

CHAPTER

33

LIGHTS



**737-600/700/800/900
FAULT ISOLATION MANUAL**

**CHAPTER 33
LIGHTS**

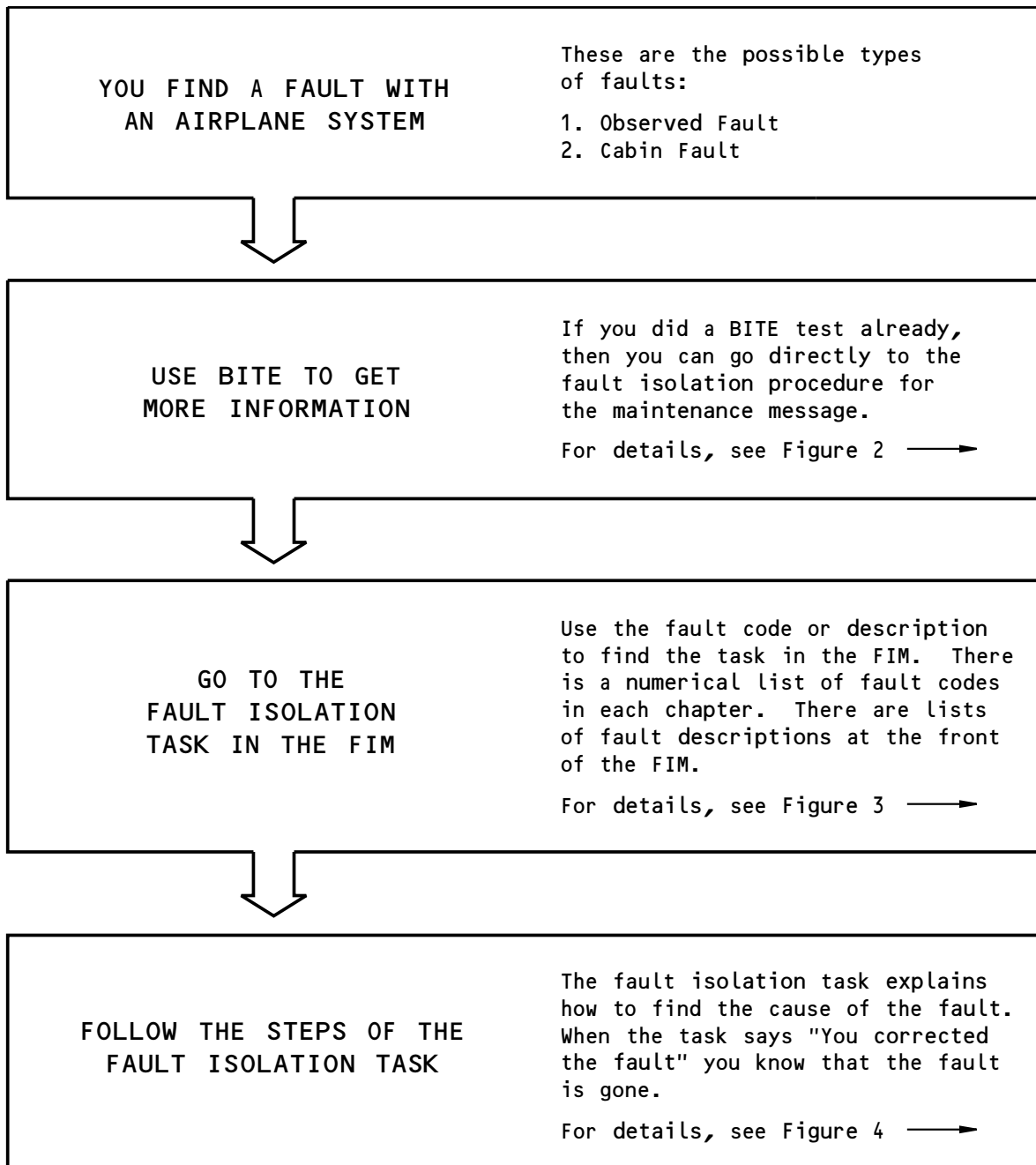
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A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated Change

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G04902 S0000148576_V1

**Basic Fault Isolation Process
Figure 1**

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Some airplane systems have built-in test equipment (BITE). IF the system finds a fault when you do a BITE test, it will give you a maintenance message.

A maintenance message can be any of these:

- a code
- a text message
- a light
- an indication.

To find the fault isolation task for a maintenance message, go to the Maintenance Message Index in the chapter for the applicable system.

If you do not know which chapter is the correct one, look at the list at the front of any Maintenance Message Index. For each system or component (LRU) that has BITE, this list gives the chapter number where you can find the Index that you need.

Find the maintenance message for the applicable LRU or system in the Index. Then find the task number on the same line as the maintenance message. Go to the task in the FIM and do the steps of the task (see Figure 4).

G04950 S0000148578_V1

Getting Fault Information from BITE
Figure 2

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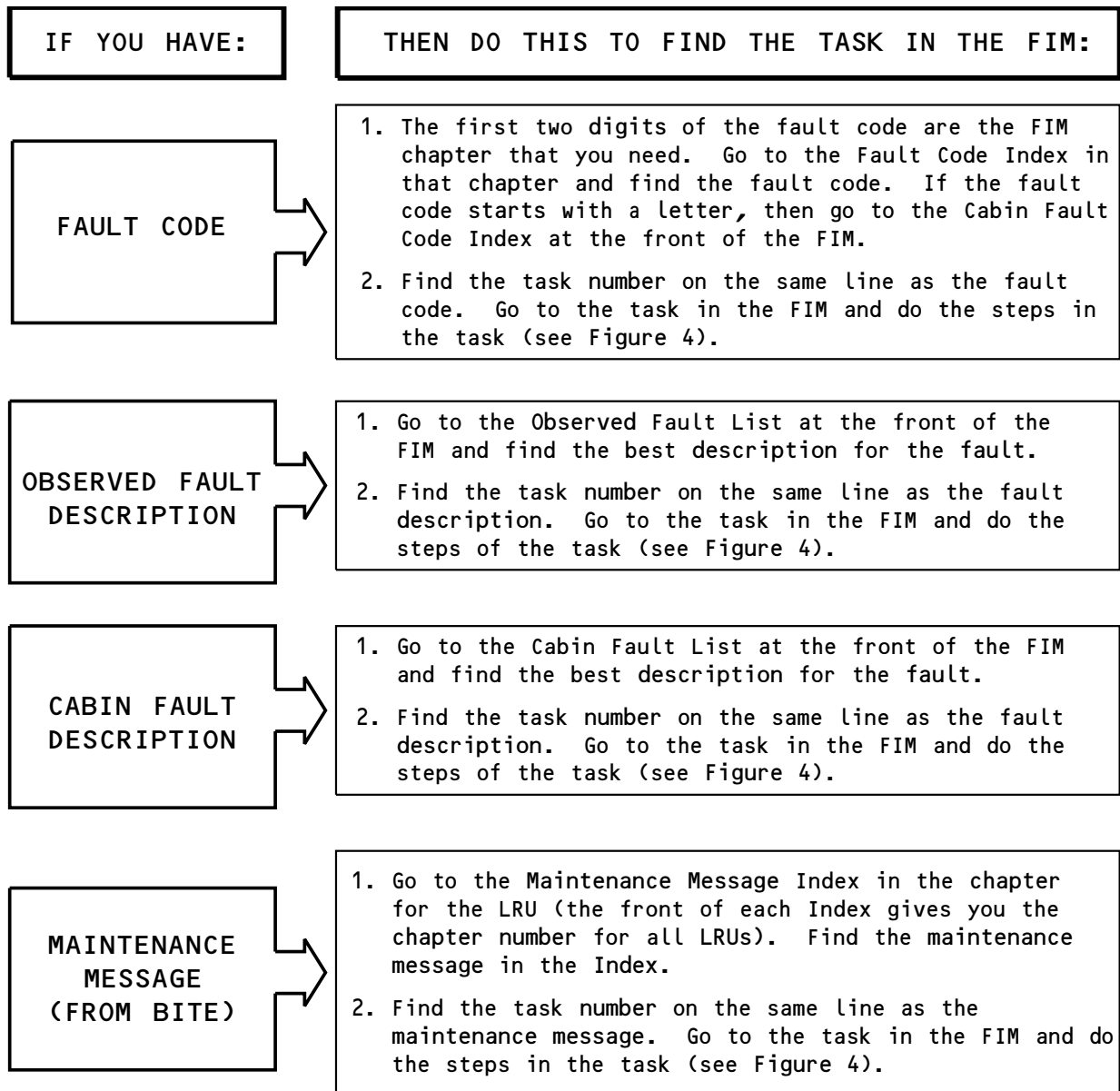
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G04979 S0000148579_V2

Finding the Fault Isolation Task in the FIM
Figure 3

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ASSUMED CONDITIONS AT START OF TASK

- External electrical power is ON
- Hydraulic power and pneumatic power are OFF
- Engines are shut down
- No equipment in the system is deactivated

POSSIBLE CAUSES

- The list of possible causes has the most likely cause first and the least likely cause last.
- You can use the maintenance records of your airline to determine if the fault occurred before. Compare the list of possible causes to the past maintenance actions. This will help prevent repetition of the same maintenance actions.

INITIAL EVALUATION PARAGRAPH

- The primary purpose of the Initial Evaluation paragraph at the start of the task is to help you find out if you can detect the fault right now:
 - If you cannot detect the fault right now, then the task cannot isolate the fault and the Initial Evaluation paragraph will say that there was an intermittent fault.
 - If you have an intermittent fault, you must use your judgement (and follow your airline's policy) to decide which maintenance action to take. Then monitor the airplane to see if the fault happens again on subsequent flights.
- The Initial Evaluation paragraph can also help you find out which Fault Isolation Procedure to use to isolate and correct the fault.

FAULT ISOLATION STEPS

- The FIM task steps are presented in a specified order. The "If... then" statements will guide you along a logical path. But if you do not plan to follow the FIM task exactly, make sure that you read it before you start to isolate the fault. Some FIM procedures start with important steps that have an effect on the other steps in the procedure.
- When you are at the endpoint of the path, the step says "...you corrected the fault." Complete the step and exit the procedure.

G05009 S0000148580_V3

Doing the Fault Isolation Task Figure 4

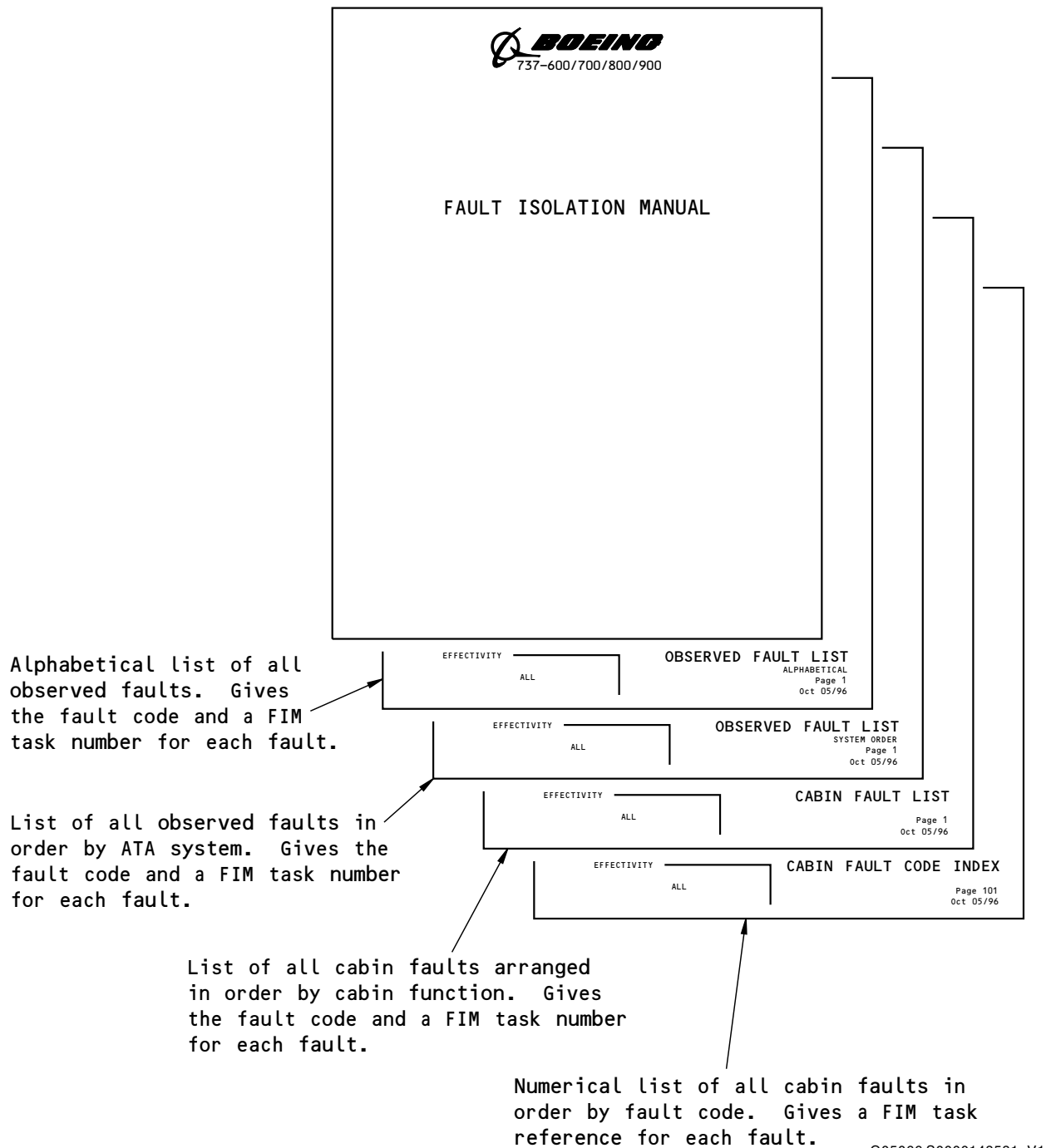
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Subjects at Front of FIM
Figure 5

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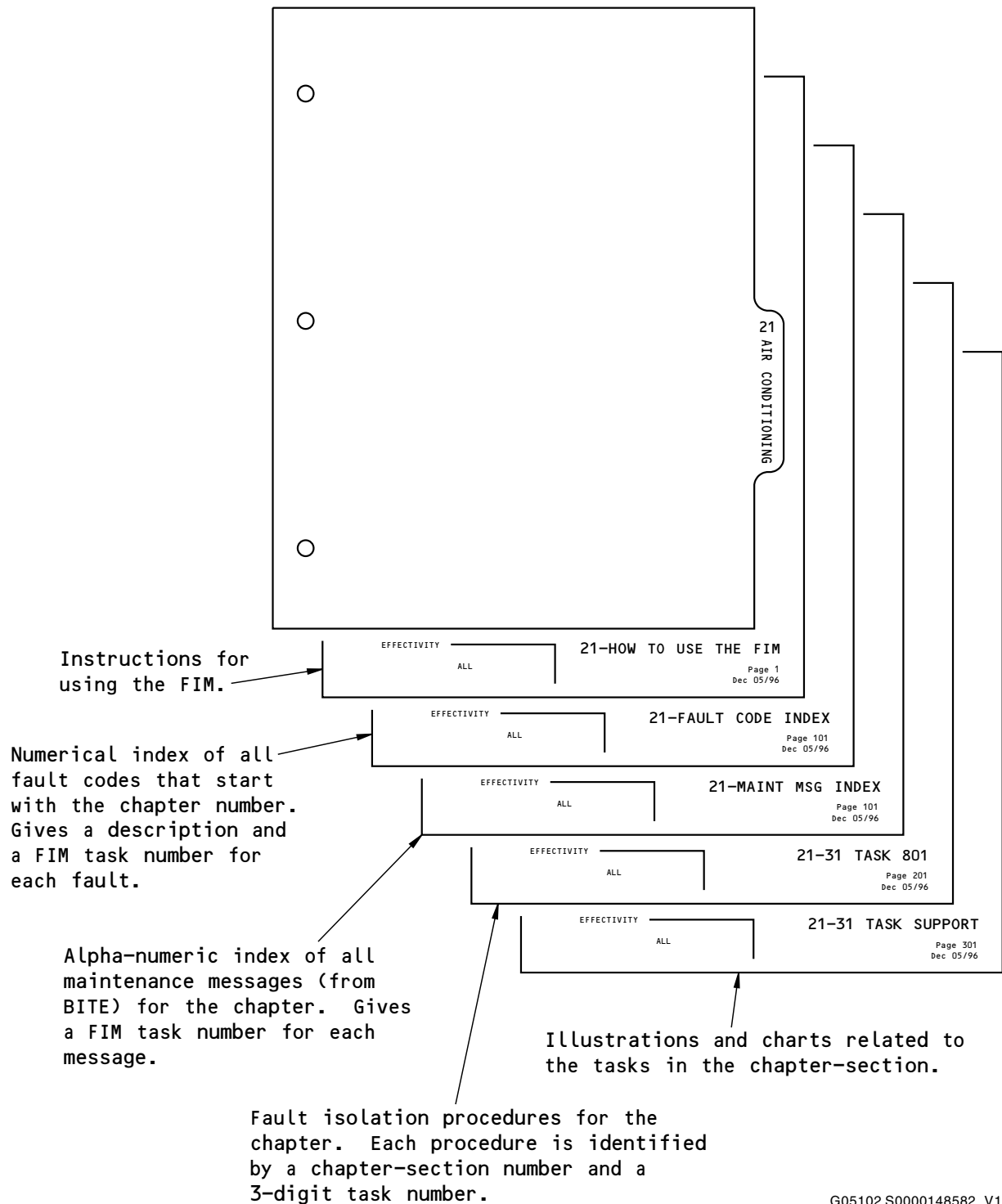
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G05102 S0000148582_V1

Subjects in Each FIM Chapter
Figure 6

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FAULT CODE	FAULT DESCRIPTION	GO TO FIM TASK
331 010 00	Indicator light: does not come on correctly.	33-10 TASK 801
331 011 00	Indicator light: Does not go off.	33-10 TASK 801
331 020 00	Lighted pushbutton switch: does not come on correctly.	33-10 TASK 801
331 021 00	Lighted pushbutton switch: Does not go off.	33-10 TASK 801
331 030 00	Lightplate: does not come on.	33-10 TASK 801
331 031 00	Lightplate: Does not go off.	33-10 TASK 801
331 040 00	Circuit breaker panel light: does not come on.	33-10 TASK 801
331 041 00	Circuit breaker panel light: Does not go off.	33-10 TASK 801
331 050 00	Dome light: does not come on correctly.	33-10 TASK 801
331 051 00	Dome light: Does not go off.	33-10 TASK 801
331 060 00	LCD segment: does not operate correctly.	33-10 TASK 801
331 070 00	Glareshield (AFCS) Floodlight: does not come on correctly.	33-10 TASK 801
331 071 00	Glareshield (AFCS) Floodlight: Does not go off.	33-10 TASK 801
331 080 31	Panel floodlight: does not come on correctly - captain's.	33-10 TASK 801
331 080 32	Panel floodlight: does not come on correctly - first officer's.	33-10 TASK 801
331 080 43	Panel floodlight: does not come on correctly - center.	33-10 TASK 801
331 081 31	Panel floodlight: Does not go off - captain's.	33-10 TASK 801
331 081 32	Panel floodlight: Does not go off - first officer's.	33-10 TASK 801
331 081 43	Panel floodlight: Does not go off - center.	33-10 TASK 801
331 090 00	Control stand floodlight: does not come on correctly.	33-10 TASK 801
331 091 00	Control stand floodlight: Does not go off.	33-10 TASK 801
331 100 00	Standby compass light: does not come on.	34-23 TASK 802
331 101 00	Standby compass light: Does not go off.	34-23 TASK 802
331 110 31	Flight kit light: does not come on correctly - captain's.	33-10 TASK 801
331 110 32	Flight kit light: does not come on correctly - first officer's.	33-10 TASK 801
331 111 31	Flight kit light: Does not go off - captain's.	33-10 TASK 801
331 111 32	Flight kit light: Does not go off - first officer's.	33-10 TASK 801
331 120 31	Map light: does not come on correctly - captain's.	33-10 TASK 801
331 120 32	Map light: does not come on correctly - first officer's.	33-10 TASK 801
331 121 31	Map light: Does not go off - captain's.	33-10 TASK 801
331 121 32	Map light: Does not go off - first officer's.	33-10 TASK 801
331 130 00	Reading light, observer's: does not come on correctly.	33-10 TASK 801
331 131 00	Reading light, observer's: Does not go off.	33-10 TASK 801
331 140 00	Oxygen mask floodlight: does not come on.	33-10 TASK 801
331 150 31	Chart light: does not come on correctly - captain's.	33-10 TASK 801

