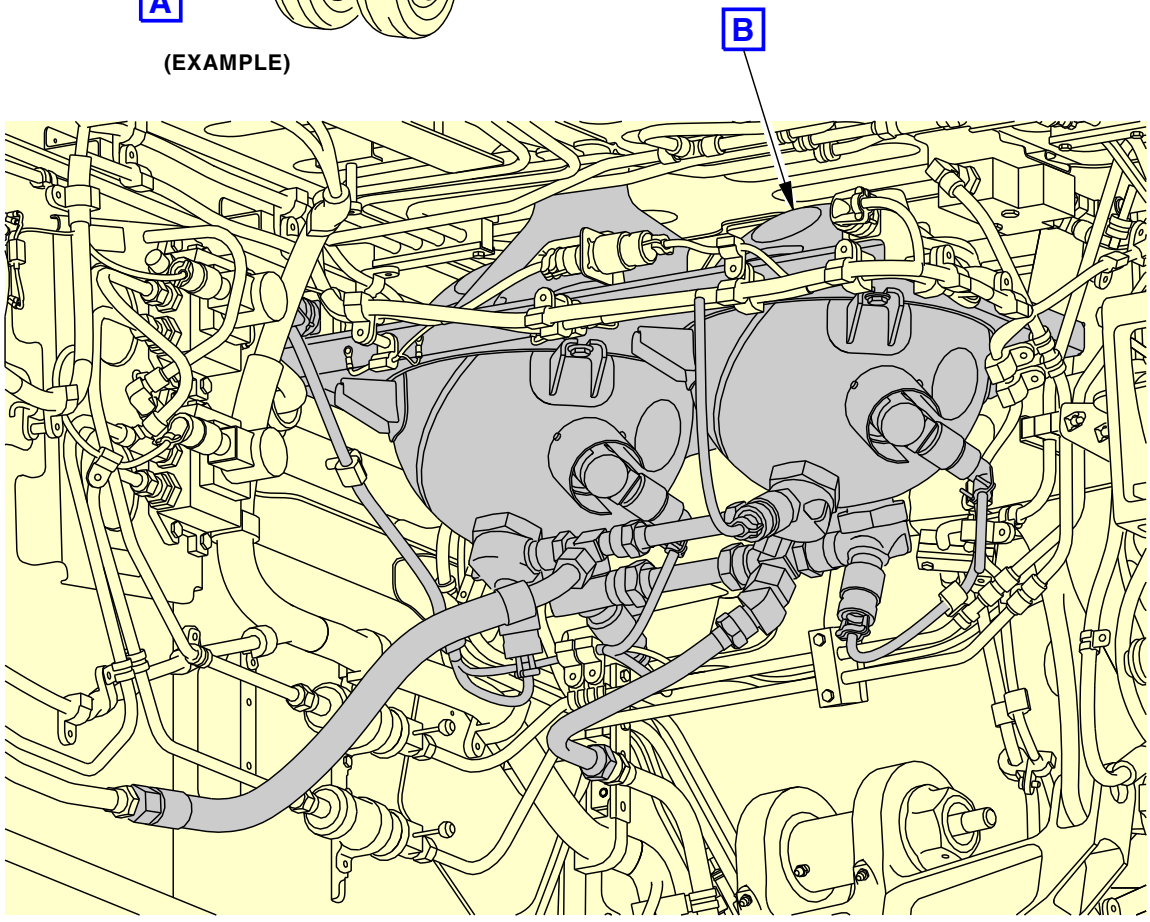
1) If the pressure on the gauge is not within the limits shown, replace the fire bottle with a serviceable fire bottle (PAGEBLOCK 26-21-01/401).

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



(EXAMPLE)

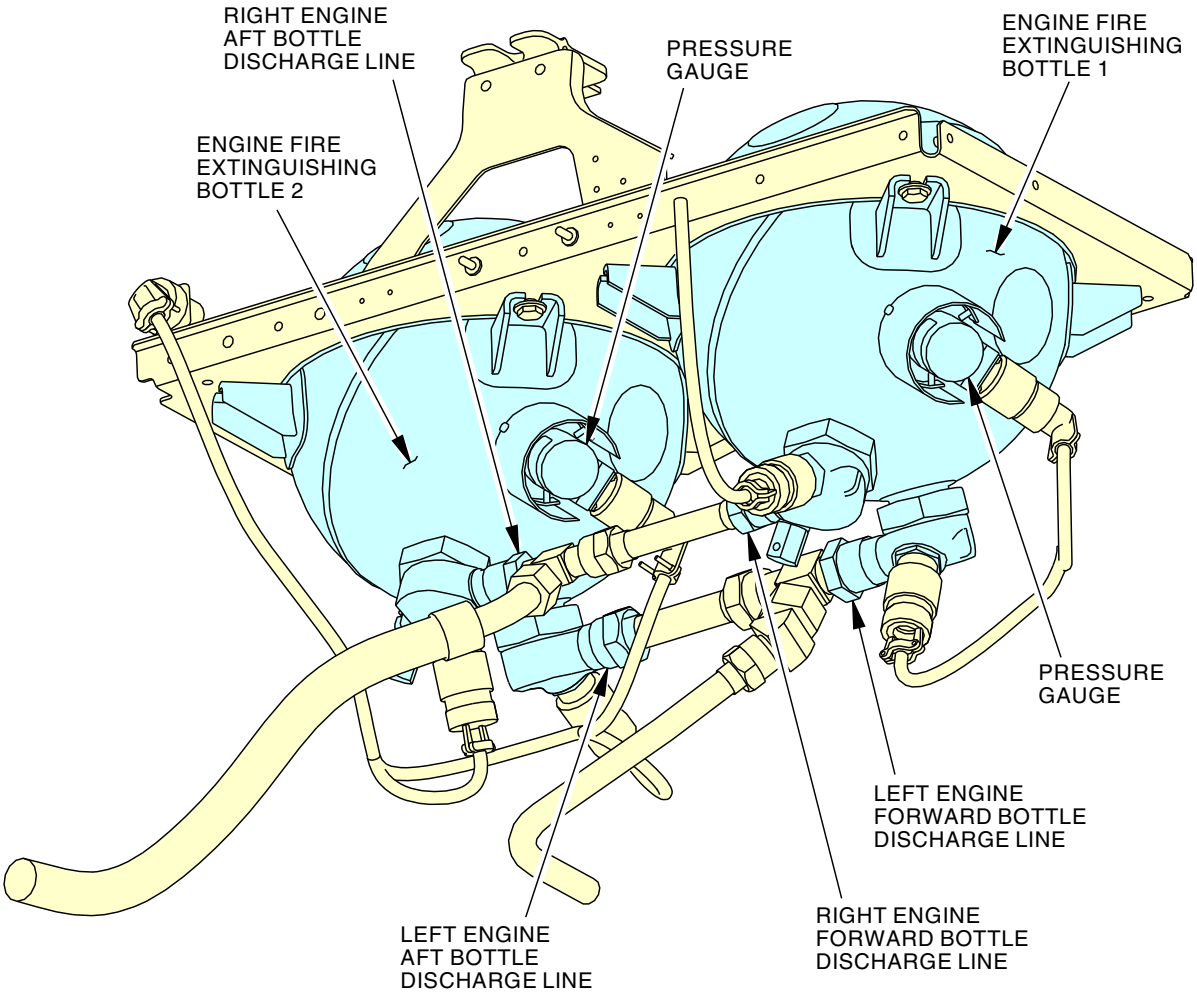


MAIN LANDING GEAR WHEEL WELL
(LEFT SIDE)
(EXAMPLE)

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Engine Fire Extinguishing Bottle Inspection
Figure 601/26-20-00-990-801 (Sheet 1 of 2)

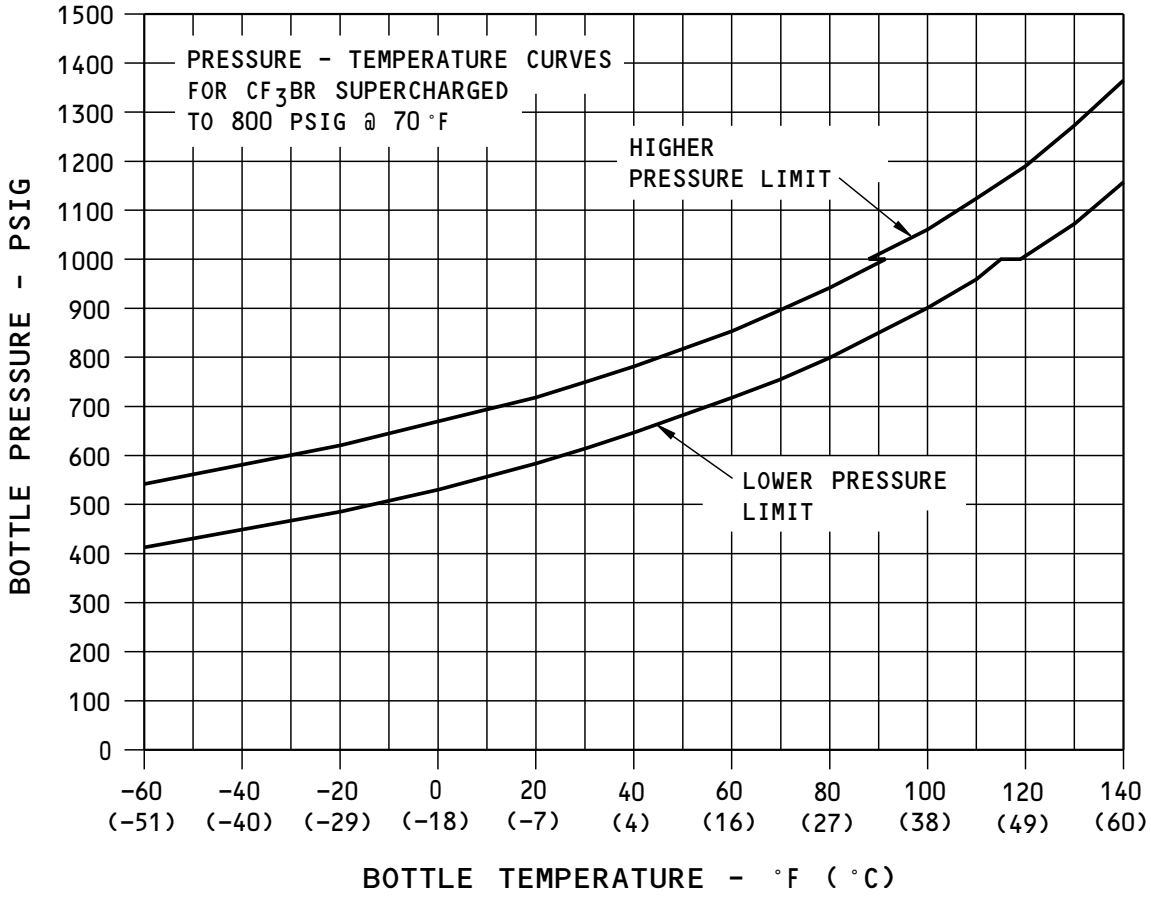
ECCN 9E991 BOEING PROPRIETARY - See title page for details



2412156 S00061530042_V2

Engine Fire Extinguishing Bottle Inspection
Figure 601/26-20-00-990-801 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



2412157 S00061530043_V1

Fire Extinguisher Bottle Pressure - Temperature Curve
Figure 602/26-20-00-990-805

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-20-00-210-802

3. APU Fire Extinguishing Bottle Check

(Figure 603)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This procedure is applicable to fire extinguishing bottles with pressure gauges. This procedure is not required if a pressure gauge is not installed.

B. References

Reference	Title
26-22-01 P/B 401	APU FIRE EXTINGUISHING BOTTLE - REMOVAL/INSTALLATION

C. Tools/Equipment

Reference	Description
STD-1336	Thermometer - Digital, 0-150 +/- 2 Degrees F, with a Probe, Thermocouple or Equivalent

D. Location Zones

Zone	Area
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
311	Area Aft of Pressure Bulkhead - Left

E. Access Panels

Number	Name/Location
311BL	Stabilizer Trim Access Door

F. Fire Extinguishing Bottle Check

SUBTASK 26-20-00-860-002

(1) Allow the fire bottle to reach ambient temperature.

NOTE: It will take several hours with the airplane on the ground for the halon in the bottles to reach ambient temperature.

SUBTASK 26-20-00-010-002

(2) To access the APU fire bottle, do this step:

Open this access door:

Number	Name/Location
311BL	Stabilizer Trim Access Door

SUBTASK 26-20-00-970-002

CAUTION

KEEP MERCURY THERMOMETERS AWAY FROM THE AIRPLANE. IF THE THERMOMETER BREAKS, MERCURY CAN CAUSE DAMAGE TO THE AIRPLANE COMPONENTS.

(3) Use a 0-150 +/- 2 degrees F digital thermometer, STD-1336, to get the ambient air temperature by the fire bottle.

(a) Do not use the total temperature indication from the airplane for the ambient air temperature.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-20-00-210-003

(4) Find the acceptable pressure range for the current temperature in the temperature curve (Figure 604).

SUBTASK 26-20-00-210-004

(5) Do these steps:

(a) Read the pressure gauge on the fire bottle.

(b) Make sure that the pressure on the gauge falls within the pressure limits.

1) If the pressure on the gauge is not within the limits shown, then replace the fire bottle with a serviceable fire bottle (PAGEBLOCK 26-22-01/401).

G. Put the Airplane Back to Its Usual Condition

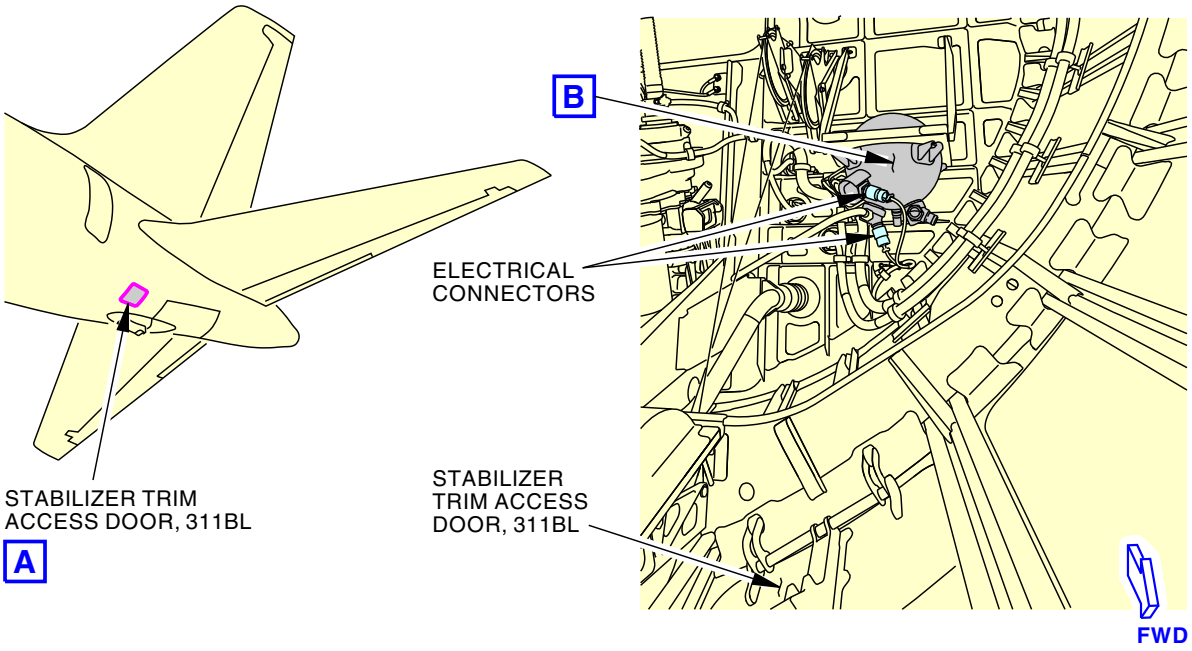
SUBTASK 26-20-00-410-001

(1) Close this access door:

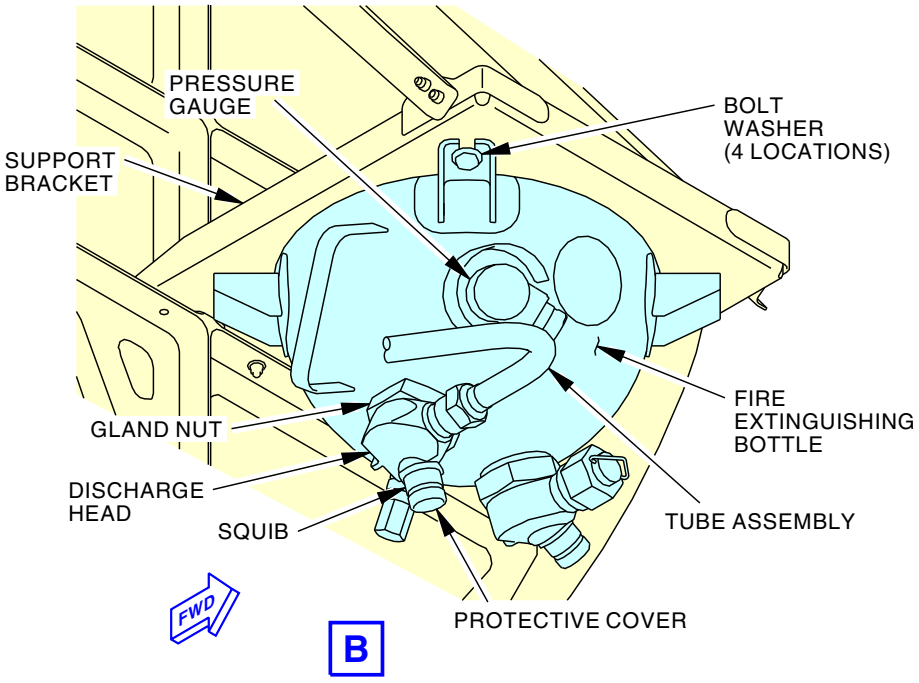
Number	Name/Location
311BL	Stabilizer Trim Access Door

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



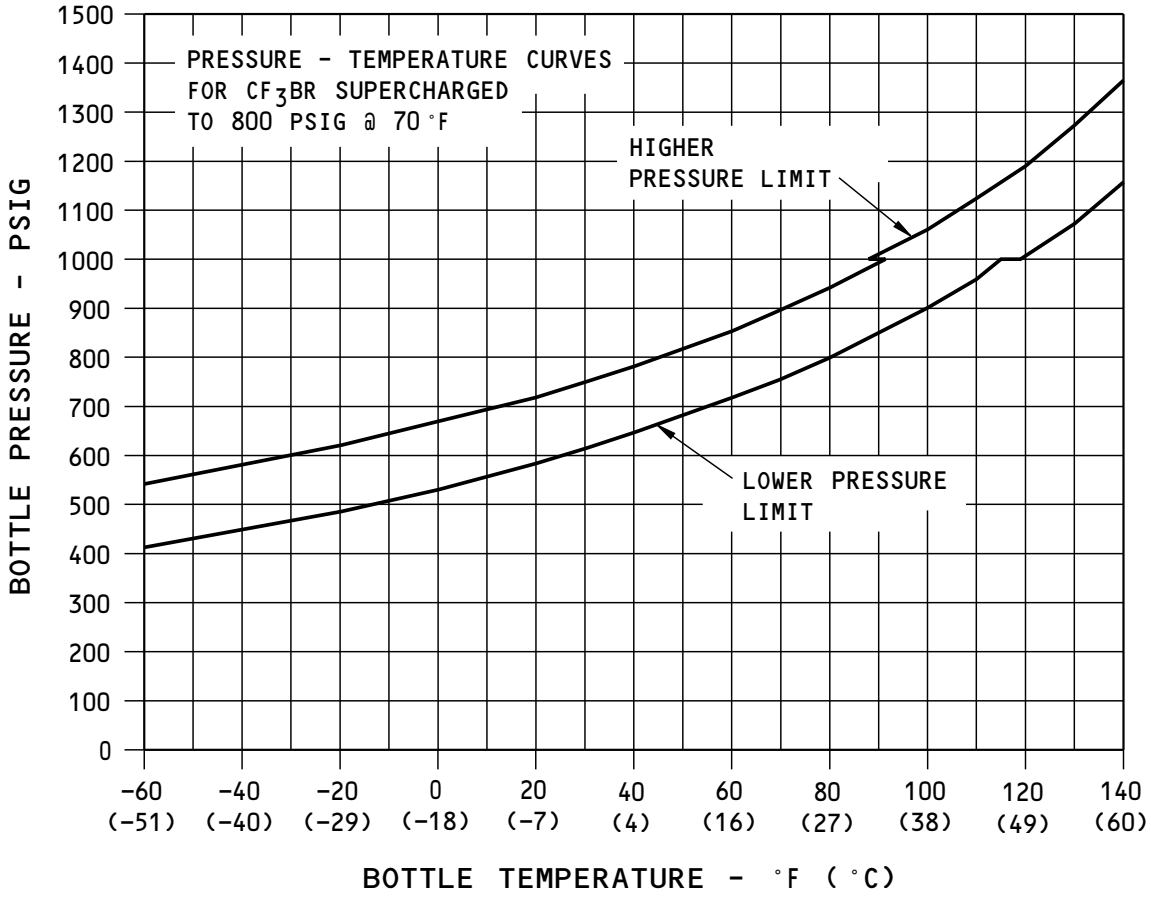
STABILIZER TRIM ACCESS DOOR, 311BL



2412158 S00061530045_V1

APU Fire Extinguishing Bottle Inspection
Figure 603/26-20-00-990-803

ECCN 9E991 BOEING PROPRIETARY - See title page for details



2412157 S00061530043_V1

Fire Extinguisher Bottle Pressure - Temperature Curve
Figure 604/26-20-00-990-806

ECCN 9E991 BOEING PROPRIETARY - See title page for details

ENGINE FIRE EXTINGUISHING - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) Engine fire extinguishing system - deactivation.

(2) Engine fire extinguishing system - activation.

TASK 26-21-00-040-801

2. Engine Fire Extinguishing System - Deactivation

A. General

(1) This task will deactivate the engine fire extinguishing system.

B. Tools/Equipment

Reference	Description
STD-858	Tag - DO NOT OPERATE

C. Location Zones

Zone	Area
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
211	Flight Compartment - Left
212	Flight Compartment - Right
311	Area Aft of Pressure Bulkhead - Left
315	APU Compartment - Left
316	APU Compartment - Right
411	Engine 1 - Engine
421	Engine 2 - Engine

D. Procedure

SUBTASK 26-21-00-020-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

SUBTASK 26-21-00-420-001

(2) Put DO NOT OPERATE tags, STD-858 on the ENGINE 1 and ENGINE 2 fire handles on the P8-1 panel.

E. Engine Fire Extinguishing System - Tryout

NOTE: This tryout is to make sure that the power to the engine fire extinguishing system is in a zero energy state.

SUBTASK 26-21-00-020-002

(1) Remove the DO NOT OPERATE tags, STD-858 from the ENGINE 1 and ENGINE 2 fire handles on the P8-1 panel.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-21-00-210-001

(2) Push the manual override button and pull the ENGINE 1 and ENGINE 2 fire extinguishing handles on the P8-1 panel.

SUBTASK 26-21-00-210-002

(3) Turn the ENGINE 1 handle counterclockwise.

(a) Make sure that the L BOTTLE DISCHARGED light on the P8-1 panel stays off.

SUBTASK 26-21-00-210-003

(4) Turn the ENGINE 1 handle back to its initial position.

SUBTASK 26-21-00-210-004

(5) Turn the ENGINE 1 handle clockwise.

(a) Make sure that the R BOTTLE DISCHARGED light on the P8-1 panel stays off.

SUBTASK 26-21-00-210-005

(6) Turn the ENGINE 1 handle back to its initial position.

SUBTASK 26-21-00-210-006

(7) Turn the ENGINE 2 handle counterclockwise.

(a) Make sure that the L BOTTLE DISCHARGED light on the P8-1 panel stays off.

SUBTASK 26-21-00-210-007

(8) Turn the ENGINE 2 handle back to its initial position.

SUBTASK 26-21-00-210-008

(9) Turn the ENGINE 2 handle clockwise.

(a) Make sure that the R BOTTLE DISCHARGED light on the P8-1 panel stays off.

SUBTASK 26-21-00-210-009

(10) Turn the ENGINE 2 handle back to its initial position.

SUBTASK 26-21-00-210-010

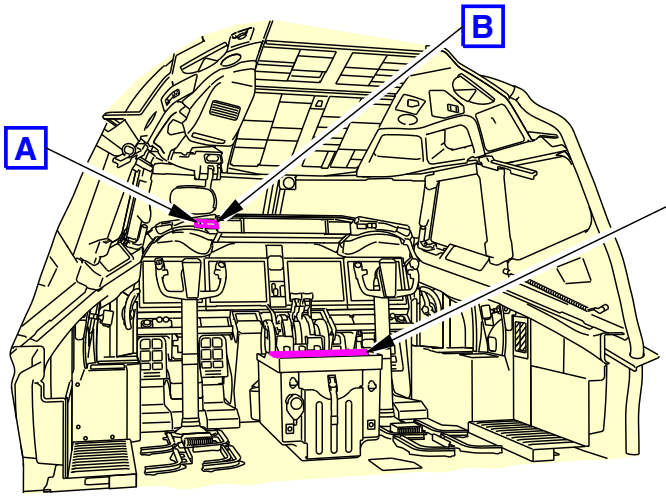
(11) Set the ENGINE 1 and ENGINE 2 fire handles to their usual positions.

SUBTASK 26-21-00-420-002

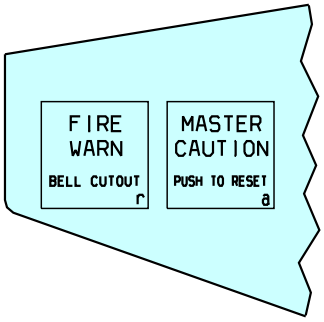
(12) Put DO NOT OPERATE tags, STD-858 on the ENGINE 1 and ENGINE 2 fire handles on the P8-1 panel.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

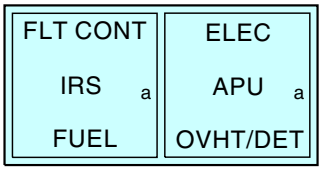


FLIGHT COMPARTMENT



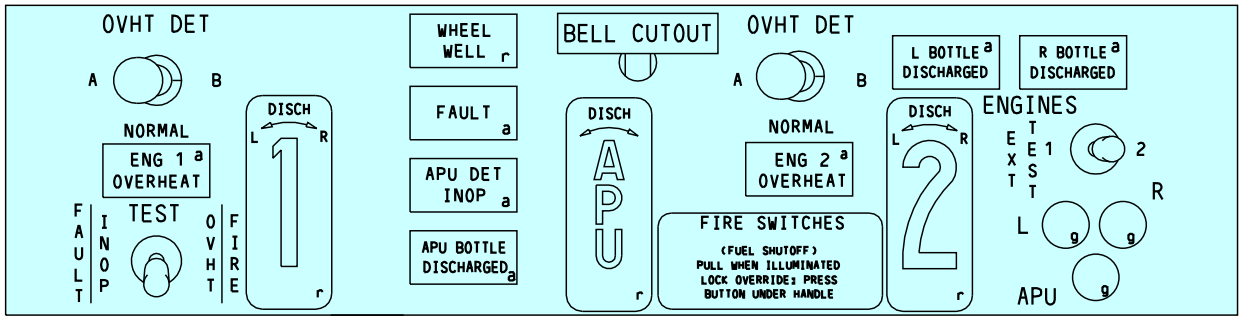
CAPTAIN'S FIRE WARNING SWITCH (P7)
(FIRST OFFICER'S IS OPPOSITE)

A



CAPTAIN'S WARNING
LIGHTS (P7)

B



FIRE CONTROL PANEL (P8-1)

C

2412159 S00061530050_V3

Engine Fire Extinguishing System
Figure 201/26-21-00-990-801

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-21-00-440-801

3. Engine Fire Extinguishing System - Activation

(Figure 201)

A. General

(1) This task will activate the engine fire extinguishing system.

B. Tools/Equipment

Reference	Description
STD-858	Tag - DO NOT OPERATE

C. Location Zones

Zone	Area
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
211	Flight Compartment - Left
212	Flight Compartment - Right
311	Area Aft of Pressure Bulkhead - Left
315	APU Compartment - Left
316	APU Compartment - Right
411	Engine 1 - Engine
421	Engine 2 - Engine

D. Procedure

SUBTASK 26-21-00-420-003

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

SUBTASK 26-21-00-020-003

(2) Remove the DO NOT OPERATE tags, STD-858, from the ENGINE 1 and ENGINE 2 fire handles on the P8-1 panel.

SUBTASK 26-21-00-710-001

(3) Put and hold the EXT TEST switch on the P8-1 panel to 1.

(a) Make sure the L and R lights come on.

NOTE: The APU light will also come on.

SUBTASK 26-21-00-710-002

(4) Put and hold the EXT TEST switch on the P8-1 panel to 2.

(a) Make sure the L and R lights come on.

NOTE: The APU light will also come on.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-21-00-710-003

(5) Release the EXT TEST switch.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

ENGINE FIRE EXTINGUISHING - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

(1) A test of the engine fire bottle squib circuit.

(2) A test of the engine fire bottle pressure switch circuit.

(3) An airflow test through the discharge tubes.

(4) A pressure test of the engine fire bottle discharge tubes.

(5) A shutdown test of the engine systems.

TASK 26-21-00-730-801

2. Engine Fire Extinguishing Bottle Squib Circuit Test

(Figure 501)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)
20-40-12-400-802	ESDS Handling for Metal Encased Unit 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-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 #: 21 Supplier: 89536 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-1663	Test Equipment - Fire Extinguishing System Part #: F80229-69 Supplier: 81205 Opt Part #: F80229-15 Supplier: 81205
SPL-10039	Cable Assy - Fire Extinguishing System Test Equipment Part #: F80229-20 Supplier: 81205 Part #: F80229-48 Supplier: 81205 Part #: F80229-59 Supplier: 81205 Part #: F80229-61 Supplier: 81205

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(Continued)

Reference	Description
SPL-10040	Shorting Plug - Fire Extinguishing System Test Equipment Part #: F80229-52 Supplier: 81205
STD-1079	Resistor - 10K Ohm or Greater

C. Location Zones

Zone	Area
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Prepare for the Test

SUBTASK 26-21-00-860-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

SUBTASK 26-21-00-020-004

(2) Disconnect the electrical connectors from the squibs.

WARNING DO NOT TOUCH THE SQUIB BEFORE YOU DO THE PROCEDURES FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

(a) Before you touch the squib, do the procedure for devices that are sensitive to electrostatic discharge. These are the tasks:

- ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802
- ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802

(b) Disconnect D582 and D584 to test the engine 1 circuits.

(c) Disconnect D1322 and D1324 to test the engine 2 circuits.

SUBTASK 26-21-00-020-005

WARNING PUT A PROTECTIVE CAP ON THE SQUIB. IF YOU DO NOT PUT A PROTECTIVE CAP ON THE SQUIB, THE FIRE EXTINGUISHING BOTTLE CAN RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS.

(3) Install a shorting plug, SPL-10040, on each squib.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-21-00-860-002

(4) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

SUBTASK 26-21-00-480-001

(5) Set the toggle switch on Fire System Test Equipment, SPL-1663 (test box), to ON.

SUBTASK 26-21-00-760-001

(6) Measure the resistance (RL) of the test box with a digital/analog multimeter, COM-1793, connected to the voltmeter jacks.

(a) Write down the value of RL in the Table 502 or, in the Table 503 as applicable for the adapter cable.

SUBTASK 26-21-00-480-002

(7) Set the toggle switch on the Fire System Test Equipment, SPL-1663, to OFF.

SUBTASK 26-21-00-480-003

(8) Set the multimeter to read DC volts.

SUBTASK 26-21-00-480-004

(9) Connect the applicable cable assembly, SPL-10039, for the primary circuit (A) to the connector on the Fire System Test Equipment, SPL-1663. The primary circuit (A) is between pins 4 and 3 of each squib connector.

NOTE: Look at the placard on the test box lid to determine the applicable adapter.

NOTE: Each squib has two circuits. The primary circuit (A) is between pins 4 and 3; the alternate circuit (B) is between pins 6 and 7. Either circuit can fire the squib. There are different adapter cables in the test set to test each circuit.

E. Do the Engine Fire Extinguishing Bottle Squib Circuit Test

SUBTASK 26-21-00-860-003

(1) Push the manual override button and pull the ENGINE 1 and ENGINE 2 fire handles on the P8-1 panel.

SUBTASK 26-21-00-480-005

(2) Connect the cable assembly, SPL-10039, for the primary circuit (A) to one of the squib connectors. These connectors are listed in the Fire Bottle Squib Circuit Test Data table.

Engine Fire Bottle Squib Circuit Test Data

Table 501/26-21-00-993-801

CONNECTOR	SQUIB LOCATION	ENGINE	DIRECTION
D582	L (forward) bottle, squib 1A squib 1B	1	CCW
D1322	L (forward) bottle, squib 2A squib 2B	2	CCW
D584	R (aft) bottle, squib 1A squib 1B	1	CW
D1324	R (aft) bottle, squib 2A squib 2B	2	CW

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-21-00-860-004

(3) Turn the applicable fire handle and hold it in the direction specified in the Fire Bottle Squib Circuit Test Data Table.

(a) Make sure the BOTTLE DISCHARGE light on the Fire System Test Equipment, SPL-1663, comes on.

(b) Write down the voltage shown on the multimeter as (V1) in the Table 502 or, in the Table 503 as applicable for the adapter cable.

(c) Set the switch on the test box to ON.

(d) Write down the voltage shown on the multimeter as (V2) in the Table 502 or, in the Table 503 as applicable for the adapter cable.

SUBTASK 26-21-00-730-001

(4) Release the fire handle.

(a) Make sure the handle moves toward the center 10 degrees.

(b) Make sure the multimeter shows 0 (± 2) volts.

SUBTASK 26-21-00-760-002

(5) Calculate the resistance Rc of the squib discharge circuit using this formula:

Rc = RL (V1/V2) - RL

(a) Make sure Rc is less than or equal to 3 ohms.

NOTE: If Rc is more than 3 ohms, the circuit can not supply enough current to fire the squib cartridge.

Table 502/26-21-00-993-802

CONNECTOR	RL (ohm)	V1 (volt)	V2 (volt)	Rc (ohm)
D582				
D1322				
D584				
D1324				

Table 503/26-21-00-993-803

CONNECTOR	RL (ohm)	V1 (volt)	V2 (volt)	Rc (ohm)
D582				
D1322				
D584				
D1324				

SUBTASK 26-21-00-480-006

(6) Disconnect the adapter cable from the squib connector, and repeat the procedure until all the connectors listed in the Fire Bottle Squib Circuit Test Data table are tested.

SUBTASK 26-21-00-080-009

(7) Disconnect the adapter cable for the primary circuit (A) from the squib connector.

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SUBTASK 26-21-00-480-018

(8) Do the procedure again with the adapter cable for the Alternate circuit (B). Until all the connectors listed in the Fire Bottle Squib Circuit Test Data table are tested.

NOTE: Each squib has two circuits. The primary circuit (A) is between pins 4 and 3; the alternate circuit (B) is between pins 6 and 7. Either circuit can fire the squib. There are different adapter cables in the test set to test each circuit.

SUBTASK 26-21-00-080-010

(9) When you completed the procedure with both adapter cables. Disconnect the adapter cable from the squib connector.

SUBTASK 26-21-00-860-005

(10) Push the fire handles to their usual position.

SUBTASK 26-21-00-860-006

(11) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

SUBTASK 26-21-00-080-001

(12) Remove the protective cap from the squibs.

SUBTASK 26-21-00-080-011

(13) Remove shorting plug, SPL-10040, from the squibs.

SUBTASK 26-21-00-700-001

WARNING MAKE SURE THERE IS NO VOLTAGE AT THE ELECTRICAL CONNECTOR. IF THERE IS A VOLTAGE AT THE ELECTRICAL CONNECTOR, THE SQUIB CAN FIRE SUDDENLY AND CAUSE INJURY TO PERSONNEL.

(14) Do these steps to make sure that there is no stray voltage at the electrical squib connector:

Fire Bottle Squib Electrical Connector

	Engine	APU	Cargo
Connector Pins	3 and 4, and 6 and 7	3 and 4	1 and 2

(a) Connect the digital/analog multimeter, COM-1793, across the two pins.

(b) Make sure that the current is less than 5 milliamps AC, and less than 5 milliamps DC.

(c) Connect a resistor, STD-1079, across the multimeter probes.

(d) Make sure that the voltage is less than .250 volts AC, and less than 0.250 volts DC.

(e) If it is necessary, repeat the steps above for the other squib electrical connectors.

(f) Disconnect the multimeter.

SUBTASK 26-21-00-420-004

(15) Connect the electrical connectors to the squibs.

(a) Connect D582 and D584 to Squib 1 on the left and right bottle.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(b) Connect D1322 and D1324 to Squib 2 on the left and right bottle.

SUBTASK 26-21-00-860-007

(16) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

SUBTASK 26-21-00-710-004

(17) Set the EXT TEST switch to 1.

(a) Make sure the L and R lights come on.

NOTE: The Auxiliary Power Unit (APU) light should also come on.

SUBTASK 26-21-00-710-005

(18) Set the EXT TEST switch to 2.

(a) Make sure the L and R lights come on.

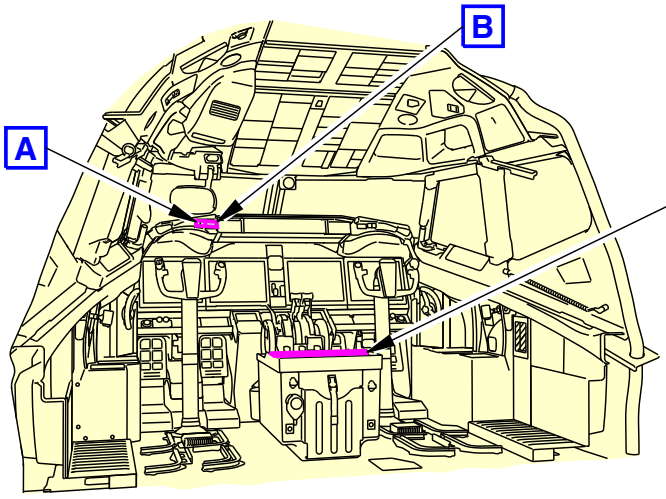
NOTE: The APU light should also come on.

SUBTASK 26-21-00-710-006

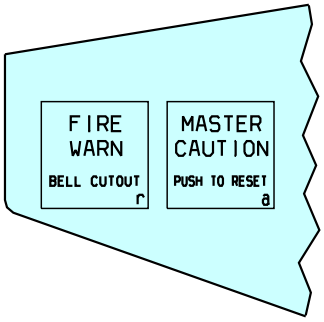
(19) Release the EXT TEST switch.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

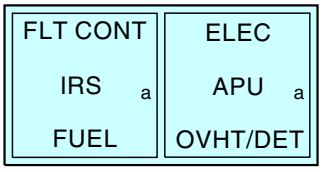


FLIGHT COMPARTMENT



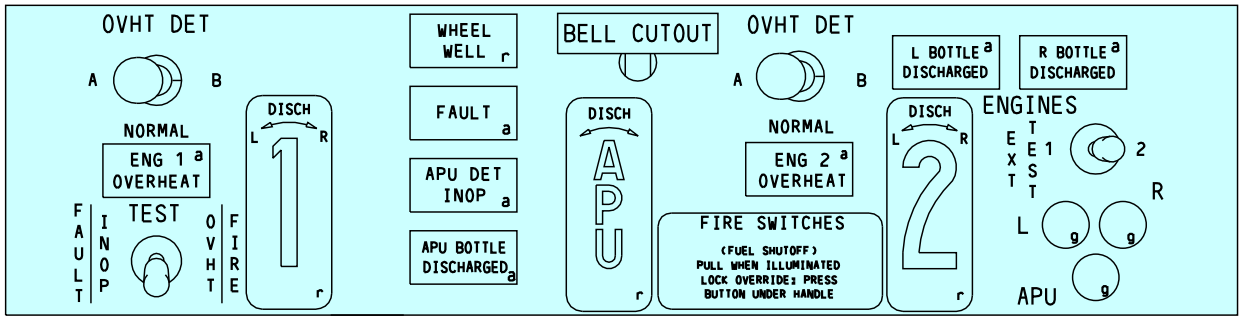
CAPTAIN'S FIRE WARNING SWITCH (P7)
(FIRST OFFICER'S IS OPPOSITE)

A



CAPTAIN'S WARNING
LIGHTS (P7)

B



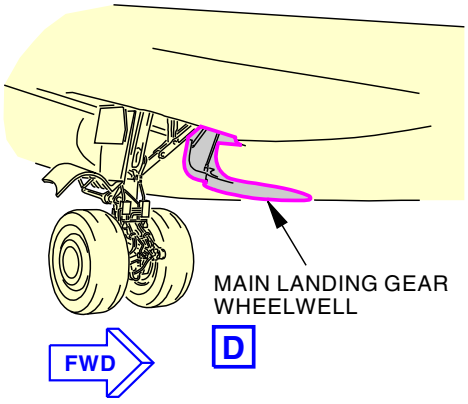
FIRE CONTROL PANEL (P8-1)

C

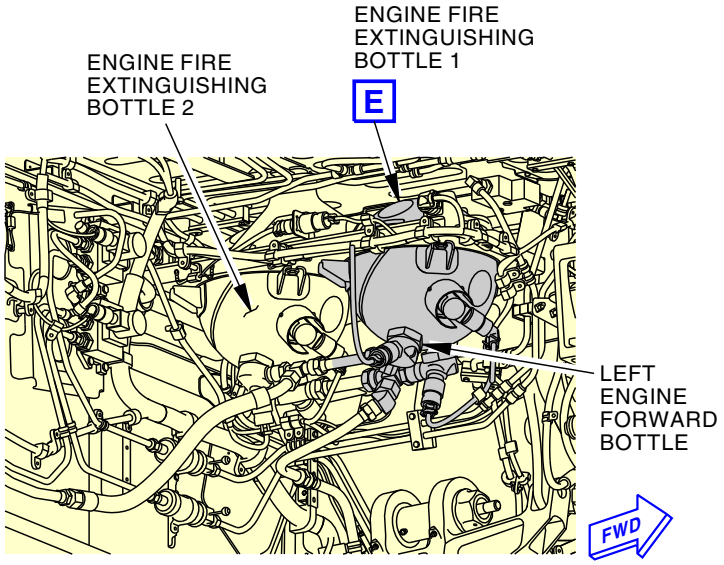
2412159 S00061530050_V3

Engine Fire Detection Test
Figure 501/26-21-00-990-802 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

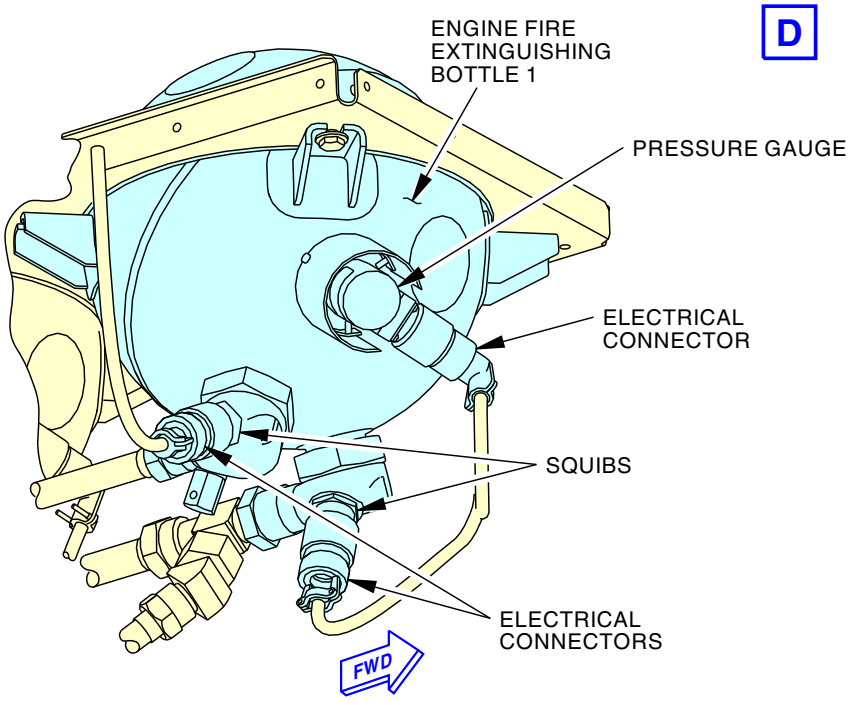


(EXAMPLE)



MAIN LANDING GEAR WHEELWELL
(EXAMPLE)

D



ENGINE FIRE EXTINGUISHING BOTTLE 1
(ENGINE FIRE EXTINGUISHING BOTTLE 2 IS EQUIVALENT)

E

2412160 S00061530054_V4

Engine Fire Detection Test
Figure 501/26-21-00-990-802 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-21-00-730-802

3. Engine Fire Extinguishing Bottle Pressure Switch Circuit Test

(Figure 501)

A. Location Zones

Zone	Area
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
211	Flight Compartment - Left
212	Flight Compartment - Right

B. Engine Fire Extinguishing Bottle Pressure Switch Test

SUBTASK 26-21-00-020-006

(1) Disconnect D586 from the pressure switch on the left (forward) fire bottle.

SUBTASK 26-21-00-020-007

(2) Disconnect D588 from the pressure switch on the right (aft) fire bottle.

SUBTASK 26-21-00-730-002

(3) Do a test of the engine fire bottle pressure switch circuit.

(a) Connect a jumper wire between pins 1 and 2 on D586.

1) Make sure the L BOTTLE DISCHARGED light on the Engine and APU Fire Control Module comes on.

(b) Remove the jumper from connector D586.

(c) Connect a jumper wire between pins 1 and 2 on D588.

1) Make sure the R BOTTLE DISCHARGED light on the Engine and APU Fire Control Module comes on.

(d) Remove the jumper from connector D588.

SUBTASK 26-21-00-420-005

(4) Connect D586 to the pressure switch on the left (forward) fire bottle.

SUBTASK 26-21-00-420-006

(5) Connect D588 to the pressure switch on the right (aft) fire bottle.

——— END OF TASK ———

TASK 26-21-00-720-801

4. Engine Fire Extinguishing Discharge Line Flow Test

(Figure 502, Figure 503)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task checks the operation of the check valve and makes sure that there is nothing blocking the discharge lines.

B. References

Reference	Title
26-21-01-000-801	Engine Fire Extinguishing Bottle Removal (P/B 401)
26-21-01-400-801	Engine Fire Extinguishing Bottle Installation (P/B 401)
78-31-00-010-801-G00	Open the Thrust Reverser (Selection) (P/B 201)
78-31-00-010-802-G00	Close the Thrust Reverser (Selection) (P/B 201)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

C. Tools/Equipment

Reference	Description
STD-1325	Source - Pressure, Capable of Supplying 35 +/- 5 PSIG

D. Location Zones

Zone	Area
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
411	Engine 1 - Engine
421	Engine 2 - Engine

E. Engine Fire Extinguishing Discharge Line Flow Test

SUBTASK 26-21-00-010-001

WARNING DO THESE SPECIFIED TASKS IN THE CORRECT SEQUENCE BEFORE YOU OPEN THE THRUST REVERSER: RETRACT THE LEADING EDGE, DO THE DEACTIVATION PROCEDURES FOR THE LEADING EDGE AND THE THRUST REVERSER (FOR GROUND MAINTENANCE), AND OPEN THE FAN COWL PANELS. IF YOU DO NOT OBEY THIS SEQUENCE, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do this task: Open the Thrust Reverser (Selection), TASK 78-31-00-010-801-G00.

SUBTASK 26-21-00-020-012

(2) Remove one engine fire extinguishing bottle to get clearance for the pressure source. Do this task: Engine Fire Extinguishing Bottle Removal, TASK 26-21-01-000-801.

SUBTASK 26-21-00-020-008

(3) Remove the discharge tube from the discharge outlets on both engine fire bottles at positions 1 through 4.

NOTE: Loosen the hard tube tee assembly and other fittings as necessary to connect the test equipment.

SUBTASK 26-21-00-480-007

(4) Connect a pressure source, STD-1325, to the L fire bottle discharge line at position 2.

(a) When connecting the test equipment to the discharge lines, do not let the test equipment hang from the discharge lines.

(b) Give sufficient support to the test equipment during the flow test.

(c) Make sure that air is flowing through all the nozzles on the right engine.

(d) Make sure that little or no air is flowing through the R fire bottle discharge line at position 4.

SUBTASK 26-21-00-080-002

(5) Remove the pressure source from the L fire bottle discharge line at position 2.

SUBTASK 26-21-00-480-008

(6) Connect a pressure source, STD-1325, to the R fire bottle discharge line at position 4.

(a) Make sure that air is flowing through all the nozzles on the right engine.

(b) Make sure that little or no air is flowing through the L fire bottle discharge line at position 2.

SUBTASK 26-21-00-080-003

(7) Remove the pressure source from the R fire bottle discharge line at position 4.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-21-00-480-009

(8) Connect a pressure source, STD-1325, to the L fire bottle discharge line at position 1.

(a) Make sure that air is flowing through all the nozzles on the left engine.

(b) Make sure that little or no air is flowing through the R fire bottle discharge line at position 3.

SUBTASK 26-21-00-080-004

(9) Remove the pressure source from the L fire bottle discharge line at position 1.

SUBTASK 26-21-00-480-010

(10) Connect a pressure source, STD-1325, to the R fire bottle discharge line at position 3.

(a) Make sure that air is flowing through all the nozzles on the left engine.

(b) Make sure that little or no air is flowing through the L fire bottle discharge line at position 1.

SUBTASK 26-21-00-080-005

(11) Remove the pressure source from the R fire bottle discharge line at position 3.

SUBTASK 26-21-00-420-010

(12) Install the engine fire extinguishing bottle that was removed. Do this task: Engine Fire Extinguishing Bottle Installation, TASK 26-21-01-400-801.

SUBTASK 26-21-00-010-002

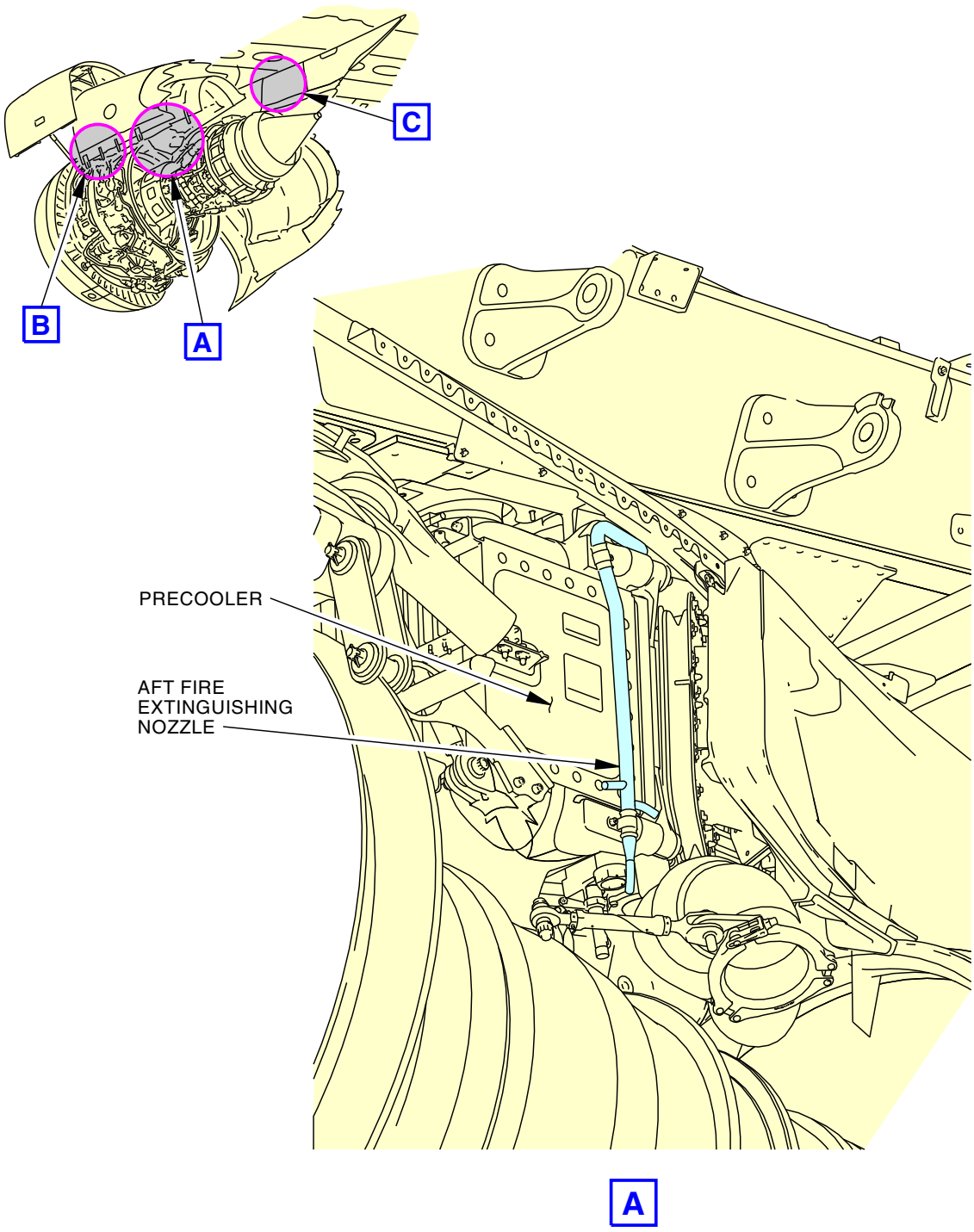
WARNING

OBEY THE INSTRUCTIONS IN THE PROCEDURES TO OPEN AND CLOSE THE THRUST REVERSER. IF YOU DO NOT OBEY THE INSTRUCTIONS, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(13) Do this task: Close the Thrust Reverser (Selection), TASK 78-31-00-010-802-G00.

