CHAPTER

52

DOORS

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

52-EFFECTIVE PAGES

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

52-EFFECTIVE PAGES

Subject/Page	Date	COC	Subject/Page	Date	COC	Subject/Page	Date	COC
52-60 TASKS (cont)								
282	Feb 15/2022							
283	Feb 15/2022							
284	Feb 15/2023							
285	Feb 15/2023							
286	Feb 15/2022							
287	Feb 15/2022							
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291	Feb 15/2022							
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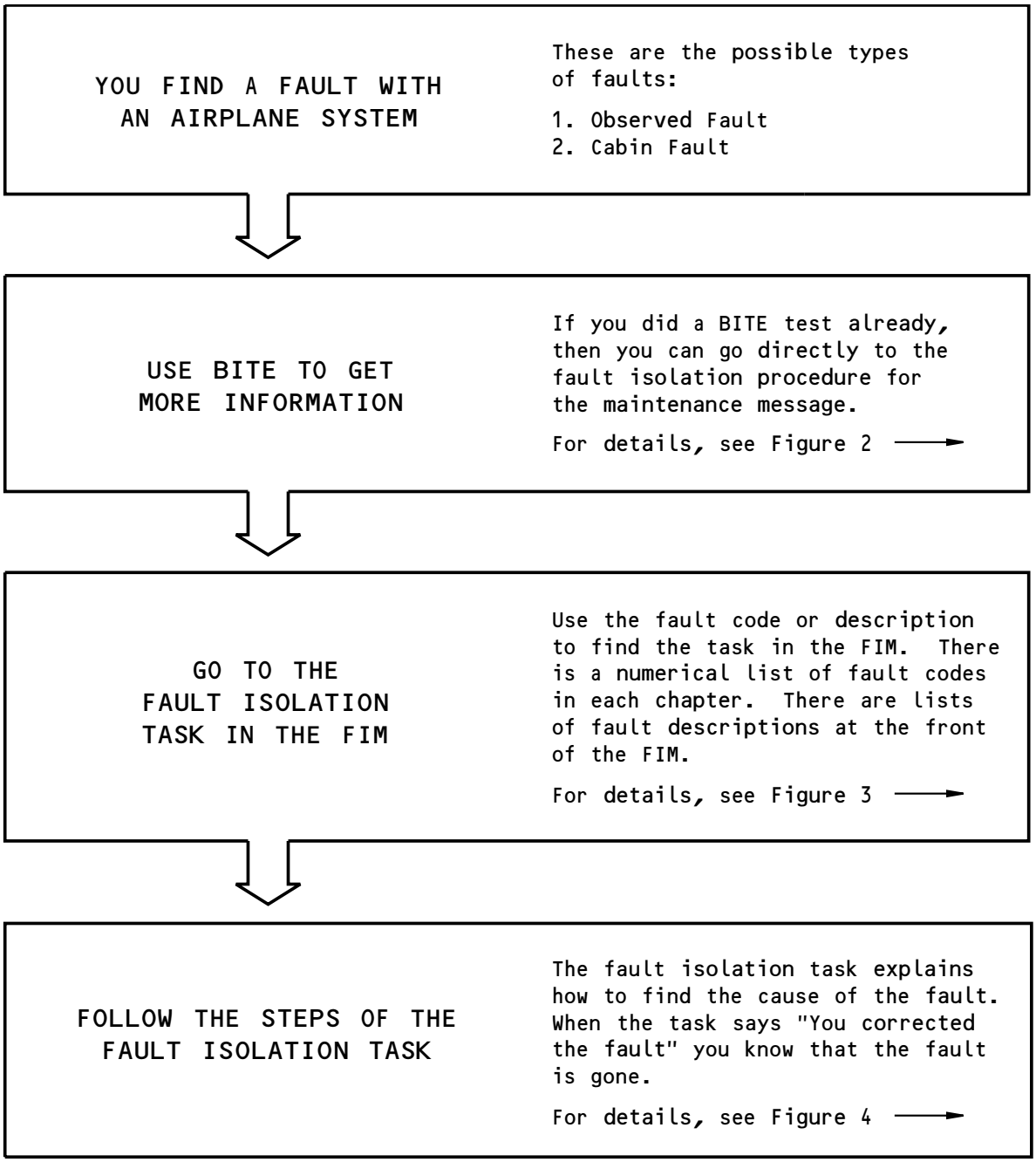
294	Feb 15/2022							
295	Feb 15/2022							
296	Feb 15/2022							
297	Feb 15/2022							
298	Feb 15/2022							
298.1	Feb 15/2022							
298.2	Feb 15/2024							
298.3	Feb 15/2024							
298.4	Feb 15/2024							
298.5	Feb 15/2024							
298.6	Feb 15/2024							
298.7	Feb 15/2024							
298.8	Feb 15/2024							
298.9	Feb 15/2024							
298.10	Feb 15/2024							
298.11	Feb 15/2024							
298.12	Feb 15/2024							
298.13	Feb 15/2024							
298.14	Feb 15/2024							
298.15	Feb 15/2024							
298.16	Feb 15/2024							
52-99 TASKS								
201	Feb 15/2013							
202	BLANK							

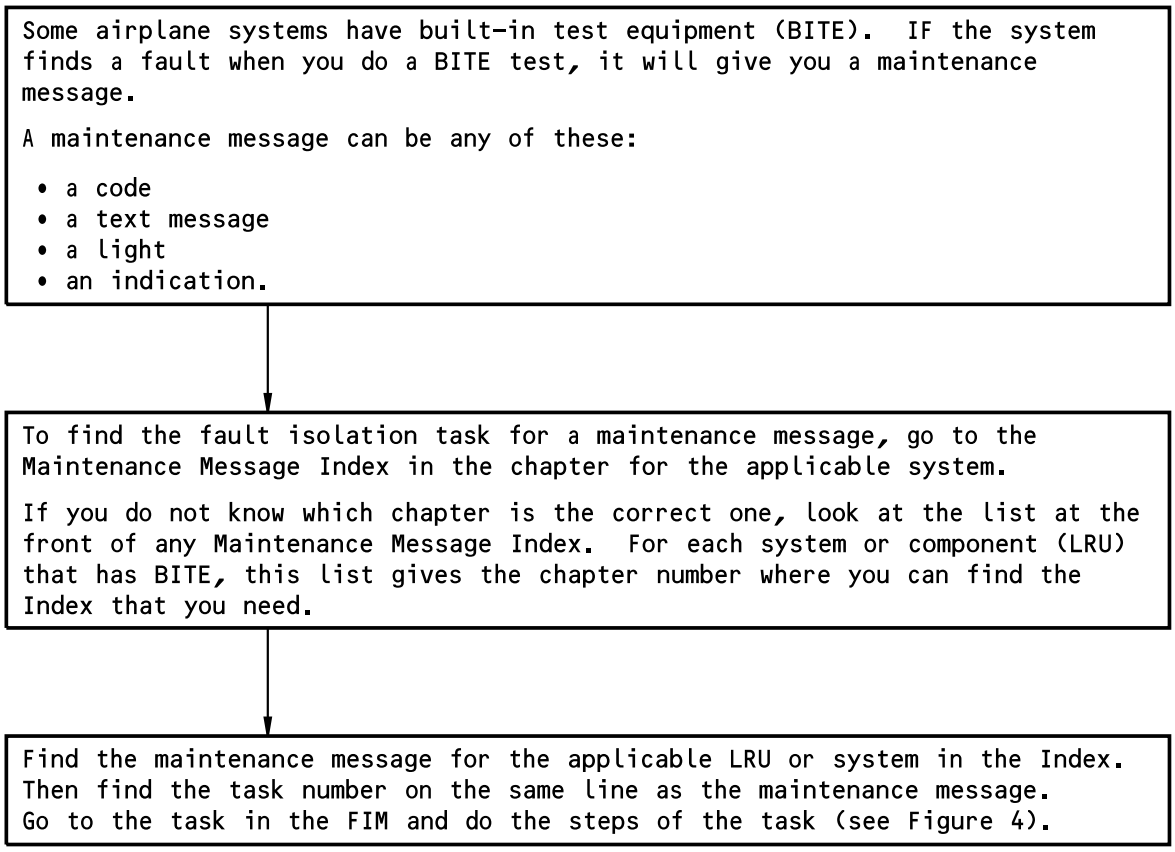
A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated Change

52-EFFECTIVE PAGES



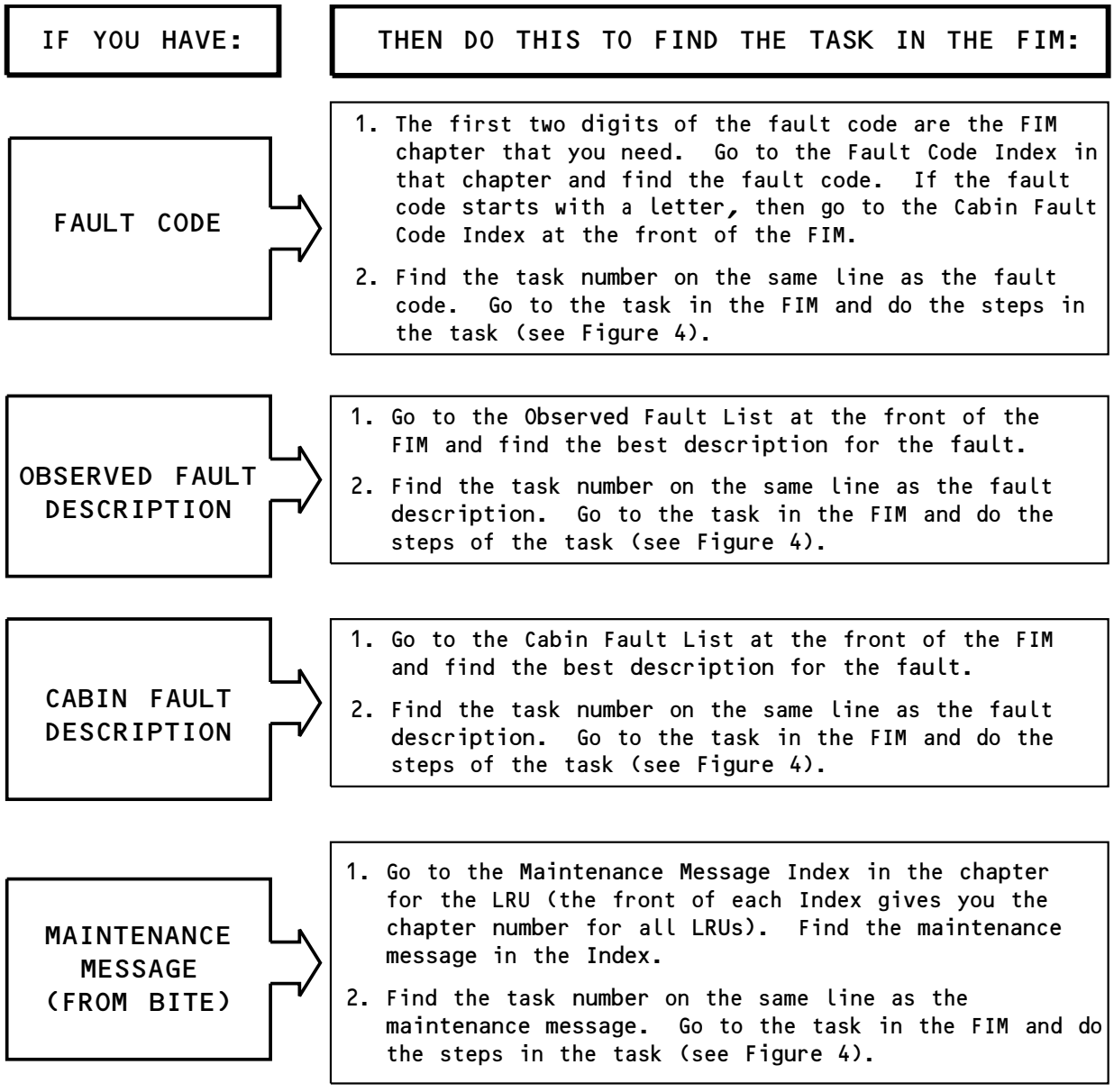
G04902 S0000148576_V1

Basic Fault Isolation Process
Figure 1



G04950 S0000148578_V1

Getting Fault Information from BITE
Figure 2



G04979 S0000148579_V2

Finding the Fault Isolation Task in the FIM
Figure 3

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

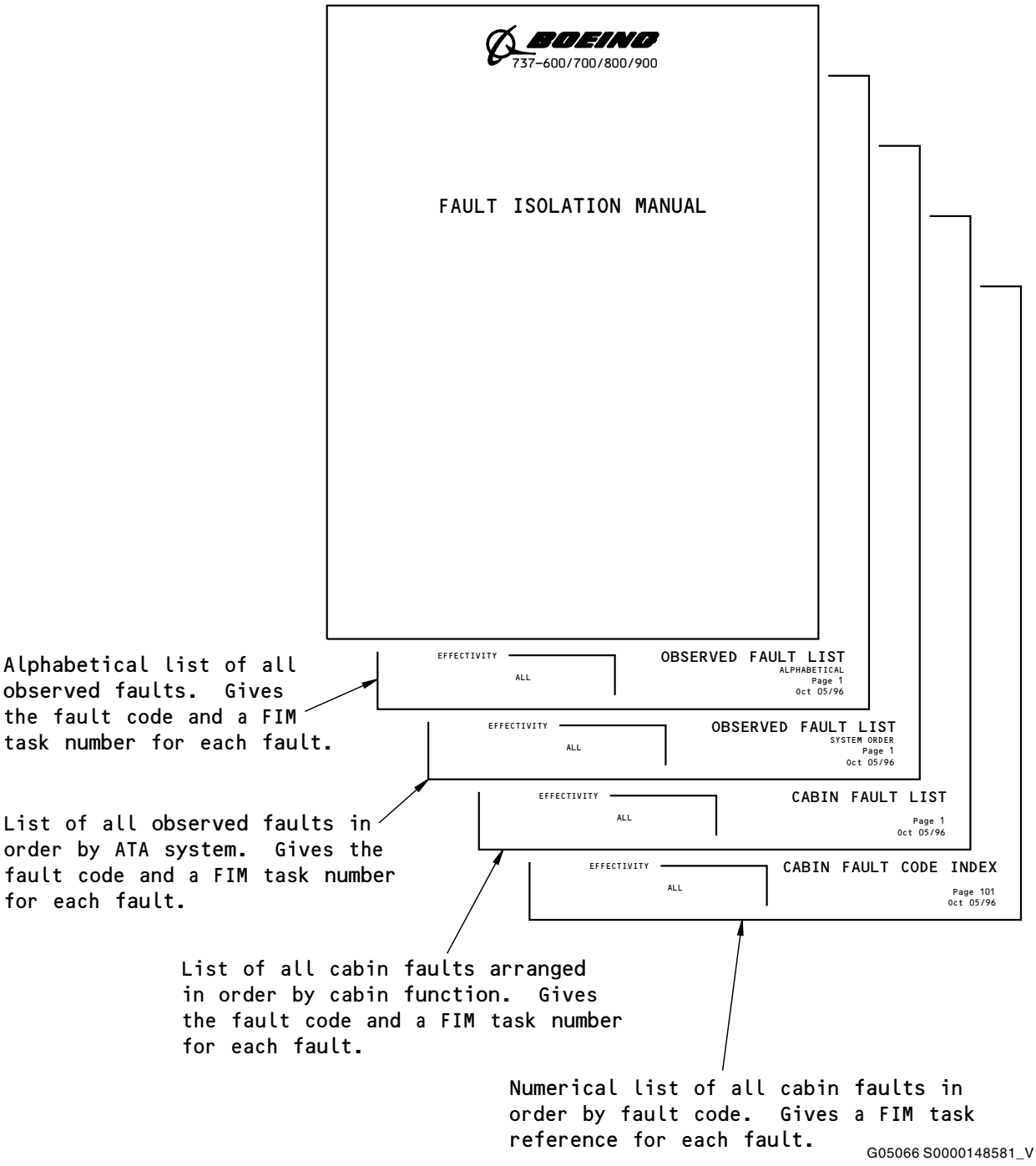
- The primary purpose of the Initial Evaluation paragraph at the start of the task is to help you find out if you can detect the fault right now:
  - If you cannot detect the fault right now, then the task cannot isolate the fault and the Initial Evaluation paragraph will say that there was an intermittent 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

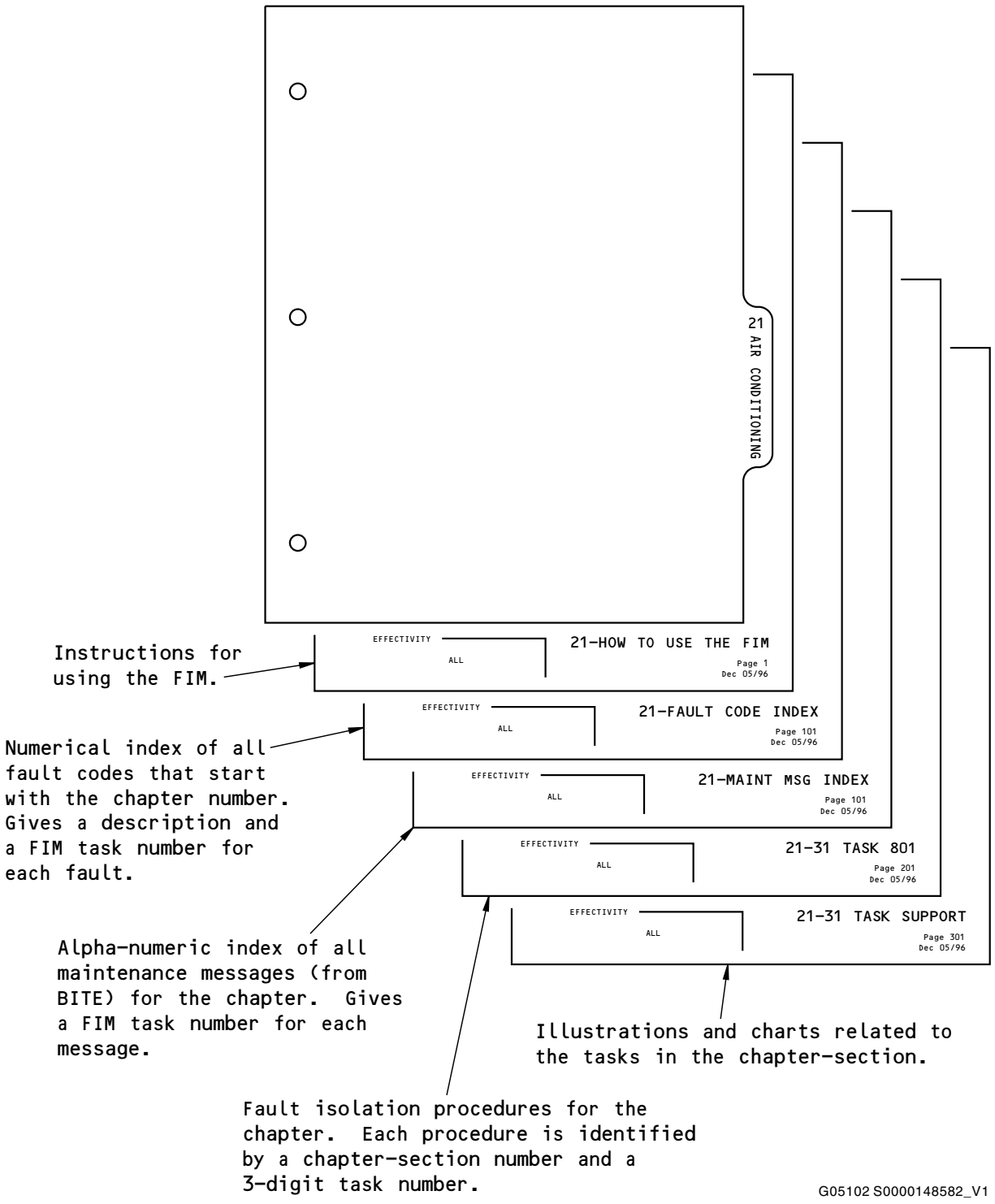
- The FIM task steps are presented in a specified order. The "If... then" statements will guide you along a logical path. But if you do not plan to follow the FIM task exactly, make sure that you read it before you start to isolate the fault. Some FIM procedures start with important steps that have an 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



Subjects at Front of FIM
Figure 5



Subjects in Each FIM Chapter
Figure 6

FAULT CODE	FAULT DESCRIPTION	GO TO FIM TASK
521 010 44	Entry door exterior handle: Difficult to operate - forward.	52-10 TASK 811
521 010 45	Entry door exterior handle: Difficult to operate - aft.	52-10 TASK 811
521 011 44	Entry Door: Handle Movement - forward.	52-10 TASK 815
521 015 45	Aft entry door: Difficult to operate between cocked and fully open position - door jamming or binding.	52-10 TASK 813
521 611 44	Door warning annunciator is on - FWD ENTRY.	52-10 TASK 801
521 611 45	Door warning annunciator is on - AFT ENTRY.	52-10 TASK 801
523 010 00	Cargo Door: Difficult to open/close.	52-30 TASK 801
523 020 00	Cargo Door: does not unlatch/latch.	52-30 TASK 802
523 611 44	Door warning annunciator is on - FWD CARGO.	52-30 TASK 803
523 611 45	Door warning annunciator is on - AFT CARGO.	52-30 TASK 803
524 010 00	Galley service door exterior handle: Difficult to operate.	52-10 TASK 811
524 015 45	Aft galley door: Difficult to operate between cocked and fully open position - door jamming or binding.	52-10 TASK 814
524 611 44	Door warning annunciator is on - FWD SERVICE.	52-10 TASK 801
524 611 45	Door warning annunciator is on - AFT SERVICE.	52-10 TASK 801
524 612 00	Door warning annunciator is on - EQUIP.	52-40 TASK 801 or 52-40 TASK 802
525 010 00	Control Cabin Door: CAB DOOR UNLOCKED light does not come on when the door is unlocked.	52-50 TASK 801
525 020 00	Control Cabin Door: Difficult to open/close.	52-50 TASK 802
525 030 00	Control Cabin Door: key is missing.	52-99 TASK 801
525 032 00	Control Cabin Door: key is damaged.	52-99 TASK 801
525 040 00	Control Cabin Door: does not release electrically.	52-50 TASK 803
525 121 00	Flight deck door (enhanced security door): chime does not sound with switch set to AUTO and correct code in keypad.	52-50 TASK 808
525 131 00	Flight deck door (enhanced security door): chime sounds with switch set to DENY.	52-50 TASK 807
525 141 00	Flight deck door (enhanced security door): does not lock with switch set to AUTO.	52-50 TASK 804
525 151 00	Flight deck door (enhanced security door): does not unlock with switch set to AUTO and correct code in keypad.	52-50 TASK 806
525 161 00	Flight deck door (enhanced security door): does not unlock with switch set to UNLKD.	52-50 TASK 805
525 171 00	Flight deck door (enhanced security door): LOCK FAIL light is on.	52-50 TASK 809
525 181 00	Flight deck door (enhanced security door): unlocks with switch set to DENY.	52-50 TASK 807