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331 150 32	Chart light: does not come on correctly - first officer's.	33-10 TASK 801
331 151 31	Chart light: Does not go off - captain's.	33-10 TASK 801
331 151 32	Chart light: Does not go off - first officer's.	33-10 TASK 801
331 160 00	Master dim and test system: does not operate correctly.	33-10 TASK 801
332 001 00	Lighting, Boeing Sky Interior (BSI): Lights do not come ON - ALL.	33-20 TASK 809
332 002 00	Lighting, Boeing Sky Interior (BSI): Cove and Direct Lights do not come ON - ALL.	33-20 TASK 810
332 003 00	Lighting, Boeing Sky Interior (BSI): Ceiling Cross Bin Light does not come ON.	33-20 TASK 808
332 004 00	Lighting, Boeing Sky Interior (BSI): Ceiling Cross Bin Lights do not come ON - ALL LEFT FWD.	33-20 TASK 814
332 005 00	Lighting, Boeing Sky Interior (BSI): Ceiling Cross Bin Lights do not come ON - ALL RIGHT FWD.	33-20 TASK 813
332 006 00	Lighting, Boeing Sky Interior (BSI): Ceiling Cross Bin Lights do not come ON - ALL LEFT AFT.	33-20 TASK 816
332 007 00	Lighting, Boeing Sky Interior (BSI): Ceiling Cross Bin Lights do not come ON - ALL RIGHT AFT.	33-20 TASK 815
332 008 00	Lighting, Boeing Sky Interior (BSI): Ceiling Wash Light does not come ON.	33-20 TASK 808
332 009 00	Lighting, Boeing Sky Interior (BSI): Ceiling Wash Lights do not come ON - ALL LEFT FWD.	33-20 TASK 814
332 010 00	Lighting, Boeing Sky Interior (BSI): Ceiling Wash Lights do not come ON - ALL RIGHT FWD.	33-20 TASK 813
332 011 00	Lighting, Boeing Sky Interior (BSI): Ceiling Wash Lights do not come ON - ALL LEFT AFT.	33-20 TASK 816
332 012 00	Lighting, Boeing Sky Interior (BSI): Ceiling Wash Lights do not come ON - ALL RIGHT AFT.	33-20 TASK 815
332 013 00	Lighting, Boeing Sky Interior (BSI): Center Overhead Stowage (COS) Light does not come ON.	33-20 TASK 808
332 014 00	Lighting, Boeing Sky Interior (BSI): Center Overhead Stowage (COS) Lights do not come ON - ALL LEFT FWD.	33-20 TASK 814
332 015 00	Lighting, Boeing Sky Interior (BSI): Center Overhead Stowage (COS) Lights do not come ON - ALL RIGHT FWD.	33-20 TASK 813
332 016 00	Lighting, Boeing Sky Interior (BSI): Center Overhead Stowage (COS) Lights do not come ON - LEFT AFT.	33-20 TASK 816
332 017 00	Lighting, Boeing Sky Interior (BSI): Center Overhead Stowage (COS) Lights do not come ON - ALL RIGHT AFT.	33-20 TASK 815
332 018 00	Lighting, Boeing Sky Interior (BSI): Direct Light does not come ON.	33-20 TASK 808

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FAULT CODE	FAULT DESCRIPTION	GO TO FIM TASK
332 019 00	Lighting, Boeing Sky Interior (BSI): Window Light does not come ON.	33-20 TASK 806
332 020 00	Lighting, Boeing Sky Interior (BSI): Window Lights do not come ON - ALL LEFT SIDE.	33-20 TASK 812
332 021 00	Lighting, Boeing Sky Interior (BSI): Window Lights do not come ON - ALL RIGHT SIDE.	33-20 TASK 811
332 022 00	Lighting, Boeing Sky Interior (BSI): Ceiling Cross Bin Light stays in BOOTLOADER (Warm White) Mode.	33-20 TASK 820
332 023 00	Lighting, Boeing Sky Interior (BSI): Ceiling Wash Light stays in BOOTLOADER (Warm White) Mode.	33-20 TASK 820
332 024 00	Lighting, Boeing Sky Interior (BSI): Center Overhead Stowage (COS) Light stays in BOOTLOADER (Warm White) Mode.	33-20 TASK 820
332 025 00	Lighting, Boeing Sky Interior (BSI): Direct Light stays in BOOTLOADER (Warm White) Mode.	33-20 TASK 820
332 026 00	Lighting, Boeing Sky Interior (BSI): a sequence of BSI Lights does not respond to ACP Signal.	33-20 TASK 805
332 027 00	Lighting, Boeing Sky Interior (BSI): Light at the end of the Data Bus does not fully respond to ACP Signal.	33-20 TASK 804
332 028 00	Lighting, Boeing Sky Interior (BSI): Light at the end of the Data Bus does not partially respond to ACP Signal.	33-20 TASK 804
332 029 00	Lighting, Boeing Sky Interior (BSI): Light does not fully respond to ACP Signal.	33-20 TASK 803
332 030 00	Lighting, Boeing Sky Interior (BSI): Light does not partially respond to ACP Signal.	33-20 TASK 803
332 031 00	Lighting, Boeing Sky Interior (BSI): Light flashes.	33-20 TASK 821
333 010 00	Wheel well light: does not come on - main landing gear.	33-30 TASK 801
333 011 00	Wheel well light: does not go off - main landing gear.	33-30 TASK 801
333 020 00	Wheel well light: does not come on - nose landing gear.	33-30 TASK 801
333 021 00	Wheel well light: Does not go off - nose landing gear.	33-30 TASK 801
333 030 41	Air conditioning compartment light: does not come on - left.	33-30 TASK 801
333 030 42	Air conditioning compartment light: does not come on - right.	33-30 TASK 801
333 031 41	Air conditioning compartment light: Does not go off - left.	33-30 TASK 801
333 031 42	Air conditioning compartment light: Does not go off - right.	33-30 TASK 801
333 040 00	Electronic equipment compartment light: does not come on.	33-30 TASK 801
333 041 00	Electronic equipment compartment light: Does not go off.	33-30 TASK 801
333 050 00	Accessory compartment light: does not come on.	33-30 TASK 801
333 051 00	Accessory compartment light: Does not go off.	33-30 TASK 801
333 060 00	APU service light: does not come on.	33-30 TASK 801
333 061 00	APU service light: Does not go off.	33-30 TASK 801

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333 070 00	Tailcone light: does not come on.	33-30 TASK 801
333 071 00	Tailcone light: Does not go off.	33-30 TASK 801
333 080 44	Cargo compartment light: does not come on - forward.	33-30 TASK 801
333 080 45	Cargo compartment light: does not come on - aft.	33-30 TASK 801
333 081 44	Cargo compartment light: Does not go off - forward.	33-30 TASK 801
333 081 45	Cargo compartment light: Does not go off - aft.	33-30 TASK 801
334 010 41	Wing illumination light: does not come on - left.	33-40 TASK 801
334 010 42	Wing illumination light: does not come on - right.	33-40 TASK 801
334 020 41	Wing illumination light: Does not go off - left.	33-40 TASK 801
334 020 42	Wing illumination light: Does not go off - right.	33-40 TASK 801
334 030 41	Landing light: does not come on - left fixed.	33-40 TASK 801
334 030 42	Landing light: does not come on - right fixed.	33-40 TASK 801
334 040 41	Landing light: does not come on - left retractable.	33-40 TASK 801
334 040 42	Landing light: does not come on - right retractable.	33-40 TASK 801
334 060 41	Landing light: Does not extend - left retractable.	33-40 TASK 801
334 060 42	Landing light: Does not extend - right retractable.	33-40 TASK 801
334 070 41	Landing light: Does not go off - left fixed.	33-40 TASK 801
334 070 42	Landing light: Does not go off - right fixed.	33-40 TASK 801
334 080 41	Landing light: Does not go off - left retractable.	33-40 TASK 801
334 080 42	Landing light: Does not go off - right retractable.	33-40 TASK 801
334 100 41	Landing light: does not retract - left retractable.	33-40 TASK 801
334 100 42	Landing light: does not retract - right retractable.	33-40 TASK 801
334 110 41	Position (NAV) light: does not come on - left wing forward.	33-40 TASK 801
334 120 41	Position (NAV) light: does not come on - left wing aft.	33-40 TASK 801
334 120 42	Position (NAV) light: does not come on - right wing aft.	33-40 TASK 801
334 130 42	Position (NAV) light: does not come on - right wing forward.	33-40 TASK 801
334 190 41	Position (NAV) light: Does not go off - left wing forward.	33-40 TASK 801
334 200 41	Position (NAV) light: Does not go off - left wing aft.	33-40 TASK 801
334 200 42	Position (NAV) light: Does not go off - right wing aft.	33-40 TASK 801
334 210 42	Position (NAV) light: Does not go off - right wing forward.	33-40 TASK 801
334 230 41	Anti-collision light: does not come on correctly - left wing.	33-44 TASK 801
334 230 42	Anti-collision light: does not come on correctly - right wing.	33-44 TASK 801
334 240 00	Anti-collision light: does not come on correctly - tail.	33-44 TASK 801
334 250 41	Anti-collision (strobe) light: Does not go off - left wing.	33-44 TASK 801
334 250 42	Anti-collision (strobe) light: Does not go off - right wing.	33-44 TASK 801

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FAULT CODE	FAULT DESCRIPTION	GO TO FIM TASK
334 260 00	Anti-collision (strobe) light: Does not go off - tail.	33-44 TASK 801
334 270 46	Anti-collision light: does not come on correctly - upper.	33-44 TASK 801
334 270 47	Anti-collision light: does not come on correctly - lower.	33-44 TASK 801
334 280 46	Anti-collision light: Does not go off - upper.	33-44 TASK 801
334 280 47	Anti-collision light: Does not go off - lower.	33-44 TASK 801
334 290 00	Airstair tread light: does not come on.	33-40 TASK 801
334 291 00	Airstair tread light: Does not go off.	33-40 TASK 801
334 300 41	Runway turnoff light: does not come on - left.	33-40 TASK 801
334 300 42	Runway turnoff light: does not come on - right.	33-40 TASK 801
334 310 41	Runway turnoff light: Does not go off - left.	33-40 TASK 801
334 310 42	Runway turnoff light: Does not go off - right.	33-40 TASK 801
334 320 00	Taxi light: does not come on.	33-40 TASK 801
334 330 00	Taxi light: Does not go off.	33-40 TASK 801
334 340 41	Logo light: does not come on - left.	33-40 TASK 801
334 340 42	Logo light: does not come on - right.	33-40 TASK 801
334 350 41	Logo light: Does not go off - left.	33-40 TASK 801
334 350 42	Logo light: Does not go off - right.	33-40 TASK 801

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<u>LRU/SYSTEM</u>	<u>SHORT NAME</u>	<u>CHAPTER</u>
Air Data Inertial Reference System	ADIRS	34
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Air Traffic Controller Transponder - 2 (Right)	ATC XPDR - 2 (R)	34
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Antiskid Control Unit	ANTISKID	32
Attendant Control Panel	ACP	23
Automatic Direction Finder Receiver - 1	ADF RECVR - 1	34
Automatic Direction Finder Receiver - 2	ADF RECVR - 2	34
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Auxiliary Power Unit Generator Control Unit	APU GCU	24
Bus Power Control Unit	BPCU	24
Cabin Pressure Controller	CAB PRESS CON	21
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<u>LRU/SYSTEM</u>	<u>SHORT NAME</u>	<u>CHAPTER</u>
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Stall Management Yaw Damper Computer - 2	SMYD - 2	27
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Very High Frequency Transceiver	VHF XCVR	23
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Weather Radar Receiver/Transmitter	WEATHER RADAR	34
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Window Heat Control Unit - Left Side	WHCU - L SIDE	30
Window Heat Control Unit - Right Forward	WHCU - R FWD	30
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Window Heat Control Unit 2 - Right Forward and Left Side	WHCU2 - R FWD/L SIDE	30

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LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
ACP	33-11001 Light <column>-<address> Component ID Error	33-20 TASK 817
ACP	33-11002 Light <column>-<address> Calibration Data CRC Error	33-20 TASK 817
ACP	33-11003 Light <column>-<address> Firmware Version Disagree Error	33-20 TASK 817
ACP	33-11004 Light <column>-<address> Power Supply Error	33-20 TASK 817
ACP	33-11005 Light <column>-<address> Temperature Sensor Error	33-20 TASK 817
ACP	33-11006 Light <column>-<address> RAM Check Error	33-20 TASK 817
ACP	33-11007 Light <column>-<address> Slave Token Error	33-20 TASK 817
ACP	33-11008 Light <column>-<address> Slave Communication Error	33-20 TASK 817
ACP	33-11009 Light <column>-<address> Slave Communication Error	33-20 TASK 817
ACP	33-11010 Light <column>-<address> Slave Communication Error	33-20 TASK 817
ACP	33-11011 Light <column>-<address> LED Wrap Data	33-20 TASK 817
ACP	33-11012 Light <column>-<address> Zone/Address Data CRC Error	33-20 TASK 818
ACP	33-11013 Light <column>-<address> Zone Address Disagree	33-20 TASK 818
ACP	33-11014 Light <column>-<address> Standard Scene CRC Error	33-20 TASK 818
ACP	33-11015 Light <column>-<address> Custom Scene CRC Error	33-20 TASK 818
ACP	33-11016 Light <column>-<address> Watchdog Timer Error	33-20 TASK 817
ACP	33-11017 Light <column>-<address> Master Token Timeout Error	33-20 TASK 819
ACP	33-11018 Light <column>-<address> Master Token Release Error	33-20 TASK 819
ACP	33-11019 Light <column>-<address> Loss of communication	33-20 TASK 819

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801. Flight Compartment Lighting Problem - Fault Isolation

A. Description

- (1) (SDS SUBJECT 33-11-00)
- (2) (SDS SUBJECT 33-14-00)
- (3) (SDS SUBJECT 33-17-00)
- (4) (SDS SUBJECT 33-18-00)

B. Possible Causes

- (1) Use the applicable system schematic manual (SSM) or wiring diagram manual (WDM) in the table below to identify possible causes for the lighting problem.

C. Circuit Breakers

- (1) Use the applicable SSM or WDM in the table below to identify the circuit breakers related to the fault.

D. Related Data

- (1) Use the table below to identify the applicable SSM and WDM for the lights in the flight compartment.

E. Initial Evaluation

- (1) In this table, find the light that does not operate correctly and its applicable SSM and WDM:

Table 201

LIGHT	SSM/WDM
Chart Lights	33-17-11
Circuit Breaker Panel Lights	33-14-12
Control Stand Light	33-14-12
Dome Lights	33-14-12
Flight Kit Lights	33-17-11
Instrument and Panel Lts on P1-P3, P7-P10, P21, P23	33-11-11 thru 33-11-41
Instrument and Panel Lts on P5	33-12-11, 33-12-12
Map Lights	33-17-11
MD&T Indicator Lights on P1	33-18-21
MD&T Indicator Lights on P2	33-18-23 thru 33-18-24
MD&T Indicator Lights on P3	33-18-22
MD&T Indicator Lights on P5, Forward	33-18-31 thru 33-18-37
MD&T Indicator Lights on P5, Aft	33-18-41 thru 33-18-42
MD&T Indicator Lights on P7	33-18-51
MD&T Indicator Lights on P8	33-18-61 thru 33-18-63
MD&T LCDs in Panels, Modules, and Indicators	33-18-11 thru 33-18-63
Panel/Glareshield Floodlights	33-14-11
Reading Lights	33-17-11

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Table 201 (Continued)

LIGHT	SSM/WDM
Standby Compass Light	33-14-12

- (2) On the applicable SSM or WDM, identify the control for the light.
- (3) Set the light to the on mode, then all other possible modes, including off.
NOTE: All lights in the flight compartment have switches but the oxygen mask floodlights. The oxygen mask floodlights should come on when electrical power is supplied to the airplane and go off when its circuit breaker is opened or electrical power is removed from the airplane.
- (a) If the light operates correctly in all possible modes, then there was an intermittent fault.
 - 1) Set the light to the usual mode.
- (b) If the light does not operate correctly in all possible modes, then do the fault isolation procedure below.

F. Fault Isolation Procedure

- (1) If the light does not come on, then replace the lamp or light assembly.
NOTE: A spare lamp box is on the right sidewall that is forward of the first officers seat.
- (a) To replace it, use the applicable task that follows:
 - 1) For a circuit breaker panel light, do this task:
Circuit Breaker Panel Light - Lamp Replacement, AMM TASK 33-14-00-960-805.
 - 2) For a panel/glareshield floodlight, do this task:
Panel/Glareshield Floodlight - Light Assembly Replacement, AMM TASK 33-14-00-960-801.
 - 3) For a dome light, do this task:
Dome Light - Lamp Replacement, AMM TASK 33-14-00-960-804.
 - 4) For an oxygen mask floodlight, do this task:
Oxygen Mask Floodlight - Light Assembly Replacement, AMM TASK 33-14-00-960-803.
 - 5) For a control stand floodlight lamp, do this task:
Control Stand Floodlight - Lamp Replacement, AMM TASK 33-14-00-960-802.
 - 6) For a control stand floodlight light assembly, do this task:
Control Stand Floodlight - Light Assembly Replacement, AMM TASK 33-14-00-960-807.
 - 7) For a map light, do this task:
Map Light - Lamp Replacement, AMM TASK 33-17-00-960-801.
 - 8) For a chart light, do this task:
Chart Light - Lamp Replacement, AMM TASK 33-17-00-960-803.
 - 9) For a flight kit light, do this task:
Flight Kit/Reading Light - Lamp Replacement, AMM TASK 33-17-00-960-802.
 - 10) For a reading light, do this task:
Flight Kit/Reading Light - Lamp Replacement, AMM TASK 33-17-00-960-802.

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- 11) For an indicator light,
These are the tasks:
Indicator Light - Lamp Replacement, AMM TASK 33-18-00-960-801,
Indicator Light - Light Assembly Replacement, AMM TASK 33-18-00-960-802.
 - 12) For a lightplate, do this task:
Lightplate - Replacement, AMM TASK 33-18-00-960-804.
 - 13) For a lighted pushbutton switch, do this task:
Lighted Pushbutton Switch - Lamp Replacement, AMM TASK 33-18-00-960-803.
 - 14) For a Standby Compass Light, do this task:
Standby Magnetic Compass Light Not Illuminated, 34-23 TASK 802
- (b) If the light operates correctly in all possible modes, then you corrected the fault.
 - (c) If the light does not operate correctly in all possible modes, then continue.
- (2) Remove the applicable control display unit (CDU) or multi-purpose control and display unit (MCDU) (AMM TASK 34-61-01-000-802).
 - (a) If the lights go off, then replace the applicable CDU or MCDU to correct the fault.
 - (b) Install the applicable CDU or MCDU (AMM TASK 34-61-01-400-802).
 - (c) If the lights do not go off, then continue.



BEFORE YOU DO COMPONENT REPLACEMENTS, PROTECT YOURSELF FROM ELECTRICAL SHOCK. OPEN CIRCUIT BREAKERS TO REMOVE ELECTRICAL POWER. ACCIDENTAL GROUNDS DURING MAINTENANCE ACTIVITIES CAN CAUSE ELECTRICAL SHOCK WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHTING SYSTEM.

- (3) If the light does not go off, then use the applicable SSM or WDM to replace the switch.
NOTE: These steps do not apply to the oxygen mask floodlights, or to switches that are not line replaceable units.
 - (a) If a circuit breaker was opened, then close it.
 - (b) Set the light to the on mode, then to the off mode.
 - (c) If the light goes off, then you corrected the fault.
 - (d) If the light does not go off, then continue.



BEFORE YOU DO WIRING CHECKS, COMPONENT REPLACEMENTS, OR WIRING REPAIRS, PROTECT YOURSELF FROM ELECTRICAL SHOCK. OPEN CIRCUIT BREAKERS OR SET SWITCHES TO THE OFF MODE TO REMOVE ELECTRICAL POWER. ACCIDENTAL GROUNDS DURING MAINTENANCE ACTIVITIES CAN CAUSE ELECTRICAL SHOCK WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHTING SYSTEM.

- (4) If the light does not operate correctly in all possible modes, including dim and off, then use the SSM or WDM to examine the lighting circuitry.
 - (a) Do continuity checks between the source of power and the light.
 - (b) If you identify a component in the lighting circuitry that does not operate correctly, then replace the component.

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- 1) If a circuit breaker was opened, then close it.
 - 2) Set the light to the on mode, then all other possible modes, including off.
 - 3) If the light operates correctly in all possible modes, then you corrected the fault.
 - a) Set the light to the usual mode.
- (c) If all components in the lighting circuitry operate correctly, then check the bonding of the applicable ground block.
- 1) Locate the applicable ground block and remove all wires from the ground block (SWPM 20-90-15).
 - 2) Perform a bond test of the applicable ground block. Do this task:
ELECTRICAL BONDING PROCESSES, SWPM 20-20-00.
 - 3) Make sure the maximum resistance does not exceed 1 milliohm (0.001 ohm).
NOTE: Refer to SWPM 20-20-00, Resistance of Ground Block Installations.
 - 4) If the resistance is not in the specified range, then replace the applicable ground block (ELECTRICAL BONDING PROCESSES, SWPM 20-20-00).
 - a) If a circuit breaker was opened, then close it.
 - b) Set the light to the on mode, then all other possible modes, including off.
 - c) If the light operates correctly in all possible modes, then you corrected the fault.
 - 5) If the resistance is in the specified range, then continue.
- (d) If there is no problem with the ground blocks, then repair the wiring.
- 1) If a circuit breaker was opened, then close it.
 - 2) Set the light to the on mode, then all other possible modes, including off.
 - 3) If the light operates correctly in all possible modes, then you corrected the fault.
 - 4) Set the light to the usual mode.