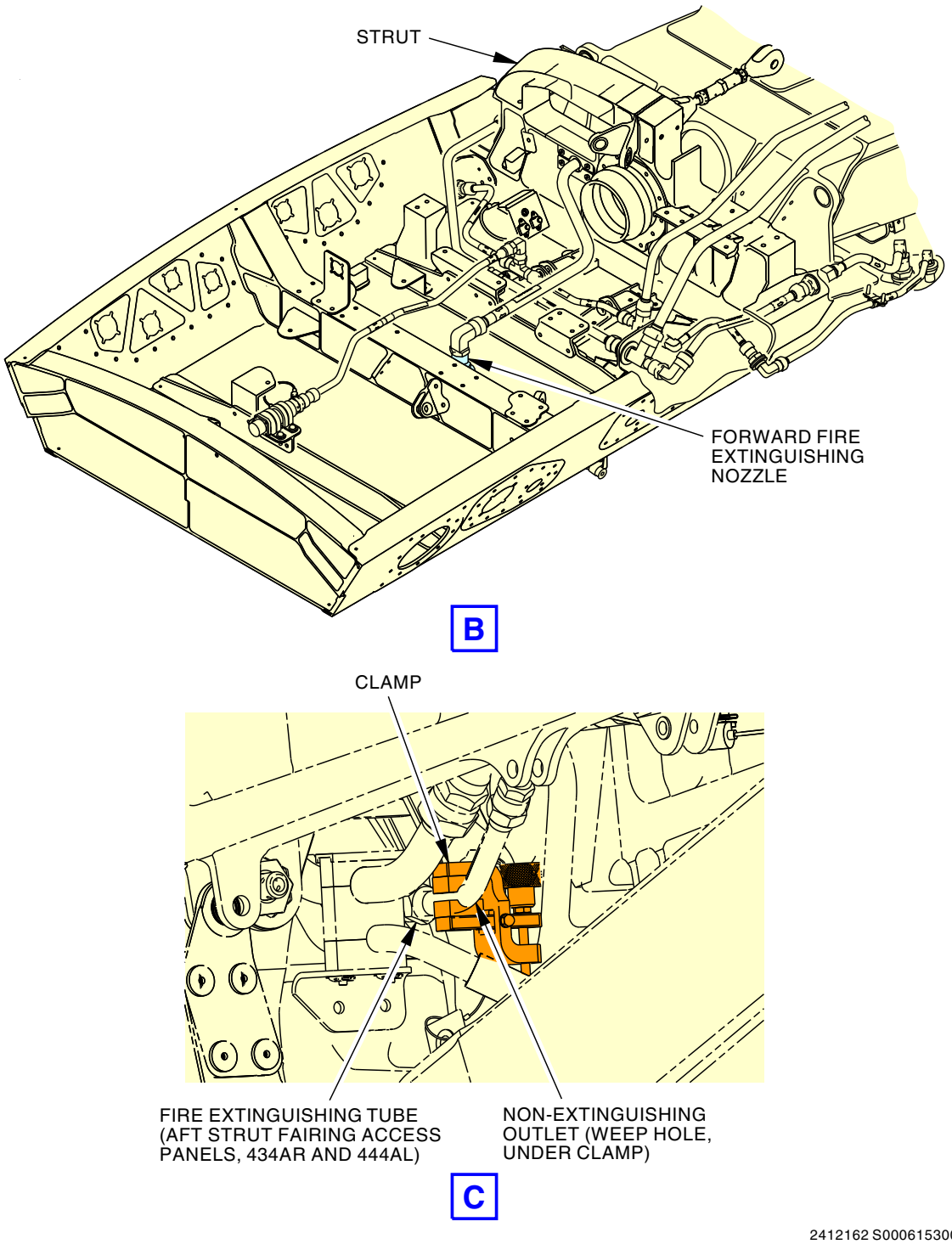
END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Engine Fire Extinguishing Test
Figure 502/26-21-00-990-807 (Sheet 1 of 2)

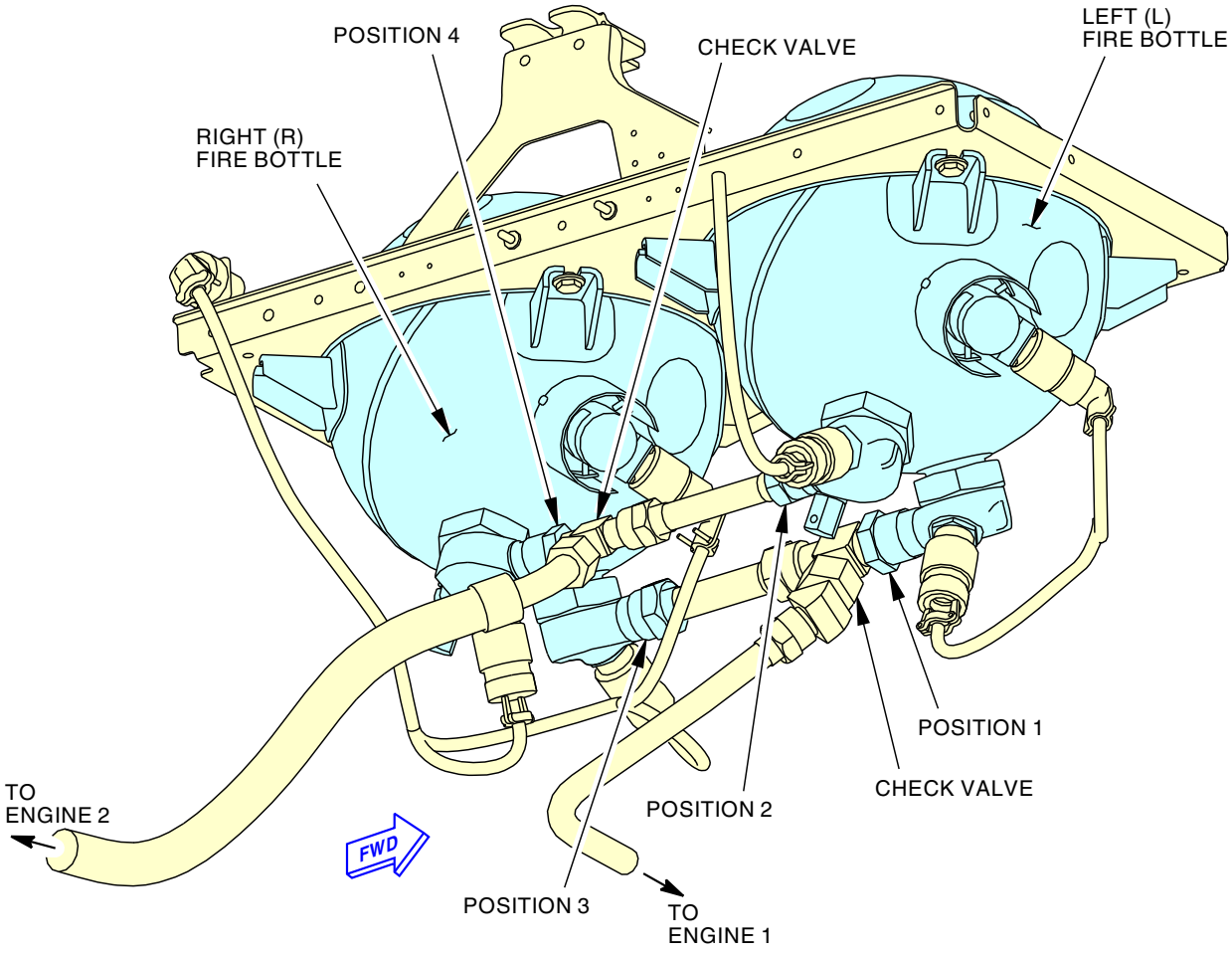
ECCN 9E991 BOEING PROPRIETARY - See title page for details



2412162 S00061530059_V3

Engine Fire Extinguishing Test
Figure 502/26-21-00-990-807 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

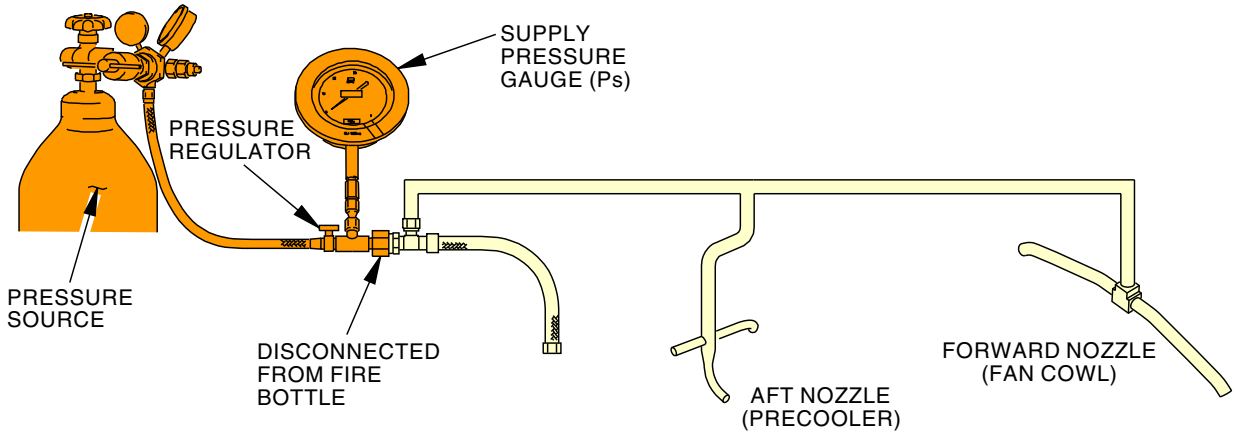


ENGINE FIRE EXTINGUISHING BOTTLES
(MAIN LANDING GEAR WHEEL WELL, LEFT SIDE)

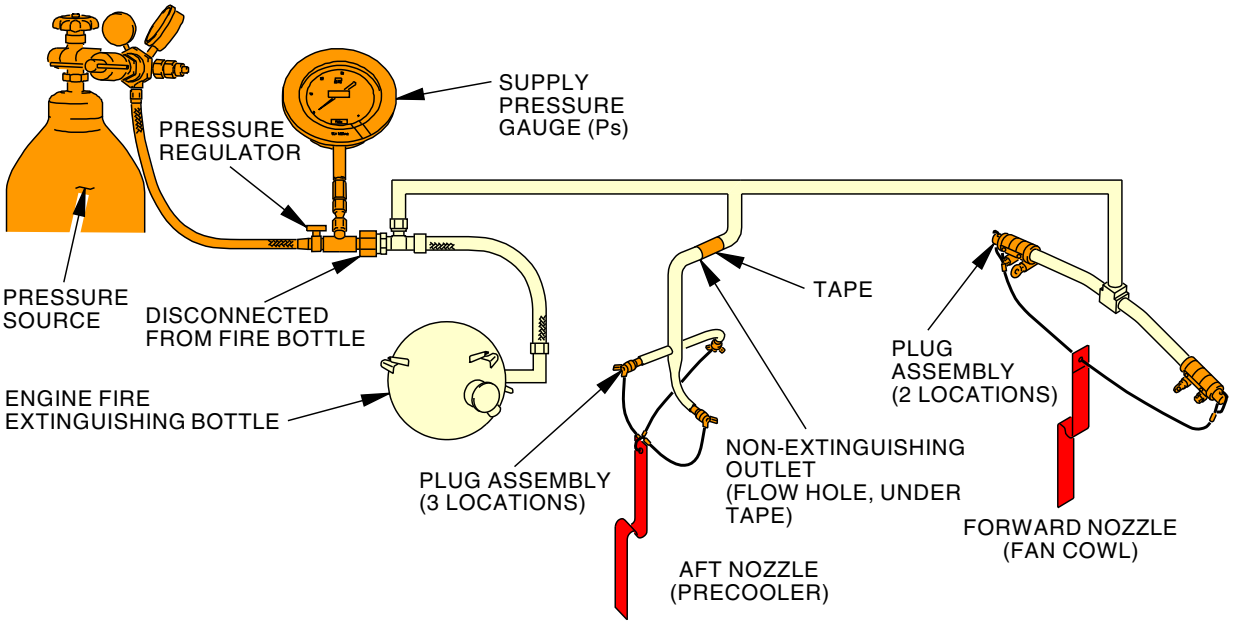
2412163 S00061530060_V2

Test Setup
Figure 503/26-21-00-990-808 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



FLOW TEST



PRESSURE TEST

2412164 S00061530061_V3

Test Setup
Figure 503/26-21-00-990-808 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-21-00-730-803

5. Engine Fire Extinguishing Discharge Line Pressure Test

(Figure 502, Figure 503)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task makes sure that there are no leaks in the discharge tubes. The test is the same for both engines.

B. References

Reference	Title
54-52-06-000-801	Aft Fairing Access Panel Removal (P/B 401)
54-52-06-400-801	Aft Fairing Access Panel Installation (P/B 401)
78-31-00-010-801-G00	Open the Thrust Reverser (Selection) (P/B 201)
78-31-00-010-802-G00	Close the Thrust Reverser (Selection) (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-1647	Test Equipment - Engine Fire Extinguishing System Part #: C26004-83 Supplier: 81205 Part #: C26004-84 Supplier: 81205
SPL-15147	Assembly - 0.625 inch Diameter Clamp Part #: C26004-101 Supplier: 81205
STD-1325	Source - Pressure, Capable of Supplying 35 +/- 5 PSIG
STD-12129	Pressure Regulator - Adjustable

D. Consumable Materials

Reference	Description	Specification
A50464	Tape - Vinyl, Adhesive Coated	BMS5-179
D50004	Compound - Antiseize	BMS3-28
G51367	Strap - Plastic, Adjustable, Self-locking, 3.71 Inches (94.23 mm) Long	BACS38K4

E. Location Zones

Zone	Area
411	Engine 1 - Engine
421	Engine 2 - Engine

F. Access Panels

Number	Name/Location
434AR	Aft Strut Fairing, Right Panel, Strut 1
444AL	Aft Strut Fairing, Left Panel, Strut 2

ECCN 9E991 BOEING PROPRIETARY - See title page for details

G. Engine Fire Extinguishing Discharge Line Pressure Test

SUBTASK 26-21-00-010-003

WARNING

DO THESE SPECIFIED TASKS IN THE CORRECT SEQUENCE BEFORE YOU OPEN THE THRUST REVERSERS: RETRACT THE LEADING EDGE, DO THE DEACTIVATION PROCEDURES FOR THE LEADING EDGE AND THE THRUST REVERSER (FOR GROUND MAINTENANCE), AND OPEN THE FAN COWL PANELS. IF YOU DO NOT OBEY THE ABOVE SEQUENCE, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do this task: Open the Thrust Reverser (Selection), TASK 78-31-00-010-801-G00.

SUBTASK 26-21-00-020-009

(2) Disconnect the tee fitting from the discharge outlet on the L fire bottle at position 1.

SUBTASK 26-21-00-480-011

(3) Connect the pressure source, STD-1325, and adjustable pressure regulator, STD-12129, to the L fire bottle discharge line at position 1.

(a) When connecting the test equipment to the discharge lines, do not let the test equipment hang from the discharge lines.

(b) Give sufficient support to the test equipment during the pressure test.

SUBTASK 26-21-00-480-012

(4) Install plugs on the fire extinguishing nozzles at the left engine (engine 1).

NOTE: The equipment, SPL-1647, or other suitable plug may be used. If it is necessary to use C26004–78 and C26004–79, you must also use 0.625 inch diameter clamp assembly, SPL-15147.

SUBTASK 26-21-00-010-007

(5) Open the applicable aft fairing access panels:

(TASK 54-52-06-000-801)

Number	Name/Location
434AR	Aft Strut Fairing, Right Panel, Strut 1
444AL	Aft Strut Fairing, Left Panel, Strut 2

SUBTASK 26-21-00-480-013

(6) Install the clamp and tape on the non-extinguishing outlets for the applicable engine.

NOTE: This is to allow pressurization of tubing.

(a) Install a 0.625 inch diameter clamp assembly, SPL-15147, on the weep hole (View C, Figure 502).

(b) Install a tape, A50464, and adjustable plastic strap, G51367 (or equivalent), on the flow hole (Figure 503).

NOTE: The flow hole is not on the personnel view side.

NOTE: The flow hole is a 0.125 in. (3.175 mm) dia hole on the 0.625 in. (15.875 mm) dia tube.

SUBTASK 26-21-00-780-001

(7) Pressurize the discharge tubing that goes from L bottle to engine 1 to a pressure of 35 ±5 psi (241 ±35 kPa).

(a) Wait at least 3 minutes for the air pressure to stabilize.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-21-00-780-002

(8) Turn off the pressure source.

(a) Record the stabilized air pressure.

(b) Wait 2 minutes and check the pressure.

1) Make sure that the pressure loss during the 2 minute waiting period is not more than 1 psi.

2) If the pressure loss is more than 1 psi, do a check of the pressure source connections and plugs that used to seal the fire extinguishing nozzles.

3) If they do not show any indication of leakage, do a check of all fittings, seal surfaces, valves, and tubing in the discharge line.

a) Repair the problems found.

SUBTASK 26-21-00-780-003

(9) Bleed the fire extinguishing plumbing to 0 psi.

(a) Disconnect the test equipment from position 1.

SUBTASK 26-21-00-020-010

(10) Disconnect the tee fitting from the discharge outlet on the R fire bottle at position 4.

SUBTASK 26-21-00-480-014

(11) Connect the test equipment to the R fire bottle discharge line at position 4.

SUBTASK 26-21-00-480-015

(12) Install plugs on the fire extinguishing nozzles at the right engine (engine 2).

NOTE: The equipment, SPL-1647, or other suitable plug may be used. If it is necessary to use C26004–78 and C26004–79, you must also use 0.625 inch diameter clamp assembly, SPL-15147.

SUBTASK 26-21-00-780-004

(13) Pressurize the discharge tubing that goes from R bottle to engine 2 to a pressure of 35 ±5 psi (241 ±35 kPa).

(a) Wait at least 3 minutes for the air pressure to stabilize.

SUBTASK 26-21-00-780-005

(14) Turn off the pressure source.

(a) Record the stabilized air pressure.

(b) Wait 2 minutes and check the pressure.

1) Make sure that the pressure loss during the 2 minute waiting period is not more than 1 psi.

2) If the pressure loss is more than 1 psi, do a check of the pressure source connections and plugs that used to seal the fire extinguishing nozzles.

3) If they do not show any indication of leakage, then do a check of all fittings, seal surfaces, valves, and tubing in the discharge line.

a) Repair the problems found.

SUBTASK 26-21-00-780-006

(15) Bleed the fire extinguishing plumbing to 0 psi.

(a) Disconnect the pressure source at position 4.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-21-00-080-007

CAUTION

MAKE SURE THAT YOU REMOVE THE PLUGS FROM THE FIRE EXTINGUISHING NOZZLES AT THE TWO ENGINES. IF YOU DO NOT REMOVE THE PLUGS, DAMAGE TO THE EQUIPMENT CAN OCCUR.

(16) Remove plugs on the fire extinguishing nozzles at the right engine (engine 2).

SUBTASK 26-21-00-080-008

CAUTION

MAKE SURE THAT YOU REMOVE THE PLUGS FROM THE FIRE EXTINGUISHING NOZZLES AT THE TWO ENGINES. IF YOU DO NOT REMOVE THE PLUGS, DAMAGE TO THE EQUIPMENT CAN OCCUR.

(17) Remove plugs on the fire extinguishing nozzles at the left engine (engine 1).

SUBTASK 26-21-00-080-006

(18) Remove the clamps, tapes, and test equipment.

SUBTASK 26-21-00-420-008

(19) Connect the discharge tubes to the discharge outlets at positions 1 and 4.

WARNING

YOU MUST WEAR THE APPLICABLE GLOVES WHEN YOU USE HIGH-TEMPERATURE ANTISEIZE COMPOUND. IF YOU GET THE HIGH-TEMPERATURE ANTISEIZE COMPOUND ON YOUR SKIN, REMOVE IT WITH SOAP AND WATER. IF THE HIGH-TEMPERATURE ANTISEIZE COMPOUND GOES THROUGH YOUR SKIN, INJURY TO PERSONNEL CAN OCCUR.

(a) Apply a layer of compound, D50004 to the external threads of the discharge head outlet, and to the shoulder of the sleeve that contacts the coupling nut on the discharge line tube.

NOTE: Do not allow antiseize to enter the discharge head outlet or the discharge line tube. Do not apply antiseize to the sealing surface of the sleeve on the discharge line tube.

(b) Connect the tube assembly to the discharge head.

NOTE: Yellow is used to show the plumbing that supplies extinguishant to engine number 1. Blue is used to show the plumbing that supplies extinguishant to engine number 2.

(c) Remove any unwanted compound.

(d) Tighten the nut on the tube assembly to 360 ±18 in-lb (41 ±2 N·m) on positions 2 and 4.

(e) Tighten the nut on the tube assembly to 450 ±23 in-lb (51 ±3 N·m) on positions 1 and 3.

SUBTASK 26-21-00-010-004

WARNING

OBEY THE PROCEDURE TO CLOSE THE THRUST REVERSERS. IF YOU DO NOT OBEY THE PROCEDURE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT CAN OCCUR.

(20) Do this task: Close the Thrust Reverser (Selection), TASK 78-31-00-010-802-G00.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-21-00-410-001

(21) Close these access panels:

(TASK 54-52-06-400-801)

Number	Name/Location
434AR	Aft Strut Fairing, Right Panel, Strut 1
444AL	Aft Strut Fairing, Left Panel, Strut 2

——— END OF TASK ———

TASK 26-21-00-720-802

6. Engine Fire Switch System Shutdown Test

(Figure 501, Figure 504)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task makes sure that the engine is isolated from the fuel, hydraulic, pneumatic and electrical systems, and that the thrust reverser is disabled when the fire handle is pulled. It should be done when the Engine and Auxiliary Power Unit (APU) Fire Control Panel is replaced.

(2) This test is the same for both engines.

B. References

Reference	Title
29-11-00-860-801	Hydraulic System A or B Pressurization (P/B 201)
29-11-00-860-805	Hydraulic System A or B Power Removal (P/B 201)
71-00-00-700-816-G00	Test No. 38 - Thrust Reverser Cycle Special Functions (P/B 501)
73-21-00-800-801-G00	EEC Maintenance Power Selection (P/B 201)
78-31-00-010-801-G00	Open the Thrust Reverser (Selection) (P/B 201)
78-31-00-010-802-G00	Close the Thrust Reverser (Selection) (P/B 201)

C. Location Zones

Zone	Area
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
211	Flight Compartment - Left
212	Flight Compartment - Right
410	Subzone - Engine 1
420	Subzone - Engine 2

ECCN 9E991 BOEING PROPRIETARY - See title page for details

D. Prepare for the Test

SUBTASK 26-21-00-010-005

WARNING

DO THESE SPECIFIED TASKS IN THE CORRECT SEQUENCE BEFORE YOU OPEN THE THRUST REVERSER: RETRACT THE LEADING EDGE, DO THE DEACTIVATION PROCEDURES FOR THE LEADING EDGE AND THE THRUST REVERSER (FOR GROUND MAINTENANCE), AND OPEN THE FAN COWL PANELS. IF YOU DO NOT OBEY THIS SEQUENCE, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) For the left thrust reverser, do this task: Open the Thrust Reverser (Selection), TASK 78-31-00-010-801-G00.

SUBTASK 26-21-00-860-009

(2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

E. Engine Fire Switch System Shutdown Test

SUBTASK 26-21-00-860-011

(1) Make sure that the START SWITCH for each engine is in the OFF position.

SUBTASK 26-21-00-860-012

(2) Set the engine start lever to IDLE.

(a) Make sure that the engine SPAR VALVE CLOSED light on the P5 panel comes on bright, then goes out.

(b) Make sure that the engine ENG VALVE CLOSED light on the P5 panel comes on bright.

SUBTASK 26-21-00-860-013

(3) Pull the engine fire handle on the P8 panel.

(a) Make sure that the fire handle does not extend.

SUBTASK 26-21-00-860-014

(4) Push the manual override button and pull the engine fire handle on the P8 panel.

(a) Make sure that the engine SPAR VALVE CLOSED light on the P5 panel comes on bright while the valve is in transition, then goes dim.

(b) Make sure that the engine ENG VALVE CLOSED light on the P5 panel goes dim.

SUBTASK 26-21-00-860-015

(5) Push in the engine fire handle on the P8 panel to the normal position.

SUBTASK 26-21-00-860-016

(6) Set the engine start lever to CUTOFF.

SUBTASK 26-21-00-860-017

(7) Push the manual override button and pull the engine fire handle on the P8 panel.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(a) Make sure that the engine hydraulic system A or B fluid shutoff valve, V33 or V34 moves to the down position (Figure 504).

NOTE: The indicator arm in the down position shows that the valve is closed.

SUBTASK 26-21-00-860-018

(8) Push in the engine fire handle on the P8 panel to the normal position.

(a) Make sure that the engine hydraulic system A or B fluid shutoff valve, V33 or V34 moves to the up position.

NOTE: The indicator arm in the up position shows that the valve is open.

SUBTASK 26-21-00-020-011

(9) Disconnect the electrical connector P103 from the engine Integrated Drive Generator (IDG).

SUBTASK 26-21-00-860-024

(10) Set the GEN CONT switch on the P5-4 panel OFF.

(a) Make sure that the resistance between pins 3 (LO) and 2 (HI) on P103 is less than 10 ohms.

SUBTASK 26-21-00-860-025

(11) Set the GEN CONT switch on the P5-4 panel ON.

(a) Make sure that the resistance between pins 3 (LO) and 2 (HI) on P103 is at least 230 kilohms.

SUBTASK 26-21-00-860-026

(12) Push the manual override button and pull the engine fire handle on the P8 panel.

(a) Make sure that the resistance between pins 3 (LO) and 2 (HI) on P103 is less than 10 ohms after 5 seconds.

SUBTASK 26-21-00-860-027

(13) Push in the engine fire handle on the P8 panel to the normal position.

SUBTASK 26-21-00-420-009

(14) Connect the electrical connector P103 to the engine IDG.

SUBTASK 26-21-00-010-006

WARNING OBEY THE INSTRUCTIONS IN THE PROCEDURE TO CLOSE THE THRUST REVERSERS. IF YOU DO NOT OBEY THE INSTRUCTIONS WHEN YOU CLOSE THE THRUST REVERSERS, INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(15) Do this task: Close the Thrust Reverser (Selection), TASK 78-31-00-010-802-G00.

SUBTASK 26-21-00-860-028

(16) Do this task: Hydraulic System A or B Pressurization, TASK 29-11-00-860-801.

SUBTASK 26-21-00-860-029

(17) Make sure that these circuit breakers are closed:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
B	5	C00276	ENGINE 1 THRUST REVERSER CONT

ECCN 9E991 BOEING PROPRIETARY - See title page for details

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
C	7	C00277	ENGINE 2 THRUST REVERSER CONT

SUBTASK 26-21-00-860-030

(18) Set the applicable EEC MAINT POWER switch on the MISC SYSTEM CTRLS page on the Multi Function Display (MFD) to the TEST position.

(a) Do this task: EEC Maintenance Power Selection, TASK 73-21-00-800-801-G00.

(b) Wait for a minimum of 30 seconds to let the Electronic Engine Control (EEC) complete the test.

NOTE: The EEC will do a self-test when you set the EEC MAINT POWER switch to the TEST position.

SUBTASK 26-21-00-860-040

(19) Make sure that the thrust reverser is in the retracted position.

SUBTASK 26-21-00-750-001

(20) Start the thrust reverser special function (TASK 71-00-00-700-816-G00).

SUBTASK 26-21-00-860-031

(21) Push the manual override button and pull the engine fire handle on the P8 panel.

SUBTASK 26-21-00-860-032

WARNING KEEP ALL PERSONNEL AWAY FROM THE THRUST REVERSER SLEEVE. THE THRUST REVERSER SLEEVE WILL RETRACT WHEN YOU SUPPLY HYDRAULIC PRESSURE. INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT CAN OCCUR.

(22) Move the engine reverse thrust lever up and aft to the extend position.

(a) Make sure that the thrust reverser does not extend.

SUBTASK 26-21-00-860-033

(23) Move the engine reverse thrust lever down and forward to the retract position.

SUBTASK 26-21-00-860-034

(24) Push in the engine fire handle on the P8 panel to the normal position.

SUBTASK 26-21-00-860-035

WARNING KEEP ALL PERSONNEL AWAY FROM THE THRUST REVERSER SLEEVE. THE THRUST REVERSER SLEEVE WILL RETRACT WHEN YOU SUPPLY HYDRAULIC PRESSURE. INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT CAN OCCUR.

(25) Move the engine reverse thrust lever up and aft to the extend position.

(a) Make sure that the thrust reverser extends.

SUBTASK 26-21-00-860-036

(26) Move the engine reverse thrust lever down and forward to the retract position.

(a) Make sure that the thrust reverser retracts.

SUBTASK 26-21-00-750-002

(27) Stop the thrust reverser special function (TASK 71-00-00-700-816-G00).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-21-00-860-037

(28) Set the ENG START switch to OFF.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 26-21-00-860-038

(1) Do this task: Hydraulic System A or B Power Removal, TASK 29-11-00-860-805.

SUBTASK 26-21-00-860-039

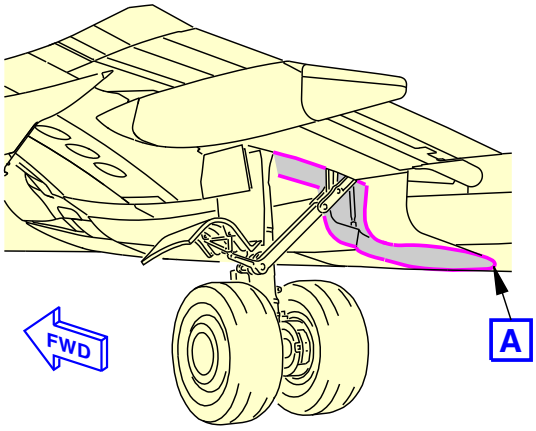
(2) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

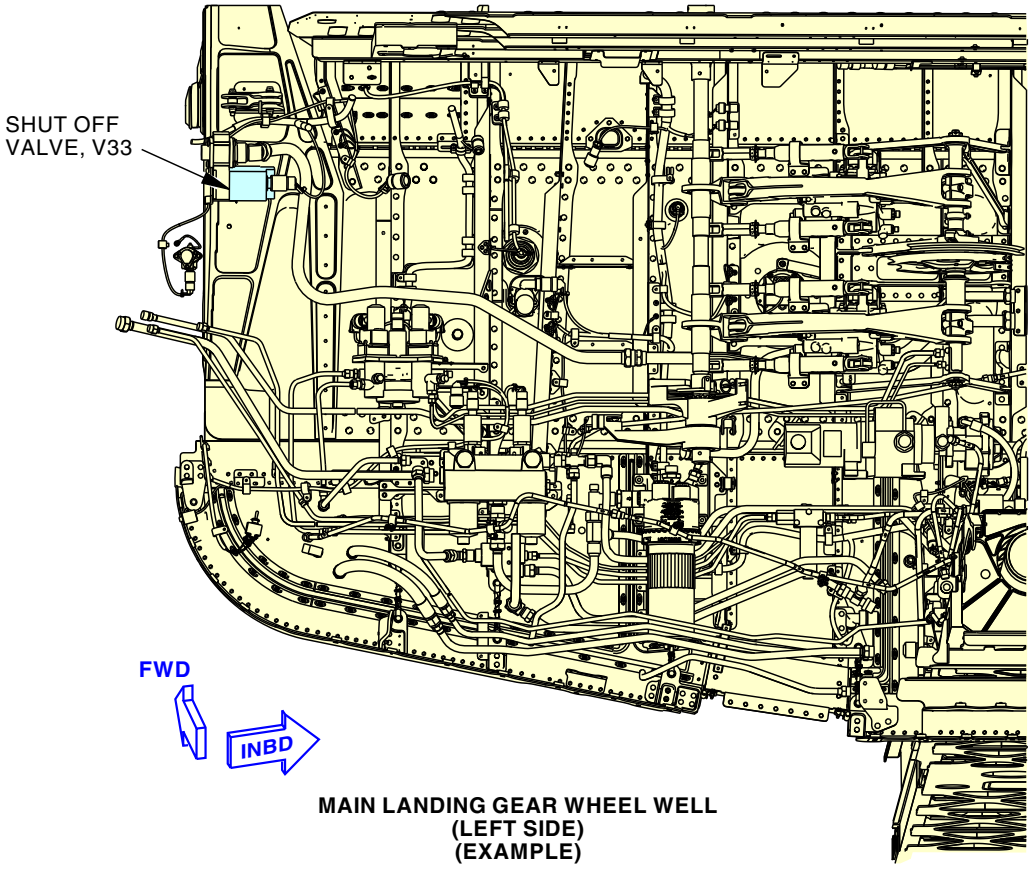
Row	Col	Number	Name
A	19	C00388	FIRE PROTECTION DET OVHT WW WING BODY
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



(EXAMPLE)



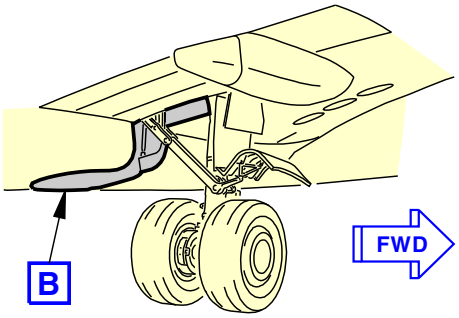
MAIN LANDING GEAR WHEEL WELL
(LEFT SIDE)
(EXAMPLE)

A

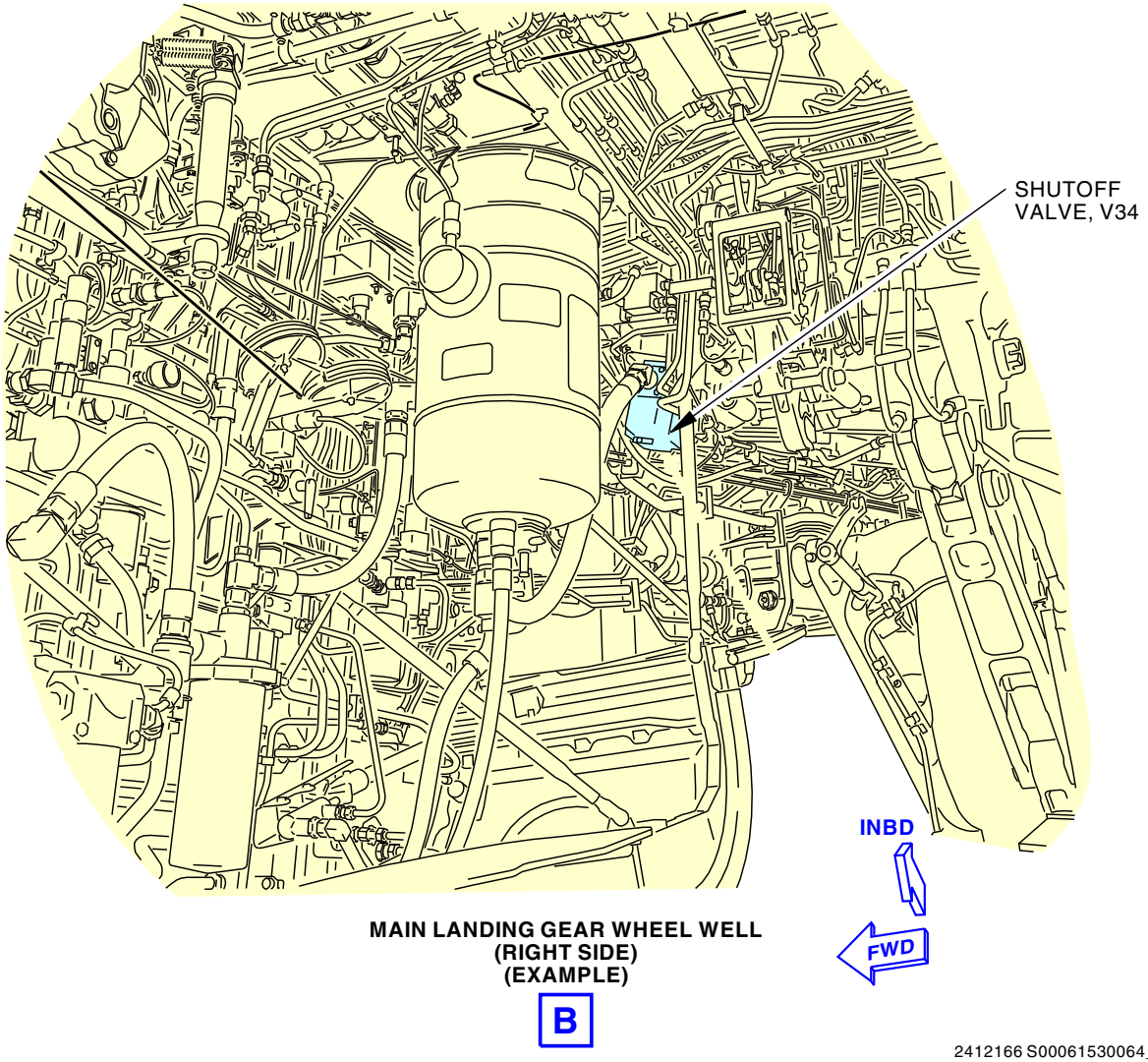
2412165 S00061530063_V2

Engine EDP Shutoff Valve Test
Figure 504/26-21-00-990-805 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



(EXAMPLE)



MAIN LANDING GEAR WHEEL WELL
(RIGHT SIDE)
(EXAMPLE)

2412166 S00061530064_V2

Engine EDP Shutoff Valve Test
Figure 504/26-21-00-990-805 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

ENGINE FIRE EXTINGUISHING BOTTLE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of an engine fire extinguishing bottle.

(2) An installation of an engine fire extinguishing bottle.

TASK 26-21-01-000-801

2. Engine Fire Extinguishing Bottle Removal

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task gives instructions to remove the engine fire extinguishing bottle [1].

(2) The engine fire extinguishing bottles [1] are installed in the main landing gear wheel well. The removal procedure is the same for each bottle.

B. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)
20-40-12-400-802	ESDS Handling for Metal Encased Unit Installation (P/B 201)
32-00-01-480-801	Landing Gear Downlock Pins Installation (P/B 201)

C. Tools/Equipment

Reference	Description
STD-1168	Cap - Shorting or Faraday Cap

D. Location Zones

Zone	Area
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
211	Flight Compartment - Left
212	Flight Compartment - Right

E. Engine Fire Extinguishing Bottle Removal

SUBTASK 26-21-01-940-001

WARNING MAKE SURE THE DOWNLOCK PINS ARE INSTALLED ON ALL THE LANDING GEAR. WITHOUT THE DOWNLOCK PINS, THE LANDING GEAR COULD RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(1) If the downlock pins are not installed in the nose and main landing gear, do this task: Landing Gear Downlock Pins Installation, TASK 32-00-01-480-801.

SUBTASK 26-21-01-860-001

(2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(Continued)

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

SUBTASK 26-21-01-020-001

WARNING DO NOT TOUCH THE SQUIB BEFORE YOU DO THE PROCEDURES FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSON AND DAMAGE EQUIPMENT.

(3) Disconnect the electrical connectors [6] from the squibs [7].

(a) Before you touch the squib [7], do the procedure for devices that are sensitive to electrostatic discharge.

1) These are the tasks:

- ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802
- ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

SUBTASK 26-21-01-020-002

WARNING DO NOT MOVE OR TOUCH THE CARTRIDGE WITHOUT A SHORTING CAP OR FARADAY CAP INSTALLED ON THE ENDS OF THE SQUIB. THE SQUIB IS AN EXPLOSIVE DEVICE. ACCIDENTAL OPERATION OF THE SQUIB CAN CAUSE INJURY TO PERSONS.

CAUTION DO NOT PUT SHUNT PLUGS ON THE FIRE BOTTLE SQUIBS. THE SHUNT PLUGS CAN CAUSE DAMAGE TO THE SQUIB PINS.

(4) Install the shorting or faraday cap, STD-1168 on each squib [7].

NOTE: The shorting caps are attached to the fire extinguishing bottles. These shorting caps prevent the squibs from possible activation due to static electricity.

SUBTASK 26-21-01-020-003

(5) Disconnect the electrical connector [5] from the pressure switch [4].

SUBTASK 26-21-01-020-004

(6) Disconnect the discharge line from both fire bottle discharge outlets.

NOTE: Loosen the hard tube tee assembly and other fittings as necessary to move the discharge lines out of the way.

SUBTASK 26-21-01-420-001

(7) Install the protective caps on each of the discharge ports.

SUBTASK 26-21-01-420-005

(8) Install the protective caps on each of the discharge lines.

SUBTASK 26-21-01-020-005

(9) Remove the four bolts [2] and washers [3].

NOTE: Loosen two opposite bolts [2] at a time for easier removal.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-21-01-020-006

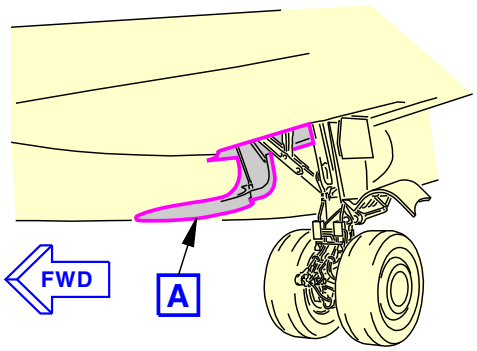
WARNING

BE CAREFUL WHEN YOU MOVE THE FIRE EXTINGUISHING BOTTLE. THE FIRE EXTINGUISHING BOTTLE IS PRESSURIZED AND HAS AN EXPLOSIVE CARTRIDGE AS A COMPONENT. IF THE FIRE EXTINGUISHING BOTTLE RELEASES ITS CONTENTS, IT CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

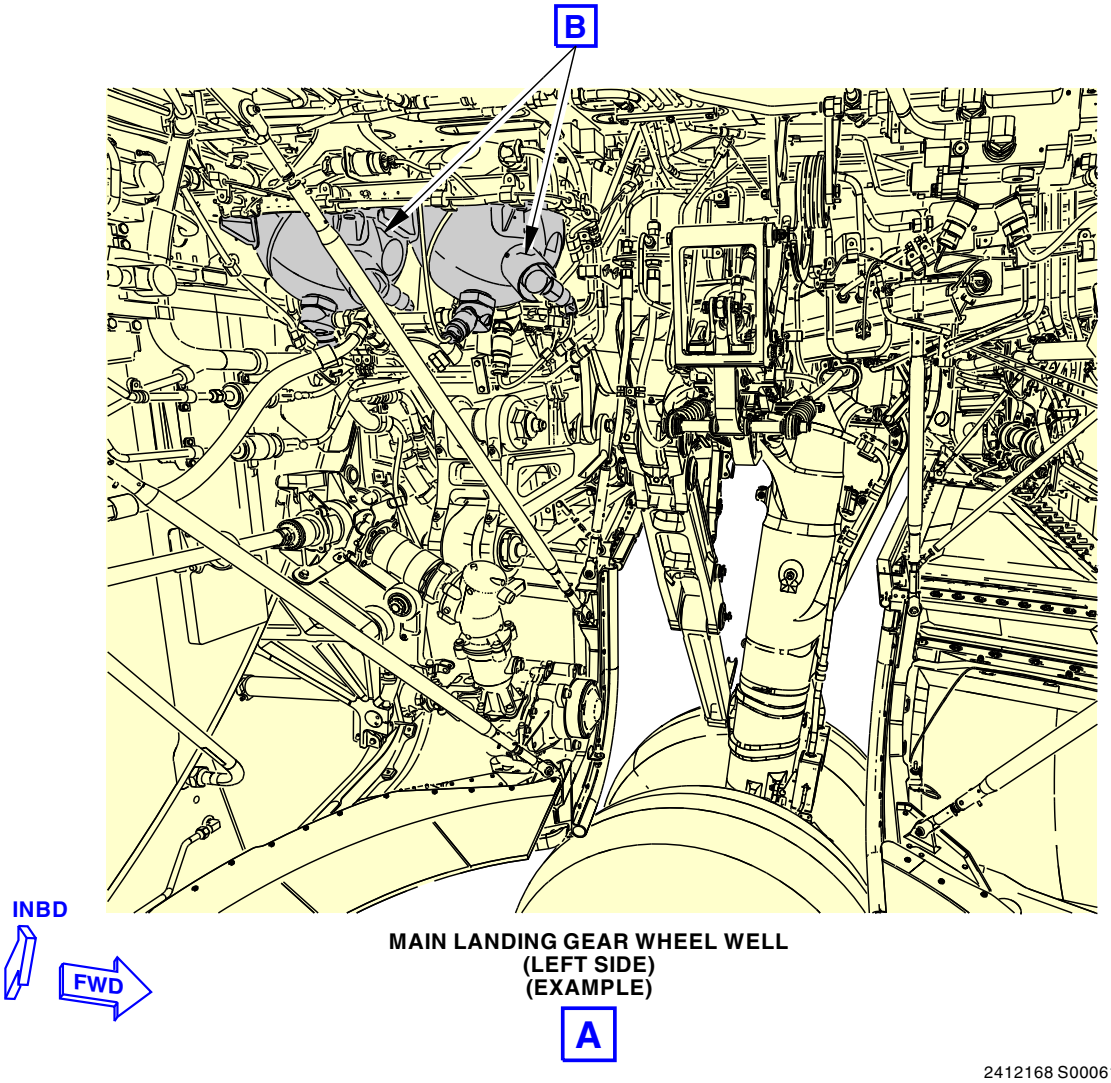
(10) Remove the fire extinguishing bottle [1].

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



(EXAMPLE)

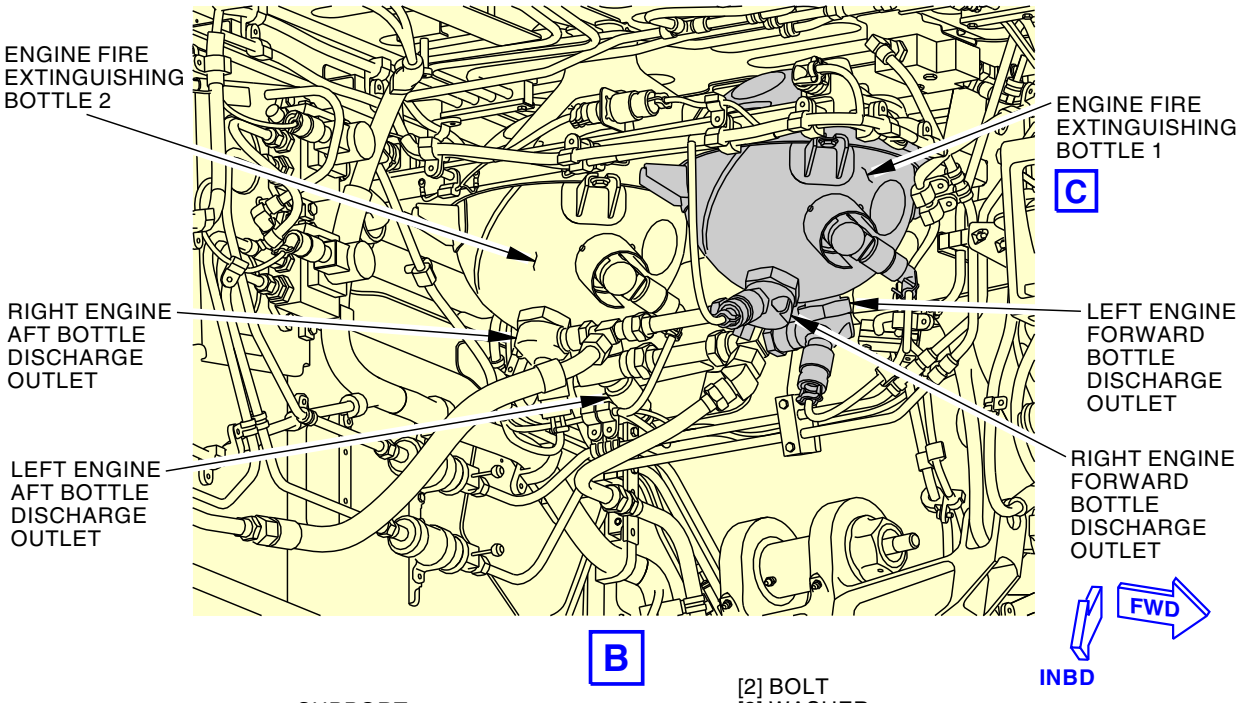


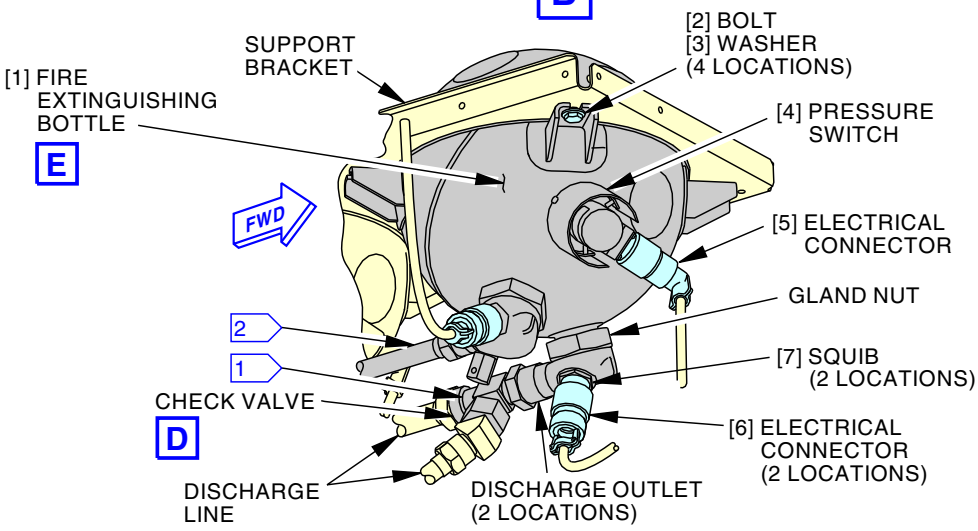
MAIN LANDING GEAR WHEEL WELL
(LEFT SIDE)
(EXAMPLE)

2412168 S00061530069_V3

Engine Fire Extinguishing Bottle Installation
Figure 401/26-21-01-990-801 (Sheet 1 of 4)

ECCN 9E991 BOEING PROPRIETARY - See title page for details





ENGINE FIRE EXTINGUISHING BOTTLE 1
(ENGINE FIRE EXTINGUISHING BOTTLE 2 IS EQUIVALENT)

C

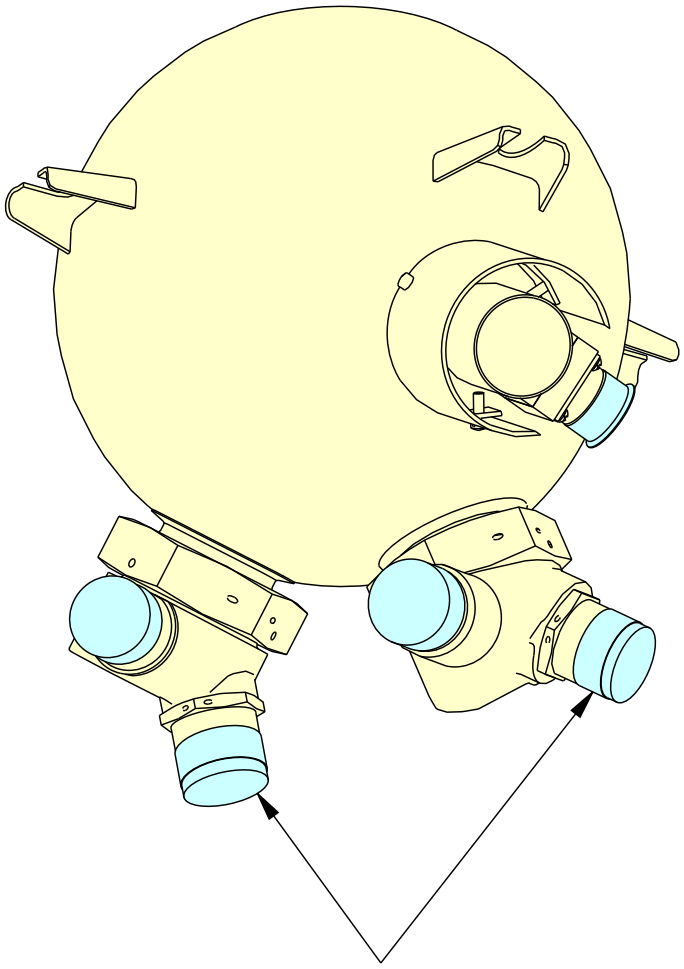
1 POSITION #1: T-FITTING CONNECTION TO THE ENGINE FIRE EXTINGUISHING BOTTLE 1 (POSITION #4: ENGINE FIRE EXTINGUISHING BOTTLE 2 IS EQUIVALENT)

2 POSITION #2: HOSE ASSEMBLY CONNECTION TO THE ENGINE FIRE EXTINGUISHING BOTTLE 1 (POSITION #3: ENGINE FIRE EXTINGUISHING BOTTLE 2 IS EQUIVALENT)

2412169 S00061530070_V4

Engine Fire Extinguishing Bottle Installation
Figure 401/26-21-01-990-801 (Sheet 2 of 4)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



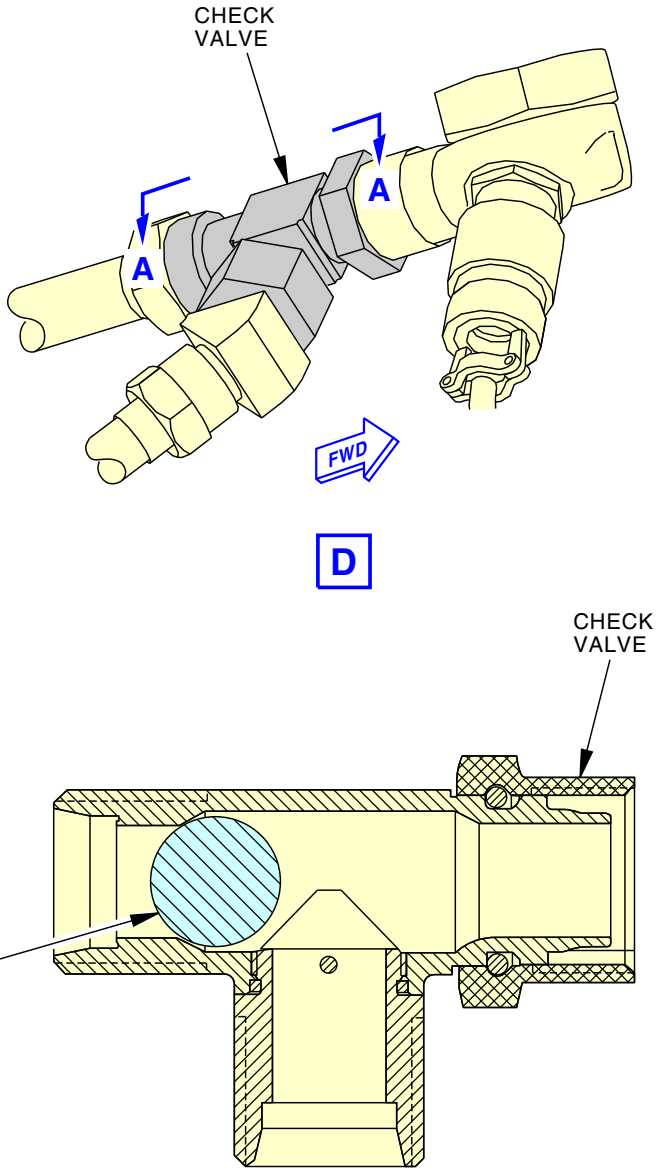
ENGINE FIRE EXTINGUISHING BOTTLE

E

3036530 S0000806021_V1

Engine Fire Extinguishing Bottle Installation
Figure 401/26-21-01-990-801 (Sheet 3 of 4)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



2540267 S0000603665_V2

Engine Fire Extinguishing Bottle Installation
Figure 401/26-21-01-990-801 (Sheet 4 of 4)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-21-01-400-801

3. Engine Fire Extinguishing Bottle Installation

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task gives instructions to install the engine fire extinguishing bottles [1].

(2) The engine fire extinguishing bottles [1] are installed in the left main wheel well. The installation procedure is the same for each bottle.

B. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)
20-40-12-400-802	ESDS Handling for Metal Encased Unit Installation (P/B 201)
20-60-07-910-802	Inspection, Cleaning and Sealing of Electrical Connectors (P/B 201)
26-20-00-210-801	Engine Fire Extinguishing Bottle Check (P/B 601)
26-21-00-720-801	Engine Fire Extinguishing Discharge Line Flow Test (P/B 501)
26-21-00-730-802	Engine Fire Extinguishing Bottle Pressure Switch Circuit Test (P/B 501)
32-00-01-480-801	Landing Gear Downlock Pins Installation (P/B 201)
SWPM 20-20-00	ELECTRICAL BONDING PROCESSES

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-1550	Bonding Meter - 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 #: M1B Supplier: 3AD17 Part #: T477W (C15292) Supplier: 06659

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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 #: 21 Supplier: 89536 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-4907	Force Gauge, 10 Lbs. with Resolution of 0.1 lb, +/-0.3% or Better Part #: FDIX 100 Supplier: 0BFD9 Part #: FDIX 50 Supplier: 0BFD9 Part #: LG-5KG Supplier: 92456 Part #: PS-10 Supplier: 1GHM7 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-14896	Alignment Equipment - Fire Suppression Bottle Nozzle Part #: C26011-1 Supplier: 81205
STD-1079	Resistor - 10K Ohm or Greater
STD-1168	Cap - Shorting or Faraday Cap

D. Consumable Materials

Reference	Description	Specification
A50110	Sealant - Fuel Tank	BMS5-45 Class B-2
A50155	Sealant - Fuel Tank	BMS5-45 Class C
A50231	Sealant - Pressure And Environmental - Chromate Type	BMS5-95 Class B
A50296	Sealant - Pressure And Environmental - Chromate Type	BMS5-95 Class C
B00083	Solvent - VM&P Naphthas	TT-N-95 Type II, ASTM D-3735 Type III
B00184	Solvent - Presealing, Cleaning Solvent	BMS11-7
D50004	Compound - Antiseize	BMS3-28
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	AMS3819 Class 1 Grade A or B Form 1 (Supersede BMS15-5 CL A)
G01048	Lockwire - MS20995C32, Corrosion Resistant Steel - 0.032 Inch (0.8128 mm) Diameter	NASM20995

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(Continued)

Reference	Description	Specification
G50077	Abrasive - Aluminum Oxide Paper, 240 grit or finer	

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Fire extinguishing bottle	26-21-01-01-090	SIA ALL

F. Location Zones

Zone	Area
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
211	Flight Compartment - Left
212	Flight Compartment - Right

G. Engine Fire Extinguishing Bottle Installation

SUBTASK 26-21-01-940-002

WARNING MAKE SURE THE DOWNLOCK PINS ARE INSTALLED ON ALL THE LANDING GEAR. WITHOUT THE DOWNLOCK PINS, THE LANDING GEAR COULD RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(1) If the downlock pins are not installed in the nose and main landing gear, do this task: Landing Gear Downlock Pins Installation, TASK 32-00-01-480-801.