FAULT CODE	FAULT DESCRIPTION	GO TO FIM TASK
526 210 00	Airstair, forward: Does not extend in NORMAL mode.	52-60 TASK 809
526 220 00	Airstair, forward: Does not extend in STANDBY mode.	52-60 TASK 811
526 230 00	Airstair, forward: Does not fully retract.	52-60 TASK 829
526 240 00	Airstair, forward: does not retract in NORMAL mode.	52-60 TASK 821
526 250 00	Airstair, forward: does not retract in STANDBY mode.	52-60 TASK 822
526 260 00	Airstair, forward: Stops within 5 inches of full extension.	52-60 TASK 830
526 270 00	Airstair, forward: Stops immediately after lower ladder unlocks from upper ladder.	52-60 TASK 831
526 280 00	Airstair, forward: motor operates, but airstair does not extend or retract.	52-60 TASK 820
526 290 00	Airstair, forward: motor does not stop in NORMAL mode after airstair is fully retracted.	52-60 TASK 833
526 300 00	Airstair, forward: motor does not stop in STANDBY mode after airstair is fully retracted.	52-60 TASK 834
526 310 00	Airstair, forward: motor does not stop in NORMAL mode after airstair is fully extended.	52-60 TASK 835
526 320 00	Airstair, forward: motor does not stop in STANDBY mode after airstair is fully extended.	52-60 TASK 836
526 330 00	Airstair, forward: Airstair and airstair door do not operate with internal controls.	52-60 TASK 825
526 340 00	Airstair, forward: Airstair and airstair door do not operate with external controls.	52-60 TASK 826
526 350 00	Airstair, forward: carriage and ladders bounce or bind.	52-60 TASK 841
526 355 00	Airstair, forward: top step is not stable when airstair extended.	52-60 TASK 851
526 410 00	Airstair door, forward: does not open in NORMAL mode.	52-60 TASK 815
526 420 00	Airstair door, forward: does not open in STANDBY mode.	52-60 TASK 819
526 430 00	Airstair door, forward: does not close in NORMAL mode.	52-60 TASK 823
526 440 00	Airstair door, forward: does not close in STANDBY mode.	52-60 TASK 824
526 450 00	Airstair door, forward: motor does not stop in NORMAL mode after airstair door is fully open.	52-60 TASK 839
526 460 00	Airstair door, forward: motor does not stop in NORMAL mode after airstair door is fully closed.	52-60 TASK 837
526 470 00	Airstair door, forward: motor does not stop in STANDBY mode after airstair door is fully closed.	52-60 TASK 838
526 480 00	Airstair door, forward: motor does not stop in STANDBY mode after the airstair door is fully open.	52-60 TASK 840
526 560 00	Airstair, forward: uncommanded motion.	52-60 TASK 852

LRU/SYSTEM	SHORT NAME	CHAPTER
Air Data Inertial Reference System	ADIRS	34
Air Traffic Controller Transponder - 1 (Left)	ATC XPDR - 1 (L)	34
Air Traffic Controller Transponder - 2 (Right)	ATC XPDR - 2 (R)	34
Airborne Vibration Monitor System Signal Conditioner	AVM SIG COND	77
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
Autothrottle Computer	A/T COMPUTER	22
Auxiliary Power Unit	APU	49
Auxiliary Power Unit Generator Control Unit	APU GCU	24
Bus Power Control Unit	BPCU	24
Cabin Pressure Controller	CAB PRESS CON	21
Cabin Temperature Controller	CAB TEMP CONT	21
Cargo Electronic Unit - Lower Aft	CEU - LWR AFT	26
Cargo Electronic Unit - Lower Forward	CEU - LWR FWD	26
Cargo Electronic Unit - Main Aft	CEU - MAIN AFT	26
Cargo Fire Control Panel	CFCP	26
Common Display System	CDS	31
Compartment Overheat Detection Control Module	WING/BODY OHT	26
Digital Flight Control System	DFCS	22
Distance Measurement Equipment Interrogator	DME INTRROGTR	34
Electrical Meters, Battery, and Galley Power Module	P5-13	24
Electronic Engine Controller - 1	ENGINE - 1	73
Electronic Engine Controller - 2	ENGINE - 2	73
Emergency Locator Transmitter	ELT	23
Engine Accessory Unit	EAU	78
Engine Accessory Unit/TR DEPLOY ENG 1	EAU/TR DPLOY-ENG 1	78
Engine Accessory Unit/TR DEPLOY ENG 2	EAU/TR DPLOY-ENG 2	78
Engine Accessory Unit/TR STOW ENG 1	EAU/TR STOW-ENG 1	78
Engine Accessory Unit/TR STOW ENG 2	EAU/TR STOW-ENG 2	78
Engine and Auxiliary Power Unit Fire Detection Control Module	ENG/APU FIRE	26
Enhanced Digital Flight Control Computer-A	EDFCC-A	22
Enhanced Digital Flight Control System	EDFCS	22
Flap/Slat Electronics Unit	FSEU	27

LRU/SYSTEM	SHORT NAME	CHAPTER
Flight Data Acquisition Unit	FDAU	31
Flight Management Computer System	FMCS	34
Fuel Quantity Indicating System	FQIS	28
Generator Control Unit - 1	GCU - 1	24
Generator Control Unit - 2	GCU - 2	24
Ground Proximity Computer	GROUND PROX	34
High Frequency Transceiver	HF XCVR	23
Low Limit (35 Degree F) Controller - Left	35 DEG CONT L	21
Low Limit (35 Degree F) Controller - Right	35 DEG CONT R	21
Multi-Mode Receiver	MMR	34
Nitrogen Generation System BITE Display Unit	NGS	47
Pack Flow Temperature Controller	PFTC	21
Pack/Zone Temperature Controller - Left	PACK/ZN CON - L	21
Pack/Zone Temperature Controller - Right	PACK/ZN CON - R	21
Proximity Switch Electronics Unit	PSEU	32
Radio Altimeter Receiver/Transmitter	RADIO ALTIMTR	34
Stall Management Yaw Damper Computer - 1	SMYD - 1	27
Stall Management Yaw Damper Computer - 2	SMYD - 2	27
Traffic Alert and Collision Avoidance System Computer	TCAS COMPUTER	34
VHF Omnidirectional Ranging Marker Beacon Receiver	VOR/MKR RCVR	34
Very High Frequency Transceiver	VHF XCVR	23
Waste Tank Logic Control Module	WASTE TANK	38
Weather Radar Receiver/Transmitter	WEATHER RADAR	34
Window Heat Control Unit - Left Forward	WHCU - L FWD	30
Window Heat Control Unit - Left Side	WHCU - L SIDE	30
Window Heat Control Unit - Right Forward	WHCU - R FWD	30
Window Heat Control Unit - Right Side	WHCU - R SIDE	30
Window Heat Control Unit 1 - Left Forward and Right Side	WHCU1 - L FWD/R SIDE	30
Window Heat Control Unit 2 - Right Forward and Left Side	WHCU2 - R FWD/L SIDE	30

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
PSEU	52-71001 FWD ENTR DR OPEN	52-10 TASK 801
PSEU	52-71002 FWD SERV DR OPEN	52-10 TASK 801
PSEU	52-71003 AFT ENTR DR OPEN	52-10 TASK 801
PSEU	52-71004 AFT SER DR OPEN	52-10 TASK 801
PSEU	52-71005 AIRSTAIR UNLOCKED	52-60 TASK 806
PSEU	52-72001 FWD CGO DR OPEN	52-30 TASK 803
PSEU	52-72002 AFT CGO DR OPEN	52-30 TASK 803
PSEU	52-72003 FWD ACC DR OPEN	52-40 TASK 801
PSEU	52-72004 EE ACC DR OPEN	52-40 TASK 802
PSEU	52-72005 L FL SW FAULT	52-20 TASK 801
PSEU	52-72006 L FWD FL SW FAULT	52-20 TASK 801
PSEU	52-72007 L FL SW FAULT	52-20 TASK 801
PSEU	52-72008 R FL SW FAULT	52-20 TASK 801
PSEU	52-72009 R FWD FL SW FAULT	52-20 TASK 801
PSEU	52-72010 L OW SW A FAULT	52-20 TASK 802
PSEU	52-72011 L OW SW B FAULT	52-20 TASK 802
PSEU	52-72012 L FWD OW SW A FLT	52-20 TASK 802
PSEU	52-72013 L FWD OW SW B FLT	52-20 TASK 802
PSEU	52-72014 R OW SW A FAULT	52-20 TASK 802
PSEU	52-72015 R OW SW B FAULT	52-20 TASK 802
PSEU	52-72016 R FWD OW SW A FLT	52-20 TASK 802
PSEU	52-72017 R FWD OW SW B FLT	52-20 TASK 802
PSEU	52-72018 ENG RUN R FAULT	52-20 TASK 803
PSEU	52-72019 OVWG OPT FAULT	52-20 TASK 804
PSEU	52-72020 L OW SW DISAGREE	52-20 TASK 805
PSEU	52-72021 L FWD OW SW DSGR	52-20 TASK 805
PSEU	52-72022 R OW SW DISAGREE	52-20 TASK 805
PSEU	52-72023 R FWD OW SW DSGR	52-20 TASK 805
I PSEU	52-72024 FOUR OW OPT FLT	52-20 TASK 804
PSEU	52-72104 MDCD TOW DISABLED	31-51 TASK 823
PSEU	52-72106 L FWD FL SW FAULT	52-20 TASK 801
PSEU	52-72107 L FL SW FAULT	52-20 TASK 801
PSEU	52-72108 R FL SW FAULT	52-20 TASK 801
PSEU	52-72109 R FWD FL SW FAULT	52-20 TASK 801
PSEU	52-74001 L OVWG OPEN	52-20 TASK 806

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
PSEU	52-74002 L FWD OW OPEN	52-20 TASK 806
PSEU	52-74003 R OVWG OPEN	52-20 TASK 806
PSEU	52-74004 R FWD OW OPEN	52-20 TASK 806
PSEU	52-76001 EQPT WARN FLT	52-10 TASK 802
PSEU	52-76002 AFT LDR RLY FLT	25-51 TASK 801
PSEU	52-76003 AFT CGO WARN FLT	52-10 TASK 802
PSEU	52-76004 AFT ENTR WARN FLT	52-10 TASK 802
PSEU	52-76005 AFT SERV WARN FLT	52-10 TASK 802
PSEU	52-76012 AIRSTAIR WARN FLT	52-10 TASK 802
PSEU	52-76013 FWD LDR RLY FLT	25-51 TASK 802
PSEU	52-76014 FWD CGO WARN FLT	52-10 TASK 802
PSEU	52-76015 FWD ENTR WARN FLT	52-10 TASK 802
PSEU	52-76016 FWD SERV WARN FLT	52-10 TASK 802
PSEU	52-76017 FL RELAY 1 FAULT	52-20 TASK 807
PSEU	52-76018 FL RELAY 2 FAULT	52-20 TASK 807
PSEU	52-76019 LOW WARN FLT	52-20 TASK 808
PSEU	52-76020 L FWD OW WARN FLT	52-20 TASK 808
PSEU	52-76021 R OW WARN FLT	52-20 TASK 808
PSEU	52-76022 R FWD OW WARN FLT	52-20 TASK 808

801. PSEU Entry and Galley Service Door Monitored Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:

(a) 52-71001 FWD ENTR DR OPEN

(b) 52-71002 FWD SERV DR OPEN

(c) 52-71003 AFT ENTR DR OPEN

(d) 52-71004 AFT SERV DR OPEN

NOTE: The PSEU does not record these messages when the airplane is on the ground.

(2) This task is for P5 Door Warning Light indication during taxi or takeoff.

(3) For a detailed description of the system refer to SDS SUBJECT 52-71-00.

B. Possible Causes

(1) Applicable sensor for the maintenance message shown above:

(a) Forward Entry Door Indication Sensor, S199

(b) Aft Entry Door Indication Sensor, S200

(c) Forward Galley Service Entry Door Indication Sensor, S194

(d) Aft Galley Service Entry Door Indication Sensor, S195

SHZ 801-825, 827-847, 850-852, 855-859, 876-899; SHZ 002, 009-699, 706, 721-799, 860-863, 865, 866, 871-874, 901-999 POST SB 737-52-1159

(2) Forward Entry Door Switch, S1147

SHZ ALL

(3) Entry or Galley Interior Door Handle out of position

(4) Service Door out of adjustment

(a) Forward Entry Door

(b) Aft Entry Door

(c) Galley Service Door

(5) Wiring

(6) Proximity Switch Electronic Unit (PSEU), M2061

C. Related Data

(1) WDM 52-71-11

(2) SSM 52-71-11

D. Initial Evaluation

SHZ 002, 009-699, 706, 721-799, 860-863, 865, 866, 871-874, 901-999 PRE SB 737-52-1159

(1) Look for obvious damage to the applicable sensor, target, and adjacent structure.

(a) If you find damage, then do the Fault Isolation Procedure below.

(b) If you do not find damage, then continue.

SHZ 801-825, 827-847, 850-852, 855-859, 876-899; SHZ 002, 009-699, 706, 721-799, 860-863, 865, 866, 871-874, 901-999 POST SB 737-52-1159

(2) For the Forward Entry Door, look for obvious damage to the Forward Entry Door Switch, S1147 and adjacent structure.

(a) If you find damage, then do the Fault Isolation Procedure below.

(b) If you do not find damage, then continue.

SHZ ALL

(3) Do a check at the PSEU as follows:

(a) Make sure that the Main Entry Door is closed.

NOTE: Airplanes with Door Closed and Latched Switch, S1147:

If the Main Entry Door is not closed, the PSEU Replacement Test or Self-test will set a NO FLIGHT fault. You must erase the fault in the PSEU before a subsequent flight.

(b) Get access to the PSEU.

(c) Push the MENU switch until EXISTING FAULTS shows.

(d) Push the down switch until OTHER FUNCTNS? shows.

(e) Push the YES switch to select OTHER FUNCTNS?.

(f) Push the down switch until I/O MONITOR? shows.

(g) Push the YES switch to select I/O MONITOR.

(h) Push the down switch until SENSORS? shows.

(i) Push the YES switch to select SENSORS.

(j) Push the Down Switch until the applicable entry or Galley Service Door Indication Sensor shows:

1) For the Forward Entry Door Sensor, S199.

2) For the Aft Entry Door Sensor, S200.

3) For the Forward Galley Service Door Sensor, S194.

4) For the Aft Galley Service Door Sensor, S195.

(k) Push the YES Switch to show the Sensor Status.

1) If the sensor status is not FAILSAFE, then do this task: Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200), AMM TASK 52-71-11-820-801, SUBTASK 52-71-11-820-005.

NOTE: Only completion of SUBTASK 52-71-11-820-005 is necessary.

2) If the Sensor Status is FAILSAFE, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

SHZ 801-825, 827-847, 850-852, 855-859, 876-899; SHZ 002, 009-699, 706, 721-799, 860-863, 865, 866, 871-874, 901-999 POST SB 737-52-1159

(1) If you found obvious damage to the Forward Entry Door Switch, S1147, then do these steps:

(a) Repair the damage.

(b) Do a test of the Forward Entry Door Switch (Forward Entry Door Switch Test (S1147), AMM TASK 52-71-11-710-802).

1) Adjust the Forward Entry Door Switch, S1147 as necessary (Forward Entry Door Switch Adjustment (S1147), AMM TASK 52-71-11-820-802).

(c) Open the Forward Entry Door.

(d) Close and latch the Forward Entry Door.

(e) If the maintenance message does not show, then you corrected the problem.

(f) If the maintenance message still shows, then do these steps:

1) Replace the Forward Entry Door Switch, S1147. These are the tasks:

- Forward Entry Door Switch Removal (S1147), AMM TASK 52-71-11-000-802
- Forward Entry Door Switch Installation (S1147), AMM TASK 52-71-11-400-802

2) Do the Repair Confirmation at the end of this task.

3) If the maintenance message still shows, do the PSEU Check in the Initial Evaluation.

SHZ ALL

(2) If you found obvious damage to the applicable Sensor, Target, and adjacent structure, then do these steps:

(a) Repair the damage.

(b) Do the PSEU Check located in the Initial Evaluation.

1) If a maintenance message still shows, then continue.

(3) If you found that the Entry or Galley Interior Door Handle out of position:

(a) Do the Entry or Galley Interior Door Handle Does Not Stay In Position - Fault Isolation, 52-10 TASK 808.

(4) If you found that a Door is out of adjustment, do the applicable task below:

- For the Forward Entry Door, do the Forward Entry Door Adjustment, AMM TASK 52-11-00-820-801.
- For the Aft Entry Door, do the Aft Entry Door Adjustment, AMM TASK 52-13-00-820-801.
- For the Galley Service Door, do the Galley Service Door Adjustment, AMM TASK 52-41-00-820-801.

(a) Do the Repair Confirmation at the end of this task.

(5) If the Sensor Status is TGT NEAR, with a De-actuator installed, then do these steps:

(a) For the Forward Entry Door, do these steps:

1) Do this task: Forward Entry Door Indication Sensor Plunger Adjustment (S199), AMM TASK 52-71-11-820-803.

2) Do the Repair Confirmation at the end of this task.

(b) Do this task: Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200), AMM TASK 52-71-11-820-801.

1) Do the Repair Confirmation at the end of this task.

(c) If the maintenance message still shows, then replace the Service Door Indication Sensor. These are the tasks:

- Entry and Galley Service Door Sensor Removal (S194, S195, S199, or S200), AMM TASK 52-71-11-000-801
- Entry and Galley Service Door Indication Sensor Installation (S194, S195, S199, or S200), AMM TASK 52-71-11-400-801

1) Do the Repair Confirmation at the end of this task.

(d) Replace the PSEU, M2061. These are the tasks:

- Proximity Switch Electronics Unit (PSEU) Removal, AMM TASK 32-09-10-000-801
- Proximity Switch Electronics Unit (PSEU) Installation, AMM TASK 32-09-10-400-801

1) Do the Repair Confirmation at the end of this task.

(6) If the Sensor Status is TGT FAR without a De-actuator installed, then do these steps for the applicable Entry or Galley Service Door Indication Sensor:

(a) Do this task: Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200), AMM TASK 52-71-11-820-801.

1) Do the Repair Confirmation at the end of this task.

(b) If the maintenance message still shows, then do these steps:

1) Replace the Service Door Indication Sensor. These are the tasks:

- Entry and Galley Service Door Sensor Removal (S194, S195, S199, or S200), AMM TASK 52-71-11-000-801
- Entry and Galley Service Door Indication Sensor Installation (S194, S195, S199, or S200), AMM TASK 52-71-11-400-801

2) Do the Repair Confirmation at the end of this task.

(7) If the Sensor Status is FAILSAFE, then do this PSEU Wiring Check between the PSEU and the applicable Entry or Galley Service Door Indication Sensor:

(a) Disconnect the applicable connector from the PSEU:

1) Connector D10988 for the Forward Entry Door or Forward Galley Service Door.
2) Connector D10986 for the Aft Entry Door or Aft Galley Service Door.

(b) Actuate the applicable Entry or Galley Service Door Indication Sensor.

(c) Find the wiring splice for the sensor.

(d) Do a wiring check between these pins of the applicable PSEU connector and sensor and make sure that the Resistance values are within these limits:

1) Between the Blue and Yellow Leads, do these steps to measure the Resistance between the pins of the PSEU connector (D10986 or D10988):

a) Connect the LCR meter (Inductance, Capacitance, Resistance), COM-1741 to the Blue (White/Blue) and Yellow (White/Yellow) Sensor Leads.

b) Push the L/C/R Mode Switch to set the LCR meter (Inductance, Capacitance, Resistance), COM-1741 in R (Resistance Mode).

c) Push the 1 kHz/120 Hz button to select the 120 Hz Excitation Frequency.

d) Push the L/C/R meter DATA HOLD button once.

e) Push and hold the L/C/R button on the LCR meter (Inductance, Capacitance, Resistance), COM-1741 until the meter changes to the Series Mode.

NOTE: "Ser" shows in the Upper Right corner of the display to indicate that the meter is in the Series Mode.

f) Read the Resistance value on the LCR meter (Inductance, Capacitance, Resistance), COM-1741.

<1> The Nominal Resistance reading at Normal Room Temperature (CMM DC Resistance, Bench Test condition) is referred to as R1. R1 should be 344.5 to 351.5 Ohms.

NOTE: The Line and Interface Resistance can add up to 2 Ohms.

g) The permitted Resistance reading for in-service sensors exposed to varying conditions is 338 to 361 Ohms.

NOTE: For On-wing Resistance readings deviations from the shown limits, you should consider the increased/ lower Resistance associated with a Higher/Lower Temperature of the Proximity Sensor at the time of the measurement, before you make a decision about the condition of the Proximity Sensor.