———— **END OF TASK** ————

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801. Passenger Compartment Lighting Problem - Fault Isolation

A. Description

- (1) The Passenger Compartment Lights have these subsystems:
 - Window Lights (SDS SUBJECT 33-21-00)
 - Ceiling Lights (SDS SUBJECT 33-22-00)
 - Reading Lights (SDS SUBJECT 33-23-00)
 - Passenger Signs (SDS SUBJECT 33-25-00)
 - Passenger Call Lights (SDS SUBJECT 33-27-00)
 - Lavatory Lights and Signs (SDS SUBJECT 33-26-00)
 - Lavatory Call Lights (SDS SUBJECT 33-27-00)
 - Entry Lights (SDS SUBJECT 33-29-00)
 - (2) The Passenger Compartment Lights for the Boeing Sky Interior (BSI) System include:
 - Sidewall Lights
 - Over-Wing Exit Lights
 - Ceiling and Cross-Bin Lights
 - Direct Lights
 - Cove Lights and
 - Optional Center Overhead Stowage (COS) Lights
- (a) These lights are controlled by the Forward and Aft Attendant Control Panels (ACPs) which are connected to the RS-485 Communications Bus.

B. Possible Causes

- (1) Lamp
- (2) Light Assembly
- (3) Switch
- (4) Component(s)
- (5) Wiring

C. Circuit Breakers

- (1) Use the applicable System Schematics Manual (SSM) or Wiring Diagram Manual (WDM) in the Initial Evaluation Section Table to identify the circuit breakers related to the problem.

D. Related Data

- (1) Use the applicable SSM or WDM in the Initial Evaluation Section Table to identify the applicable SSM or WDM for the lights/signs in the Passenger Compartment.

E. Initial Evaluation

- (1) In this table, find the light/sign that does not operate correctly and its applicable SSM or WDM:

Table 201

LIGHT/SIGNS	SSM	WDM
Attendant Work Lights	33-26-11	33-26-11
Chime Lights for Flight and Ground Crew Calls	23-42-11	23-42-11

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Table 201 (Continued)

LIGHT/SIGNS	SSM	WDM
Chime Lights for Pass. and Lavatory Calls	33-27-11 thru 33-27-41	33-27-11 thru 33-27-41
Dim Entry Lights	33-29-11	33-29-11
Galley Lights	33-26-21	33-26-21
Lavatory Call Lights	33-27-11 thru 33-27-41	33-27-11 thru 33-27-41
Lavatory Lights	33-26-31	33-26-31
Lavatory Mirror Light Switch	33-26-31	33-26-31
Lavatory-Occupied Signs	33-26-31	33-26-31
No-Smoking/Fasten-Seat-Belt Signs	33-25-11 thru 33-25-51	33-25-11 thru 33-25-61
Passenger Call Lights	33-27-11 thru 33-27-41	33-27-11 thru 33-27-41
Reading Lights	33-23-11 thru 33-23-31	33-23-11 thru 33-23-31
Return-to-Seat Signs	33-25-11 thru 33-25-51	33-25-11 thru 33-25-61

(2) On the applicable SSM or WDM, identify the control for the light/sign.

(3) Set the light/sign to the ON mode, then all other possible modes, including OFF.

NOTE: The Dim Entry Light is controlled by the BAT Switch on the P5-13 panel (WDM 24-41-11).

The light comes ON only when 28 Volts DC Battery Power is supplied to the light and goes OFF when Battery Power is removed.

(a) If the light/sign operates correctly in all possible modes, then there was an intermittent problem.

1) Set the light/sign to the usual mode.

(b) If the light/sign does not operate correctly in all possible modes, then do the Fault Isolation Procedure below.

(4) Use the table below to identify the applicable fault in the BSI Passenger Compartment, then go to the referenced Fault Isolation Manual (FIM) Task.

Table 202

FAULT TYPE	FAULT DESCRIPTION	GO TO FIM TASK
Communication Fault	BSI Direct/Bin/Wash/COS Light Displays Bootloader Mode (Warm White)	33-20 TASK 820
Communication Fault	One BSI Light Partially/Fully Not Responding to ACP Signal	33-20 TASK 803
Communication Fault	One BSI Light At End of Databus Partially/Fully Not Responding to ACP Signal	33-20 TASK 804
Communication Fault	A sequence of BSI Light Not Responding to ACP Signal.	33-20 TASK 805
Power Fault	BSI Window Lights Do Not Come On	33-20 TASK 806
Power Fault	BSI Cove Light Does Not Come On	33-20 TASK 807
Power Fault	One BSI Direct/Bin/Wash/COS Light Does Not Come On	33-20 TASK 808

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Table 202 (Continued)

FAULT TYPE	FAULT DESCRIPTION	GO TO FIM TASK
Power Fault	All BSI Lights Do Not Come On	33-20 TASK 809
Power Fault	All BSI Cove and Direct Lights Do Not Come On	33-20 TASK 810
Power Fault	All Right BSI Window Lights Do Not Come On	33-20 TASK 811
Power Fault	All Left BSI Window Lights Do Not Come On	33-20 TASK 812
Power Fault	All Forward Right BSI Bin/Wash/COS Lights Do Not Come On	33-20 TASK 813
Power Fault	All Forward Left BSI Bin/Wash/COS Lights Do Not Come On	33-20 TASK 814
Power Fault	All Aft Right BSI Bin/Wash/COS Lights Do Not Come On	33-20 TASK 815
Power Fault	All Aft Left BSI Bin/Wash/COS Lights Do Not Come On	33-20 TASK 816

F. Fault Isolation Procedure

- (1) If the light/sign does not come ON, then replace the lamp or light assembly. These are the applicable tasks:
 - (a) Reading Light: Reading Light - Light Assembly Replacement, AMM TASK 33-23-00-960-802
 - (b) NO SMOKING or FASTEN SEAT BELT:
 - (c) RETURN TO SEAT Sign: Information Sign - Light Assembly Replacement for a Return to Seat Sign, AMM TASK 33-25-00-960-803
 - (d) Attendant Work Light: Attendant Work Light - Lamp Replacement, AMM TASK 33-26-01-960-801
 - (e) Galley Light: Galley Light - Lamp Replacement, AMM TASK 33-26-02-960-801
 - (f) Lavatory Light problem: Lavatory Light - Lamp Replacement, AMM TASK 33-26-03-960-801
 - (g) Lavatory Light Switch problem: Reference Not Currently Available
 - (h) Lavatory-Occupied Sign: Lavatory-Occupied Sign - Light Assembly Replacement, AMM TASK 33-26-03-960-803
 - (i) Passenger Call Light: Passenger Call Light - PSU LED Call Light Replacement, AMM TASK 33-27-00-960-804
 - (j) Lavatory Call Light: Lavatory Call Light - Light/Switch Replacement, AMM TASK 33-27-00-960-802
 - (k) Dim Entry Light: Entry Light - Dim Entry LED Light Assembly Replacement, AMM TASK 33-29-00-960-805
 - (l) If the light/sign operates correctly in all possible modes, then you corrected the problem.
 - (m) If the light/sign does not operate correctly in all possible modes, then continue.

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MAKE SURE THAT YOU PREVENT AN ELECTRICAL SHOCK BEFORE YOU DO COMPONENT REPLACEMENTS. OPEN CIRCUIT BREAKERS TO REMOVE ELECTRICAL POWER. WHEN YOU SUPPLY ELECTRICAL POWER TO THE LIGHTING SYSTEM, IT CAN CAUSE ACCIDENTAL GROUNDS DURING MAINTENANCE WORK THAT CAN CAUSE ELECTRICAL SHOCK.

- (2) If the light/sign does not go OFF, then use the applicable SSM or WDM to replace the switch.

NOTE: These steps do not apply to the BAT Switch (WDM 24-41-11) that operates the dim entry lights.

- (a) If a circuit breaker was opened, then close it.
- (b) Set the light/sign to the ON mode, then to the OFF mode.
- (c) If the light/sign goes OFF, then you corrected the problem.
- (d) If the light/sign does not go OFF, then continue.



MAKE SURE THAT YOU PROTECT YOURSELF FROM ELECTRICAL SHOCK BEFORE YOU DO WIRING CHECKS, COMPONENT REPLACEMENTS, OR WIRING REPAIRS. OPEN CIRCUIT BREAKERS OR SET SWITCHES TO THE OFF MODE TO REMOVE ELECTRICAL POWER. ACCIDENTAL GROUNDS DURING MAINTENANCE ACTIVITIES CAN CAUSE ELECTRICAL SHOCK WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHTING SYSTEM.

- (3) If the light/sign does not operate correctly in all possible modes, including OFF, then use the SSM or WDM to examine the lighting circuitry.

- (a) Do continuity checks between the source of power and the light/sign.
- (b) If you identify a component in the lighting circuitry that does not operate correctly, then replace the component.
 - 1) If a circuit breaker was opened, then close it.
 - 2) Set the light/sign to the ON mode, then all other possible modes, including OFF.
 - 3) If the light/sign operates correctly in all possible modes, then you corrected the problem.
 - a) Set the light/sign to the usual mode.
- (c) If all components in the lighting circuitry operate correctly, then repair the wiring.
 - 1) If a circuit breaker was opened, then close it.
 - 2) Set the light/sign to the ON mode, then all other possible modes, including OFF.
 - 3) If the light operates correctly in all possible modes, then you corrected the problem.
 - 4) Set the light/sign to the usual mode.

————— **END OF TASK** —————

**803. BSI Light Communication Fault - One BSI Light Partially/Fully Not Responding to ACP Signal -
Fault Isolation**

A. Possible Causes

- (1) Wiring
- (2) Light Assembly

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B. Related Data

- (1) Window Lights:
 - WDM 33-21-XX
 - SSM 33-21-XX
- (2) Ceiling Lights:
 - WDM 33-22-XX
 - SSM 33-22-XX
- (3) Passenger Reading Lights:
 - WDM 33-23-XX
 - SSM 33-23-XX
- (4) Cove Lights:
 - WDM 33-24-XX
 - SSM 33-24-XX

C. Initial Evaluation

- (1) Cycle the Cabin/Utility Switch.
- (2) At the Attendant Control Panel (ACP), do a test of the light in the applicable Passenger Seating Area, forward and aft entry areas. This is the task: Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001

NOTE: The part of the Ceiling Light above the Bullnose Ceiling Panel is normally set to OFF and does not come ON.

- (a) If the light operates correctly, then there was an intermittent fault.
 - 1) Set the lights to their usual mode.
- (b) If the light does not operate correctly, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do a check of the wiring at the non-responsive light (WDM 33-21-XX , WDM 33-22-XX, WDM 33-24-XX).
 - (a) If you find a problem with the wiring, then do these steps:
 - 1) Repair the wiring.
 - 2) Cycle the Cabin/Utility Switch.
 - 3) At the ACP, do a test of the light in the applicable passenger seating area, forward and aft entry areas. This is the task: Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.
 - 4) If the light operates correctly, then you corrected the problem. Set the lights to their usual mode.
 - 5) If the light does not operate correctly, then continue.
 - (b) If there is no problem with the wiring, then continue.
- (2) Replace the light.
 - (a) Replace the applicable Light Assembly. These are the applicable tasks:
 - PASSENGER COMPARTMENT LIGHTS - ADJUSTMENT/TEST, AMM 33-20-00/501 Config 1
 - WINDOW LIGHTS - MAINTENANCE PRACTICES, AMM 33-21-00/201

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- CEILING LIGHTS - MAINTENANCE PRACTICES, AMM 33-22-00/201
 - (b) Load the software to the new Light Assembly. This is the task: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.
 - (c) At the ACP, do a test of the light in the applicable Passenger Seating Area, Forward and Aft Entry Areas. This is the task: Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.
- .
- 1) If the lights operate correctly, then you corrected the problem.
 - a) Set the lights to their usual mode.

———— **END OF TASK** ————

804. BSI Light Communication Fault - One BSI Light At End of Databus Partially/Fully Not Responding to ACP Signal - Fault Isolation

A. Possible Causes

- (1) Wiring
- (2) Light Assembly

B. Related Data

Lights	Manual
Window Lights	SSM/WDM 33-21-XX
Ceiling Lights	SSM/WDM 33-22-XX
Cove Lights	SSM/WDM 33-24-XX
Passenger Compartment Lights	SDS 33-20-00
Window Lights	SDS 33-21-00
Ceiling Lights	SDS 33-22-00
Cove Lights	SDS 33-24-00

C. Initial Evaluation

- (1) Cycle the Cabin/Utility switch.
- (2) At the attendant control panel (ACP), do a test of the light in the applicable passenger seating area, forward and aft entry areas. To do it, do this task: Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.
 - (a) If the light operates correctly, then there was an intermittent fault. Set the lights to their usual mode.
 - (b) If the light does not operate correctly, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do this task: BSI Light Communication Fault - A Sequence of BSI Lights Not Responding to ACP Signal - Fault Isolation, 33-20 TASK 805.

———— **END OF TASK** ————

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805. BSI Light Communication Fault - A Sequence of BSI Lights Not Responding to ACP Signal - Fault Isolation

A. Possible Causes

- (1) Wiring
- (2) Light Assembly

B. Related Data

Lights	Manual
Window Lights	SSM/WDM 33-21-XX
Ceiling Lights	SSM/WDM 33-22-XX
Cove Lights	SSM/WDM 33-24-XX
Passenger Compartment Lights	SDS 33-20-00
Window Lights	SDS 33-21-00
Ceiling Lights	SDS 33-22-00
Cove Lights	SDS 33-24-00

Table 203 Typical BSI ACP Light Databus Port 1-4 Layout

Port 1 Left Window	Port 2 Left Ceiling	Port 3 Right Ceiling	Port 4 Right Window
FWD Entry Direct	Wash	COS (if installed)	Sidewall
FWD Cove L	.	COS (if installed)	.
FWD Cove R	Wash	Bin	Sidewall
FWD Cabin Direct	COS (if installed)	.	Overwing Exit
MID Cove R	Bin	Bin	Overwing Exit
MID Cove L	.	COS (if installed)	Sidewall
Sidewall	Bin	COS (if installed)	.
.	COS (if installed)	Bin	Sidewall
Sidewall	COS (if installed)	.	AFT Cove L
Overwing Exit	Bin	Bin	AFT Cove R

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Table 203 Typical BSI ACP Light Databus Port 1-4 Layout (Continued)

Port 1 Left Window	Port 2 Left Ceiling	Port 3 Right Ceiling	Port 4 Right Window
Overwing Exit	.	COS (if installed)	AFT Cabin Direct L
Sidewall	Bin	Wash	AFT Entry Direct L
.	COS (if installed)	.	AFT Entry Direct R
Sidewall	COS (if installed)	Wash	AFT Cabin Direct R
Termination Plug M2805	Termination Plug M2805	Termination Plug M2805	Termination Plug M2805

C. Maintenance Tip - Troubleshooting the 737NG Boeing Sky Interior (BSI) Lighting System using C33001

- (1) Condition
 - (a) There is a reported difficulty in quickly selecting the appropriate C33001-1 test cables for bypassing suspected defective LED lighting assemblies.
- (2) Background and Suggested Steps
 - (a) Bypassing lights or groups of lights with jumper cables can help isolate problems.
 - 1) Identify the light or lights to be bypassed.
 - 2) Observe the connectors on the lights.
 - 3) Choose C33001 cables with connectors that match the lights being bypassed. Refer to 33-20 TASK SUPPORT Figure 302.
 - a) It may be necessary to combine two or more C33001 cables together.
 - b) Connectors are keyed to prevent inappropriate connections.
 - (b) There are several different types of connectors because the lights require both power and data lines. Some lights receive power directly from airplane wiring while other lights receive power that is passed through adjacent light assemblies. The different types of connectors also accommodate the location of power drops from the ship's wire. Refer to 33-20 TASK SUPPORT Figure 303, which includes a typical airplane layout of the lighting system.
 - (c) The power for sidewall lights comes from three locations on each side of the cabin at forward, mid and aft locations. At each of these locations, power runs in the forward direction through some sidewall lights and in the aft direction through other sidewall lights. Meanwhile, data lines run through the sidewall lights in the aft direction. Therefore, some lights have both power and data lines running aft, while some lights have power running forward and data lines running aft. The different types of connectors are shown in 33-20 TASK SUPPORT Figure 302.

D. Initial Evaluation

- (1) Cycle the Cabin/Utility switch.
- (2) At the attendant control panel (ACP), do a test of the lights in the passenger seating area, forward and aft entry areas. This is the task:

Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.

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- (a) If the lights operate correctly, then there was an intermittent fault. Set the lights to their usual mode.
- (b) If the lights do not operate correctly, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Do a check of the wiring at the non-responsive light.
 - (a) Identify the first non-responsive light.
 - (b) Do a check of the wiring between the non-responsive light and the line-replaceable unit (LRU) before it (WDM 33-21-XX , WDM 33-22-XX, and WDM 33-24-XX).
 - (c) If you find a problem with the wiring, then do these steps:
 - 1) Repair the wiring.
 - 2) Cycle the Cabin/Utility switch.
 - 3) At the ACP, do a test of the lights in the passenger seating area, forward and aft entry areas. This is the task:
Passenger Compartment Lights - Operational Test, AMM
TASK 33-20-00-710-804-001.
 - a) If the lights operate correctly, then you corrected the fault. Set the lights to their usual mode.
 - b) If the lights do not operate correctly, then continue.
 - (d) If there is no problem with the wiring, then continue.
- (2) Do a communication isolation check.
 - (a) Identify the first non-responsive light assembly in the sequence of non-responsive lights as "UNIT B".
 - (b) Identify the LRU before the first non-responsive light in the sequence of non-responsive lights as "UNIT A". (SSM 33-21-XX, SSM 33-22-XX, SSM 33-24-XX, WDM 33-21-XX , WDM 33-22-XX, and WDM 33-24-XX).
NOTE: Refer to Table 203 and related SSM/WDM for the BSI ACP light databus port layout.
 - (c) Set the Cabin/Utility switch to the OFF position.
 - (d) Use the C33001 test cabling (kit), SPL-13463 to isolate the UNIT B (WDM 33-21-XX , WDM 33-22-XX, and WDM 33-24-XX).
NOTE: The C33001 test cabling (kit), SPL-13463 has the necessary test cables to isolate the LRU in fault.
 - 1) Disconnect UNIT B from UNIT A.
 - 2) Disconnect UNIT B from the light assembly after it.
 - 3) Use the C33001 test cabling (kit), SPL-13463 to connect the UNIT A and the light assembly after the UNIT B.
 - (e) Set the Cabin/Utility switch to the ON position.
 - (f) At the ACP, do a test of the lights in the passenger seating area, forward and aft entry areas. This is the task:
Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.
 - 1) If the lights operate correctly, then there was a fault in the UNIT B. Do these steps:



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- a) Replace the UNIT B light assembly
NOTE: Wash light and bin light are one bin/wash light assembly. If there was a fault in UNIT B and it is a wash light or bin light, then both lights need to be replaced as one bin/wash light assembly.
 - b) Make sure the software part number information displayed on the ACP is correct.
 - <1> If it is necessary to load the software to the new light assembly, do this task: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.
 - c) At the ACP, do a test of the lights in the passenger seating area, forward and aft entry areas. This is the task:
Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.
 - <1> If the light operates correctly, then you corrected the fault. Set the light to its usual mode.
- 2) If the lights do not operate correctly, then there was a fault in the UNIT A. Do these steps:
- a) If the UNIT A is the ACP, then do these steps:
 - <1> Replace the ACP (AMM PAGEBLOCK 25-25-11/401).
 - <2> Make sure the software part number information displayed on the ACP is correct.
 - <a> If it is necessary to load the software, do this task: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.
 - <3> At the ACP, do a test of the lights in the passenger seating area, forward and aft entry areas. This is the task:
Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.
 - <4> If the light operates correctly, then you corrected the fault. Set the light to its usual mode.
 - b) If the UNIT A is a light assembly, then do these steps:
 - <1> Replace the light assembly.
 - <2> Make sure the software part number information displayed on the ACP is correct.
 - <a> If it is necessary to load the software to the new light assembly, do this task: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.
 - <3> At the ACP, do a test of the lights in the passenger seating area, forward and aft entry areas. This is the task:
Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.
 - <4> If the light operates correctly, then you corrected the fault. Set the light to its usual mode.