SUBTASK 26-21-01-280-001

(2) Use the force gauge, COM-4907, to weigh the fire extinguishing bottle [1].

NOTE: The bottle assembly includes the charged bottle, discharge heads, squibs [7], and shorting or faraday caps, STD-1168 on the squibs.

NOTE: The squibs are also known as cartridges.

(a) Weigh the shorting or faraday caps, STD-1168, including its caps and record as "Value A".

(b) Record the weight marked on the fire extinguishing bottle [1] as "Value B".

(c) Replace the squib protective caps [8] with shorting or faraday caps, STD-1168, from the squibs [7] and remove the rest of the protective caps from the fire extinguishing bottle [1], before weighing.

(d) Weigh the assembly, including the charged bottle, discharge heads, squibs [7], shorting or faraday caps, STD-1168 (including shorting plugs' caps), and the loose squib protective caps [8] and record as "Value C'.

(e) Find the measured weight of the fire extinguishing bottle [1] by subtracting "Value A" from "Value C" and record as "Value D" (Value D = Value C - Value A).

(f) Make sure that the shorting or faraday caps, STD-1168 are installed on the squibs [7] during handling, weighing and installation of the fire extinguishing bottle [1].

(g) Remove other protective caps from the fire extinguishing bottle [1] before weighing.

NOTE: Do not remove the shorting or faraday caps, STD-1168 from the squibs [7].

SUBTASK 26-21-01-280-002

(3) Replace the fire extinguishing bottle [1] if any of the following conditions exist:

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(a) The measured weight (“Value D”) deviates from the weight marked on the fire extinguishing bottle [1] (“Value B”) by more than 0.00 +0.12 / -0.06 lb (0.00 +0.05 / -0.03 kg).

(b) The most recent hydrostatic proof pressure test date marked on one of the mounting lugs is older than 15 months.

(c) The explosive cartridges dates of manufacture etched on the squibs [7] hexes are older than 24 months.

SUBTASK 26-21-01-820-001

(4) On a clean work surface, use fire suppression bottle nozzle alignment equipment, SPL-14896, to check and align each discharge head on the fire extinguishing bottle [1].

(a) Remove the protective cap from the discharge port.

(b) Loosen the gland nut to align the discharge head.

(c) Tighten the gland nut to 540 in-lb (61 N·m) - 660 in-lb (75 N·m).

(d) Install MS20995C32 lockwire, G01048 between the gland nuts on the discharge heads.

(e) Install the protective cap on the discharge port.

(f) Make sure that MS20995C32 lockwire, G01048 is installed between the cartridges and the discharge outlets.

SUBTASK 26-21-01-200-001

(5) If the previous fire extinguishing bottle [1] was discharged, do this step:

(a) Do a check of the discharge line for contamination.

NOTE: Pay particular attention to the discharge outlets (nozzles) at the engine.

SUBTASK 26-21-01-200-002

(6) Examine the check valve to make sure that the ball moves freely.

NOTE: It may be necessary to further disconnect the discharge lines to get access to the check valve.

(7) Do this task: Engine Fire Extinguishing Discharge Line Flow Test, TASK 26-21-00-720-801.

SUBTASK 26-21-01-860-002

(8) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

SUBTASK 26-21-01-420-002

(9) Do these steps to install the fire extinguishing bottle [1]:

(a) Use 240 grit or finer abrasive paper, G50077 on the support tray mounting surfaces to remove all surface finishes until a bright aluminum bonding surface is visible.

(b) Use new cotton wiper, G00034, moist in solvent, B00184 to clean the washer [3], and the mounting surfaces of the fire extinguishing bottle [1] and mounting tray.

(c) Use sealant, A50110, sealant, A50155, sealant, A50231, or sealant, A50296 to apply a fay surface seal to one mounting surface.

(d) Install a bolt [2] and washer [3] into the support bracket finger tight.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

WARNING BE CAREFUL WHEN YOU MOVE THE FIRE EXTINGUISHING BOTTLE. THE FIRE EXTINGUISHING BOTTLE IS PRESSURIZED AND HAS AN EXPLOSIVE CARTRIDGE AS A COMPONENT. IF THE FIRE EXTINGUISHING BOTTLE RELEASES ITS CONTENTS, IT CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(e) Put the fire extinguishing bottle [1] in its correct position on the support bracket.

1) Slide the bottle lug between previously installed bolt [2], washer [3] and support bracket.

(f) Install a second bolt [2] and washer [3] finger tight cross corner from the first.

1) Do not install the remaining bolts [2] and washers [3] at this time.

2) Make sure that the bolts [2] are fully engaged in the fire bottle lugs.

NOTE: Movement of the bottle is allowed for installation of the discharge lines.

(g) Remove the protective caps from each of the discharge ports.

(h) Remove the protective caps from each of the discharge lines.

WARNING YOU MUST WEAR THE APPLICABLE GLOVES WHEN YOU USE HIGH-TEMPERATURE ANTISEIZE COMPOUND. IF YOU GET THE HIGH-TEMPERATURE ANTISEIZE COMPOUND ON YOUR SKIN, REMOVE IT WITH SOAP AND WATER. IF THE HIGH-TEMPERATURE ANTISEIZE COMPOUND GOES THROUGH YOUR SKIN, INJURY TO PERSONNEL CAN OCCUR.

(i) Apply a layer of compound, D50004 to the external threads of the discharge heads, and to the shoulders of the sleeves that contact the coupling nuts on the discharge lines.

NOTE: Do not allow antiseize to enter the discharge heads or the discharge lines. Do not apply antiseize to the sealing surface of the sleeves on the discharge lines.

(j) Connect the discharge lines to the discharge heads.

1) Begin with outboard connections first, then inboard.

NOTE: Yellow is used to show the plumbing that supplies extinguishing agent to engine number 1. Blue is used to show the plumbing that supplies extinguishing agent to engine number 2.

NOTE: Loosely connect the hard tube tee and discharge line before you tighten the discharge line.

(k) Remove all unwanted compound.

(l) Install the remaining bolts [2] and washers [3] that attach the fire extinguishing bottle [1].

1) Tighten the bolts [2] snug, then back off 1/2 turn.

2) Make sure that the discharge lines do not bind.

(m) At positions 1 and 3, tighten the nuts on the tube assemblies to 450 ±23 in-lb (51 ±3 N·m).

NOTE: Position 1 connects the T-fitting to the engine fire extinguishing bottle 1.

NOTE: Position 3 connects the tube assembly to the engine fire extinguishing bottle 2.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(n) At positions 2 and 4, tighten the nuts on the tube assemblies to 360 ±18 in-lb (41 ±2 N·m).

NOTE: Position 2 connects the tube assembly to the engine fire extinguishing bottle 1.

NOTE: Position 4 connects the T-fitting to the engine fire extinguishing bottle 2.

(o) Tighten the bolts [2] to 150 in-lb (17 N·m).

(p) Measure the electrical bonding resistance between the fire extinguishing bottle [1] and support bracket (SWPM 20-20-00).

1) Use an intrinsically safe approved bonding meter, COM-1550.
2) Make sure that the resistance is 0.0025 ohm (2.5 milliohms) or less.
3) If the resistance is more than 0.0025 ohm (2.5 milliohms), clean the bonding surfaces between the fire extinguishing bottle [1] and support bracket with solvent, B00083, and retest.

SUBTASK 26-21-01-710-001

(10) Do these steps before you connect the electrical connectors [6] to the squibs [7].

WARNING DO NOT TOUCH THE SQUIB BEFORE YOU DO THE PROCEDURES FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

(a) Before you touch the squibs [7], do the procedure for devices that are sensitive to electrostatic discharge.

1) These are the tasks:
   - ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802.
   - ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

SUBTASK 26-21-01-700-001

WARNING MAKE SURE THERE IS NO VOLTAGE AT THE ELECTRICAL CONNECTOR. IF THERE IS A VOLTAGE AT THE ELECTRICAL CONNECTOR, THE SQUIB CAN FIRE SUDDENLY AND CAUSE INJURY TO PERSONNEL.

(11) Do these steps to make sure that there is no stray voltage at the electrical squib connector:

Fire Bottle Squib Electrical Connector

	Engine	APU	Cargo
Connector Pins	3 and 4, and 6 and 7	3 and 4	1 and 2

(a) Connect the digital/analog multimeter, COM-1793, across the two pins.

(b) Make sure that the current is less than 5 milliamps AC, and less than 5 milliamps DC.

(c) Connect a resistor, STD-1079, across the multimeter probes.

(d) Make sure that the voltage is less than .250 volts AC, and less than 0.250 volts DC.

(e) If it is necessary, repeat the steps above for the other squib electrical connectors.

(f) Disconnect the multimeter.

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SUBTASK 26-21-01-600-001

(12) Do this task: Inspection, Cleaning and Sealing of Electrical Connectors, TASK 20-60-07-910-802.

SUBTASK 26-21-01-420-007

(13) Remove the shorting or faraday cap, STD-1168 from the squibs [7].

SUBTASK 26-21-01-420-003

(14) Connect the electrical connectors [6] to the squibs [7].

(a) Make sure that the pins fully engage the electrical connectors [6].

SUBTASK 26-21-01-420-004

(15) Do a test the electrical wiring up to the pressure switch [4] (TASK 26-21-00-730-802).

SUBTASK 26-21-01-420-006

(16) Connect the electrical connector [5] to the pressure switch [4].

SUBTASK 26-21-01-210-004

(17) Do a visual check of the pressure gauge (TASK 26-20-00-210-801).

H. Engine Fire Extinguishing Bottle Installation Test

SUBTASK 26-21-01-860-003

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

SUBTASK 26-21-01-741-001

(2) Set the Engines EXT TEST switch on the P8-1 panel to 1.

(a) Make sure that the L and R lights come on.

NOTE: The APU light will also come on.

SUBTASK 26-21-01-741-002

(3) Set the Engines EXT TEST switch on the P8-1 panel to 2.

(a) Make sure that the L and R lights come on.

NOTE: The APU light will also come on.

SUBTASK 26-21-01-741-003

(4) Release the Engines EXT TEST switch.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

ENGINE FIRE EXTINGUISHING BOTTLE - INSPECTION/CHECK

1. General

A. This procedure has this task:

(1) Engine Fire Extinguisher Distribution System Inspection.

TASK 26-21-01-210-801

2. Engine Fire Extinguisher Distribution System Inspection

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
78-31-00-010-801-G00	Open the Thrust Reverser (Selection) (P/B 201)
78-31-00-010-802-G00	Close the Thrust Reverser (Selection) (P/B 201)

B. Location Zones

Zone	Area
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
413	Engine 1 - Fan Cowl, Left
414	Engine 1 - Fan Cowl, Right
415	Engine 1 - Thrust Reverser, Left
416	Engine 1 - Thrust Reverser, Right
423	Engine 2 - Fan Cowl, Left
424	Engine 2 - Fan Cowl, Right
425	Engine 2 - Thrust Reverser, Left
426	Engine 2 - Thrust Reverser, Right

C. Prepare for Inspection

SUBTASK 26-21-01-010-001

WARNING DO THESE SPECIFIED TASKS IN THE CORRECT SEQUENCE BEFORE YOU OPEN THE THRUST REVERSERS: RETRACT THE LEADING EDGE, DO THE DEACTIVATION PROCEDURES FOR THE LEADING EDGE AND THE THRUST REVERSER (FOR GROUND MAINTENANCE), AND OPEN THE FAN COWL PANELS. IF YOU DO NOT OBEY THE ABOVE SEQUENCE, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do this task: Open the Thrust Reverser (Selection), TASK 78-31-00-010-801-G00.

D. Engine Fire Extinguisher Distribution System Inspection

SUBTASK 26-21-01-210-001

(1) Make sure the engine fire extinguishing bottle 1 and 2 are not damaged.

SUBTASK 26-21-01-210-002

(2) Make sure the discharge lines are not damaged.

SUBTASK 26-21-01-210-003

(3) Make sure the forward and aft fire extinguishing nozzles are free of obstructions.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

E. Put the Airplane Back to Its Usual Condition

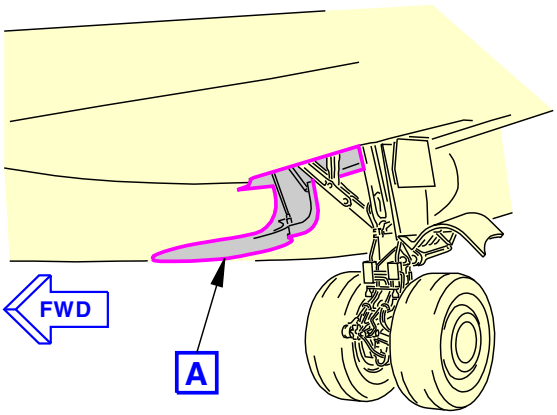
SUBTASK 26-21-01-010-002

WARNING OBEY THE INSTRUCTIONS IN THE PROCEDURE TO CLOSE THE THRUST REVERSERS. IF YOU DO NOT OBEY THE INSTRUCTIONS WHEN YOU CLOSE THE THRUST REVERSERS, INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

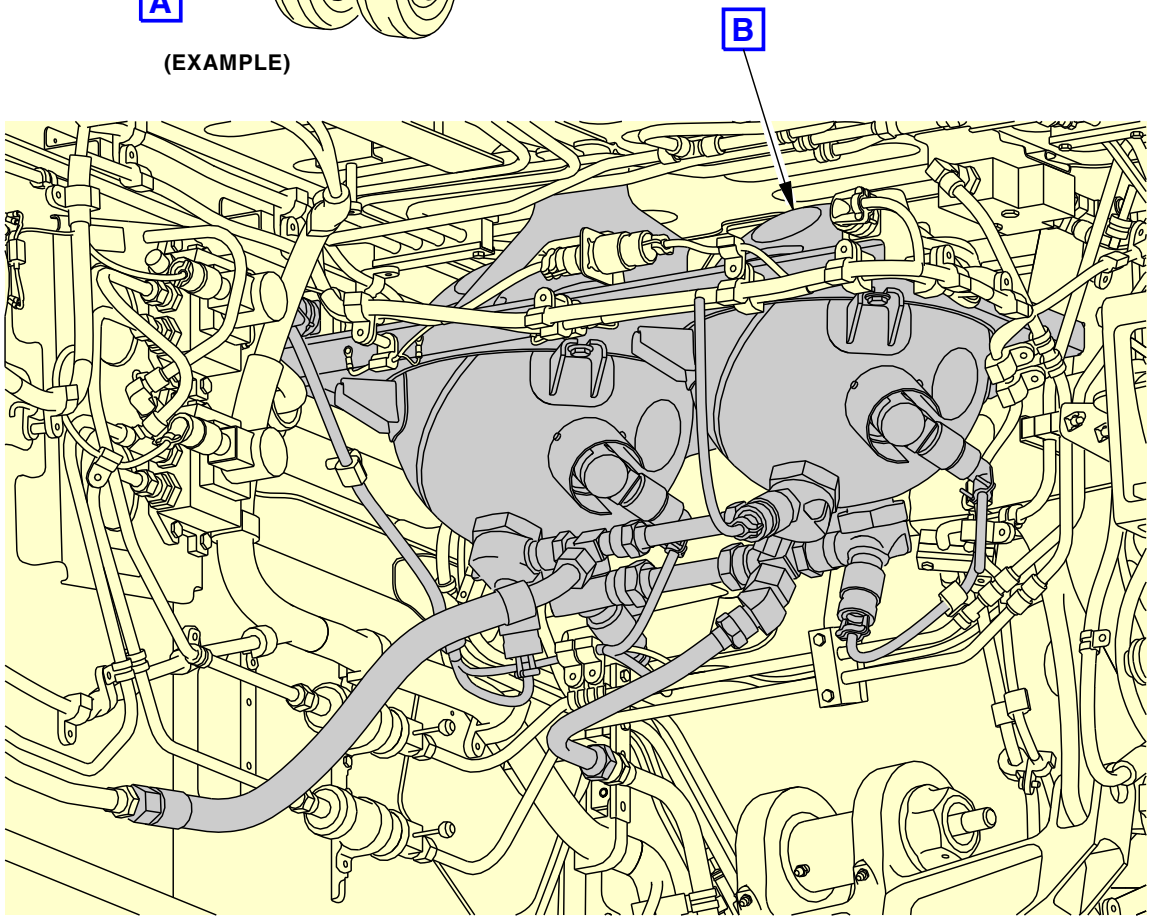
(1) Do this task: Close the Thrust Reverser (Selection), TASK 78-31-00-010-802-G00.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



(EXAMPLE)

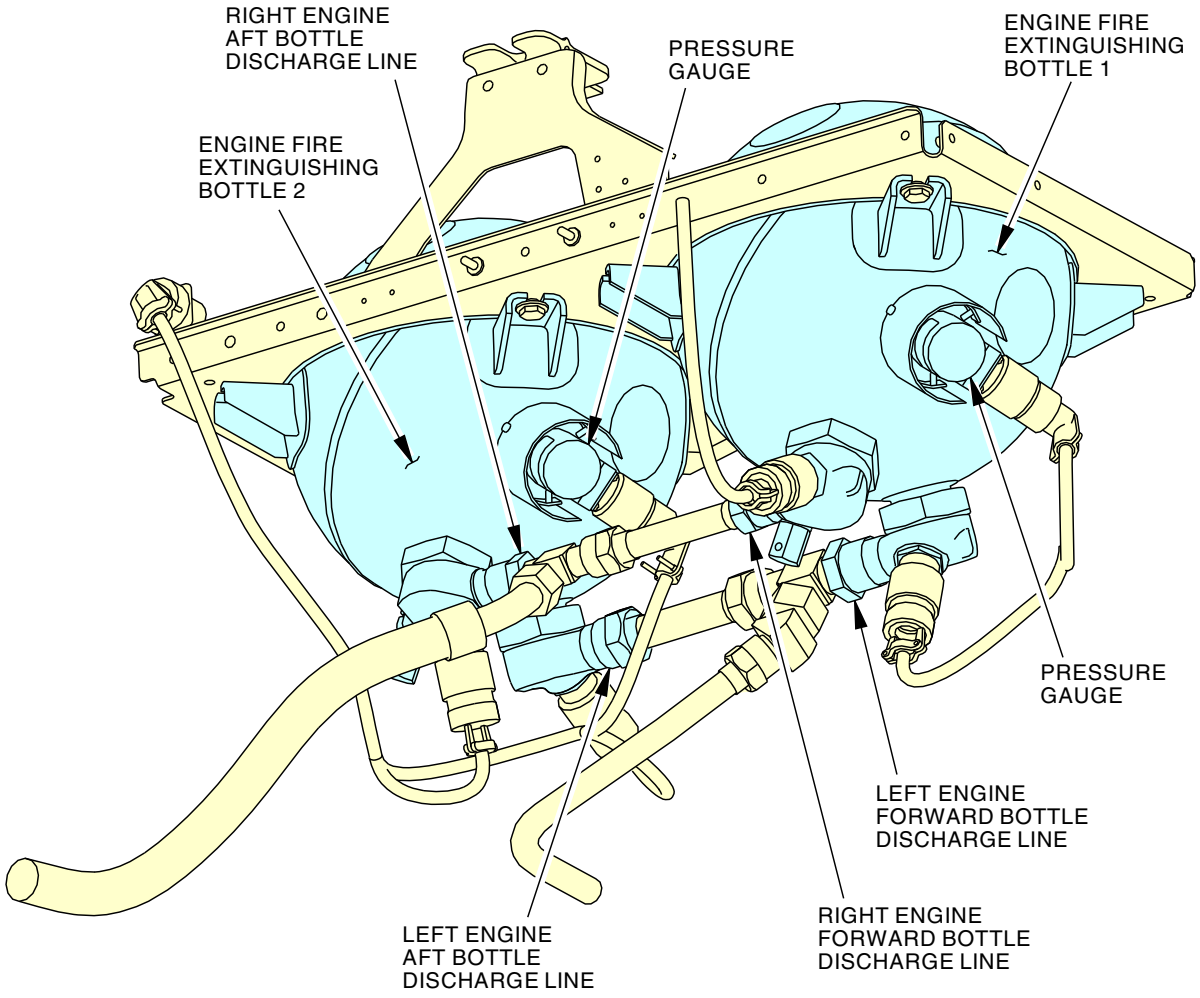


MAIN LANDING GEAR WHEEL WELL
(LEFT SIDE)
(EXAMPLE)

2412155 S00061530041_V3

Engine Fire Extinguishing Bottle Inspection
Figure 601/26-21-01-990-802 (Sheet 1 of 4)

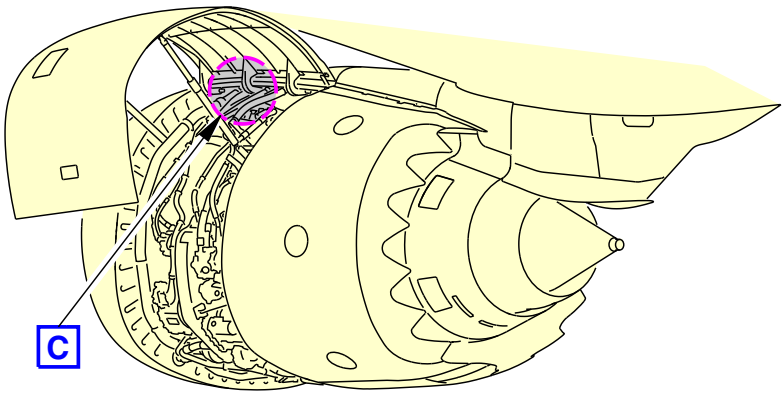
ECCN 9E991 BOEING PROPRIETARY - See title page for details

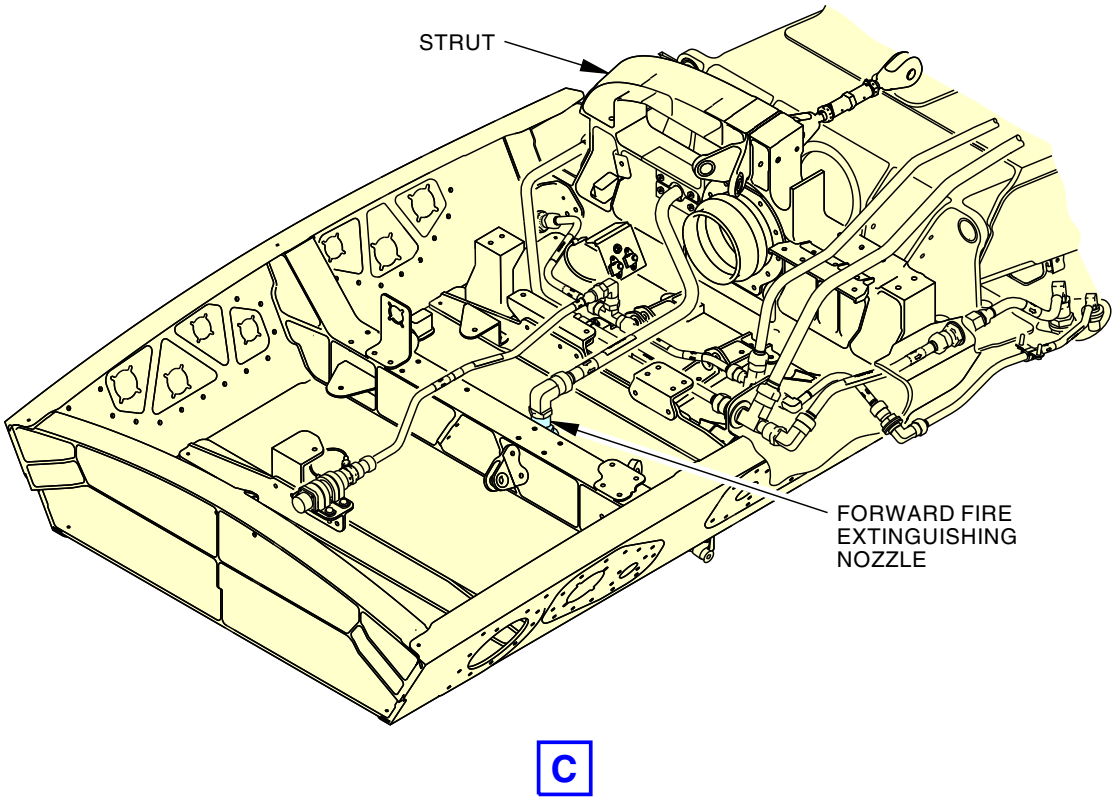


2412156 S00061530042_V2

Engine Fire Extinguishing Bottle Inspection
Figure 601/26-21-01-990-802 (Sheet 2 of 4)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

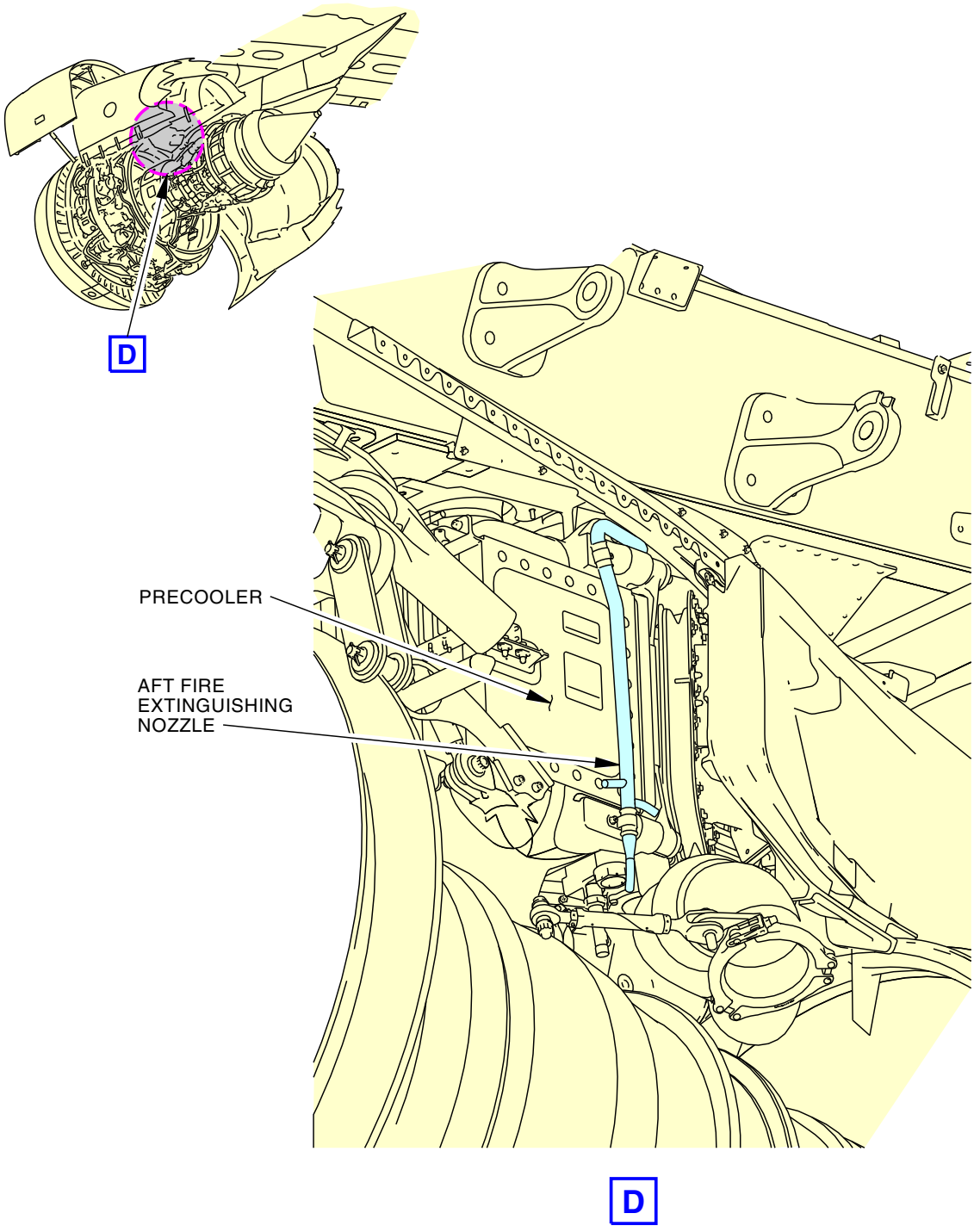




2524343 S0000595727_V2

Engine Fire Extinguishing Bottle Inspection
Figure 601/26-21-01-990-802 (Sheet 3 of 4)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Engine Fire Extinguishing Bottle Inspection
Figure 601/26-21-01-990-802 (Sheet 4 of 4)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

ENGINE FIRE EXTINGUISHER BOTTLE SQUIB - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) Engine fire extinguisher bottle squib removal

(2) Engine fire extinguisher bottle squib installation.

TASK 26-21-02-000-801

2. Engine Fire Extinguisher Bottle Squib Removal

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) The squibs are installed on the engine fire extinguishing bottles, located in the main landing gear wheel well. The removal procedure is the same for each squib, but each squib has a unique location and they are not interchangeable.

(2) This task gives instructions to remove the Engine Fire Extinguisher Bottle Squib.

B. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)
20-40-12-400-802	ESDS Handling for Metal Encased Unit Installation (P/B 201)

C. Tools/Equipment

Reference	Description
STD-1168	Cap - Shorting or Faraday Cap

D. Location Zones

Zone	Area
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
211	Flight Compartment - Left
212	Flight Compartment - Right

E. Prepare for the Removal

SUBTASK 26-21-02-860-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-21-02-860-005

WARNING DO NOT TOUCH THE SQUIB BEFORE YOU DO THE PROCEDURES FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

(2) Before you touch the squibs, do these tasks for devices that are sensitive to electrostatic discharge:

- ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802
- ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

F. Engine Fire Extinguisher Bottle Squib Removal

SUBTASK 26-21-02-020-005

(1) Disconnect the applicable electrical connector [1] from squib [2] or squib [3].

NOTE: The squibs are not interchangeable and each squib has a unique location on the discharge port.

SUBTASK 26-21-02-020-003

WARNING DO NOT MOVE OR TOUCH THE CARTRIDGE WITHOUT A SHORTING CAP OR FARADAY CAP INSTALLED ON THE ENDS OF THE SQUIB. THE SQUIB IS AN EXPLOSIVE DEVICE. ACCIDENTAL OPERATION OF THE SQUIB CAN CAUSE INJURY TO PERSONS.

CAUTION DO NOT PUT SHUNT PLUGS ON THE FIRE BOTTLE SQUIBS. THE SHUNT PLUGS CAN CAUSE DAMAGE TO THE SQUIB PINS.

(2) Install the shorting or faraday cap, STD-1168 on squib [2] or squib [3].

NOTE: The shorting caps are attached to the fire extinguishing bottles. These shorting caps prevent the squibs from possible activation due to static electricity.

SUBTASK 26-21-02-020-002

(3) Remove the lockwire between the squib [2] or squib [3] and discharge outlet.

SUBTASK 26-21-02-020-004

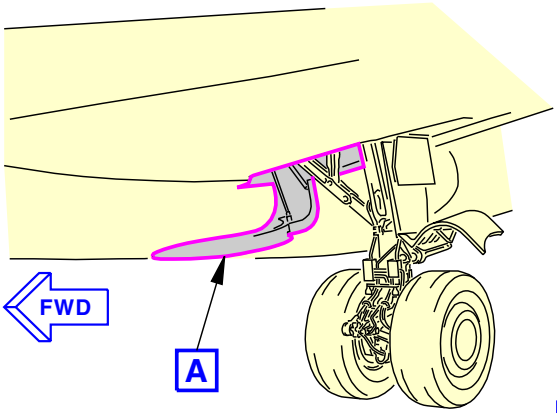
(4) Remove the squib [2] or squib [3] from the discharge head.

SUBTASK 26-21-02-910-001

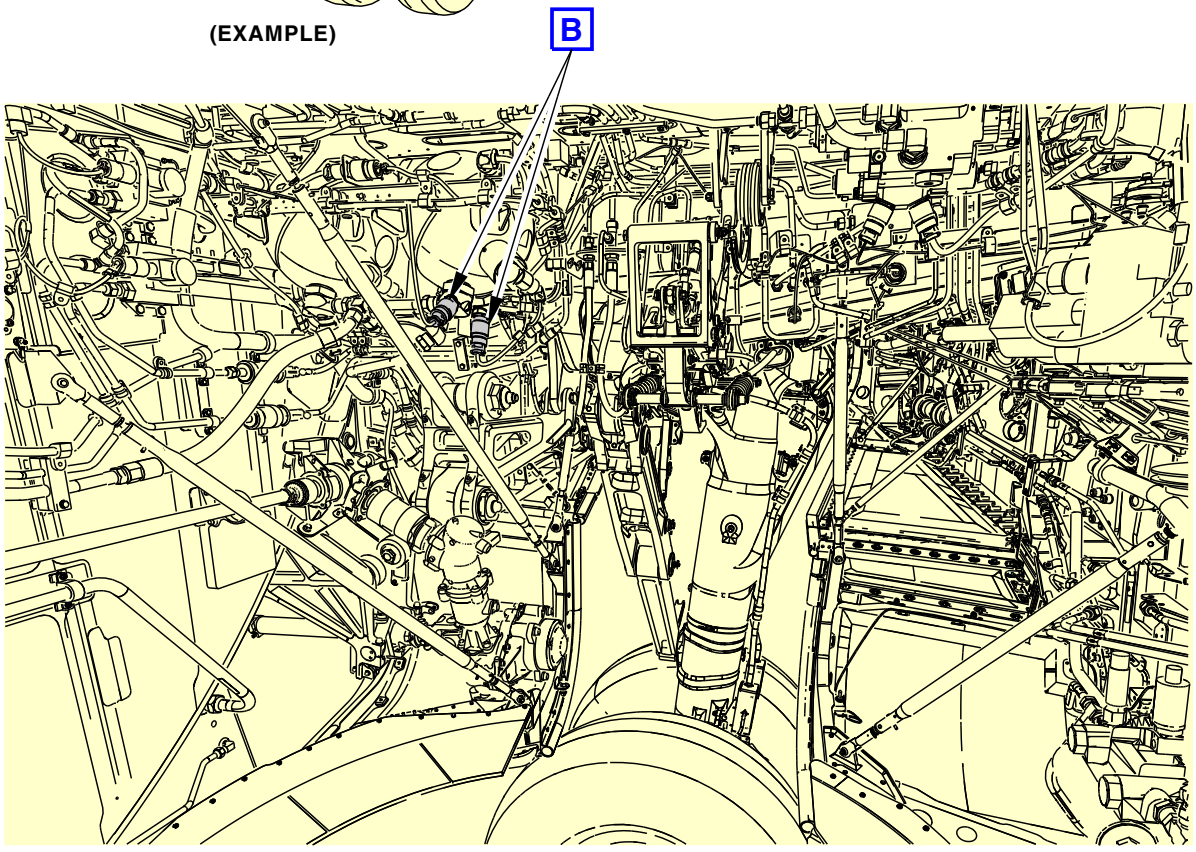
(5) Discard the packing [4] from the removed squibs.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



(EXAMPLE)



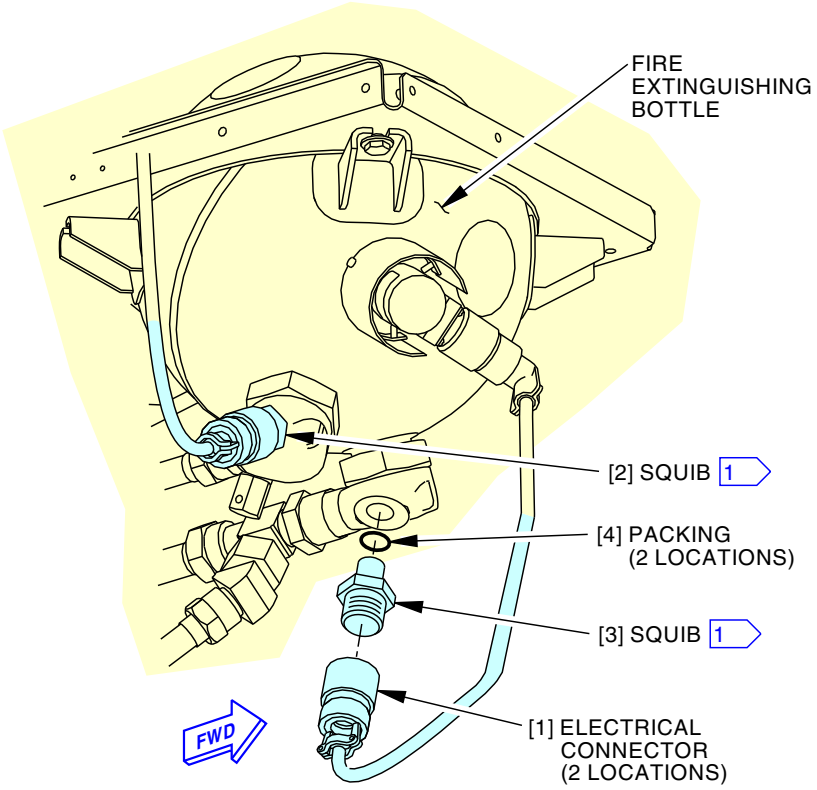
MAIN LANDING GEAR WHEEL WELL
(LEFT SIDE)
(EXAMPLE)

A

2412171 S00061530078_V4

Engine Fire Extinguishing Bottle Squib Installation
Figure 401/26-21-02-990-801 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



ENGINE FIRE EXTINGUISHING BOTTLE (EXAMPLE)

B

1 EACH SQUIB HAS A UNIQUE LOCATION AND THEY ARE NOT INTERCHANGEABLE.

2412172 S00061530079_V3

Engine Fire Extinguishing Bottle Squib Installation
Figure 401/26-21-02-990-801 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-21-02-400-801

3. Engine Fire Extinguisher Bottle Squib Installation

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) The squibs are installed on the engine fire extinguishing bottles, found in the left main wheel well. The installation procedure is the same for each squib, but each squib has a unique location and they are not interchangeable.

(2) This task gives instructions to install the Engine Fire Extinguisher Bottle Squib.

B. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)
20-40-12-400-802	ESDS Handling for Metal Encased Unit 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-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 #: 21 Supplier: 89536 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-1079	Resistor - 10K Ohm or Greater
STD-1168	Cap - Shorting or Faraday Cap

D. Consumable Materials

Reference	Description	Specification
D50287	Lubricant - O-Ring, Drilube 822 (MMS-N306A)	
G02392 [P05-262]	Lockwire - MS20995C32, Corrosion Resistant Steel - 0.032 Inch (0.8121 mm) Diameter	NASM20995

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Squib	26-21-01-01-100	SIA ALL
3	Squib	26-21-01-01-095	SIA ALL

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(Continued)

AMM Item	Description	AIPC Reference	AIPC Effectivity
4	Packing	26-21-01-01-115	SIA ALL

F. Location Zones

Zone	Area
133	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Left
211	Flight Compartment - Left
212	Flight Compartment - Right

G. Prepare for the Installation

SUBTASK 26-21-02-860-002

(1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

H. Engine Fire Extinguisher Bottle Squib Installation

SUBTASK 26-21-02-420-001

(1) Do these steps to install squib [2] or squib [3] into the discharge port of the fire extinguishing bottle:

NOTE: The squibs are not interchangeable and each squib has a unique location on the discharge port.

WARNING DO NOT TOUCH THE SQUIB BEFORE YOU DO THE PROCEDURES FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

(a) Before you touch the squib [2] or squib [3], do these tasks for devices that are sensitive to electrostatic discharge:

- ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802
- ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

(b) Lubricate the packing [4] with O-ring lubricant, D50287, and put it on the squib [2] or squib [3].

(c) Install the squib [2] or squib [3] into the fire bottle.

1) Tighten the squib [2] or squib [3] to 90 in-lb (10.2 N·m) - 100 in-lb (11.3 N·m).

2) Install MS20995C32 lockwire, G02392 [P05-262], between the squib [2] or squib [3] and discharge outlet.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-21-02-700-001

WARNING MAKE SURE THERE IS NO VOLTAGE AT THE ELECTRICAL CONNECTOR. IF THERE IS A VOLTAGE AT THE ELECTRICAL CONNECTOR, THE SQUIB CAN FIRE SUDDENLY AND CAUSE INJURY TO PERSONNEL.

(2) Do these steps to make sure that there is no stray voltage at the electrical squib connector:

Fire Bottle Squib Electrical Connector

	Engine	APU	Cargo
Connector Pins	3 and 4, and 6 and 7	3 and 4	1 and 2

(a) Connect the digital/analog multimeter, COM-1793, across the two pins.

(b) Make sure that the current is less than 5 milliamps AC, and less than 5 milliamps DC.

(c) Connect a resistor, STD-1079, across the multimeter probes.

(d) Make sure that the voltage is less than .250 volts AC, and less than 0.250 volts DC.

(e) If it is necessary, repeat the steps above for the other squib electrical connectors.

(f) Disconnect the multimeter.

SUBTASK 26-21-02-420-003

(3) Remove the shorting or faraday cap, STD-1168 from the squib [2] or squib [3].

SUBTASK 26-21-02-420-002

(4) Connect the electrical connector [1] to the squib [2] or squib [3].

NOTE: The squib pins can cause damage to the electrical connector if the pins do not correctly engage the electrical connector.

I. Engine Fire Extinguisher Squib Installation Test

SUBTASK 26-21-02-860-003

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	20	C00297	FIRE PROTECTION EXTINGUISHERS RIGHT
B	22	C00296	FIRE PROTECTION EXTINGUISHERS LEFT
B	23	C01022	FIRE PROTECTION EXTINGUISHERS ALTN R
B	24	C01021	FIRE PROTECTION EXTINGUISHERS ALTN L

SUBTASK 26-21-02-740-001

(2) Put and hold the EXT TEST switch on the P8-1 panel to position 1.

(a) Make sure the L and R lights come on.

NOTE: The APU light will also come on.

SUBTASK 26-21-02-740-002

(3) Put and hold the EXT TEST switch on the P8-1 panel to position 2.

(a) Make sure the L and R lights come on.

NOTE: The APU light will also come on.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-21-02-710-001

(4) Release the EXT TEST switch.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

APU FIRE EXTINGUISHING - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

(1) A test of the APU fire extinguishing bottle squib circuit

(2) A test of the APU fire extinguishing bottle pressure switch circuit

(3) A shutdown test of the APU fire switch system.

TASK 26-22-00-730-801

2. APU Fire Extinguishing Bottle Squib Circuit Test

(Figure 501)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)
20-40-12-400-802	ESDS Handling for Metal Encased Unit Installation (P/B 201)
49-11-00-860-802	APU Usual Shutdown (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-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 #: 21 Supplier: 89536 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-1655	Equipment - Test, APU/Engine Fire Detection System Part #: C26005-1 Supplier: 81205
SPL-1663	Test Equipment - Fire Extinguishing System Part #: F80229-69 Supplier: 81205 Opt Part #: F80229-15 Supplier: 81205

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(Continued)

Reference	Description
SPL-10039	Cable Assy - Fire Extinguishing System Test Equipment Part #: F80229-20 Supplier: 81205 Part #: F80229-48 Supplier: 81205 Part #: F80229-59 Supplier: 81205 Part #: F80229-61 Supplier: 81205
SPL-10040	Shorting Plug - Fire Extinguishing System Test Equipment Part #: F80229-52 Supplier: 81205
STD-1079	Resistor - 10K Ohm or Greater

C. Consumable Materials

Reference	Description	Specification
G50414	Lockwire - MS20995CY15, Copper - 0.015 Inch (0.381 mm) Diameter	NASM20995

D. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right
311	Area Aft of Pressure Bulkhead - Left

E. Access Panels

Number	Name/Location
311BL	Stabilizer Trim Access Door
315A	APU Cowl Door

F. Prepare for the Test

SUBTASK 26-22-00-860-001

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU

SUBTASK 26-22-00-860-002

(2) Open this access panel:

Number	Name/Location
311BL	Stabilizer Trim Access Door

SUBTASK 26-22-00-020-004

WARNING DO NOT TOUCH THE SQUIB BEFORE YOU DO THE PROCEDURES FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

(3) Before you touch the squib, do these tasks for devices that are sensitive to electrostatic discharge:

- ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802
- ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-22-00-020-007

(4) Disconnect electrical connector D594 from the squib.

SUBTASK 26-22-00-020-005

WARNING PUT A PROTECTIVE COVER ON THE SQUIB. IF YOU DO NOT PUT A PROTECTIVE COVER ON THE SQUIB, THE FIRE EXTINGUISHING BOTTLE CAN RELEASE ITS CONTENTS SUDDENLY. THIS CAN CAUSE INJURIES TO PERSONNEL.

(5) Install a shorting plug, SPL-10040, to the squib.

SUBTASK 26-22-00-860-003

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU

SUBTASK 26-22-00-480-001

(7) Set the toggle switch on Fire System Test Equipment, SPL-1663, to the ON position.

SUBTASK 26-22-00-760-001

(8) Measure the resistance (RL) of the test box with a digital/analog multimeter, COM-1793, connected to the voltmeter jacks.

(a) Write down the value of RL in Table 501, Table 502, and Table 503.

SUBTASK 26-22-00-480-002

(9) Set the toggle switch on the test box to the OFF position.

SUBTASK 26-22-00-480-003

(10) Set the multimeter to read DC volts.

SUBTASK 26-22-00-480-004

(11) Connect the applicable cable assembly, SPL-10039, to the connector on the test box.

NOTE: Look at the placard on the test box lid to determine the applicable adapter.

G. APU Fire Extinguishing Bottle Squib Circuit Test

SUBTASK 26-22-00-730-001

(1) Push the manual override button and pull the APU fire handle, on the P8-1 panel.

SUBTASK 26-22-00-480-005

(2) Connect the adapter cable to the squib electrical connector D594.

SUBTASK 26-22-00-860-004

(3) Turn the APU fire handle and hold it in the CW (Clockwise) direction.

(a) Make sure that the BOTTLE DISCHARGE light on the test box comes on.

(b) Write down the voltage shown on the multimeter as (V_1) in Table 501.

(c) Set the switch on the test box to the ON position.

(d) Write down the voltage shown on the multimeter as (V_2) in Table 501.

SUBTASK 26-22-00-860-005

(4) Release the fire handle.

(a) Make sure that the handle moves toward the center 10°arc (0.2 rad).

(b) Make sure that the multimeter shows 0 (±2) V (Volts).

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(c) Set the switch on the test box to the OFF position.

SUBTASK 26-22-00-760-002

(5) Calculate the resistance R_C of the squib discharge circuit using this formula:

$R_C = RL (V_1/V_2) - RL$.

(a) Make sure that R_C is less than or equal to 5 ohms.

NOTE: If R_C is more than 5 ohms, the circuit can not supply enough current to fire the squib cartridge.

Table 501/26-22-00-993-801 APU Fire Bottle Squib Circuit Test Result

CONNECTOR	RL	V1	V2	Rc
D594				

SUBTASK 26-22-00-860-006

(6) Turn the APU fire handle and hold it in the CCW (Counterclockwise) direction.

(a) Make sure that the BOTTLE DISCHARGE light on the test box comes on.

(b) Write down the voltage shown on the multimeter as (V_1) in Table 502.

(c) Set the switch on the test box to the ON position.

(d) Write down the voltage shown on the multimeter as (V_2) in Table 502.

SUBTASK 26-22-00-860-007

(7) Release the fire handle.

(a) Make sure that the handle moves toward the center 10°arc (0.2 rad).

(b) Make sure that the multimeter shows 0 (±2) V.

(c) Set the switch on the test box to the OFF position.

SUBTASK 26-22-00-760-003

(8) Calculate the resistance R_C of the squib discharge circuit using this formula:

$R_C = RL (V_1/V_2) - RL$.

(a) Make sure that R_C is less than or equal to 5 ohms.

NOTE: If R_C is more than 5 ohms, the circuit can not supply enough current to fire the squib cartridge.

Table 502/26-22-00-993-802 APU Fire Bottle Squib Circuit Test Result

CONNECTOR	RL	V1	V2	Rc
D594				

SUBTASK 26-22-00-860-022

(9) Return the APU fire handle to its usual (stowed) position.

H. APU Fire Extinguishing Bottle Squib Circuit Check with the Remote APU Control Panel

SUBTASK 26-22-00-730-002

(1) Pull the handle, on the P28 remote APU control panel, in the right main gear wheel well.

SUBTASK 26-22-00-860-008

(2) Push and hold the BOTTLE DISCHARGE toggle switch.

(a) Make sure that the BOTTLE DISCHARGE light on the test box comes on.

(b) Write down the voltage shown on the multimeter as (V_1) in Table 503.

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(c) Set the switch on the test box to the ON position.

(d) Write down the voltage shown on the multimeter as (V_2) in Table 503.

SUBTASK 26-22-00-860-009

(3) Release the BOTTLE DISCHARGE toggle switch.

(a) Make sure that the multimeter shows 0 (±2) V.

SUBTASK 26-22-00-760-004

(4) Calculate the resistance R_C of the squib discharge circuit using this formula:

$R_C = RL (V_1/V_2) - RL$.

(a) Make sure that R_C is less than or equal to 5 ohms.

NOTE: If R_C is more than 5 ohms, the circuit can not supply enough current to fire the squib cartridge.

Table 503/26-22-00-993-803 APU Fire Bottle Squib Circuit Test Result

CONNECTOR	RL	V1	V2	Rc
D594				

SUBTASK 26-22-00-720-001

(5) Put the handle, on the P28 remote APU control panel, in the usual position.

I. APU Fire Extinguishing Bottle Automatic Function Check

SUBTASK 26-22-00-860-021

(1) Make sure that the APU is not running (TASK 49-11-00-860-802).

SUBTASK 26-22-00-010-001

(2) To get access to the APU Compartment, do this step:

(a) Open this access panel:

Number	Name/Location
315A	APU Cowl Door

SUBTASK 26-22-00-480-006

(3) Connect the test box equipment, SPL-1655, to the terminal lug of the APU LOWER Fire Detector, M1756, and airplane ground.

(a) Make sure that all the toggle switches on the test box are in the NORMAL positions.

(b) Connect one alligator clip to the responder bracket or to a grounding lug.

(c) Connect the other alligator clip to the responder lug.

SUBTASK 26-22-00-760-005

(4) Make sure that the multimeter shows 0 (±2) V.

SUBTASK 26-22-00-760-006

(5) On the equipment, SPL-1655 test box, move the APU LOOP FIRE switches to the FIRE position.

(a) After 10 seconds, make sure that the BOTTLE DISCHARGE light on the Fire System Test Equipment, SPL-1663 test box, comes on.

(b) Write down the voltage shown on the multimeter as (V_1).

(c) Set the switch on the Fire System Test Equipment, SPL-1663 test box, to the ON position.

(d) Write down the voltage shown on the multimeter as (V_2).

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SUBTASK 26-22-00-760-007

(6) Calculate the resistance R_C of the squib discharge circuit using this formula:

$R_C = RL (V_1/V_2) - RL$.

(a) Make sure that R_C is less than or equal to 5 ohms.

NOTE: If R_C is more than 5 ohms, the circuit can not supply enough current to fire the squib cartridge.

Table 504/26-22-00-993-804 APU Fire Extinguishing Bottle Squib Circuit Test

CONNECTOR	RL	V1	V2	R_C
D594				

SUBTASK 26-22-00-760-008

(7) On the equipment, SPL-1655 test box, move the APU LOOP FIRE switches to the NORMAL position.

SUBTASK 26-22-00-080-002

(8) Disconnect the equipment, SPL-1655 test box, from the terminal lug of the APU Fire Detector, M1756, and airplane ground.

J. Put the Airplane Back to Its Usual Condition

SUBTASK 26-22-00-080-001

(1) Disconnect the Fire System Test Equipment, SPL-1663 test box, from the squib connector.

SUBTASK 26-22-00-430-001

(2) Install single strand copper MS20995CY15 lockwire, G50414, on the bottle discharge switch, on the APU remote fire panel.

SUBTASK 26-22-00-865-001

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU

SUBTASK 26-22-00-090-001

(4) Remove the protective cap from the squib.

SUBTASK 26-22-00-020-008

(5) Remove the shorting plug, SPL-10040, from the squib.

SUBTASK 26-22-00-700-001

WARNING MAKE SURE THERE IS NO VOLTAGE AT THE ELECTRICAL CONNECTOR. IF THERE IS A VOLTAGE AT THE ELECTRICAL CONNECTOR, THE SQUIB CAN FIRE SUDDENLY AND CAUSE INJURY TO PERSONNEL.

(6) Do these steps to make sure that there is no stray voltage at the electrical squib connector:

Fire Bottle Squib Electrical Connector

	Engine	APU	Cargo
Connector Pins	3 and 4, and 6 and 7	3 and 4	1 and 2

(a) Connect the digital/analog multimeter, COM-1793, across the two pins.

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(b) Make sure that the current is less than 5 milliamps AC, and less than 5 milliamps DC.

(c) Connect a resistor, STD-1079, across the multimeter probes.

(d) Make sure that the voltage is less than .250 volts AC, and less than 0.250 volts DC.

(e) If it is necessary, repeat the steps above for the other squib electrical connectors.

(f) Disconnect the multimeter.

SUBTASK 26-22-00-430-002

(7) Connect the electrical connector D594 to the squib.

SUBTASK 26-22-00-410-001

(8) Close this access panel:

Number	Name/Location
315A	APU Cowl Door

SUBTASK 26-22-00-410-003

(9) Close this access panel:

Number	Name/Location
311BL	Stabilizer Trim Access Door

SUBTASK 26-22-00-865-002

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU

SUBTASK 26-22-00-710-004

(11) Set the Engines EXT TEST switch to 1.

(a) Make sure that the APU light comes on.

NOTE: The L and R lights should also come on.

SUBTASK 26-22-00-710-005

(12) Set the Engines EXT TEST switch to 2.

(a) Make sure that the APU light comes on.

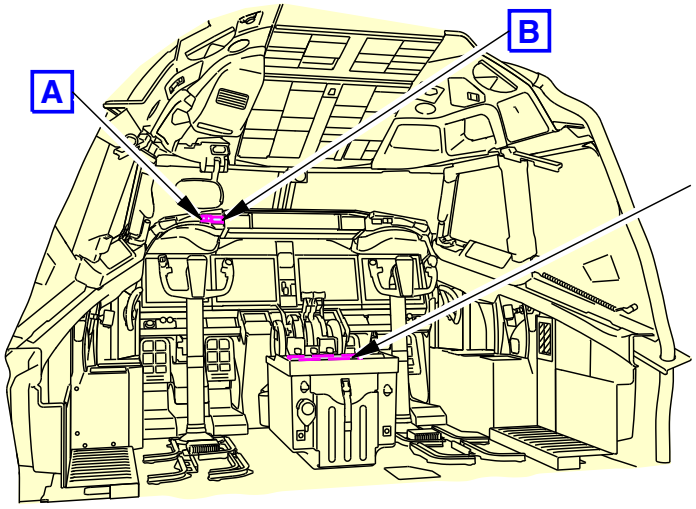
NOTE: The L and R lights should also come on.

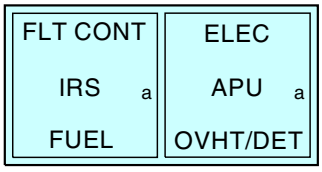
SUBTASK 26-22-00-710-006

(13) Release the Engines EXT TEST switch.