Temperatures can deviate significantly from Normal Room Temperature, which is always the case with airplanes with systems ON, or airplanes that just have landed, or airplanes that have been sitting out in Hot or Cold Weather.

You need to know that the Resistance values can vary and that the Proximity Sensor could still be in good condition.

Copper has a Temperature Coefficient of Resistance which is approximately 0.40 Ohm/ °C.

The deviation of the Coil Circuit (generally the Yellow-Red Circuit) can be calculated at the rate of 0.40 Ohm/ °C from StandardTemperature (25 °C)

2) Between the Red and Yellow leads, do these steps to measure the Resistance between the pins of the PSEU connector (D10986 or D10988):

a) Connect the LCR meter (Inductance, Capacitance, Resistance), COM-1741 to the Red (White/Red) and Yellow (White/Yellow) Sensor leads.

b) Push the L/C/R Mode Switch to set the LCR meter (Inductance, Capacitance, Resistance), COM-1741 in R (Resistance Mode).

c) Push the 1 kHz/120 Hz button to select the 120 Hz Excitation Frequency.

d) Push the L/C/R meter DATA HOLD button once.

e) Push and hold the L/C/R button on the LCR meter (Inductance, Capacitance, Resistance), COM-1741 until the meter changes to the Series Mode.

NOTE: “Ser” appears in the Upper Right corner of the display to indicate that the meter is in the Series Mode.

f) Read the Resistance value on the LCR meter (Inductance, Capacitance, Resistance), COM-1741.

g) The Nominal Resistance reading at Normal Room Temperature (CMM DC Resistance, Bench Test condition) referred to as L1. L1 should be 27 to 33 Ohms.

NOTE: The Line and Interface Resistance can add up to 2 Ohms.

h) The permitted Resistance reading for in-service sensors exposed to varying conditions is 24 to 38 Ohms.

NOTE: For On-wing Resistance readings deviations from the shown limits, you should consider the increased/ lower Resistance associated with a Higher/Lower Temperature of the Proximity Sensor at the time of the measurement, before you make a decision about the condition of the Proximity Sensor.

Temperatures can deviate significantly from Normal Room Temperature, which is always the case with airplanes with systems ON, or airplanes that just have landed, or airplanes that have been sitting out in Hot or Cold Weather.

You need to know that the Resistance values can vary and that the Proximity Sensor could still be in good condition.

Copper has a Temperature Coefficient of Resistance which is approximately 0.40 Ohm/ °C.

The deviation of the Coil Circuit (generally the Yellow-Red Circuit) can be calculated at the rate of 0.40 Ohm/ °C from StandardTemperature (25 °C)

D10988	**S199**
pin 19	Red
pin 36	Blue
Ground	Yellow

D10986	**S200**
pin 19	Red
pin 36	Blue
Ground	Yellow

D10988	**S194**
pin 58	Red
pin 57	Blue
Ground	Yellow

D10986	**S195**
pin 58	Red
pin 57	Blue
Ground	Yellow

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

1) Repair the wiring.
2) Re-connect the applicable connector to the PSEU.
3) Re-actuate the sensor.
4) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Open the applicable FWD Entry (AFT Entry, Galley Service) Door.

(2) Close and latch the applicable Door.

(3) If the maintenance message does not show, then you corrected the problem.

(4) If the maintenance message still shows, then continue the Fault Isolation Procedure at the subsequent step.

END OF TASK

802. PSEU Door Warning Light Monitored Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:

(a) 52-76001 EQPT WARN FLT

(b) 52-76003 AFT CARGO WARN FLT

(c) 52-76004 AFT ENTR WARN FLT

(d) 52-76005 AFT SERV WARN FLT

SHZ 721-799, 865, 866, 871-874

(e) 52-76012 AIRSTAIR WARN FLT

SHZ ALL

(f) 52-76014 FWD CGO WARN FLT

(g) 52-76015 FWD ENTR WARN FLT

(h) 52-76016 FWD SERV WARN FLT

(2) These maintenance messages show only after the PSEU replacement test or self test is done.

(3) (SDS SUBJECT 52-71-00)

B. Possible Causes

(1) The applicable light for the maintenance message listed above:

(a) Forward cargo door light, L1

(b) Aft cargo door light, L2

(c) Forward service galley door light, L3

(d) Aft service galley door light, L4

(e) Equipment access door light, L5

(f) Forward entry door light, L7

(g) Aft entry door light, L8

SHZ 721-799, 865, 866, 871-874

(h) Airstairs light, L9

SHZ ALL

(2) Entry or galley interior door handle out of position

(3) Service door out of adjustment

(a) Forward entry door

(b) Aft entry door

(c) Galley service door

(4) Wiring

(5) Proximity switch electronics unit (PSEU), M2061

C. Related Data

(1) (SSM 52-71-11)

(2) (SSM 52-71-12)

(3) (WDM 52-71-11)

(4) (WDM 52-71-12)

D. Initial Evaluation

(1) Do the PSEU replacement test or self test.

(a) Make sure that the main entry door is closed.

NOTE: On airplanes with door closed and latched switch S1147;

If the main entry door is not closed the PSEU replacement test or self test will set a no flight fault. The fault in the PSEU must be erased before subsequent flight.

(b) Do this task: Proximity Switch Electronics Unit (PSEU) - Operational Test, AMM TASK 32-09-10-710-801.

(2) If the maintenance message does not show, then there was an intermittent fault.

(3) If the maintenance message shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the door warning light on the forward overhead panel, P5:

(a) Push the applicable door warning light on the forward overhead panel, P5:

1) 52-76001 EQPT WARN FLT/EQUIP, L5.

2) 52-76003 AFT CGO WARN FLT/AFT CARGO, L2.

3) 52-76004 AFT ENTR WARN FLT/AFT ENTRY, L8.

4) 52-76005 AFT SERV WARN FLT/AFT SERVICE, L4.

SHZ 721-799, 865, 866, 871-874

5) 52-76012 AIRSTAIR WARN FLT/AIRSTAIR, L9.

SHZ ALL

6) 52-76014 FWD CGO WARN FLT/FWD CARGO, L1.

7) 52-76015 FWD ENTR WARN FLT/FWD ENTRY, L7.

8) 52-76016 FWD SERV WARN FLT/FWD SERVICE, L3.

(b) Make sure the lamps in the indicator come on.

(c) If both lamps do not come on, then do these steps:

1) Do this task: Indicator Light - Lamp Replacement, AMM TASK 33-18-00-960-801.

2) Do the PSEU replacement test or self test. To do this, do this task: Proximity Switch Electronics Unit (PSEU) - Operational Test, AMM TASK 32-09-10-710-801.

3) If the maintenance message does not show, then you corrected the fault.

4) If the maintenance message shows, then do these steps:

a) Replace the applicable door warning light. To replace it, do this task: Indicator Light - Light Assembly Replacement, AMM TASK 33-18-00-960-802.

b) Do the PSEU replacement test or self test. To do this, do this task: Proximity Switch Electronics Unit (PSEU) - Operational Test, AMM TASK 32-09-10-710-801.

c) If the maintenance message does not show, then you corrected the fault.

(d) If either lamp or both lamps do come on, then continue.

(2) Do this check of the wiring:

(a) Disconnect the applicable connector from the PSEU:

NOTE: The PSEU is in the forward electrical equipment bay.

(b) Disconnect the applicable connector from the door warning light.

(c) Do a wiring check between these pins of the applicable connector at the PSEU and the applicable connector at the door warning light:

Table 201

DOOR WARNING LIGHT	PSEU CONNECTOR		LIGHT CONNECTOR
EQUIPMENT, L5	D10986		D1406
	pin 37	-------	pin 6
AFT CARGO, L2	D10986		D482
	pin 33	-------	pin 12
AFT ENTRY, L8	D10986		D1406
	pin 60	-------	pin 5
AFT SERVICE, L4	D10986		D1406
	pin 59	-------	pin 3
SHZ 721-799, 865, 866, 871-874			
AIRSTAIRS, L9	D10988		D1406
	pin 37	-------	pin 4
SHZ ALL			
FWD CARGO, L1	D10988		D1406
	pin 33	-------	pin 1
FWD ENTRY, L7	D10988		D1406
	pin 20	-------	pin 8
FWD SERVICE, L3	D10988		D1406
	pin 59	-------	pin 2

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

1) Repair the wiring.

2) Re-connect the connector to the PSEU.

3) Re-connect the connector to the door warning light.

4) Do the PSEU replacement test or self test. To do this, do this task: Proximity Switch Electronics Unit (PSEU) - Operational Test, AMM TASK 32-09-10-710-801.

5) If the maintenance message does not show, then you corrected the fault.

6) If the maintenance message does show, then continue.

(e) If you did not find a problem with the wiring, then continue.

(3) If you found that the entry or galley interior door handle out of position:

(a) Do the Entry or Galley Interior Door Handle Does Not Stay In Position - Fault Isolation, 52-10 TASK 808.

(4) If you found that a service door is out of adjustment:

(a) For the forward entry door, do the Forward Entry Door Adjustment, AMM TASK 52-11-00-820-801.

(b) For the aft entry door, do the Aft Entry Door Adjustment, AMM TASK 52-13-00-820-801.

(c) For the galley service door, do the Galley Service Door Adjustment, AMM TASK 52-41-00-820-801.

(5) Replace the PSEU, M2061.

These are the tasks:

Proximity Switch Electronics Unit (PSEU) Removal, AMM TASK 32-09-10-000-801,

Proximity Switch Electronics Unit (PSEU) Installation, AMM TASK 32-09-10-400-801.

(a) If the maintenance message does not show after the PSEU replacement test, then you corrected the fault.

END OF TASK

807. Entry or Galley Door Cannot Be Opened or Closed Easily - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-10-00)

B. Possible Causes

(1) Lubrication

(2) Door Adjustment

(3) Snubber

(4) Hinge arms

(5) Fuselage hinge torque tube

C. Fault Isolation Procedure

(1) Do the visual inspection of the applicable door:

(a) Do this task: Forward Entry Door Check, AMM TASK 52-11-00-200-801.

(b) Do this task: Aft Entry Door Check, AMM TASK 52-13-00-200-801.

(c) Do this task: Galley Service Door Check, AMM TASK 52-41-00-200-801.

(d) If a problem is found, repair it.

1) Do the Repair Confirmation at the end of this task.

2) If the Repair Confirmation is not satisfactory, then continue.

(2) Lubricate the applicable door:

(a) Do this task: Forward Entry Door Servicing - Mechanism, AMM TASK 12-25-11-640-802.

(b) Do this task: Aft Entry Door Servicing - Mechanism, AMM TASK 12-25-12-640-802.

(c) Do this task: Forward Galley Service Door Lubrication - Mechanism, AMM TASK 12-25-13-640-802.

1) Do the Repair Confirmation at the end of this task.

2) If the Repair Confirmation is not satisfactory, then continue.

(3) Do the applicable door adjustment:

(a) Do this task: Forward Entry Door Adjustment, AMM TASK 52-11-00-820-801.

(b) Do this task: Aft Entry Door Adjustment, AMM TASK 52-13-00-820-801.

(c) Do this task: Galley Service Door Adjustment, AMM TASK 52-41-00-820-801.

(d) If a problem is found, repair it.

1) Do the Repair Confirmation at the end of this task.

2) If the Repair Confirmation is not satisfactory, then continue.

(4) Do this check of the snubber:

(a) Examine the snubber.

1) Look for damage or leaks.

2) If you find a problem, repair it.

a) Do the Repair Confirmation at the end of this task.

b) If the Repair Confirmation is not satisfactory, then continue.

(5) Do this check of the hinge arms:

(a) Examine the guide arm and roller.

1) Look for corrosion or too much wear.

2) If you find a problem, repair it.

a) Do the Repair Confirmation at the end of this task.

b) If the Repair Confirmation is not satisfactory, then continue.

(b) Examine the hinge arms.

1) Look for corrosion or too much wear.

2) If you find a problem, repair it.

a) Do the Repair Confirmation at the end of this task.

b) If the Repair Confirmation is not satisfactory, then continue.

(c) Examine the door hinge torque tube.

1) Look for corrosion or too much wear.

2) If you find a problem, repair it.

a) Do the Repair Confirmation at the end of this task.

b) If the Repair Confirmation is not satisfactory, then continue.

(6) Do this check of the fuselage hinge torque tube:

(a) Examine the fuselage hinge torque tube.

1) Look for corrosion or too much wear.

2) If you find a problem, repair it.

a) Do the Repair Confirmation steps below.

D. Repair Confirmation

(1) Open and close the door.

(2) If it is easy to open and close the door, you have corrected the fault.

——— END OF TASK ———

808. Entry or Galley Interior Door Handle Does Not Stay In Position - Fault Isolation

A. Description

(1) Interior entry door does not stay in correct position when latched.

(2) Interior galley door does not stay in correct position when latched.

B. Possible Causes

(1) Handle Box Assembly

C. Fault Isolation Procedure

(1) Remove the applicable Door Lining. These are the tasks:

- Forward Entry Door Lining - Removal, AMM TASK 52-11-31-000-802
- Aft Entry Door Lining Removal, AMM TASK 52-13-31-000-802
- Galley Service Door Lining Removal, AMM TASK 52-41-31-000-802

(2) Do this visual inspection of the Handle Box Assembly as follows:

(a) Make sure that the two Cam Follower Crank Assemblies are correctly installed.

(b) Make sure that all Handle Fasteners to the Hub are installed and tight.

(c) Make sure that Hub Fasteners to the Cam Plate are installed and tight.

(d) Make sure that the Cam Plate is correctly connected to the Cam Follower Crank Assemblies.

(e) If a problem is found, then repair it.

(f) Do the Repair Confirmation steps below.

D. Repair Confirmation

(1) Install the applicable Door Lining. These are the tasks:

- Forward Entry Door Lining - Installation, AMM TASK 52-11-31-400-802
- Aft Entry Door Lining Installation, AMM TASK 52-13-31-400-802
- Galley Service Door Lining Installation, AMM TASK 52-41-31-400-802

(2) LATCH and UNLATCH the Door with the Interior Handle.

(3) If the Interior Handle stays in position for both LATCH and UNLATCHED positions, you have corrected the problem.

——— END OF TASK ———

809. Door Hold Open Latch Hard To Operate - Fault Isolation

A. Description

(1) Refer to SDS SUBJECT 52-10-00 for a detailed description of the Passenger/Crew Doors.

B. Possible Causes

(1) Guide Arm

(2) Snubber

C. Fault Isolation Procedure

(1) To fault isolate the Hold Open Latch for the Forward Entry Door, do these steps:

(a) Open the door fully to engage the Door Hold Open Latch.

(b) Push the Yellow Release Lever on the Guide Arm to release the Hold Open Latch.

1) If the Hold Open Latch operates easily, then the fault was intermittent.

2) If the Hold Open Latch is hard to operate, then continue.

(c) Remove or disassemble the Hold Open Mechanism, This is the task: Forward Entry Door Guide Arm and Roller Removal, AMM TASK 52-11-21-000-802.

1) Look for wear or damage to the Hold Open Mechanism or the Roller.

2) Make sure that the Hold Open Mechanism Spring is correctly installed.

a) If you find a problem, repair as necessary and then install the Fwd Entry Door Guide Arm and Roller and adjust the Guide Arm. These are the applicable tasks:

NOTE: Only do the Guide Arm adjustment.

- Forward Entry Door Guide Arm and Roller Installation, AMM TASK 52-11-21-400-802
- Forward Entry Door Adjustment, AMM TASK 52-11-00-820-801

<1> Do the Repair Confirmation at the end of this task.

(2) To fault isolate the Hold Open Latch for the Aft Entry Door or the Galley Door, do these steps:

(a) Open the door fully to engage the Door Hold Open Latch.

(b) Push the Yellow Release button on the Guide Arm to release the Hold Open Latch.

1) If the Hold Open Latch operates easily, then the fault was intermittent.

2) If the Hold Open Latch is hard to operate, then continue.

(c) Remove the Roller for the applicable Aft Entry (Galley) Door. These are the applicable tasks:

- Aft Entry Door Guide Arm and Roller Removal, AMM TASK 52-13-21-000-802
- Galley Service Door Guide Arm and Roller Removal, AMM TASK 52-41-21-000-801

(d) Remove the Snubber for the applicable Aft Entry (Galley) Door. These are the applicable tasks:

- Aft Entry Door Snubber Removal, AMM TASK 52-13-51-000-801
- Galley Service Door Snubber Removal, AMM TASK 52-41-51-000-801

(e) Look for wear or damage to the Roller Assembly.

(f) Make sure that the Snubber is not bottomed out.

(g) If you find a problem, repair as necessary and then install the Roller for the applicable Aft Entry (Galley) Door. These are the tasks:

- Aft Entry Door Guide Arm and Roller Installation, AMM TASK 52-13-21-400-802
- Galley Service Door Guide Arm and Roller Installation, AMM TASK 52-41-21-400-801

(h) Install the Snubber for the applicable Aft Entry (Galley) Door. These are the applicable tasks:

- Aft Entry Door Snubber Installation, AMM TASK 52-13-51-400-801
- Galley Service Door Snubber Installation, AMM TASK 52-41-51-400-801

(i) Adjust the Aft Entry Door. This is the task:

- Aft Entry Door Adjustment, AMM TASK 52-13-00-820-801

(j) Adjust the Galley Door Guide Arm and Roller. This is the task:

NOTE: Only do the Guide Arm and Snubber adjustment.

- Galley Service Door Adjustment, AMM TASK 52-41-00-820-801

D. Repair Confirmation

(1) Open the door fully, until the Hold Open Latch engages.

(2) On the Forward Entry Door, push the Yellow Lever on the Guide Arm.

(3) On Aft Entry Door or Galley Door, push the Yellow Release button on the Guide Arm.

(4) If the Hold Open Latch operates correctly, you corrected the problem.

(5) If the Hold Open Latch does not operate correctly, continue the Fault Isolation Procedure at the subsequent step.

——— END OF TASK ———

810. Door Latch Mechanism Hard To Operate - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-10-00)

B. Possible Causes

(1) Adjustment

(2) Handle box

C. Fault Isolation Procedure

(1) Do the adjustment for the applicable door:

(a) Do this task: Forward Entry Door Adjustment, AMM TASK 52-11-00-820-801.

(b) Do this task: Aft Entry Door Adjustment, AMM TASK 52-13-00-820-801.

(c) Do this task: Galley Service Door Adjustment, AMM TASK 52-41-00-820-801.

NOTE: Only do latch and horizontal control rod adjustment.

(d) Do the Repair Confirmation at the end of this task.

(e) If the Repair Confirmation is not satisfactory, then continue.

(2) Do a check on the handle box:

(a) Remove the applicable door lining:

1) Do this task: Forward Entry Door Lining - Removal, AMM TASK 52-11-31-000-802.

2) Do this task: Aft Entry Door Lining Removal, AMM TASK 52-13-31-000-802.

3) Do this task: Galley Service Door Lining Removal, AMM TASK 52-41-31-000-802.

(b) Look for wear or damage on the latch crank and the latch crank bearings.

(c) Look for wear or damage on the horizontal control rod.

(d) If a problem is found, repair it.

(e) Install the applicable door lining:

1) Do this task: Forward Entry Door Lining - Installation, AMM TASK 52-11-31-400-802.

2) Do this task: Aft Entry Door Lining Installation, AMM TASK 52-13-31-400-802.

3) Do this task: Galley Service Door Lining Installation, AMM TASK 52-41-31-400-802.

(f) Do the Repair Confirmation steps below.

D. Repair Confirmation

(1) Try to latch and unlatch the door.

(2) If it is easy to latch and unlatch the door, then you have corrected the fault.

——— END OF TASK ———

811. Forward Entry, Aft Entry, Forward Galley, or Aft Galley Doors Exterior Handle Difficult to Operate - Fault Isolation

A. Description

(1) Exterior handle is hard to pull out.

(2) Exterior handle is hard to turn.

(3) Exterior handle does not stow.

B. Possible Causes

(1) Lubrication

(2) Dirt and unwanted material

(3) Worn/Defective O-rings

(4) Horizontal Control Rod

(5) Bearing

(6) Spring

C. Related Data

(1) Forward Entry Door (SDS SUBJECT 52-10-00)

(2) Aft Entry Door (SDS SUBJECT 52-10-00)

(3) Galley Doors (SDS SUBJECT 52-40-00)

D. Fault Isolation Procedure

(1) Do this check of the exterior door handle:

(a) Remove the applicable door lining. These are the tasks:

- Forward Entry Door Lining - Removal, AMM TASK 52-11-31-000-802.
- Aft Entry Door Lining Removal, AMM TASK 52-13-31-000-802.
- Galley Service Door Lining Removal, AMM TASK 52-41-31-000-802.

(b) Examine the handle box and exterior handle assembly for damage or loose hardware.

(c) Remove dirt and unwanted material from the handle box.

(d) If the exterior handle is hard to pull out, then do these steps:

1) Lubricate the applicable handle shaft. These are the tasks:

- Forward Entry Door Servicing - Mechanism, AMM TASK 12-25-11-640-802.
- Aft Entry Door Servicing - Mechanism, AMM TASK 12-25-12-640-802.
- Forward Galley Service Door Lubrication - Mechanism, AMM TASK 12-25-13-640-802.

a) Do the Repair Confirmation at the end of this task.

b) If the Repair Confirmation is not satisfactory, then continue.

2) Remove the applicable exterior door handle. These are the tasks:

- Forward Entry Door Hinge Arm Removal, AMM TASK 52-11-11-000-802.
- Aft Entry Door Hinge Arm Removal, AMM TASK 52-13-11-000-802.
- Galley Service Door Hinge Arm Removal, AMM TASK 52-41-11-000-801.

3) Do a check of both handle housing O-rings for wear, damage and correct installation.
   a) If necessary, adjust or replace the handle housing O-rings.
   b) Do the Repair Confirmation at the end of this task.
   c) If the Repair Confirmation is not satisfactory, then continue.
4) Do a check of the handle shaft spring for damage and release force and replace the spring if it is necessary.
   a) Do the Repair Confirmation at the end of this task.