————— **END OF TASK** —————

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806. BSI Light Power Fault - BSI Window Lights Do Not Come ON - Fault Isolation

A. Description

- (1) There are three 115V AC Power break-in points above the Sidewall Panels on each side of the airplane (STA 419, STA 616, and STA 866).
- (2) At each Power break-in point, two sets of Window Lights are connected to the 115V AC.
 - (a) Each set of Window Lights can have maximum six window lights connected in series to the 115V AC Power Bus.
 - (b) There are two 115V AC Power Bus directions for the two sets of window lights (forward direction and aft direction).
- (3) If a Window Light does not have 115V AC Power:
 - The Window Light has an inoperative Internal Power Supply.
 - The previous Window Light in the set has an Inoperative Internal Power Supply.

B. Possible Causes

- (1) Wiring
- (2) Window Light Assembly

C. Related Data

- (1) Window Lights:
 - WDM 33-21-XX
 - SSM 33-21-XX

D. Initial Evaluation

- (1) Cycle the Cabin/Utility Switch.
- (2) Make sure that the Attendant Control Panel (ACP) Display is activated.
 - (a) To activate it, touch the opposite corners of the display sequentially within two seconds.
- (3) If necessary, add the password to get access to the ACP.
- (4) At the ACP, set the lights to the ON mode.

NOTE: Use the ACP Maintenance Display. On the ACP Display, touch the MAINTENANCE Tab. When the ACP changes to the Maintenance Display, touch LAMP TESTS.

 - (a) If the light comes ON, then there was an intermittent fault.
 - 1) Set the lights to their usual mode.
 - (b) If the light does not come ON, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Do a wiring check at the light (WDM 33-21-XX , SSM 33-21-XX).
 - (a) If you find a problem with the wiring, then do these steps:
 - 1) Repair the wiring.
 - 2) Cycle the Cabin/Utility Switch.
 - 3) At the ACP, do a test of the light in the Passenger Seating Area. This is the task: Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.
 - a) If the light operates correctly, then you corrected the problem.
<1> Set the lights to their usual mode.

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- b) If the light does not operate correctly, then continue.
- (b) If you do not find a problem with the wiring, then continue.
- (2) Do a voltage check at the light as follows (WDM 33-21-XX , SSM 33-21-XX):
 - (a) Identify the Window Light Assembly closet to the 115V AC Power Bus that does not come ON.
 - (b) Disconnect the connector that supplies 115V AC to the Window Light Assembly.
 - (c) Do a Voltage check for 115V AC from pin B to pin A of the connector.
 - 1) If you find 115V AC, do these steps:
 - a) Replace the Window Light Assembly.
WINDOW LIGHTS - MAINTENANCE PRACTICES, AMM 33-21-00/201
 - b) Load the software to the new Light Assembly. This is the task: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.
 - c) At the ACP, do a test of the light in the applicable Passenger Seating Area. This is the task: Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.
 - <1> If the lights operate correctly, then you corrected the problem. Set the lights to their usual mode.
 - 2) If you do not find 115V AC, do these steps:
 - a) Replace the LRU before the Window Light Assembly.
 - b) Load the software to the new LRU. This is the task: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.
 - c) At the ACP, do a test of the light in the applicable Passenger Seating Area. This is the task: Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.
 - <1> If the lights operate correctly, then you corrected the problem. Set the lights to their usual mode.

END OF TASK

807. BSI Light Power Fault - BSI Cove Light Does Not Come ON - Fault Isolation

A. Possible Causes

- (1) Wiring
- (2) Light Assembly

B. Related Data

- (1) WDM 33-24-XX
- (2) SSM 33-24-XX

C. Initial Evaluation

- (1) Cycle the Cabin/Utility Switch.
- (2) Make sure that the Attendant Control Panel (ACP) Display is activated.
 - (a) To activate it, touch the opposite corners of the display sequentially within two seconds.
- (3) If necessary, add the password to get access to the ACP.

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- (4) At the ACP, set the lights to the ON mode.

NOTE: Use the ACP Maintenance Display. On the ACP Display, touch the MAINTENANCE Tab. When the ACP changes to the Maintenance Display, touch LAMP TESTS.

- (a) If the light comes ON, then there was an intermittent fault.
- 1) Set the lights to their usual mode.
- (b) If the light does not come ON, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do a wiring check at the light (WDM 33-24-XX, SSM 33-24-XX).
- (a) If you find a problem with the wiring, then do these steps:
- 1) Repair the wiring.
 - 2) Cycle the Cabin/Utility Switch.
 - 3) At the ACP, do a test of the light in the Passenger Seating Area. This is the task: Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.
- a) If the light operates correctly, then you corrected the problem.
- <1> Set the lights to their usual mode.
- b) If the light does not operate correctly, then continue.
- (b) If you do not find a problem with the wiring, then continue.
- (2) Do a voltage check at the light as follows (WDM 33-24-XX, SSM 33-24-XX):
- (a) Disconnect the connector that supplies 115V AC to the Cove Light Assembly.
- (b) Do a Voltage check for 115V AC from pin B to pin A of the connector.
- 1) If you find 115V AC, do these steps:
 - a) Replace the Cove Light Assembly.
CEILING LIGHTS - MAINTENANCE PRACTICES, AMM 33-22-00/201
 - b) Load the software to the new Light Assembly. This is the task: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.
 - c) At the ACP, do a test of the light in the applicable Passenger Seating Area. This is the task: Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.

<1> If the lights operate correctly, then you corrected the problem. Set the lights to their usual mode.
 - 2) If you do not find 115V AC, do these steps:
 - a) Replace the LRU before the Cove Light Assembly.
 - b) Load the software to the new LRU. This is the task: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.
 - c) At the ACP, do a test of the light in the applicable Passenger Seating Area. This is the task: Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.

<1> If the lights operate correctly, then you corrected the problem. Set the lights to their usual mode.

————— **END OF TASK** —————

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808. BSI Light Power Fault - One BSI Direct/Bin/Wash/COS Light Does Not Come ON - Fault Isolation

A. Possible Causes

- (1) Wiring
- (2) Light Assembly

B. Related Data

- (1) Ceiling Lights:
 - WDM 33-22-XX
 - SSM 33-22-XX
- (2) Cove Lights:
 - WDM 33-24-XX
 - SSM 33-24-XX

C. Initial Evaluation

- (1) Cycle the Cabin/Utility Switch.
- (2) Make sure that the Attendant Control Panel (ACP) Display is activated.
 - (a) To activate it, touch the opposite corners of the display sequentially within two seconds.
- (3) If necessary, add the password to get access to the ACP.
- (4) At the ACP, set the lights to the ON mode.

NOTE: Use the ACP Maintenance Display. On the ACP Display, touch the MAINTENANCE Tab. When the ACP changes to the Maintenance Display, touch LAMP TESTS.

- (a) If the light comes ON, then there was an intermittent fault.
 - 1) Set the lights to their usual mode.
- (b) If the light does not come ON, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do a wiring check at the light (WDM 33-22-XX, WDM 33-24-XX).
 - (a) If you find a problem with the wiring, then do these steps:
 - 1) Repair the wiring.
 - 2) Cycle the Cabin/Utility Switch.
 - 3) Make sure that the ACP Display is activated.
 - 4) If necessary, input the password to get access to the attendant control panel.
 - 5) At the ACP, set lights to the ON mode.

NOTE: Use the ACP Maintenance Display. On the ACP Display, touch the MAINTENANCE Tab. When the ACP changes to the Maintenance Display, touch LAMP TESTS.

- a) If the light operates correctly, then you corrected the problem.
 - <1> Set the lights to their usual mode.
 - b) If the light does not operate correctly, then continue.
 - (b) If you do not find a problem with the wiring, then continue.
- (2) Replace the applicable Light Assembly.

NOTE: Wash Light and Bin Light is one Bin/Wash Light Assembly.

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If there is a problem in a Wash Light or Bin Light, then you must replace the Bin/Wash Light Assembly.

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- (3) Load the software to the new Light Assembly. This is the task: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.
- (4) At the ACP, do a test of the light in the applicable Passenger Seating Area. This is the task: Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.
 - (a) If the lights operate correctly, then you corrected the problem. Set the lights to their usual mode.

————— **END OF TASK** —————

809. BSI Light Power Fault - All BSI Lights Do Not Come On - Fault Isolation

A. Possible Causes

- (1) Relay R120
- (2) Cabin/Utility switch
- (3) Wiring

B. Related Data

Lights	Manual
Window Lights	SSM/WDM 33-21-XX
Ceiling Lights	SSM/WDM 33-22-XX
Cove Lights	SSM/WDM 33-24-XX
Passenger Compartment Lights	SDS 33-20-00
Window Lights	SDS 33-21-00
Ceiling Lights	SDS 33-22-00
Cove Lights	SDS 33-24-00

C. Initial Evaluation

- (1) Cycle the Cabin/Utility switch.
- (2) Open and close these circuit breakers:

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<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	4	C00184	GND SERV CLG NIGHT CONT
E	7	C01937	CEILING LIGHT AFT-L
E	8	C01938	CEILING LIGHT AFT-R
E	9	C00590	CEILING LT-R
E	10	C00591	CEILING LT-L

Power Distribution Panel Number 2, P92

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	5	C01939	COVE LIGHT
E	11	C00594	WINDOW LIGHT RIGHT
E	12	C00776	WINDOW LIGHT LEFT

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- (3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
- (4) If necessary, input the password to get access to the attendant control panel.
- (5) At the attendant control panel (ACP), set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- (a) If all the passenger compartment lights come on, then there was an intermittent fault. Set the lights to their usual mode.
- (b) If all the passenger compartment lights do not come on, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Replace the relays.
 - (a) Replace the relay R120 (WDM 33-22-XX).
 - (b) Cycle the Cabin/Utility switch.
 - (c) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
 - (d) If necessary, input the password to get access to the attendant control panel.
 - (e) At the ACP, set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- (f) If all the passenger compartment lights come on, then you corrected the fault. Set the lights to their usual mode.
 - (g) If all the passenger compartment lights do not come on, then continue.
 - (2) Do a check of the Cabin/Utility switch.
 - (a) Disconnect the D652 from the P5-13 module.
 - (b) Set the Cabin/Utility switch to the ON position.
 - (c) Do a continuity check from pin 5 to pin 14 of connector D652.
 - (d) If there is no continuity, then do these steps:
 - 1) Replace the P5-13 module.
 - 2) Connect the D652 to the P5-13 module.
 - 3) Cycle the Cabin/Utility switch.
 - 4) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
 - 5) If necessary, input the password to get access to the attendant control panel.
 - 6) At the ACP, set lights to the on mode.
- NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.
- 7) If all the passenger compartment lights come on, then there was an intermittent fault. Set the lights to their usual mode.
 - 8) If all the passenger compartment lights do not come on, then continue.

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- (e) If there is continuity, then continue.
 - 1) Connect the D652 to the P5-13 module.
- (3) Do a check of the wiring.
 - (a) Do a check of the wiring between the applicable circuit breaker and the lights (WDM 33-21-XX , WDM 33-22-XX, and WDM 33-24-XX).
 - (b) If you find a problem with the wiring, then do these steps:
 - 1) Repair the wiring.
 - 2) Cycle the Cabin/Utility switch.
 - 3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
 - 4) If necessary, input the password to get access to the attendant control panel.
 - 5) At the ACP, set the lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.
 - 6) If all the passenger compartment lights come on, then you corrected the fault. Set the lights to their usual mode.

————— **END OF TASK** —————

810. BSI Light Power Fault - All BSI Cove and Direct Lights Do Not Come On - Fault Isolation

A. Possible Causes

- (1) Relay R427
- (2) This is the primary circuit breaker related to the fault:

Power Distribution Panel Number 2, P92

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	5	C01939	COVE LIGHT

- (3) Wiring

B. Related Data

Lights	Manual
Cove Lights	SSM/WDM 33-24-XX
Passenger Compartment Lights	SDS 33-20-00
Ceiling Lights	SDS 33-22-00

C. Initial Evaluation

- (1) Cycle the Cabin/Utility switch.
- (2) Open and close this circuit breaker:

Power Distribution Panel Number 2, P92

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	5	C01939	COVE LIGHT

- (3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.

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- (4) If necessary, input the password to get access to the attendant control panel.
- (5) At the attendant control panel (ACP), set lights to the on mode.
NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab.
When the ACP changes to the maintenance display, touch LAMP TESTS.
 - (a) If the cove lights and direct lights come on, then there was an intermittent fault. Set the lights to their usual mode.
 - (b) If all the cove lights and direct lights do not come on, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Replace the relay.
 - (a) Replace the R427 relay (WDM 33-24-11).
 - (b) Cycle the Cabin/Utility switch.
 - (c) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
 - (d) If necessary, input the password to get access to the attendant control panel.
 - (e) At the ACP, set lights to the on mode.
NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.
 - (f) If the cove lights and direct lights come on, then you corrected the fault. Set the lights to their usual mode.
 - (g) If the cove lights and direct lights do not come on, then continue.
- (2) Replace the circuit breaker.
 - (a) Replace this circuit breaker:

Power Distribution Panel Number 2, P92

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	5	C01939	COVE LIGHT

- (b) Cycle the Cabin/Utility switch.
 - (c) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
 - (d) If necessary, input the password to get access to the attendant control panel.
 - (e) At the ACP, set lights to the on mode.
NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.
 - (f) If the cove lights and direct lights come on, then you corrected the fault. Set the lights to their usual mode.
 - (g) If the cove lights and direct lights do not come on, then continue.
- (3) Do a check of the wiring.
 - (a) Do a check of the wiring between the applicable circuit breaker and the lights (WDM 33-24-XX).
 - (b) If you find a problem with the wiring, then do these steps:

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- 1) Repair the wiring.
- 2) Cycle the Cabin/Utility switch.
- 3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
- 4) If necessary, input the password to get access to the attendant control panel.
- 5) At the ACP, set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- 6) If the cove lights and direct lights come on, then you corrected the fault. Set the lights to their usual mode.

END OF TASK

811. BSI Light Power Fault - All Right BSI Window Lights Do Not Come On - Fault Isolation

A. Possible Causes

- (1) Relay R427
- (2) This is the primary circuit breaker related to the fault:

Power Distribution Panel Number 2, P92

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	11	C00594	WINDOW LIGHT RIGHT

- (3) Wiring

B. Related Data

Lights	Manual
Window Lights	SSM/WDM 33-21-XX
Passenger Compartment Lights	SDS 33-20-00
Window Lights	SDS 33-21-00

C. Initial Evaluation

- (1) Cycle the Cabin/Utility switch.
- (2) Open and close this circuit breaker:

Power Distribution Panel Number 2, P92

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	11	C00594	WINDOW LIGHT RIGHT

- (3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
- (4) If necessary, input the password to get access to the attendant control panel.
- (5) At the attendant control panel (ACP), set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- (a) If all right window lights come on, then there was an intermittent fault. Set the lights to their usual mode.

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- (b) If all right window lights do not come on, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Replace the relay.

- (a) Replace the relay R427 (WDM 33-21-XX).
- (b) Cycle the Cabin/Utility switch.
- (c) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
- (d) If necessary, input the password to get access to the attendant control panel.
- (e) At the ACP, set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- (f) If all right window lights come on, then you corrected the fault. Set the lights to their usual mode.
 - (g) If all right window lights do not come on, then continue.
- (2) Replace the circuit breaker.

- (a) Replace this circuit breaker:

Power Distribution Panel Number 2, P92

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	11	C00594	WINDOW LIGHT RIGHT

- (b) Cycle the Cabin/Utility switch.
 - (c) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
 - (d) If necessary, input the password to get access to the attendant control panel.
 - (e) At the ACP, set lights to the on mode.
- NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.
- (f) If all right window lights come on, then you corrected the fault. Set the lights to their usual mode.
 - (g) If all right window lights do not come on, then continue.
- (3) Do a check of the wiring.
- (a) Do a check of the wiring between the applicable circuit breaker and the lights (WDM 33-21-XX).
 - (b) If you find a problem with the wiring, then do these steps:

- 1) Repair the wiring.
- 2) Cycle the Cabin/Utility switch.
- 3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
- 4) If necessary, input the password to get access to the attendant control panel.



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- 5) At the ACP, set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- 6) If all right window lights come on, then you corrected the fault. Set the lights to their usual mode.

————— **END OF TASK** —————

812. BSI Light Power Fault - All Left BSI Window Lights Do Not Come On - Fault Isolation

A. Possible Causes

- (1) Relay R427
(2) This is the primary circuit breaker related to the fault:

Power Distribution Panel Number 2, P92

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	12	C00776	WINDOW LIGHT LEFT

- (3) Wiring

B. Related Data

Lights	Manual
Window Lights	SSM/WDM 33-21-XX
Passenger Compartment Lights	SDS 33-20-00
Window Lights	SDS 33-21-00

C. Initial Evaluation

- (1) Cycle the Cabin/Utility switch.
(2) Open and close this circuit breaker:

Power Distribution Panel Number 2, P92

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	12	C00776	WINDOW LIGHT LEFT

- (3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
(4) If necessary, input the password to get access to the attendant control panel.
(5) At the attendant control panel (ACP), set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- (a) If all left window lights come on, then there was an intermittent fault. Set the lights to their usual mode.
(b) If all left window lights do not come on, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Replace the relay.
(a) Replace the relay R427 (WDM 33-21-XX).

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- (b) Cycle the Cabin/Utility switch.
- (c) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
- (d) If necessary, input the password to get access to the attendant control panel.
- (e) At the ACP, set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- (f) If all left window lights come on, then you corrected the fault. Set the lights to their usual mode.
 - (g) If all left window lights do not come on, then continue.
- (2) Replace the circuit breaker.
- (a) Replace this circuit breaker:

Power Distribution Panel Number 2, P92

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	12	C00776	WINDOW LIGHT LEFT

- (b) Cycle the Cabin/Utility switch.
- (c) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
- (d) If necessary, input the password to get access to the attendant control panel.
- (e) At the ACP, set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- (f) If all left window lights come on, then you corrected the fault. Set the lights to their usual mode.
 - (g) If all left window lights do not come on, then continue.
- (3) Do a check of the wiring.
- (a) Do a check of the wiring between the applicable circuit breaker and the lights (WDM 33-21-XX).
 - (b) If you find a problem with the wiring, then do these steps:

- 1) Repair the wiring.
- 2) Cycle the Cabin/Utility switch.
- 3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
- 4) If necessary, input the password to get access to the attendant control panel.
- 5) At the ACP, set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

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- 6) If all left window lights come on, then you corrected the fault. Set the lights to their usual mode.

————— **END OF TASK** —————

813. BSI Light Power Fault - All Forward Right BSI Bin/Wash/COS Lights Do Not Come On - Fault Isolation

A. Possible Causes

- (1) Relay R120
- (2) This is the primary circuit breaker related to the fault:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	9	C00590	CEILING LT-R

- (3) Wiring

B. Related Data

Lights	Manual
Ceiling Lights	SSM/WDM 33-22-XX
Passenger Compartment Lights	SDS 33-20-00
Ceiling Lights	SDS 33-22-00

C. Initial Evaluation

- (1) Cycle the Cabin/Utility switch.
- (2) Open and close this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	9	C00590	CEILING LT-R

- (3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
- (4) If necessary, input the password to get access to the attendant control panel.
- (5) At the attendant control panel (ACP), set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- (a) If all forward right bin/wash/COS lights come on, then there was an intermittent fault. Set the lights to their usual mode.
- (b) If all forward right bin/wash/COS lights do not come on, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Replace the relay.
 - (a) Replace the relay R120 (WDM 33-22-11).
 - (b) Cycle the Cabin/Utility switch.
 - (c) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.

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- (d) If necessary, input the password to get access to the attendant control panel.
- (e) At the ACP, set lights to the on mode.
NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.
- (f) If all forward right bin/wash/COS lights come on, then you corrected the fault. Set the lights to their usual mode.
- (g) If all forward right bin/wash/COS lights do not come on, then continue.
- (2) Replace the circuit breaker
 - (a) Replace this circuit breaker:
Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	9	C00590	CEILING LT-R
 - (b) Cycle the Cabin/Utility switch.
 - (c) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
 - (d) If necessary, input the password to get access to the attendant control panel.
 - (e) At the ACP, set lights to the on mode.
NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.
 - (f) If all forward right bin/wash/COS lights come on, then you corrected the fault. Set the lights to their usual mode.
 - (g) If all forward right bin/wash/COS lights do not come on, then continue.
- (3) Do a check of the wiring.
 - (a) Do a check of the wiring between the applicable circuit breaker and the lights (WDM 33-22-XX).
 - (b) If you find a problem with the wiring, then do these steps:
 - 1) Repair the wiring.
 - 2) Cycle the Cabin/Utility switch.
 - 3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
 - 4) If necessary, input the password to get access to the attendant control panel.
 - 5) At the ACP, set lights to the on mode.
NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.
 - 6) If all forward right bin/wash/COS lights come on, then you corrected the fault. Set the lights to their usual mode.