END OF TASK

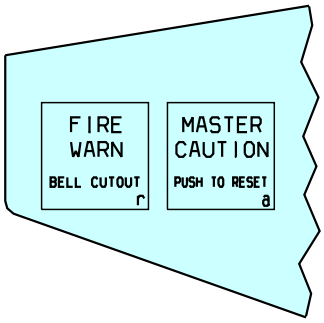
ECCN 9E991 BOEING PROPRIETARY - See title page for details





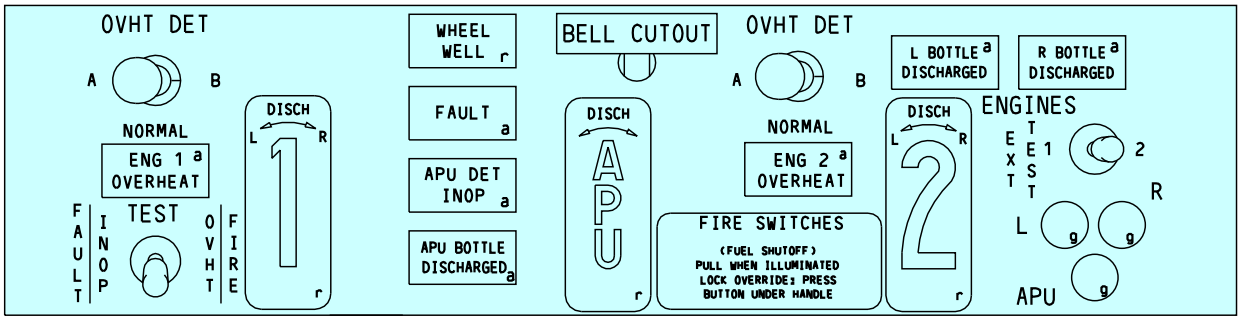
CAPTAIN'S WARNING LIGHTS (P7)

B



CAPTAIN'S FIRE WARNING SWITCH (P7) (FIRST OFFICER'S IS OPPOSITE)

A



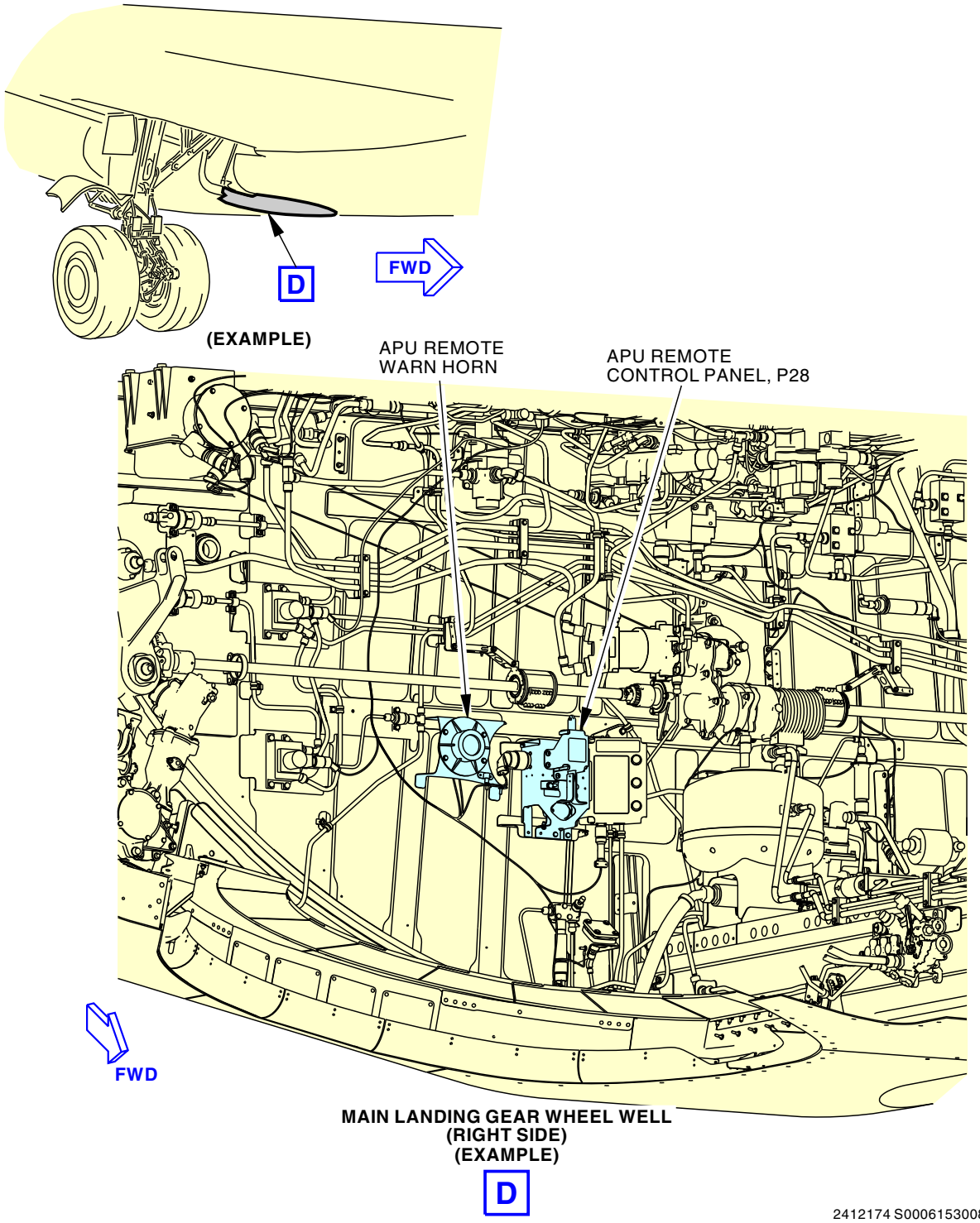
FIRE CONTROL PANEL (P8-1)

C

2412173 S00061530088_V1

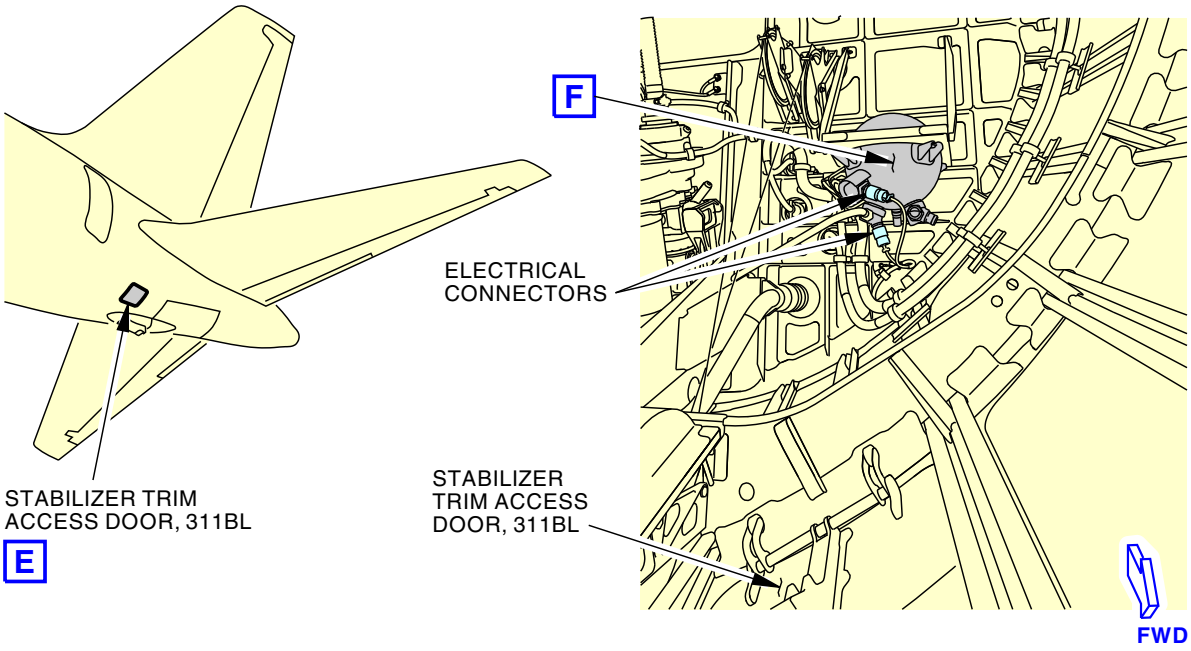
APU Fire Detection Test
Figure 501/26-22-00-990-802 (Sheet 1 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



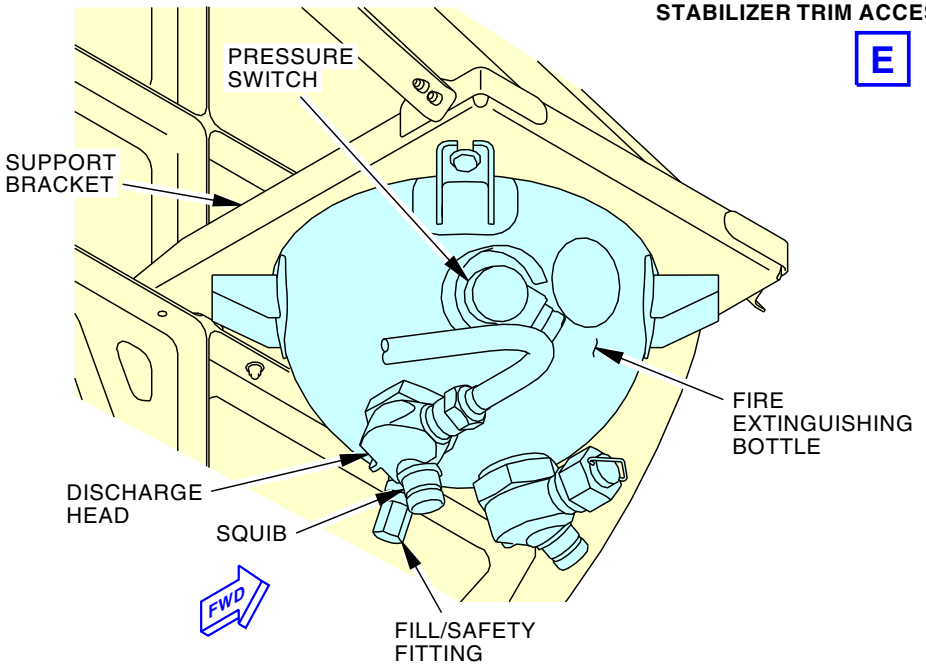
APU Fire Detection Test
Figure 501/26-22-00-990-802 (Sheet 2 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



STABILIZER TRIM ACCESS DOOR, 311BL

E



FIRE EXTINGUISHING BOTTLE

F

2830784 S0000657495_V1

APU Fire Detection Test
Figure 501/26-22-00-990-802 (Sheet 3 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-22-00-730-802

3. APU Fire Extinguishing Bottle Pressure Switch Circuit Test

(Figure 501)

A. General

(1) The pressure switch test should be performed every time the fire control module or pressure switch is disconnected from the airplane wiring.

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right
311	Area Aft of Pressure Bulkhead - Left

C. APU Fire Extinguishing Bottle Pressure Switch Test

SUBTASK 26-22-00-020-006

(1) Disconnect electrical connector D1176 from the pressure switch on the APU fire bottle.

SUBTASK 26-22-00-730-003

(2) Do a test of the APU fire bottle pressure switch circuit.

(a) Connect a jumper wire between pins 1 and 2 on D1176.

1) Make sure the APU BOTTLE DISCHARGED light on the fire control module comes on.

(b) Remove the jumper from connector D1176.

SUBTASK 26-22-00-420-003

(3) Connect D1176 to the pressure switch on the APU fire bottle.

——— END OF TASK ———

TASK 26-22-00-720-801

4. APU Fire Switch System Shutdown Test

(Figure 502)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This procedure checks that fuel to the APU is shut off and the APU generator is disconnected from the airplane power when the fire handle is pulled. It should be performed when the Engine and APU Fire Control Panel, or Remote APU Control Panel is removed from the airplane.

B. References

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

C. Location Zones

Zone	Area
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right
211	Flight Compartment - Left
212	Flight Compartment - Right
315	APU Compartment - Left

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(Continued)

Zone	Area
316	APU Compartment - Right

D. APU Fire Handle Fuel System Shutdown Test

SUBTASK 26-22-00-860-010

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU

SUBTASK 26-22-00-860-011

(2) Make sure that these circuit breakers are closed:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
A	21	C00396	FIRE PROT DETECTION MA WRN & CONT
A	22	C00407	FIRE PROTECTION DETECTION ENG 2
A	23	C00403	FIRE PROTECTION DETECTION APU
A	24	C00405	FIRE PROTECTION DETECTION ENG 1
B	19	C01344	APU FIRE SW POWER

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
B	12	C00132	MASTER CAUTION ANNUNCIATOR BUS 1
B	13	C00131	MASTER CAUTION ANNUNCIATOR BAT
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT
D	12	C00310	INDICATOR MASTER DIM BAT
D	13	C00311	INDICATOR MASTER DIM BUS 1
D	14	C00312	INDICATOR MASTER DIM BUS 2
D	15	C01401	LANDING GEAR AIR/GND RELAY
E	11	C00313	INDICATOR MASTER DIM SECT 1
E	12	C00314	INDICATOR MASTER DIM SECT 2
E	13	C00315	INDICATOR MASTER DIM SECT 3
E	14	C00316	INDICATOR MASTER DIM SECT 4
F	11	C00317	INDICATOR MASTER DIM SECT 5
F	12	C00318	INDICATOR MASTER DIM SECT 6

SUBTASK 26-22-00-860-012

(3) Pull the APU fire handle on the P8 panel.

(a) Make sure that the fire handle does not extend.

SUBTASK 26-22-00-860-013

(4) Do a test of the APU fire handle fuel shutdown circuit in the flight compartment.

(a) Set the APU master switch on the P5 panel to the ON position.

NOTE: The igniter plugs will fire three times. Do not start the APU.

1) Make sure that the APU fuel supply valve in the left main gear wheel well is opened (Figure 502).

(b) Push the manual override button and pull the APU fire handle on the P8 panel.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

1) Make sure that the APU fuel supply valve in the left main gear wheel well is closed.

(c) Push in the APU fire handle on the P8 panel to the usual position.

(d) Set the APU master switch on the P5 panel to the OFF position.

SUBTASK 26-22-00-860-014

(5) Use the remote APU control panel to check the APU fire handle fuel shutoff circuit.

(a) Set the APU master switch on the P5 panel to the ON position.

1) Make sure that the APU fuel supply valve in the left main gear wheel well is opened.

(b) Pull the handle on the P28 remote APU control panel in the right main gear wheel well.

1) Make sure that the APU fuel supply valve in the left main gear wheel well is closed.

(c) Push the handle on the remote APU control panel to the usual position.

(d) Set the APU master switch on the P5 panel to the OFF position.

E. APU P8 Panel Fire Handle Generator Shutdown Test

SUBTASK 26-22-00-860-015

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU

SUBTASK 26-22-00-860-016

(2) Do this task: Supply APU Generator Power, TASK 24-22-00-860-805.

SUBTASK 26-22-00-860-017

(3) Set the AC meter select switch on the P5-13 panel to APU GEN.

(a) Make sure that the voltage reads 110-120 vac.

(b) Make sure that the frequency reads 390-410.

SUBTASK 26-22-00-860-018

CAUTION

DO NOT TURN THE FIRE HANDLE AFTER YOU PULLED IT UP. YOU WILL CAUSE THE FIRE BOTTLES TO RELEASE THEIR CONTENTS IF YOU TURN THE HANDLE.

(4) Push the manual override button and pull the APU fire handle, on the P8 panel.

NOTE: The APU will do an emergency shutdown. When the APU does an emergency shutdown, it will not do the cool-down cycle.

(a) Make sure that the voltage and frequency read 0 after 7 seconds.

SUBTASK 26-22-00-860-019

(5) Set the APU and fire protection circuits to the usual positions.

(a) Set the APU master switch to the OFF position.

(b) Push the APU fire handle to its usual position.

(c) Set the APU master switch to the ON position.

(d) After 30 seconds, make sure that the APU FAULT light goes off.

(e) Make sure that the APU annunciator light goes off.

(f) Push and release the APU annunciator light.

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(g) Make sure that the L and R MASTER CAUTION lights go off.

NOTE: The L and R MASTER CAUTION lights stay on if the airplane finds other system faults.

(h) Set the APU master switch to the OFF position.

F. APU P28 Remote Panel Fire Handle Generator Shutdown Test

SUBTASK 26-22-00-860-027

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU

SUBTASK 26-22-00-860-031

(2) Do this task: Supply APU Generator Power, TASK 24-22-00-860-805.

SUBTASK 26-22-00-860-029

(3) Set the AC meter select switch on the P5-13 panel to APU GEN.

(a) Make sure that the voltage reads 110-120 vac.

(b) Make sure that the frequency reads 390-410.

SUBTASK 26-22-00-860-025

(4) Pull the handle on the P28 remote APU control panel in the right main gear wheel well.

NOTE: The APU will do an emergency shutdown. When the APU does an emergency shutdown, it will not do the cool-down cycle.

(a) Make sure that the voltage and frequency read 0 after 7 seconds.

SUBTASK 26-22-00-860-030

(5) Set the APU and fire protection circuits to the usual positions.

(a) Set the APU master switch to the OFF position.

(b) Push the APU fire handle to its usual position.

(c) Set the APU master switch to the ON position.

(d) After 30 seconds, make sure that the APU FAULT light goes off.

(e) Make sure that the APU annunciator light goes off.

(f) Push and release the APU annunciator light.

(g) Make sure that the L and R MASTER CAUTION lights go off.

NOTE: The L and R MASTER CAUTION lights stay on if the airplane finds other system faults.

(h) Set the APU master switch to the OFF position.

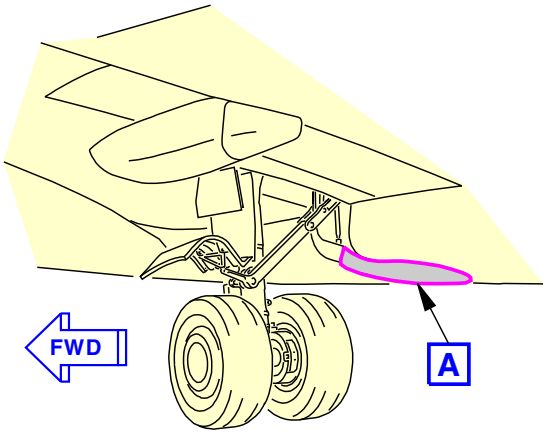
G. Put the Airplane Back to Its Usual Condition

SUBTASK 26-22-00-860-032

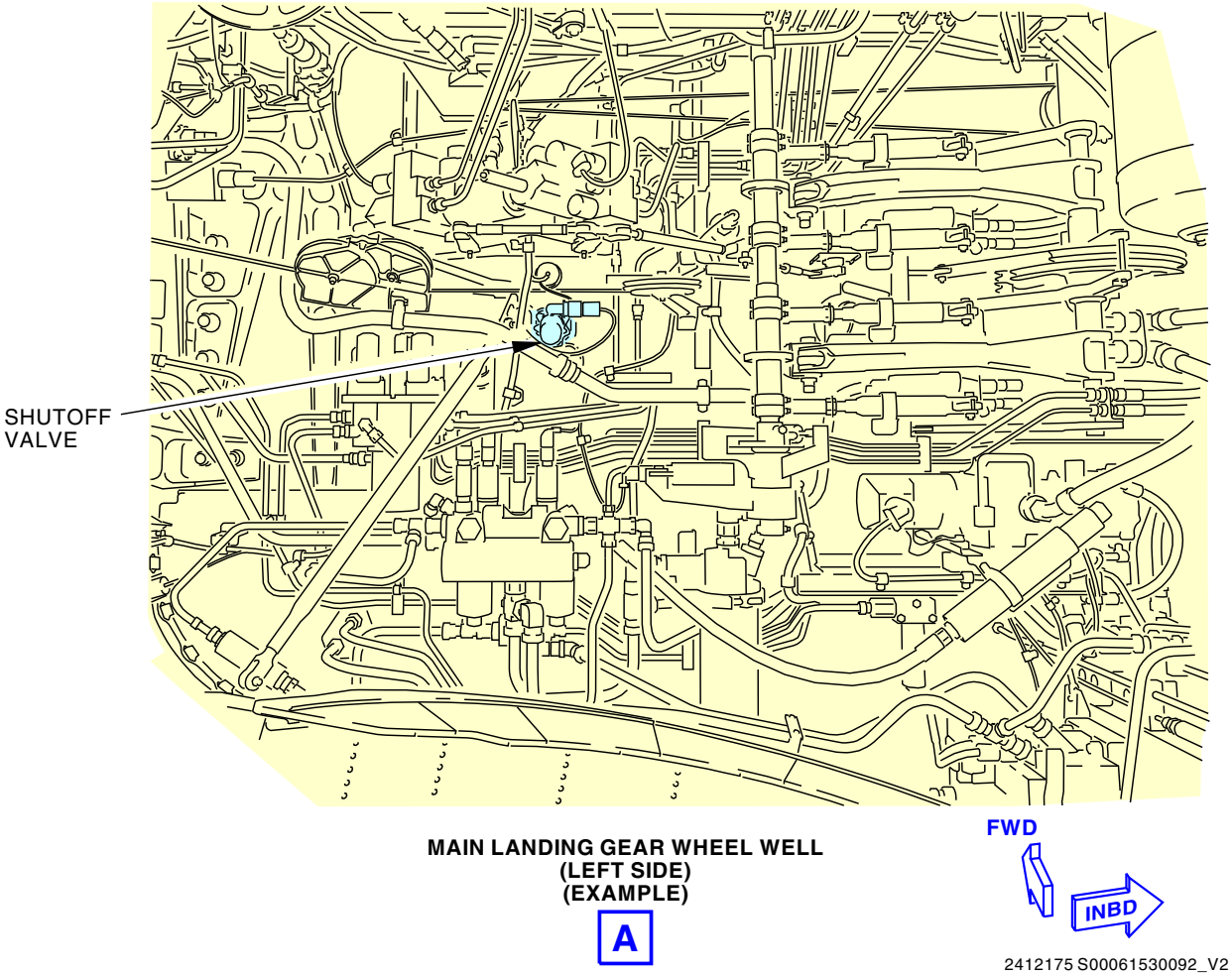
(1) Do this task: Remove APU Generator Power, TASK 24-22-00-860-806.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



(EXAMPLE)



MAIN LANDING GEAR WHEEL WELL
(LEFT SIDE)
(EXAMPLE)

2412175 S00061530092_V2

APU Fuel Shutoff Valve Actuator Test
Figure 502/26-22-00-990-803

ECCN 9E991 BOEING PROPRIETARY - See title page for details

APU FIRE EXTINGUISHING BOTTLE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) APU fire extinguishing bottle removal

(2) APU fire extinguishing bottle installation.

B. The APU fire extinguishing bottle is installed forward of the APU fire wall. You can get access to the bottle through the Aft Unpressurized Compartment Access Door, 311BL.

TASK 26-22-01-000-801

2. APU Fire Extinguishing Bottle Removal

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task gives the instructions to remove the Auxiliary Power Unit (APU) fire extinguishing bottle.

B. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)
20-40-12-400-802	ESDS Handling for Metal Encased Unit Installation (P/B 201)

C. Tools/Equipment

Reference	Description
STD-1168	Cap - Shorting or Faraday Cap

D. Location Zones

Zone	Area
212	Flight Compartment - Right
311	Area Aft of Pressure Bulkhead - Left

E. Access Panels

Number	Name/Location
311BL	Stabilizer Trim Access Door

F. Prepare for the Removal

SUBTASK 26-22-01-860-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	19	C01344	APU FIRE SW POWER
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	14	C00033	AUX POWER UNIT CONT

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SUBTASK 26-22-01-010-001

(2) Open this access door:

Number	Name/Location
311BL	Stabilizer Trim Access Door

G. APU Fire Extinguishing Bottle Removal

SUBTASK 26-22-01-020-002

WARNING DO NOT TOUCH THE SQUIB BEFORE YOU DO THE PROCEDURES FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

(1) Before you touch the squib [7], do the procedure for devices that are sensitive to electrostatic discharge.

(a) These are the tasks:

- ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802
- ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

SUBTASK 26-22-01-020-009

(2) Disconnect the electrical connector [1] from the squib [7].

NOTE: The squib [7] is also known as cartridge.

SUBTASK 26-22-01-020-003

WARNING DO NOT MOVE OR TOUCH THE CARTRIDGE WITHOUT A SHORTING CAP OR FARADAY CAP INSTALLED ON THE ENDS OF THE SQUIB. THE SQUIB IS AN EXPLOSIVE DEVICE. ACCIDENTAL OPERATION OF THE SQUIB CAN CAUSE INJURY TO PERSONS.

CAUTION DO NOT PUT SHUNT PLUGS ON THE FIRE BOTTLE SQUIBS. THE SHUNT PLUGS CAN CAUSE DAMAGE TO THE SQUIB PINS.

(3) Install the shorting or faraday cap, STD-1168, on the squib [7].

NOTE: The shorting or faraday cap, STD-1168, are attached to the fire extinguishing bottles. These shorting or faraday cap, STD-1168, prevent the squibs [7] from possible activation due to static electricity.

SUBTASK 26-22-01-020-004

(4) Disconnect the electrical connector [2] from the pressure switch.

SUBTASK 26-22-01-020-005

(5) Loosen the nut on the tube assembly.

SUBTASK 26-22-01-020-006

(6) Disconnect the tube assembly from the discharge head.

SUBTASK 26-22-01-420-005

(7) Install the protective caps on the discharge ports.

SUBTASK 26-22-01-420-006

(8) Install the protective caps on the discharge lines.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-22-01-020-007

(9) Remove the bolts [4] and the washers [5] from the mounting lugs.

SUBTASK 26-22-01-020-008

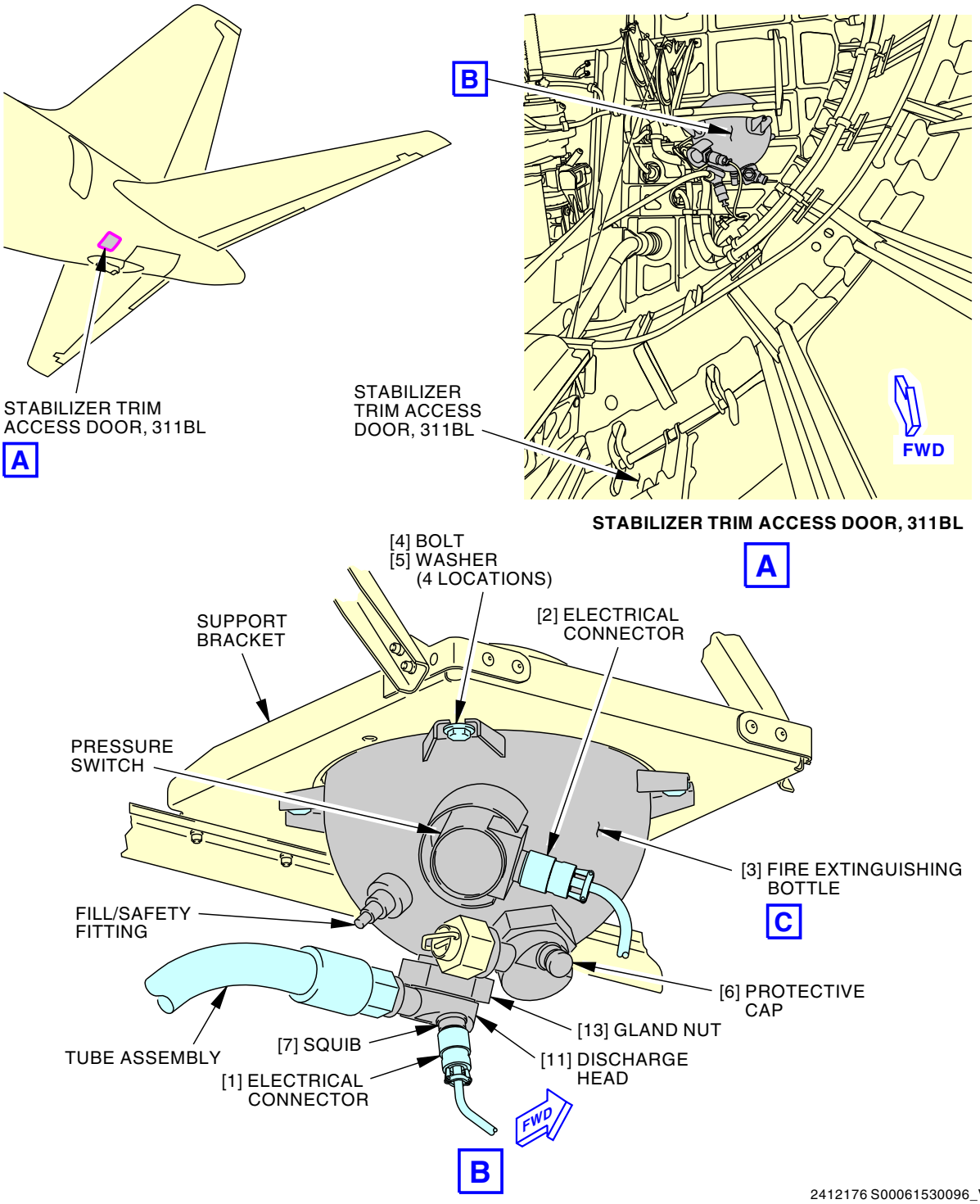
WARNING

BE CAREFUL WHEN YOU MOVE THE FIRE EXTINGUISHING BOTTLE. THE FIRE EXTINGUISHING BOTTLE IS PRESSURIZED AND HAS AN EXPLOSIVE CARTRIDGE AS A COMPONENT. IF THE FIRE EXTINGUISHING BOTTLE RELEASES ITS CONTENTS, IT CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(10) Remove the fire extinguishing bottle [3].

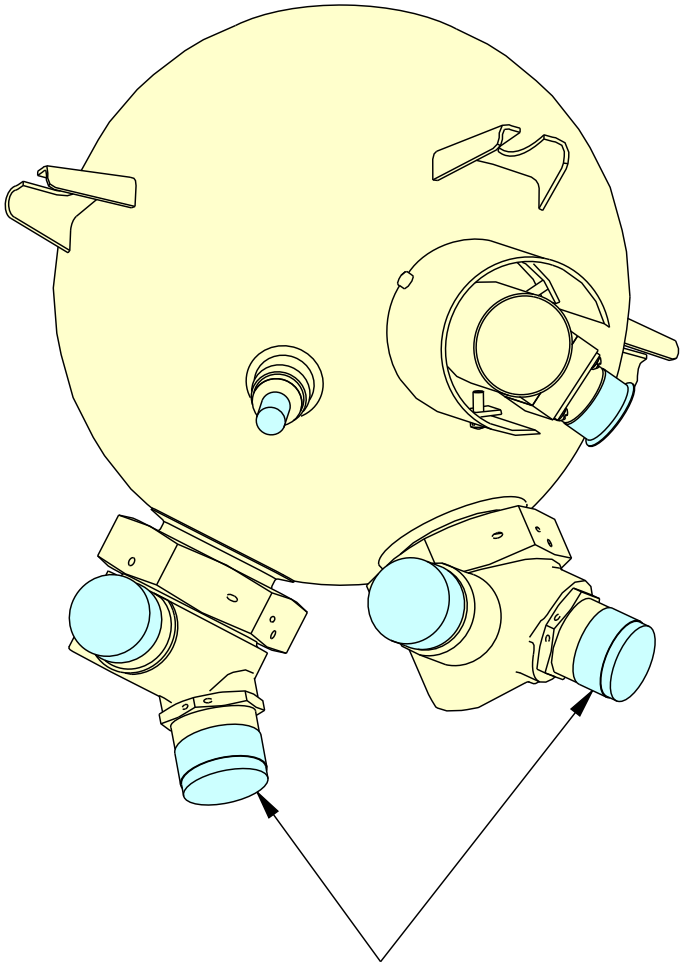
END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Auxiliary Power Unit (APU) Fire Extinguishing Bottle Installation
Figure 401/26-22-01-990-801 (Sheet 1 of 2)

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APU ENGINE FIRE EXTINGUISHING BOTTLE

C

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Auxiliary Power Unit (APU) Fire Extinguishing Bottle Installation
Figure 401/26-22-01-990-801 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-22-01-400-801

3. APU Fire Extinguishing Bottle Installation

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task gives the instructions to install the Auxiliary Power Unit (APU) fire extinguishing bottle.

B. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)
20-40-12-400-802	ESDS Handling for Metal Encased Unit Installation (P/B 201)
26-20-00-210-802	APU Fire Extinguishing Bottle Check (P/B 601)
26-22-00-730-802	APU Fire Extinguishing Bottle Pressure Switch Circuit Test (P/B 501)
SWPM 20-00-00	Standard Wiring Practices 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-1550	Bonding Meter - 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 #: M1B Supplier: 3AD17 Part #: T477W (C15292) Supplier: 06659
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 #: 21 Supplier: 89536 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-4907	Force Gauge, 10 Lbs. with Resolution of 0.1 lb, +/-0.3% or Better Part #: FDIX 100 Supplier: 0BFD9 Part #: FDIX 50 Supplier: 0BFD9 Part #: LG-5KG Supplier: 92456 Part #: PS-10 Supplier: 1GHM7 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-1079	Resistor - 10K Ohm or Greater
STD-1168	Cap - Shorting or Faraday Cap

D. Consumable Materials

Reference	Description	Specification
B00083	Solvent - VM&P Naphthas	TT-N-95 Type II, ASTM D-3735 Type III
D50004	Compound - Antiseize	BMS3-28
G01048	Lockwire - MS20995C32, Corrosion Resistant Steel - 0.032 Inch (0.8128 mm) Diameter	NASM20995

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
3	Fire extinguishing bottle	26-22-01-02-080	SIA ALL

F. Location Zones

Zone	Area
212	Flight Compartment - Right
311	Area Aft of Pressure Bulkhead - Left

G. Access Panels

Number	Name/Location
311BL	Stabilizer Trim Access Door

H. Prepare for the Installation

SUBTASK 26-22-01-700-001

(1) Use the force gauge, COM-4907, to weigh the fire extinguishing bottle [3].

NOTE: The bottle assembly includes the charged bottle, discharge heads, squibs and shorting or faraday caps, STD-1168 on the squibs.

(a) Weigh the shorting or faraday caps, STD-1168, including its caps and record as "Value A".

(b) Record the weight marked on the fire extinguishing bottle [3] as "Value B".

(c) Replace the squib protective caps [6] with shorting or faraday caps, STD-1168, from the squibs [7] and remove the rest of the protective caps from the fire extinguishing bottle [3], before weighing.

(d) Weigh the assembly, including the charged bottle, discharge heads, squibs [7], shorting or faraday caps, STD-1168 (including shorting plugs' caps), and the loose squib protective caps [6] and record as "Value C'.

(e) Find the measured weight of the fire extinguishing bottle [3] by subtracting "Value A" from "Value C" and record as "Value D" (Value D = Value C - Value A).

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(f) Make sure that the shorting or faraday caps, STD-1168 are installed on the squibs [7] during handling, weighing and installation of the fire extinguishing bottle [3].

(g) Remove other protective caps from the fire extinguishing bottle [3] before weighing.

NOTE: Do not remove the shorting or faraday caps, STD-1168 from the squibs [7].

SUBTASK 26-22-01-280-001

(2) Replace the fire extinguishing bottle [3] if any of the following conditions exist.

(a) The measured weight ("Value D") deviates from the weight marked on the fire extinguishing bottle [3] (“Value B”) by more than 0.00 +0.12 / -0.06 lb (0.00 +0.05 / -0.03 kg).

(b) The most recent hydrostatic proof pressure test date marked on one of the mounting lugs is older than 15 months.

(c) The explosive cartridge date of manufacture etched on the squib [7] hex is older than 24 months.

SUBTASK 26-22-01-860-002

(3) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	19	C01344	APU FIRE SW POWER
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	14	C00033	AUX POWER UNIT CONT

SUBTASK 26-22-01-200-001

(4) Do this task: APU Fire Extinguishing Bottle Check, TASK 26-20-00-210-802.

(a) If the previous bottle was discharged, check the discharge tube for any debris.

I. APU Fire Extinguishing Bottle Installation

SUBTASK 26-22-01-420-001

(1) Do these steps to install the fire extinguishing bottle [3]:

WARNING BE CAREFUL WHEN YOU MOVE THE FIRE EXTINGUISHING BOTTLE. THE FIRE EXTINGUISHING BOTTLE IS HIGHLY PRESSURIZED AND HAS AN EXPLOSIVE SQUIB AS A COMPONENT. ACCIDENTAL DISCHARGE OF THE FIRE EXTINGUISHING BOTTLE CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

(a) Prepare the fire extinguisher bottle lugs and support bracket mounting surfaces for installation.

(b) Make sure that the fire extinguishing bottle [3] and support bracket mounting surfaces are clean.

(c) Install the bolt [4] and washer [5] into the support bracket.

1) Tighten the bolt [4] with your fingers.

(d) Put the bottle in the mounted position on the support bracket.

1) Slide the bottle lug between previously installed bolt [4], washer [5], and support bracket.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(e) Tighten the bolt [4] to 150 in-lb (17 N·m).

(f) Install a second bolt [4] and washer [5] in a cross corner from the first bolt [4].

1) Tighten the bolt [4] with your fingers.

2) Do not install the remaining bolts [4] and washers [5] at this time.

3) Make sure that the bolts [4] are fully engaged in the fire bottle lugs.

NOTE: Movement of the bottle is allowed for installation of the discharge line.

(g) If the discharge head does not align with the discharge line, do this step:

1) Loosen the discharge head gland nut and turn the discharge port so it aligns with the discharge line.

(h) Tighten the gland nut to 540 in-lb (61 N·m) - 660 in-lb (75 N·m).

NOTE: Even if the discharge head is already aligned, the gland nut is not yet torqued down.

(i) Install MS20995C32 lockwire, G01048 from the gland nut on the discharge head to the gland nut on the other discharge head.

(j) Remove the protective cap from the discharge tube.

(k) Make sure that MS20995C32 lockwire, G01048 is installed between the cartridges and the discharge heads.

WARNING

YOU MUST WEAR THE APPLICABLE GLOVES WHEN YOU USE HIGH-TEMPERATURE ANTISEIZE COMPOUND. IF YOU GET THE HIGH-TEMPERATURE ANTISEIZE COMPOUND ON YOUR SKIN, REMOVE IT WITH SOAP AND WATER. IF THE HIGH-TEMPERATURE ANTISEIZE COMPOUND GOES THROUGH YOUR SKIN, INJURY TO PERSONNEL CAN OCCUR.

(l) Apply a layer of compound, D50004, to the external threads of the discharge head, and to the shoulder of the sleeve that contacts the coupling nut on the discharge tube.

NOTE: Do not allow antiseize to enter the discharge head or the discharge line tube. Do not apply antiseize to the sealing surface of the sleeve on the discharge tube.

(m) Connect the discharge tube to the discharge head.

(n) Remove all unwanted compound.

(o) Install the remaining bolts [4] and washers [5] that attach the fire extinguishing bottle [3].

1) Tighten the bolts [4] snug, then back off 1/2 turn.

2) Make sure that the discharge tube does not bind.

(p) Tighten the discharge tube coupling nut to 360 ±18 in-lb (41 ±2 N·m)

(q) Tighten all of the bolts [4] to 150 in-lb (17 N·m).

(r) If removed, install the cap to the discharge head that is not used.

1) Tighten the cap to 450 ±23 in-lb (51 ±3 N·m).

(s) Measure the electrical bonding resistance between the fire extinguishing bottle [3] lugs and support bracket (SWPM 20-00-00).

1) Use an intrinsically safe approved bonding meter, COM-1550.

2) Make sure that the resistance is 0.0005 ohm (0.5 milliohm) or less.

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3) If the resistance is more than 0.0005 ohm (0.5 milliohm), clean the bonding surfaces between the fire extinguishing bottle [3] and support bracket with solvent, B00083, and retest.

SUBTASK 26-22-01-710-001

(2) Do these steps to connect the electrical connector [1] to the squib [7] on the fire extinguishing bottle:

WARNING DO NOT TOUCH THE SQUIB BEFORE YOU DO THE PROCEDURES FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

(a) Before you touch the squib, do the procedure for devices that are sensitive to electrostatic discharge, as follows:

- ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802.
- ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

SUBTASK 26-22-01-700-002

WARNING MAKE SURE THERE IS NO VOLTAGE AT THE ELECTRICAL CONNECTOR. IF THERE IS A VOLTAGE AT THE ELECTRICAL CONNECTOR, THE SQUIB CAN FIRE SUDDENLY AND CAUSE INJURY TO PERSONNEL.

(3) Do these steps to make sure that there is no stray voltage at the electrical squib connector:

Fire Bottle Squib Electrical Connector

	Engine	APU	Cargo
Connector Pins	3 and 4, and 6 and 7	3 and 4	1 and 2

(a) Connect the digital/analog multimeter, COM-1793, across the two pins.

(b) Make sure that the current is less than 5 milliamps AC, and less than 5 milliamps DC.

(c) Connect a resistor, STD-1079, across the multimeter probes.

(d) Make sure that the voltage is less than .250 volts AC, and less than 0.250 volts DC.

(e) If it is necessary, repeat the steps above for the other squib electrical connectors.

(f) Disconnect the multimeter.

SUBTASK 26-22-01-420-007

(4) Remove the shorting or faraday cap, STD-1168 from the squib [7].

SUBTASK 26-22-01-420-002

CAUTION MAKE SURE THAT THE SQUIB PINS CORRECTLY ENGAGE THE ELECTRICAL CONNECTOR. IF NOT, DAMAGE TO THE ELECTRICAL CONNECTOR CAN OCCUR.

(5) Connect the electrical connector [1] to the squib [7].

SUBTASK 26-22-01-420-003

(6) Do this task to test the electrical wiring up to the pressure switch: APU Fire Extinguishing Bottle Pressure Switch Circuit Test, TASK 26-22-00-730-802.

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SUBTASK 26-22-01-420-004

(7) Connect the electrical connector [2] to the pressure switch.

J. APU Fire Extinguishing Bottle Installation Test

SUBTASK 26-22-01-860-003

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	19	C01344	APU FIRE SW POWER
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	14	C00033	AUX POWER UNIT CONT

SUBTASK 26-22-01-741-001

(2) Set the Engines EXT TEST switch, on the P8-1 panel, to 1 position.

(a) Make sure that the APU light comes on.

NOTE: The L and R engine lights should also come on.

SUBTASK 26-22-01-741-002

(3) Set the Engines EXT TEST switch, on the P8-1 panel, to 2 position.

(a) Make sure that the APU light comes on.

NOTE: The L and R engine lights should also come on.

SUBTASK 26-22-01-741-003

(4) Release the Engines EXT TEST switch.

K. Put the Airplane Back to Its Usual Condition

SUBTASK 26-22-01-010-002

(1) Close this access door:

Number	Name/Location
311BL	Stabilizer Trim Access Door

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

APU FIRE EXTINGUISHING BOTTLE - INSPECTION/CHECK

1. General

A. This procedure has this inspection task:

(1) APU Fire Bottle.

TASK 26-22-01-210-801

2. APU Fire Bottle Inspection

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. Location Zones

Zone	Area
313	Stabilizer Torsion Box Compartment - Left
314	Stabilizer Torsion Box Compartment - Right
315	APU Compartment - Left

B. Access Panels

Number	Name/Location
311BL	Stabilizer Trim Access Door
315A	APU Cowl Door

C. Prepare for the Inspection

SUBTASK 26-22-01-010-003

(1) Open these access panels:

Number	Name/Location
311BL	Stabilizer Trim Access Door
315A	APU Cowl Door

D. APU Fire Bottle Inspection

SUBTASK 26-22-01-210-001

(1) Make sure that the fire bottle is not damaged.

SUBTASK 26-22-01-210-002

(2) Make sure that the extinguisher tube is not damaged.

SUBTASK 26-22-01-210-003

(3) Make sure that the tubing outlet is not blocked with unwanted material.

E. Put the Airplane Back to Its Usual Condition

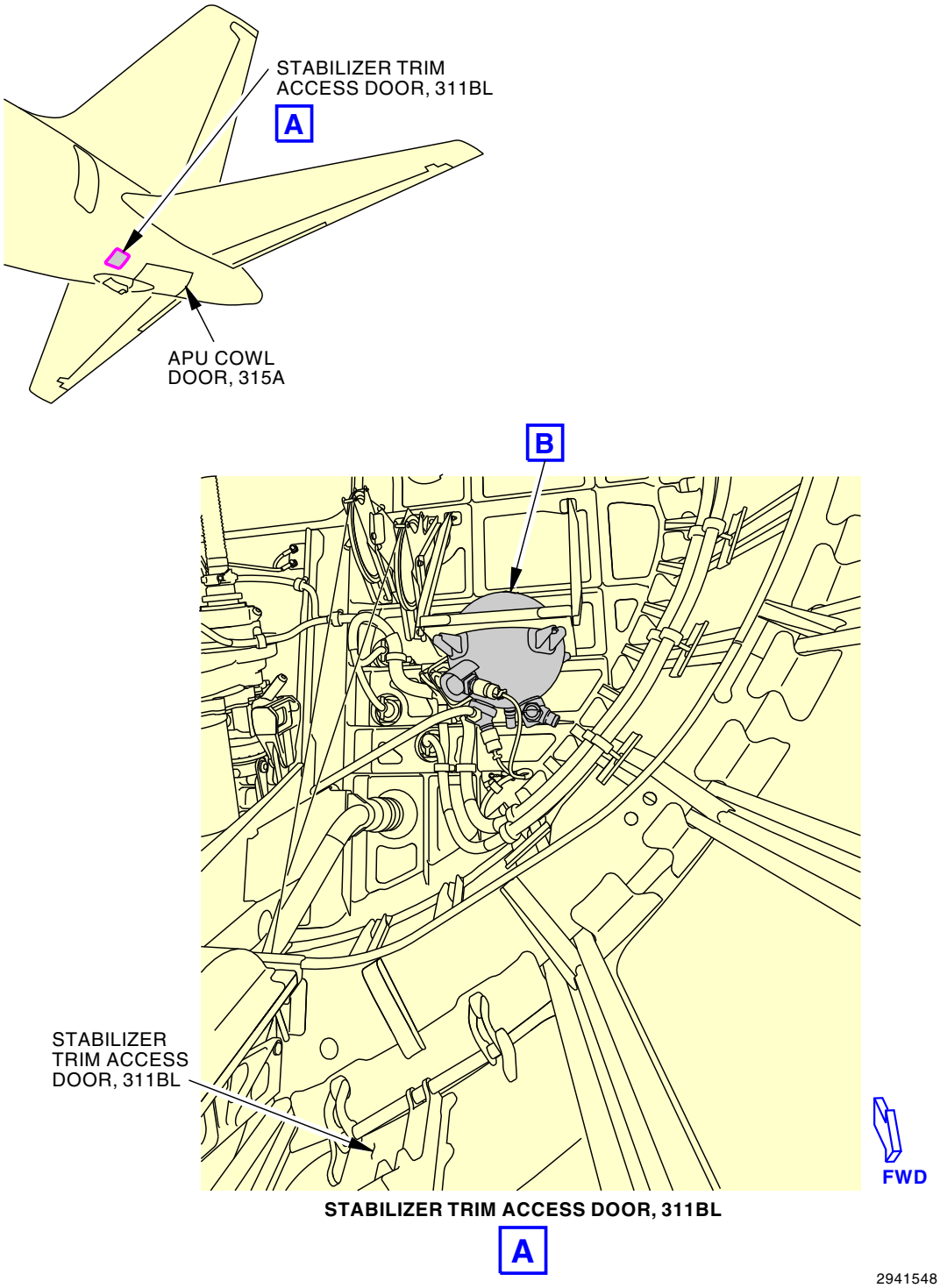
SUBTASK 26-22-01-010-004

(1) Close these access panels:

Number	Name/Location
311BL	Stabilizer Trim Access Door
315A	APU Cowl Door

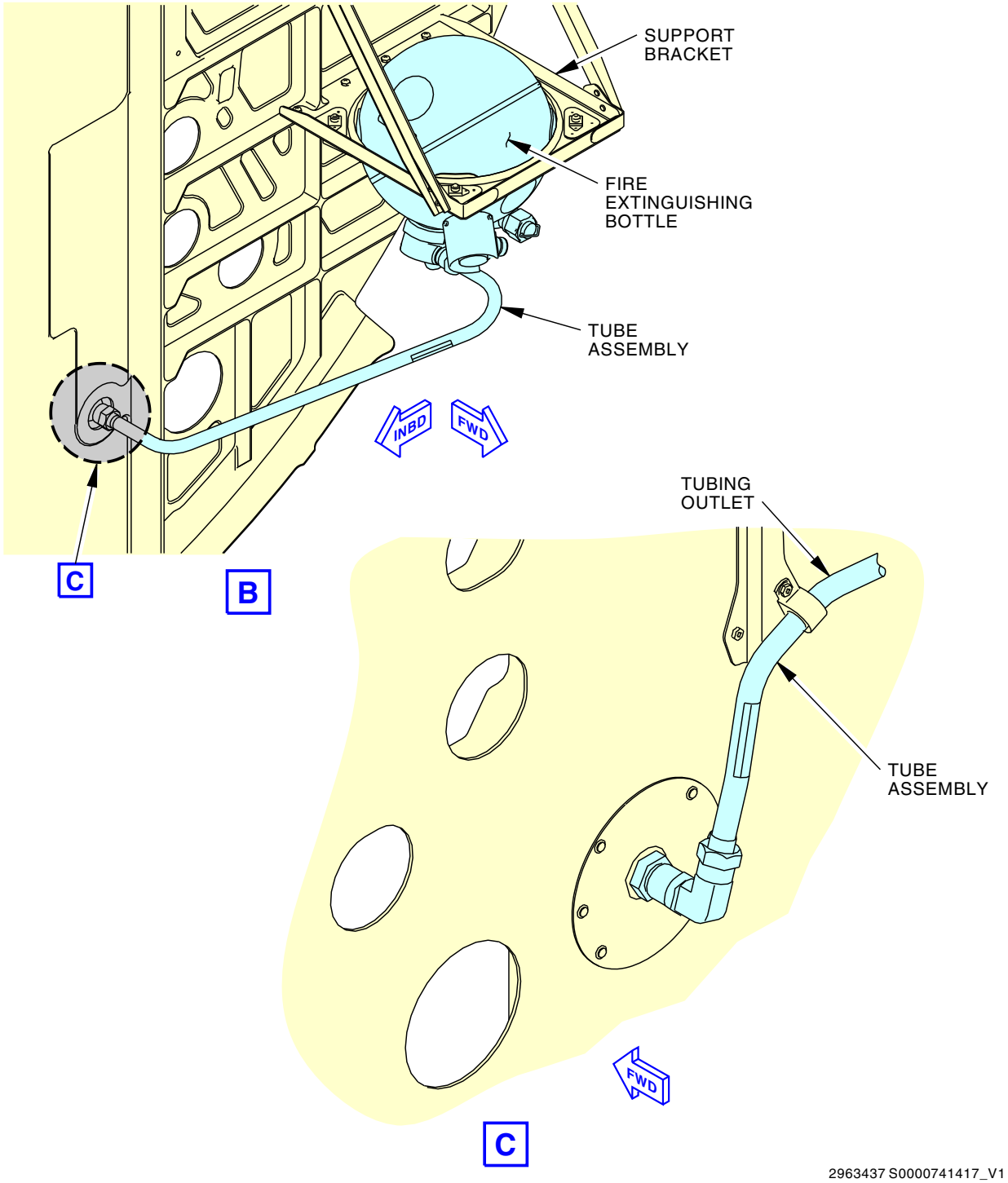
END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Auxiliary Power Unit (APU) Fire Extinguishing Bottle Inspection
Figure 601/26-22-01-990-802 (Sheet 1 of 2)

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Auxiliary Power Unit (APU) Fire Extinguishing Bottle Inspection
Figure 601/26-22-01-990-802 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

APU FIRE EXTINGUISHING BOTTLE SQUIB - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) APU fire extinguishing bottle squib removal

(2) APU fire extinguishing bottle squib installation.

TASK 26-22-02-000-801

2. APU Fire Extinguishing Bottle Squib Removal

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task gives instructions to remove the Auxiliary Power Unit (APU) Fire Extinguishing Bottle Squib.

(2) The APU fire extinguishing squibs are installed on the fire extinguishing bottle. The APU fire extinguishing bottle is installed forward of the APU fire wall.

(a) There are two fire extinguishing squibs on the bottle.

(b) One is not used and has a protective cap installed.

B. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)
20-40-12-400-802	ESDS Handling for Metal Encased Unit Installation (P/B 201)

C. Tools/Equipment

Reference	Description
STD-1168	Cap - Shorting or Faraday Cap

D. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - MS20995C32, Corrosion Resistant Steel - 0.032 Inch (0.8128 mm) Diameter	NASM20995

E. Location Zones

Zone	Area
212	Flight Compartment - Right
311	Area Aft of Pressure Bulkhead - Left

F. Access Panels

Number	Name/Location
311BL	Stabilizer Trim Access Door

G. Prepare For the Removal

SUBTASK 26-22-02-860-001

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	19	C01344	APU FIRE SW POWER

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(Continued)

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	14	C00033	AUX POWER UNIT CONT

SUBTASK 26-22-02-010-001

(2) Open this access door:

Number	Name/Location
311BL	Stabilizer Trim Access Door

SUBTASK 26-22-02-860-004

WARNING DO NOT TOUCH THE SQUIB BEFORE YOU DO THE PROCEDURES FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

(3) Before you touch the squibs, do these tasks for devices that are sensitive to electrostatic discharge:

- ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802
- ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802

H. APU Fire Extinguishing Bottle Squib Removal

SUBTASK 26-22-02-020-005

(1) Do these steps to remove the connected squib [3]:

(a) Disconnect the electrical connector [1] from the squib [3].

WARNING DO NOT MOVE OR TOUCH THE CARTRIDGE WITHOUT A SHORTING CAP OR FARADAY CAP INSTALLED ON THE ENDS OF THE SQUIB. THE SQUIB IS AN EXPLOSIVE DEVICE. ACCIDENTAL OPERATION OF THE SQUIB CAN CAUSE INJURY TO PERSONS.

CAUTION DO NOT PUT SHUNT PLUGS ON THE FIRE BOTTLE SQUIBS. THE SHUNT PLUGS CAN CAUSE DAMAGE TO THE SQUIB PINS.

(b) Install the shorting or faraday cap, STD-1168, on the squib [3].

NOTE: The shorting or faraday cap, STD-1168, are attached to the fire extinguishing bottles. These shorting or faraday caps, STD-1168, prevent the squibs from possible activation due to static electricity.

1) If necessary, install shorting or faraday cap, STD-1168, on the squib [4].

SUBTASK 26-22-02-020-003

(2) Remove the MS20995C32 lockwire, G01048, from the squib if present.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-22-02-020-004

(3) Remove the squib [3] from the discharge head.

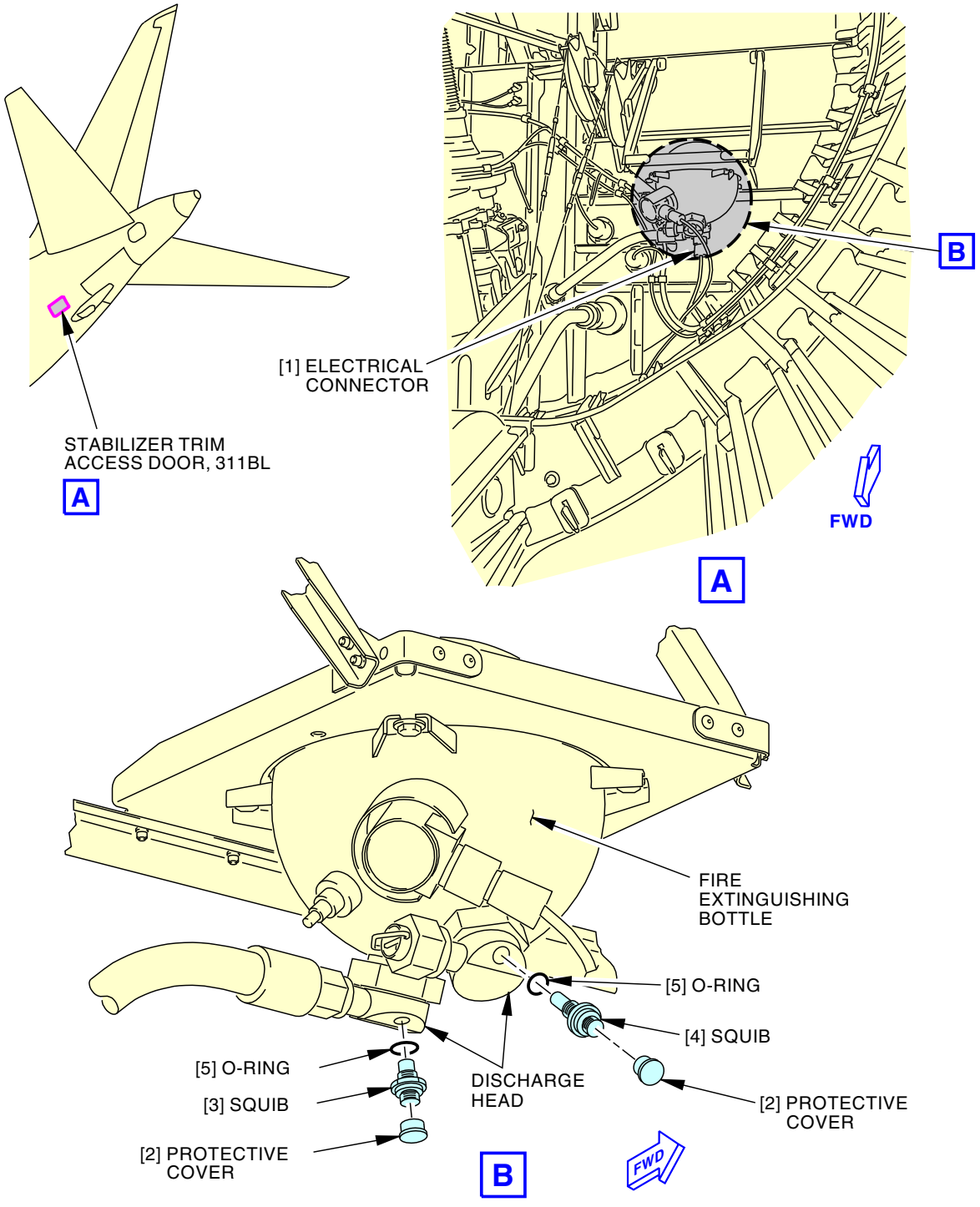
(a) If necessary, remove squib [4] from the discharge head.