(e) If the exterior handle is hard to turn, then do these steps:
1) Examine the handle shaft bearing.
   a) Make sure that the shaft turns freely in the bearing and replace the bearing if necessary.
   b) Do the Repair Confirmation at the end of this task.
   c) If the Repair Confirmation is not satisfactory, then continue.
2) Do the centering guide adjustment for the applicable door. These are the tasks:
   - Forward Entry Door Adjustment, AMM TASK 52-11-00-820-801.
   - Aft Entry Door Adjustment, AMM TASK 52-13-00-820-801.
   - Galley Service Door Adjustment, AMM TASK 52-41-00-820-801.
   a) Do the Repair Confirmation at the end of this task.
   b) If the Repair Confirmation is not satisfactory, then continue.
3) Do an inspection of the mating surfaces between the centering cam on the handle assembly and the handle housing. Repair or replace as necessary.
   a) Do the Repair Confirmation at the end of this task.

(f) If the exterior handle does not stow, then do these steps:
1) Do a check of the exterior handle O-rings for wear, damage and correct installation.
   a) If necessary, adjust or replace the exterior handle O-rings.
   b) Do the Repair Confirmation at the end of this task.
   c) If the Repair Confirmation is not satisfactory, then continue.
2) Do a check of the handle shaft spring for compression and replace the spring if necessary.
   a) Do the Repair Confirmation at the end of this task.
   b) If the Repair Confirmation is not satisfactory, then continue.
3) Do the horizontal rod adjustment for the applicable door. These are the tasks:
   - Forward Entry Door Adjustment, AMM TASK 52-11-00-820-801.
   - Aft Entry Door Adjustment, AMM TASK 52-13-00-820-801
   - Galley Service Door Adjustment, AMM TASK 52-41-00-820-801
   a) Do the Repair Confirmation at the end of this task.

b) If the Repair Confirmation is not satisfactory, then continue.

4) Do an inspection of the mating surfaces between the centering cam on the handle shaft assembly and the handle housing. Repair or replace as necessary.

5) Install the applicable exterior door handle. These are the tasks:

- Forward Entry Door Hinge Arm Installation, AMM TASK 52-11-11-400-802.
- Aft Entry Door Hinge Arm Installation, AMM TASK 52-13-11-400-802.
- Galley Service Door Hinge Arm Installation, AMM TASK 52-41-11-400-801.

a) Do the Repair Confirmation steps below.

E. Repair Confirmation

(1) Pull out the exterior handle.

(2) Open the door with the exterior handle.

(3) Close the door with the exterior handle.

(4) Stow the exterior handle.

(5) If it is easy to operate the exterior handle, you have corrected the problem.

(a) Install the applicable door lining. These are the tasks:

- Forward Entry Door Lining - Installation, AMM TASK 52-11-31-400-802.
- Aft Entry Door Lining Installation, AMM TASK 52-13-31-400-802.
- Galley Service Door Lining Installation, AMM TASK 52-41-31-400-802.

——— END OF TASK ———

812. Door Seal Leaking, Noisy, Torn - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-09-00)

B. Possible Causes

(1) Delamination of a seal or joint.

(2) Cut or split in the seal joint or in the blade or bulb section of the seal.

(3) Damage of seal flanges or seal splices.

(4) Separation of splice bonds.

C. Fault Isolation Procedure

(1) Do the visual inspection of the seal as follows:

(a) Unlock, open partially, close and lock the door, and do these checks:

1) Make sure the seals are clear of the edge of all surrounding structure when the door opens and closes.

2) Make sure that the blades of the seals touch the seal depressors around the edge of the door when the door closes.

3) Make sure that the seal does not flip outboard at the corners when the door closes.

4) Make sure there are no cuts, delamination, or damage to the seal.

(2) Repair the applicable seals if it is necessary. To do this, do this task: Seal Repair Procedures For Specified Types of Seal Damage, AMM TASK 52-09-10-350-801.

(3) Replace the blade seal if it is necessary.

These are the tasks:
Blade Seals Removal, AMM TASK 52-09-11-000-801,
Blade Seals Installation, AMM TASK 52-09-11-400-801.

(4) Replace the blade and diaphragm seal if it is necessary.
These are the tasks:
Blade and Diaphragm Seals Removal, AMM TASK 52-09-12-000-801,
Blade and Diaphragm Seals Installation, AMM TASK 52-09-12-400-801.

(5) Replace the bulb and diaphragm seal if it is necessary.
These are the tasks:
Bulb and Diaphragm Seal Removal, AMM TASK 52-09-14-000-801,
Bulb and Diaphragm Seal Installation, AMM TASK 52-09-14-400-801.

(6) Replace the aerodynamic seal if it is necessary.
These are the tasks:
Aerodynamic Seals Removal, AMM TASK 52-09-15-000-801,
Aerodynamic Seals Installation, AMM TASK 52-09-15-400-801.

(7) Replace the acoustic seal if it is necessary.
These are the tasks:
Acoustic Seal Removal, AMM TASK 52-09-16-000-801,
Acoustic Seal Installation, AMM TASK 52-09-16-400-802.

(8) Replace the light seal if it is necessary.
These are the tasks:
Light Seals Removal, AMM TASK 52-09-17-000-801,
Light Seal Installation, AMM TASK 52-09-17-400-801.

——— END OF TASK ———

813. Aft Entry Door Difficult to Operate Between Cocked and Fully Open Position, Door Jamming or Binding - Fault Isolation

A. Description

(1) Aft entry door difficult to operate between cocked and fully open position

(2) Aft entry door jamming or binding

B. Possible Causes

(1) Aft Entry Door Bumper

C. Related Data

(1) Aft Entry Door (SDS SUBJECT 52-10-00)

D. Fault Isolation Procedure

(1) Do a visual inspection of the bumpers. This is the task:
- Aft Entry Door Bumper - Inspection, AMM TASK 52-13-51-200-801

(2) If the bumpers are missing or the position is incorrect, remove them. These are the tasks:
- Aft Entry Door Bumper - Removal, AMM TASK 52-13-51-000-802

- Aft Entry Door Bumper - Installation, AMM TASK 52-13-51-400-802

(a) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

(1) Pull out the exterior handle.

(2) Open the door with the exterior handle.

(3) Close the door with the exterior handle.

(4) Stow the exterior handle.

(5) If it is easy to operate the exterior handle, you have corrected the problem.

——— END OF TASK ———

814. Aft Galley Door Difficult to Operate Between Cocked and Fully Open Position, Door Jamming or Binding - Fault Isolation

A. Description

(1) Aft galley door difficult to operate between cocked and fully open position

(2) Aft galley door jamming or binding

B. Possible Causes

(1) Aft Galley Door Bumper

C. Related Data

(1) Aft Galley Door (SDS SUBJECT 52-40-00).

D. Fault Isolation Procedure

(1) Do a visual inspection of the bumpers. This is the task:

- Galley Service Door Bumper - Inspection, AMM TASK 52-41-51-200-801

(2) If the bumpers are missing or the position is incorrect, remove them. These are the tasks:

- Galley Service Door Bumper - Removal, AMM TASK 52-41-51-000-802
- Galley Service Door Bumper - Installation, AMM TASK 52-41-51-400-802

(a) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

(1) Pull out the exterior handle.

(2) Open the door with the exterior handle.

(3) Close the door with the exterior handle.

(4) Stow the exterior handle.

(5) If it is easy to operate the exterior handle, you have corrected the problem.

——— END OF TASK ———

815. Fwd Entry Door Handle Movement - Fault Isolation

A. Description

(1) This task is for this Observed Fault:

(a) Fwd Entry Door handle movement during taxi or takeoff (on ground).

1) This can be an intermittent fault due to an improperly closed Fwd Entry Door prior to departure.

a) When the Forward Entry Door is closed from the outside, it needs to be verified from the inside by pushing the handle to its fully closed horizontal position.

b) The Forward Entry Door should be closed from the inside to make sure that the handle has turned to the full horizontal position before releasing the handle.

2) Soft-Unlatching.

(b) Fwd Entry door handle movement during climb out (in air).

1) If the door handle moves and there is no door indication on the flight deck, Boeing considers this is a safe condition for flight and the handle movement can be ignored.

2) This can be an intermittent fault due to an older design of the Sensor Assembly.

3) The maintenance message 52-71001 is related to this fault.

B. Possible Causes

(1) Door operation

(2) Door rigging

(3) Forward Entry Door Indication Sensor, S199

C. Initial Evaluation

(1) Do a check of flight crew reports and maintenance records for this Observed Fault symptom.

(a) If you find that the observed fault symptom occurred on ground, then do the Fault Isolation Procedure - Handle Movement Observed on Ground below.

(b) If you find that the observed fault symptom occurred in air, then do the Fault Isolation Procedure - Handle Movement Observed in Air below.

D. Fault Isolation Procedure - Handle Movement Observed on Ground

(1) If necessary, do this task: Forward Entry Door (Soft Unlatching), AMM TASK 52-11-00-820-802.

(a) If the observed fault symptom does not occur on the subsequent flight, then you corrected the problem.

E. Fault Isolation Procedure - Handle Movement Observed in Air

(1) Look for the maintenance messages 52-71001.

(a) If you find the related maintenance message, then do the applicable Fault Isolation Procedure.

(b) If the observed fault symptom does not occur on the subsequent flight, then you corrected the problem.

——— END OF TASK ———

801. Overwing Exit Door Flight Lock Switch Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:

(a) 52-72005 L FL SW FAULT

(b) 52-72007 L FL SW FAULT

(c) 52-72107 L FL SW FAULT

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(d) 52-72006 L FWD FL SW FAULT

(e) 52-72106 L FWD FL SW FAULT

SHZ ALL

(f) 52-72008 R FL SW FAULT

(g) 52-72108 R FL SW FAULT

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(h) 52-72009 R FWD FL SW FAULT

(i) 52-72109 R FWD FL SW FAULT

SHZ ALL

(2) These maintenance messages show when there are all of these conditions:

(a) A minimum of one engine is on.

(b) The Engine Thrust Lever is set at more than 53 degrees.

(c) The Overwing Exit Doors are closed.

(d) The applicable Flight Lock Switch indicates open.

(3) (SDS SUBJECT 52-22-00)

B. Possible Causes

(1) Left (Right) Flight Lock Solenoid, M2219 (M2221)

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(2) Left Forward (Right Forward) Flight Lock Solenoid, M2220 (M2222)

SHZ ALL

(3) Wire problem

(4) Left (Right) Flight Lock Switch, S1112 (S1114)

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(5) Left Forward (Right Forward) Flight Lock Switch, S1113 (S1115)

SHZ ALL

(6) Proximity Switch Electronic Unit (PSEU), M2061

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	1	C00458	ENGINE 1 IGNITION RIGHT

(Continued)

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	1	C01515	OVERWING FLIGHT LOCK-RIGHT
D	2	C01514	OVERWING FLIGHT LOCK-LEFT
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

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

D. Related Data

(1) SSM 52-71-13

(2) SSM 52-71-14

(3) WDM 52-71-13

(4) WDM 52-71-14

E. Initial Evaluation

(1) Do these steps to prepare for the Initial Evaluation:

NOTE: Two persons are necessary to do parts of this task: one person in the control compartment and one person in the passenger compartment.

(a) Open these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	1	C01515	OVERWING FLIGHT LOCK-RIGHT
D	2	C01514	OVERWING FLIGHT LOCK-LEFT

(b) Stop for a minimum of ten seconds.

(c) Close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	1	C01515	OVERWING FLIGHT LOCK-RIGHT
D	2	C01514	OVERWING FLIGHT LOCK-LEFT

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

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

(e) Make sure that a minimum of 3 out of 4 entry/service doors are closed.

(f) Make sure that the airplane is in ground mode.

(g) Make sure that the Engine Start Switches on the P5-20 Panel are in the OFF position.

(h) Move the Engine Start Levers on the Control Stand to IDLE.

(i) Stop for 5 minutes.

(j) Move the Engine Thrust Levers to the fully forward position.

(2) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(a) If the maintenance message does not show, then there was an intermittent fault.

(b) If the maintenance message shows, then do these steps:

NOTE: Use these steps to isolate the door problem to the door indication circuit or the Flight Lock Solenoid circuit.

WARNING MAKE SURE THAT THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING-LOADED TO OPEN AUTOMATICALLY AND INJURIES COULD OCCUR.

1) Make sure that the Flight Lock Solenoid is in the locked position:
   a) Pull the Overwing Exit Door handle to open the door.
   b) Make sure that the Overwing Wing Exit Door does not open.
2) Move the Engine Thrust Levers to idle.
3) The following steps must occur at the same time:
   a) Stand by the Overwing Doors and prepare to listen for a delay between the left door and right door flight lock actuation.
   b) Move the Thrust Levers forward.

c) Listen for the left and right door flight lock actuation to occur at the same time.

<1> If a flight lock actuates 1 or more seconds after the others, replace the slow Actuating Solenoid Assembly.

4) Move the Engine Thrust Levers back to idle.

5) Move the Engine Start Levers to CUTOFF.

WARNING MAKE SURE THAT THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING-LOADED TO OPEN AUTOMATICALLY AND INJURIES COULD OCCUR.

6) Make sure that the Flight Lock Solenoid is not in the locked position:

a) Pull the Overwing Exit Door handle to open the door.

b) Make sure the Overwing Exit Door will open.

7) Do the Fault Isolation Procedure below.

a) Make sure that the problem is identified as a door indication problem or a Flight Lock Solenoid problem before you continue.

F. Fault Isolation Procedure

(1) If you identified the fault as a Flight Lock Solenoid mechanical problem, then do these steps:

(a) Remove the door lining to get access to the Flight Lock Solenoid. This is the task: Emergency Exit Door Lining Removal, AMM TASK 52-22-51-000-801.

(b) Do a continuity check between the terminals of the applicable Flight Lock Solenoid.

NOTE: Over time, moisture with possible freezing can affect the ground termination. When checking the wiring, it is recommended to inspect the applicable ground blocks for signs of corrosion.

Table 201

MAINTENANCE MESSAGE	SOLENOID	TERMINALS
52-72005 L FL SW FAULT 52-72007 L FL SW FAULT 52-72107 L FL SW FAULT	M2219	A, B
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999		
52-72006 L FWD FL SW FAULT 52-72106 L FWD FL SW FAULT	M2220	A, B
SHZ ALL		
52-72008 R FL SW FAULT 52-72108 R FL SW FAULT	M2221	A, B
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999		
52-72009 R FWD FL SW FAULT 52-72109 R FWD FL SW FAULT	M2222	A, B
SHZ ALL		

1) If there is no continuity, then replace the Flight Lock Solenoid. These are the tasks:

- Emergency Exit Door Fight Lock Solenoid Removal, AMM TASK 52-22-41-000-802
- Emergency Exit Door Flight Lock Solenoid Installation, AMM TASK 52-22-41-400-802

a) Do the Repair Confirmation at the end of this task.

2) If there is continuity, then continue.

(c) Do this wire check between the Flight Lock Relay and the Flight Lock Solenoid:

1) Remove the applicable Flight Lock Relay.

2) Disconnect the connector for the applicable Flight Lock Solenoid.

(d) Do a wire check between these pins of the connector for the Flight Lock Relay and the connector for the Flight Lock Solenoid:

NOTE: Over time, moisture with possible freezing can affect the ground termination. When checking the wiring, it is recommended to inspect the applicable ground blocks for signs of corrosion.

Table 202

MAINTENANCE MESSAGE NUMBER	RELAY CONNECTOR		SOLENOID CONNECTOR
52-72005 52-72007 52-72107	D12756 pin A1	-------	D40196P pin 18
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-72006 52-72106	D12756 pin B1	-------	D40196P pin 22
SHZ ALL			
52-72008 52-72108	D12758 pin A1	-------	D40296P pin 24
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-72009 52-72109	D12758 pin B1	-------	D40296P pin 27
SHZ ALL			

1) If you find a problem with the wire, then do these steps:

a) Repair or replace the wire.

b) Re-install the applicable Flight Lock Relay.

c) Re-connect the electrical connector for the applicable Flight Lock Solenoid.

d) Do the Repair Confirmation at the end of this task.

2) If you do not find a problem with the wires, then continue.

(e) Examine the Engine 1 (2) Running Relays, R737 (R738):

NOTE: The Engine 1 Running Relay, R737, is found in the J22 Junction Box.
The Engine 2 Running Relay, R738, is found in the J24 Junction Box.

1) Do the Emergency Exit Door Flight Lock Mechanical Switch Operational Test. This is the task: Emergency Exit Door Flight Lock Mechanical Switch Operational Test, AMM TASK 52-22-00-710-802.

2) If the operational test is not in the limits, then examine the wires for the applicable Engine Running Relay:

   a) Disconnect the connector for the applicable Flight Lock Solenoid.

   b) Remove the applicable Engine Running Relay.

   c) Do a wire check between the applicable Flight Lock Solenoid and the applicable relay:

      NOTE: Over time, moisture with possible freezing can affect the ground termination. When checking the wiring, it is recommended to inspect the applicable ground blocks for signs of corrosion.

Table 203

MAINTENANCE MESSAGE NUMBER	SOLENOID CONNECTOR		R737 CONNECTOR
52-72005 52-72007 52-72107	D40196P pin 17	-------	D12538 pin A1
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-72006 52-72106	D40196P pin 17	-------	D12538 pin A1
SHZ ALL			
52-72008 52-72108	D40296P pin 23	-------	D12538 pin A1
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-72009 52-72109	D40296P pin 23	-------	D12538 pin A1
SHZ ALL			

Table 204

MAINTENANCE MESSAGE NUMBER	SOLENOID CONNECTOR		R738 CONNECTOR
52-72005 52-72007 52-72107	D40196P pin 17	-------	D12540 pin B1
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-72006 52-72106	D40196P pin 17	-------	D12540 pin B1
SHZ ALL			
52-72008 52-72108	D40296P pin 23	-------	D12540 pin B1

Table 204 (Continued)

MAINTENANCE MESSAGE NUMBER	SOLENOID CONNECTOR		R738 CONNECTOR
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-72009 52-72109	D40296P pin 23	-------	D12540 pin B1

SHZ ALL

<1> If you find a problem with the wires, then do these steps:

<a> Repair or replace the wires.

<b> Re-connect the connector for the applicable Flight Lock Solenoid.

<c> Re-install the applicable Engine Running Relay.

<d> Do the Repair Confirmation at the end of this task.

<2> If you do not find a problem with the wires, then replace the Engine 1 (2) Running Relay, R737 (R738).

<a> Do the Repair Confirmation at the end of this task.

(2) If you identified the fault as an indication problem, then do these steps:

(a) Do these steps to do a check of the applicable Flight Lock Switch:

1) If it is necessary, remove the lining from the door. This is the task: Emergency Exit Door Lining Removal, AMM TASK 52-22-51-000-801.

2) Disconnect the electrical connector from the applicable Flight Lock Switch.

3) Manually operate the Flight Lock Switch while you do the continuity check.

4) Do a continuity check of the connectors splices and the ground.

5) Do a continuity check between terminals of the Flight Lock Switch:

NOTE: Over time, moisture with possible freezing can affect the ground termination. When checking the wiring, it is recommended to inspect the applicable ground blocks for signs of corrosion.

Table 205

MAINTENANCE MESSAGE	SWITCH	TERMINALS
52-72005 L FL SW FAULT 52-72007 L FL SW FAULT 52-72107 L FL SW FAULT	S1112	A, B
52-72008 R FL SW FAULT 52-72108 R FL SW FAULT	S1114	A, B

a) If the continuity check is not correct, then replace the applicable Flight Lock Switch. These are the tasks:

- Flight Lock Switch Removal, AMM TASK 52-22-41-020-802
- Flight Lock Switch Installation, AMM TASK 52-22-41-420-802

<1> Make sure that the electrical connector is correctly installed on the Flight Lock Switch.

<2> Do the Repair Confirmation at the end of this task.

b) If the continuity check is correct, then continue.

(b) Do this wire check between the Flight Lock Switch and the PSEU:

1) Disconnect the applicable electrical connector from the PSEU.

2) Do a wire check between the ground of the Flight Lock Switch and the connector for the PSEU:

NOTE: Over time, moisture with possible freezing can affect the ground termination. When checking the wiring, it is recommended to inspect the applicable ground blocks for signs of corrosion.

Table 206

MAINTENANCE MESSAGE NUMBER	PSEU CONNECTOR		GROUND AT SWITCH
52-72005 52-72007 52-72107	D10986 pin 20	-------	S1112
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-72006 52-72106	D10986 pin 53	-------	S1113
SHZ ALL			
52-72008 52-72108	D10988 pin 2	-------	S1114
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-72009 52-72109	D10988 pin 52	-------	S1115
SHZ ALL			

a) If you find a problem with the wire, then do these steps:

<1> Repair or replace the wire.

<2> Re-connect the electrical connector to the Flight Lock Switch.

<3> Re-connect the electrical connector to the PSEU.

<4> Do the Repair Confirmation at the end of this task.

b) If you do not find a problem with the wiring, then replace the PSEU, M2061. These are the tasks:

- Proximity Switch Electronics Unit (PSEU) Removal, AMM TASK 32-09-10-000-801
- Proximity Switch Electronics Unit (PSEU) Installation, AMM TASK 32-09-10-400-801

<1> Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

NOTE: You must do the steps to prepare for the Initial Evaluation before you do these steps.

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	1	C01515	OVERWING FLIGHT LOCK-RIGHT
D	2	C01514	OVERWING FLIGHT LOCK-LEFT

(2) Make sure that the connector for the applicable Flight Lock Switch is installed.

(3) Make sure that the applicable Flight Lock Relay is installed.

(4) Make sure that the connector for the applicable Flight Lock Solenoid is installed.

(5) Make sure that the applicable Engine Running Relay is installed.