———— **END OF TASK** ————

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814. BSI Light Power Fault - All Forward Left BSI Bin/Wash/COS Lights Do Not Come On - Fault Isolation

A. Possible Causes

- (1) Relay R120
- (2) This is the primary circuit breaker related to the fault:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	10	C00591	CEILING LT-L

- (3) Wiring

B. Related Data

Lights	Manual
Ceiling Lights	SSM/WDM 33-22-XX
Passenger Compartment Lights	SDS 33-20-00
Ceiling Lights	SDS 33-22-00

C. Initial Evaluation

- (1) Cycle the Cabin/Utility switch.
- (2) Open and close this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	10	C00591	CEILING LT-L

- (3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
- (4) If necessary, input the password to get access to the attendant control panel.
- (5) At the attendant control panel (ACP), set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- (a) If all forward left bin/wash/COS lights come on, then there was an intermittent fault. Set the lights to their usual mode.
- (b) If all forward left bin/wash/COS lights do not come on, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Replace the relay.
 - (a) Replace the relay R120 (WDM 33-22-11).
 - (b) Cycle the Cabin/Utility switch.
 - (c) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
 - (d) If necessary, input the password to get access to the attendant control panel.

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- (e) At the ACP, set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- (f) If all forward bin/wash/COS lights come on, then you corrected the fault. Set the lights to their usual mode.

- (g) If all forward bin/wash/COS lights do not come on, then continue.

- (2) Replace the circuit breaker

- (a) Replace this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	10	C00591	CEILING LT-L

- (b) Cycle the Cabin/Utility switch.

- (c) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.

- (d) If necessary, input the password to get access to the attendant control panel.

- (e) At the ACP, set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- (f) If all forward left bin/wash/COS lights come on, then you corrected the fault. Set the lights to their usual mode.

- (g) If all forward left bin/wash/COS lights do not come on, then continue.

- (3) Do a check of the wiring.

- (a) Do a check of the wiring between the applicable circuit breaker and the lights (WDM 33-22-XX).

- (b) If you find a problem with the wiring, then do these steps:

- 1) Repair the wiring.

- 2) Cycle the Cabin/Utility switch.

- 3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.

- 4) If necessary, input the password to get access to the attendant control panel.

- 5) At the ACP, set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- 6) If all forward left bin/wash/COS lights come on, then you corrected the fault. Set the lights to their usual mode.

———— **END OF TASK** ————

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815. BSI Light Power Fault - All Aft Right BSI Bin/Wash/COS Lights Do Not Come On - Fault Isolation

A. Possible Causes

- (1) Relay R394
- (2) This is the primary circuit breaker related to the fault:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C01938	CEILING LIGHT AFT-R

- (3) Wiring

B. Related Data

Lights	Manual
Ceiling Lights	SSM/WDM 33-22-XX
Passenger Compartment Lights	SDS 33-20-00
Ceiling Lights	SDS 33-22-00

C. Initial Evaluation

- (1) Cycle the Cabin/Utility switch.
- (2) Open and close this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C01938	CEILING LIGHT AFT-R

- (3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
- (4) If necessary, input the password to get access to the attendant control panel.
- (5) At the attendant control panel (ACP), set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab.
When the ACP changes to the maintenance display, touch LAMP TESTS.

- (a) If all aft right bin/wash/COS lights come on, then you corrected the fault. Set the lights to their usual mode.
- (b) If all aft right bin/wash/COS lights do not come on, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Replace the R394 relay.
 - (a) Replace the R394 relay (WDM 33-22-11).
 - (b) Cycle the Cabin/Utility switch.
 - (c) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
 - (d) If necessary, input the password to get access to the attendant control panel.

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- (e) At the ACP, set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- (f) If all aft right bin/wash/COS lights come on, then you corrected the fault. Set the lights to their usual mode.

- (g) If all aft right bin/wash/COS lights do not come on, then continue.

- (2) Replace the circuit breaker

- (a) Replace this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C01938	CEILING LIGHT AFT-R

- (b) Cycle the Cabin/Utility switch.

- (c) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.

- (d) If necessary, input the password to get access to the attendant control panel.

- (e) At the ACP, set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- (f) If all aft right bin/wash/COS lights come on, then you corrected the fault. Set the lights to their usual mode.

- (g) If all aft right bin/wash/COS lights do not come on, then continue.

- (3) Do a check of the wiring.

- (a) Do a check of the wiring between the applicable circuit breaker and the lights (WDM 33-22-XX).

- (b) If you find a problem with the wiring, then do these steps:

- 1) Repair the wiring.

- 2) Cycle the Cabin/Utility switch.

- 3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.

- 4) If necessary, input the password to get access to the attendant control panel.

- 5) At the ACP, set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- 6) If all aft right bin/wash/COS lights come on, then you corrected the fault. Set the lights to their usual mode.

———— **END OF TASK** ————

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816. BSI Light Power Fault - All Aft Left BSI Bin/Wash/COS Lights Do Not Come On - Fault Isolation

A. Possible Causes

- (1) Relay R120
- (2) This is the primary circuit breaker related to the fault:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	7	C01937	CEILING LIGHT AFT-L

- (3) Wiring

B. Related Data

Lights	Manual
Ceiling Lights	SSM/WDM 33-22-XX
Passenger Compartment Lights	SDS 33-20-00
Ceiling Lights	SDS 33-22-00

C. Initial Evaluation

- (1) Cycle the Cabin/Utility switch.
- (2) Open and close this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	7	C01937	CEILING LIGHT AFT-L

- (3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
- (4) If necessary, input the password to get access to the attendant control panel.
- (5) At the attendant control panel (ACP), set lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

- (a) If all aft left bin/wash/COS lights come on, then you corrected the fault. Set the lights to their usual mode.
- (b) If all aft left bin/wash/COS lights do not come on, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Replace the R120 relay.
 - (a) Replace the relay R120 (WDM 33-22-11).
 - (b) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
 - (c) If necessary, input the password to get access to the attendant control panel.
 - (d) At the ACP, set the lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.

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- (e) If all aft left bin/wash/COS lights come on, then you corrected the fault. Set the lights to their usual mode.
- (f) If all aft left bin/wash/COS lights do not come on, then continue.
- (2) Replace the circuit breaker.
 - (a) Replace this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	7	C01937	CEILING LIGHT AFT-L

- (b) Cycle the Cabin/Utility switch.
- (c) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
- (d) If necessary, input the password to get access to the attendant control panel.
- (e) At the ACP, set the lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.
- (f) If all aft left bin/wash/COS lights come on, then you corrected the fault. Set the lights to their usual mode.
- (g) If all aft left bin/wash/COS lights do not come on, then continue.
- (3) Do a check of the wiring.
 - (a) Do a check of the wiring between the applicable circuit breaker and the lights (WDM 33-22-XX).
 - (b) If you find a problem with the wiring, then do these steps:
 - 1) Repair the wiring.
 - 2) Cycle the Cabin/Utility switch.
 - 3) Make sure that the attendant control panel display is activated. To activate it, touch the opposite corners of the display sequentially within two seconds.
 - 4) If necessary, input the password to get access to the attendant control panel.
 - 5) At the ACP, set the lights to the on mode.

NOTE: Use the ACP maintenance display. On the ACP display, touch the MAINTENANCE tab. When the ACP changes to the maintenance display, touch LAMP TESTS.
 - 6) If all aft left bin/wash/COS lights come on, then you corrected the fault. Set the lights to their usual mode.

————— **END OF TASK** —————

817. BSI Light Column Address Fault - System Error - Fault Isolation

A. Description

- (1) This task is for these maintenance messages:
 - (a) 33-11001
 - (b) 33-11002
 - (c) 33-11003

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- (d) 33-11004
- (e) 33-11005
- (f) 33-11006
- (g) 33-11007
- (h) 33-11008
- (i) 33-11009
- (j) 33-11010
- (k) 33-11011
- (l) 33-11016

(2) These messages show during the System Test.

B. Possible Causes

- (1) Light Failure

C. Related Data

- (1) WDM 33-21-12
- (2) WDM 33-22-21
- (3) WDM 33-22-22
- (4) WDM 33-22-31
- (5) WDM 33-22-32
- (6) WDM 33-22-41
- (7) WDM 33-22-51
- (8) WDM 33-24-21
- (9) WDM 33-24-22

D. Initial Evaluation

- (1) Do this task: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.
 - (a) If the maintenance message does not show, then there was an intermittent fault.
 - (b) If the maintenance message shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) On the P5 Overhead Panel, cycle the CABIN/UTILITY Switch to the OFF and ON position.
NOTE: Make sure that the switch is in the OFF position for at least 10 seconds.
 - (a) Do the Repair Confirmation at the end of this task.
- (2) Replace the light that reports the fault. These are the applicable tasks:
 - Window Light - LED Light Assembly Replacement, AMM TASK 33-21-00-960-804
 - Window Light - Overwing Exit Light Assembly Replacement, AMM TASK 33-21-00-960-805
 - Ceiling Light, Bin/Wash - LED Light Assembly Replacement, AMM TASK 33-22-00-960-807
 - Ceiling Light, Direct - LED Light Assembly Replacement, AMM TASK 33-22-00-960-808
 - Ceiling Light, Cove - LED Light Assembly Replacement, AMM TASK 33-22-00-960-809
 - Ceiling Light, Center Overhead Stowage - LED Light Assembly Replacement, AMM TASK 33-22-00-960-810

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F. Repair Confirmation

- (1) Do this task: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.
 - (a) If the maintenance message does not show, then you corrected the problem.
 - (b) If the maintenance message still shows, then continue the Fault Isolation Procedure at the subsequent step.

————— **END OF TASK** —————

818. BSI Light Column Address Fault - Zone/Scene - Fault Isolation

A. Description

- (1) This task is for these following maintenance messages:
 - (a) 33-11012
 - (b) 33-11013
 - (c) 33-11014
 - (d) 33-11015
- (2) These messages show during the System Test.

B. Possible Causes

- (1) Data Load
- (2) Light Failure

C. Related Data

- (1) WDM 33-21-12
- (2) WDM 33-22-21
- (3) WDM 33-22-22
- (4) WDM 33-22-31
- (5) WDM 33-22-32
- (6) WDM 33-22-41
- (7) WDM 33-22-51
- (8) WDM 33-24-21
- (9) WDM 33-24-22

D. Initial Evaluation

- (1) Do this task: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.
 - (a) If the maintenance message does not show, then there was an intermittent fault.
 - (b) If the maintenance message shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Do a Phase 2 Data Load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.
 - (a) Do the Repair Confirmation at the end of this task.
- (2) On the P5 Overhead Panel, cycle the CABIN/UTILITY Switch to the OFF and ON position.
NOTE: Make sure that the switch is in the OFF position for at least 10 seconds.
 - (a) Do the Repair Confirmation at the end of this task.

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F. Repair Confirmation

- (1) Do this task: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.
 - (a) If the maintenance message does not show, then you corrected the problem.
 - (b) If the maintenance message still shows, then continue the Fault Isolation Procedure at the subsequent step.

————— **END OF TASK** —————

819. BSI Light Column Address Fault - Communication Error - Fault Isolation

A. Description

- (1) This task is for these maintenance messages:
 - (a) 33-11017
 - (b) 33-11018
 - (c) 33-11019
- (2) These messages show during the System Test.

B. Possible Causes

- (1) Wiring
- (2) Light Failure

C. Related Data

- (1) WDM 23-42-XX
- (2) WDM 33-21-12
- (3) WDM 33-22-21
- (4) WDM 33-22-22
- (5) WDM 33-22-31
- (6) WDM 33-22-32
- (7) WDM 33-22-41
- (8) WDM 33-22-51
- (9) WDM 33-24-21
- (10) WDM 33-24-22

D. Initial Evaluation

- (1) Do this task: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.
 - (a) If the maintenance message does not show, then there was an intermittent fault.
 - (b) If the maintenance message shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) On the P5 Overhead Panel, cycle the CABIN/UTILITY Switch to the OFF and ON position.
NOTE: Make sure that the switch is in the OFF position for at least 10 seconds.
 - (a) Do the Repair Confirmation at the end of this task.
- (2) Examine the connections and the wiring between the light that reports the fault and the Attendant Control Panel.
 - (a) Repair the wiring and/or connections as necessary.
 - (b) Do the Repair Confirmation procedure below.

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- (3) Replace the light that reports the fault. These are the applicable tasks:
- Window Light - LED Light Assembly Replacement, AMM TASK 33-21-00-960-804
 - Window Light - Overwing Exit Light Assembly Replacement, AMM TASK 33-21-00-960-805
 - Ceiling Light, Bin/Wash - LED Light Assembly Replacement, AMM TASK 33-22-00-960-807
 - Ceiling Light, Direct - LED Light Assembly Replacement, AMM TASK 33-22-00-960-808
 - Ceiling Light, Cove - LED Light Assembly Replacement, AMM TASK 33-22-00-960-809
 - Ceiling Light, Center Overhead Stowage - LED Light Assembly Replacement, AMM TASK 33-22-00-960-810

F. Repair Confirmation

- (1) Do this task: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.
- (a) If the maintenance message does not show, then you corrected the problem.
- (b) If the maintenance message still shows, then continue the Fault Isolation Procedure at the subsequent step.

————— **END OF TASK** —————

820. BSI Light Generation 3 Fault - BSI Direct/Bin/Wash/COS Light Displays Bootloader Mode (Warm White)

A. Description

- (1) This task is for this observed fault:
- (a) Light segment displays bootloader mode.
- (2) Only BSI generation 3 light segments will go to bootloader mode when they detect a loss of the OPS LSAP.
- (3) The bootloader mode will display as this:
- (a) White (WWW) segments - Partial cool white segments with remaining segment cool and warm light.
- (b) RGBW (color) segments - Partial blue segment with remaining segment white light.

B. Possible Causes

- (1) OPS LSAP
- (2) Light Assembly

C. Related Data

Lights	Manual
Window Lights	SSM/WDM 33-21-XX
Ceiling Lights	SSM/WDM 33-22-XX
Cove Lights	SSM/WDM 33-24-XX
Passenger Compartment Lights	SDS 33-20-00
Window Lights	SDS 33-21-00
Ceiling Lights	SDS 33-22-00
Cove Lights	SDS 33-24-00

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D. Initial Evaluation

- (1) Cycle the Cabin/Utility switch.
 - (a) If the light is no longer in bootload mode, you have corrected the fault.
 - (b) If the light is still in bootload mode then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Do this task, Passenger Compartment Lights - BSI Generation 3 OPS Loadable Software Airplane Part (LSAP) Loading, AMM TASK 33-20-00-470-801-001.
 - (a) At the ACP, do a test of the lights in the passenger seating area, forward and aft entry areas. This is the task:
Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.
 - (b) If the lights operate correctly, then you corrected the fault. Set the lights to their usual mode.
 - (c) If the lights do not operate correctly, then continue.
- (2) Replace the light.
 - (a) Replace the applicable light assembly (AMM PAGEBLOCK 33-22-00/201).
 - (b) Load the software to the new light assembly. To do it, do this task: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.
 - (c) At the ACP, do a test of the light in the applicable passenger seating area, forward and aft entry areas. This is the task:
Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001.
 - 1) If the lights operate correctly, then you corrected the fault. Set the lights to their usual mode.

————— **END OF TASK** —————

821. Window Lights: BSI Light Flashing or Blinking Fault

A. Description

- (1) This task is for this Observed Fault:
 - (a) "Lighting, BSI: Light flashes"

B. Possible Causes

- (1) Light Assembly

C. Related Data

- (1) Window Lights:
 - WDM 33-21-XX
 - SSM 33-21-11
- (2) Ceiling Lights:
 - WDM 33-22-XX
 - SSM 33-22-XX
- (3) Passenger Reading Lights:
 - WDM 33-23-XX
 - SSM 33-23-XX
- (4) Cove Lights:

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- WDM 33-24-XX
- SSM 33-24-XX

D. Initial Evaluation

- (1) Cycle the Cabin/Utility Switch.
- (2) At the Attendant Control Panel (ACP), do a test of the light in the applicable Passenger Seating Area, forward and aft entry areas. This is the task: Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001

NOTE: The part of the Ceiling Light above the Bullnose Ceiling Panel is normally set to OFF and does not come ON.

- (a) If the light operates correctly, then there was an intermittent fault.
 - 1) Set the lights to their usual mode.
- (b) If the light does not operate correctly, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Replace the light.
 - (a) Replace the applicable Light Assembly. These are the tasks:
 - PASSENGER COMPARTMENT LIGHTS - ADJUSTMENT/TEST, AMM 33-20-00/501 Config 1
 - WINDOW LIGHTS - MAINTENANCE PRACTICES, AMM 33-21-00/201
 - CEILING LIGHTS - MAINTENANCE PRACTICES, AMM 33-22-00/201
 - (b) Load the software to the new Light Assembly. This is the task: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801
 - (c) At the ACP, do a test of the light in the applicable Passenger Seating Area, Forward and Aft Entry Areas. This is the task: Passenger Compartment Lights - Operational Test, AMM TASK 33-20-00-710-804-001
 - 1) If the lights operate correctly, then you corrected the problem.
 - a) Set the lights to their usual mode.

———— **END OF TASK** ————

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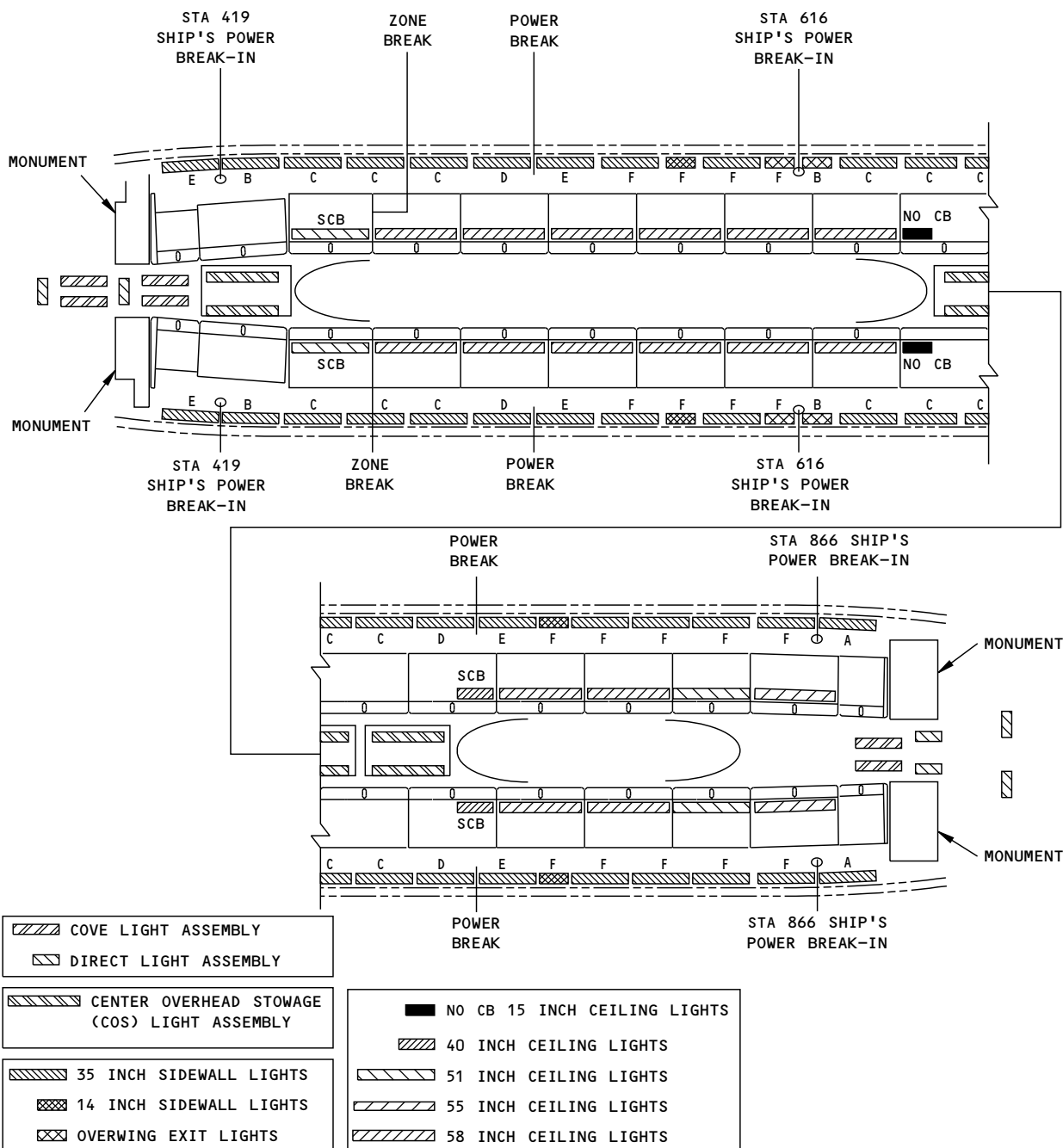
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CONFIGURATION GENERAL LIGHTING LAY-OUT



General Lighting Layout
Figure 301/33-20-00-990-802 (Sheet 1 of 2)