SUBTASK 26-22-02-910-001

(4) Discard the O-ring [5] from the removed squibs.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Auxiliary Power Unit (APU) Fire Extinguishing Bottle Squib Installation
Figure 401/26-22-02-990-801

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-22-02-400-801

3. APU Fire Extinguishing Bottle Squib Installation

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)
20-40-12-400-802	ESDS Handling for Metal Encased Unit 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-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 #: 21 Supplier: 89536 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-1079	Resistor - 10K Ohm or Greater
STD-1168	Cap - Shorting or Faraday Cap

C. Consumable Materials

Reference	Description	Specification
D50287	Lubricant - O-Ring, Drilube 822 (MMS-N306A)	
G01048	Lockwire - MS20995C32, Corrosion Resistant Steel - 0.032 Inch (0.8128 mm) Diameter	NASM20995
G02392 [P05-262]	Lockwire - MS20995C32, Corrosion Resistant Steel - 0.032 Inch (0.8121 mm) Diameter	NASM20995

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
3	Squib	26-22-01-02-105	SIA ALL
4	Squib	26-22-01-02-100	SIA ALL
5	O-ring	26-22-01-02-120	SIA ALL

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E. Location Zones

Zone	Area
212	Flight Compartment - Right
311	Area Aft of Pressure Bulkhead - Left

F. Access Panels

Number	Name/Location
311BL	Stabilizer Trim Access Door

G. APU Fire Extinguishing Bottle Squib Installation

SUBTASK 26-22-02-420-001

(1) Do these steps to install the squib in the fire extinguishing bottle:

WARNING DO NOT TOUCH THE SQUIB BEFORE YOU DO THE PROCEDURES FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

(a) Before you touch the squib, do these tasks for devices that are sensitive to electrostatic discharge:

- ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802.
- ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

(b) Lubricate a new O-ring [5] with O-ring lubricant, D50287, and put it on the squib [3].

(c) Install the squib [3] on the fire bottle.

1) Torque the squib [3] to 90 in-lb (10.2 N·m) – 100 in-lb (11.3 N·m).

2) Install MS20995C32 lockwire, G02392 [P05-262], between the squib [3] and the discharge outlet.

SUBTASK 26-22-02-700-001

WARNING MAKE SURE THERE IS NO VOLTAGE AT THE ELECTRICAL CONNECTOR. IF THERE IS A VOLTAGE AT THE ELECTRICAL CONNECTOR, THE SQUIB CAN FIRE SUDDENLY AND CAUSE INJURY TO PERSONNEL.

(2) Do these steps to make sure that there is no stray voltage at the electrical squib connector:

Fire Bottle Squib Electrical Connector

	Engine	APU	Cargo
Connector Pins	3 and 4, and 6 and 7	3 and 4	1 and 2

(a) Connect the digital/analog multimeter, COM-1793, across the two pins.

(b) Make sure that the current is less than 5 milliamps AC, and less than 5 milliamps DC.

(c) Connect a resistor, STD-1079, across the multimeter probes.

(d) Make sure that the voltage is less than .250 volts AC, and less than 0.250 volts DC.

(e) If it is necessary, repeat the steps above for the other squib electrical connectors.

(f) Disconnect the multimeter.

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SUBTASK 26-22-02-420-004

(3) Remove the shorting or faraday cap, STD-1168 from the squib [3].

SUBTASK 26-22-02-420-002

(4) Connect the electrical connector [1] to the squib [3].

NOTE: The squib pins can cause damage to the electrical connector if the pins do not correctly engage the electrical connector.

SUBTASK 26-22-02-420-003

(5) If necessary, lubricate and install a new O-ring [5] on the squib [4] and install the squib in the fire bottle.

(a) Torque the squib [4] to 90 in-lb (10.2 N·m) – 100 in-lb (11.3 N·m).

(b) Install MS20995C32 lockwire, G01048, between the squib [4] and discharge outlet.

(c) Remove the shorting or faraday cap, STD-1168 from the squib [4].

(6) Make sure that a protective cap is installed on squib [4].

SUBTASK 26-22-02-860-003

(7) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	19	C01344	APU FIRE SW POWER
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	14	C00033	AUX POWER UNIT CONT

H. APU Fire Extinguishing Bottle Squib Installation Test

SUBTASK 26-22-02-740-001

(1) Set the EXT TEST switch on the P8-1 panel to 1.

(a) Make sure that the APU light comes on.

NOTE: The L and R lights will also come on.

SUBTASK 26-22-02-740-002

(2) Set the EXT TEST switch on the P8-1 panel to 2.

(a) Make sure that the APU light comes on.

NOTE: The L and R lights will also come on.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 26-22-02-010-002

(1) Close this access door:

Number	Name/Location
311BL	Stabilizer Trim Access Door

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

REMOTE APU CONTROL PANEL - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) Remote APU control panel removal

(2) Remote APU control panel installation.

B. The Remote APU Control Panel is located on the aft bulkhead of the right main wheel well.

TASK 26-22-03-000-801

2. Remote APU Control Panel Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the Remote APU Control Panel.

B. Location Zones

Zone	Area
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right

C. Prepare for the Removal

SUBTASK 26-22-03-860-001

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU

D. Remote APU Control Panel Removal

SUBTASK 26-22-03-020-001

(1) Disconnect the electrical connector from the APU remote control panel [1].

SUBTASK 26-22-03-020-004

(2) Remove the bolt [4] and washers [5] that attach the jumper [6] to the APU remote control panel [1].

SUBTASK 26-22-03-020-005

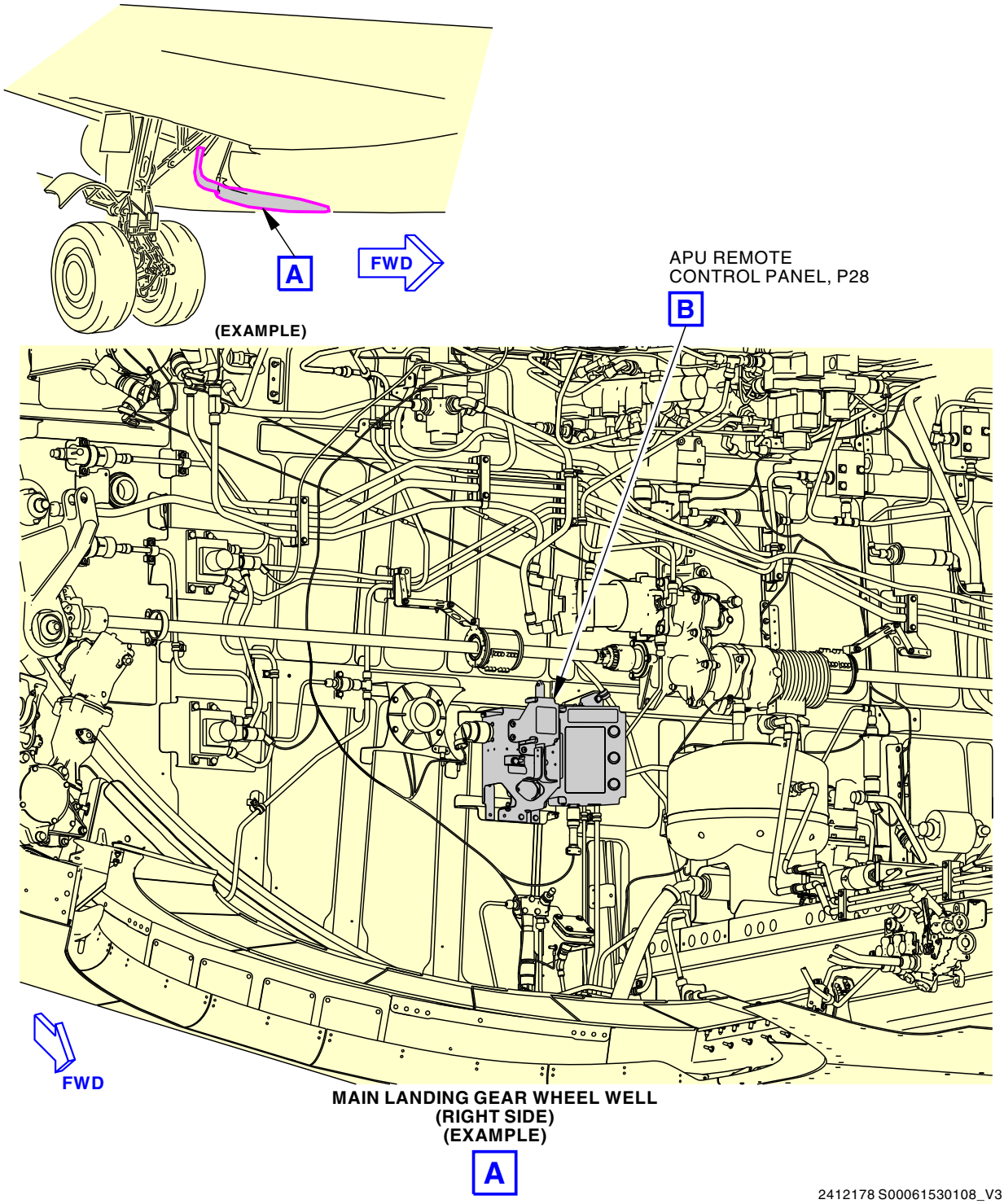
(3) Remove the bolts [7] and washers [8] that attach the APU remote control panel [1] to the nitrogen generation system operability indicator.

SUBTASK 26-22-03-020-002

(4) Remove the bolts [2] and washers [3] that hold the upper and lower flanges of the APU remote control panel [1].

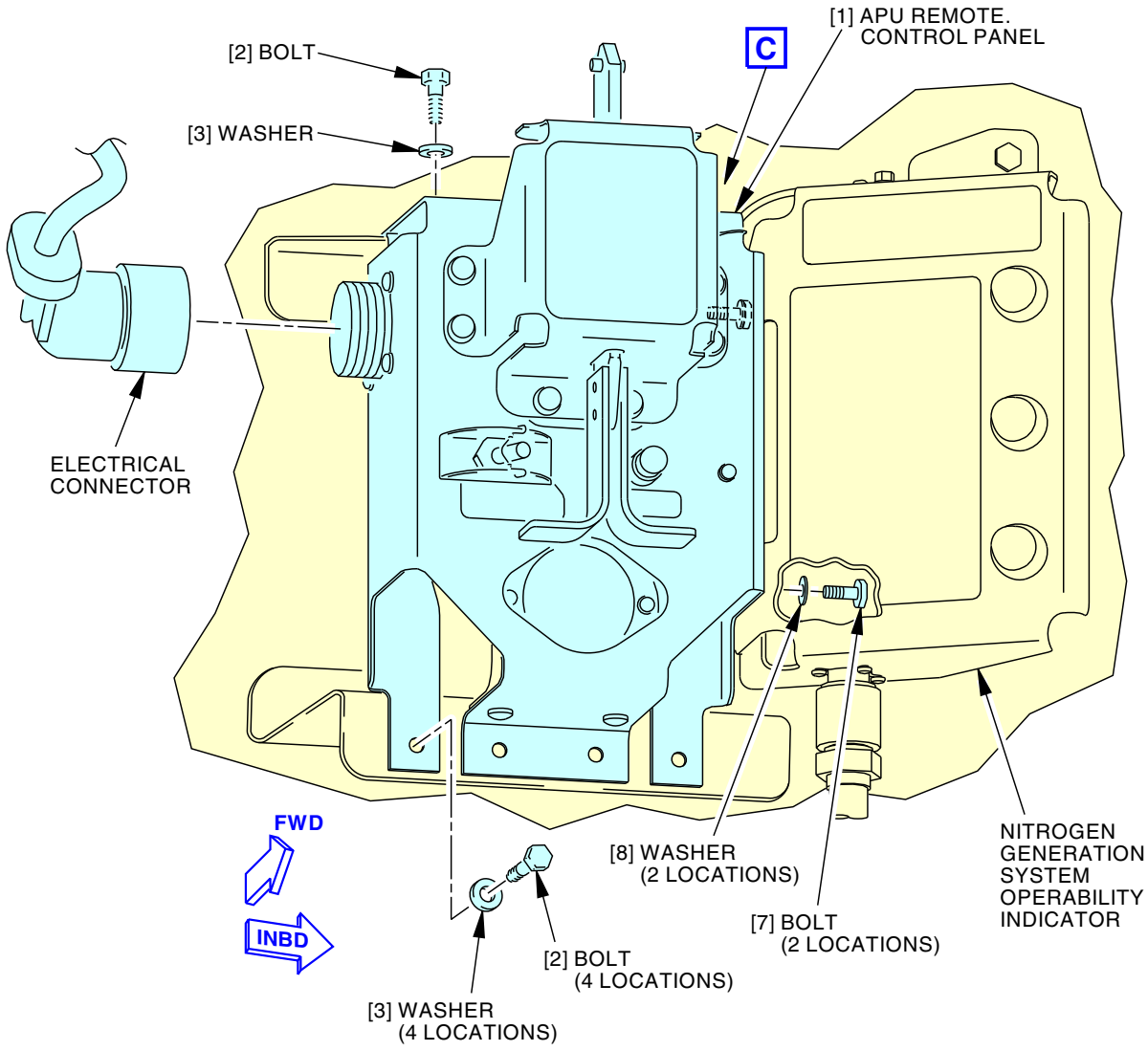
——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



APU Remote Control Panel Installation
Figure 401/26-22-03-990-801 (Sheet 1 of 3)

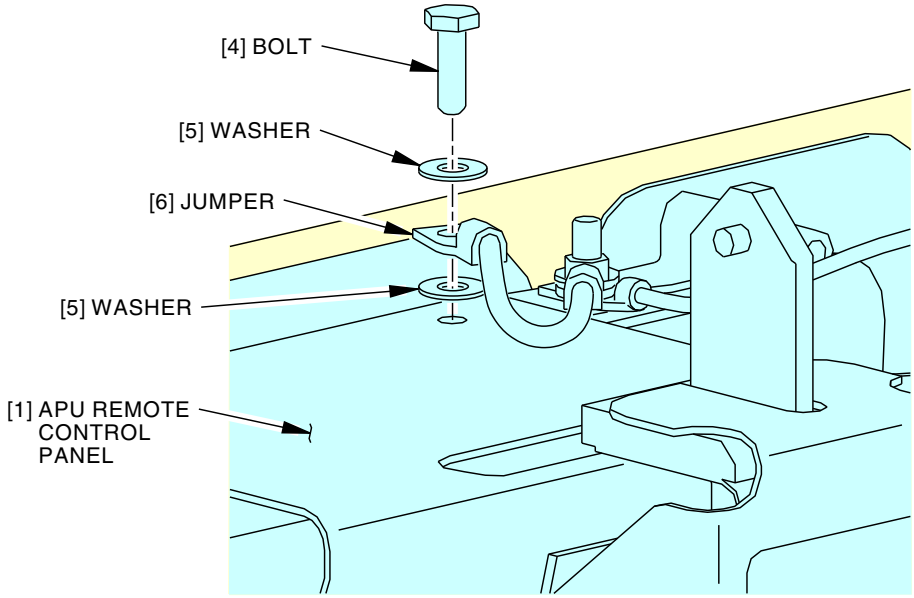
ECCN 9E991 BOEING PROPRIETARY - See title page for details



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APU Remote Control Panel Installation
Figure 401/26-22-03-990-801 (Sheet 2 of 3)

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C

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APU Remote Control Panel Installation
Figure 401/26-22-03-990-801 (Sheet 3 of 3)

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TASK 26-22-03-400-801

3. Remote APU Control Panel Installation

(Figure 401)

A. General

(1) This task gives instructions to install the Remote APU Control Panel.

B. References

Reference	Title
20-10-34-120-801	Hand Clean Metal Surfaces with Abrasives (P/B 701)
20-60-07-910-802	Inspection, Cleaning and Sealing of Electrical Connectors (P/B 201)
26-22-00-720-801	APU Fire Switch System Shutdown Test (P/B 501)
26-22-00-730-801	APU Fire Extinguishing Bottle Squib Circuit Test (P/B 501)
SWPM 20-20-00	ELECTRICAL BONDING PROCESSES

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-1550	Bonding Meter - 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 #: M1B Supplier: 3AD17 Part #: T477W (C15292) Supplier: 06659
STD-765	Scraper - Plastic
STD-10596	Tool - Sealant Fairing

D. Consumable Materials

Reference	Description	Specification
A50110	Sealant - Fuel Tank	BMS5-45 Class B-2
B00184	Solvent - Presealing, Cleaning Solvent	BMS11-7

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	APU remote control panel	26-22-03-03-015	SIA ALL

F. Location Zones

Zone	Area
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right

G. Prepare for the Installation

SUBTASK 26-22-03-100-001

(1) Prepare the surface of the APU remote control panel [1] where the jumper [6] will be attached.

(a) Use plastic scraper, STD-765, to remove any existing sealant.

(b) Do this task: Hand Clean Metal Surfaces with Abrasives, TASK 20-10-34-120-801.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-22-03-100-002

(2) Use solvent, B00184, to clean all surfaces of the bolt [4], washers [5], jumper [6] terminals and APU remote control panel [1] surface.

H. Remote APU Control Panel Installation

SUBTASK 26-22-03-420-001

(1) Attach the APU remote control panel [1] to the bulkhead with the bolts [2] and washers [3].

SUBTASK 26-22-03-420-004

(2) Attach the APU remote control panel [1] to the nitrogen generation system operability indicator with the bolts [7] and washers [8].

SUBTASK 26-22-03-420-002

(3) Apply sealant, A50110, to all mating surfaces of the washers [5], jumper [6], APU remote control panel [1] and the shank and threads of the bolt [4].

SUBTASK 26-22-03-420-003

(4) Attach the jumper [6] to the APU remote control panel [1] with the bolt [4] and washers [5].

(a) Smooth out sealant squeeze-out with sealant fairing tool, STD-10596.

SUBTASK 26-22-03-700-001

(5) Measure the bonding resistance between the APU remote control panel [1] and the jumper [6] with an intrinsically safe approved bonding meter, COM-1550 (SWPM 20-20-00, Paragraph 21).

(a) Make sure that the measured resistance is 1.0 milliohms (0.0010 ohms) or less.

SUBTASK 26-22-03-600-001

(6) Do this task: Inspection, Cleaning and Sealing of Electrical Connectors, TASK 20-60-07-910-802.

SUBTASK 26-22-03-020-003

(7) Connect the electrical connector to the APU remote control panel [1].

SUBTASK 26-22-03-860-003

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	21	C00452	FIRE PROTECTION EXTINGUISHERS APU

I. Remote APU Control Panel Installation Test

SUBTASK 26-22-03-710-001

(1) Do this task: APU Fire Extinguishing Bottle Squib Circuit Test, TASK 26-22-00-730-801.

SUBTASK 26-22-03-710-002

(2) Do this task: APU Fire Switch System Shutdown Test, TASK 26-22-00-720-801.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

REMOTE APU CONTROL PANEL - INSPECTION/CHECK

1. General

A. This procedure has this inspection task:

(1) Remote APU Control Panel.

TASK 26-22-03-210-801

2. Remote APU Control Panel

NOTE: This procedure is a scheduled maintenance task.

A. Consumable Materials

Reference	Description	Specification
G50414	Lockwire - MS20995CY15, Copper - 0.015 Inch (0.381 mm) Diameter	NASM20995

B. Location Zones

Zone	Area
134	Main Landing Gear Wheel Well, Body Station 663.75 to Body Station 727.00 - Right

C. Procedure

SUBTASK 26-22-03-210-001

(1) Make sure the remote APU control panel is not damaged.

SUBTASK 26-22-03-210-002

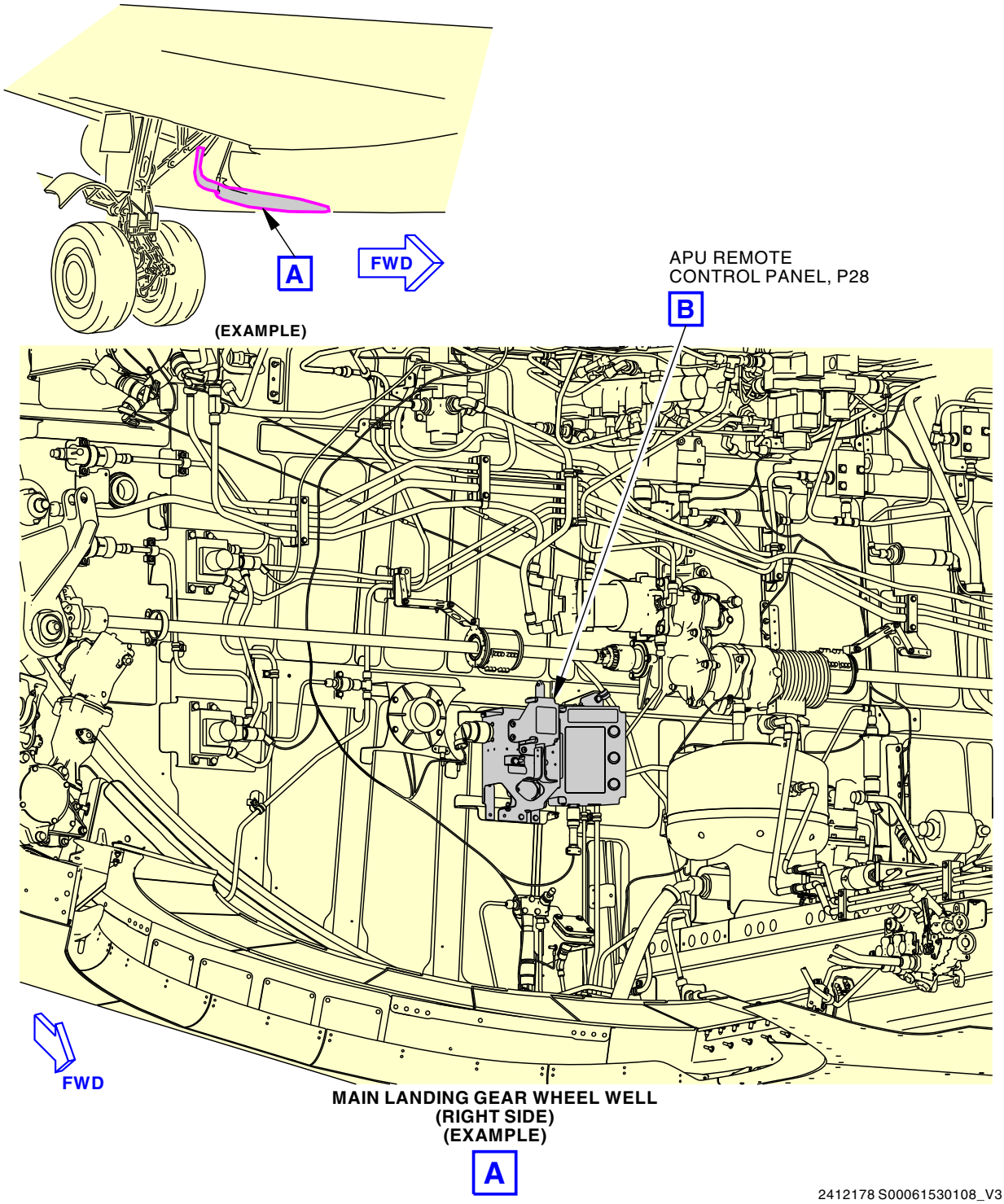
(2) Make sure the remote APU control panel is securely attached.

SUBTASK 26-22-03-210-003

(3) Make sure the copper MS20995CY15 lockwire, G50414, is installed on the bottle discharge switch on the APU remote fire panel.

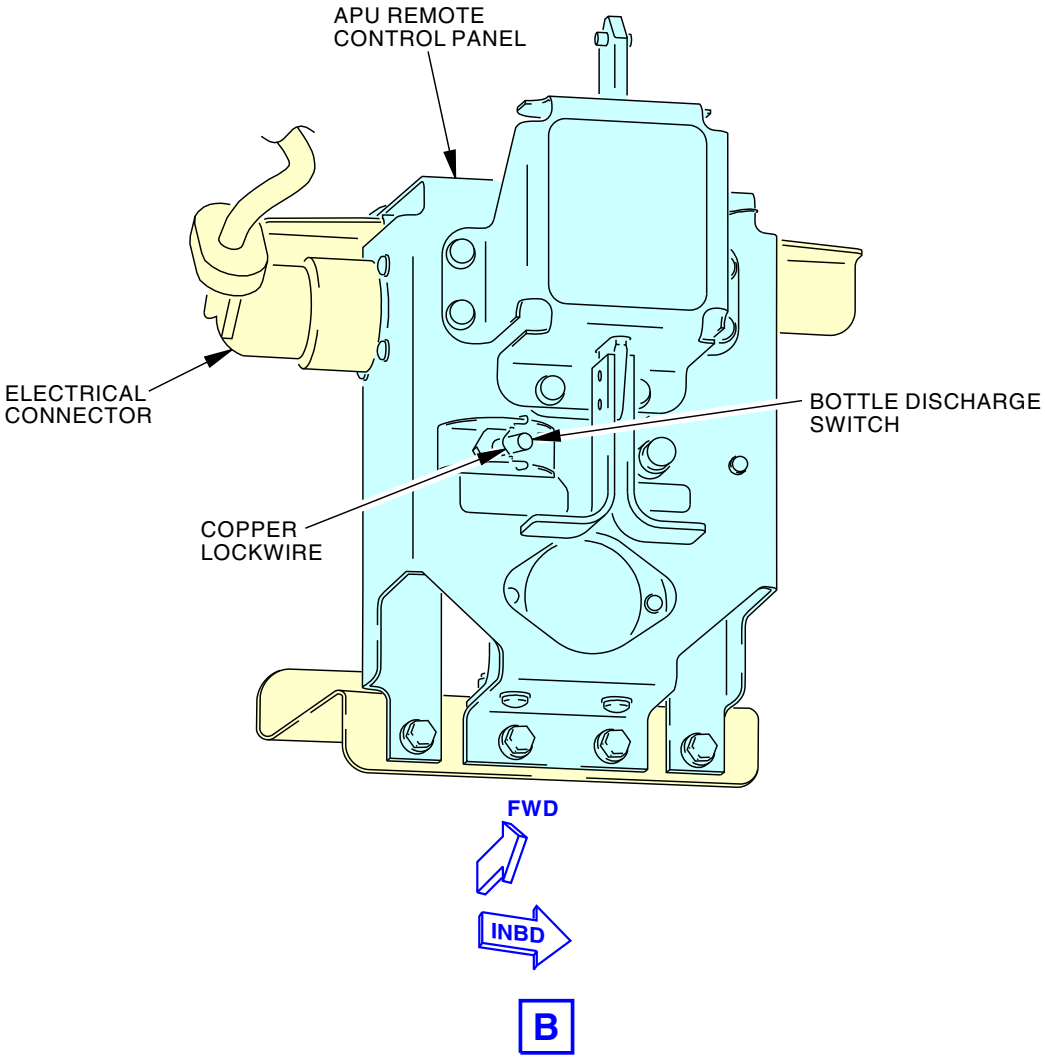
END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



APU Remote Control Panel Installation
Figure 601/26-22-03-990-802 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



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APU Remote Control Panel Installation
Figure 601/26-22-03-990-802 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

CARGO FIRE EXTINGUISHING - MAINTENANCE PRACTICES

1. General

A. This procedure contains these tasks:

(1) Cargo compartment fire extinguisher bottles and squibs - deactivation.

(2) Cargo compartment fire extinguisher bottles and squibs - activation.

TASK 26-23-00-040-801

2. Cargo Compartment Fire Extinguishers and Squibs - Deactivation

A. General

(1) This task will deactivate the 28 VDC electrical power to the Cargo Compartment Fire Extinguisher Bottle and Squib system.

B. Location Zones

Zone	Area
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right
212	Flight Compartment - Right

C. Procedure

SUBTASK 26-23-00-020-001

(1) Remove the 28 VDC battery electrical power from the Cargo Compartment Fire Extinguisher and Squib system.

SUBTASK 26-23-00-020-002

(2) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1

D. Cargo Compartment Fire Extinguishers and Squibs - Tryout

NOTE: This tryout is to make sure that the electrical power to the Cargo Compartment Fire Extinguisher Bottle and Squib system is in zero state.

SUBTASK 26-23-00-860-001

(1) On the cargo fire control panel:

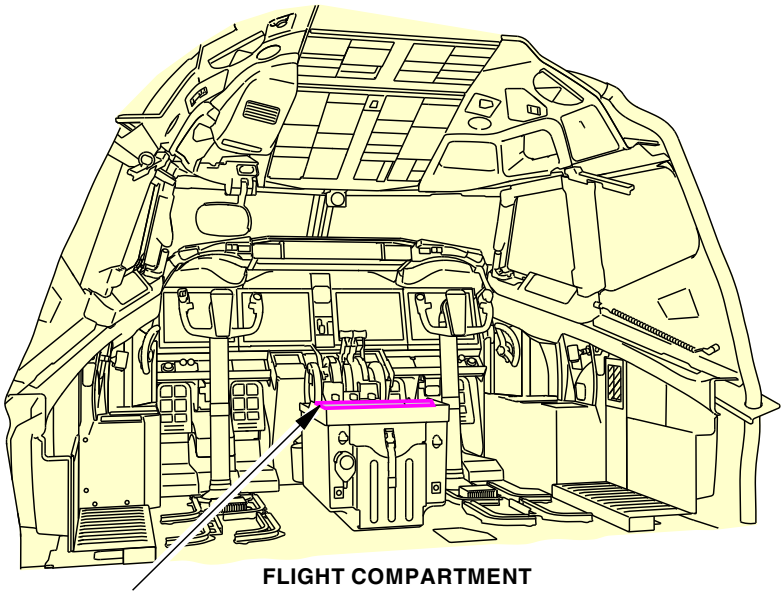
(a) Push and hold the TEST switch.

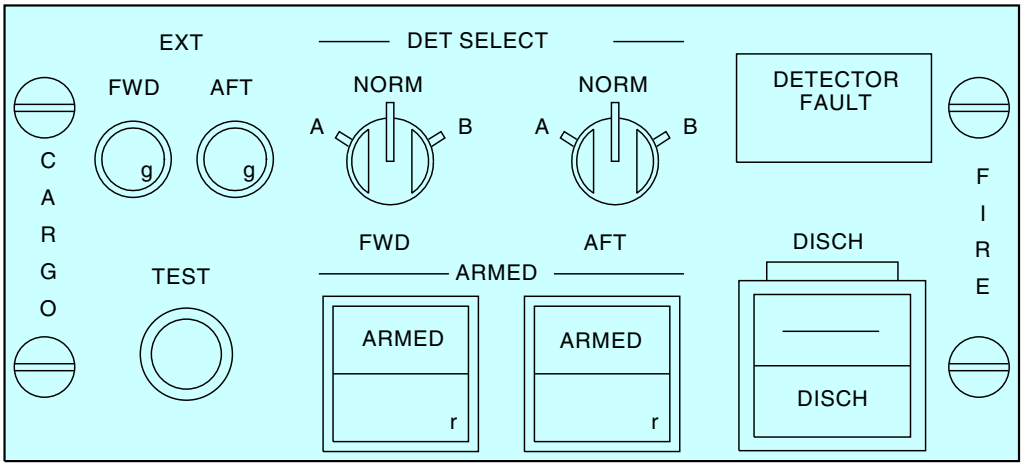
1) Make sure that the green FWD and AFT EXT lights on the cargo fire control panel do not come on.

(b) Release the TEST switch.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details





CARGO BAY FIRE CONTROL PANEL (P8)

A

2412181 S00061530118_V1

Cargo Fire Control Panel
Figure 201/26-23-00-990-801

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-23-00-440-801

3. Cargo Compartment Fire Extinguishers and Squibs - Activation

(Figure 201)

A. General

(1) This task will activate the 28 VDC electrical power to the Cargo Compartment Fire Extinguisher Bottle and Squib system.

B. Location Zones

Zone	Area
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right
212	Flight Compartment - Right

C. Procedure

SUBTASK 26-23-00-860-009

(1) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1

SUBTASK 26-23-00-440-001

(2) Do these steps to make sure the squibs are powered.

NOTE: This is to make sure that the electrical power to the Cargo Compartment Fire Extinguisher Bottle and Squib system is in zero state.

(a) On the cargo fire control panel:

1) Push and hold the TEST switch.

a) Make sure that the green FWD and AFT EXT lighton the cargo fire control panel come on.

2) Release the TEST switch.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

CARGO FIRE EXTINGUISHING - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

(1) A test of the cargo fire bottle squib circuit

(2) A test of the cargo fire bottle pressure switch circuit

(3) An airflow test through the discharge tubes

(4) A pressure test of the cargo fire bottle discharge tubes

26-CMR-01

TASK 26-23-00-730-801

2. Cargo Fire Extinguishing Bottle Squib - Circuit Test

(Figure 501, Figure 502)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)
32-09-00-860-801	Put the Airplane in the Air Mode (P/B 201)
32-09-00-860-802	Return the Airplane to the Ground Mode (P/B 201)
50-11-02-000-801	Forward Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
50-11-02-400-801	Forward Cargo Compartment Aft Bulkhead Liner 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
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 #: 21 Supplier: 89536 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

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(Continued)

Reference	Description
SPL-1664	Test Box - Cargo Fire Extinguishing System Part #: C26006-70 Supplier: 81205 Opt Part #: C26006-1 Supplier: 81205
STD-1079	Resistor - 10K Ohm or Greater
STD-1168	Cap - Shorting or Faraday Cap

C. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Prepare for the Circuit Test

SUBTASK 26-23-00-860-007

(1) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

SUBTASK 26-23-00-010-002

(2) Remove the aft bulkhead liner in the forward cargo compartment (TASK 50-11-02-000-801).

SUBTASK 26-23-00-020-003

WARNING DO NOT TOUCH THE SQUIB BEFORE YOU DO THE PROCEDURES FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

CAUTION DO NOT TOUCH THE UNIT BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE UNIT.

(3) Before you touch the squib, do the procedure for devices that are sensitive to electrostatic discharge (TASK 20-40-12-000-802).

SUBTASK 26-23-00-010-003

(4) Remove the shields to get access to the squib electrical connectors.

SUBTASK 26-23-00-020-011

(5) Disconnect the electrical connectors from these squibs:

(a) Disconnect electrical connector D16578 from bottle 1.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(b) Disconnect electrical connector D16580 from bottle 1.

(c) Disconnect electrical connector D16584 from bottle 2.

(d) Disconnect electrical connector D16586 from bottle 2.

SUBTASK 26-23-00-020-004

WARNING DO NOT MOVE OR TOUCH THE CARTRIDGE WITHOUT A SHORTING CAP OR FARADAY CAP INSTALLED ON THE ENDS OF THE SQUIB. THE SQUIB IS AN EXPLOSIVE DEVICE. ACCIDENTAL OPERATION OF THE SQUIB CAN CAUSE INJURY TO PERSONS.

CAUTION DO NOT PUT SHUNT PLUGS ON THE FIRE BOTTLE SQUIBS. THE SHUNT PLUGS CAN CAUSE DAMAGE TO THE SQUIB PINS.

(6) Install the shorting or faraday cap, STD-1168, on the squibs.

NOTE: The shorting caps are attached to the fire extinguishing bottles. These shorting caps prevent the squibs from possible activation due to static electricity.

SUBTASK 26-23-00-730-001

(7) On the test box, SPL-1664, set these switches to the NO DISCHARGE position:

(a) BOTTLE 2 EXT 2 FORWARD S1

(b) BOTTLE 2 EXT 2 AFT S2

(c) BOTTLE 1 EXT 1 FORWARD S3

(d) BOTTLE 1 EXT 1 AFT S4.

SUBTASK 26-23-00-860-008

(8) On the test box, SPL-1664, open these circuit breakers:

(a) CB1, CB2, CB3, CB4, CB5, CB6, CB7, CB8.

SUBTASK 26-23-00-480-001

(9) Connect the electrical connectors to the connectors in the test box, SPL-1664:

(a) Connect electrical connector D16578 to connector D12794 or D16578.

(b) Connect electrical connector D16580 to connector D12796 or D16580.

(c) Connect electrical connector D16584 to connector D12818 or D16584.

(d) Connect electrical connector D16586 to connector D16586 or D12820.

SUBTASK 26-23-00-760-001

(10) Set the LIGHTS switch, on the P1-3 captain's forward panel, to the BRT position.

E. Cargo Fire Extinguishing Bottle Squib - Circuit Test

SUBTASK 26-23-00-860-003

(1) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(Continued)

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

SUBTASK 26-23-00-860-006

(2) Do this task: Put the Airplane in the Air Mode, TASK 32-09-00-860-801.

SUBTASK 26-23-00-730-002

WARNING MAKE SURE THE AREA OF THE AFT OUTFLOW VALVE IS CLEAR OF PERSONS AND EQUIPMENT. DURING THIS TEST THE AFT OUTFLOW VALVE DOORS CAN START TO OPERATE. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(3) Do a test of the forward cargo fire bottle squib circuit:

(a) On the test box, SPL-1664, set the BOTTLE 1 EXT 1 FORWARD S3 switch to the DISCHARGE position.

(b) On the test box, SPL-1664, close these circuit breakers:

1) CB1, CB2, CB3, CB4, CB5, CB6, CB7, CB8.

(c) Push the FWD ARM push-button, on the P8-75 cargo fire control module, to the ARMED position.

1) Make sure that the ARMED light for the FWD ARM push-button, on the P8-75 cargo fire control module, comes on.

2) Make sure that these lights, on the P8-75 cargo fire control module, do not come on:

a) FWD light

b) AFT light

c) DISCH light

d) EXT FWD light

e) EXT AFT light.

3) Make sure that none of the circuit breakers on the test box, SPL-1664, opened.

(d) Push and hold the DISCH push-button, on the P8-75 cargo fire control module, for a minimum of one second.

1) Make sure that these lights do not come on:

NOTE: The DETECTOR FAULT indicator light, on the P8-75 cargo fire control module, can turn on.

a) FWD light

b) AFT light

c) DISCH light

d) EXT FWD light

e) EXT AFT light.

(e) Release the DISCH push-button.

1) Make sure that this circuit breaker opens:

ECCN 9E991 BOEING PROPRIETARY - See title page for details

a) CB5.

2) Make sure that these circuit breakers stay closed:

a) CB1, CB2, CB3, CB4, CB6, CB7, CB8.

3) Close this circuit breaker:

a) CB5.

(f) On the test box, SPL-1664, set the BOTTLE 2 EXT 2 FORWARD S1 switch to the DISCHARGE position.

(g) Set the BOTTLE 1 EXT 1 FORWARD S3 switch to the NO DISCHARGE position.

(h) Make sure that these circuit breakers stay closed:

1) CB1, CB2, CB3, CB4, CB5, CB6, CB7, CB8.

(i) Wait approximately 15 ± 1.5 minutes for CB1 to open.

NOTE: The BOTTLE 2 EXT 2 FORWARD CB1 circuit breaker will open approximately 15 ± 1.5 minutes after you push the DISCH push-button. When the circuit breaker opens, you can continue with the test before 16.5 minutes time is up.

(j) Make sure that these circuit breakers stay closed:

1) CB2, CB3, CB4, CB5, CB6, CB7, CB8.

(k) Close this circuit breaker:

1) CB1.

SUBTASK 26-23-00-730-003

WARNING MAKE SURE THE AREA OF THE AFT OUTFLOW VALVE IS CLEAR OF PERSONS AND EQUIPMENT. DURING THIS TEST THE AFT OUTFLOW VALVE DOORS CAN START TO OPERATE. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(4) Do a test of the aft cargo fire bottle squib circuit:

(a) On the test box, set the BOTTLE 2 EXT 2 AFT S2 switch to the DISCHARGE position.

(b) Set the BOTTLE 2 EXT 2 FORWARD S1 switch to the NO DISCHARGE position.

(c) Make sure that these circuit breakers stay closed:

1) CB1, CB2, CB3, CB4, CB5, CB6, CB7, CB8.

(d) Push the AFT ARM push-button, on the P8-75 cargo fire control module, to the ARMED position.

(e) Wait 5 seconds, and then push the FWD ARM push-button.

1) Make sure that the ARMED light for the FWD ARM push-button goes off.

2) Make sure that the ARMED light for the AFT ARM push-button comes on.

3) Make sure that these lights do not come on:

a) FWD light

b) AFT light

c) DISCH light

d) EXT FWD light

e) EXT AFT light.

4) Make sure that none of the circuit breakers on the test box, SPL-1664, opened.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(f) Do this task: Return the Airplane to the Ground Mode, TASK 32-09-00-860-802.

(g) Make sure that this circuit breaker opens:

1) CB3.

(h) Make sure that these circuit breakers stay closed:

1) CB1, CB2, CB4, CB5, CB6, CB7, CB8.

(i) Close this circuit breaker:

1) CB3.

(j) Set the BOTTLE 1 EXT 1 AFT S4 switch to the DISCHARGE position.

(k) Set the BOTTLE 2 EXT 2 AFT S2 switch to the NO DISCHARGE position.

(l) Make sure that these circuit breakers stay closed:

1) CB1, CB2, CB3, CB4, CB5, CB6, CB7, CB8.

(m) Push and hold the DISCH push-button for a minimum of one second.

(n) Release the DISCH push-button.

(o) Make sure that this circuit breaker opens:

1) CB7.

(p) Make sure that these circuit breakers stay closed:

1) CB1, CB2, CB3, CB4, CB5, CB6, CB8.

(q) Close this circuit breaker:

1) CB7.

(r) Set the BOTTLE 1 EXT 1 AFT S4 switch to the NO DISCHARGE position.

(s) Push the AFT ARM push-button.

1) Make sure that the ARMED light for the AFT ARM push-button goes off.

SUBTASK 26-23-00-710-001

(5) Push and hold the TEST push-button, on the P8-75 cargo fire control module.

(a) Make sure that these lights come on:

1) DISCH indicator light
2) EXT FWD indicator light
3) EXT AFT indicator light.

(b) Set the LIGHTS switch, on the P1-3 captain's forward panel, to the DIM position.

(c) Make sure that these lights dim:

1) DISCH indicator light
2) EXT FWD indicator light
3) EXT AFT indicator light.

(d) Set the LIGHTS switch to the BRT position.

(e) Make sure that these lights are brighter:

1) DISCH indicator light
2) EXT FWD indicator light
3) EXT AFT indicator light.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-23-00-710-002

(6) Release the TEST push-button.

SUBTASK 26-23-00-860-004

(7) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

SUBTASK 26-23-00-020-005

(8) Remove the protective cap from the squibs.

SUBTASK 26-23-00-700-001

WARNING MAKE SURE THERE IS NO VOLTAGE AT THE ELECTRICAL CONNECTOR. IF THERE IS A VOLTAGE AT THE ELECTRICAL CONNECTOR, THE SQUIB CAN FIRE SUDDENLY AND CAUSE INJURY TO PERSONNEL.

(9) Do these steps to make sure that there is no stray voltage at the electrical squib connector:

Fire Bottle Squib Electrical Connector

	Engine	APU	Cargo
Connector Pins	3 and 4, and 6 and 7	3 and 4	1 and 2

(a) Connect the digital/analog multimeter, COM-1793, across the two pins.

(b) Make sure that the current is less than 5 milliamps AC, and less than 5 milliamps DC.

(c) Connect a resistor, STD-1079, across the multimeter probes.

(d) Make sure that the voltage is less than .250 volts AC, and less than 0.250 volts DC.

(e) If it is necessary, repeat the steps above for the other squib electrical connectors.

(f) Disconnect the multimeter.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 26-23-00-420-002

(1) Install the electrical connectors:

(a) Connect D16578 to forward squib on bottle 1.

(b) Connect D16584 to forward squib on bottle 2.

(c) Connect D16580 to aft squib on bottle 1.

(d) Connect D16586 to aft squib on bottle 2.

SUBTASK 26-23-00-410-004

(2) Install the shields to protect the squib electrical connectors.

SUBTASK 26-23-00-410-001

(3) Install the aft bulkhead liner in the forward cargo compartment (TASK 50-11-02-400-801).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-23-00-860-005

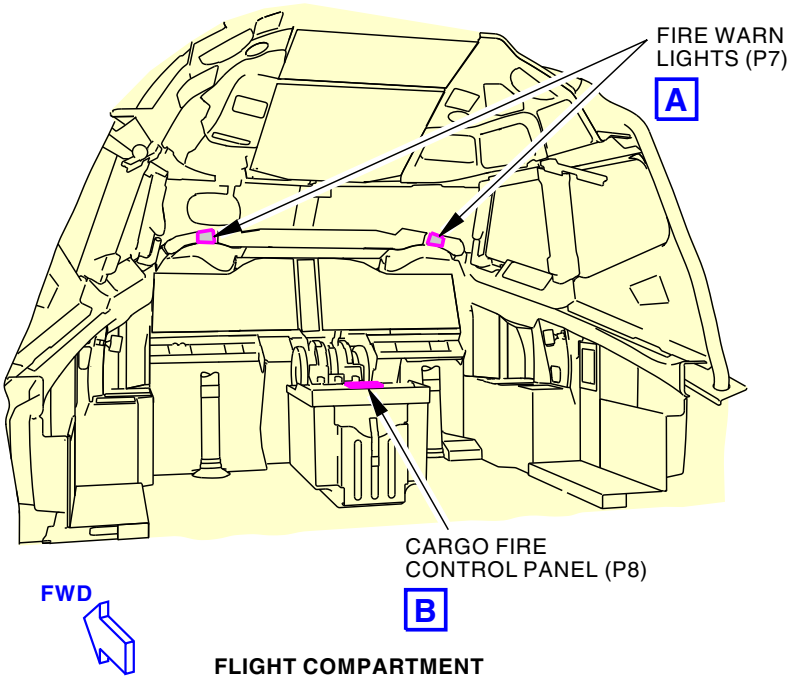
(4) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

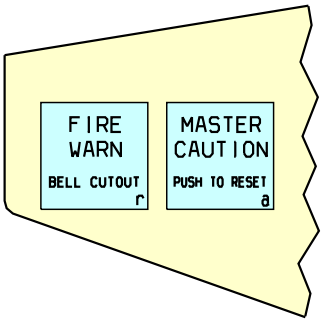
Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1
C	16	C01523	CARGO FIRE FWD DET B
C	17	C01522	CARGO FIRE FWD DET A
C	18	C01525	CARGO FIRE AFT DET B
C	19	C01524	CARGO FIRE AFT DET A

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

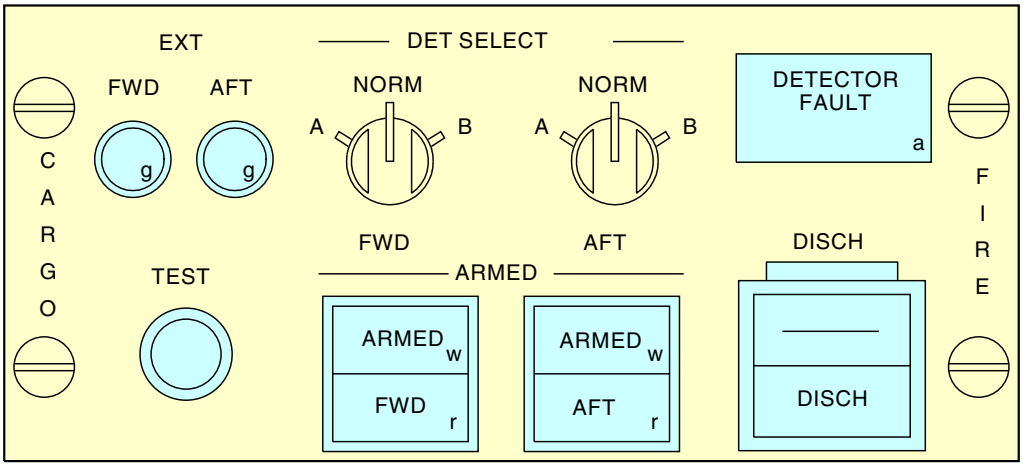


FLIGHT COMPARTMENT



FIRE WARN LIGHTS (P7)
(EXAMPLE)

A



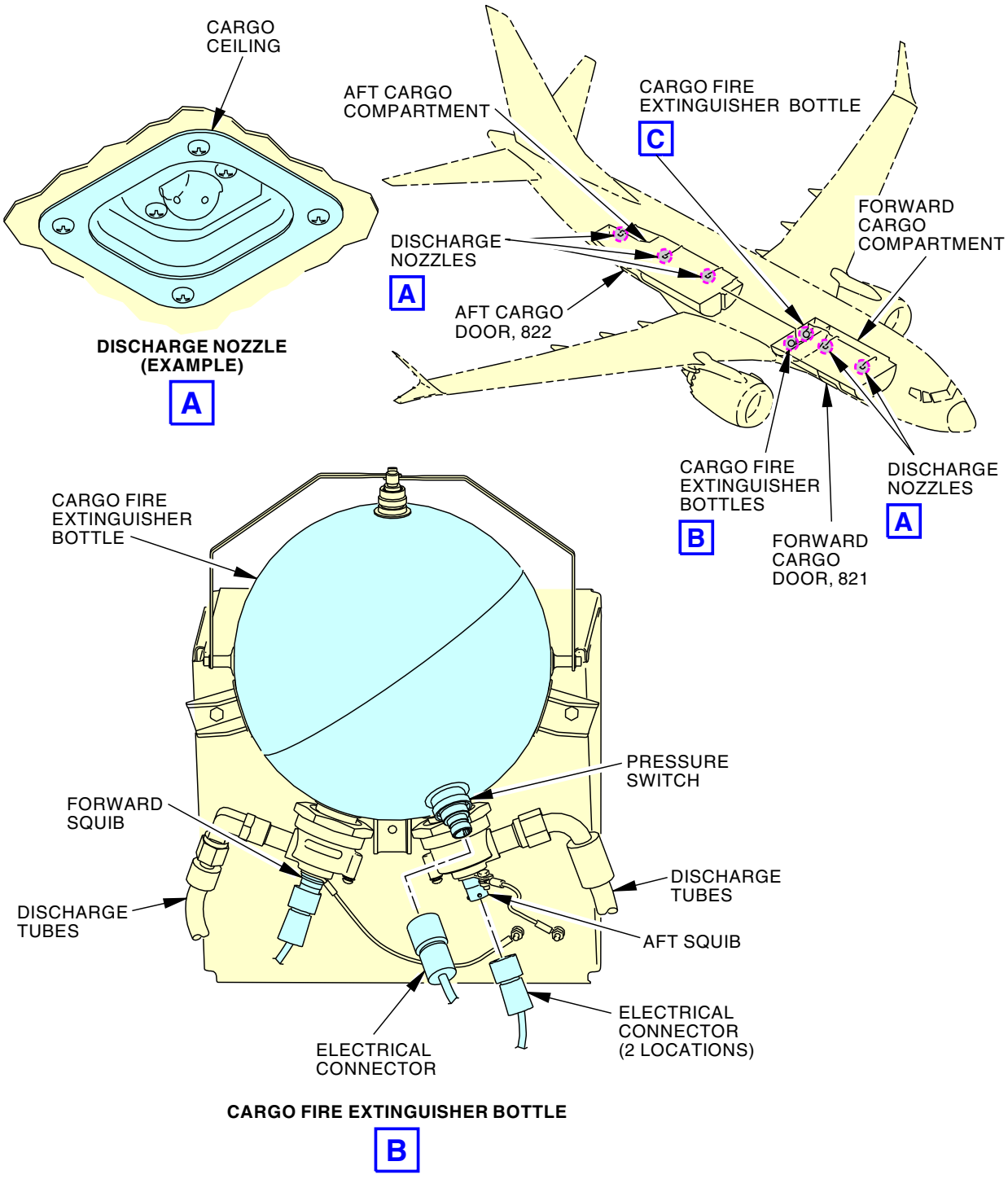
CARGO FIRE CONTROL MODULE (P8-75)

B

2412182 S00061530122_V2

Cargo Fire Control Module (P8-75)
Figure 501/26-23-00-990-803

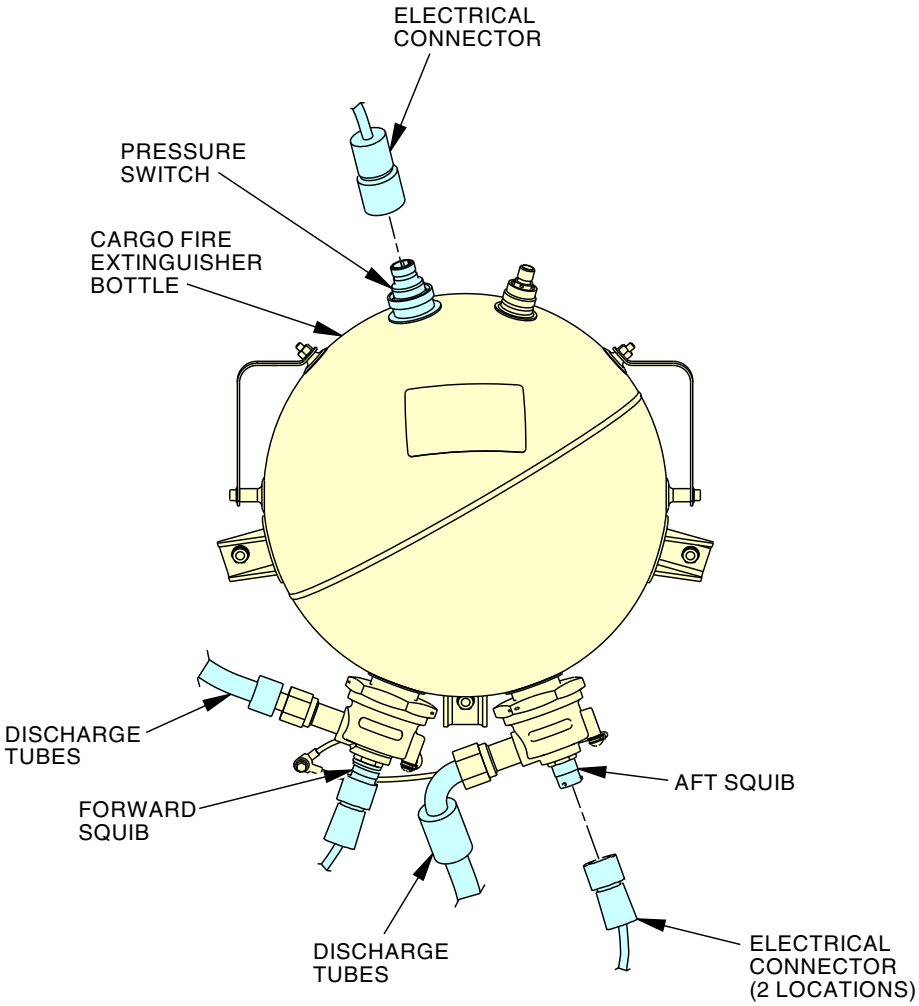
ECCN 9E991 BOEING PROPRIETARY - See title page for details



2565773 S0000613697_V1

Cargo Bay Fire Extinguishing Test
Figure 502/26-23-00-990-802 (Sheet 1 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



CARGO FIRE EXTINGUISHER BOTTLE

C

2546754 S0000604847_V2

Cargo Bay Fire Extinguishing Test
Figure 502/26-23-00-990-802 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-23-00-730-802

3. Cargo Fire Extinguishing Bottle Pressure Switch Circuit Test

(Figure 502)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) The pressure switch circuit test should be done every time the cargo fire control panel, or a pressure switch, is disconnected from the airplane wiring.

B. References

Reference	Title
50-11-02-000-801	Forward Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
50-11-02-400-801	Forward Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)

C. Tools/Equipment

Reference	Description
STD-6286	Jumper Wire

D. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

E. Prepare for the Test

SUBTASK 26-23-00-010-006

(1) Remove the aft bulkhead liner in the forward cargo compartment (TASK 50-11-02-000-801).

F. Cargo Fire Extinguishing Bottle Pressure Switch Circuit Test

SUBTASK 26-23-00-020-006

(1) Do a test of the fire extinguisher pressure switch circuit:

(a) Disconnect connector D16576 from the pressure switch on cargo fire bottle 1.

(b) Disconnect connector D16588 from the pressure switch on cargo fire bottle 2.