(6) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(a) If the maintenance message does not show, then you corrected the problem.

1) Put the airplane back to its usual condition.

a) Move the Engine Start Levers to CUTOFF.

b) Move the Engine Thrust Levers to idle.

c) Make sure that the Engine Start Switches are in the OFF/AUTO position.

d) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

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

e) Make sure that the door linings are correctly installed. This is the task: Emergency Exit Door Lining Installation, AMM TASK 52-22-51-400-801.

(b) If the maintenance message shows, then continue the Fault Isolation Procedure at the subsequent step.

——— END OF TASK ———

802. Overwing Exit Door Indication Switch Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:

(a) 52-72010 L OW SW A FAULT

(b) 52-72011 L OW SW B FAULT

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(c) 52-72012 L FWD OW SW A FLT

(d) 52-72013 L FWD OW SW B FLT

SHZ ALL

(e) 52-72014 R OW SW A FAULT

(f) 52-72015 R OW SW B FAULT

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(g) 52-72016 R FWD OW SW A FLT

(h) 52-72017 R FWD OW SW B FLT

SHZ ALL

(2) This maintenance message shows when there are all of these conditions:

(a) The airplane is in flight.

(b) Any one of the door switches indicates open.

B. Possible Causes

(1) Left Overwing Exit Door Indication Switch, S1104 or S1105

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(2) Left Forward Overwing Exit Door Indication Switch, S1108 or S1109

SHZ ALL

(3) Right Overwing Exit Door Indication Switch, S1106 or S1107

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(4) Right Forward Overwing Exit Door Indication Switch, S1110 or S1111

SHZ ALL

(5) Wiring problem

(6) PSEU, M2061

C. Related Data

(1) SSM 52-71-13

(2) SSM 52-71-14

(3) WDM 52-71-13

(4) WDM 52-71-14

D. Initial Evaluation

(1) Do these steps to prepare for the Initial Evaluation:

(a) Make sure that a minimum of 3 out of 4 entry/service doors are closed.

(b) Make sure all the Overwing Exit Doors are closed, latched and locked.

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

(2) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(a) If the maintenance message does not show, then there was an intermittent fault.

(b) If the maintenance message shows, then do these steps:

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

2) Do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Adjust the applicable switch. This is the task: Emergency Exit Door Indication Switch Adjustment, AMM TASK 52-71-22-820-805.

Table 207

MAINTENANCE MESSAGE	SWITCH
52-72010 L OW SW A FAULT	S1104
52-72011 L OW SW B FAULT	S1105
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999	
52-72012 L FWD OW SW A FLT	S1108
52-72013 L FWD OW SW B FT	S1109
SHZ ALL	
52-72014 R OW SW A FAULT	S1106
52-72015 R OW SW B FAULT	S1107
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999	
52-72016 R FWD OW SW A FLT	S1110
52-72017 R FWD OW SW B FLT	S1111

SHZ ALL

(a) Do the Repair Confirmation at the end of this task.

(2) Replace the applicable switch.

(a) Do the Repair Confirmation at the end of this task.

(3) Do this wiring check between the Indication Switch and the PSEU:

(a) Disconnect the applicable connector from the PSEU.

(b) Do a wiring check between the Indication Switch ground and the connector for the PSEU:

1) With all of the Overwing Exit Doors closed, make sure that there is continuity between the Indication Switch ground and the PSEU connector:

NOTE: Over time, moisture with possible freezing can affect the ground termination. When checking the wiring, it is recommended to inspect the applicable ground blocks for signs of corrosion.

Table 208

MAINTENANCE MESSAGE NUMBER	GROUND AT SWITCH		PSEU CONNECTOR
52-72010			D10986
	S1104	-------	pin 8
52-72011			D10988

Table 208 (Continued)

MAINTENANCE MESSAGE NUMBER	GROUND AT SWITCH		PSEU CONNECTOR
	S1105	-------	pin 21
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-72012			D10986
	S1108	-------	pin 52
52-72013			D10988
	S1109	-------	pin 35
SHZ ALL			
52-72014			D10986
	S1106	-------	pin 61
52-72015			D10988
	S1107	-------	pin 1
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-72016			D10986
	S1110	-------	pin 15
52-72017			D10988
	S1111	-------	pin 30
SHZ ALL			

a) If you find a problem with the wiring, then do these steps:
<1> Repair the wiring.
<2> Re-connect the connector to the applicable switch.
<3> Re-connect the applicable connector to the PSEU.
<4> Do the Repair Confirmation at the end of this task.
b) If you do not find a problem with the wiring, then continue.

(4) Replace the PSEU, M2061. These are the tasks:
- Proximity Switch Electronics Unit (PSEU) Removal, AMM TASK 32-09-10-000-801
- Proximity Switch Electronics Unit (PSEU) Installation, AMM TASK 32-09-10-400-801

(a) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

NOTE: You must do the steps to prepare for the Initial Evaluation before you do these steps.

(1) Make sure the connector for the applicable Indication Switch is installed.

(2) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(a) If the maintenance message does not show, then you corrected the problem.

1) Put the airplane back to its usual condition. This is the task: Return the Airplane to the Ground Mode, AMM TASK 32-09-00-860-802.

(b) If the maintenance message shows, then continue the Fault Isolation Procedure at the subsequent step.

——— END OF TASK ———

803. Right Engine Running Signal to PSEU Problem - Fault Isolation

A. Description

(1) This task is for this maintenance message:

(a) 52-72018 ENG RUN R FAULT

(2) This maintenance message shows when these conditions occur:

(a) The right engine is on, but the right engine-running relay is not providing a ground signal to the Proximity Sensor Electronics Unit (PSEU) input.

(b) The right engine thrust lever is advanced more than 64 degrees.

B. Possible Causes

(1) Right engine-running relay, R563

(2) Proximity switch electronics unit (PSEU), M2061

(3) Hydraulic Shutoff Valve, V33 (Eng 1) V34 (Eng2)

(4) Bleed Air Shutoff Valve, V17 (Eng 1) V16 (Eng 2).

C. Circuit Breakers

(1) This is the primary circuit breaker related to the fault:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	5	C01313	ENGINE 2 RUN/PWR

D. Related Data

(1) SSM 29-11-11

(2) WDM 29-11-11

(3) SSM 31-62-24

(4) WDM 31-62-24

(5) SSM 36-11-11

(6) WDM 36-11-11

(7) SSM 52-71-14

(8) WDM 52-71-14

(9) SSM 73-22-31

(10) WDM 73-22-31

E. Initial Evaluation

(1) Do these steps to prepare for the initial evaluation:

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	1	C00458	ENGINE 1 IGNITION RIGHT

(Continued)

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

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

(b) Make sure that a minimum of 3 out of 4 entry/service doors are closed.

(c) Make sure that the airplane is in ground mode.

(d) Make sure that the engine start switches on the P5-20 panel are in the OFF position.

(e) Move the engine start levers on the control stand to IDLE.

(f) Wait for 5 minutes, then move the engine thrust levers on the control stand to the fully advanced position.

(2) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(a) If the maintenance message does not show, then there was an intermittent fault.

(b) If the maintenance message shows, do these steps then do the Fault Isolation Procedure below:

1) Move the engine thrust levers to idle.

2) Move the engine start levers to CUTOFF.

F. Fault Isolation Procedure

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	5	C01313	ENGINE 2 RUN/PWR

(2) Replace the right engine-running relay R563.

NOTE: The right engine-running relay is installed in junction box J24.

(a) Do the Repair Confirmation at the end of this task.

1) If the Repair Confirmation is not satisfactory, then continue.

(3) Do this wiring check:

(a) Disconnect connector D10986 from the PSEU.

(b) Remove the right engine-running relay R563 from the J24 junction box.

(c) Do a wiring check between these pins of connector D10986 and connector D10916 at the J24 junction box:

(d) Do a wiring check between the relay and the PSEU.

D10986	D10916
pin 47	pin A1

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

1) Repair the wiring.
2) Reinstall the right engine-running relay R563.
3) Reconnect connector D10986 to the PSEU.
4) Do the Repair Confirmation at the end of this task.

(f) If you do not find a problem with the wiring, then continue.

(4) Replace the PSEU, M2061. These are the tasks:

- Proximity Switch Electronics Unit (PSEU) Removal, AMM TASK 32-09-10-000-801
- Proximity Switch Electronics Unit (PSEU) Installation, AMM TASK 32-09-10-400-801

(a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	5	C01313	ENGINE 2 RUN/PWR

(2) Do these steps to prepare for the Repair Confirmation:

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

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

(b) Make sure that the right-engine running relay, R563 is installed.

(c) Make sure that a minimum of 3 out of 4 entry/service doors are closed.

(d) Make sure that the airplane is in ground mode.

(e) Make sure that the engine start switches on the P5-20 panel are in the OFF position.

(f) Move the engine start levers on the control stand to IDLE.

(g) Wait for 5 minutes, then move the engine thrust levers on the control stand to the fully advanced position.

(3) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(a) If the maintenance message shows, then continue the Fault Isolation Procedure at the subsequent step.

(b) If the maintenance message does not show, then you corrected the fault, continue to the procedure below.

H. Put the Airplane in its Usual Condition

(1) Do these steps to put the airplane back to its usual condition.

(a) Move the engine start levers to CUTOFF.

(b) Move the engine thrust levers to idle.

(c) Make sure the engine start switches are OFF.

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

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

——— END OF TASK ———

804. Overwing Exit Door Option Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:

(a) 52-72019 OVWG OPT FAULT

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(b) 52-72024 FOUR OW OPT FLT

SHZ ALL

(2) These maintenance messages show when there are all of these conditions:

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(a) The OVERWING OPT pin on the PSEU is not grounded.

(b) The FOUR OVERWING OPT pin on the PSEU is not grounded.

SHZ ALL

(c) The left and right flight lock switches indicate closed.

B. Possible Causes

(1) Wiring problem

(2) Proximity switch electronics unit (PSEU), M2061

C. Related Data

(1) (SSM 52-71-13)

(2) (SSM 52-71-14)

(3) (WDM 52-71-13)

(4) (WDM 52-71-14)

D. Initial Evaluation

(1) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(2) If the maintenance message does not show, then there was an intermittent fault.

(3) If the maintenance message shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this wiring check:

(a) Disconnect connector D10986 from the PSEU.

(b) Make sure the applicable pin of connector D10986 goes to ground (WDM 52-71-13).

Table 209

MAINTENANCE MESSAGE	CONNECTOR	PIN NUMBER
52-72019 OVWG OPT FAULT	D10986	10
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999		
52-72024 FOUR OVWG OPT FLT	D10986	11
SHZ ALL		

(c) If the pin does not go to ground, then do these steps:

1) Repair the wiring.

2) Re-connect connector D10986 to the PSEU.

3) Do the Repair Confirmation at the end of this task.

(d) If the pin goes to ground, then continue.

(2) Replace the PSEU, M2061.

These are the tasks:

Proximity Switch Electronics Unit (PSEU) Removal, AMM TASK 32-09-10-000-801,
Proximity Switch Electronics Unit (PSEU) Installation, AMM TASK 32-09-10-400-801.

(a) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(2) If the maintenance message does not show, then you corrected the fault.

——— END OF TASK ———

805. Overwing Exit Door Switch Disagreement Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:

(a) 52-72020 L OW SW DISAGREE

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(b) 52-72021 L FWD OW SW DSGR

SHZ ALL

(c) 52-72022 R OW SW DISAGREE

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(d) 52-72023 R FWD OW SW DSGR

SHZ ALL

(2) These maintenance messages show when one of the two indication switches for an overwing exit door indicates open and the other indicates closed.

B. Possible Causes

(1) Left Overwing Exit Door Indication Switch, S1104 or S1105

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(2) Left Forward Overwing Exit Door Indication Switch, S1108 or S1109

SHZ ALL

(3) Right Overwing Exit Door Indication Switch, S1106 or S1107

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(4) Right Forward Overwing Exit Door Indication Switch, S1110 or S1111

SHZ ALL

(5) Wiring problem

(6) PSEU, M2061

C. Related Data

(1) SSM 52-71-13

(2) SSM 52-71-14

(3) WDM 52-71-13

(4) WDM 52-71-14

D. Initial Evaluation

(1) Make sure that all the overwing exit doors are closed, latched and locked.

(2) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(3) If the maintenance message shows, then do the Fault Isolation Procedure below.

(4) If the maintenance message does not show, open all the overwing exit doors.

(5) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(6) If the maintenance message shows, then do the Fault Isolation Procedure below.

(7) If the maintenance message does not show, then there was an intermittent fault.

NOTE: If this message occurs frequently, then the fault can be a loose connection at the indication switch.

E. Fault Isolation Procedure

(1) Adjust the applicable indication switch, do this task: Emergency Exit Door Indication Switch Adjustment, AMM TASK 52-71-22-820-805.

Table 210

MAINTENANCE MESSAGE	SWITCHES
52-72020 L OW SW DISAGREE	S1104, S1105
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999	
52-72021 L FWD OW SW DSGR	S1108, S1109
SHZ ALL	
52-72022 R OW SW DISAREE	S1106, S1107
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999	
52-72023 R FWD OW SW DSGR	S1110, S1111
SHZ ALL	

(a) Do the Repair Confirmation at the end of this task.

(2) Do these steps from the PSEU BITE Display to check the exit door indication switches inputs to the PSEU:

(a) Push the ON button.

(b) Push the NO button until OTHER FUNCTNS? shows.

(c) Push the YES button.

(d) Push the NO button until I/O MONITOR? shows.

(e) Push the YES button until SENSORS? shows.

(f) Push the NO button until INPUTS? shows.

NOTE: Use the arrow down button if INPUT INACTIVE shows.

(g) Push the YES button.

(h) Select a connector.

NOTE: Use the arrow buttons to move to the desired connector, then push the YES button to select a connector.

(i) Select a pin.

NOTE: Use the arrow buttons to move to the desired pin, then push the YES button to select the pin.

(j) Do a check of the applicable exit door indication switches inputs to the PSEU:

Table 211

MAINTENANCE MESSAGE NUMBER	SWITCH	CONNECTOR	PIN	TEST CONDITION	PSEU BITE DISPLAY
52-72020	S1104	D10986	8	DOOR LOCKED	GND
		D10986	8	DOOR NOT LOCKED	NO GND
	S1105	D10988	21	DOOR LOCKED	GND
		D10988	21	DOOR NOT LOCKED	NO GND
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999					
52-72021	S1108	D10986	52	DOOR LOCKED	GND
		D10986	52	DOOR NOT LOCKED	NO GND
	S1109	D10988	35	DOOR LOCKED	GND
		D10988	35	DOOR NOT LOCKED	NO GND
SHZ ALL					
52-72022	S1106	D10986	61	DOOR LOCKED	GND
		D10986	61	DOOR NOT LOCKED	NO GND
	S1107	D10988	1	DOOR LOCKED	GND
		D10988	1	DOOR NOT LOCKED	NO GND
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999					
52-72023	S1110	D10986	15	DOOR LOCKED	GND
		D10986	15	DOOR NOT LOCKED	NO GND
	S1111	D10988	30	DOOR LOCKED	GND
		D10988	30	DOOR NOT LOCKED	NO GND
SHZ ALL					

1) If you find a problem with the inputs for the test conditions in the table, then continue with the exit door indication switch replacement or wiring check.

2) If you do not find a problem with the inputs for the test conditions in the table, then continue with the PSEU replacement.

(3) Replace the applicable indication switch. These are the tasks:

- Emergency Exit Door Indication Switch Removal, AMM TASK 52-71-22-000-803
- Emergency Exit Door Indication Switch Installation, AMM TASK 52-71-22-420-801

(a) Do the Repair Confirmation at the end of this task.

(4) Do this wiring check:

(a) Make sure that the applicable overwing exit door is closed, latched and locked.

(b) Disconnect the connector for the applicable indication switch from the PSEU.

(c) Do a wiring check between the ground of the connector for the indication switch and the connector for the PSEU:

Table 212

MAINTENANCE MESSAGE NUMBER	GROUND AT SWITCH		PSEU CONNECTOR
52-72020			D10986
	S1104	-------	pin 8
52-72020			D10988
	S1105	-------	pin 21
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-72021			D10986
	S1108	-------	pin 52
52-72021			D10988
	S1109	-------	pin 35
SHZ ALL			
52-72022			D10986
	S1106	-------	pin 61
52-72022			D10988
	S1107	-------	pin 1
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-72023			D10986
	S1110	-------	pin 15
52-72023			D10988
	S1111	-------	pin 30
SHZ ALL			

1) If you find a problem with the wiring, then do these steps:
   a) Repair the wiring.
   b) Re-install the applicable switch.
   c) Re-connect the applicable connector to the PSEU.
   d) Do the Repair Confirmation at the end of this task.
2) If you do not find a problem with the wiring, then continue.

(5) Replace the PSEU, M2061. These are the tasks:
- Proximity Switch Electronics Unit (PSEU) Removal, AMM TASK 32-09-10-000-801
- Proximity Switch Electronics Unit (PSEU) Installation, AMM TASK 32-09-10-400-801

(a) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Make sure that the connector for the applicable switch is installed.

(2) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(a) If the maintenance message does not show, then you corrected the problem.

(b) If the maintenance message shows, then continue the Fault Isolation Procedure at the subsequent step.

——— END OF TASK ———

806. Overwing Exit Door Open Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:

(a) 52-74001 L OVWG OPEN

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(b) 52-74002 L FWD OW OPEN

SHZ ALL

(c) 52-74003 R OVWG OPEN

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(d) 52-74004 R FWD OW OPEN

SHZ ALL

(2) This maintenance message shows when both overwing exit door indication switches indicate open.

B. Possible Causes

(1) Left overwing exit door indication switch, S1104 or S1105

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(2) Left forward overwing exit door indication switch, S1108 or S1109

SHZ ALL

(3) Right overwing exit door indication switch, S1106 or S1107

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(4) Right forward overwing exit door indication switch, S1110 or S1111

SHZ ALL

(5) Wiring problem

(6) Proximity switch electronics unit (PSEU), M2061

C. Related Data

(1) (SSM 52-71-13)

(2) (SSM 52-71-14)

(3) (WDM 52-71-13)

(4) (WDM 52-71-14)

D. Initial Evaluation

(1) Make sure all the overwing exit doors are closed, latched and locked.

(2) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(3) If the maintenance message does not show, then there was an intermittent fault.

NOTE: If this message occurs frequently, then the fault can be a loose connection at the switch.

(4) If the maintenance message shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Adjust the applicable switch. To adjust it, do this task: Emergency Exit Door Indication Switch Adjustment, AMM TASK 52-71-22-820-805.

Table 213

MAINTENANCE MESSAGE	SWITCHES
52-74001 L OVWG OPEN	S1104, S1105
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999	
52-74002 L FWD OW OPEN	S1108, S1109
SHZ ALL	
52-74003 R OVWG OPEN	S1106, S1107
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999	
52-74004 R FWD OW OPEN	S1110, S1111
SHZ ALL	

(a) Do the Repair Confirmation at the end of this task.

1) If the Repair Confirmation is not satisfactory, then continue.

(2) Replace the applicable switch.

These are the tasks:

Emergency Exit Door Indication Switch Removal, AMM TASK 52-71-22-000-803,

Emergency Exit Door Indication Switch Installation, AMM TASK 52-71-22-420-801.

(a) Do the Repair Confirmation at the end of this task.

1) If the Repair Confirmation is not satisfactory, then continue.

(3) Do a check of the wiring:

(a) Disconnect the connector for the applicable indication switch from the PSEU.

(b) Do this wiring check between the indication switch ground and the PSEU:

Table 214

MAINTENANCE MESSAGE NUMBER	GROUND AT SWITCH		PSEU CONNECTOR
52-74001			D10986
	S1104	------	pin 8
52-74001			D10988
	S1105	------	pin 21
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-74002			D10986
	S1108	------	pin 52
52-74002			D10988
	S1109	------	pin 35

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999 (Continued)

Table 214 (Continued)

MAINTENANCE MESSAGE NUMBER	GROUND AT SWITCH		PSEU CONNECTOR
SHZ ALL			
52-74003			D10986
	S1106	------	pin 61
52-74003			D10988
	S1107	------	pin 1
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-74004			D10986
	S1110	------	pin 15
52-74004			D10988
	S1111	------	pin 30

SHZ ALL

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

1) Repair the wiring.
2) Re-install the applicable switch.
3) Reconnect the applicable connector to the PSEU.
4) Do the Repair Confirmation at the end of this task.

(d) If you do not find a problem with the wiring, then continue.

(4) Replace the PSEU, M2061.

These are the tasks:

Proximity Switch Electronics Unit (PSEU) Removal, AMM TASK 32-09-10-000-801,

Proximity Switch Electronics Unit (PSEU) Installation, AMM TASK 32-09-10-400-801.

(a) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Make sure the connector for the applicable switch is installed.

(2) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(3) If the maintenance message does not show, then you corrected the fault.

——— END OF TASK ———

807. Overwing Exit Door Flight Lock Relay Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:

(a) 52-76017 FL RELAY 1 FAULT.

(b) 52-76018 FL RELAY 2 FAULT.

(2) These maintenance messages show when the PSEU does not sense the expected load from the coil of relay R742 (left) or R743 (right) during the PSEU power-on-self-test.

(3) (SDS SUBJECT 52-22-00)

B. Possible Causes

(1) Flight lock relay, R742 (left)

(2) Flight lock relay, R743 (right)

(3) Wiring problem

(4) Proximity switch electronics unit (PSEU), M2061

(5) Proximity switch electronics unit (PSEU) nuisance message.

C. Circuit Breakers

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	1	C01515	OVERWING FLIGHT LOCK-RIGHT
D	2	C01514	OVERWING FLIGHT LOCK-LEFT

D. Related Data

(1) (SSM 52-71-13)

(2) (SSM 52-71-14)

(3) (WDM 52-71-13)

(4) (WDM 52-71-14)

E. Initial Evaluation

(1) Do these steps to determine if the flight lock relay message is a PSEU nuisance indication:

NOTE: These nuisance indications are caused during airplane power transfers or system power-up.