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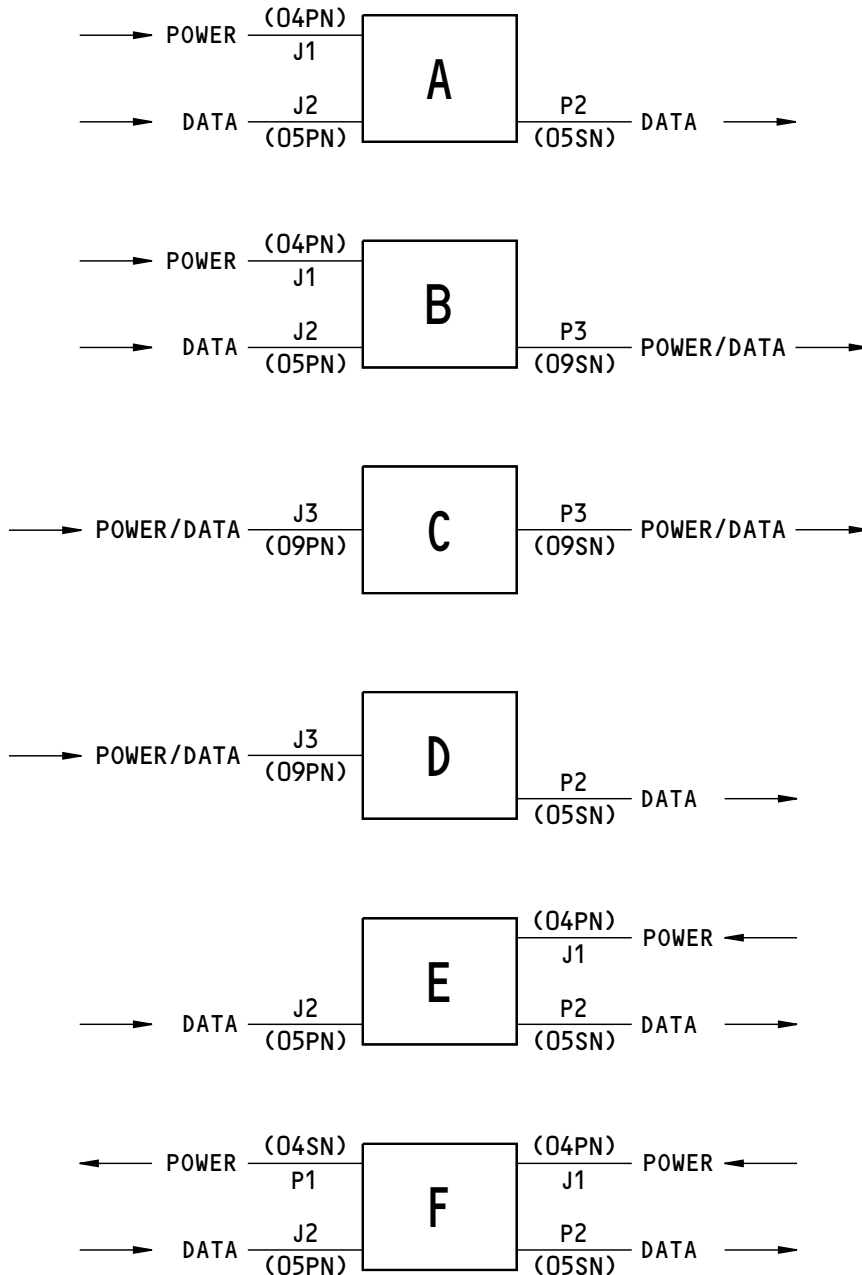
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KEY: LIGHTING ASSEMBLIES CONNECTIONS
(INPUTS AND OUTPUTS)



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General Lighting Layout
Figure 301/33-20-00-990-802 (Sheet 2 of 2)

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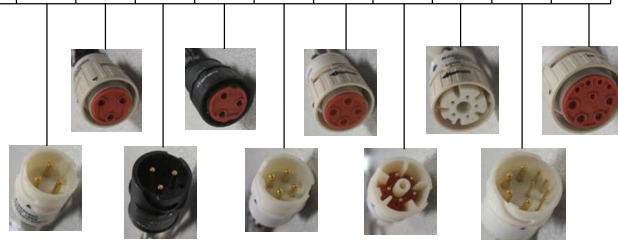
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# OF PINS	COLOR	DATA OR POWER OR BOTH (P+D)	PINS OR SOCKETS	CONNECTOR USAGE				COVE	NOTES
				SIDEWALL LIGHTS	OVERWING EXIT LIGHTS	ACCENT-COVE LIGHTS	CEILING, COS AND DIRECT LIGHTS		
3	WHITE	POWER (IN)	PINS	---	---	---	CEILING, COS, DIRECT	COVE	
3	WHITE	POWER (OUT)	SOCKETS	---	---	---	---	---	SHIP'S WIRE ONLY
3	BLACK	POWER (IN)	PINS	---	---	---	CEILING, COS, DIRECT	---	
3	BLACK	POWER (OUT)	SOCKETS	---	---	---	---	---	SHIP'S WIRE ONLY
4	WHITE	POWER (IN)	PINS	SIDEWALL	OWE	ACCENT-COVE	---	---	
4	WHITE	POWER (OUT)	SOCKETS	SIDEWALL	OWE	---	---	---	
5	WHITE	DATA (IN)	PINS	SIDEWALL	OWE	ACCENT-COVE	CEILING, COS, DIRECT	COVE	
5	WHITE	DATA (OUT)	SOCKETS	SIDEWALL	OWE	ACCENT-COVE	CEILING, COS, DIRECT	COVE	
9	WHITE	POWER + DATA (IN)	PINS	SIDEWALL	---	ACCENT-COVE	---	COVE	
9	WHITE	POWER + DATA (OUT)	SOCKETS	SIDEWALL	OWE	ACCENT-COVE	---	COVE	



BSI Lighting Connectors - Reference Information
Figure 302/33-20-00-990-805

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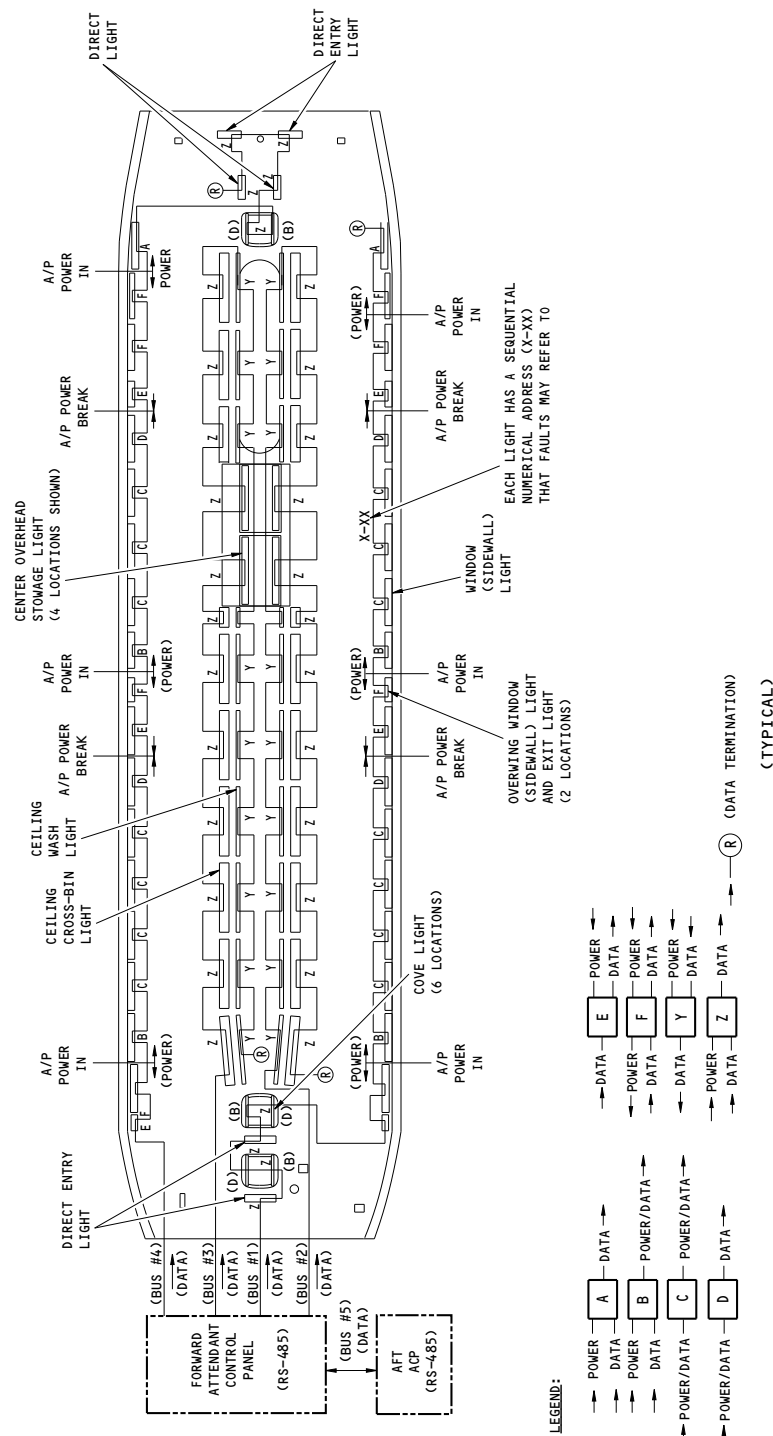
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Passenger Compartment - Functional Description

Figure 303/33-20-00-990-804

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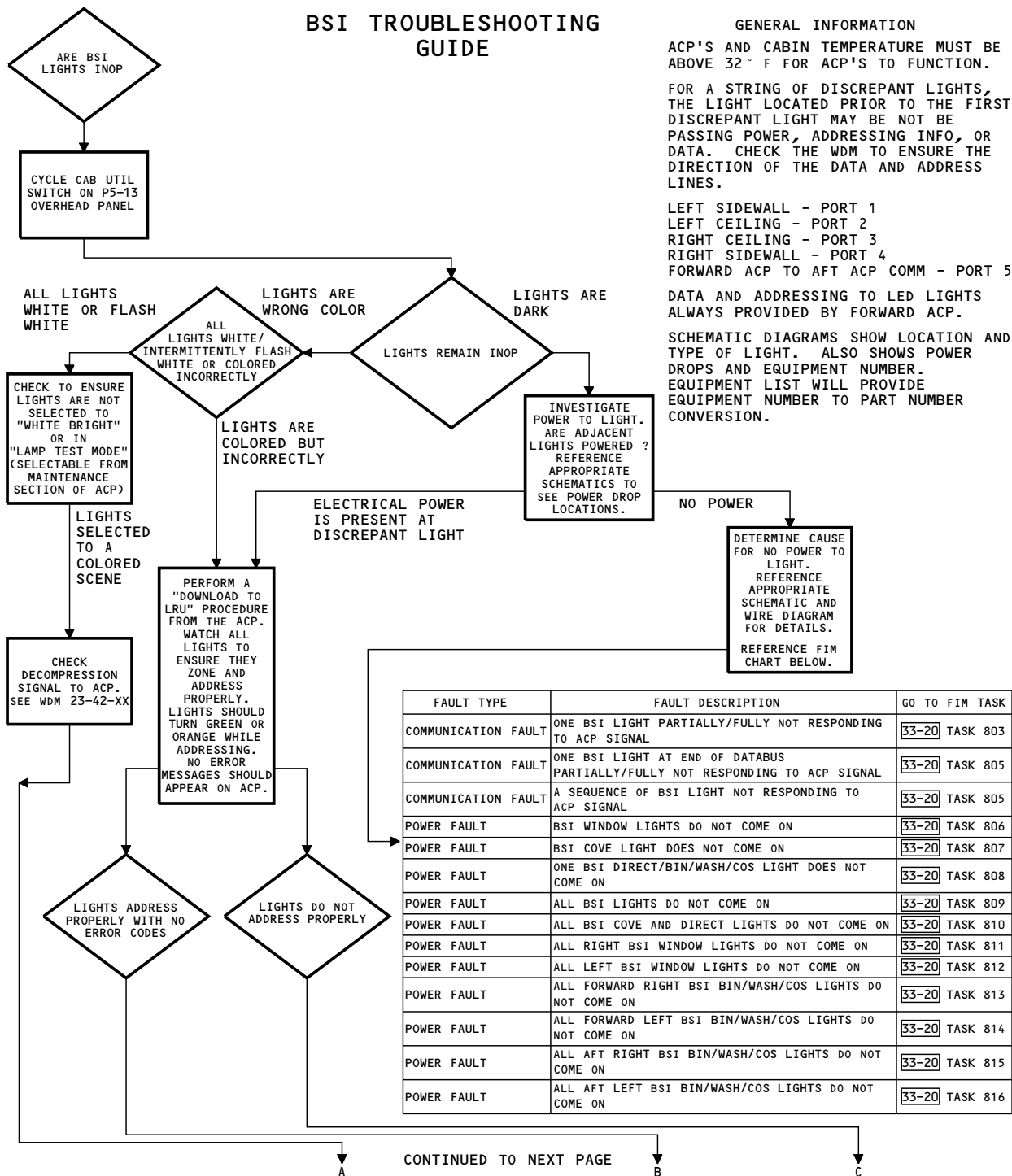
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ECCN 9E991 BOEING PROPRIETARY - See title page for details



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BSI TROUBLESHOOTING GUIDE



GENERAL INFORMATION

ACP'S AND CABIN TEMPERATURE MUST BE ABOVE 32° F FOR ACP'S TO FUNCTION.

FOR A STRING OF DISCREPANT LIGHTS, THE LIGHT LOCATED PRIOR TO THE FIRST DISCREPANT LIGHT MAY BE NOT BE PASSING POWER, ADDRESSING INFO, OR DATA. CHECK THE WDM TO ENSURE THE DIRECTION OF THE DATA AND ADDRESS LINES.

LEFT SIDEWALL - PORT 1
LEFT CEILING - PORT 2
RIGHT CEILING - PORT 3
RIGHT SIDEWALL - PORT 4
FORWARD ACP TO AFT ACP COMM - PORT 5

DATA AND ADDRESSING TO LED LIGHTS ALWAYS PROVIDED BY FORWARD ACP.

SCHEMATIC DIAGRAMS SHOW LOCATION AND TYPE OF LIGHT. ALSO SHOWS POWER DROPS AND EQUIPMENT NUMBER. EQUIPMENT LIST WILL PROVIDE EQUIPMENT NUMBER TO PART NUMBER CONVERSION.

BSI Trouble Shooting Guide
Figure 304/33-20-00-990-803 (Sheet 1 of 3)

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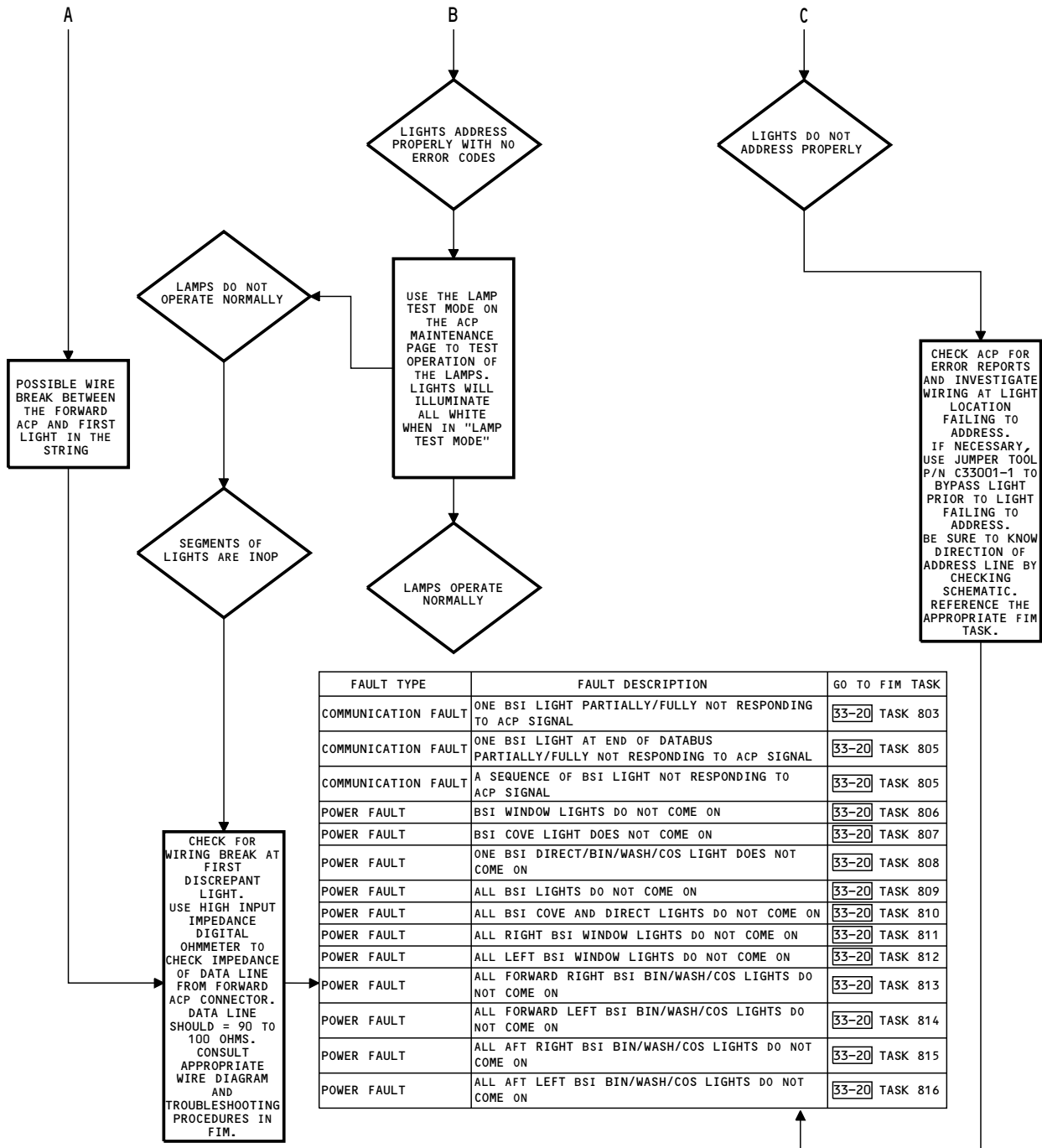
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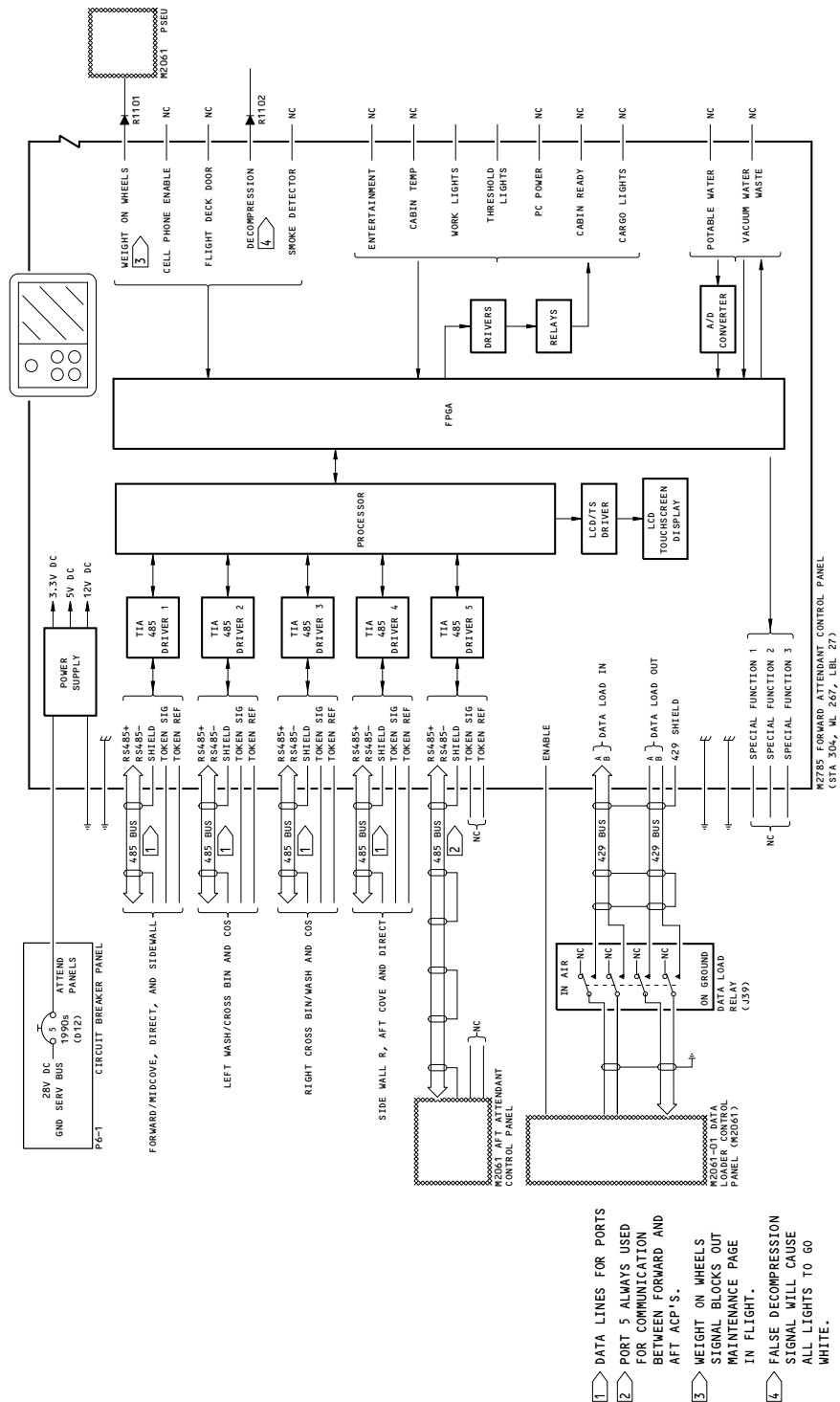
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801. Cargo/Service Compartment Lighting Problem - Fault Isolation

A. Description

- (1) WDM 33-32-11
- (2) WDM 33-33-11
- (3) WDM 33-35-11
- (4) WDM 33-35-13
- (5) WDM 33-36-11
- (6) WDM 33-36-12
- (7) SDS SUBJECT 33-32-00
- (8) SDS SUBJECT 33-33-00
- (9) SDS SUBJECT 33-34-00
- (10) SDS SUBJECT 33-35-00
- (11) SDS SUBJECT 33-36-00

B. Possible Causes

- (1) Use the applicable System Schematics Manual (SSM) or Wiring Diagram Manual (WDM) in the Initial Evaluation Section Table to identify the Possible Causes for the lighting problem.