(c) Do a test of the cargo fire bottle pressure switch circuit:

1) Connect a Jumper Wire, STD-6286, between pins 2 and 3 on connector D16576.

2) Make sure that the DISCH light, on the P8 cargo fire control panel, comes on.

3) Remove the Jumper Wire, STD-6286, from connector D16576.

4) Connect a Jumper Wire, STD-6286, between pins 2 and 3 on connector D16588.

5) Make sure that the DISCH light, on the P8 cargo fire control panel, comes on.

6) Remove the Jumper Wire, STD-6286, from connector D16588.

(d) Connect connector D16576 to the pressure switch on the cargo fire bottle 1.

(e) Connect connector D16588 to the pressure switch on the cargo fire bottle 2.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

G. Put the Airplane Back to Its Usual Condition

SUBTASK 26-23-00-410-005

(1) Install the aft bulkhead liner in the forward cargo compartment (TASK 50-11-02-400-801).

——— END OF TASK ———

TASK 26-23-00-720-801

4. Cargo Fire Extinguishing Discharge Line Flow Test

(Figure 502)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) The cargo fire extinguishing discharge line flow test makes sure there is nothing blocking the discharge lines.

(2) There are two bottles on the airplane. The contents of bottle 1 are released when the discharge switch is pushed. Bottle 2 is discharged 15 minutes later through a flow filter/dryer. In this test, the discharge lines will be removed from bottle 1, and from the output of the filter/dryers. The flow will be checked from the output of bottle 1 through the discharge nozzles and the filter/dryer output line.

B. References

Reference	Title
50-11-02-000-801	Forward Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
50-11-02-400-801	Forward Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)

C. Tools/Equipment

Reference	Description
STD-1115	Source - Nitrogen, 0-100 PSIG

D. Consumable Materials

Reference	Description	Specification
D50004	Compound - Antiseize	BMS3-28
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38
G50237	Compound - Corrosion Inhibiting, Non-drying - Cor-Ban 27L	BMS3-38

E. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
141	Aft Cargo Compartment - Left
142	Aft Cargo Compartment - Right

F. Prepare for the Test

SUBTASK 26-23-00-010-007

(1) Remove the aft bulkhead liner in the forward cargo compartment (TASK 50-11-02-000-801).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

G. Cargo Fire Extinguishing Discharge Line Flow Test

SUBTASK 26-23-00-010-004

(1) If necessary, remove lower shield to get access to the bottle connections.

SUBTASK 26-23-00-030-001

CAUTION

USE TWO WRENCHES TO LOOSEN OR TIGHTEN THE FITTING. IF YOU TWIST THE TUBE OR FITTING, YOU CAN CAUSE DAMAGE TO THEM.

(2) Remove the discharge tubes from the discharge outlets on cargo fire bottle 1.

SUBTASK 26-23-00-020-008

(3) Remove the discharge tubes from the outputs of the two pressure filter/dryers connected to bottle 2.

SUBTASK 26-23-00-480-002

CAUTION

DO NOT APPLY AIR PRESSURE TO THE OUTPUT OF THE PRESSURE FILTER/DRIER. AIR PRESSURE CAN CAUSE DAMAGE TO THE FILTER/DRIER.

(4) Connect a 0-100 PSIG nitrogen source, STD-1115 to the forward (yellow) cargo bottle discharge line at bottle 1.

NOTE: Alternate pressure sources can be used. The pressure source must have an accuracy of 1 PSIG and be capable of applying a pressure of 35 to 50 PSIG.

(a) Make sure air is flowing through all open nozzles in the forward cargo compartment.

(b) Make sure air is flowing through the output line that was removed from the forward filter/dryer of bottle 2.

SUBTASK 26-23-00-080-001

(5) Remove the pressure source from the discharge line.

SUBTASK 26-23-00-480-003

CAUTION

DO NOT APPLY AIR PRESSURE TO THE OUTPUT OF THE PRESSURE FILTER/DRIER. AIR PRESSURE CAN CAUSE DAMAGE TO THE FILTER/DRIER.

(6) Connect a 0-100 PSIG nitrogen source, STD-1115 to the aft (blue) cargo bottle discharge line at bottle 1.

NOTE: Alternate pressure sources can be used. The pressure source must have an accuracy of 1 PSIG and be capable of applying a pressure of 35 to 50 PSIG.

(a) Make sure air is flowing through all open nozzles in the aft cargo compartment.

(b) Make sure air is flowing through the output line that was removed from the aft filter/dryer connected to fire bottle 2.

SUBTASK 26-23-00-080-002

(7) Remove the pressure source from the discharge line.

SUBTASK 26-23-00-420-003

(8) Connect the discharge tubes to the discharge outlets on bottle 1.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

WARNING DO NOT GET THE CORROSION-INHIBITING COMPOUND ON YOUR SKIN, IN YOUR EYES, OR ON YOUR CLOTHES. THE COMPOUND IS POISONOUS AND FLAMMABLE. USE APPROVED GLOVES, AND EYE PROTECTION. MAKE SURE THAT THERE IS GOOD AIRFLOW IN THE WORK AREA. KEEP THE COMPOUND AWAY FROM SPARKS AND FLAMES. THE COMPOUND CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(a) Apply a layer of compound, D50004 to the outlet threads, outlet end, and outlet inner diameter where the tube assembly attaches to the discharge head.

WARNING USE NITRILE GLOVES FOR SKIN PROTECTION WHEN YOU USE COR-BAN 27L, G50237. IF IT GETS ON YOUR SKIN, IMMEDIATELY REMOVE IT WITH WATER. IF THIS MATERIAL GETS IN YOUR EYES, IMMEDIATELY FLUSH YOUR EYES WITH WATER. GET MEDICAL AID. THIS MATERIAL CONTAINS FLAMMABLE AGENTS WHICH CAN CAUSE INJURIES TO PERSONNEL.

1) Permitted alternative anti-corrosion compounds to use in this location are Cor-Ban 27L Compound, G50237 or corrosion inhibiting material, G50136.

(b) Connect the tube assemblies to the discharge heads.

NOTE: The tube assemblies that are marked in yellow supply the extinguishing agent to the forward cargo compartment and the ones marked in blue supply the aft cargo compartment.

(c) Remove any unwanted compound.

(d) Tighten the nuts on the tube assemblies to these torque values:

Discharge Tube Torque Values

Nut Size	Tube Outer Diameter	Torque (MIN)	Torque (MAX)
7/8 in	1/2 in	266 in-lb (30 N·m)	294 in-lb (33 N·m)
1 in	5/8 in	342 in-lb (39 N·m)	378 in-lb (43 N·m)

SUBTASK 26-23-00-420-006

(9) Connect the discharge tubes to the discharge outlets on the filter/dryers connected to fire bottle 2.

WARNING DO NOT GET THE CORROSION-INHIBITING COMPOUND ON YOUR SKIN, IN YOUR EYES, OR ON YOUR CLOTHES. THE COMPOUND IS POISONOUS AND FLAMMABLE. USE APPROVED GLOVES, AND EYE PROTECTION. MAKE SURE THAT THERE IS GOOD AIRFLOW IN THE WORK AREA. KEEP THE COMPOUND AWAY FROM SPARKS AND FLAMES. THE COMPOUND CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(a) Apply a layer of compound, D50004 to the outlet threads, outlet end, and outlet inner diameter where the tube assemblies attach to the filter/dryers.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

WARNING USE NITRILE GLOVES FOR SKIN PROTECTION WHEN YOU USE COR-BAN 27L, G50237. IF IT GETS ON YOUR SKIN, IMMEDIATELY REMOVE IT WITH WATER. IF THIS MATERIAL GETS IN YOUR EYES, IMMEDIATELY FLUSH YOUR EYES WITH WATER. GET MEDICAL AID. THIS MATERIAL CONTAINS FLAMMABLE AGENTS WHICH CAN CAUSE INJURIES TO PERSONNEL.

1) Permitted alternative anti-corrosion compounds to use in this location are Cor-Ban 27L Compound, G50237

(b) Connect the tube assemblies to the filter/dryers.

NOTE: The tube assemblies that are marked in yellow supply the extinguishing agent to the forward cargo compartment and the ones marked in blue supply the aft cargo compartment.

(c) Remove any unwanted compound.

(d) Tighten the nuts on the tube assemblies to these torque values:

Discharge Tube Torque Values

Nut Size	Tube Outer Diameter	Torque (MIN)	Torque (MAX)
7/8 in	1/2 in	266 in-lb (30 N·m)	294 in-lb (33 N·m)
1 in	5/8 in	342 in-lb (39 N·m)	378 in-lb (43 N·m)

SUBTASK 26-23-00-410-002

(10) If removed, install lower shield in front of the bottle connections.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 26-23-00-410-006

(1) Install the aft bulkhead liner in the forward cargo compartment (TASK 50-11-02-400-801).

——— END OF TASK ———

TASK 26-23-00-730-803

5. Cargo Fire Extinguishing Discharge Line Pressure Test

(Figure 502)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) The pressure test is the same for all cargo compartments.

B. References

Reference	Title
50-11-02-000-801	Forward Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
50-11-02-400-801	Forward Cargo Compartment Aft Bulkhead Liner 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.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

Reference	Description
SPL-1648	Discharge Lines - Cargo Fire Extinguisher Nozzle Caps Part #: B26002-1 Supplier: 81205
STD-1115	Source - Nitrogen, 0-100 PSIG

D. Consumable Materials

Reference	Description	Specification
D50004	Compound - Antiseize	BMS3-28
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38
G50237	Compound - Corrosion Inhibiting, Non-drying - Cor-Ban 27L	BMS3-38

E. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
141	Aft Cargo Compartment - Left
142	Aft Cargo Compartment - Right

F. Prepare for the Test

SUBTASK 26-23-00-010-008

(1) Remove the aft bulkhead liner in the forward cargo compartment (TASK 50-11-02-000-801).

G. Cargo Fire Extinguishing Discharge Line Pressure Test

SUBTASK 26-23-00-010-005

(1) If necessary, remove lower shield to get access to the bottle connections.

SUBTASK 26-23-00-020-007



CAUTION

USE TWO WRENCHES TO LOOSEN OR TIGHTEN THE FITTING. IF YOU TWIST THE TUBE OR FITTING, YOU CAN CAUSE DAMAGE TO THEM.

(2) Disconnect the discharge tubes from the discharge outlets on cargo fire bottle 1.

SUBTASK 26-23-00-020-009

(3) Disconnect the discharge tubes from the filter/dryer outputs on cargo fire bottle 2.

(a) Plug the discharge tubes.

SUBTASK 26-23-00-480-004

(4) Connect a 0-100 PSIG nitrogen source, STD-1115, to the forward (yellow) cargo bottle 1 discharge line.

NOTE: Alternate pressure sources can be used. The pressure source must have an accuracy of 1 PSIG and be capable of applying a pressure of up to 55 PSIG.

SUBTASK 26-23-00-480-005

(5) Install the nozzle caps, SPL-1648, on the fire extinguishing nozzles in the forward cargo compartment.

SUBTASK 26-23-00-780-001

(6) Pressurize the fire extinguishing plumbing to 50 psig (344.7 kPa) - 55 psig (379.2 kPa).

(a) Wait at least 3 minutes for the air pressure to stabilize.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-23-00-780-002

(7) Turn off the pressure source.

(a) Record the stabilized air pressure.

(b) Wait 10 minutes, then check the pressure.

1) Make sure the pressure loss during the 10 minute waiting period is not more than 5 psi (34.5 kPa).

SUBTASK 26-23-00-780-003

(8) Bleed the fire extinguishing plumbing to 0 psi and disconnect the pressure source.

SUBTASK 26-23-00-080-003

(9) Remove the nozzle caps, SPL-1648, from the discharge nozzles in the forward cargo compartment.

SUBTASK 26-23-00-480-006

(10) Connect a 0-100 PSIG nitrogen source, STD-1115, to the aft (blue) cargo bottle 1 discharge line.

NOTE: Alternate pressure sources can be used. The pressure source must have an accuracy of 1 PSIG and be capable of applying a pressure of up to 55 PSIG.

SUBTASK 26-23-00-480-007

(11) Install the nozzle caps, SPL-1648, on the fire extinguishing nozzles in the aft cargo compartment.

SUBTASK 26-23-00-780-004

(12) Pressurize the fire extinguishing plumbing to 50 psig (344.7 kPa) - 55 psig (379.2 kPa).

(a) Wait at least 3 minutes for the air pressure to stabilize.

SUBTASK 26-23-00-780-005

(13) Turn off the pressure source.

(a) Record the stabilized air pressure.

(b) Wait 10 minutes, then check the pressure.

1) Make sure the pressure loss during the 10 minute waiting period is not more than 5 psi (34.5 kPa).

SUBTASK 26-23-00-780-006

(14) Bleed the fire extinguishing plumbing to 0 psi and disconnect the pressure source.

SUBTASK 26-23-00-080-004

(15) Remove the nozzle caps, SPL-1648, from the discharge nozzles in the aft cargo compartment.

SUBTASK 26-23-00-020-010

(16) Remove the plugs from the filter/dryer output lines on cargo fire bottle 2.

SUBTASK 26-23-00-420-004

(17) Connect the discharge tubes to the discharge outlets on bottle 1.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

WARNING DO NOT GET THE CORROSION-INHIBITING COMPOUND ON YOUR SKIN, IN YOUR EYES, OR ON YOUR CLOTHES. THE COMPOUND IS POISONOUS AND FLAMMABLE. USE APPROVED GLOVES, AND EYE PROTECTION. MAKE SURE THAT THERE IS GOOD AIRFLOW IN THE WORK AREA. KEEP THE COMPOUND AWAY FROM SPARKS AND FLAMES. THE COMPOUND CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(a) Apply a layer of compound, D50004, (preferred) to the outlet threads, outlet end, and outlet inner diameter where the tube assembly attaches to the discharge head.

WARNING USE NITRILE GLOVES FOR SKIN PROTECTION WHEN YOU USE COR-BAN 27L, G50237. IF IT GETS ON YOUR SKIN, IMMEDIATELY REMOVE IT WITH WATER. IF THIS MATERIAL GETS IN YOUR EYES, IMMEDIATELY FLUSH YOUR EYES WITH WATER. GET MEDICAL AID. THIS MATERIAL CONTAINS FLAMMABLE AGENTS WHICH CAN CAUSE INJURIES TO PERSONNEL.

1) Permitted alternative anti-corrosion compounds for use in this location are Cor-Ban 27L Compound, G50237, or corrosion inhibiting material, G50136.

(b) Connect the tube assemblies to the discharge heads.

NOTE: The tube assemblies that are marked in yellow supply the extinguishing agent to the forward cargo compartment and the ones marked in blue supply the aft cargo compartment.

(c) Remove any unwanted compound.

(d) Tighten the nuts on the tube assemblies to these torque values:

Discharge Tube Torque Values

Nut Size	Tube Outer Diameter	Torque (MIN)	Torque (MAX)
7/8 in	1/2 in	266 in-lb (30 N·m)	294 in-lb (33 N·m)
1 in	5/8 in	342 in-lb (39 N·m)	378 in-lb (43 N·m)

SUBTASK 26-23-00-420-005

(18) Connect the discharge tubes to the filter/dryer outputs on cargo fire bottle 2.

WARNING DO NOT GET THE CORROSION-INHIBITING COMPOUND ON YOUR SKIN, IN YOUR EYES, OR ON YOUR CLOTHES. THE COMPOUND IS POISONOUS AND FLAMMABLE. USE APPROVED GLOVES, AND EYE PROTECTION. MAKE SURE THAT THERE IS GOOD AIRFLOW IN THE WORK AREA. KEEP THE COMPOUND AWAY FROM SPARKS AND FLAMES. THE COMPOUND CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(a) Apply a layer of compound, D50004, (preferred) to the outlet threads, outlet end, and outlet inner diameter where the tube assembly attaches to the discharge head.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

WARNING USE NITRILE GLOVES FOR SKIN PROTECTION WHEN YOU USE COR-BAN 27L, G50237. IF IT GETS ON YOUR SKIN, IMMEDIATELY REMOVE IT WITH WATER. IF THIS MATERIAL GETS IN YOUR EYES, IMMEDIATELY FLUSH YOUR EYES WITH WATER. GET MEDICAL AID. THIS MATERIAL CONTAINS FLAMMABLE AGENTS WHICH CAN CAUSE INJURIES TO PERSONNEL.

1) Permitted alternative anti-corrosion compounds for use in this location are Cor-Ban 27L Compound, G50237 or corrosion inhibiting material, G50136.

(b) Connect the tube assemblies to the discharge heads.

NOTE: The tube assemblies that are marked in yellow supply the extinguishing agent to the forward cargo compartment and the ones marked in blue supply the aft cargo compartment.

(c) Remove any unwanted compound.

(d) Tighten the nuts on the tube assemblies to these torque values:

Discharge Tube Torque Values

Nut Size	Tube Outer Diameter	Torque (MIN)	Torque (MAX)
7/8 in	1/2 in	266 in-lb (30 N·m)	294 in-lb (33 N·m)
1 in	5/8 in	342 in-lb (39 N·m)	378 in-lb (43 N·m)

SUBTASK 26-23-00-410-003

(19) If removed, install lower shield in front of the bottle connections.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 26-23-00-410-007

(1) Install the aft bulkhead liner in the forward cargo compartment (TASK 50-11-02-400-801).

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

CARGO COMPARTMENT FIRE EXTINGUISHER BOTTLE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the cargo fire extinguisher bottle

(2) An installation of the cargo fire extinguisher bottle

(3) A removal of the cargo fire extinguisher bottle with tool

(4) An installation of the cargo fire extinguisher bottle with tool.

B. Two cargo fire extinguisher bottles are installed in the mix manifold bay, in the aft end of the lower fwd cargo compartment.

TASK 26-23-01-000-801

2. Cargo Fire Extinguisher Bottle Removal

(Figure 401, Figure 402)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task gives instructions to remove the cargo fire extinguisher bottles.

(2) When either extinguisher bottle discharges, replace the filter/dryers.

B. References

Reference	Title
20-10-33-000-801	Power Device Cartridge (Squib) Removal (P/B 401)
50-11-02-000-801	Forward Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
WDM 26-23-11	Wiring Diagram Manual

C. Tools/Equipment

Reference	Description
STD-1168	Cap - Shorting or Faraday Cap

D. Location Zones

Zone	Area
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

E. Access Panels

Number	Name/Location
821	Forward Cargo Door

F. Prepare for the Removal

SUBTASK 26-23-01-860-017

(1) Make sure that the ARM FWD and ARM AFT switches, on the P8 cargo bay fire control panel, are in the up position.

NOTE: The ARMED lights will be off to indicate that the system is disarmed.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-23-01-860-001

(2) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1

SUBTASK 26-23-01-010-001

(3) Open this access panel:

Number	Name/Location
821	Forward Cargo Door

SUBTASK 26-23-01-860-002

(4) Remove the lining at the aft end of the forward cargo compartment to get access to the air conditioning distribution bay (TASK 50-11-02-000-801).

SUBTASK 26-23-01-860-003

(5) If it is necessary, remove the air conditioning duct that is in front of bottle 2 [2].

SUBTASK 26-23-01-010-005

(6) Remove the lower shield [3] that covers the bottle connections.

(a) Remove the screws [4] and washers [5] that attach the lower shield [3].

G. Cargo Fire Extinguisher Bottle Removal

SUBTASK 26-23-01-020-001

(1) Disconnect the electrical connectors from bottle 1 [1] or bottle 2 [2] (WDM 26-23-11).

WARNING DO NOT TOUCH THE PINS ON THE SQUIBS. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT

(a) Before touching the squibs, do the task for devices that are sensitive to electrostatic discharge (TASK 20-10-33-000-801).

(b) Disconnect the pressure switch connector, D16576 or D17810 from bottle 1 [1].

(c) Disconnect the FWD squib connector, D16578 or D17811 from bottle 1 [1].

(d) Disconnect the AFT squib connector, D16580 or D17812 from bottle 1 [1].

(e) Disconnect the pressure switch connector, D16588 from bottle 2 [2].

(f) Disconnect the FWD squib connector, D16584 or D17807 from bottle 2 [2].

(g) Disconnect the AFT squib connector, D16586 or D17808 from bottle 2 [2].

SUBTASK 26-23-01-480-001

WARNING DO NOT MOVE OR TOUCH THE CARTRIDGE WITHOUT A SHORTING CAP OR FARADAY CAP INSTALLED ON THE ENDS OF THE SQUIB. THE SQUIB IS AN EXPLOSIVE DEVICE. ACCIDENTAL OPERATION OF THE SQUIB CAN CAUSE INJURY TO PERSONS.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(WARNING PRECEDES)

CAUTION

DO NOT PUT SHUNT PLUGS ON THE FIRE BOTTLE SQUIBS. THE SHUNT PLUGS CAN CAUSE DAMAGE TO THE SQUIB PINS.

(2) Install the shorting or faraday cap, STD-1168 on the squibs.

NOTE: The shorting caps are attached to the fire extinguishing bottles. These shorting caps prevent the squibs from possibly activation due to static electricity.

SUBTASK 26-23-01-020-002

(3) Remove the nut [6] and washer [7] that attach the ground straps to the ground lug.

SUBTASK 26-23-01-860-004

(4) Disconnect the discharge tubes from the bottle discharge ports.

SUBTASK 26-23-01-020-019

(5) Remove and discard the lockwires that attach the anti-thrust caps to the discharge tubes.

SUBTASK 26-23-01-420-001

(6) Install the anti-thrust caps on each of the bottle discharge ports.

SUBTASK 26-23-01-420-002

(7) Install the protective caps on each of the discharge tubes.

SUBTASK 26-23-01-020-003

(8) Remove the bolts [8] and washers [9] that attach the bottle 1 [1] and/or bottle 2 [2] to the support bracket.

SUBTASK 26-23-01-020-010

WARNING

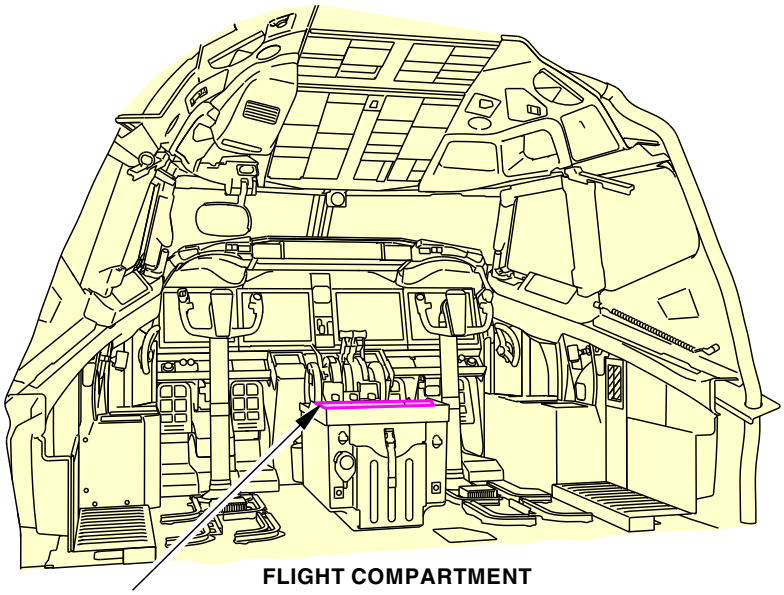
USE SAFE PROCEDURES TO LIFT, REMOVE AND INSTALL THE FIRE BOTTLES. FIRE BOTTLES ARE HEAVY AND CAN CAUSE INJURY TO PERSONNEL AND DAMAGE TO EQUIPMENT.

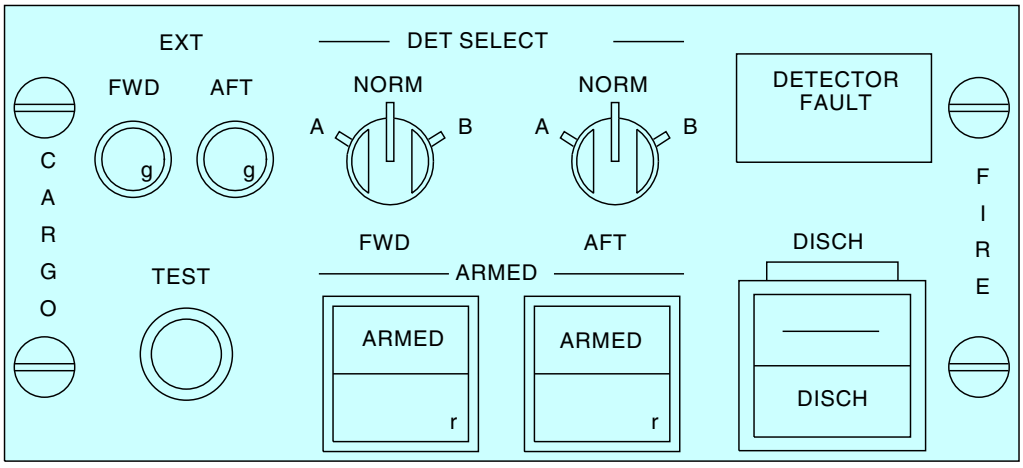
(9) Remove the bottle 1 [1] or bottle 2 [2].

NOTE: Fire bottles can weigh up to 44 lb (20 kg).

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details





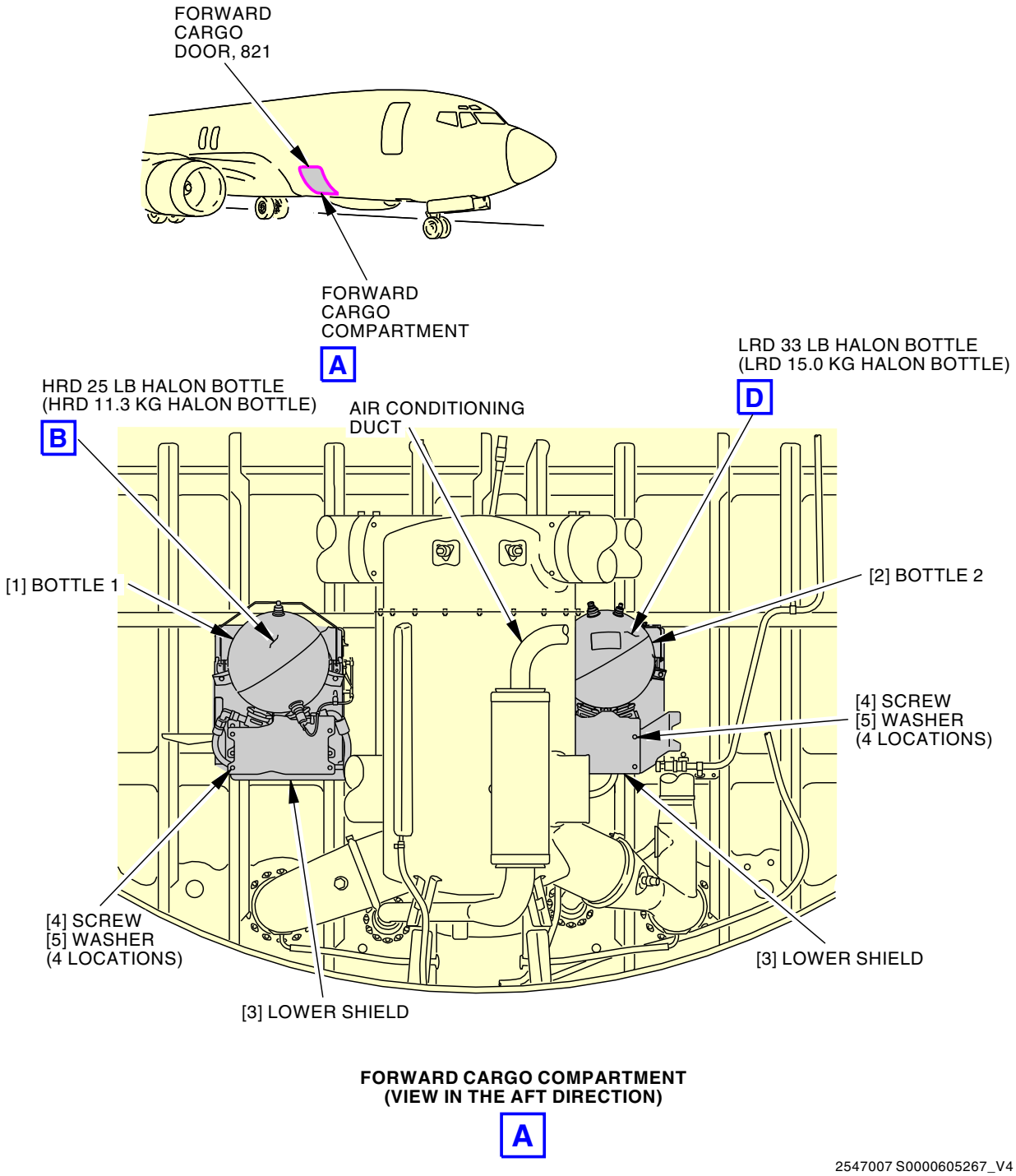
CARGO BAY FIRE CONTROL PANEL (P8)

A

2534661 S0000600502_V1

Cargo Bay Fire Control Panel
Figure 401/26-23-01-990-806

ECCN 9E991 BOEING PROPRIETARY - See title page for details



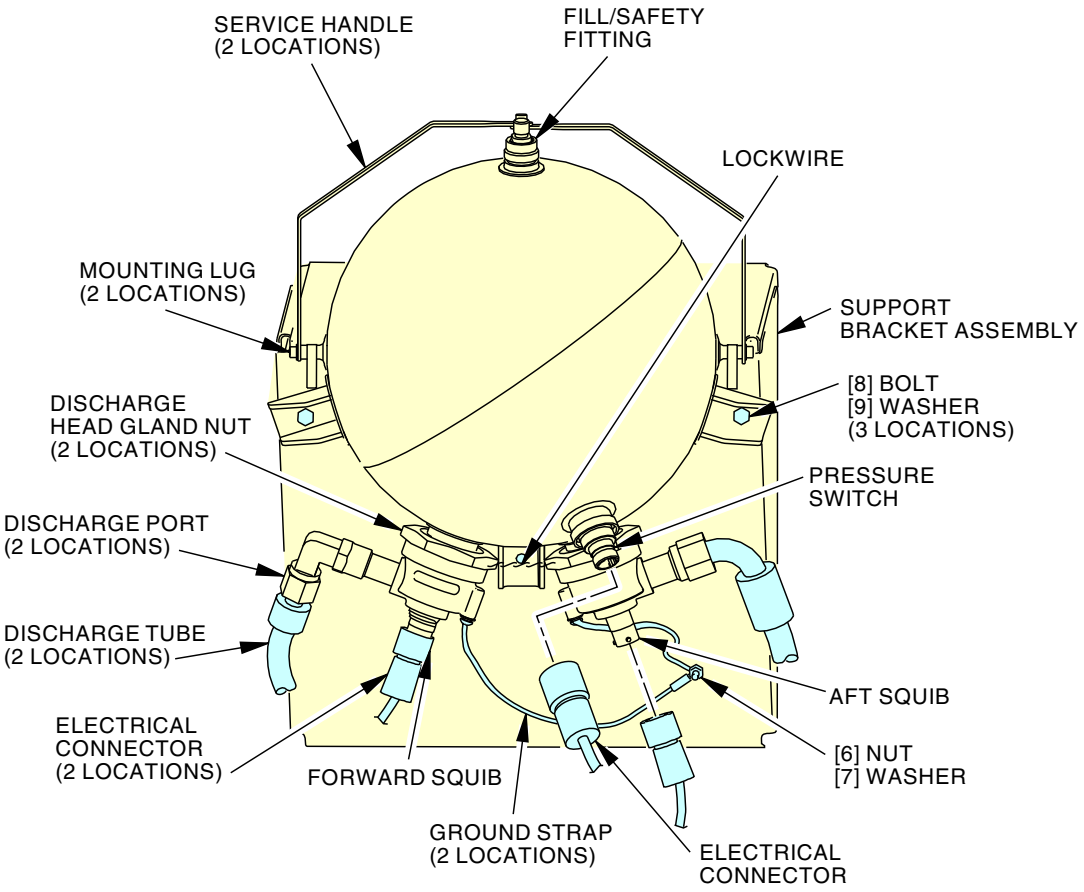
FORWARD CARGO COMPARTMENT
(VIEW IN THE AFT DIRECTION)

A

2547007 S0000605267_V4

Cargo Compartment Fire Extinguisher Bottle Installation
Figure 402/26-23-01-990-801 (Sheet 1 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



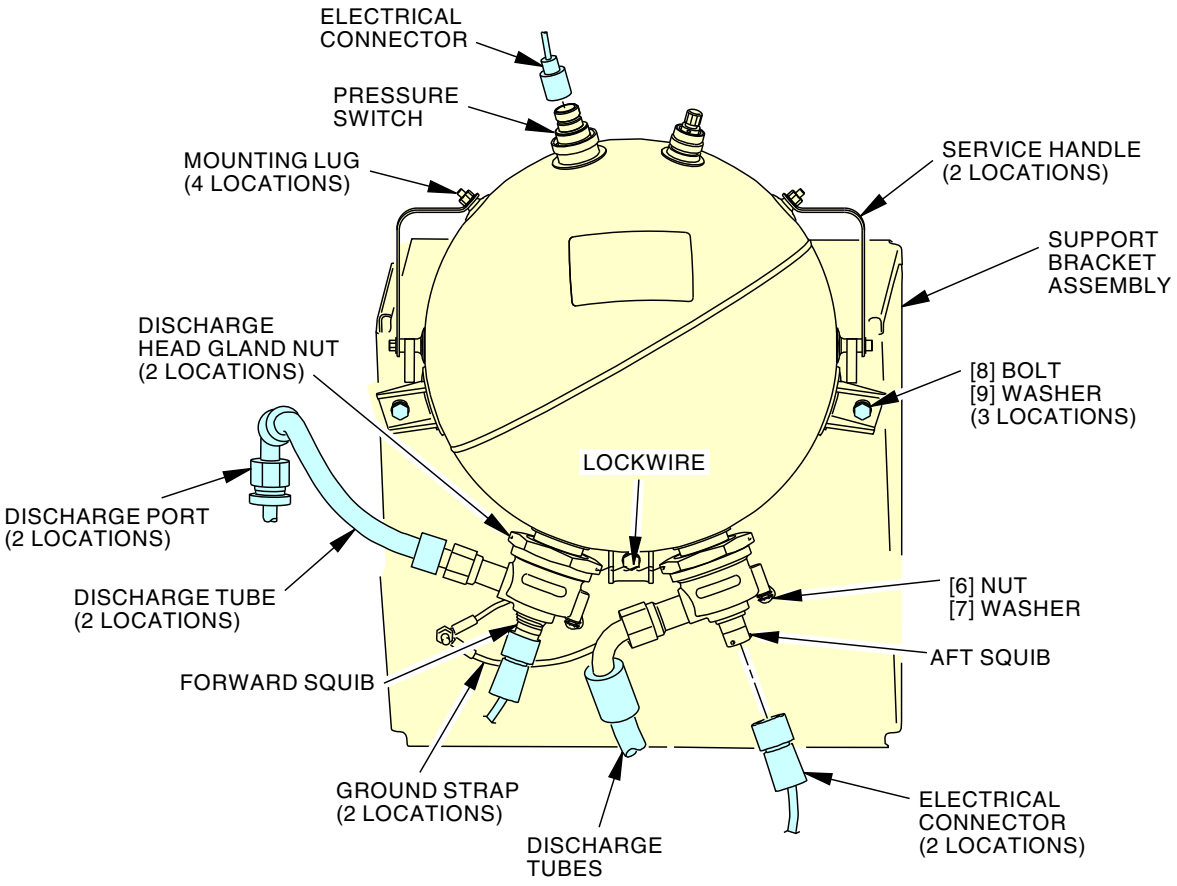
HRD 25 LB HALON BOTTLE
(HRD 11.3 KG HALON BOTTLE)

B

2546795 S0000605273_V4

Cargo Compartment Fire Extinguisher Bottle Installation
Figure 402/26-23-01-990-801 (Sheet 2 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



LRD 33 LB HALON BOTTLE
(LRD 15.0 KG HALON BOTTLE)

D

2546975 S0000605268_V2

Cargo Compartment Fire Extinguisher Bottle Installation
Figure 402/26-23-01-990-801 (Sheet 3 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-23-01-400-801

3. Cargo Fire Extinguisher Bottle Installation

(Figure 401, Figure 402)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task is for the installation of the cargo fire extinguisher bottles.

B. References

Reference	Title
20-40-12-400-802	ESDS Handling for Metal Encased Unit Installation (P/B 201)
26-23-01-100-801	Cargo Fire Extinguishing System Cleaning (P/B 701)
26-23-02-400-801	Cargo Fire Extinguisher Bottle Squib Installation (P/B 401)
26-23-04-000-801	Cargo Fire Extinguishing Filter/Dryer Removal (P/B 401)
26-23-04-400-801	Cargo Fire Extinguishing Filter/Dryer Installation (P/B 401)
50-11-02-400-801	Forward Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)
SWPM 20-20-00	ELECTRICAL BONDING PROCESSES
WDM 26-23-11	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-1550	Bonding Meter - 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 #: M1B Supplier: 3AD17 Part #: T477W (C15292) Supplier: 06659
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 #: 21 Supplier: 89536 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

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(Continued)

Reference	Description
COM-2529	Gauge - Force, Push/Pull/Spring Scale, 50 Pound Capacity Part #: FDIX 50 Supplier: 0BFD9 Opt Part #: FDI 50 Supplier: 0BFD9 Opt Part #: FDV 50 Supplier: 0BFD9
STD-1079	Resistor - 10K Ohm or Greater
STD-1168	Cap - Shorting or Faraday Cap

D. Consumable Materials

Reference	Description	Specification
B00130	Alcohol - Isopropyl	TT-I-735
D50004	Compound - Antiseize	BMS3-28
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	AMS3819 Class 1 Grade A or B Form 1 (Supersede BMS15-5 CL A)
G01048	Lockwire - MS20995C32, Corrosion Resistant Steel - 0.032 Inch (0.8128 mm) Diameter	NASM20995
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38
G50237	Compound - Corrosion Inhibiting, Non-drying - Cor-Ban 27L	BMS3-38

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Bottle 1	26-23-01-05-190	SIA ALL
2	Bottle 2	26-23-01-05-175	SIA ALL

F. Location Zones

Zone	Area
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

G. Access Panels

Number	Name/Location
821	Forward Cargo Door

H. Cargo Fire Extinguisher Bottle Installation

SUBTASK 26-23-01-200-001

(1) If the bottle 1 [1] or bottle 2 [2] discharged, do these steps:

(a) Replace the cargo fire extinguishing filter/dryer (TASK 26-23-04-000-801 and TASK 26-23-04-400-801).

(b) Do this task: Cargo Fire Extinguishing System Cleaning, TASK 26-23-01-100-801.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-23-01-200-003

WARNING DO NOT TOUCH THE PINS ON THE SQUIBS. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT

WARNING DO NOT MOVE THE BOTTLE WITHOUT A CAP ON THE PORTS. DO NOT LET THE BOTTLE HIT THE AIRPLANE. BE CAREFUL NOT TO DAMAGE THE BOTTLE. IF THE BOTTLE IS ACCIDENTLY DISCHARGED, IT CAN CAUSE INJURY TO PERSONS.

(2) Before you install the bottle 1 [1] or bottle 2 [2], do these steps:

(a) Use gauge, COM-2529, to weigh the bottle 1 [1] or bottle 2 [2].

1) Make sure that the squibs are installed with shorting or faraday cap, STD-1168 when handling the bottle assembly.

(b) Make sure that its weight did not decrease more than the weight shown in Table 401.

NOTE: Depending on the bottle manufacturer or bottle part number, the measured weight marked on the bottle may or may not include some of the protective caps.

Table 401/26-23-01-993-802

Bottle Part Number	Weight Tolerance
475976-X or 473957-X	0.25 lb (0.11 kg)
475975-X	0.13 lb (0.06 kg)

SUBTASK 26-23-01-420-022

(3) Install the bottle 1 [1] or bottle 2 [2] in its position in the airplane, as follows:

(a) Leave the fill/safety protective cap on the bottle 1 [1] or bottle 2 [2].

WARNING USE SAFE PROCEDURES TO LIFT, REMOVE AND INSTALL THE FIRE BOTTLES. FIRE BOTTLES ARE HEAVY AND CAN CAUSE INJURY TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(b) Lift the bottle 1 [1] or bottle 2 [2] by the service handles and install the mounting lugs on the support bracket assembly.

SUBTASK 26-23-01-420-004

(4) Install the bolts [8] and washers [9] that attach the bottle 1 [1] or bottle 2 [2] to the support bracket assembly.

SUBTASK 26-23-01-420-005

(5) Install the nut [6] and washer [7] that attach the ground straps to the support bracket assembly.

SUBTASK 26-23-01-420-006

(6) Measure the electrical bonding resistance between the bottle 1 [1] or bottle 2 [2] and support bracket assembly (SWPM 20-20-00).

(a) Use an intrinsically safe approved bonding meter, COM-1550.

(b) Make sure that the resistance is 0.001 ohm (1 milliohm) or less.

(c) If the resistance is more than 0.001 ohm (1 milliohm), do these steps:

1) Clean the bonding surfaces between the bottle 1 [1] or bottle 2 [2] and ground straps with cotton wiper, G00034, moisten with alcohol, B00130.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

2) Immediately dry the surfaces with a new cotton wiper.

3) Measure resistance again between the bottle 1 [1] or bottle 2 [2] and support bracket assembly.

a) Use an intrinsically safe approved bonding meter, COM-1550.

<1> Make sure that the resistance is 0.001 ohm (1 milliohm) or less.

SUBTASK 26-23-01-020-005

(7) If the discharge heads are not aligned with the discharge tubes, do these steps:

(a) Loosen the discharge head gland nuts.

(b) Adjust the discharge heads to get access to the tube connections.

SUBTASK 26-23-01-020-006

(8) Remove the protective caps from each of the discharge tubes.

SUBTASK 26-23-01-080-001

(9) Remove the anti-thrust caps from each of the discharge ports.

SUBTASK 26-23-01-420-007

(10) Use a lockwire to hang the anti-thrust caps on the discharge tubes.

SUBTASK 26-23-01-620-001

WARNING

DO NOT GET THE CORROSION-INHIBITING COMPOUND ON YOUR SKIN, IN YOUR EYES, OR ON YOUR CLOTHES. THE COMPOUND IS POISONOUS AND FLAMMABLE. USE APPROVED GLOVES, AND EYE PROTECTION. MAKE SURE THAT THERE IS GOOD AIRFLOW IN THE WORK AREA. KEEP THE COMPOUND AWAY FROM SPARKS AND FLAMES. THE COMPOUND CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(11) Apply a layer of compound, D50004 (preferred), to the outlet threads, outlet end, and outlet inner diameter where the tube assembly attaches to the discharge head.

WARNING

USE NITRILE GLOVES FOR SKIN PROTECTION WHEN YOU USE COR-BAN 27L, G50237. IF IT GETS ON YOUR SKIN, IMMEDIATELY REMOVE IT WITH WATER. IF THIS MATERIAL GETS IN YOUR EYES, IMMEDIATELY FLUSH YOUR EYES WITH WATER. GET MEDICAL AID. THIS MATERIAL CONTAINS FLAMMABLE AGENTS WHICH CAN CAUSE INJURIES TO PERSONNEL.

(a) Use Cor-Ban 27L Compound, G50237, or corrosion inhibiting material, G50136, as permitted alternative anti-corrosion compounds in this location.

SUBTASK 26-23-01-420-008

(12) Connect the FWD (Yellow) and AFT (Blue) discharge tubes to the discharge ports, as follows:

(a) Refer to the outlet identification above each discharge outlet to make sure that the tubes are connected to the correct ports.

SUBTASK 26-23-01-420-009

(13) If you adjust the gland nut, do these steps:

(a) Tighten the gland nuts to 660 in-lb (75 N·m) - 780 in-lb (88 N·m).

(b) Attach MS20995C32 lockwire, G01048, between the gland nuts.

1) Make sure that the swivel nuts are on the correct necks.

NOTE: If the installation is not correct, the fire extinguisher bottle will not operate correctly.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-23-01-420-010

(14) Tighten the nuts on the tube assemblies to these torque values:

Discharge Tube Torque Values

Nut Size	Tube Outer Diameter	Torque (MIN)	Torque (MAX)
7/8 in	1/2 in	266 in-lb (30 N·m)	294 in-lb (33 N·m)
1 in	5/8 in	342 in-lb (39 N·m)	378 in-lb (43 N·m)

SUBTASK 26-23-01-420-011

(15) Install the electrical connector to the pressure switch on the bottle 1 [1] (WDM 26-23-11).

(a) Connect a jumper wire between pins 2 and 3 on D16576 or D17810.

1) Make sure that the DISCH light, on the P8 cargo fire control panel, comes on.

2) Remove the jumper wire.

(b) Install the electrical connector to the pressure switch, D16576 or D17810 on the bottle 1 [1].

SUBTASK 26-23-01-420-021

(16) Install the electrical connector to the pressure switch on bottle 2 [2].

(a) Connect a jumper wire between pins 2 and 3 on D16588.

1) Make sure that the DISCH light, on the P8 cargo fire control panel, comes on.

2) Remove the jumper wire.

(b) Install the electrical connector to the pressure switch, D16588 on the bottle 2 [2].

SUBTASK 26-23-01-420-012

(17) If the squib is not installed on the bottle 1 [1] or bottle 2 [2], do this task: Cargo Fire Extinguisher Bottle Squib Installation, TASK 26-23-02-400-801.

SUBTASK 26-23-01-500-001

WARNING DO NOT TOUCH THE PINS ON THE SQUIBS. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT

(18) Do this task: ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

SUBTASK 26-23-01-700-001

WARNING MAKE SURE THERE IS NO VOLTAGE AT THE ELECTRICAL CONNECTOR. IF THERE IS A VOLTAGE AT THE ELECTRICAL CONNECTOR, THE SQUIB CAN FIRE SUDDENLY AND CAUSE INJURY TO PERSONNEL.

(19) Do these steps to make sure that there is no stray voltage at the electrical squib connector:

Fire Bottle Squib Electrical Connector

	Engine	APU	Cargo
Connector Pins	3 and 4, and 6 and 7	3 and 4	1 and 2

(a) Connect the digital/analog multimeter, COM-1793, across the two pins.

(b) Make sure that the current is less than 5 milliamps AC, and less than 5 milliamps DC.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(c) Connect a resistor, STD-1079, across the multimeter probes.

(d) Make sure that the voltage is less than .250 volts AC, and less than 0.250 volts DC.

(e) If it is necessary, repeat the steps above for the other squib electrical connectors.

(f) Disconnect the multimeter.

SUBTASK 26-23-01-420-044

(20) Make sure that the electrical connector is not damaged.

NOTE: The squib pins can cause damage to the connector if the pins do not enter the electrical connector receptacles.

SUBTASK 26-23-01-420-054

(21) Remove the shorting or faraday cap, STD-1168 from the FWD squibs.

SUBTASK 26-23-01-420-058

(22) Make sure that the squib pins are not bent or damaged.

SUBTASK 26-23-01-420-045

(23) Connect electrical connector D16578 or D17811 to the forward fire bottle squib on the bottle 1 [1].

SUBTASK 26-23-01-420-046

(24) Connect electrical connector D16584 or D17807 to the forward fire bottle squib on the bottle 2 [2].

SUBTASK 26-23-01-700-003

WARNING MAKE SURE THERE IS NO VOLTAGE AT THE ELECTRICAL CONNECTOR. IF THERE IS A VOLTAGE AT THE ELECTRICAL CONNECTOR, THE SQUIB CAN FIRE SUDDENLY AND CAUSE INJURY TO PERSONNEL.

(25) Do these steps to make sure that there is no stray voltage at the electrical squib connector:

Fire Bottle Squib Electrical Connector

	Engine	APU	Cargo
Connector Pins	3 and 4, and 6 and 7	3 and 4	1 and 2

(a) Connect the digital/analog multimeter, COM-1793, across the two pins.

(b) Make sure that the current is less than 5 milliamps AC, and less than 5 milliamps DC.

(c) Connect a resistor, STD-1079, across the multimeter probes.

(d) Make sure that the voltage is less than .250 volts AC, and less than 0.250 volts DC.

(e) If it is necessary, repeat the steps above for the other squib electrical connectors.

(f) Disconnect the multimeter.

SUBTASK 26-23-01-420-042

(26) Make sure that the electrical connector is not damaged.

NOTE: The squib pins can cause damage to the connector if the pins do not engage the electrical connector receptacles.

SUBTASK 26-23-01-420-055

(27) Remove the shorting or faraday cap, STD-1168 from the AFT squibs.

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SUBTASK 26-23-01-420-059

(28) Make sure that the squib pins are not bent or damaged.

SUBTASK 26-23-01-420-047

(29) Connect electrical connector D16580 or D17812 to the aft fire bottle squib on the bottle 1 [1].

SUBTASK 26-23-01-420-048

(30) Connect electrical connector D16586 or D17808 to the aft fire bottle squib on the bottle 2 [2].

I. Put the Airplane Back to Its Usual Condition

SUBTASK 26-23-01-860-026

(1) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1

SUBTASK 26-23-01-410-004

(2) Install the lower shield [3] that covers the bottle connections.

(a) Install the screws [4] and washers [5] that attach the lower shield [3].

SUBTASK 26-23-01-410-001

(3) If it is necessary, install the air conditioning duct in front of the bottle 2 [2].

SUBTASK 26-23-01-410-002

(4) Install the liner at the aft end of the forward cargo compartment (TASK 50-11-02-400-801).

SUBTASK 26-23-01-410-003

(5) Close this access door:

Number	Name/Location
821	Forward Cargo Door

J. Cargo Fire Extinguisher Bottle Installation Test

SUBTASK 26-23-01-700-004

(1) Do a test of the cargo fire extinguishing system, as follows:

(a) Push and hold the TEST switch on the cargo fire control panel.

(b) Make sure that the green FWD and AFT EXT lights on the cargo fire control panel come on.

(c) Release the TEST switch.

(d) Make sure that the green FWD and AFT EXT lights go off.

——— END OF TASK ———

TASK 26-23-01-000-802

4. Cargo Fire Extinguisher Bottle Removal - With Tool

(Figure 401, Figure 402)

A. General

(1) This task gives instructions to remove the cargo fire extinguisher bottles using fire extinguisher installation/removal equipment, SPL-5038.

(2) When either extinguisher bottle discharges, replace the filter/dryers.

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B. References

Reference	Title
20-10-33-000-801	Power Device Cartridge (Squib) Removal (P/B 401)
50-11-02-000-801	Forward Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
WDM 26-23-11	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
SPL-5038	Instl/Removal Equipment - Fire Extinguisher Bottle (Lwr. Cargo Compt) Part #: C26008-148 Supplier: 81205 Opt Part #: C26008-1 Supplier: 81205
STD-1168	Cap - Shorting or Faraday Cap

D. Location Zones

Zone	Area
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

E. Access Panels

Number	Name/Location
821	Forward Cargo Door

F. Prepare for the Removal

SUBTASK 26-23-01-860-018

(1) Make sure that the ARM FWD and ARM AFT switches, on the P8 cargo bay fire control panel, are in the up position.

NOTE: The ARMED lights will be off to indicate that the system is disarmed.

SUBTASK 26-23-01-860-019

(2) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1

SUBTASK 26-23-01-010-007

(3) Open this access panel:

Number	Name/Location
821	Forward Cargo Door

SUBTASK 26-23-01-860-020

(4) Remove the lining at the aft end of the forward cargo compartment to get access to the air conditioning distribution bay (TASK 50-11-02-000-801).

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SUBTASK 26-23-01-860-021

(5) If it is necessary, remove the air conditioning duct that is in front of bottle 2 [2].

G. Cargo Fire Extinguisher Bottle Removal

SUBTASK 26-23-01-020-011

(1) Disconnect the electrical connectors from bottle 1 [1] or bottle 2 [2] (WDM 26-23-11).

WARNING DO NOT TOUCH THE PINS ON THE SQUIBS. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT

(a) Before touching the squibs, do the procedure for devices that are sensitive to electrostatic discharge (TASK 20-10-33-000-801).

(b) Disconnect the pressure switch connector, D16576 or D17810 from bottle 1 [1].

(c) Disconnect the FWD squib connector, D16578 or D17811 from bottle 1 [1].

(d) Disconnect the AFT squib connector, D16580 or D17812 from bottle 1 [1].

(e) Disconnect the pressure switch connector, D16588 from bottle 2 [2].

(f) Disconnect the FWD squib connector, D16584 or D17807 from bottle 2 [2].

(g) Disconnect the AFT squib connector, D16586 or D17808 from bottle 2 [2].

SUBTASK 26-23-01-480-003

WARNING DO NOT MOVE OR TOUCH THE CARTRIDGE WITHOUT A SHORTING CAP OR FARADAY CAP INSTALLED ON THE ENDS OF THE SQUIB. THE SQUIB IS AN EXPLOSIVE DEVICE. ACCIDENTAL OPERATION OF THE SQUIB CAN CAUSE INJURY TO PERSONS.

CAUTION DO NOT PUT SHUNT PLUGS ON THE FIRE BOTTLE SQUIBS. THE SHUNT PLUGS CAN CAUSE DAMAGE TO THE SQUIB PINS.

(2) Install the shorting or faraday cap, STD-1168 on the squibs.

NOTE: The shorting caps are attached to the fire extinguishing bottles. These shorting caps prevent the squibs from possible activation due to static electricity.

SUBTASK 26-23-01-020-012

(3) Remove the nut [6] and washer [7] that attach the ground straps to the ground lug.

SUBTASK 26-23-01-860-022

(4) Disconnect the discharge tubes from the bottle discharge ports.

SUBTASK 26-23-01-020-018

(5) Remove and discard the lockwires that attach the anti-thrust caps to the discharge tubes.

SUBTASK 26-23-01-420-023

(6) Install the anti-thrust caps on each of the bottle discharge ports.

SUBTASK 26-23-01-420-024

(7) Install the protective caps on each of the discharge tubes.

SUBTASK 26-23-01-020-013

(8) Remove the bolts [8] and washers [9] that attach the bottle 1 [1] and/or bottle 2 [2] to the support bracket.

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SUBTASK 26-23-01-020-014

(9) Use the fire extinguisher installation/removal equipment, SPL-5038, to remove bottle 1 [1] or bottle 2 [2].

(a) Use the service handles on the bottle to help transport it to and from the fire extinguisher installation/removal equipment, SPL-5038.

——— END OF TASK ———

TASK 26-23-01-400-802

5. Cargo Fire Extinguisher Bottle Installation - With Tool

(Figure 401, Figure 402)

A. General

(1) This task is for the installation of the cargo fire extinguisher bottles with a tool.

B. References

Reference	Title
20-40-12-400-802	ESDS Handling for Metal Encased Unit Installation (P/B 201)
26-23-01-100-801	Cargo Fire Extinguishing System Cleaning (P/B 701)
26-23-02-400-801	Cargo Fire Extinguisher Bottle Squib Installation (P/B 401)
26-23-04-000-801	Cargo Fire Extinguishing Filter/Dryer Removal (P/B 401)
26-23-04-400-801	Cargo Fire Extinguishing Filter/Dryer Installation (P/B 401)
50-11-02-400-801	Forward Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)
SWPM 20-20-00	ELECTRICAL BONDING PROCESSES
WDM 26-23-11	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-1550	Bonding Meter - 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 #: M1B Supplier: 3AD17 Part #: T477W (C15292) Supplier: 06659

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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 #: 21 Supplier: 89536 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-2529	Gauge - Force, Push/Pull/Spring Scale, 50 Pound Capacity Part #: FDIX 50 Supplier: 0BFD9 Opt Part #: FDI 50 Supplier: 0BFD9 Opt Part #: FDV 50 Supplier: 0BFD9
SPL-5038	Instl/Removal Equipment - Fire Extinguisher Bottle (Lwr. Cargo Compt) Part #: C26008-148 Supplier: 81205 Opt Part #: C26008-1 Supplier: 81205
STD-1079	Resistor - 10K Ohm or Greater
STD-1168	Cap - Shorting or Faraday Cap

D. Consumable Materials

Reference	Description	Specification
B00130	Alcohol - Isopropyl	TT-I-735
D50004	Compound - Antiseize	BMS3-28
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	AMS3819 Class 1 Grade A or B Form 1 (Supersede BMS15-5 CL A)
G01048	Lockwire - MS20995C32, Corrosion Resistant Steel - 0.032 Inch (0.8128 mm) Diameter	NASM20995
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38
G50237	Compound - Corrosion Inhibiting, Non-drying - Cor-Ban 27L	BMS3-38

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Bottle 1	26-23-01-05-190	SIA ALL
2	Bottle 2	26-23-01-05-175	SIA ALL

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F. Location Zones

Zone	Area
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right
211	Flight Compartment - Left
212	Flight Compartment - Right

G. Access Panels

Number	Name/Location
821	Forward Cargo Door

H. Cargo Fire Extinguisher Bottle Installation

SUBTASK 26-23-01-200-002

(1) If the bottle 1 [1] or bottle 2 [2] discharged, do these steps:

(a) Replace the cargo fire extinguishing filter/dryer (TASK 26-23-04-000-801 and TASK 26-23-04-400-801).