(a) Make sure all Repair Confirmations for this task are complete.

(b) Open these circuit breakers:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	1	C01399	PSEU PRI
D	2	C01400	PSEU ALTN

(c) Do this step after 10 seconds:

1) Close these circuit breakers:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	1	C01399	PSEU PRI
D	2	C01400	PSEU ALTN

(d) After approximately 3 seconds, make sure the three landing gear green lights come on.

NOTE: The PSEU self test is complete when the landing gear lights illumiate.

(e) If the PSEU fault light does not come on, the previous flight lock relay message is a nuisance message.

(2) Do the EXISTING FAULTS test at the PSEU BITE. To do the test, do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(3) If the maintenance message shows, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Do these steps to prepare for the procedure:

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

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

(b) Make sure that a minimum of 3 out of 4 entry/service doors are closed.

(c) Make sure all overwing exit doors are fully closed, locked and latched.

(d) Make sure that the airplane is in ground mode.

(e) Make sure that the engine start switches on the P5-20 panel are in the OFF position.

(f) Move the engine start levers on the control stand to IDLE.

(g) Wait for 5 minutes, then move the engine thrust levers on the control stand to the fully advanced position.

(2) Replace the applicable overwing exit door flight lock relay: R742 or R743.

(a) Do the Repair Confirmation at the end of this task.

1) If the Repair Confirmation is not satisfactory, then continue.

(3) Do this check for 28 VDC at the flight lock relay:

(a) Remove the applicable flight lock relay R742 (left) or R743 (right)

NOTE: R742 is in junction box J22. R743 is in junction box J24.

(b) Do a check for 28 VDC between pin X1 of connector D12756 (left) or D12758 (right) and structure ground.

(c) If there is not 28 VDC at pin X1, then do these steps:

1) Do a wiring check between these pins of the connector for the flight lock relay and the circuit breaker:

Table 215

MAINTENANCE MESSAGE NUMBER	RELAY CONNECTOR		CIRCUIT BREAKER
52-76017	D12756		C1514
	pin X1	-------	term L
52-76018	D12758		C1515
	pin X1	-------	term L

2) If you find a problem with the wiring, then do these steps:
   a) Repair the wiring.
   b) Re-install the flight lock relay.
   c) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC at pin X1, then continue.

(4) Do this check of the ground circuit between the flight lock relay and the PSEU:

(a) Disconnect the applicable connector, D10986 (left) or D10988 (right) from the PSEU.

(b) Make sure pin X2 of connector D12756 (left) or D12758 (right) goes to ground.

(c) If pin X2 does not go to ground, then do these steps:

1) Do a wiring check between these pins on the connector for the applicable flight lock relay and the connector for the PSEU:

Table 216

MAINTENANCE MESSAGE NUMBER	RELAY CONNECTOR		PSEU CONNECTOR
52-76017	D12756		D10986
	pin X2	-------	pin 40
52-76018	D12758		D10988
	pin X2	-------	pin 53

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

1) Repair the wiring.
2) Re-install the flight lock relay.
3) Re-connect the connector at the PSEU.
4) Do the Repair Confirmation at the end of this task.

(e) If you do not find a problem with the wiring, then re-install the flight lock relay and continue.

(5) Replace the PSEU, M2061.

These are the tasks:

Proximity Switch Electronics Unit (PSEU) Removal, AMM TASK 32-09-10-000-801,

Proximity Switch Electronics Unit (PSEU) Installation, AMM TASK 32-09-10-400-801.

(a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	1	C01515	OVERWING FLIGHT LOCK-RIGHT
D	2	C01514	OVERWING FLIGHT LOCK-LEFT

(2) Make sure the connector for the applicable circuit breaker is installed.

(3) Make sure the applicable flight lock relay is installed.

(4) Make sure the applicable connector is connected to the PSEU.

(5) Move the power switch for the PSEU to the OFF position and then move it to the ON position.

NOTE: This will start the power-on-self-test.

(6) Do the EXISTING FAULTS test at the PSEU BITE. To do the test, do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(7) If the maintenance message does not show, then you corrected the fault.

(8) Put the airplane back to its usual condition.

(a) Move the engine start Levers to CUTOFF.

(b) Move the engine thrust levers to idle.

(c) Make sure the engine start switches are OFF.

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

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

END OF TASK

808. Overwing Exit Door Warning Light Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:

(a) 52-76019 L OV WARN FLT

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(b) 52-76020 L FWD OW WARN FLT

SHZ ALL

(c) 52-76021 R OW WARN FLT

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(d) 52-76022 R FWD OW WARN FLT

SHZ ALL

(2) These maintenance messages show if the PSEU does not sense the expected load from the overwing exit door warning lights during the PSEU power-on-self-test.

(3) (SDS SUBJECT 52-22-00)

B. Possible Causes

(1) Overwing exit door warning light, L6 (left) or L10 (right)

SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999

(2) Forward overwing exit door warning light, L11 (left) or L12 (right)

SHZ ALL

(3) Wiring problem

(4) Proximity switch electronics unit (PSEU), M2061

C. Circuit Breakers

(1) This is the primary circuit breaker related to the fault:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
F	14	C01180	INDICATOR MASTER DIM SECT 8

D. Related Data

(1) (SSM 33-18-35)

(2) (SSM 52-71-13)

(3) (SSM 52-71-14)

(4) (WDM 33-18-35)

(5) (WDM 52-71-13)

(6) (WDM 52-71-14)

E. Initial Evaluation

(1) Do the EXISTING FAULTS test at the PSEU BITE. To do the test, do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(2) If the maintenance message shows, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Do these steps to prepare for the procedure:

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

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

(b) Make sure that a minimum of 3 out of 4 entry/service doors are closed.

(c) Make sure all overwing exit doors are fully closed, locked and latched.

(d) Make sure that the airplane is in ground mode.

(e) Make sure that the engine start switches on the P5-20 panel are in the OFF position.

(f) Move the engine start levers on the control stand to IDLE.

(g) Wait for 5 minutes, then move the engine thrust levers on the control stand to the fully advanced position.

(2) Push the applicable door warning light on the P5 forward overhead panel.

(a) If the light does not come on, then do these steps:

1) Do this task: Flight Compartment Lighting Problem - Fault Isolation, 33-10 TASK 801.

2) Do the Repair Confirmation at the end of this task.

(b) If the light comes on, then continue.

(3) Do this wiring check between the overwing exit door warning light and the PSEU:

(a) Remove the door warning annunciator panel, P5-20.

(b) Disconnect the applicable connector from the PSEU.

(c) Do a wiring check between these pins of the connector for the at the door warning light and the connector at the PSEU:

Table 217

MAINTENANCE MESSAGE NUMBER	WARNING LIGHT CONNECTOR		PSEU CONNECTOR
52-76019	D1406		D10982
	pin 10	-------	pin 5
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-76020	D482		D11138
	pin 4	-------	pin 9
SHZ ALL			
52-76021	D1406		D10988
	pin 7	-------	pin 31
SHZ 801-825, 827-847, 850-852, 855-863, 865, 866, 871-874, 876-899, 901-999			
52-76022	D482		D10984
	pin 11	-------	pin 54

SHZ ALL

1) If you find a problem with the wiring, then do these steps:
   a) Repair the wiring.
   b) Re-install the door warning annunciator panel, P5-20.
   c) Re-connect the applicable connector at the PSEU.
   d) Do the Repair Confirmation at the end of this task.
2) If you do not find a problem with the wiring, then continue.

(4) Replace the PSEU, M2061.

These are the tasks:

Proximity Switch Electronics Unit (PSEU) Removal, AMM TASK 32-09-10-000-801,

Proximity Switch Electronics Unit (PSEU) Installation, AMM TASK 32-09-10-400-801.

(a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

(1) Make sure that this circuit breaker is closed:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
F	14	C01180	INDICATOR MASTER DIM SECT 8

(2) Make sure the door warning annunciator panel, P5-20 is installed.

(3) Make sure the applicable connector at the PSEU is installed.

(4) Move the power switch for the PSEU to the OFF position and then move it to the ON position.

NOTE: This will start the power-on-self-test.

(5) Do the EXISTING FAULTS test at the PSEU BITE. To do the test, do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(6) If the maintenance message does not show, then you corrected the fault.

(7) Put the airplane back to its usual condition.

(a) Move the engine start levers to CUTOFF.

(b) Move the engine thrust levers to idle.

(c) Make sure the engine start switches are OFF.

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

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

——— END OF TASK ———

801. Cargo Door Difficult to Open or Close - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-30-00)

B. Possible Causes

(1) Counterbalance mechanism

(2) Hinge arms

(3) Snubber

C. Fault Isolation Procedure

(1) Do these checks of the counterbalance mechanism:

(a) Remove the door lining.

(b) Look for a broken counterbalance cable.

1) If the cable is broken, then do these steps:

a) Repair the cable. To repair it, do this task: Broken Cargo Door Counterbalance Cable Replacement, AMM TASK 52-31-12-000-802.

b) Do the Repair Confirmation at the end of this task.

2) If the cable is not broken, then continue.

(c) Examine the counterbalance cable for wear or damage.

1) If the cable is worn or damaged, then do these steps:

a) Replace the cable.

These are the tasks:

Cargo Door Counterbalance Removal, AMM TASK 52-31-12-000-801,

Cargo Door Counterbalance Installation, AMM TASK 52-31-12-400-801.

b) Do the Repair Confirmation at the end of this task.

c) If the Repair Confirmation is not satisfactory, then continue.

2) If the cable is not worn or damaged, then continue.

(d) Make sure the cable is installed correctly on the cargo compartment ceiling, over the pulley, and to the counterbalance.

1) If the cable is not installed correctly, then do these steps:

a) Re-install the cable.

These are the tasks:

Cargo Door Counterbalance Removal, AMM TASK 52-31-12-000-801,

Cargo Door Counterbalance Installation, AMM TASK 52-31-12-400-801.

b) Do the Repair Confirmation at the end of this task.

2) If the cable is installed correctly, then continue

(e) Look for debris in the counterbalance mechanism.

1) If there is debris, then do these steps:

a) Remove the debris.

b) Do the Repair Confirmation at the end of this task.

c) If the Repair Confirmation is not satisfactory, then continue.

2) If there is no debris, then continue.

(f) Examine the counterbalance mechanism for wear or damage.

1) If the mechanism is worn or damaged, then do these steps:

a) Replace the counterbalance mechanism.

These are the tasks:

Cargo Door Counterbalance Removal, AMM TASK 52-31-12-000-801,

Cargo Door Counterbalance Installation, AMM TASK 52-31-12-400-801.

b) Do the Repair Confirmation at the end of this task.

c) If the Repair Confirmation is not satisfactory, then continue.

2) If the mechanism is not worn or damaged, then continue.

(g) Make sure the counterbalance idler crank is lubricated. To lubricate it, do this task: Cargo Door Servicing, AMM TASK 12-25-31-640-801.

1) Do the Repair Confirmation at the end of this task.

2) If the Repair Confirmation is not satisfactory, then continue.

(h) Adjust the counterbalance mechanism. To adjust it, do this task: Cargo Door Adjustment, AMM TASK 52-31-00-820-801.

1) Do the Repair Confirmation at the end of this task.

2) If the Repair Confirmation is not satisfactory, then continue.

(2) Do this check of the hinge arms:

(a) Examine the hinge arms for wear, damage, and loose fasteners.

1) If a problem is found, then do these steps:

a) Repair the hinge arms.

b) Do the Repair Confirmation at the end of this task.

c) If the Repair Confirmation is not satisfactory, then continue.

2) If you do find a problem, then continue.

(3) Do this check of the snubber:

(a) Examine the snubber for damage and leaks.

1) If a problem is found, then do these steps:

a) Replace the snubber.

These are the tasks:

Cargo Door Snubber Removal, AMM TASK 52-31-13-000-801,

Cargo Door Snubber Installation, AMM TASK 52-31-13-400-801.

b) Do the Repair Confirmation at the end of this task.

D. Repair Confirmation

(1) Do these steps to confirm the repair:

(a) Try to open and close the door.

(b) If it is easy to open and close the door, then you corrected the fault. Re-install the door lining.

END OF TASK

802. Cargo Door Difficult to Unlatch or Latch - Fault Isolation

A. Description

(1) This task is for this Observed Fault:

(a) Cargo door difficult to unlatch or latch.

B. Possible Causes

(1) Blockage of the handle of the latch mechanism

(2) Latch mechanism and handle

(3) Handle spring

(4) Hinge arms

(5) Interference with fuselage frame

C. Related Data

(1) SDS SUBJECT 52-30-00

D. Fault Isolation Procedure

(1) Do this check for a blockage of the handle of the latch mechanism inside the airplane:

(a) If unable to unlatch the forward cargo door, get access to the forward cargo bay as follows:

1) Open the access panel that is on the right side of the airplane, at approximately the tenth window cutout from the front.

NOTE: The panel is approximately 20 inches long and 20 inches wide, (508 mm by 508 mm) with a serge around the edges of the carpet.

(b) If unable to unlatch the aft cargo door, get access to the aft cargo bay as follows:

1) Open the access panel that is on the right side of the airplane with its aft edge at STA 767.

NOTE: The panel is approximately 20 inches long and 20 inches wide, (508 mm by 508 mm) with a serge around the edges of the carpet. The access panel is aft of another panel of approximately the same size.

(c) If a blockage is found inside the cargo area at the handle of the latch assembly, move the blockage.

(d) Make sure that the cargo nets are installed correctly to prevent blockage due to cargo.

(e) Remove any cargo that is inside the area enclosed by the cargo nets.

(f) Do the Repair Confirmation at the end of this task.

(2) Do this check of the latch mechanism and handle:

(a) Remove the door lining.

(b) Remove the panel over the latch mechanism.

(c) Examine the latch mechanism and handle.

1) Look for debris in the latch mechanism or wear or damage. This is the task: Cargo Door Check, AMM TASK 52-31-00-200-801.

a) If you find a problem, then repair it.

<1> Do the Repair Confirmation at the end of this task.

2) Examine the handle spring for damage. This is the task: Cargo Door Check, AMM TASK 52-31-00-200-801.

a) If you find a problem, replace handle spring. These are the tasks:
- Cargo Door Handle Mechanism Removal, AMM TASK 52-31-14-000-801
- Cargo Door Handle Mechanism Installation, AMM TASK 52-31-14-400-801

<1> Do the Repair Confirmation at the end of this task.

3) Make sure that the latch torque tube is lubricated. This is the task: Cargo Door Servicing, AMM TASK 12-25-31-640-801.
a) Do the Repair Confirmation at the end of this task.

(d) Adjust the latch mechanism. This is the task: Cargo Door Adjustment, AMM TASK 52-31-00-820-801.
1) Do the Repair Confirmation at the end of this task.

(3) Do this check of the hinge arms:
(a) Examine the hinge arms.
1) Look for wear or damage.
2) Look for loose fasteners.
3) If you find a problem, then repair it.
a) Do the Repair Confirmation at the end of this task.

(4) Do this check for interference between the door and the fuselage frame:
(a) Try to unlatch, open, close, and latch the door.
1) Look and listen for points of interference between the door and fuselage frame.
a) Make sure that the door seal does not cause interference.
<1> If the door seal causes interference, replace the blade seal. These are the tasks:
- Blade Seals Removal, AMM TASK 52-09-11-000-801
- Blade Seals Installation, AMM TASK 52-09-11-400-801

b) Repair the problems that you find.
<1> Do this task: Cargo Door Adjustment, AMM TASK 52-31-00-820-801.
<2> Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

(1) Try to unlatch and latch the door.
(a) If it is easy to unlatch and latch the door, then you corrected the problem.
1) Re-install the door lining, if it is necessary.
(b) If it is difficult to unlatch and latch the door, then continue the Fault Isolation Procedure at the subsequent step.

——— END OF TASK ———

803. PSEU Cargo Door Monitored Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:
(a) 52-72001 FWD CGO DR OPEN

(b) 52-72002 AFT CGO DR OPEN

NOTE: The Proximity Switch Electronic Unit (PSEU) does not record these messages when the airplane is on the ground.

(2) This task is also for FWD CARGO and AFT CARGO Door Warning Lights (P5) Indication during taxi or takeoff.

(3) For a detail description of the Door Warning System, refer to SDS SUBJECT 52-71-00.

B. Possible Causes

(1) Cargo Door out of adjustment

(2) Forward (Aft) Cargo Door Warning Switch, S960 (S961)

(3) Wiring

(4) PSEU, M2061

(5) Cargo Door Handle Mechanism spring.

C. Related Data

(1) WDM 52-71-12

(2) SSM 52-71-12

D. Initial Evaluation

(1) Open the applicable FWD (AFT) Cargo Door.

(2) Close, latch and lock the applicable Cargo Door.

(3) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801

(a) If the maintenance message does not show in EXISTING FAULTS, then there was an intermittent fault.

(b) If the maintenance message shows in EXISTING FAULTS, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do a check of the applicable Cargo Door adjustment. This is the task: Cargo Door Adjustment, AMM TASK 52-31-00-820-801.

(a) Do the Repair Confirmation at the end of this task.

(2) Do this check of the applicable FWD (AFT) Cargo Door Warning Switch, S960 (S961) adjustment. This is the task: Cargo Door Indication Switch - Adjustment, AMM TASK 52-71-31-820-801.

(a) Do the Repair Confirmation at the end of this task.

(3) Do this check of the PSEU:

(a) Disconnect the applicable connector for the FWD (AFT) Cargo Door Warning Switch from the PSEU (WDM 52-71-12).

Table 201/52-30-00-993-801

CARGO DOOR	PSEU CONNECTOR
Forward Cargo Door	D10988
Aft Cargo Door	D10986

(b) Close, latch and lock the applicable FWD (AFT) Cargo Door.

(c) Do a continuity check between pin 56 of the applicable connector and Structure Ground.

1) If you find continuity between pin 56 and Structure Ground, then replace the PSEU, M2061. These are the tasks:
   - Proximity Switch Electronics Unit (PSEU) Removal, AMM TASK 32-09-10-000-801
   - Proximity Switch Electronics Unit (PSEU) Installation, AMM TASK 32-09-10-400-801

   a) Do the Repair Confirmation at the end of this task.

2) If you do not find continuity between pin 56 and Structure Ground, then continue.

(4) Do this check of the applicable FWD (AFT) Cargo Door Warning Switch, S960 (S961) Wiring (WDM 52-71-12):

FWD CRG DR WARN SWITCH

PSEU D10988	**S960 Terminal**
pin 56	term NO

S960 Terminal	
term C	GD84-DC

AFT CRG DR WARN SWITCH

PSEU D10986	**S961 Terminal**
pin 56	term NO

S961 Terminal	
term C	GD11794-DC

(a) If you find a problem in the wiring, then do these steps:
   1) Repair the wiring as necessary.
   2) Connect the applicable connector D10988 (D10986) to the PSEU.
   3) Do the Repair Confirmation at the end of this task.

(b) If you do not find a problem in the wiring, then replace the applicable FWD (AFT) Cargo Door Warning Switch, S960 (S961) Switch. These are the tasks:
   - Forward Cargo Door Indication Switch - Removal, AMM TASK 52-71-31-000-801
   - Forward Cargo Door Indication Switch - Installation, AMM TASK 52-71-31-400-801

   1) Connect the applicable connector D10988 (D10986) to the PSEU.
   2) Do the Repair Confirmation at the end of this task.

(5) Do a visual check of the cargo door handle mechanism spring:

(a) To get access to the cargo door handle mechanism, do this task: Cargo Door Handle Mechanism Removal, AMM TASK 52-31-14-000-801.
   1) If you find a problem with the spring, then replace the spring, these are the tasks:
      - Cargo Door Handle Mechanism Removal, AMM TASK 52-31-14-000-801

- Cargo Door Handle Mechanism Installation, AMM TASK 52-31-14-400-801

a) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Close, latch and lock the applicable FWD (AFT) Cargo Door.

(2) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(a) If the maintenance message does not show in EXISTING FAULTS then you corrected the problem.

(b) If the maintenance message still shows in EXISTING FAULTS, then continue the Fault Isolation Procedure at the subsequent step.

——— END OF TASK ———

801. PSEU Forward Access Door Monitored Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:

(a) 52-72003 FWD ACC DR OPEN

(2) This task is also for EQUIP Door Warning Light (P5) Indication during taxi or takeoff.

(3) For a detail description of the Door Warning System, refer to SDS SUBJECT 52-71-00.

B. Possible Causes

(1) Forward Access Door Indication Switch, S196

(2) Wiring

(3) Proximity Switch Electronic Unit (PSEU), M2061

C. Related Data

(1) WDM 52-71-12

(2) SSM 52-71-12

D. Initial Evaluation

(1) Close, latch and lock the Forward Access Door.

(2) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801

(a) If the maintenance message does not show in EXISTING FAULTS, then there was an intermittent fault.

(b) If the maintenance message shows in EXISTING FAULTS, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the PSEU:

(a) Disconnect the connector D10988 from the PSEU.

(b) With the door closed, latched and locked, do a continuity check between pin 6 of connector D10988 and Structure Ground.

1) If you find continuity between pin 6 and Structure Ground, then replace the PSEU, M2061. These are the tasks:

- Proximity Switch Electronics Unit (PSEU) Removal, AMM TASK 32-09-10-000-801
- Proximity Switch Electronics Unit (PSEU) Installation, AMM TASK 32-09-10-400-801

a) Do the Repair Confirmation at the end of this task.

2) If you do not find continuity between pin 6 and Structure Ground, then continue.

(2) De-actuate the Forward Access Door Indication Switch.

(3) Do this check of the Forward Access Door Indication Switch Wiring (WDM 52-71-12):

FWD ACCESS DOOR IND SW WIRING

PSEU	**S196**
D10988	**Terminal**
pin 6	term C

S196
Terminal
term NO GD1210-DC

(a) If you find a problem in the wiring, then do these steps:
1) Repair the wiring as necessary.
2) Connect the connector D10988 to the PSEU.
3) Do the Repair Confirmation at the end of this task.