C. Circuit Breakers

- (1) Use the applicable SSM or WDM in the Initial Evaluation Section Table to identify the circuit breakers related to the problem.

D. Related Data

- (1) Use the applicable SSM or WDM in the Initial Evaluation Section Table to identify the applicable SSM or WDM for the lights/signs in the Cargo and Service Compartments.

E. Initial Evaluation

- (1) In this table, find the light that does not operate correctly and its applicable SSM or WDM:

Table 201

LIGHT	SSM/WDM
Accessory Compartment Lights	33-35-11
Air Conditioning Compartment Lights	33-33-11
APU Service Lights	33-35-11
Cargo Compartment Lights, Aft	33-36-12
Cargo Compartment Lights, Forward	33-36-11
Electronic Equipment Compartment Lights	33-34-11
Tailcone Lights	33-35-11
Wheel Well Lights	33-32-11

- (2) On the applicable SSM or WDM, identify the control for the light.
- (3) Set the light to the ON mode, then all other possible modes, including OFF.
 - (a) If the light operates correctly in all possible modes, then there was an intermittent fault.
 - 1) Set the light to the usual mode.

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- (b) If the light does not operate correctly in all possible modes, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

- (1) If the light does not come ON, then replace the lamp.

- (a) To replace it, use the applicable task as follows:

SIA 702-711

- 1) For a Wheel Well Light, do this task: Wheel Well Light - Lamp Replacement, AMM TASK 33-32-00-960-801.

SIA ALL

- 2) For an Air Conditioning Compartment Light, do this task: Air Conditioning Compartment Light - Lamp Replacement, AMM TASK 33-33-00-960-801.
- 3) For an Electronic Equipment Compartment Light, do this task: Electronic Equipment Compartment Light - Lamp Replacement, AMM TASK 33-34-00-960-801 or Electronic Equipment Compartment - LED Light Replacement, AMM TASK 33-34-00-960-802.
- 4) For an Accessory Compartment Light, do this task: Accessory Compartment Light - Lamp Replacement, AMM TASK 33-35-00-960-801.
- 5) For an APU Service light, do this task: Air Conditioning Compartment Light - Lamp Replacement, AMM TASK 33-33-00-960-801.
- 6) For a Tailcone Light, do this task: Accessory Compartment Light - Lamp Replacement, AMM TASK 33-35-00-960-801.
- 7) For a Cargo Compartment Light, do the applicable tasks below:

SIA 702-711

- Cargo Compartment Light - Light Assembly Replacement, Ceiling, AMM TASK 33-36-00-960-803

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- Cargo Compartment Light - Incandescent Light Assembly Replacement, Door, AMM TASK 33-36-00-960-804

SIA 712-714, 716-999

- Cargo Compartment Light - LED Light Assembly Replacement, Ceiling, AMM TASK 33-36-00-960-806
- Cargo Compartment Light - LED Light Assembly Replacement, Door, AMM TASK 33-36-00-960-807

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- (b) If the light operates correctly in all possible modes, then you corrected the problem.
- (c) If the light does not operate correctly in all possible modes, then continue.

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MAKE SURE THAT YOU PREVENT AN ELECTRICAL SHOCK BEFORE YOU DO COMPONENT REPLACEMENTS. OPEN CIRCUIT BREAKERS TO REMOVE ELECTRICAL POWER. WHEN YOU SUPPLY ELECTRICAL POWER TO THE LIGHTING SYSTEM, IT CAN CAUSE ACCIDENTAL GROUNDS DURING MAINTENANCE WORK THAT CAN CAUSE ELECTRICAL SHOCK.

- (2) If the light does not go OFF, then use the applicable SSM or WDM to replace the switch.
 - (a) If a circuit breaker was opened, then close it.
 - (b) Set the light to the ON mode, then to the OFF mode.
 - 1) If the light goes OFF, then you corrected the problem.
 - 2) If the light does not go OFF, then continue.



MAKE SURE THAT YOU PROTECT YOURSELF FROM ELECTRICAL SHOCK BEFORE YOU DO WIRING CHECKS, COMPONENT REPLACEMENTS, OR WIRING REPAIRS. OPEN CIRCUIT BREAKERS OR SET SWITCHES TO THE OFF MODE TO REMOVE ELECTRICAL POWER. ACCIDENTAL GROUNDS DURING MAINTENANCE ACTIVITIES CAN CAUSE ELECTRICAL SHOCK WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHTING SYSTEM.

- (3) If the light does not operate correctly in all possible modes, including OFF, then use the SSM or WDM to examine the lighting circuitry.
 - (a) Do continuity checks between the Power Source and the light.
 - (b) If you identify a component in the lighting circuitry that does not operate correctly, then replace the component.
 - 1) If a circuit breaker was opened, then close it.
 - 2) Set the light to the ON mode, then all other possible modes, including OFF.
 - a) If the light operates correctly in all possible modes, then you corrected the problem.
 <1> Set the light to the usual mode.
 - (c) If all components in the lighting circuitry operate correctly, then repair the wiring.
 - 1) If a circuit breaker was opened, then close it.
 - 2) Set the light to the ON mode, then all other possible modes, including OFF.
 - a) If the light operates correctly in all possible modes, then you corrected the fault.
 - b) Set the light to the usual mode.

————— **END OF TASK** —————

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801. Exterior Lighting Problem - Fault Isolation

A. Description

- (1) Wing Illumination Lights (SDS SUBJECT 33-41-00)
- (2) Landing Lights (SDS SUBJECT 33-42-00)
- (3) Position Lights (SDS SUBJECT 33-43-00)

NOTE: There are two LED module assemblies in each light assembly. All LED bulbs in the LED modules must be operational per certification requirement. If a single LED is not operational then the module intensity is not sufficient to meet the requirement.

- (4) Taxi and Runway Turnoff Lights (SDS SUBJECT 33-45-00)
- (5) Logo Lights (SDS SUBJECT 33-49-00)

B. Possible Causes

- (1) Use the applicable System Schematic Manual (SSM) or Wiring Diagram Manual (WDM) in the table below to identify possible causes for the lighting problem.

C. Circuit Breakers

- (1) Use the applicable SSM or WDM in the table below to identify the circuit breakers related to the problem.

D. Related Data

- (1) Use the table below to identify the applicable SSM and WDM for the exterior lights.

E. Initial Evaluation

- (1) AIRPLANES WITH CABIN/UTILITY SWITCH ON THE P5-13 PANEL:
Make sure CAB/UTIL switch is in the ON position.
- (2) In this table, find the light that does not operate correctly and its applicable SSM and WDM.

Table 201

LIGHT	SSM/WDM
Wing Illumination Lights	33-41-11
Position (Nav) Lights, Wing Aft	33-43-11
Position (Nav) Lights, Wing Forward	33-43-11
SIA 702-712	
Landing Lights, Fixed	33-42-11
Landing Lights, Retractable	33-42-11
Runway Turnoff Lights	33-45-11
Taxi Light	33-45-11
SIA 713, 714, 716-999	
Landing Taxi and Runway Turnoff Lighting System	33-42-21
SIA ALL	
Logo Lights	33-49-11

- (3) On the applicable SSM or WDM, identify the control for the light.
- (4) Set the light to the ON mode, then all other possible modes, including OFF.

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- (a) If the light operates correctly in all possible modes, then there was an intermittent problem.
 - 1) Set the light to the usual mode.
- (b) If the light does not operate correctly in all possible modes, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

- (1) If the light does not come on, then replace the lamp.
 - (a) To replace it, use the applicable task that follows:
 - 1) For a wing illumination light, do this task:
Wing Illumination Light - Lamp Replacement, AMM TASK 33-41-00-960-801 or
Wing Illumination Light - LED Module Replacement, AMM TASK 33-41-00-960-804.
 - 2) For a fixed landing light, do this task:
Fixed Landing Light - Lamp Replacement, AMM TASK 33-42-01-960-801 or Fixed
Landing Light - Main Array Assembly Replacement, AMM TASK 33-42-01-960-803.

SIA 702-712

- 3) For a retractable landing light, do this task:
Retractable Landing Light - Lamp Replacement, AMM TASK 33-42-02-960-801.

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- 4) For a forward wing position light, do this task:
Forward Position Light with Dual Lens - Lamp Replacement, AMM
TASK 33-43-11-960-802
- 5) For a winglet LED position light, do this task;
Position Light - LED Light Control PBA Replacement, AMM TASK 33-43-10-960-802
- 6) For an aft wing position light, do this task:
Aft Position Light - Lamp Replacement, AMM TASK 33-43-12-960-801.

SIA 702-712

- 7) For a taxi light, do this task:
Taxi Light - Lamp Replacement, AMM TASK 33-45-01-960-801.

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- 8) For a runway turnoff light, do this task:
Runway Turnoff Light - Lamp Replacement, AMM TASK 33-45-02-960-801 or
Runway Turnoff Light - Light Assembly Replacement, AMM
TASK 33-45-02-900-801.
- 9) For a logo light, do this task:
Logo Light - Lamp Replacement, AMM TASK 33-49-00-960-801 or
Logo Light - LED Module Replacement, AMM TASK 33-49-00-960-804.
- (b) If the light operates correctly in all possible modes, then you corrected the problem.
- (c) If the light does not operate correctly in all possible modes, then continue.

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WARNING

MAKE SURE THAT YOU PREVENT AN ELECTRICAL SHOCK BEFORE YOU DO COMPONENT REPLACEMENTS. OPEN CIRCUIT BREAKERS TO REMOVE ELECTRICAL POWER. WHEN YOU SUPPLY ELECTRICAL POWER TO THE LIGHTING SYSTEM, IT CAN CAUSE ACCIDENTAL GROUNDS DURING MAINTENANCE WORK THAT CAN CAUSE ELECTRICAL SHOCK.

- (2) If the light does not go off, then use the applicable SSM or WDM to replace the switch.
 - (a) If a circuit breaker was opened, then close it.
 - (b) Set the light to the ON mode, then to the OFF mode.
 - (c) If the light goes off, then you corrected the problem.
 - (d) If the light does not go off, then continue.



WARNING

MAKE SURE THAT YOU PROTECT YOURSELF FROM ELECTRICAL SHOCK BEFORE YOU DO WIRING CHECKS, COMPONENT REPLACEMENTS, OR WIRING REPAIRS. OPEN CIRCUIT BREAKERS OR SET SWITCHES TO THE OFF MODE TO REMOVE ELECTRICAL POWER. ACCIDENTAL GROUNDS DURING MAINTENANCE ACTIVITIES CAN CAUSE ELECTRICAL SHOCK WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHTING SYSTEM.

- (3) If the light does not operate correctly in all possible modes, including off, then use the SSM or WDM to examine the lighting circuitry.
 - (a) Do continuity checks between the source of power and the light.
 - (b) If you identify a component in the lighting circuitry that does not operate correctly, then replace the component.
 - 1) If a circuit breaker was opened, then close it.
 - 2) Set the light to the ON mode, then all other possible modes, including OFF.
 - 3) If the light operates correctly in all possible modes, then you corrected the problem.
 - a) Set the light to the usual mode.
 - (c) If all components in the lighting circuitry operate correctly, then repair the wiring.
 - 1) If a circuit breaker was opened, then close it.
 - 2) Set the light to the ON mode, then all other possible modes, including OFF.
 - 3) If the light operates correctly in all possible modes, then you corrected the problem.
 - 4) Set the light to the usual mode.

END OF TASK

802. Winglet LED Position Lights PBA - Fault Isolation

A. Description

- (1) Inoperative winglet LED position lights on 737NG airplanes.

B. Possible Causes

- (1) Damage of the Printed Board Assemblies (PBA) due to overheat. The affected circuits provide power for a single LED module.

NOTE: Defective LED modules can cause the PBA to become damaged or inoperative. For repeat occurrences of an unserviceable PBA in the same position, it is recommended to replace the LED modules.

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C. Fault Isolation Procedure

- (1) Remove the inoperative module and the adjacent working module.
- (2) Remove the cover of the PBA, do this task: Position Light - LED Light Control PBA Replacement, AMM TASK 33-43-10-960-802.
- (3) Examine the PBA for burns.
- (4) If the PBA does not appear burned, install the cover.
- (5) Install the non-working LED module in the working LED module position.
- (6) Apply power to the position lights.
 - (a) If the module illuminates, replace the PBA.
 - (b) If the module does not illuminate, the module is at fault, replace the module.

————— END OF TASK —————

SIA 713, 714, 716-999

803. LED Landing and Runway Turnoff Lights - Fault Isolation

A. Description

- (1) The landing and runway turnoff light system uses Light Emitting Diode (LED) arrays.

B. Possible Causes

- (1) Left Main Array Assemblies, L1541 and L1543 (P/N 72500410-1/-2)
- (2) Right Main Array Assemblies, L1540 and L1542 (P/N 72500410-3/-4)
- (3) Left Runway Turnoff Light Assembly, L1545 (P/N 72500415-1)
- (4) Right Runway Turnoff Light Assembly, L1544 (P/N 72500415-2)
- (5) Left and Right LTRTL Power Supply, M3079 and M3078 (P/N 72605363-1)
- (6) Wiring

C. Circuit Breakers

- (1) These are the primary circuit breakers related to the fault:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	14	C01968	EXTERIOR LIGHTING LTRTL - RIGHT
B	15	C01969	EXTERIOR LIGHTING LTRTL - LEFT
D	12	C01518	EXTERIOR LIGHTING GENERAL LIGHT CONT

D. Initial Evaluation

- (1) At the overhead panel, P5, set the left LANDING switch, S258 to the ON position.
 - (a) Make sure that the left main array assemblies L1541 and L1543 (P/N 72500410-1/-2) come ON.
 - 1) If the left inboard and outboard (L1541 and L1543) main array assemblies come ON, then the left inboard and outboard main array assemblies are serviceable.
 - 2) If the left inboard and/or outboard (L1541 and/or L1543) main array assemblies do not come ON, then do the Fault Isolation Procedure.

NOTE: It is possible that the inboard or outboard array could have multiple LED failures (up to 18) and the array will continue to operate normally. The array is considered serviceable in this condition.

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- (2) At the overhead panel, P5, set the right LANDING switch, S259 to the ON position.
 - (a) Make sure that the right main array assemblies, L1540 and L1542 (P/N 72500410-3/-4) come ON.
 - 1) If the right inboard and outboard (L1542 and L1540) main array assemblies come ON, then the right inboard and outboard main array assemblies are serviceable.
 - 2) If the right inboard and/or outboard (L1542 and/or L1540) main array assemblies do not come ON, then do the Fault Isolation Procedure.

NOTE: It is possible that the inboard or outboard array could have multiple LED failures (up to 18) and the array will continue to operate normally. The array is considered serviceable in this condition.
- (3) At the overhead panel, P5, set the left RUNWAY TURNOFF (RTO) switch, S268 to the ON position.
 - (a) Make sure that the left RTO light assembly, L1545 (P/N 72500415-1) comes ON.
 - 1) If the left RTO light assembly, L1545 comes ON, then the left RTO light assembly is serviceable.
 - 2) If the left RTO light assembly, L1545 does not come ON, then do the Fault Isolation Procedure.
- (4) At the overhead panel, P5, set the right RUNWAY TURNOFF (RTO) switch, S269 to the ON position.
 - (a) Make sure that the right RTO light assembly, L1544 (P/N 72500415-2) comes ON.
 - 1) If the right RTO light assembly, L1544 comes ON, then the right RTO light assembly is serviceable.
 - 2) If the right RTO light assembly, L1544 does not come ON, then do the Fault Isolation Procedure.

E. Fault Isolation Procedure - Inboard Array, Outboard Array or Runway Turnoff Light (RTO) Does Not Come On

- (1) If the power supply (PS) OK indicator is ON;

NOTE: The PS OK indicator is a blue LED located on the RTO light assembly.

 - (a) Replace the non-working array(s) or RTO.
 - (b) If the light comes on, then you corrected the fault.
- (2) If the power supply (PS) OK indicator is OFF;

NOTE: The PS OK indicator is a blue LED located on the RTO light assembly.

 - (a) Replace the non-working arrays(s) or RTO.
 - (b) If the light comes on, then you corrected the fault.
 - (c) If the light does not come on, then continue.
 - (d) Do a continuity check of the wire bundle between the power supply and the non-working array(s) or RTO.
 - (e) If there is not electrical continuity, then repair or replace the wire bundle.
 - (f) If there is electrical continuity, then continue.
 - (g) Replace the power supply.
 - (h) If the light comes on, then you corrected the fault.

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F. Fault Isolation Procedure – All lights (Inboard Array, Outboard Array and RTO) Do Not Come On

- (1) Do a continuity check of the power input wire bundle to the power supply.
- (2) If there is not electrical continuity, then repair or replace the wire bundle.
- (3) If there is electrical continuity, then continue.
- (4) Replace the power supply.
- (5) If the light comes on, then you corrected the fault.

———— **END OF TASK** ————

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801. Anti-Collision Light Problem - Fault Isolation

A. Description

- (1) (SDS SUBJECT 33-44-00)
- (2) The anti-collision lights include the red strobe lights on the top and bottom of the fuselage, the white strobe lights installed in each forward wing tip Light Assembly, and the white strobe light on the tail.

NOTE: Do not replace the Forward Wing Wip Light Assemblies, L38 and L40. Replace its anti-collision light only.

Table 201

ANTI-COLLISION LT	POWER SUPPLY	SWITCH	CIRCUIT BREAKER
L36, Upper	M1744	S57	C00111
L37, Lower	M1745	S57	C00111
Right Wing (in L38)	M1742	S58/S636	C00115
Left Wing (in L40)	M1743	S58/S636	C00115
L46, Tail	None	S58/S636	C00115
Wing & Tail	M1743 & None	R593	C00115

B. Possible Causes

- (1) Lamp Assembly
- (2) Light Assembly
- (3) Power Supply
- (4) Switch
- (5) Circuit breaker
- (6) Wiring
- (7) Air/Ground Relay

C. Circuit Breakers

- (1) These are the primary circuit breakers related to the fault:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	12	C00111	EXTERIOR LIGHTING ANTI COLLISION RED
B	13	C00115	EXT LIGHTING ANTI COLLISION WHITE

D. Related Data

- (1) SSM 33-44-11
- (2) SSM 33-44-12
- (3) WDM 33-44-11
- (4) WDM 33-44-12

E. Initial Evaluation

- (1) Make sure that the Upper, Lower, or Wing and Tail anti-collision light operates as follows:
 - (a) Let the light flash for 20 seconds to stabilize the system.

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- 1) If no misfire occurs, and the light flashed as shown in the table below, the system operates correctly.
- 2) If a misfire occurs before the system becomes stable, let the light flash for 60 more seconds.

NOTE: There must be no other misfires after the system becomes stable for the system to operate correctly.

Table 202

ANTI-COLLISION LIGHT	FLASHES PER MINUTE
Upper	40 to 45
Lower	40 to 45
Left Wing	40 to 45
Right Wing	40 to 45
Tail	60

(2) FOR AN UPPER OR LOWER ANTI-COLLISION (red);

(a) At the Overhead Panel, P5, set the Switch for the anti-collision light to the ON mode.

- 1) If the light comes ON and flashes correctly, then set the Switch to the OFF mode.
 - a) If the light goes OFF, then there was an intermittent fault.
 - b) If the light does not go OFF, then do the Fault Isolation Procedure - The Light Does Not Go Off below.
- 2) If the light comes ON but does not flash correctly, then do the Fault Isolation Procedure - The Light Comes On But Does Not Flash Correctly below.
- 3) If the light does not come ON, then do a visual check of lights that use the same circuit breaker.

NOTE: The red anti-collision lights use the same circuit breaker. The white anti-collision lights use the same circuit breaker.