(b) Do this task: Cargo Fire Extinguishing System Cleaning, TASK 26-23-01-100-801.

SUBTASK 26-23-01-200-004

WARNING DO NOT TOUCH THE PINS ON THE SQUIBS. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT

WARNING DO NOT MOVE THE BOTTLE WITHOUT A CAP ON THE PORTS. DO NOT LET THE BOTTLE HIT THE AIRPLANE. BE CAREFUL NOT TO DAMAGE THE BOTTLE. IF THE BOTTLE IS ACCIDENTLY DISCHARGED, IT CAN CAUSE INJURY TO PERSONS.

(2) Before you install the bottle 1 [1] or bottle 2 [2], do these steps:

(a) Use gauge, COM-2529, to weigh the bottle 1 [1] or bottle 2 [2].

1) Removal all protective caps before weighing.

2) Make sure that the squibs are installed with shorting or faraday cap, STD-1168 when handling the bottle assembly, except at weighing.

(b) Make sure that its weight did not decrease more than the weight shown in Table 402.

NOTE: Depending on the bottle manufacturer or bottle part number, the measured weight marked on the bottle may or may not include some of the protective caps.

Table 402/26-23-01-993-803

Bottle Part Number	Weight Tolerance
475976-X or 473957-X	0.25 lb (0.11 kg)
475975-X	0.13 lb (0.06 kg)

SUBTASK 26-23-01-420-025

(3) Install the bottle 1 [1] or bottle 2 [2] with the tool, as follows:

(a) Use the fire extinguisher installation/removal equipment, SPL-5038, to put the bottle 1 [1] or bottle 2 [2] in its position in the airplane.

(b) Leave the fill/safety protective cap on the bottle 1 [1] or bottle 2 [2].

ECCN 9E991 BOEING PROPRIETARY - See title page for details

WARNING USE SAFE PROCEDURES TO LIFT, REMOVE AND INSTALL THE FIRE BOTTLES. FIRE BOTTLES ARE HEAVY AND CAN CAUSE INJURY TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(c) Lift the bottle 1 [1] or bottle 2 [2] by the service handles and install the mounting lugs on the support bracket assembly.

SUBTASK 26-23-01-420-026

(4) Install the bolts [8] and washers [9] that attach the bottle 1 [1] or bottle 2 [2] to the support bracket assembly.

SUBTASK 26-23-01-420-027

(5) Install the nut [6] and washer [7] that attach the ground straps to the support bracket assembly.

SUBTASK 26-23-01-420-028

(6) Measure the resistance between the bottle 1 [1] or bottle 2 [2] and support bracket assembly (SWPM 20-20-00).

(a) Use an intrinsically safe approved bonding meter, COM-1550.

(b) Make sure that the resistance is 0.001 ohm (1 milliohm) or less.

(c) If the resistance is more than 0.001 ohm, do these steps:

1) Clean the bonding surfaces between the bottle 1 [1] or bottle 2 [2] and ground straps with cotton wiper, G00034, moisten with alcohol, B00130.

2) Immediately dry the surfaces with a new cotton wiper.

3) Measure resistance again between the bottle 1 [1] or bottle 2 [2] and support bracket assembly (SWPM 20-20-00).

a) Use an intrinsically safe approved bonding meter, COM-1550.

<1> Make sure that the resistance is 0.001 ohm (1 milliohm) or less.

SUBTASK 26-23-01-020-015

(7) If the discharge heads are not aligned with the discharge tubes, do these steps:

(a) Loosen the discharge head gland nuts.

(b) Adjust the discharge heads to get access to the tube connections.

SUBTASK 26-23-01-020-016

(8) Remove the protective caps from each of the discharge tubes.

SUBTASK 26-23-01-080-003

(9) Remove the anti-thrust caps from each of the discharge ports.

SUBTASK 26-23-01-420-029

(10) Use a lockwire to hang the anti-thrust caps on the discharge tubes.

SUBTASK 26-23-01-620-002

WARNING DO NOT GET THE CORROSION-INHIBITING COMPOUND ON YOUR SKIN, IN YOUR EYES, OR ON YOUR CLOTHES. THE COMPOUND IS POISONOUS AND FLAMMABLE. USE APPROVED GLOVES, AND EYE PROTECTION. MAKE SURE THAT THERE IS GOOD AIRFLOW IN THE WORK AREA. KEEP THE COMPOUND AWAY FROM SPARKS AND FLAMES. THE COMPOUND CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(11) Apply a layer of compound, D50004 (preferred), to the outlet threads, outlet end, and outlet inner diameter where the tube assembly attaches to the discharge head.

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WARNING

USE NITRILE GLOVES FOR SKIN PROTECTION WHEN YOU USE COR-BAN 27L, G50237. IF IT GETS ON YOUR SKIN, IMMEDIATELY REMOVE IT WITH WATER. IF THIS MATERIAL GETS IN YOUR EYES, IMMEDIATELY FLUSH YOUR EYES WITH WATER. GET MEDICAL AID. THIS MATERIAL CONTAINS FLAMMABLE AGENTS WHICH CAN CAUSE INJURIES TO PERSONNEL.

(a) Use Cor-Ban 27L Compound, G50237, or corrosion inhibiting material, G50136, as permitted alternative anti-corrosion compounds in this location.

SUBTASK 26-23-01-420-037

(12) Connect the FWD (Yellow) and AFT (Blue) discharge tubes to the discharge ports.

(a) Refer to the outlet identification above each discharge outlet to make sure that the tubes are connected to the correct ports.

SUBTASK 26-23-01-420-036

(13) If you adjust the gland nut, do these steps:

(a) Tighten the gland nuts to 660 in-lb (75 N·m) - 780 in-lb (88 N·m).

(b) Attach MS20995C32 lockwire, G01048, between the gland nuts.

SUBTASK 26-23-01-420-035

(14) Tighten the nuts on the tube assemblies to these torque values:

Discharge Tube Torque Values

Nut Size	Tube Outer Diameter	Torque (MIN)	Torque (MAX)
7/8 in	1/2 in	266 in-lb (30 N·m)	294 in-lb (33 N·m)
1 in	5/8 in	342 in-lb (39 N·m)	378 in-lb (43 N·m)

SUBTASK 26-23-01-420-034

(15) Install the electrical connector to the pressure switch on the bottle 1 [1] (WDM 26-23-11).

(a) Connect a jumper wire between pins 2 and 3 on D16576 or D17810.

1) Make sure that the DISCH light, on the P8 cargo fire control panel, comes on.

2) Remove the jumper wire.

(b) Install the electrical connector to the pressure switch, D16576 or D17810 on the bottle 1 [1].

SUBTASK 26-23-01-420-032

(16) Install the electrical connector to the pressure switch on the bottle 2 [2].

(a) Connect a jumper wire between pins 2 and 3 on D16588.

1) Make sure that the DISCH light, on the P8 cargo fire control panel, comes on.

2) Remove the jumper wire.

(b) Install the electrical connector to the pressure switch, D16588 on the bottle 2 [2].

SUBTASK 26-23-01-420-031

(17) If the squib is not installed on the bottle 1 [1] or bottle 2 [2], do this task: Cargo Fire Extinguisher Bottle Squib Installation, TASK 26-23-02-400-801.

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SUBTASK 26-23-01-910-001

WARNING DO NOT TOUCH THE PINS ON THE SQUIBS. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT

(18) Do this task: ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

SUBTASK 26-23-01-420-030

(19) Install the electrical connector to the FWD squib, as follows:

(a) Remove the protective cap from the forward squib.

(b) Attach the protective cap to the side of the fire extinguisher for later steps.

SUBTASK 26-23-01-700-005

WARNING MAKE SURE THERE IS NO VOLTAGE AT THE ELECTRICAL CONNECTOR. IF THERE IS A VOLTAGE AT THE ELECTRICAL CONNECTOR, THE SQUIB CAN FIRE SUDDENLY AND CAUSE INJURY TO PERSONNEL.

(20) Do these steps to make sure that there is no stray voltage at the electrical squib connector:

Fire Bottle Squib Electrical Connector

	Engine	APU	Cargo
Connector Pins	3 and 4, and 6 and 7	3 and 4	1 and 2

(a) Connect the digital/analog multimeter, COM-1793, across the two pins.

(b) Make sure that the current is less than 5 milliamps AC, and less than 5 milliamps DC.

(c) Connect a resistor, STD-1079, across the multimeter probes.

(d) Make sure that the voltage is less than .250 volts AC, and less than 0.250 volts DC.

(e) If it is necessary, repeat the steps above for the other squib electrical connectors.

(f) Disconnect the multimeter.

SUBTASK 26-23-01-420-038

(21) Make sure that the squib pins are not bent or damaged.

SUBTASK 26-23-01-420-049

(22) Make sure that the electrical connector is not damaged.

NOTE: The squib pins can cause damage to the connector if the pins do not enter the electrical connector receptacles.

SUBTASK 26-23-01-420-056

(23) Remove the shorting or faraday cap, STD-1168 from the FWD squibs.

SUBTASK 26-23-01-420-050

(24) Connect electrical connector D16578 or D17811 to the forward fire bottle squib on the bottle 1 [1].

SUBTASK 26-23-01-420-051

(25) Connect electrical connector D16584 or D17807 to the forward fire bottle squib on the bottle 2 [2].

SUBTASK 26-23-01-420-039

(26) Install the electrical connector to the AFT squib.

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(a) Remove the protective cap from the aft squib.

(b) Attach the protective cap to the side of the fire extinguisher for later steps.

SUBTASK 26-23-01-700-006

WARNING MAKE SURE THERE IS NO VOLTAGE AT THE ELECTRICAL CONNECTOR. IF THERE IS A VOLTAGE AT THE ELECTRICAL CONNECTOR, THE SQUIB CAN FIRE SUDDENLY AND CAUSE INJURY TO PERSONNEL.

(27) Do these steps to make sure that there is no stray voltage at the electrical squib connector:

Fire Bottle Squib Electrical Connector

	Engine	APU	Cargo
Connector Pins	3 and 4, and 6 and 7	3 and 4	1 and 2

(a) Connect the digital/analog multimeter, COM-1793, across the two pins.

(b) Make sure that the current is less than 5 milliamps AC, and less than 5 milliamps DC.

(c) Connect a resistor, STD-1079, across the multimeter probes.

(d) Make sure that the voltage is less than .250 volts AC, and less than 0.250 volts DC.

(e) If it is necessary, repeat the steps above for the other squib electrical connectors.

(f) Disconnect the multimeter.

SUBTASK 26-23-01-420-040

(28) Make sure that the squib pins are not bent or damaged.

SUBTASK 26-23-01-420-043

(29) Make sure that the electrical connector is not damaged.

NOTE: The squib pins can cause damage to the connector if the pins do not engage the electrical connector receptacles.

SUBTASK 26-23-01-420-057

(30) Remove the shorting or faraday cap, STD-1168 from the AFT squibs.

SUBTASK 26-23-01-420-052

(31) Connect electrical connector D16580 or D17812 to the aft fire bottle squib on the bottle 1 [1].

SUBTASK 26-23-01-420-053

(32) Connect electrical connector D16586 or D17808 to the aft fire bottle squib on the bottle 2 [2].

I. Put the Airplane Back to Its Usual Condition

SUBTASK 26-23-01-860-025

(1) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1

SUBTASK 26-23-01-410-007

(2) If it is necessary, install the air conditioning duct in front of the bottle 2 [2].

SUBTASK 26-23-01-410-008

(3) Install the liner at the aft end of the forward cargo compartment (TASK 50-11-02-400-801).

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SUBTASK 26-23-01-410-009

(4) Close this access door:

Number	Name/Location
821	Forward Cargo Door

J. Cargo Fire Extinguisher Bottle Installation Test

SUBTASK 26-23-01-700-007

(1) Do a test of the cargo fire extinguishing system, as follows:

(a) Push and hold the TEST switch on the cargo fire control panel.

(b) Make sure that the green FWD and AFT EXT lights on the cargo fire control panel come on.

(c) Release the TEST switch.

(d) Make sure that the green FWD and AFT EXT lights go off.

——— END OF TASK ———

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CARGO COMPARTMENT FIRE EXTINGUISHER BOTTLE SYSTEM - CLEANING/PAINTING

1. General

A. The cargo fire extinguishing system should be cleaned whenever the cargo compartment fire bottle is discharged.

B. Only the compartment in which the bottle was discharged requires cleaning.

C. This procedure has a task to clean the cargo fire extinguishing system.

TASK 26-23-01-100-801

2. Cargo Fire Extinguishing System Cleaning

(Figure 701)

A. General

(1) There are two bottles on the airplane. In this task, the discharge tubes will be removed from bottle 1 and from the output of the filter/dryers of bottle 2. The flow will be from the output of bottle 1 through the discharge nozzles and the filter/dryer output line.

B. References

Reference	Title
26-23-01-000-801	Cargo Fire Extinguisher Bottle Removal (P/B 401)
26-23-01-400-801	Cargo Fire Extinguisher Bottle Installation (P/B 401)
50-11-02-000-801	Forward Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
50-11-02-400-801	Forward Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)

C. Tools/Equipment

Reference	Description
STD-1325	Source - Pressure, Capable of Supplying 35 +/- 5 PSIG

D. Consumable Materials

Reference	Description	Specification
D50004	Compound - Antiseize	BMS3-28
G01048	Lockwire - MS20995C32, Corrosion Resistant Steel - 0.032 Inch (0.8128 mm) Diameter	NASM20995
G50136	Compound - Corrosion Inhibiting, Non-drying Paste	BMS3-38
G50237	Compound - Corrosion Inhibiting, Non-drying - Cor-Ban 27L	BMS3-38

E. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left
122	Forward Cargo Compartment - Right
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right
141	Aft Cargo Compartment - Left
142	Aft Cargo Compartment - Right

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F. Access Panels

Number	Name/Location
821	Forward Cargo Door
822	Aft Cargo Door

G. Prepare for Cleaning

SUBTASK 26-23-01-860-011

(1) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1

SUBTASK 26-23-01-010-003

(2) To access the discharge nozzles in the fwd cargo bay, open this access panel:

Number	Name/Location
821	Forward Cargo Door

SUBTASK 26-23-01-010-004

(3) To access the discharge nozzles in the aft cargo bay, open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 26-23-01-860-012

(4) Remove the lining at the aft end of the forward cargo compartment to get access to the air conditioning distribution bay (TASK 50-11-02-000-801).

SUBTASK 26-23-01-860-013

(5) If it is necessary, remove the air conditioning duct that is in front of the fire extinguishing bottle. Refer to this task: Cargo Fire Extinguisher Bottle Removal, TASK 26-23-01-000-801.

SUBTASK 26-23-01-010-006

(6) Remove the lower shields that cover the bottle connections.

SUBTASK 26-23-01-020-007

(7) Disconnect the applicable discharge tube from the fire extinguisher bottle 1 [1] discharge head.

SUBTASK 26-23-01-020-009

(8) Disconnect the applicable discharge tube from the output side of the filter/dryer of fire extinguisher bottle 2 [2].

SUBTASK 26-23-01-020-008

(9) Remove the discharge nozzles from the discharge tubes in the applicable cargo bay.

(a) Remove the four screws [3] which attach the retainer [4] to the bracket.

(b) Remove the cargo ceiling as required to gain access to the nut.

(c) Remove the two screws [5] that attach the discharge nozzle [6] to the pan cover assembly [7].

(d) Remove the discharge nozzle [6].

H. Procedure

SUBTASK 26-23-01-100-001

(1) Make sure that the nozzle [6] is clear of unwanted materials.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-23-01-480-002

(2) Connect a pressure source, STD-1325 to the applicable cargo bottle 1 [1] discharge tube.

(a) Make sure that air is flowing through all the discharge tubes in the cargo compartment and through the filter/dryer output line.

SUBTASK 26-23-01-080-002

(3) Remove the pressure source, STD-1325 from the discharge tube.

I. Put the airplane back to its usual condition.

SUBTASK 26-23-01-420-017

(1) Connect the discharge tube to the discharge outlet on bottle 1 [1].

(a) Apply a layer of compound, D50004 (preferred) to the outlet threads, outlet end, and outlet inner diameter where the tube assembly attaches to the discharge head.

WARNING

USE NITRILE GLOVES FOR SKIN PROTECTION WHEN YOU USE COR-BAN 27L, G50237. IF IT GETS ON YOUR SKIN, IMMEDIATELY REMOVE IT WITH WATER. IF THIS MATERIAL GETS IN YOUR EYES, IMMEDIATELY FLUSH YOUR EYES WITH WATER. GET MEDICAL AID. THIS MATERIAL CONTAINS FLAMMABLE AGENTS WHICH CAN CAUSE INJURIES TO PERSONNEL.

1) Cor-Ban 27L Compound, G50237 or corrosion inhibiting material, G50136 are also acceptable alternatives as anti-corrosion compounds to use in this location.

(b) Connect the tube assembly to the discharge head.

NOTE: Yellow is used to show the plumbing which supplies extinguishant to the forward cargo compartment. Blue is used to show the plumbing which supplies extinguishant to aft cargo compartment.

(c) Remove any unwanted compound.

(d) Tighten the nut on the applicable tube assembly 266 in-lb (30 N·m) to 294 in-lb (33 N·m) for the FWD (1/2 inch) nut or 342 in-lb (39 N·m) to 378 in-lb (43 N·m) for the AFT (5/8 inch) nut.

SUBTASK 26-23-01-420-020

(2) Connect the discharge tube to the filter/dryer outlet on bottle 2 [2].

(a) Connect the tube assembly to the filter/dryer outlet.

NOTE: Yellow is used to show the plumbing which supplies extinguishant to the forward cargo compartment. Blue is used to show the plumbing which supplies extinguishant to aft cargo compartment.

(b) Tighten the nut on the applicable tube assembly 266 in-lb (30 N·m) to 294 in-lb (33 N·m) for the FWD (1/2 inch) nut or 342 in-lb (39 N·m) to 378 in-lb (43 N·m) for the AFT (5/8 inch) nut.

SUBTASK 26-23-01-860-014

(3) Install the air conditioning duct that is in front of the fire extinguishing bottle if it was previously removed. Refer to this task: Cargo Fire Extinguisher Bottle Installation, TASK 26-23-01-400-801.

SUBTASK 26-23-01-410-005

(4) Install the lower shields that cover the bottle connections.

SUBTASK 26-23-01-860-015

(5) Install the lining at the aft end of the forward cargo compartment (TASK 50-11-02-400-801).

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-23-01-420-018

(6) Install the discharge nozzles [6] on the discharge tubes.

(a) Install the discharge nozzle [6], spacer [8] and pan cover assembly [7] on the discharge tube and hand tighten.

NOTE: Make sure that the pan cover line up with those in the bracket. Make sure that the holes in the discharge nozzle and spacer line up with those in the pan cover assembly.

(b) Tighten the nut to 360 ±18 in-lb (41 ±2 N·m), and install MS20995C32 lockwire, G01048.

(c) Secure the discharge nozzle [6] with screws [5].

(d) Position the spacer [9] on the pan cover assembly [7].

(e) Install the cargo ceiling.

(f) Position the retainer [4] and secure with screw [3].

SUBTASK 26-23-01-860-016

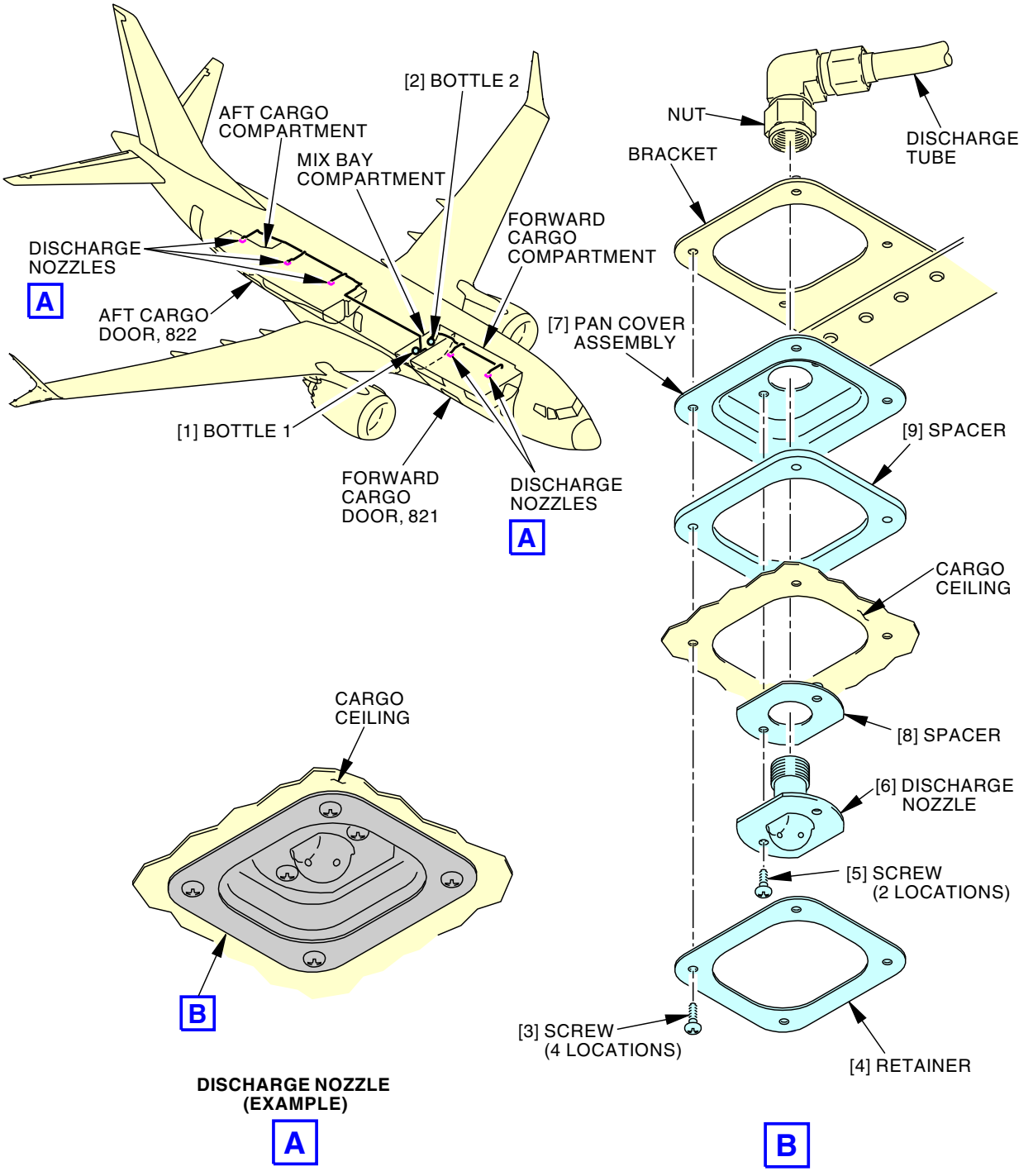
(7) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Cargo Fire Extinguishing System Cleaning
Figure 701/26-23-01-990-802

ECCN 9E991 BOEING PROPRIETARY - See title page for details

CARGO COMPARTMENT FIRE EXTINGUISHER BOTTLE SQUIB - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the cargo fire extinguisher bottle squibs

(2) An installation of the cargo fire extinguisher bottle squibs.

B. Two cargo fire extinguisher bottles are installed in the mix manifold bay, in the aft end of the lower fwd cargo compartment. Each fire extinguisher bottle has two discharge cartridges (squibs).

TASK 26-23-02-000-801

2. Cargo Fire Extinguisher Bottle Squib Removal

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task gives instructions for the removal of the cargo fire extinguisher bottle squib.

B. References

Reference	Title
20-10-33-000-801	Power Device Cartridge (Squib) Removal (P/B 401)
50-11-02-000-801	Forward Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
WDM 26-23-11	Wiring Diagram Manual

C. Tools/Equipment

Reference	Description
STD-1168	Cap - Shorting or Faraday Cap

D. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - MS20995C32, Corrosion Resistant Steel - 0.032 Inch (0.8128 mm) Diameter	NASM20995

E. Location Zones

Zone	Area
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right

F. Access Panels

Number	Name/Location
821	Forward Cargo Door

G. Prepare for the Removal

SUBTASK 26-23-02-860-002

(1) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-23-02-010-001

(2) Open this access door:

Number	Name/Location
821	Forward Cargo Door

SUBTASK 26-23-02-010-002

(3) Remove the lining at the aft end of the forward cargo compartment to get access to the air conditioning distribution bay (TASK 50-11-02-000-801).

SUBTASK 26-23-02-860-003

(4) If it is necessary, remove the air conditioning duct that is in front of the fire extinguishing bottle.

SUBTASK 26-23-02-010-005

(5) Remove the lower shield that covers the bottle connections

H. Cargo Fire Extinguisher Bottle Squib Removal

SUBTASK 26-23-02-860-004

(1) Do this task: Power Device Cartridge (Squib) Removal, TASK 20-10-33-000-801.

SUBTASK 26-23-02-020-001

WARNING DO NOT TOUCH THE PINS ON THE SQUIBS. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT

(2) Disconnect the electrical connectors [5] from the applicable squib as follows (WDM 26-23-11):

(a) For bottle 1 FWD Squib, disconnect connector D16578 or D17811.

(b) For bottle 1 AFT Squib, disconnect connector D16580 or D17812.

(c) For bottle 2 FWD Squib, disconnect connector D16584 or D17807.

(d) For bottle 2 AFT Squib, disconnect connector D16586 or D17808.

SUBTASK 26-23-02-480-001

WARNING DO NOT TOUCH THE SQUIB BEFORE YOU DO THE PROCEDURES FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

CAUTION DO NOT PUT SHUNT PLUGS ON THE FIRE BOTTLE SQUIBS. THE SHUNT PLUGS CAN CAUSE DAMAGE TO THE SQUIB PINS.

(3) Install the shorting or faraday cap, STD-1168 on the squib [1].

NOTE: The shorting caps are attached to the fire extinguishing bottles. These shorting caps prevent the squibs from possible activation due to static electricity.

SUBTASK 26-23-02-020-002

(4) Remove the MS20995C32 lockwire, G01048, from the squib if present.

SUBTASK 26-23-02-020-003

(5) Remove the squib [1] from the discharge head [3].

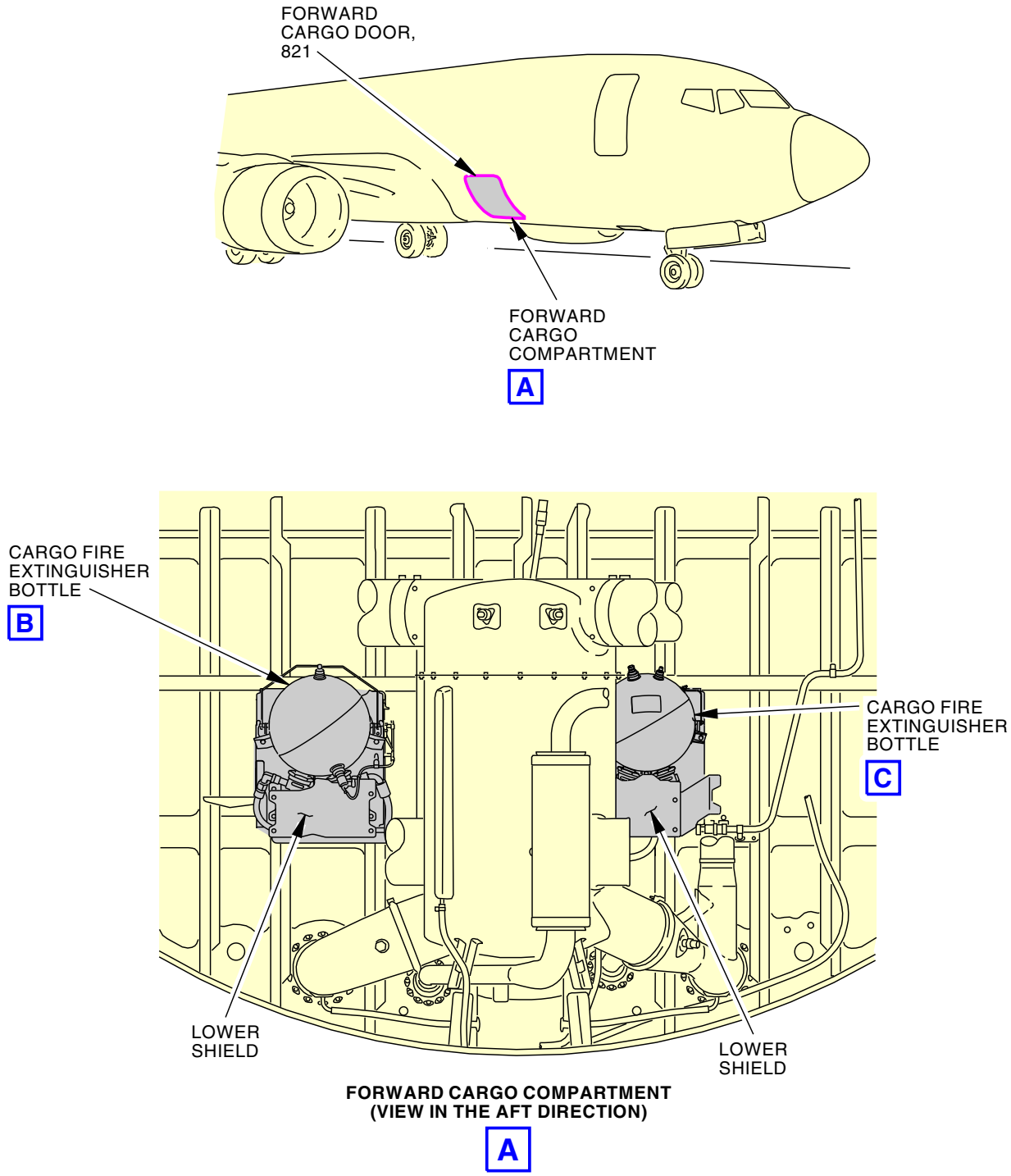
ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-23-02-910-001

(6) Discard the O-ring [2].

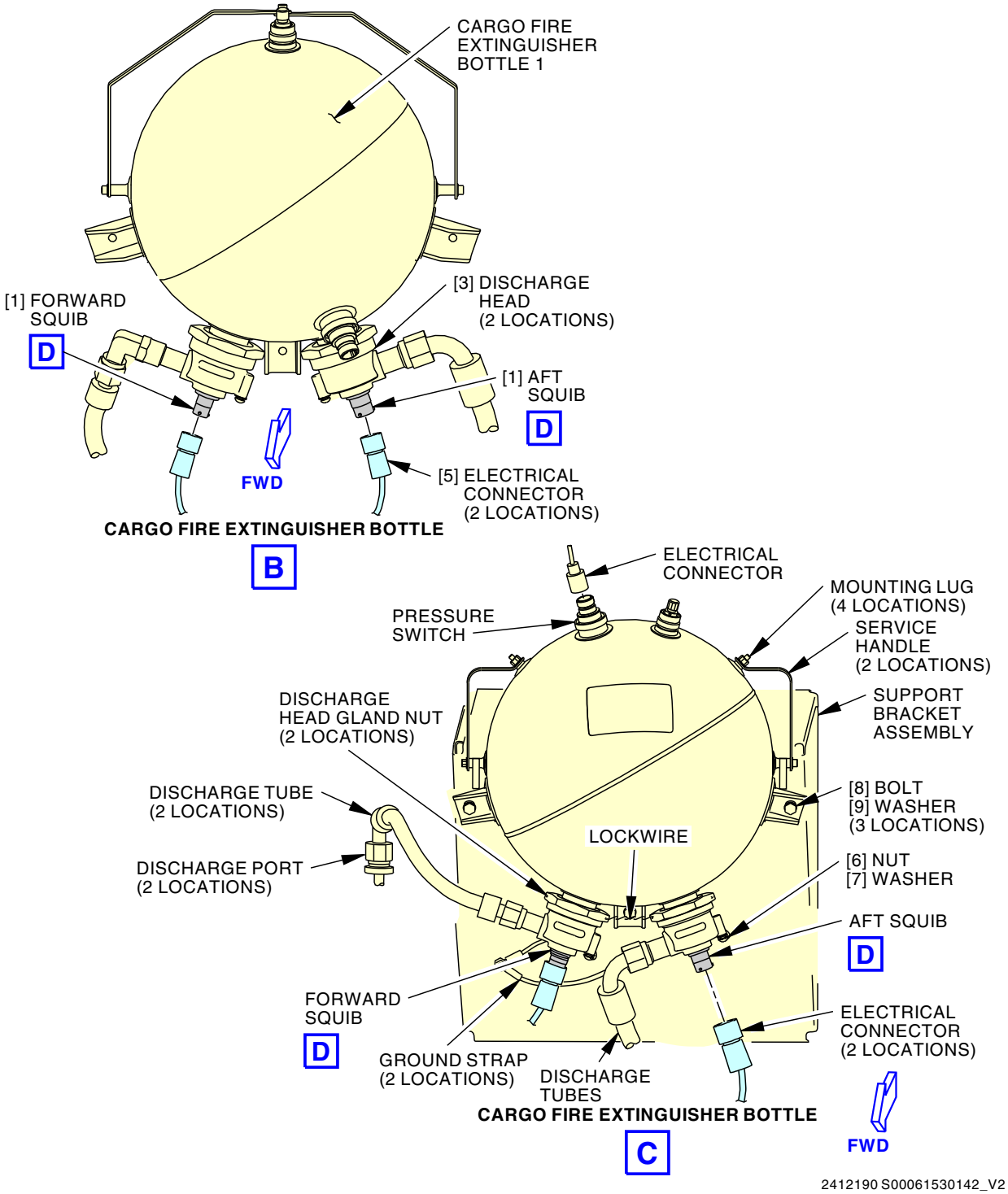
END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



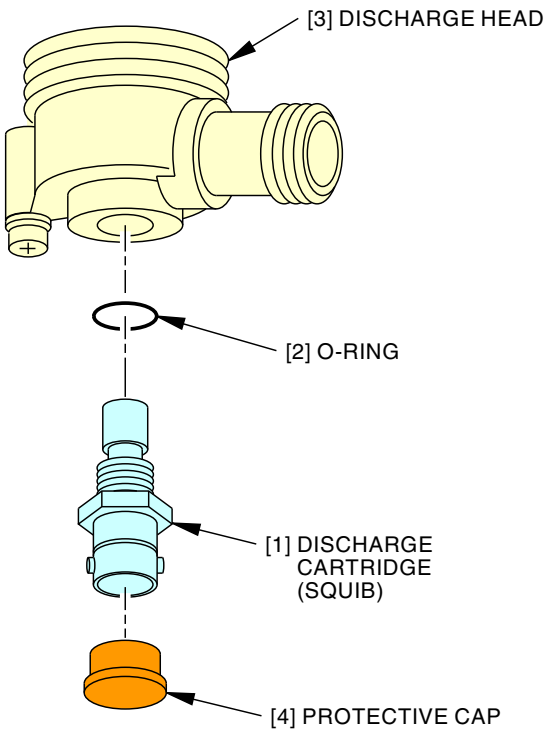
Cargo Compartment Fire Extinguisher Bottle Squib Installation
Figure 401/26-23-02-990-801 (Sheet 1 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Cargo Compartment Fire Extinguisher Bottle Squib Installation
Figure 401/26-23-02-990-801 (Sheet 2 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details



D

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Cargo Compartment Fire Extinguisher Bottle Squib Installation
Figure 401/26-23-02-990-801 (Sheet 3 of 3)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-23-02-400-801

3. Cargo Fire Extinguisher Bottle Squib Installation

(Figure 401)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task gives instructions to install the cargo fire extinguisher bottle squib.

B. References

Reference	Title
20-40-12-000-802	ESDS Handling for Metal Encased Unit Removal (P/B 201)
20-40-12-400-802	ESDS Handling for Metal Encased Unit Installation (P/B 201)
50-11-02-400-801	Forward Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)
WDM 26-23-11	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-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 #: 21 Supplier: 89536 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-1079	Resistor - 10K Ohm or Greater
STD-1168	Cap - Shorting or Faraday Cap

D. Consumable Materials

Reference	Description	Specification
D50284	Lubricant - O-Ring - Silicone	
G01048	Lockwire - MS20995C32, Corrosion Resistant Steel - 0.032 Inch (0.8128 mm) Diameter	NASM20995

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Squib	26-23-01-06-010	SIA ALL
		26-23-01-06-015	SIA ALL

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(Continued)

AMM Item	Description	AIPC Reference	AIPC Effectivity
1 (cont.)		26-23-01-07-020	SIA ALL
		26-23-01-07-035	SIA ALL
2	O-ring	26-23-01-06-020	SIA ALL
		26-23-01-06-025	SIA ALL
		26-23-01-07-030	SIA ALL
		26-23-01-07-045	SIA ALL

F. Location Zones

Zone	Area
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right

G. Access Panels

Number	Name/Location
821	Forward Cargo Door

H. Prepare for the Installation

SUBTASK 26-23-02-860-006

(1) Make sure that these circuit breakers are open and have safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1

SUBTASK 26-23-02-010-003

(2) Open this access door:

Number	Name/Location
821	Forward Cargo Door

I. Cargo Fire Extinguisher Bottle Squib Installation

SUBTASK 26-23-02-420-001

(1) Do these steps to install the squibs [1]:

WARNING DO NOT TOUCH THE PINS ON THE SQUIBS. ELECTROSTATIC DISCHARGE CAN CAUSE THE FIRE BOTTLE TO RELEASE ITS CONTENTS SUDDENLY AND CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT

(a) Before you touch the squibs [1], do these tasks for devices that are sensitive to electrostatic discharge:

- ESDS Handling for Metal Encased Unit Removal, TASK 20-40-12-000-802.
- ESDS Handling for Metal Encased Unit Installation, TASK 20-40-12-400-802.

SUBTASK 26-23-02-640-001

(2) Lubricate new O-ring [2] with SLUBE 884-2, D50284.

(a) Install a new O-ring [2] on the squib [1].

(b) Install the squib [1] in the discharge head [3].

ECCN 9E991 BOEING PROPRIETARY - See title page for details

1) Tighten the squib [1] to 80 in-lb (9 N·m) - 100 in-lb (11 N·m).
2) Install MS20995C32 lockwire, G01048, between the squib [1] and the discharge outlet.

SUBTASK 26-23-02-700-001

WARNING MAKE SURE THERE IS NO VOLTAGE AT THE ELECTRICAL CONNECTOR. IF THERE IS A VOLTAGE AT THE ELECTRICAL CONNECTOR, THE SQUIB CAN FIRE SUDDENLY AND CAUSE INJURY TO PERSONNEL.

(3) Do these steps to make sure that there is no stray voltage at the electrical squib connector:

Fire Bottle Squib Electrical Connector

	Engine	APU	Cargo
Connector Pins	3 and 4, and 6 and 7	3 and 4	1 and 2

(a) Connect the digital/analog multimeter, COM-1793, across the two pins.
(b) Make sure that the current is less than 5 milliamps AC, and less than 5 milliamps DC.
(c) Connect a resistor, STD-1079, across the multimeter probes.
(d) Make sure that the voltage is less than .250 volts AC, and less than 0.250 volts DC.
(e) If it is necessary, repeat the steps above for the other squib electrical connectors.
(f) Disconnect the multimeter.

SUBTASK 26-23-02-420-003

(4) Make sure that the squib pins are not bent or damaged.

SUBTASK 26-23-02-200-001

(5) Make sure that the electrical connector [5] is not damaged.

NOTE: The squib pins can cause damage to the connector if the pins do not enter the electrical connector receptacles.

SUBTASK 26-23-02-420-005

(6) Remove the shorting or faraday cap, STD-1168 from the squib [1].

SUBTASK 26-23-02-420-004

(7) Connect the electrical connector [5] to the applicable fire bottle squib [1] (WDM 26-23-11):
(a) Bottle 1 FWD Squib connector, D16578 or D17811.
(b) Bottle 1 AFT Squib connector, D16580 or D17812.
(c) Bottle 2 FWD Squib connector, D16584 or D17807.
(d) Bottle 2 AFT Squib connector, D16586 or D17808.

J. Cargo Fire Extinguisher Bottle Squib Installation Test

SUBTASK 26-23-02-860-007

(1) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	16	C01528	CARGO FIRE EXT 2
B	17	C01526	CARGO FIRE EXT 1

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-23-02-710-001

(2) On the cargo fire control panel, push and hold the TEST switch.

(a) Make sure that the green FWD and AFT squib test lights, on the cargo fire control panel, come on.

SUBTASK 26-23-02-710-002

(3) Release the TEST switch.

(a) Make sure that the green FWD and AFT squib test lights go off.

K. Put the Airplane Back to Its Usual Condition

SIA 001-008

SUBTASK 26-23-02-410-004

(1) Install the lower shield that covers the bottle connections.

SIA ALL

SUBTASK 26-23-02-410-001

(2) If it was removed, install the air conditioning duct in front of the fire extinguishing bottle.

SUBTASK 26-23-02-410-002

(3) Install the lining at the aft end of the forward cargo compartment (TASK 50-11-02-400-801).

SUBTASK 26-23-02-410-003

(4) Close this access door:

Number	Name/Location
821	Forward Cargo Door

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

CARGO FIRE EXTINGUISHING FILTER/DRYER - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) Removal of the filter/dryer for the cargo fire extinguishing system

(2) Installation of the filter/dryer for the cargo fire extinguishing system

B. The filter/dryers are used to meter and dry the extinguishant. They are installed in the mix bay. The filter/dryers control the rate of flow of extinguishant to the selected cargo compartment and keeps the concentration of extinguishant constant.

C. After the cargo fire extinguishing bottles are discharged, you must replace the fire extinguishing bottles, the squibs, the applicable filter/dryers.

TASK 26-23-04-000-801

2. Cargo Fire Extinguishing Filter/Dryer Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the Cargo Fire Extinguishing Filter/Dryer.

B. References

Reference	Title
50-11-02-000-801	Forward Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)

C. Location Zones

Zone	Area
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right

D. Access Panels

Number	Name/Location
821	Forward Cargo Door

E. Prepare for the Removal

SUBTASK 26-23-04-010-001

(1) Open this access door:

Number	Name/Location
821	Forward Cargo Door

SUBTASK 26-23-04-010-002

(2) Do this task: Forward Cargo Compartment Aft Bulkhead Liner Removal, TASK 50-11-02-000-801.

F. Cargo Fire Extinguishing Filter/Dryer Removal

SUBTASK 26-23-04-020-001

(1) Do these steps to remove the filter/dryer [1]:

ECCN 9E991 BOEING PROPRIETARY - See title page for details

WARNING BE CAREFUL WHEN YOU DISCONNECT THE TUBES FROM THE FILTER/DRIER. PRESSURE CAN STAY IN THE TUBING AFTER THE FIRE EXTINGUISHING BOTTLE RELEASES ITS CONTENTS. WHEN YOU RELEASE THE PRESSURE IN THE TUBING, YOU CAN CAUSE INJURIES TO PERSONNEL.

(a) Disconnect the outlet tube from the filter/dryer [1].

1) Disconnect the outlet tube before you disconnect the inlet tube.

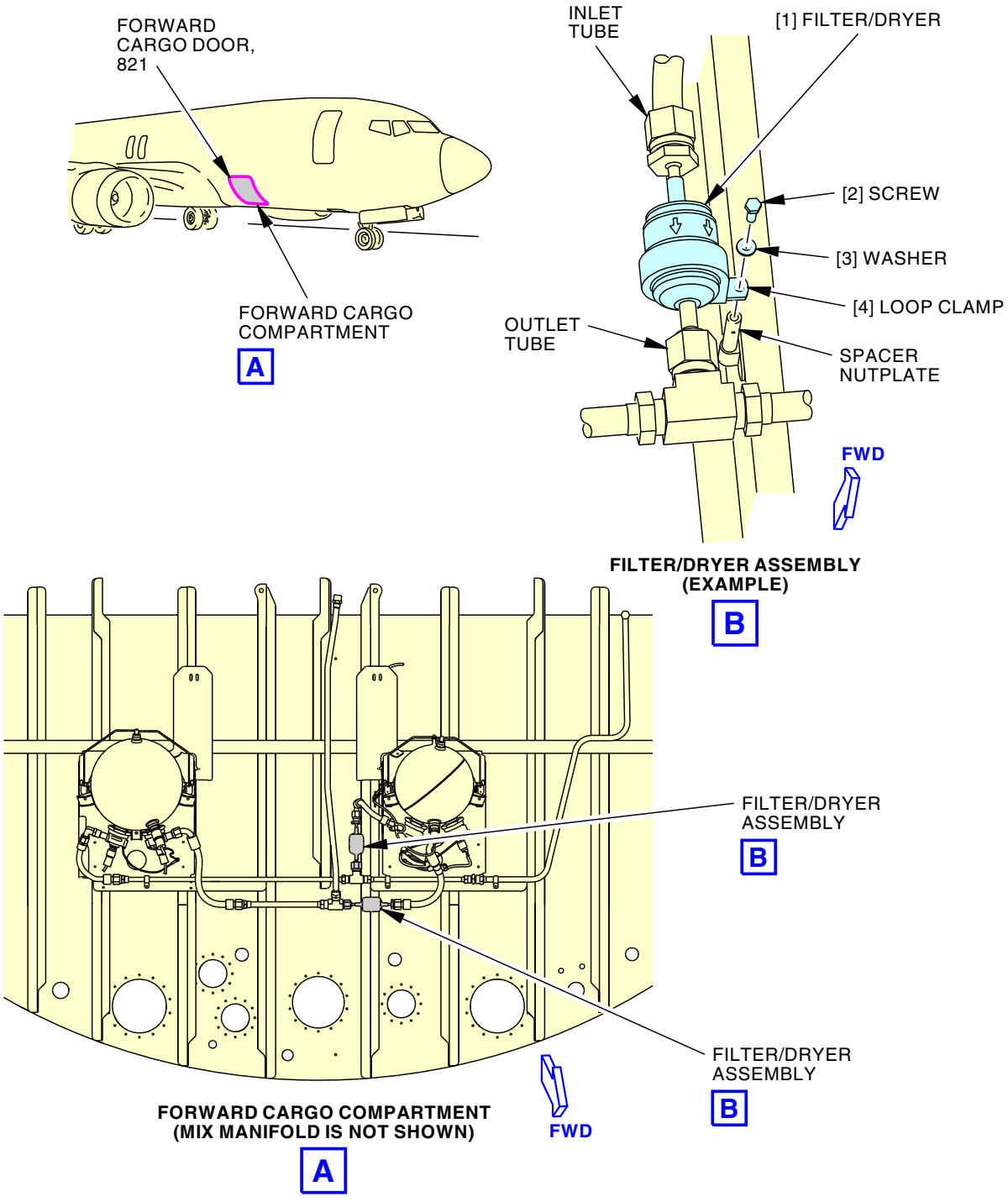
NOTE: If the tubing is pressurized, it is safer to disconnect the outlet tube first.

(b) Disconnect the inlet tube from the filter/dryer [1].

(c) Remove the screw [2], washer [3] and loop clamp [4] that attach the filter/dryer [1] to the spacer nutplate.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



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Cargo Fire Extinguishing Filter/Dryer Installation
Figure 401/26-23-04-990-801

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-23-04-400-801

3. Cargo Fire Extinguishing Filter/Dryer Installation

(Figure 401)

A. General

(1) This task gives instructions to install the Cargo Fire Extinguishing Filter/Dryer.

B. References

Reference	Title
50-11-02-000-801	Forward Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
50-11-02-400-801	Forward Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)

C. Location Zones

Zone	Area
125	Air Conditioning Distribution Bay - Left
126	Air Conditioning Distribution Bay - Right

D. Access Panels

Number	Name/Location
821	Forward Cargo Door

E. Cargo Fire Extinguishing Filter/Dryer Installation

SUBTASK 26-23-04-010-003

(1) Open this access door:

Number	Name/Location
821	Forward Cargo Door

SUBTASK 26-23-04-010-004

(2) Make sure aft bulkhead liner is removed (TASK 50-11-02-000-801).

SUBTASK 26-23-04-420-001

(3) Do these steps to install the filter/dryer [1]:

NOTE: Yellow is used to show the plumbing which supplies extinguishant to the forward cargo compartment. Blue is used to show the plumbing which supplies extinguishant to the aft cargo compartment.

(a) Put the filter/dryer [1] in its position and attach it with the screw [2], washer [3] and loop clamp [4].

(b) Connect the inlet tube to the filter/dryer [1].

1) Tighten the inlet tube to 265 in-lb (30 N·m) to 290 in-lb (33 N·m).

(c) Connect the outlet tube to the filter/dryer [1].

1) Tighten the outlet tube to 345 in-lb (39 N·m) to 375 in-lb (42 N·m).

F. Put the Airplane Back to Its Usual Condition

SUBTASK 26-23-04-410-001

(1) Do this task: Forward Cargo Compartment Aft Bulkhead Liner Installation, TASK 50-11-02-400-801.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-23-04-410-002

(2) Close this access door:

Number	Name/Location
821	Forward Cargo Door

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details

LAVATORY WASTE COMPARTMENT FIRE EXTINGUISHING - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

(1) A removal/installation of the fire extinguishing bottle in the lavatory waste compartment.

(2) An inspection/check of the fire extinguishing system in the lavatory waste compartment.

B. The fire extinguishing system for the lavatory waste compartment operates automatically when heat is detected in the lavatory waste compartment. When the temperature is hot enough, heat fusible tips on the fire extinguisher bottle melt. The extinguisher fills the waste compartment with an inert gas. A separate temperature indicator inside the waste compartment shows when the temperature has gotten hot.

TASK 26-24-01-900-801

2. Lavatory Waste Compartment Fire Extinguishing Bottle Removal/Installation

(Figure 201)

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
COM-6250	Gauge - Force Part #: LG-1KG Supplier: 92456

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Fire Extinguishing Bottle Removal

SUBTASK 26-24-01-010-001

(1) Open the waste compartment door.

SUBTASK 26-24-01-020-002

(2) Remove the mounting screws [3] and washers [2] that hold the fire extinguishing bottle [1] in its position.

SUBTASK 26-24-01-020-003

(3) Hold the fire extinguishing bottle [1] and carefully remove the nozzles through the holes in the seal.

SUBTASK 26-24-01-020-004

(4) Remove the fire extinguishing bottle [1].

D. Fire Extinguishing Bottle Installation

SUBTASK 26-24-01-280-001

(1) Use the force gauge, COM-6250, and weigh the fire extinguishing bottle.

NOTE: The total weight of the halon and the bottle is shown on the label of the fire extinguishing bottle. Review table below for allowable weight deviations for fire extinguisher bottle.

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(a) Replace the bottle if the difference between the weight marked on the bottle and the measured weight is more than what is specified in Table 201:

Table 201/26-24-01-993-801

Part Number	Max Permitted Weight Loss (grams)
30100022–X	10
A800100–X	10
A825100–X	10
A826300–X	10
A826700–X	10
474276	10
474453–X	10
800100–X	10
G800100–X	5
G825100–X	5
G826300–X	5
G826700–X	5

SUBTASK 26-24-01-420-001

(2) Put the fire extinguishing bottle [1] in its position and install the nozzles through the holes in the seal.

(a) Make sure that the nozzles point into the waste container area.

SUBTASK 26-24-01-420-002

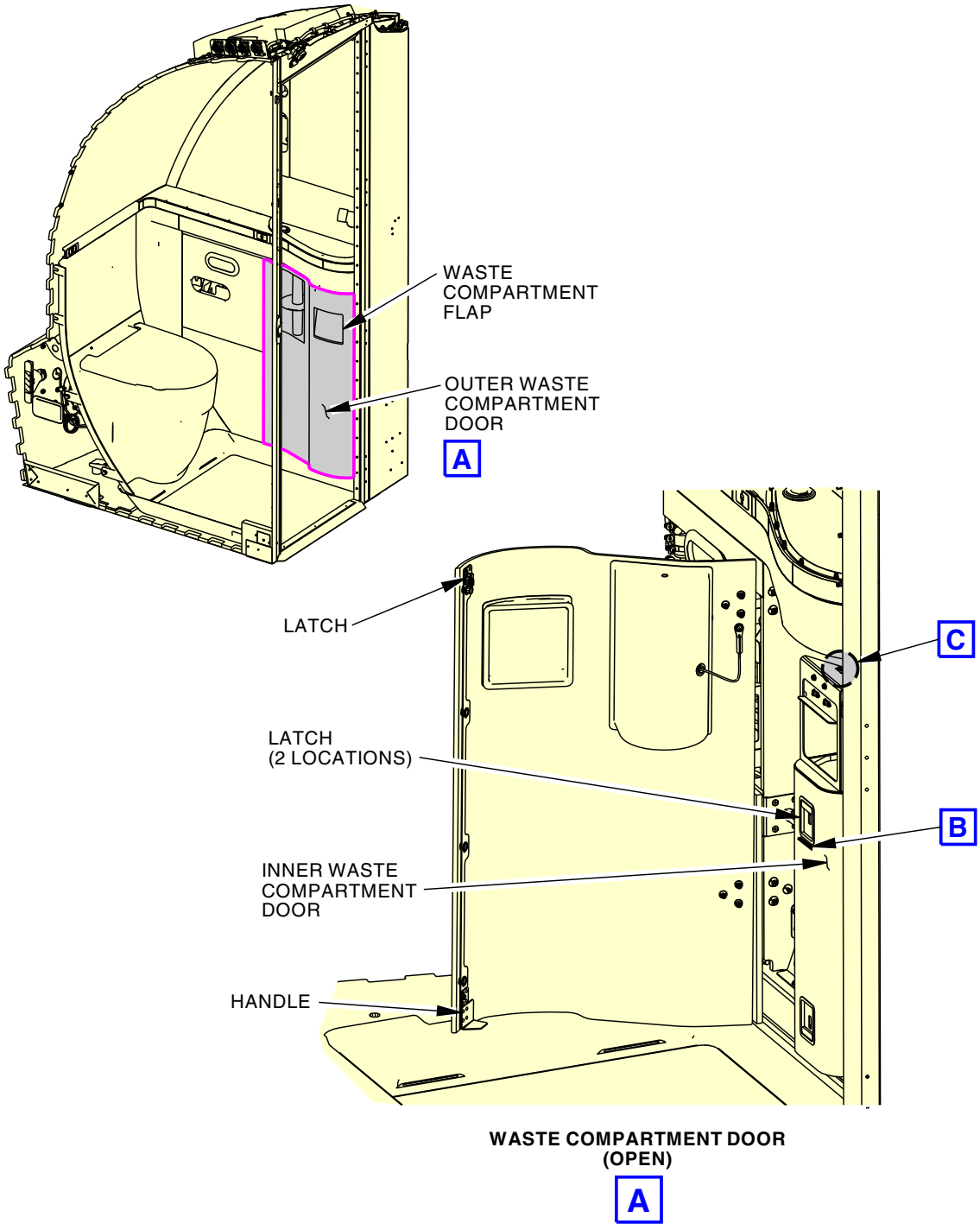
(3) Install the washers [2] and screws [3] that hold the fire extinguishing bottle [1] in its position.

SUBTASK 26-24-01-410-002

(4) Close the waste compartment door.