(b) If you do not find a problem in the wiring, then replace the Forward Access Door Indication Switch, S196. These are the tasks:
- Forward Access Door Indication Switch Removal, AMM TASK 52-71-41-000-801
- Forward Access Door Indication Switch Installation, AMM TASK 52-71-41-400-801

1) Connect the connector D10988 to the PSEU.
2) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Close, latch and lock the Forward Access Door.

(2) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(a) If the maintenance message does not show in EXISTING FAULTS then you corrected the problem.

1) Close and latch the access panel:

Number	Name/Location
112A	Forward Access Door

(b) If the maintenance message still shows in EXISTING FAULTS, then continue the Fault Isolation Procedure at the subsequent step.

——— END OF TASK ———

802. PSEU Electronic Equipment Access Door Monitored Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:

NOTE: The PSEU does not record this message when the airplane is on the ground.

(a) 52-72004 EE ACC DR OPEN

(2) This task is also for EQUIP Door Warning Light (P5) Indication during taxi or takeoff.

(3) For a detail description of the Door Warning System, refer to SDS SUBJECT 52-71-00.

B. Possible Causes

(1) Electronic Equipment Access Door Indication Switch, S197

(2) Wiring

(3) PSEU, M2061

C. Related Data

(1) WDM 52-71-12

(2) SSM 52-71-12

D. Initial Evaluation

(1) Close and latch the Electronic Equipment Access Door.

(2) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801

(a) If the maintenance message does not show in EXISTING FAULTS, then there was an intermittent fault.

(b) If the maintenance message shows in EXISTING FAULTS, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the PSEU:

(a) Disconnect the connector D10986 from the PSEU.

(b) With the door closed, latched and locked, do a continuity check between pin 6 of the connector D10986 and Structure Ground.

1) If you find continuity between pin 6 and Structure Ground, then replace the PSEU, M2061. These are the tasks:

- Proximity Switch Electronics Unit (PSEU) Removal, AMM TASK 32-09-10-000-801
- Proximity Switch Electronics Unit (PSEU) Installation, AMM TASK 32-09-10-400-801

a) Do the Repair Confirmation at the end of this task.

2) If you do not find continuity between pin 6 and Structure Ground, then continue.

(2) De-actuate the Electronic Equipment Access Door Switch.

(3) Do this check of the Electronic Equipment Access Door Indication Switch Wiring (WDM 52-71-12):

EE ACCESS DOOR IND SW WIRING

PSEU D10986		**S197 Terminal**
pin 6	. . . . .	term C

S197 Terminal		
term NO	. . . . .	GD1322-DC

(a) If you find a problem in the wiring, then do these steps:

1) Repair the wiring as necessary.

2) Connect the connector D10986 to the PSEU.

3) Do the Repair Confirmation at the end of this task.

(b) If you do not find a problem in the wiring, then replace the Electronic Equipment Access Door Indication Switch, S197. These are the tasks:

- Electronic Equipment Access Door Indication Switch Removal, AMM TASK 52-71-42-000-801
- Electronic Equipment Access Door Indication Switch Installation, AMM TASK 52-71-42-400-801

1) Connect the connector D10986 to the PSEU.

2) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Close, latch and lock the Electronic Equipment Access Door Switch.

(2) Do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

(a) If the maintenance message does not show in EXISTING FAULTS then you corrected the problem.

(b) If the maintenance message still shows in EXISTING FAULTS, then continue the Fault Isolation Procedure at the subsequent step.

——— END OF TASK ———

SHZ 706, 865, 866 PRE SB 737-25-1515

801. Control Cabin Door - CAB DOOR UNLOCKED Light Does Not Come On When the Door is Unlocked - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-51-00)

B. Possible Causes

(1) Control cabin door lock switch, S2

(2) Master dim relay, R34

(3) Annunciation and dimming module, M469

(4) Wiring

C. Circuit Breakers

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

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT
E	1	C00137	DOOR LOCK

D. Related Data

(1) (SSM 33-18-11)

(2) (SSM 33-18-36)

(3) (SSM 33-18-51)

(4) (SSM 33-18-61)

(5) (SSM 33-18-62)

(6) (SSM 52-51-11)

(7) (WDM 33-18-11)

(8) (WDM 33-18-36)

(9) (WDM 33-18-51)

(10) (WDM 33-18-61)

(11) (WDM 33-18-62)

(12) (WDM 52-51-11)

E. Initial Evaluation

(1) Push the CAB DOOR UNLOCKED switch S2, on the stab/trim/cabin door module P8-47, to the unlock position to open the control door.

(2) If the CAB DOOR UNLOCKED light does not come on, then do the Fault Isolation Procedure below.

(3) If the CAB DOOR UNLOCKED light comes on, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Do this check of the CAB DOOR UNLOCKED light:

(a) On the captain's instrument panel P1-3, set the DIM/BRT/TEST switch to TEST.

(b) If the CAB DOOR UNLOCKED light comes on, then do these steps:

SHZ 706, 865, 866 PRE SB 737-25-1515 (Continued)

1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT
E	1	C00137	DOOR LOCK

2) Do a wiring check between these pins of connector D1344 at the annunciation and dimming module M469 and connector D40816P at the load control center P6-3:

D1344	D40816P
pin 45	pin 9

3) If you find a problem with the wiring, then do these steps:
   a) Repair the wiring.
   b) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT
E	1	C00137	DOOR LOCK

   c) Push the CAB DOOR UNLOCKED switch S2, on the stab/trim/cabin door module P8-47, to the unlock position to open the control door.
   d) If the CAB DOOR UNLOCKED light comes on, then you corrected the fault.

4) If you do not find a problem with the wiring, then do these steps:
   a) Replace the control cabin door lock switch S2.
   b) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT
E	1	C00137	DOOR LOCK

   c) Push the CAB DOOR UNLOCKED switch S2, on the stab/trim/cabin door module P8-47, to the unlock position to open the control door.
   d) If the CAB DOOR UNLOCKED light comes on, then you corrected the fault.

(c) If the CAB DOOR UNLOCKED light does not come on with either the door open or the DIM/BRT/TEST switch to TEST, then continue.

(2) Do this check of the wiring:

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

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT
E	1	C00137	DOOR LOCK

SHZ 706, 865, 866 PRE SB 737-25-1515 (Continued)

(b) Do a wiring check between these pins on connector D1344 at the annunciation and dimming module, M469 and connector D40800P at the load control center P6 connector:

D1344	D40800P
pin 46	pin 6

1) If you find a problem with the wiring, then do these steps:
   a) Repair the wiring.
   b) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT
E	1	C00137	DOOR LOCK

   c) Push the CAB DOOR UNLOCKED switch S2, on the stab/trim/cabin door module P8-47, to the unlock position to open the control door.
   d) If the CAB DOOR UNLOCKED light comes on, then you corrected the fault.
2) If you do not find a problem with the wiring, then continue.

(3) Replace the control cabin door lock switch S2.
   (a) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT
E	1	C00137	DOOR LOCK

   (b) Push the CAB DOOR UNLOCKED switch S2, on the stab/trim/cabin door module P8-47, to the unlock position to open the control door.
   (c) If the CAB DOOR UNLOCKED light comes on, then you corrected the fault.
   (d) If the CAB DOOR UNLOCKED light is still off, then the fault is in load control center P6 master dim relay R34 circuit.

SHZ ALL

——— END OF TASK ———

802. Control Cabin Door Difficult to Open/Close - Fault Isolation

A. Description

(1) This task is for these Control Cabin Door problems:
   (a) The Control Cabin Door does not open easily.
   (b) The Control Cabin Door does not close easily.
   (c) Adjustment of the Control Cabin Door is necessary.

B. Possible Causes

(1) Not a sufficient quantity of lubricant on the latch.
(2) Header

(3) Trim angle

(4) Hinge

(5) Control Cabin Door lock

C. Related Data

(1) (SDS SUBJECT 52-51-00).

D. Initial Evaluation

(1) Open and close the Control Cabin Door.

(a) If it is easy to open and close the Control Cabin Door, then you have an intermittent fault.

(b) If it is difficult to open and close the Control Cabin Door, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do a check of the latch assembly to see if it is necessary to lubricate it.

(a) Spray a light layer of dry lubricant on the parts of the latch assembly that move.

(b) Do the Repair Confirmation at the end of this task.

(2) Look for unwanted material on the door lock and hinges.

(a) If unwanted material is found on the door lock and hinges, then remove the unwanted material from the door lock and hinges.

(b) Do the Repair Confirmation at the end of this task.

(3) Look and listen for points of interference between door and frame.

(a) Do these steps to adjust the door header and the trim angle:

SHZ 706, 865, 866 PRE SB 737-25-1515

1) For the adjustment, refer to Crew Door Installation, AMM TASK 52-51-00-400-801.

SHZ 002, 009-699, 721-799, 801-825, 827-847, 850-852, 855-863, 871-874, 876-899, 901-999; SHZ 706, 865, 866 POST SB 737-25-1515

2) For the adjustment, refer to Flight Compartment Door - Installation, AMM TASK 52-51-01-400-801.

SHZ ALL

3) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Open and close the Control Cabin Door.

(a) If it is easy to open and close the Control Cabin Door, then you have corrected the fault.

(b) If it is difficult to open and close the Control Cabin Door, then continue the Fault Isolation Procedure at the subsequent step.

——— END OF TASK ———

SHZ 706, 865, 866 PRE SB 737-25-1515

803. Control Cabin Door Does Not Release Electrically - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-51-00)

SHZ 706, 865, 866 PRE SB 737-25-1515 (Continued)

B. Possible Causes

(1) Door lock, M117

(2) Control cabin door lock switch S2, P8-47

(3) Wiring

C. Circuit Breakers

(1) This is the circuit breaker:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

D. Related Data

(1) (SSM 52-51-11)

(2) (WDM 52-51-11)

E. Initial Evaluation

(1) Manually open door.

(2) Operate control cabin door lock switch S2 to lock and then to unlock positions.

(3) Monitor that the control cabin door lock unlocks and locks.

(4) If the control cabin door lock does not operate correctly, then do the Fault Isolation Procedure below.

(5) If the door lock operates correctly, then there was an intermittent fault.

F. Fault Isolation Procedure

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

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

(2) Find the splice which connects the door/lock solenoid red wire to the airplane wiring.

(3) With the control cabin door lock switch S2 in the Unlock position, do a wiring check between the door lock solenoid wire and circuit breaker panel P6-3 connector D40816P pin:

S2 Soleniod	D40816P
red wire	pin 9

(a) Wiring check should show an open circuit

1) If wiring check shows continuity, do this:

a) Replace the control cabin door lock switch S2.

2) If wiring check shows an open circuit, do this:

a) Replace the door lock, M117.

These are the tasks:Crew Door Lock Removal, AMM TASK 52-51-21-000-801,Crew Door Lock Installation, AMM TASK 52-51-21-400-801.

SHZ 706, 865, 866 PRE SB 737-25-1515 (Continued)

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

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

(4) If the door releases electrically, then you corrected the fault.

——— END OF TASK ———

SHZ 002, 009-699, 721-799, 801-825, 827-847, 850-852, 855-863, 871-874, 876-899, 901-999; SHZ 706, 865, 866 POST SB 737-25-1515

804. Door Does Not Lock in the AUTO Position - Fault Isolation

A. Description

(1) This task is for this observed fault:

(a) Flight deck door (enhanced security door) does not lock with switch set to AUTO.

B. Possible Causes

(1) Electric Strike, M2538

(2) Flight Compartment Door Lock Switch, S2

(3) Door Access Controller/Chime Module, M2537

(4) Wiring

C. Circuit Breakers

(1) This is the circuit breaker:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

D. Related Data

(1) SSM 52-51-11

(2) WDM 52-51-11

E. Initial Evaluation

(1) Open the flight compartment door.

(2) Put the power switch on the Door Access Controller/Chime Module, M2537 to the NORM position.

(3) Operate Flight Compartment Door Lock Switch, S2 to the UNLOCK and then to the AUTO positions.

(4) Make sure that the Electric Strike, M2538 releases and engages.

(5) If the Electric Strike, M2538 did not go to the engage position, then do the Fault Isolation Procedure-Electrical Problem.

(6) If the Electric Strike, M2538 did go to the engage position, then do these steps:

(a) Make sure that the Flight Compartment Door Lock Switch, S2 is in the AUTO position.

(b) Close the flight compartment door.

CAUTION

DO NOT USE FORCE TO OPEN THE DOOR. IF YOU DO, YOU CAN CAUSE DAMAGE TO THE EQUIPMENT.

(c) Carefully try to open the flight compartment door without turning the handle.

(d) If the flight compartment door did not open, then there was an intermittent fault.

(e) If the flight compartment door did open, then do the Fault Isolation Procedure-Out of Tolerance.

F. Fault Isolation Procedure-Out of Tolerance

(1) Close the flight compartment door.

(2) Make sure that the Flight Compartment Door Lock Switch, S2 is in the AUTO position.

(3) If the Electric Strike, M2538 is in the engage position, do these steps:

(a) Make sure that the Electric Strike, M2538 and door latch engagement is 0.330 in. (8.382 mm) - 0.360 in. (9.144 mm).

(b) If the electric strike/door latch engagement is correct, then replace the Electric Strike, M2538. These are the tasks:

- Electric Strike Removal, AMM TASK 52-51-03-000-801
- Electric Strike Installation, AMM TASK 52-51-03-400-801

1) If the flight compartment door locks with the Flight Compartment Door Lock Switch, S2 in the AUTO position you have corrected the problem.

G. Fault Isolation Procedure-Electrical Problem

(1) Look at the LOCK FAIL light on the Switch/Light Module, P8-47.

(2) If the LOCK FAIL light is on, then replace the Electric Strike, M2538. These are the tasks:

- Electric Strike Removal, AMM TASK 52-51-03-000-801
- Electric Strike Installation, AMM TASK 52-51-03-400-801

(a) If the Electric Strike, M2538 engages with the Flight Compartment Door Lock Switch, S2 in the AUTO position you have corrected the problem.

(b) If the Electric Strike, M2538 did not engage with the Flight Compartment Door Lock Switch, S2 in the AUTO position, install a new Door Access Controller/Chime Module, M2537. These are the tasks:

- Chime Module Removal, AMM TASK 52-51-06-000-801
- Chime Module Installation, AMM TASK 52-51-06-400-801

1) If the Electric Strike, M2538 engages with the flight compartment door switch in the AUTO position you have corrected the problem.

2) If the Electric Strike, M2538 did not engage with the flight compartment door switch in the AUTO position, repair the wiring between the Electric Strike, M2538 and the chime module, M2537 (WDM 52-51-11).

a) Install the Door Access Controller/Chime Module, M2537. This is the task: Chime Module Installation, AMM TASK 52-51-06-400-801.

b) Install the Electric Strike, M2538. This is the task: Electric Strike Removal, AMM TASK 52-51-03-000-801.

(3) If the LOCK FAIL light is not on, then do these steps:

(a) Remove the Door Access Controller/Chime Module, M2537. This is the task: Chime Module Removal, AMM TASK 52-51-06-000-801.

(b) Do a check for 28V DC between Pin 1 and structure ground of connector D13730.

(c) If there is not 28V DC between Pin 1 and structure ground, then do this step:

1) Repair the wiring.

2) If the flight compartment door locks with the Flight Compartment Door Lock Switch, S2 in the AUTO position you have corrected the problem.

(d) If there is 28V DC between Pin 1 and structure ground of connector D13730, then continue.

(e) Install a new Door Access Controller/Chime Module, M2537. This is the task: Chime Module Installation, AMM TASK 52-51-06-400-801.

1) If the flight compartment door locks with the Flight Compartment Door Lock Switch, S2 in the AUTO position you have corrected the problem.

2) If the flight compartment door does not lock with the Flight Compartment Door Lock Switch, S2 in the AUTO position, then continue.

(f) Replace the Flight Compartment Door Lock Switch, S2. These are the tasks:

- Cockpit Control Panel Switch/Light (P8-47) Removal, AMM TASK 52-51-07-020-801
- Cockpit Control Panel Switch/Light (P8-47) Installation, AMM TASK 52-51-07-420-801

1) If the flight compartment door locks with the Flight Compartment Door Lock Switch, S2 in the AUTO position you have corrected the problem.

2) If the flight compartment door does not lock with the Flight Compartment Door Lock Switch, S2 in the AUTO position, then continue.

(g) Repair the wiring between connector D2 on the Door Access Controller/Chime Module, M2537 and the Electric Strike, M2538 (WDM 52-51-11).

1) If the flight compartment door locks with the Flight Compartment Door Lock Switch, S2 in the AUTO position, you have corrected the problem.

2) If the flight compartment door does not lock with the Flight Compartment Door Lock Switch, S2 in the AUTO position, then continue.

(h) Do a check for continuity in the wiring that goes between the Stab Trim/Light Module, P8-47 and the Door Access Controller/Chime Module, M2537.

1) If you find a problem with wiring then repair the wiring (WDM 52-51-11).

END OF TASK

805. Door Does Not Unlock in the UNLOCK Position - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-51-00)

B. Possible Causes

(1) Control Panel Switch/Light Module, P8-47

(2) Door Access Controller/Chime Module, M2537

(3) Wiring

C. Circuit Breakers

(1) This is the circuit breaker:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

D. Related Data

(1) (SSM 52-51-11)

(2) (WDM 52-51-11)

E. Initial Evaluation

(1) Open the flight compartment door.

(2) Put the power switch on the chime module, M2537 to the NORM position.

(3) Put the flight compartment door lock switch, S2, to the UNLOCK position.

(4) Make sure that the electric strike M2538 goes to the release position.

(5) If the electric strike did not go to the release position, then do the Fault Isolation Procedure below.

(6) If the electric strike did go to the release position, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Install a new switch/light module, P8-47.

These are the tasks:

Cockpit Control Panel Switch/Light (P8-47) Removal, AMM TASK 52-51-07-020-801,

Cockpit Control Panel Switch/Light (P8-47) Installation, AMM TASK 52-51-07-420-801.

(2) Put the flight compartment door lock switch, S2, to the UNLOCK position.

(a) If the electric strike, M2538 went to the release position you have corrected the problem.

(b) If the electric strike, M2538, did not go to the to the release position then continue.

(3) Do these steps to do a check for continuity between Pin 10 on connector D3428 and Pin 3 on connector D13730.

(a) Remove connector D3428 from the switch/light module, P8-47.

(b) Remove connector D13730 from the chime module M2537. To remove connector D13730 from the chime module, do this task: Chime Module Installation, AMM TASK 52-51-06-400-801

(c) Do a check for continuity between Pin 10 on connector D3428 and Pin 3 on connector D13730. (WDM 52-51-11)

(d) If there is not continuity between Pin 10 on connector D3428 and Pin 3 on connector D13730, do these steps:

1) Repair the wire, (WDM 52-51-11).

2) Install the chime module, M2537. To install the chime module, do this task: Chime Module Installation, AMM TASK 52-51-06-400-801

3) Install the switch/light module, P8-47. To install the P8-47 panel, do this task: Cockpit Control Panel Switch/Light (P8-47) Installation, AMM TASK 52-51-07-420-801

(e) If there is continuity between Pin 10 on connector D3428 and Pin 3 on connector D13730, then do these steps:

1) Install a new chime module, M2537. To install a new chime module, do this task: Chime Module Installation, AMM TASK 52-51-06-400-801.

2) Install the switch/light module P8-47. To install the P8-47 module, do this task: Cockpit Control Panel Switch/Light (P8-47) Installation, AMM TASK 52-51-07-420-801

——— END OF TASK ———

806. Door Does Not Unlock in the AUTO Position After The Correct Code Has Been Entered - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-51-00)

B. Possible Causes

(1) Keypad, M2536

(2) Door Access Controller/Chime Module, M2537

(3) Wiring

C. Circuit Breakers

(1) This is the circuit breaker:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

D. Related Data

(1) (SSM 52-51-11)

(2) (WDM 52-51-11)

E. Initial Evaluation

(1) Open the flight compartment door.

(2) Put the power switch on the chime module, M2537 to the NORM position.

(3) Make sure that the flight compartment door lock switch, S2 is in the AUTO position.

(4) Make sure the electric strike M2538 is in the engage position.

(5) Enter the correct access code on the keypad, M2536 and push the ENT button.

(6) If the electric strike M2538 did not go to the release position, then do the Fault Isolation Procedure below.

(7) If the electric strike M2538 did go to the release position, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Make sure that the flight compartment door lock switch, S2 is in the AUTO position.

(2) Put the flight compartment door lock switch, S2 to the UNLOCK position.

(3) If the electric strike, M2538 did not go to the release position, do this task: Door Does Not Unlock in the UNLOCK Position - Fault Isolation, 52-50 TASK 805.

(4) If the electric strike, M2538 did go to the release position, do these steps:

(a) Program a new access code in the keypad. To program a new access code in the keypad, do this task: Program the Access Code, AMM TASK 52-51-00-900-801

(b) Enter the new code and press the ENT button.

(c) If the electric strike went to the release position you have corrected the problem.

1) Make sure that the keypad is set to the correct access code.

(d) If the electric strike did not go to the release position, then continue.

(e) If the amber light on the keypad came on after the correct code was entered, install a new chime module M2537.

These are the tasks:

Chime Module Removal, AMM TASK 52-51-06-000-801,

Chime Module Installation, AMM TASK 52-51-06-400-801.

1) If the electric strike went to the release position you have corrected the problem.

(f) If the amber light on the keypad did not come on after the correct code was entered, install a new keypad M2536.

These are the tasks:

Keypad Removal, AMM TASK 52-51-05-000-801,

Keypad Installation, AMM TASK 52-51-05-400-801.

1) If the electric strike went to the release position you have corrected the problem.