- a) If a light that uses the same circuit breaker comes ON, then do the Fault Isolation Procedure - The Light Does Not Come On below.
- b) If a light that uses the same circuit breaker does not come ON, then do the Fault Isolation Procedure - No Lights Come On below.

(3) FOR A WING AND TAIL ANTI-COLLISION (white);

(a) At the Overhead Panel, P5, set the POSITION Switch for the anti-collision light to the STROBE and STEADY position.

- 1) If the light comes ON and flashes correctly, then set the POSITION Switch to the OFF position.
 - a) If the light goes OFF, then there was an intermittent fault.
 - b) If the light does not go OFF, then do the Fault Isolation Procedure - The Light Does Not Go Off below.
- 2) If the light comes ON but does not flash correctly, then do the Fault Isolation Procedure - The Light Comes On But Does Not Flash Correctly below.

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- 3) If the light does not come ON, then do a visual check of lights that use the same circuit breaker.

NOTE: The red anti-collision lights use the same circuit breaker. The white anti-collision lights use the same circuit breaker.

- a) If a light that uses the same circuit breaker comes ON, then do the Fault Isolation Procedure - The Light Does Not Come On below.
 - b) If a light that uses the same circuit breaker does not come ON, then do the Fault Isolation Procedure - No Lights Come On below.
- (b) At the Overhead Panel, P5, set the POSITION Switch for the anti-collision light to the STEADY position.
- 1) If the light comes ON and flashes correctly, then set the POSITION Switch to the OFF position.
 - a) If the light goes OFF, then there was an intermittent fault.
 - b) If the light does not go OFF, then do the Fault Isolation Procedure - The Light Does Not Go Off below.
 - 2) If the light comes ON but does not flash correctly, then do the Fault Isolation Procedure - The Light Comes On But Does Not Flash Correctly below.
 - 3) If the light does not come ON, then do a visual check of lights that use the same circuit breaker.

NOTE: The red anti-collision lights use the same circuit breaker. The white anti-collision lights use the same circuit breaker.

- a) If a light that uses the same circuit breaker comes ON, then do the Fault Isolation Procedure - The Light Does Not Come On below.
- b) If a light that uses the same circuit breaker does not come ON, then do the Fault Isolation Procedure - No Lights Come On below.

F. Fault Isolation Procedure - The Light Does Not Go Off

- (1) At the P5 Panel, replace the applicable Switch, S57 (WDM 33-44-11) or S58/S636 (WDM 33-44-12).
 - (a) Set the Switch to the ON mode.
 - (b) Set the POSITION Switch to the STROBE and STEADY position.
 - (c) Set the POSITION Switch to the STEADY position.
 - (d) After the light flashes for a minimum of 20 seconds, set the Switch to the OFF mode.
 - (e) If the light goes OFF, then you corrected the problem.

G. Fault Isolation Procedure - The Light Comes On But Does Not Flash Correctly

- (1) FOR AN UPPER OR LOWER ANTI-COLLISION;
Replace the applicable Light Assembly, L36 or L37.
 - (a) Replace the upper Light Assembly. This is the task: Upper Anti-Collision Light - Light Assembly Replacement, AMM TASK 33-44-01-960-802.
 - (b) Replace the lower Light Assembly. This is the task: Lower Anti-Collision Light - Light Assembly Replacement, AMM TASK 33-44-02-960-802.
 - (c) If the light comes ON and flashes correctly, then you corrected the problem.
 - (d) If the light does not flash correctly, then replace the applicable Power Supply, M1744 or M1745.

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- 1) Replace the upper Power Supply. This is the task: Upper Anti-Collision Light - Power Supply Replacement, AMM TASK 33-44-01-960-804.
 - 2) Replace the lower Power Supply. This is the task: Lower Anti-Collision Light - Power Supply Replacement, AMM TASK 33-44-02-960-804.
 - 3) If the light comes ON and flashes correctly, then you corrected the problem.
- (2) FOR A WING ANTI-COLLISION LIGHT;
- Replace the anti-collision Light Assembly in the applicable winglet or in the forward wing tip Light Assembly, L38 or L40. This is the task: Reference Not Currently Available.
- NOTE:** Do not replace the Forward Wing Wip Light Assemblies, L38 and L40. Replace its anti-collision light only.
- (a) If the light comes ON and flashes correctly, then you corrected the problem.
 - (b) If the light does not flash correctly, then replace the applicable Power Supply, M1742 or M1743. This is the task: Anti-collision Light - Power Supply Replacement, AMM TASK 33-44-13-960-802.
- 1) If the light comes ON and flashes correctly, then you corrected the problem.
- (3) FOR TAIL ANTI-COLLISION LIGHT;
- Replace the Lamp Assembly, L46. This is the task: Tail Anti-Collision Light - Lamp Replacement, AMM TASK 33-44-04-960-801.
- (a) If the light comes ON and flashes correctly, then you corrected the problem.

H. Fault Isolation Procedure - The Light Does Not Come On

- (1) FOR AN UPPER OR LOWER ANTI-COLLISION;
- Replace the Lamp Assembly in the applicable Light Assembly, L36 or L37.
- (a) Replace the upper lamp. This is the task: Upper Anti-Collision Light - Lamp Assembly Replacement, AMM TASK 33-44-01-960-801.
 - (b) Replace the lower lamp. This is the task: Lower Anti-Collision Light - Lamp Assembly Replacement, AMM TASK 33-44-02-960-801.
 - (c) If the light comes ON, then you corrected the problem.
 - (d) If the light does not come ON, then do a continuity check of the wiring between the Switch, S57, and the applicable Light Assembly, L36 or L37 (WDM 33-44-11).
- 1) If there is electrical continuity, then replace the applicable Light Assembly, L36 or L37.
 - a) Replace the upper light. This is the task: Upper Anti-Collision Light - Light Assembly Replacement, AMM TASK 33-44-01-960-802.
 - b) Replace the lower light. This is the task: Lower Anti-Collision Light - Light Assembly Replacement, AMM TASK 33-44-02-960-802.
 - c) If the light comes ON, then you corrected the problem.
 - d) If the light does not come ON, then replace the applicable Power Supply, M1744 or M1745. These are the tasks:
 - Upper Anti-Collision Light - Power Supply Replacement, AMM TASK 33-44-01-960-804
 - Lower Anti-Collision Light - Power Supply Replacement, AMM TASK 33-44-02-960-804
 - e) If the light comes ON, then you corrected the problem.

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- 2) If there is not electrical continuity, then repair the wiring.
 - a) Do the Repair Confirmation at the end of this task.
- (2) FOR AN LED WING ANTI-COLLISION LIGHT;
If the light does not come ON;
Remove power from the system for one minute by selecting the flight deck Anti-collision light Switch off for one minute and then select back on.
NOTE: If the light is turned OFF and back on again in 30 seconds or less, an internal power monitoring circuit can possibly sense a false end-of-life (EOL) condition. This circuit can prevent ACL illumination until power is removed from the light for greater than 40 seconds.
 - (a) If the lights come ON, then you corrected the problem.
 - (b) If the lights do not come ON, then continue.
 - (c) If a light does not come ON or comes ON but does not strobe, then do these steps:
 - 1) Replace the current Step-Down Converter Box (SDCB). This is the task: Wing Anti-Collision Light - Stepdown Converter Replacement, AMM TASK 33-44-13-960-806.
NOTE: If a light does not come ON, the SDCB has an internal fault. The R11 resistor in the SDCB may have failed. To test the R11 resistor, measure the resistance between pin 2 and 3 on connector P3 (the larger diameter connector of the SDCB). The resistance value of the R11 resistor should be 150-151 Ohms. Send the removed SDCB back to the winglet manufacturer for evaluation.
NOTE: If a light comes ON but does not strobe, the SDCB has an internal fault. An inductor in the SDCB may have failed. Send the removed SDCB back to the winglet manufacturer for evaluation.
 - 2) If the lights come ON, then you corrected the problem.
 - 3) If the lights do not come ON, then continue.
- (d) Replace the anti-collision light - LED module in the winglet. This is the task: Wing Anti-Collision Light - LED Module Replacement, AMM TASK 33-44-13-960-805.
- (e) If the light comes ON, then you corrected the problem.
- (3) FOR A WING ANTI-COLLISION LIGHT;
Replace the anti-collision Light Assembly in the applicable winglet or in the Forward Wing Tip Light Assembly, L38 or L40. This is the task: Reference Not Currently Available.f
NOTE: Do not replace the Forward Wing Wip Light Assemblies, L38 and L40. Replace its anti-collision light only.
 - (a) If the light comes ON, then you corrected the problem.
 - (b) If the light does not come ON, then do a continuity check of the wiring between the Switch, S58/S636, and all pins on connector P4 of the applicable Light Assembly, L38 or L40 (WDM 33-44-12).
 - 1) If there is electrical continuity, then replace the applicable Power Supply, M1742 or M1743. This is the task: Anti-collision Light - Power Supply Replacement, AMM TASK 33-44-13-960-802.
 - a) If the light comes ON, then you corrected the problem.
 - 2) If there is not electrical continuity, then repair the wiring.

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- a) Do the Repair Confirmation at the end of this task.
- (4) FOR TAIL ANTI-COLLISION LIGHT;
Replace the Lamp Assembly, L46. This is the task: Tail Anti-Collision Light - Lamp Replacement, AMM TASK 33-44-04-960-801.
 - (a) If the light comes ON, then you corrected the problem.
 - (b) If the light does not come ON, then do a continuity check of the wiring between the Switch, S58/S636, and the Light Assembly, L46 (WDM 33-44-12).
 - 1) If there is electrical continuity, then replace the Light Assembly, L46. This is the task: Tail Anti-Collision Light - Light Assembly Replacement, AMM TASK 33-44-04-960-802.
 - a) If the light comes ON, then you corrected the problem.
 - 2) If there is not electrical continuity, then repair the wiring.
 - a) Do the Repair Confirmation at the end of this task.

I. Fault Isolation Procedure - No Lights Come On

- (1) Do a continuity check of the wiring between the applicable Switch, S57 or S58/S636, and the circuit breaker, C00111 or C00115 (WDM 33-44-11, WDM 33-44-12).
 - (a) If there is electrical continuity, then replace the Switch, S57 or S58/S636.
 - 1) Do the Repair Confirmation at the end of this task.
 - (b) If there is not electrical continuity, then replace the applicable circuit breaker, C00111 or C00115.
 - 1) Set the Switch to the ON mode.
 - 2) Set the POSITION Switch to the STROBE and STEADY position.
 - 3) Set the POSITION Switch to the STEADY position.
 - 4) If the light comes ON, then you corrected the problem.
 - a) Set the Switch to the OFF mode.
 - 5) If the light does not come ON, then repair the wiring.
 - a) Make sure the Switch is in the ON mode.
 - b) Make sure the POSITION Switch is in the STROBE and STEADY position.
 - c) Make sure the POSITION Switch is in the STEADY position.
 - d) If the light comes ON, then you corrected the problem.
 - e) Set the Switch to the OFF mode.

J. Repair Confirmation

- (1) Set the Switch to the ON mode.
- (2) Set the POSITION Switch to the STROBE and STEADY position.
- (3) Set the POSITION Switch to the STEADY position.
- (4) If the light comes ON, then you corrected the problem.
- (5) Set the Switch to the OFF mode.

———— **END OF TASK** ————

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801. Emergency Lighting Problem - Fault Isolation

A. Description

- (1) (SDS SUBJECT 33-51-00)

B. Possible Causes

- (1) Use the applicable system schematic manual (SSM) or wiring diagram manual (WDM) in the table below to identify possible causes for the lighting problem.

C. Circuit Breakers

- (1) Use the applicable SSM or WDM in the table below to identify the circuit breakers related to the fault.

D. Related Data

- (1) Use the table below to identify the applicable SSM and WDM for the emergency light/sign.

E. Initial Evaluation

- (1) In this table, find the light/sign that does not operate correctly and its applicable SSM and WDM:

Table 201

EMERGENCY LIGHTS/SIGNS	SSM/WDM
Area Light	33-51-12 thru 33-51-14
Exit Sign/Indicator	33-51-12 thru 33-51-14, 33-51-21
Floor Proximity Light	33-51-21
Handle Light in the Overwing Exit Sign	33-51-13
Slide/Overwing Light	33-51-12 thru 33-51-14
Power Supply	33-51-11

- (2) To make sure the battery packs are charged, do this task:
Power Supply - Charge the Battery Packs, AMM TASK 33-51-06-610-802.
- (3) Make sure the attendant's emergency light switch in the passenger compartment is in the off mode.
- (4) At the overhead panel, P5, set the pilots emergency light switch, S7, to the on mode.
 - (a) If the emergency light/sign comes on correctly, set the switch to the off mode.
 - 1) If the emergency light/sign goes off, then there was an intermittent fault.
 - 2) If the emergency light/sign does not go off, then do the fault isolation procedure - The Light/Sign Does Not Go Off below.
 - (b) If the emergency light/sign comes on but one or more of its lamps does not come on, set the switch to the off mode, then do the fault isolation procedure - One Lamp Does Not Come On below.

NOTE: This option is used for emergency lights/signs that contain more than one lamp.
 - (c) If the emergency light/sign does not come on, then do a visual check of the remaining emergency lights and signs.
 - 1) If no emergency lights and signs come on, set the switch to the off mode, then do the fault isolation procedure - No Lights and Signs Come On below.

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- 2) If all emergency lights and signs that use the same battery pack come on, set the switch to the off mode, then do the fault isolation procedure - The Light/Sign Does Not Come On below.

NOTE: Use the SSM or WDM to isolate the lights and signs that use the same battery pack.

- 3) If a group of emergency lights and signs that uses the same battery pack or circuit breaker does not come on, set the switch to the off mode, then do the fault isolation procedure - A Group of Lights and Signs Does Not Come On below.

NOTE: Use the SSM or WDM to isolate the lights and signs that use the same battery pack.

F. Fault Isolation Procedure - The Light/Sign Does Not Go Off

- (1) If no emergency lights and signs go off, then replace the pilots emergency light switch, S7 (WDM 33-51-11).
 - (a) Set the switch to the on mode, and then to the off mode.
 - (b) If the light/sign goes off, then you corrected the fault.
 - 1) Do this task:
Power Supply - Charge the Battery Packs, AMM TASK 33-51-06-610-802.
- (2) If all emergency lights and signs that use the same battery pack do not go off, then do a check of the wiring between the pilots emergency light switch, S7, and the applicable power supply (WDM 33-51-11).
 - (a) If there is an open circuit, repair the wiring.
 - (b) Set the switch to the on mode, and then to the off mode.
 - (c) If the light/sign goes off, then you corrected the fault.
 - 1) Do this task:
Power Supply - Charge the Battery Packs, AMM TASK 33-51-06-610-802.
 - (d) If the light/sign does not go off, then do a check of the wiring between the applicable power supply and the applicable circuit breaker (WDM 33-51-11).
 - 1) Repair the wiring.
 - 2) Set the switch to the on mode, and then to the off mode.
 - 3) If the light/sign goes off, then you corrected the fault.
 - a) Do this task:
Power Supply - Charge the Battery Packs, AMM TASK 33-51-06-610-802.
- (3) If the one emergency light/sign does not off but all other lights and signs go off, do a check of the wiring between the applicable power supply and the emergency light/sign (WDM 33-51-12) (WDM 33-51-13) (WDM 33-51-14) (WDM 33-51-21).
 - (a) Repair the wiring.
 - (b) Set the switch to the on mode, and then to the off mode.
 - (c) If the light/sign goes off, then you corrected the fault.
 - 1) Do this task:
Power Supply - Charge the Battery Packs, AMM TASK 33-51-06-610-802.



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G. Fault Isolation Procedure - One Lamp Does Not Come On

- (1) Replace the lamp. Use the applicable task that follows:
 - (a) For an exit sign/indicator, do this task:
Exit Sign Lamp Replacement, AMM TASK 33-51-01-960-801.
 - (b) For a handle light in the overwing exit sign, do this task:
Exit Sign Lamp Replacement, AMM TASK 33-51-01-960-801.
 - (c) If the light/sign comes on, then you corrected the fault.
 - 1) Do this task:
Power Supply - Charge the Battery Packs, AMM TASK 33-51-06-610-802.

H. Fault Isolation Procedure - No Lights and Signs Come On

- (1) Replace the pilots emergency light switch, S7 (WDM 33-51-11).
 - (a) Set the switch to the on mode.
 - (b) If the lights and signs come on, then you corrected the fault.
 - 1) Set the switch to the off mode.
 - 2) Do this task:
Power Supply - Charge the Battery Packs, AMM TASK 33-51-06-610-802.

I. Fault Isolation Procedure - The Light/Sign Does Not Come On

- (1) Replace the lamp. Use the applicable task that follows:
 - (a) For an exit sign/indicator, do this task:
Exit Sign Lamp Replacement, AMM TASK 33-51-01-960-801.
 - (b) For a handle light in the overwing exit sign, do this task: Exit Sign Lamp Replacement, AMM TASK 33-51-01-960-801.
 - (c) For an area light, use the applicable procedure below:
 - 1) Do this task: Emergency Aisle Light (EAL) Lens Replacement, AMM TASK 33-51-03-960-803.
 - (d) For a slide/overwing light, do this task:
Slide/Overwing Light - Lamp Replacement, AMM TASK 33-51-04-960-801.
 - (e) For a floor proximity light, use the applicable procedure below:
 - 1) Do this task:
Floor Proximity Light - Lamp Replacement, AMM TASK 33-51-14-960-801.
 - (f) If the light/sign comes on, then you corrected the fault.
 - 1) Do this task:
Power Supply - Charge the Battery Packs, AMM TASK 33-51-06-610-802.
 - (g) If the light/sign does not come on, then continue.
- (2) Replace the light assembly. Use the applicable task that follows:
 - (a) For an exit sign/indicator, do this task:
Exit Sign Light Assembly Replacement, AMM TASK 33-51-01-960-802.
 - (b) For a handle light in an overwing exit sign, do this task:
Exit Sign Light Assembly Replacement, AMM TASK 33-51-01-960-802.
 - (c) For an area light, use the applicable procedure below:

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- 1) Do this task: Emergency Aisle Light (EAL) Assembly Replacement, AMM TASK 33-51-03-960-805.
- (d) For a floor proximity light, use the applicable procedure below:
 - 1) Do this task:
Floor Proximity Light - Light Assembly Replacement, AMM TASK 33-51-14-960-802.
- (e) If the light/sign comes on, then you corrected the fault.
 - 1) Do this task:
Power Supply - Charge the Battery Packs, AMM TASK 33-51-06-610-802.
- (f) If the light/sign does not come on, then continue.
- (3) Do a check of the wiring between the applicable power supply and the emergency light/sign (WDM 33-51-12) (WDM 33-51-13) (WDM 33-51-14) (WDM 33-51-21).
 - (a) Repair the wiring.
 - (b) Set the switch to the on mode.
 - (c) If the light/sign comes on, then you corrected the fault.
 - 1) Set the switch to the off mode.
 - 2) Do this task:
Power Supply - Charge the Battery Packs, AMM TASK 33-51-06-610-802.

J. Fault Isolation Procedure - A Group of Lights and Signs Does Not Come On

- (1) Do a check for 28 volts DC at the applicable circuit breaker on the P18-3 panel.
 - (a) If there is not 28 volts DC at the circuit breaker, then replace the circuit breaker.
 - 1) Set the switch to the on mode.
 - 2) If the light/sign comes on, then you corrected the fault.
 - a) Set the switch to the off mode.
 - b) Do this task:
Power Supply - Charge the Battery Packs, AMM TASK 33-51-06-610-802.
 - 3) If the light/sign does not come on, then do a check of the wiring between the circuit breaker and the applicable power supply (WDM 33-51-11).
 - a) Repair the wiring.
 - b) Set the switch to the on mode.
 - c) If the light/sign comes on, then you corrected the fault. Set the switch to the off mode, then, do this task:
Power Supply - Charge the Battery Packs, AMM TASK 33-51-06-610-802.
 - (b) If there is 28 volts DC at the circuit breaker, then continue.
- (2) Replace the applicable battery pack. To replace it, do this task:
Power Supply - Battery Pack Replacement, AMM TASK 33-51-06-960-805.
 - (a) If the light/sign comes on, then you corrected the fault.
 - 1) Do this task:
Power Supply - Charge the Battery Packs, AMM TASK 33-51-06-610-802.
 - (b) If the light/sign does not come on, then continue.
- (3) Replace the defective power supply fuse. To replace it, do this task:

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Power Supply - Fuse Replacement, AMM TASK 33-51-06-960-804.

- (a) If the light/sign comes on, then you corrected the fault.
- (b) If the light/sign does not come on, then continue.
- (4) Replace the applicable power supply. To replace it, do this task:

Power Supply - Power Supply Replacement, AMM TASK 33-51-06-960-806.

- (a) If the light/sign comes on, then you corrected the fault.

- 1) Do this task:

Power Supply - Charge the Battery Packs, AMM TASK 33-51-06-610-802.

———— **END OF TASK** ————

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