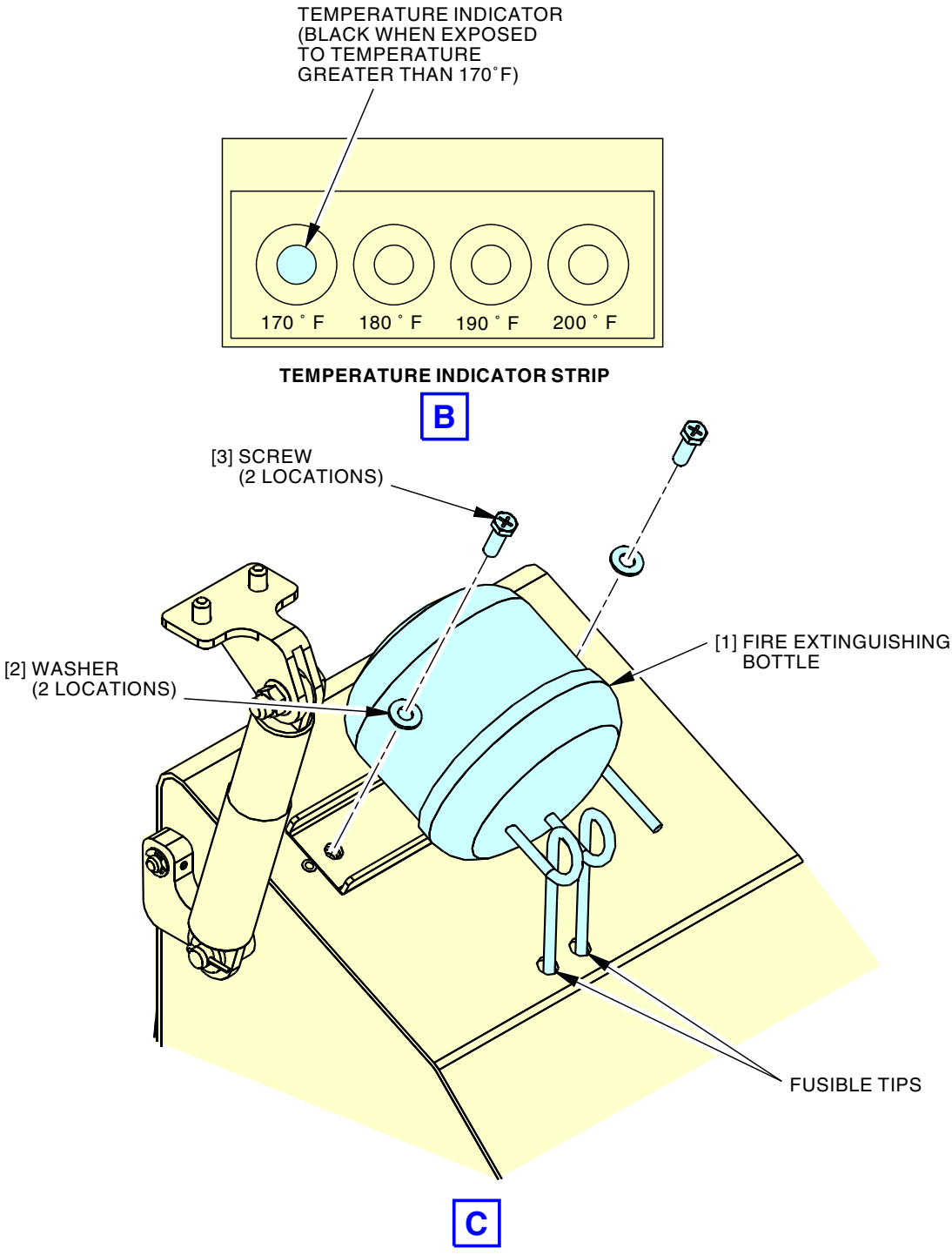
——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



Lavatory Waste Compartment Fire Extinguishing - Maintenance Practices
Figure 201/26-24-01-990-801 (Sheet 1 of 2)

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Lavatory Waste Compartment Fire Extinguishing - Maintenance Practices
Figure 201/26-24-01-990-801 (Sheet 2 of 2)

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-24-01-200-801

3. Lavatory Waste Compartment Fire Extinguishing Bottle Inspection/Check

(Figure 201)

NOTE: This procedure is a scheduled maintenance task.

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Lavatory Waste Compartment Fire Extinguishing Bottle Inspection/Check

SUBTASK 26-24-01-280-002

(1) Open the waste compartment door.

SUBTASK 26-24-01-280-003

(2) Open the waste container door to get access to the fire extinguishing bottle on the inside of the waste compartment.

SUBTASK 26-24-01-020-005

(3) Remove the waste container.

SUBTASK 26-24-01-960-001

(4) Examine the fusible tips on the discharge tubes.

(a) Replace the fire extinguishing bottle and the temperature indicator strip if the fusible tips are melted.

NOTE: The temperature indicator strip is under the upper handle of the waste container door.

SUBTASK 26-24-01-960-002

(5) Examine the temperature indicator strip to see if one or more of the temperature indicators changed from white to black.

(a) If one or more of the temperature indicator slips changed from white to black, replace the temperature indicator strip.

SUBTASK 26-24-01-280-004

(6) Examine the fire extinguishing bottle for corrosion, scratches, or dents.

(a) Replace the fire extinguishing bottle if any dents are deeper than 1/16 in. (2 mm) per 1 in. (25 mm) of average dent diameter or if any scratches are deeper than 0.004 in. (0.102 mm).

SUBTASK 26-24-01-020-006

(7) Install the waste container in the waste compartment.

SUBTASK 26-24-01-280-005

(8) Close the waste container door.

SUBTASK 26-24-01-280-006

(9) Close the waste compartment door.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

LAVATORY WASTE COMPARTMENT - INSPECTION/CHECK

1. General

A. This procedure has this inspection task:

(1) Lavatory waste compartment.

TASK 26-24-01-210-801

2. Lavatory Waste Compartment Temperature Indicator Strip Inspection

(Figure 26-24-01-990-801)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
26-24-01-200-801	Lavatory Waste Compartment Fire Extinguishing Bottle Inspection/Check (P/B 201)
26-24-01-990-801	Figure: Lavatory Waste Compartment Fire Extinguishing - Maintenance Practices (P/B 201)

B. Procedure

SUBTASK 26-24-01-010-003

(1) Open the waste compartment door to get access to the temperature indicator strip.

SUBTASK 26-24-01-210-001

(2) Examine the temperature indicator strip to see if one or more of the temperature indicators changed from white to black.

(a) If one or more of the temperature indicators changed from white to black, do this task: Lavatory Waste Compartment Fire Extinguishing Bottle Inspection/Check, TASK 26-24-01-200-801.

C. Put the Airplane Back to Its Usual Condition

SUBTASK 26-24-01-010-004

(1) Close the waste compartment door.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

HALON FIRE EXTINGUISHERS - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the halon fire extinguisher

(2) An installation of the halon fire extinguisher.

B. The extinguisher is mounted on a bracket that has a quick-release strap.

TASK 26-26-01-020-801

2. Halon Fire Extinguisher Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the halon fire extinguisher.

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Halon Fire Extinguisher Removal

SUBTASK 26-26-01-030-001

(1) Release the quick-release strap [2].

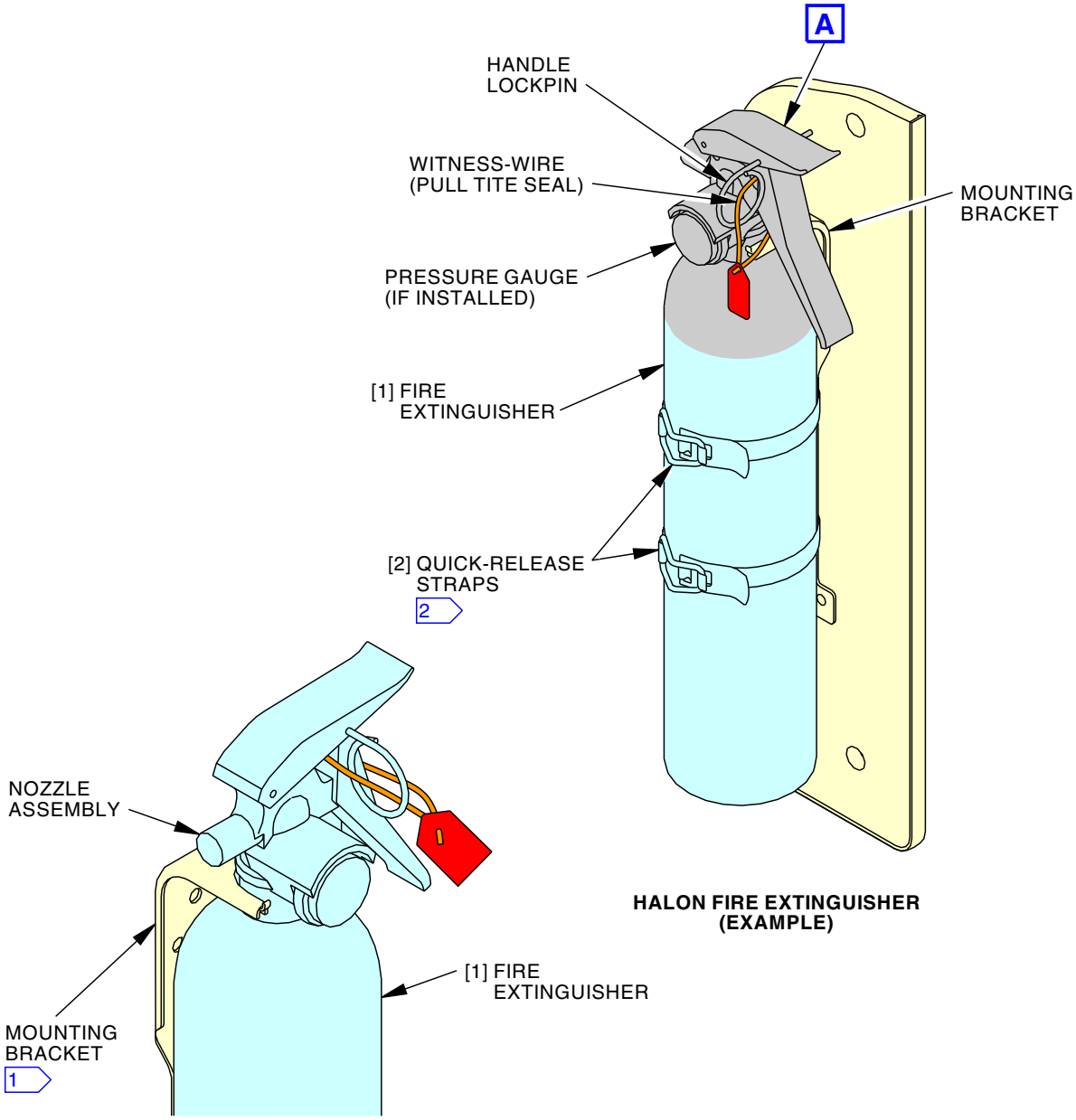
NOTE: There can be one quick-release strap or two quick-release straps.

SUBTASK 26-26-01-030-002

(2) Remove the fire extinguisher [1] from the mounting brackets.

END OF TASK

ECCN 9E991 BOEING PROPRIETARY - See title page for details



HALON FIRE EXTINGUISHER (EXAMPLE)

1 PLACE METAL NECK OF HALON FIRE EXTINGUISHER INTO MOUNTING BRACKET.

2 THERE CAN BE ONE QUICK-RELEASE STRAP OR TWO QUICK-RELEASE STRAPS.

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Halon Fire Extinguisher Installation
Figure 401/26-26-01-990-801

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-26-01-430-801

3. Halon Fire Extinguisher - Installation

(Figure 401)

A. General

(1) This task gives instructions to install the halon fire extinguisher.

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Fire extinguisher	26-26-01-01-010	SIA 001, 002
		26-26-01-08-005	SIA 001, 002

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Halon Fire Extinguisher Installation

SUBTASK 26-26-01-200-003

(1) Do a general visual inspection of the fire extinguisher [1].

SUBTASK 26-26-01-430-001

(2) Make sure that the fire extinguisher [1] is in the correct position on the mounting brackets.

SUBTASK 26-26-01-430-002

(3) Connect the quick-release strap [2].

NOTE: There can be one quick-release strap or two quick-release straps.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

HALON FIRE EXTINGUISHER - INSPECTION/CHECK

1. General

A. This procedure has this task:

(1) An inspection of the halon fire extinguisher.

B. The portable fire extinguishers are in some general locations in the passenger compartment and flight compartment. If the extinguisher is not easy to see, a placard will identify the location. The extinguishers are in one or more of these areas: the galley, lavatory stowage areas, closets, or pet containers near attendant seats. There is one halon extinguisher in the flight compartment.

C. Refer to the applicable vendor manuals for servicing or to charge the fire extinguisher.

TASK 26-26-01-200-801

2. Halon Fire Extinguisher - Inspection/Check

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
26-26-01-020-801	Halon Fire Extinguisher Removal (P/B 401)
26-26-01-430-801	Halon Fire Extinguisher - 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
COM-2529	Gauge - Force, Push/Pull/Spring Scale, 50 Pound Capacity Part #: FDIX 50 Supplier: 0BFD9 Opt Part #: FDI 50 Supplier: 0BFD9 Opt Part #: FDV 50 Supplier: 0BFD9
COM-11525	Gauge - Force, 10-lb capacity Part #: PS-10 Supplier: 1GHM7

C. Location Zones

Zone	Area
200	Upper Half of Fuselage
211	Flight Compartment - Left

D. Halon Fire Extinguisher Inspection

SUBTASK 26-26-01-210-001

(1) Make sure that the applicable decals, nameplates, and labels are in good condition.

SUBTASK 26-26-01-210-002

(2) Do this task: Halon Fire Extinguisher Removal, TASK 26-26-01-020-801.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

SUBTASK 26-26-01-200-002

(3) Weigh the fire extinguisher and compare the value against the weight shown on the applicable decal, nameplate, or label located on the fire extinguisher (use the given scale in the table below).

NOTE: Its acceptable to use an equivalent scale if it follows the resolution and accuracy requirement, specified in the table below.

NOTE: Both scales in the table below give the same resolution and accuracy, but the total error is different due to the capacity of the scale. Therefore, use force gauge, COM-11525, as the recommended scale for bottles that weigh between 0 to 10 lbs. Similarly, use gauge, COM-2529, for bottles that weigh between 10-50 lbs.

Recommended Scales for Portable Fire Extinguishers

Scale	Bottle Weight	Resolution	Accuracy (%)	Total Error
force gauge, COM-11525, or equivalent	5 ±5 lb (2.3 ±2.3 kg)	0.05 lb (22.7 g)	.2	0.02 lb (0.01 kg)
gauge, COM-2529, or equivalent	30 ±20 lb (13.6 ±9.1 kg)	0.05 lb (22.7 g)	.2	0.10 lb (0.05 kg)

(a) If the weight of the fire extinguisher has decreased by more than 0.125 lb (0.057 kg) from the weight recorded on the applicable decal, nameplate, or label, the fire extinguisher has a leak, replace the fire extinguisher.

(b) Make sure that the weight of the fire extinguisher is 3.5 lb (1.59 kg) - 3.81 lb (1.73 kg).

1) If the weight of the fire extinguisher is not correct, replace the fire extinguisher.

NOTE: A complete fire extinguisher includes the pull-out pin, pull-tite seal, hose assembly with hose strap, or nozzle, as applicable.

(c) If it is necessary, write the weight of the fire extinguisher on the applicable decal, nameplate, or label.

SUBTASK 26-26-01-210-003

(4) Make sure that the mounting bracket is in its correct position on the airplane.

SUBTASK 26-26-01-210-004

(5) Do this task: Halon Fire Extinguisher - Installation, TASK 26-26-01-430-801.

SUBTASK 26-26-01-210-005

(6) Make sure that the fire extinguisher [1] is in its correct position and tight on the mounting bracket.

SUBTASK 26-26-01-210-006

(7) Make sure that the handle lockpin and witness-wire (pull tite seal) are in their correct positions on the handle.

(a) If the witness-wire is missing or broken, replace the witness-wire or fire extinguisher bottle.

SUBTASK 26-26-01-210-007

(8) If it is necessary, examine the pressure gage.

(a) Make sure that the fire extinguisher [1] has the correct pressure.

SUBTASK 26-26-01-210-008

(9) Make sure that there is no damage to the fire extinguisher [1].

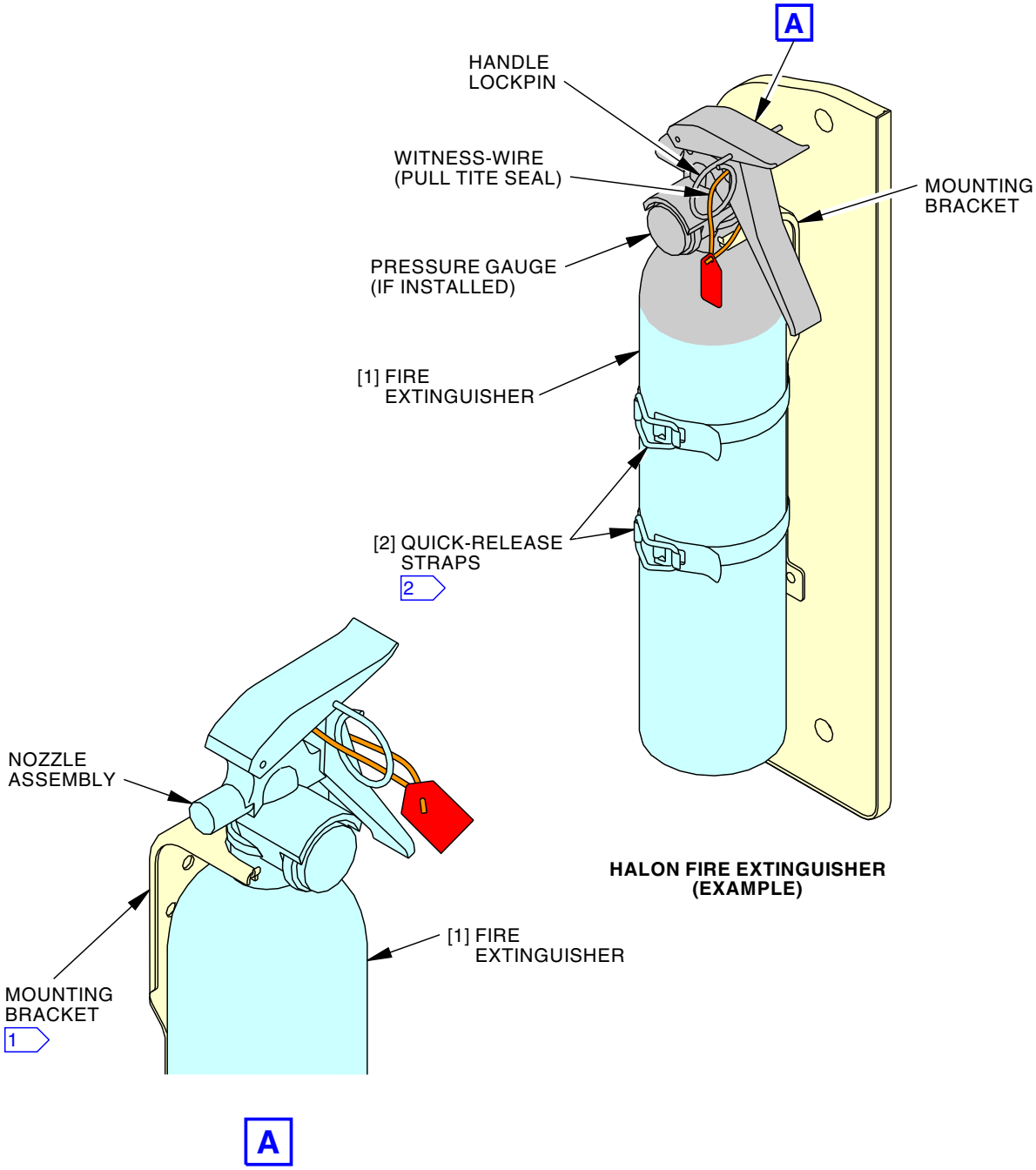
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SUBTASK 26-26-01-210-009

(10) If there are other manufacturer inspections or maintenance procedures that show on the fire extinguisher [1], do those procedures.

——— END OF TASK ———

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HALON FIRE EXTINGUISHER (EXAMPLE)

1 PLACE METAL NECK OF HALON FIRE EXTINGUISHER INTO MOUNTING BRACKET.

2 THERE CAN BE ONE QUICK-RELEASE STRAP OR TWO QUICK-RELEASE STRAPS.

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I

Halon Fire Extinguisher Inspection
Figure 601/26-26-01-990-802

ECCN 9E991 BOEING PROPRIETARY - See title page for details

WATER FIRE EXTINGUISHERS- REMOVAL/INSTALLATION

1. General

A. The procedure contains the following tasks:

(1) A removal of the water fire extinguisher

(2) An installation of the water fire extinguisher.

B. The extinguisher is mounted on a bracket which has a quick-release strap.

TASK 26-26-02-000-801

2. Water Fire Extinguisher Removal

(Figure 401)

A. General

(1) This task gives instructions to remove the water fire extinguisher.

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Water Fire Extinguisher Removal

SUBTASK 26-26-02-020-003

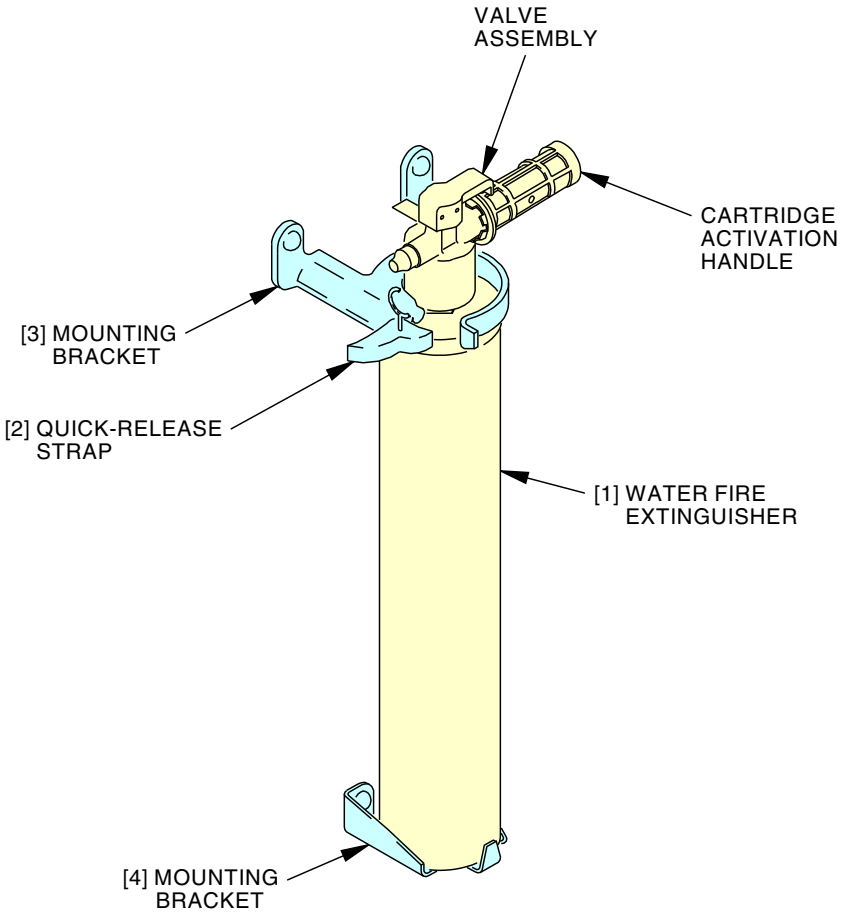
(1) Unfasten the quick-release strap [2].

SUBTASK 26-26-02-020-001

(2) Remove the water fire extinguisher [1] from the mounting bracket [3] and mounting bracket [4].

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



WATER FIRE EXTINGUISHER (EXAMPLE)

2891870 S0000687766_V3

Water-Type Fire Extinguishers Installation
Figure 401/26-26-02-990-801

ECCN 9E991 BOEING PROPRIETARY - See title page for details

TASK 26-26-02-400-801

3. Water Fire Extinguisher Installation

(Figure 401)

A. General

(1) This task gives instructions to install the water fire extinguisher.

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Water fire extinguisher	26-26-02-08-005	SIA ALL

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Water Fire Extinguisher Installation

SUBTASK 26-26-02-780-001

(1) If the water fire extinguisher [1] has a pressure gauge, make sure that the water fire extinguisher [1] has the correct pressure.

SUBTASK 26-26-02-210-020

(2) Do the general visual inspection of the water fire extinguisher [1].

SUBTASK 26-26-02-420-002

(3) Install the water fire extinguisher [1] in its mounting bracket [3] and mounting bracket [4].

SUBTASK 26-26-02-860-001

(4) Make sure that the water fire extinguisher [1] fits snugly.

(a) If it is necessary, adjust the location of the mounting bracket [4] to prevent the quick-release strap [2] latch from snagging with the water fire extinguisher [1] cartridge activation handle.

SUBTASK 26-26-02-860-002

(5) Make sure that the water fire extinguisher [1] is readily accessible and rotated with the activation cartridge handle.

SUBTASK 26-26-02-860-003

(6) Make sure that the quick-release strap [2] latch is on the opposite side of the water fire extinguisher [1] cartridge activation handle.

SUBTASK 26-26-02-420-003

(7) Fasten the quick-release strap [2].

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details

WATER FIRE EXTINGUISHERS - INSPECTION/CHECK

1. General

A. This procedure has a task to inspect the portable water fire extinguishers.

B. The portable fire extinguishers are installed in several general locations in the passenger compartment. If the extinguisher is not easy to see, the location will be identified with a placard. The extinguishers are usually installed in one or more of these areas: galley or lavatory stowage areas, closets, doghouses, near attendant seats.

C. To service or recharge the fire extinguisher, refer to the applicable vendor manuals.

TASK 26-26-02-200-801

2. Water Fire Extinguishers - Inspection

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) The portable fire extinguishers are installed in several general locations in the passenger compartment. If the extinguisher is not easy to see, the location will be identified with a placard. The extinguishers are usually installed in one or more of these areas: galley or lavatory stowage areas, closets, doghouses, near attendant seats.

(2) This task has a weight check of the portable water fire extinguisher assembly and the weight check of the CO^2 cartridge.

B. References

Reference	Title
26-26-02-000-801	Water Fire Extinguisher Removal (P/B 401)
26-26-02-400-801	Water Fire Extinguisher 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-11525	Gauge - Force, 10-lb capacity Part #: PS-10 Supplier: 1GHM7
COM-16140	Gauge - Force, 2 lb capacity, +/- 0.3 % full scale accuracy Part #: PS-2 Supplier: 1GHM7
STD-252	Ferrule Crimping Tool
STD-753	Scale - Push/Pull, 0-25 pound (0-11 kilogram) Capacity, 1/4 pound (113 gram) Accuracy

D. Consumable Materials

Reference	Description	Specification
D00013	Grease - Aircraft And Instrument Grease	MIL-PRF-23827 (NATO G-354) (Supersedes MIL-G-23827)
D50354	O-ring, packing P/N 202331	
G51248	Wire - Seal (P/N 204960)	

ECCN 9E991 BOEING PROPRIETARY - See title page for details

E. Location Zones

Zone	Area
200	Upper Half of Fuselage

F. Water Fire Extinguishers Inspection

SUBTASK 26-26-02-210-012

(1) Make sure that the instruction decal and nameplate are in good condition.

SUBTASK 26-26-02-210-002

(2) Do this task: Water Fire Extinguisher Removal, TASK 26-26-02-000-801.

SUBTASK 26-26-02-210-015

(3) Make sure that there is no physical damage to the extinguisher.

SUBTASK 26-26-02-210-016

(4) Make sure that there are no leaks in the extinguisher.

SUBTASK 26-26-02-210-017

(5) If there are other manufacturer inspection or maintenance procedures that show on the extinguisher, do those procedures.

SUBTASK 26-26-02-210-014

(6) Make sure that the lockwire seal [4] (seal wire, G51248) is correctly installed on the handle.

(a) If the lockwire seal [4] (seal wire, G51248) is missing or broken, do one of the following steps:

1) Replace the water fire extinguisher.

2) Weigh the water fire extinguisher and cartridge [6].

a) Do the step to weigh the water fire extinguisher.

b) Do the steps to make sure that the water fire extinguisher is not pressurized and to remove and weigh the CO^2 cartridge [6].

c) If the weight of the water fire extinguisher and the CO^2 cartridge [6] are good, do the step to assemble the cartridge holder [1].

SUBTASK 26-26-02-510-001

(7) Do this step to weigh the water fire extinguisher:

(a) Use the force gauge, COM-11525, push/pull scale 0-25 pound (0-11 kilogram), STD-753, or equivalent to make sure that the weight of the water fire extinguisher is not less than the weight shown on the fire extinguisher nameplate.

SUBTASK 26-26-02-210-018

WARNING BEFORE YOU DISASSEMBLE THE EXTINGUISHER, MAKE SURE THAT YOU REMOVE ALL THE PRESSURE FROM THE FIRE EXTINGUISHER. WHEN YOU DISASSEMBLE A PRESSURIZED FIRE EXTINGUISHER, IT CAN CAUSE INJURY.

(8) Make sure that the water fire extinguisher is not pressurized.

(a) Visually check the water fire extinguisher.

1) Make sure that the lockwire seal [4] (seal wire, G51248) is not broken or missing.

2) Make sure that the red line on the valve assembly and the red line on the cartridge holder [1] are aligned.

(b) If the lockwire seal [4] (seal wire, G51248) is broken or missing, or the cartridge holder [1] alignment is not correct, do these steps:

ECCN 9E991 BOEING PROPRIETARY - See title page for details

1) Push and hold the valve assembly lever down.
   a) If there is air pressure and/or extinguishing agent discharging at the nozzle, replace the fire extinguisher.

SUBTASK 26-26-02-020-002

(9) Remove the CO^2 cartridge [6].
   (a) Remove and discard the lockwire seal [4].
   (b) Turn the cartridge holder [1] counterclockwise and remove it from the valve assembly.
   (c) Remove the spring [5] and CO^2 cartridge [6] from the cartridge holder [1].
      1) If the CO^2 cartridge [6] is damaged or used, replace the CO^2 cartridge [6].
   (d) Remove the O-ring [7] from the valve assembly.
      1) Discard the O-ring [7].

SUBTASK 26-26-02-210-019

(10) Weight check the CO^2 cartridge [6].
   (a) Put the CO^2 cartridge [6] on a scale (2 lb force gauge, COM-16140, or equivalent).
   (b) Make sure that the CO^2 cartridge [6] weighs a minimum of 0.07 lb (33 g).
      1) If the CO^2 cartridge [6] weighs less than 0.07 lb (33 g), discard the CO^2 cartridge [6] and install new.

SUBTASK 26-26-02-420-001

(11) Assemble the cartridge holder [1].
   (a) Put a thin layer of grease, D00013, on the new O-ring [7].
   (b) Install the new O-ring [7] in the valve assembly.
      1) Use O-ring, packing, D50354.
   (c) Put a thin layer of grease, D00013, on the internal threads of the cartridge holder [1].
   (d) Install the spring [5] and CO^2 cartridge [6] in the cartridge holder [1].
   (e) Install the cartridge holder [1] in the valve assembly and turn the cartridge holder [1] clockwise until:
      1) The red line on the cartridge holder [1] aligns with the red line on the valve assembly.
      2) The lockwire seal [4] holes in the lock ring [2] and valve assembly are aligned.
   (f) Install a new lockwire seal [4] (seal wire, G51248) through the holes in the lock ring [2] and the body of the valve assembly.
      1) Make sure that the lockwire seal [4] hole in the lock ring [2] aligns with the hole in the valve assembly.
      2) If it is necessary, loosen the setscrews [3] to adjust the position of the lock ring [2].
   (g) Install the wires through the lead seal.
      1) Pull the wires tight and crimp the lead seal with crimping tool, STD-252.

         NOTE: It is satisfactory to use a standard plier to crimp the lead seal.

SUBTASK 26-26-02-210-004

(12) Do this task: Water Fire Extinguisher Installation, TASK 26-26-02-400-801.

SUBTASK 26-26-02-210-011

(13) Make sure that the mounting bracket is attached correctly to the airplane.

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SUBTASK 26-26-02-210-013

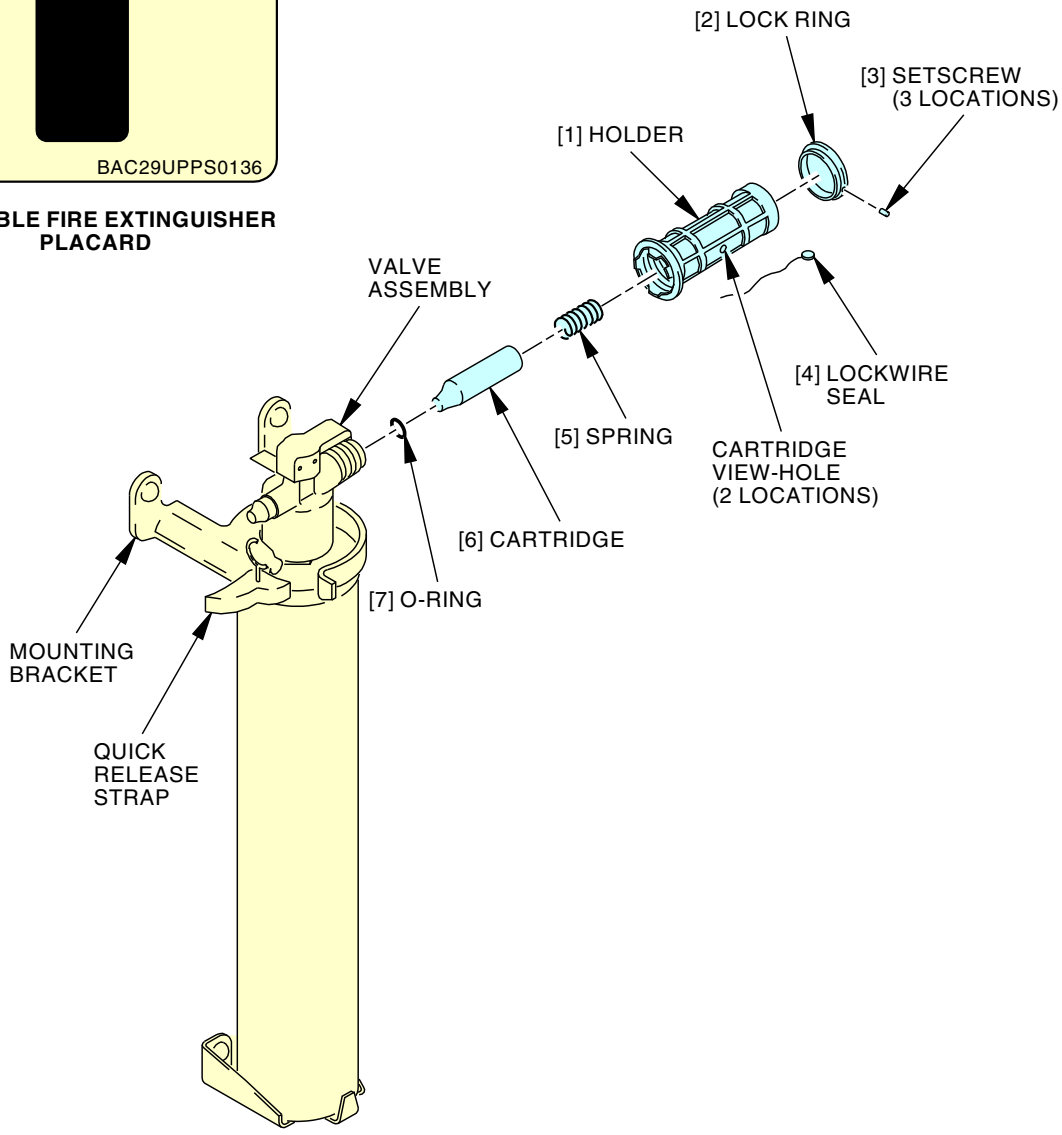
(14) Make sure that the extinguisher is installed tightly to the mounting bracket.

——— END OF TASK ———

ECCN 9E991 BOEING PROPRIETARY - See title page for details



PORTABLE FIRE EXTINGUISHER PLACARD



WATER FIRE EXTINGUISHER (EXAMPLE)

2412193 S00061530163_V3

Water-Type Fire Extinguishers Inspection
Figure 601/26-26-02-990-802

ECCN 9E991 BOEING PROPRIETARY - See title page for details

CLEAN AGENT FIRE EXTINGUISHER - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

(1) A removal of the clean agent fire extinguisher (2-BTP)

(2) An installation of the clean agent fire extinguisher (2-BTP).

B. The extinguisher is mounted on a bracket that has a quick-release strap or straps.

TASK 26-26-03-000-801

2. Clean Agent Fire Extinguisher - Removal

(Figure 401)

A. General

(1) This task includes the steps to remove the clean agent fire extinguisher.

(2) The clean agent fire extinguisher is also known as the chemical fire extinguisher.

(3) The clean agent fire extinguisher contains 3.75 lb (1.70 kg) of Halotron BrX (2-bromotrifluoropropene, 2-BTP).

(a) To push the extinguishing agent from the cylinder, the cylinder/valve assembly is pressurized with nitrogen.

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Clean Agent Fire Extinguisher Removal

SIA 006-999

SUBTASK 26-26-03-020-001

(1) Disconnect the quick-release strap [2].

SIA 003-005

SUBTASK 26-26-03-020-005

(2) Disconnect the quick-release straps [2].

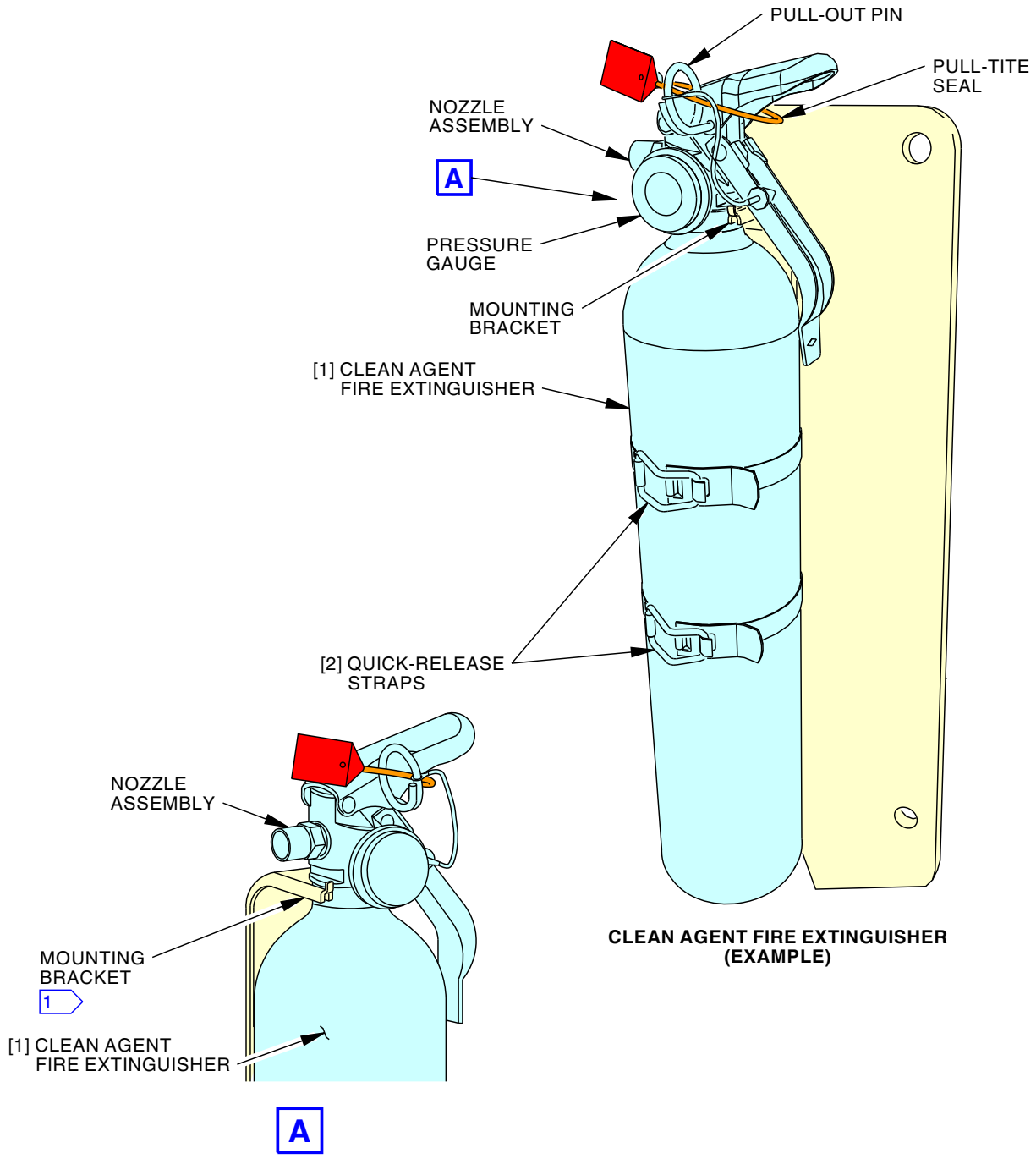
SIA 003-999

SUBTASK 26-26-03-020-002

(3) Remove the clean agent fire extinguisher [1] from the mounting bracket.

——— END OF TASK ———

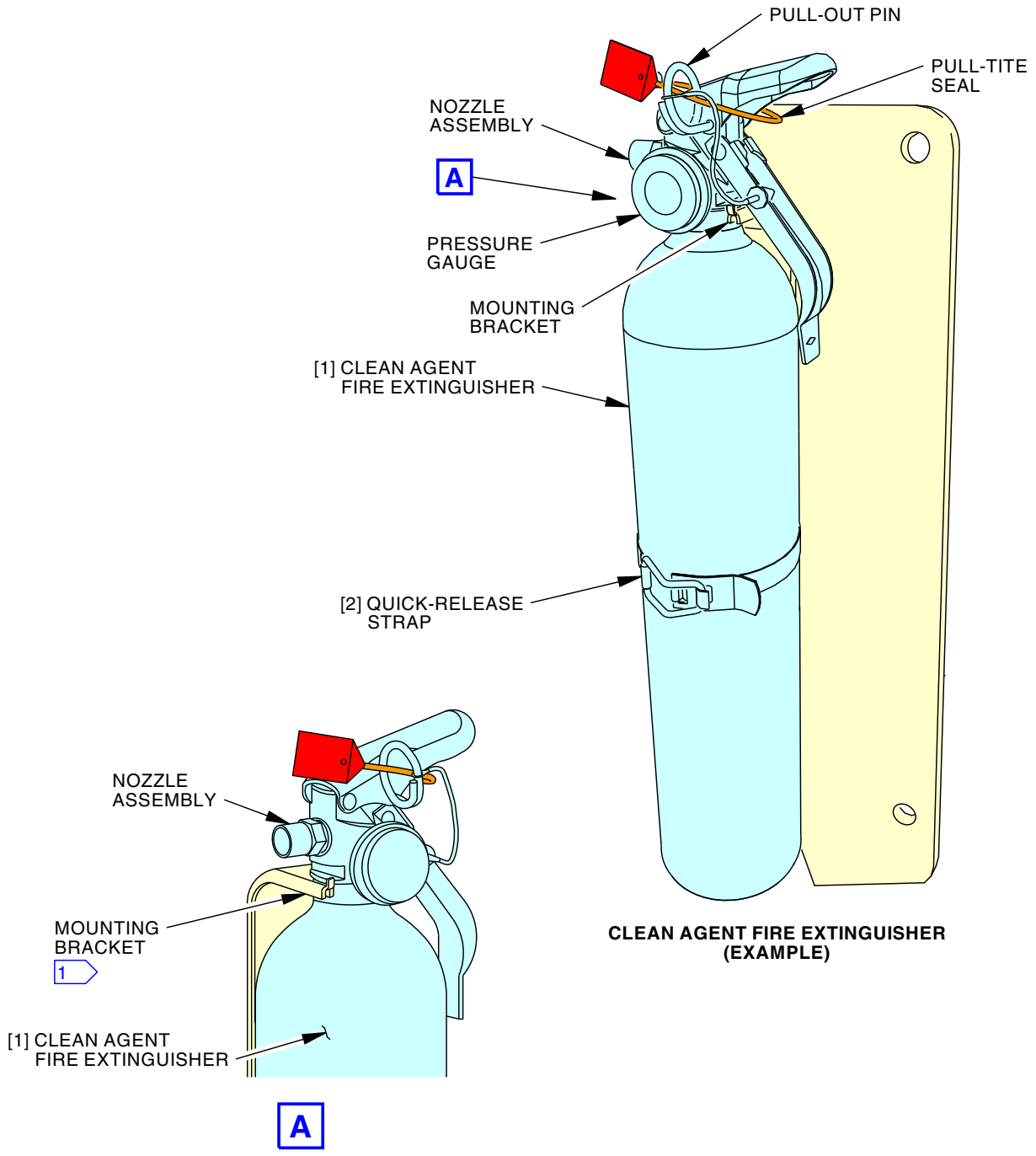
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CLEAN AGENT FIRE EXTINGUISHER (EXAMPLE)

Clean Agent Fire Extinguisher Installation
Figure 401/26-26-03-990-801 (Sheet 1 of 2)

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CLEAN AGENT FIRE EXTINGUISHER (EXAMPLE)

1 PLACE METAL NECK OF CLEAN AGENT FIRE EXTINGUISHER INTO MOUNTING BRACKET.

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Clean Agent Fire Extinguisher Installation
Figure 401/26-26-03-990-801 (Sheet 2 of 2)

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TASK 26-26-03-400-801

3. Clean Agent Fire Extinguisher - Installation

(Figure 401)

A. General

(1) This task includes the steps to install the clean agent fire extinguisher.

(2) The clean agent fire extinguisher is also known as the chemical fire extinguisher.

(3) The clean agent fire extinguisher contains 3.75 lb (1.70 kg) of Halotron BrX (2-bromotrifluoropropene, 2-BTP).

(a) To push the extinguishing agent from the cylinder, the cylinder/valve assembly is pressurized with nitrogen.

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Clean Agent Fire Extinguisher Installation

SUBTASK 26-26-03-210-007

(1) Do a general visual inspection of the clean agent fire extinguisher [1].

SUBTASK 26-26-03-420-001

(2) Put the clean agent fire extinguisher [1] in its correct position on the mounting bracket.

(a) Make sure to put the metal neck of the clean agent fire extinguisher [1] into the mounting bracket.

SIA 006-999

SUBTASK 26-26-03-420-002

(3) Connect the quick-release strap [2].

SIA 003-005

SUBTASK 26-26-03-420-003

(4) Connect the quick-release straps [2].

——— END OF TASK ———

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CLEAN AGENT FIRE EXTINGUISHER - INSPECTION/CHECK

1. General

A. This procedure has this task:

(1) An inspection of the clean agent fire extinguisher.

B. The portable fire extinguishers are installed in several general locations in the passenger compartment and flight compartment. If the extinguisher is not easy to see, the location will be identified with a placard. The extinguishers are usually installed in one or more of these areas: galley or lavatory stowage areas, closets, doghouses, near attendant seats. There is one extinguisher installed in the flight compartment.

TASK 26-26-03-200-801

2. Clean Agent Fire Extinguisher - Inspection

(Figure 601)

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) This task includes steps to visually inspect the clean agent fire extinguisher.

(2) The clean agent fire extinguisher is also known as the chemical fire extinguisher.

(3) The clean agent fire extinguisher contains 3.75 lb (1.70 kg) of Halotron BrX (2-bromotrifluoropropene, 2-BTP).

(a) To push the extinguishing agent from the cylinder, the cylinder/valve assembly is pressurized with nitrogen.

(4) The portable fire extinguishers are installed in the flight compartment and passenger compartment.

(a) If the extinguisher is not easy to see, a placard will identify the location.

(5) To service the fire extinguisher, refer to the applicable vendor manuals.

B. References

Reference	Title
26-26-03-000-801	Clean Agent Fire Extinguisher - Removal (P/B 401)
26-26-03-400-801	Clean Agent Fire Extinguisher - Installation (P/B 401)

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Clean Agent Fire Extinguisher Inspection

SUBTASK 26-26-03-210-001

(1) Do a visual check of the location of the clean agent fire extinguisher [1].

(a) Make sure that the clean agent fire extinguisher [1] is in its correct location.

(b) Make sure that there is clear access to the clean agent fire extinguisher [1].

SUBTASK 26-26-03-210-002

(2) Do a visual check of the clean agent fire extinguisher [1].

(a) Make sure that the instruction decal and nameplate are in good condition.

(b) Make sure that the operating instructions in the decal are clear.

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SUBTASK 26-26-03-211-005

(3) Examine the pressure gauge for damage.

(a) If there is damage to the pressure gauge, do these steps:

1) Discard the clean agent fire extinguisher [1].

2) Replace it with a serviceable clean agent fire extinguisher [1].

- Clean Agent Fire Extinguisher - Removal, TASK 26-26-03-000-801
- Clean Agent Fire Extinguisher - Installation, TASK 26-26-03-400-801.

SUBTASK 26-26-03-210-005

(4) Examine the pressure gauge.

(a) Make sure that the clean agent fire extinguisher [1] has the correct pressure.

(b) If the pressure gauge is not within the limits shown, do these steps:

1) Discard the clean agent fire extinguisher [1].

2) Replace it with a serviceable clean agent fire extinguisher [1].

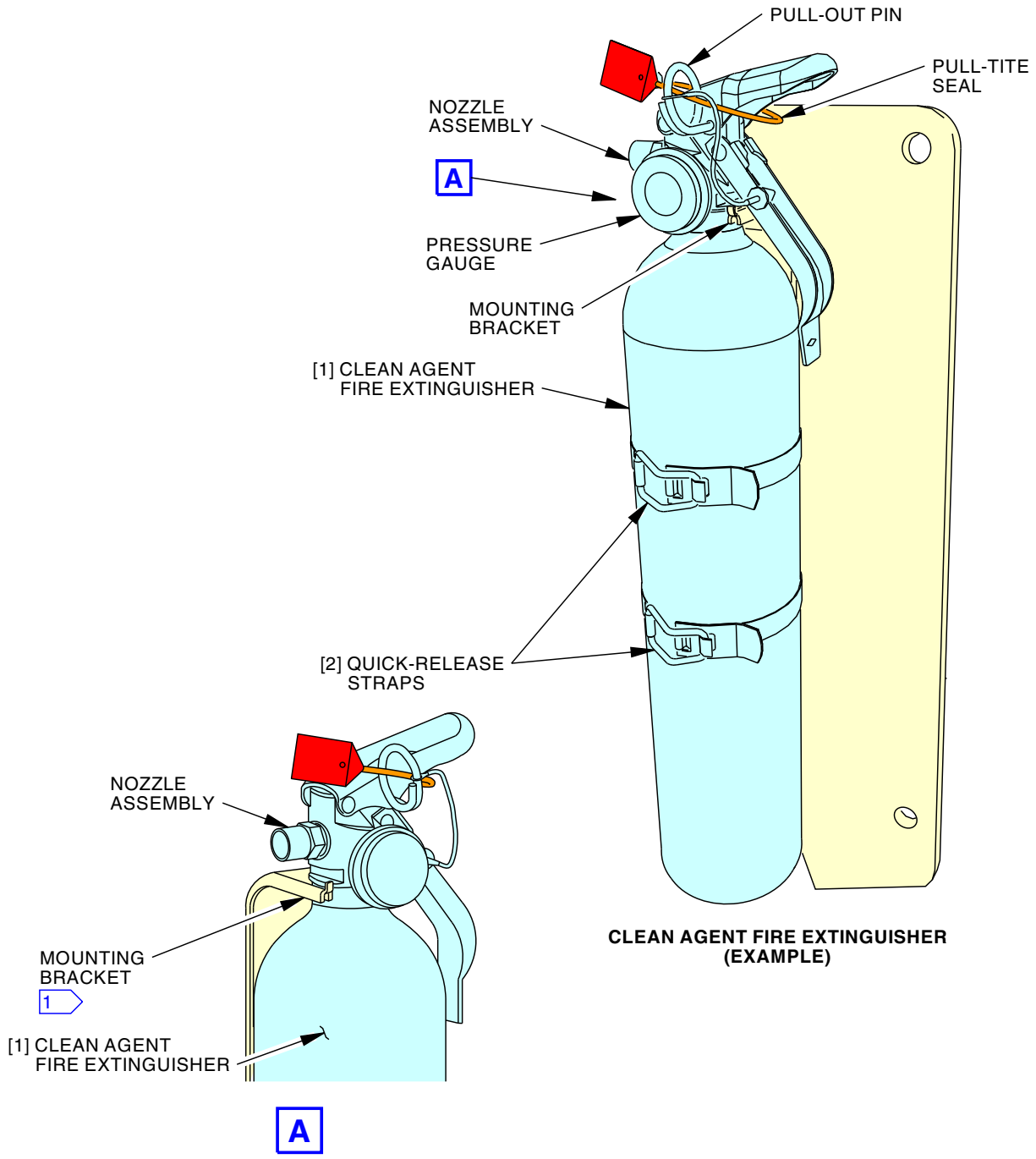
- Clean Agent Fire Extinguisher - Removal, TASK 26-26-03-000-801
- Clean Agent Fire Extinguisher - Installation, TASK 26-26-03-400-801.

SUBTASK 26-26-03-210-006

(5) If there are other manufacturer inspections or maintenance procedures that show on the clean agent fire extinguisher [1], do those procedures.

——— END OF TASK ———

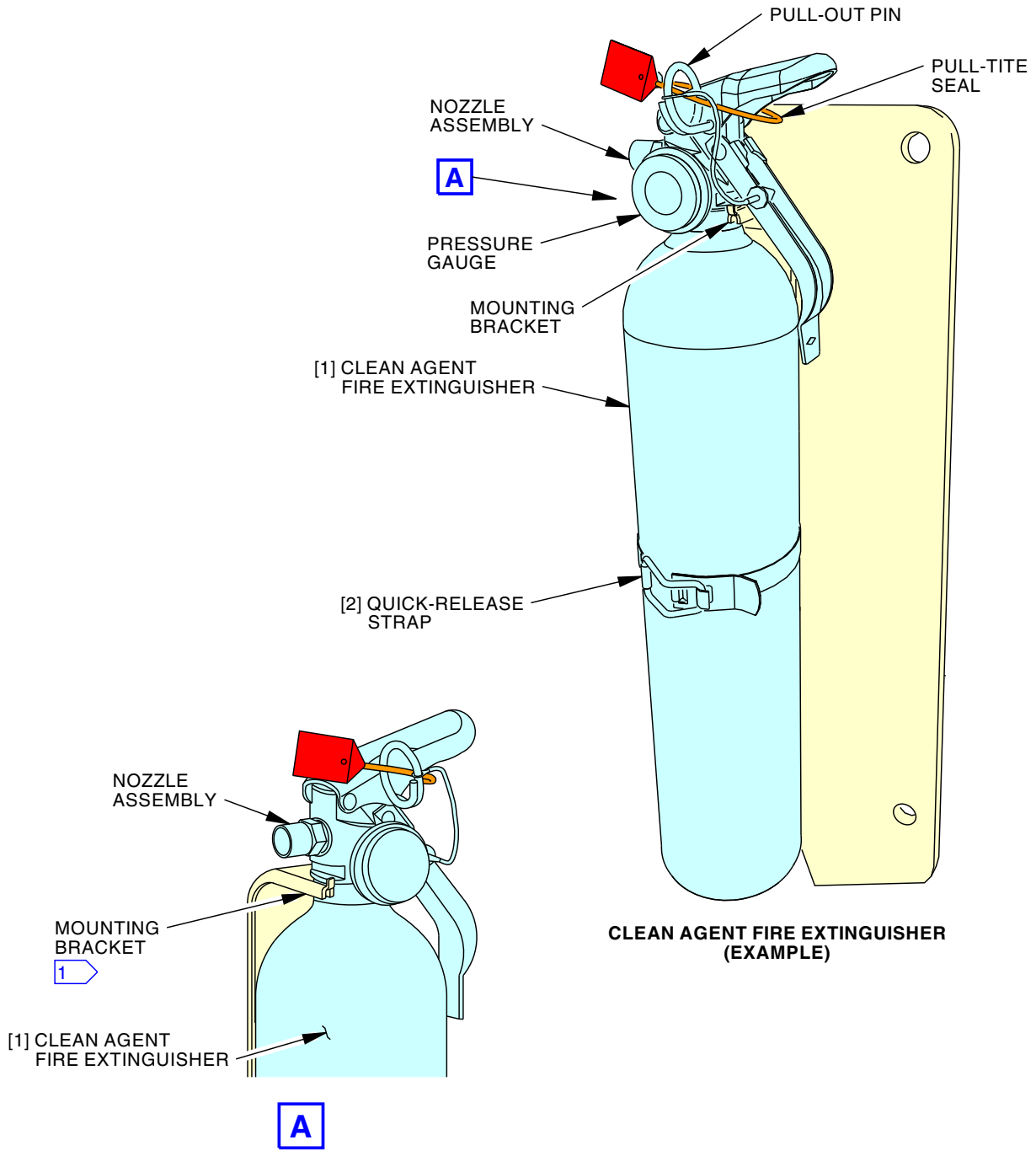
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CLEAN AGENT FIRE EXTINGUISHER (EXAMPLE)

Clean Agent Fire Extinguisher Inspection
Figure 601/26-26-03-990-802 (Sheet 1 of 2)

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CLEAN AGENT FIRE EXTINGUISHER (EXAMPLE)

1 PLACE METAL NECK OF CLEAN AGENT FIRE EXTINGUISHER INTO MOUNTING BRACKET.

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Clean Agent Fire Extinguisher Inspection
Figure 601/26-26-03-990-802 (Sheet 2 of 2)

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