2) If the electric strike did not go to the release position, do this step:

a) Repair the wiring between the chime module M2537 and the keypad M2536. (WDM 52-51-11)

——— END OF TASK ———

807. Door Unlocks or Chime Sounds in the DENY Position - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-51-00)

B. Possible Causes

(1) Control Panel Switch/Light Module P8-47

(2) Door Access Controller/Chime Module, M2537

(3) Wiring

C. Circuit Breakers

(1) This is the circuit breaker:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

D. Related Data

(1) (SSM 52-51-11)

(2) (WDM 52-51-11)

E. Initial Evaluation

(1) Open the flight compartment door.

(2) Put the power switch on the chime module, M2537 to the NORM position.

(3) Make sure that the flight compartment door lock switch, S2 is in the AUTO position.

(4) Check that electric strike M2538 is in the engage position.

(5) Put the flight compartment door lock switch, S2 to the DENY position.

(6) If the electric strike M2538 went to the release position or the chime sounds, then do the Fault Isolation Procedure below.

(7) If the electric strike M2538 did not go to the release position and the chime module, M2537 did not sound, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Install a new control panel switch/light module, P8-47.

These are the tasks:

Cockpit Control Panel Switch/Light (P8-47) Removal, AMM TASK 52-51-07-020-801,

Cockpit Control Panel Switch/Light (P8-47) Installation, AMM TASK 52-51-07-420-801.

(2) If the electric strike, M2538 did not go to the release position and the chime module, M2537 did not sound you have corrected the problem.

(3) If the electric strike M2538 went to the release position or the chime sounds, then do these steps:

(a) Remove connector D3428 from the switch/light module, P8-47.

(b) Remove connector D13730 from the chime module, M2537.

(c) Check the continuity between pin 13 of connector D3428 and pin 4 of connector D13730.

(d) If there is not continuity between pin 13 of connector D3428 and pin 4 of connector D13730, repair the wiring. (WDM 52-51-11)

1) Install the chime module, M2537. To install the chime module, do this task: Chime Module Installation, AMM TASK 52-51-06-400-801

(e) If there is continuity between pin 13 of connector D3428 and pin 4 of connector D13730, install a new chime module, M2537.

1) To install a new chime module, do this task: Chime Module Installation, AMM TASK 52-51-06-400-801

(f) Install the control panel switch/light, P8-47. To install the P8-47 panel, do this task: Cockpit Control Panel Switch/Light (P8-47) Installation, AMM TASK 52-51-07-420-801

——— END OF TASK ———

808. Chime Does Not Sound When the Correct Code is Entered on the Keypad in the AUTO Mode - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-51-00)

B. Possible Causes

(1) Keypad, M2536

(2) Door Access Controller/Chime Module, M2537

(3) Wiring

C. Circuit Breakers

(1) This is the circuit breaker:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

D. Related Data

(1) (SSM 52-51-11)

(2) (WDM 52-51-11)

E. Initial Evaluation

(1) Open the flight compartment door.

(2) Put the power switch on the chime module, M2537 to the NORM position.

(3) Make sure that the flight compartment door lock switch, S2 is in the AUTO position.

(4) Check that electric strike M2538 is in the engage position.

(5) Enter the correct access code on the keypad, M2536 and push the ENT button.

(6) If the chime module did not sound, then do the Fault Isolation Procedure below.

NOTE: The chime and the keypad can be disabled for up to 30 minutes after the door lock switch is turned to the DENY position. The DENY mode can be ended by turning the door lock switch to the UNLOCK position.

(7) If the chime module did sound, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Make sure that the flight compartment door lock switch, S2 is in the AUTO position.

(2) Enter the correct access code on the keypad, M2537.

(3) If the electric strike, M2538 did not go to the release position, do this task: Door Does Not Unlock in the AUTO Position After The Correct Code Has Been Entered - Fault Isolation, 52-50 TASK 806

(4) If the electric strike, M2538 did go to the release position, do this step:

(a) Install a new chime module, M2537. To install a new chime module,
These are the tasks:
AMM TASK 52-51-06-000-801,
Chime Module Installation, AMM TASK 52-51-06-400-801,
.

——— END OF TASK ———

809. Flight Compartment Door LOCK FAIL light is On - Fault Isolation

A. Description

(1) (SDS 52-50-00)

B. Possible Causes

(1) Electric Strike, M2538
(2) Door Access Controller/Chime Module, M2537
(3) Control Panel Switch/Module, P8-47
(4) Wiring

C. Circuit Breakers

(1) This is the circuit breaker:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

D. Related Data

(1) (SSM 52-51-11)
(2) (WDM 52-51-11) (WDM 52-51-11)

E. Initial Evaluation

(1) Open the flight compartment door.
(2) Put the power switch on the chime module, M2537 to the NORM position.
(3) Make sure that the flight compartment door lock switch, S2 is in the AUTO position.
(4) Make sure that the LOCK FAIL light on the P8-47 panel is on.
(5) If the LOCK FAIL light is on, then do the Fault Isolation Procedure below.
(6) If the LOCK FAIL light is not on, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Make sure that the flight compartment door lock switch, S2 is in the AUTO position.
(2) If the electric strike, M2538 is in the release position, do this step:
(a) Do this task: Door Does Not Lock in the AUTO Position - Fault Isolation, 52-50 TASK 804.
(3) If the electric strike, M2538 is in the engage position, do these steps:
(a) Install a new control panel switch/light module, P8-47. These are the tasks:
Cockpit Control Panel Switch/Light (P8-47) Removal, AMM TASK 52-51-07-020-801,

Cockpit Control Panel Switch/Light (P8-47) Installation, AMM TASK 52-51-07-420-801.

(b) If the LOCK FAIL light went out with the door lock control switch in the AUTO position, you have corrected the problem.

(c) If the LOCK FAIL light did not go out with the door lock control switch in the AUTO position, continue:

(d) Install a new chime module, M2537. To install a new chime module. These are the tasks:

Chime Module Removal, AMM TASK 52-51-06-000-801,

Chime Module Installation, AMM TASK 52-51-06-400-801.

(e) If the LOCK FAIL light did not go out with the door lock control switch in the AUTO position, do these steps:

1) Repair the wiring between the chime module, M2537 and the control panel switch/light, P8-47 (WDM 52-51-11).

2) Install the chime module, M2537. To install the chime module, do this task: Chime Module Installation, AMM TASK 52-51-06-400-801.

3) Install the control panel switch/light module, P8-47. To install the P8-47 panel, do this task: Cockpit Control Panel Switch/Light (P8-47) Installation, AMM TASK 52-51-07-420-801.

——— END OF TASK ———

806. PSEU Forward Airstairs Door Monitored Problem - Fault Isolation

A. Description

(1) This task is for this maintenance message:

(a) 52-71005 AIRSTAIRS UNLOCKED

(2) (SDS SUBJECT 52-71-00)

B. Possible Causes

(1) Forward airstair door indication sensor, S282.

(2) Wiring

(3) PSEU, E11

C. Related Data

(1) (SSM 52-71-11)

(2) (WDM 52-71-11)

D. Initial Evaluation

(1) Close and latch the forward airstair door.

(2) Open the door.

(3) If the maintenance message shows, then do the Fault Isolation Procedure below.

(4) If the maintenance message does not show, then there was an intermittent fault.

E. Fault Isolation Procedure

(1) Do this check of the PSEU:

(a) Get access to the PSEU.

(b) Push the MENU switch until EXISTING FAULTS is displayed.

(c) Push the down switch until OTHER FUNCTNS? is displayed.

(d) Push the YES switch to select OTHER FUNCTNS?.

(e) Push the down switch until I/O MONITOR? is displayed.

(f) Push the YES switch to select I/O MONITOR.

(g) Push the down switch until SENSORS? is displayed.

(h) Push the YES switch to select SENSORS.

(i) Push the down switch until the forward airstair door indication sensor is displayed.

Table 201

DOOR	SENSOR
Forward Airstair Door	S282

(j) Push the YES switch to display the sensor status.

(k) If the sensor status is TGT NEAR, then do these steps:

1) Replace the PSEU, E11.

These are the tasks:

Proximity Switch Electronics Unit (PSEU) Removal, AMM TASK 32-09-10-000-801,

Proximity Switch Electronics Unit (PSEU) Installation, AMM TASK 32-09-10-400-801.

2) Open the forward airstair door.

3) Close and latch the door.

4) If the maintenance message does not show, then you corrected the fault.

(l) If the sensor status is TGT FAR or FAILSAFE, then continue.

(2) If the sensor status is TGT FAR, then do this check of the forward airstair door indication sensor:

(a) Do this task: Forward Airstair Door Lockpin Sensor S282 Adjustment, AMM TASK 52-71-61-820-801.

(b) Open the forward airstair door.

(c) Close and latch the door.

(d) If the maintenance message does not show, then you corrected the fault.

(e) If the maintenance message shows, then do these steps:

1) These are the tasks:

Forward Airstair Door Lockpin Sensor S282 Removal, AMM TASK 52-71-61-000-801,

Forward Airstair Door Lockpin Sensor S282 Installation, AMM TASK 52-71-61-400-801.

2) Open the forward airstair door.

3) Close and latch the door.

4) If the maintenance message does not show, then you corrected the fault.

5) If the maintenance message shows, then continue.

(3) If the sensor status is FAILSAFE, then do this check of the wiring between the PSEU and the forward airstair door indication sensor:

(a) Disconnect the applicable connector from the PSEU.

Table 202

DOOR	PSEU CONNECTOR
Airstairs Door	D10988

(b) Actuate the forward airstair door indication sensor.

(c) Find the wiring splice for the sensor.

(d) Do a wiring check between these pins of the PSEU connector and sensor:

D10988	S282
pin 61	red
pin 60	blue
ground	yellow

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

1) Repair the wiring.

2) Re-connect the connector to the PSEU.

3) Reactuate the sensor.

4) Open the forward airstair door.

5) Close and latch the door.

6) If the maintenance message does not show, then you corrected the fault.

——— END OF TASK ———

809. Forward Airstair Does Not Extend In The Normal Mode - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Door open limit switch - normal, S205

(2) Normal airstair extend limit switch, S3

(3) Normal airstair motor, M1

(4) Normal airstair relay, K1

(5) Fwd airstair actuator circuit breaker, C850

(6) Wiring Problem

C. Circuit Breakers

(1) This is the primary circuit breaker related to the fault:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
B	17	C00850	FWD AIRSTAIR ACTUATOR

D. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

E. Initial evaluation

(1) Make sure the forward entry door is fully open.

NOTE: If the forward entry door is closed and latched, the internal controls will not operate the airstair.

(2) Make sure the left engine is off.

NOTE: If the left engine is on, the airstair will not operate with the external controls.

(3) Extend and retract the airstair in the NORMAL mode.

(4) If the airstair extends and retracts in NORMAL mode, then there was an intermittent fault.

(5) If the airstair door opens but the airstair motor, M1, does not operate, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Do this check of the Door Open Limit Switch - Normal, S205:

(a) Make sure the airstair door is fully open.

(b) Disconnect the airstair connector P1 from D934.

(c) With the airstair controls in the NORMAL EXTEND position, do a check for 28 VDC between pin 5 of D934 and structure ground.

(d) If, with the airstair controls in the NORMAL EXTEND position, there is 28 VDC between pin 5 of D934 and structure ground, then do these steps:

1) Re-connect the connector P1.

2) Do the check of the Airstair Normal Extend Limit Switch, S3.

(e) If, with the airstair controls in the NORMAL EXTEND position, there is not 28 VDC between pin 5 of D934 and structure ground, then do these steps:

1) Re-connect the P1 connector.

2) Adjust switch, S205. To adjust it, do this task: Forward Airstair Door Open Limit Switches (S201 and S205) Adjustment, AMM TASK 52-61-61-820-801.

3) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

(f) Disconnect the splice SP748 that connects the switch, S205 to the airplane wire bundle W5052.

(g) With the airstair controls in the NORMAL EXTEND position, do a check for 28 VDC between splice S748 on wire bundle W5052 and structure ground.

(h) If, with the airstair controls in the NORMAL EXTEND position, there is 28 VDC between splice S748 on wire bundle W5052 and structure ground, then do these steps:

1) Repair the wiring between switch, S205 and pin 5 of D934.

2) Do the Repair Confirmation at the end of this task.

(i) If, with the airstair controls in the NORMAL EXTEND position, there is not 28 VDC between splice S748 on wire bundle W5052 and structure ground, then do these steps:

1) Replace the switch, S205.

These are the tasks:

Forward Airstair Door Open Limit Switches (S201 and S205) Removal, AMM TASK 52-61-61-020-801,

Forward Airstair Door Open Limit Switches (S201 and S205) Installation, AMM TASK 52-61-61-400-801.

NOTE: There is a spare set of contacts in the switch, S205. You may be able to attach the airplane wiring to the spare contacts instead of replacing the switch.

2) Do the Repair Confirmation at the end of this task.

(2) Do this check of the Normal Extend Limit Switch - Normal, S3:

(a) With the airstair controls in the NORMAL EXTEND position, do a check for 28 VDC between terminal Y1 of airstair relay K1 and structure ground.

(b) If, with the airstair controls in the NORMAL EXTEND position, there is 28 VDC between terminal Y1 of airstair relay K1 and structure ground, then do the check of the Airstair Normal Motor, M1.

(c) If, with the airstair controls in the NORMAL EXTEND position, there is not 28 VDC between terminal Y1 of airstair relay K1 and structure ground, then do one of these possible repairs:

NOTE: The sealed switch prevents specific fault isolation.

1) Repair the wiring between pin 11 of switch S3 and terminal Y1 of the airstair relay K1.

2) Repair the wire 105-20 between switch S3 and pin 5 of airstair connector P1.

3) Replace the airstair switch, S3.

These are the tasks:

Extend Limit Switches (S3 and S4) Removal, AMM TASK 52-61-15-000-801,

Extend Limit Switches (S3 and S4) Installation, AMM TASK 52-61-15-400-801.

(d) Do the Repair Confirmation at the end of this task.

(3) Do this check of the Airstair Normal Motor, M1:

(a) Make sure the airstair door is fully open.

(b) Disconnect the airstair connector P2 from J2.

(c) With the airstair controls in the NORMAL EXTEND position, do a check for 3-phase 115/200 VAC at pins 1, 2, 3, and 10 (neutral) of J2.

(d) If, with the airstair controls in the NORMAL EXTEND position, there is not 3-phase 115/200 VAC at pins 1, 2, 3, and 4 (neutral) of J4, then do the check of the Airstair Normal Extend/Retract Relay, K1.

(e) If, with the airstair controls in the NORMAL EXTEND position, there is 3-phase 115/200 VAC at pins 1, 2, 3, and 10 (neutral) of J2, then continue.

(f) Re-connect the airstair connector P2 to J2.

(g) Disconnect the airstair connector P4 from J4.

(h) With the airstair controls in the NORMAL EXTEND position, do a check for 3-phase 115/200 VAC at pins 1, 2, 3, and 4 (neutral) of J4.

(i) If, with the airstair controls in the NORMAL EXTEND position, there is 3-phase 115/200 VAC at pins 1, 2, 3, and 4 (neutral) of J4, then do these steps:

1) Replace the airstair normal motor, M1 (CMM 52-60-10).

2) Re-connect connector P4 to J4.

3) Do the Repair Confirmation at the end of this task.

(j) If, with the airstair controls in the NORMAL EXTEND position, there is not 3-phase 115/200 VAC at pins 1, 2, 3, and 4 (neutral) of J4, then do these steps:

1) Repair the wiring between airstair connectors P2 and J4.

2) Re-connect connector P4 to J4.

3) Do the Repair Confirmation at the end of this task.

(4) Do this check of the Airstair Normal Extend/Retract Relay, K1:

(a) Do a check for continuity between terminal Y2 of airstair relay K1 and structure ground.

(b) If there is not continuity between terminal Y2 of airstair relay K1 and structure ground, then do these steps:

1) Repair the wiring between terminal Y2 of airstair relay K1 and structure ground.

2) Do the repair confirmation at the end of this task.

(c) If there is continuity between terminal Y2 of airstair relay K1 and structure ground, then continue.

(d) Disconnect the airstair connector P1 from connector D934.

(e) Do a check for 3-phase 115/200 VAC at pins 6, 7, and 8 of D934.

1) Re-connect the connector D934.

(f) If there is not 3-phase 115/200 VAC at pins 6, 7, and 8 of D934, then do these steps:

1) Do the check of this circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
B	17	C00850	FWD AIRSTAIR ACTUATOR

(g) If there is 3-phase 115/200 VAC at pins 6, 7, and 8 of D934, then do these steps:

1) Replace the airstair relay, K1.

2) Do the repair confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Do the check of the wiring.

(5) Do the check of this circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
B	17	C00850	FWD AIRSTAIR ACTUATOR

(a) Open the P6-4 circuit breaker panel.

(b) Do a check for 3-phase 115/200 VAC at the load side of this circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
B	17	C00850	FWD AIRSTAIR ACTUATOR

(c) If there is not 3-phase 115/200 VAC at the load side of the circuit breaker, then do these steps:

1) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
F	5	C03012	XFR BUS 2 SECT 2

2) Replace this circuit breaker:

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
F	5	C03012	XFR BUS 2 SECT 2

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

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
F	5	C03012	XFR BUS 2 SECT 2

4) Close the P6-4 circuit breaker panel.

5) Do the Repair Confirmation at the end of this task

(d) If there is 3-phase 115/200 VAC at the load side of this circuit breaker, then do these steps:

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
F	5	C03012	XFR BUS 2 SECT 2

1) Repair the wiring between this circuit breaker and pins 6, 7, and 8 of D934:

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
F	5	C03012	XFR BUS 2 SECT 2

2) Close the P6-4 circuit breaker panel.

3) Do the Repair Confirmation at the end of this task

(6) Do this check of the wiring:

(a) Disconnect the airstair connector P1 from connector D934.

(b) Disconnect the airstair connector P2 from J2.

(c) Do a check for an open circuit between these pins and terminals:

J2	K1 Wire Terminal
pin 1	A2
pin 2	B2
pin 3	C2

(d) Do a check for an open circuit between these pins and terminals:

P1	K1 Wire Terminal
pin 6	A1
pin 7	B1
pin 8	C1

(e) If there is an open circuit, then do these steps:

1) Repair the wiring.

2) Re-connect the connector P2.

3) Re-connect the connector P1.

4) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

(1) Make sure the airstair is operational.

(a) Use the internal and external controls to fully extend and retract the airstair in the NORMAL mode.

(b) If the airstair extends and retracts, then you corrected the fault.

END OF TASK

811. Forward Airstair Does Not Extend In The Standby Mode - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Door open limit switch - standby, S201

(2) Standby airstair extend limit switch, S4

(3) Standby airstair motor, M2

(4) Standby airstair relay, K2

(5) Forward airstair door actuator standby circuit breaker C411

(6) Wiring Problem

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

D. Initial evaluation

(1) Make sure the forward entry door is fully open.

NOTE: If the forward entry door is closed and latched, the internal controls will not operate the airstair.

(2) Make sure the left engine is off.

NOTE: If the left engine is on, the airstair will not operate with the external controls.

(3) Extend and retract the airstair in STANDBY mode.

(4) If the airstair extends in STANDBY mode, then there was an intermittent fault.

(5) If the airstair door opens and the airstair motor, M2, does not operate, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the Door Open Limit Switch - Standby, S201:

(a) Make sure the airstair door is fully open.

(b) Disconnect the airstair connector P1 from D934.

(c) With the airstair controls in the STANDBY EXTEND position, do a check for 28 VDC between pin 17 of D934 and structure ground.

(d) If, with the airstair controls in the STANDBY EXTEND position, there is 28 VDC between pin 17 of D934 and structure ground, then do these steps:

1) Re-connect the connector P1.

2) Do the check of the Airstair Standby Extend Limit Switch, S4.

(e) If, with the airstair controls in the STANDBY EXTEND position, there is not 28 VDC between pin 17 of D934 and structure ground, then do these steps:

1) Re-connect the connector P1 to D934 connector.

2) Adjust switch, S201. To adjust it, do this task: Forward Airstair Door Open Limit Switches (S201 and S205) Adjustment, AMM TASK 52-61-61-820-801.

3) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

(f) Disconnect the splice SP742 that connects the switch, S201 to the airplane wire bundle W5052.

(g) With the airstair controls in the STANDBY EXTEND position, do a check for 28 VDC between splice SP742 on wire bundle W5052 and structure ground.

(h) If, with the airstair controls in the STANDBY EXTEND position, there is 28 VDC between splice SP742 on wire bundle W5052 and structure ground, then do these steps:

1) Repair the wiring between the switch, S201 and pin 17 of D934.

2) Do the Repair Confirmation at the end of this task.

(i) If, with the airstair controls in the STANDBY EXTEND position, there is not 28 VDC between splice SP742 on wire bundle W5052 and structure ground, then do these steps:

1) Replace the switch, S201.

These are the tasks:

Forward Airstair Door Open Limit Switches (S201 and S205) Removal, AMM TASK 52-61-61-020-801,

Forward Airstair Door Open Limit Switches (S201 and S205) Installation, AMM TASK 52-61-61-400-801.

2) Do the Repair Confirmation at the end of this task.

(2) Do this check of the Standby Extend Limit Switch - Standby, S4:

(a) With the airstair controls in the STANDBY EXTEND position, do a check for 28 VDC between terminal Y1 of airstair relay K2 and structure ground.

(b) If, with the airstair controls in the STANDBY EXTEND position, there is 28 VDC between terminal Y1 of airstair relay K2 and structure ground, then do the check of the Airstair Standby Motor, M2.

(c) If, with the airstair controls in the STANDBY EXTEND position, there is not 28 VDC between terminal Y1 of airstair relay K2 and structure ground, then do one of these possible repairs:

NOTE: The sealed switch prevents specific fault isolation.

1) Repair the wire between pin 2 of airstair switch, S4 and terminal Y1 of the airstair relay K2.

2) Repair the wiring between pin 1 of switch S4 and pin 17 of airstair connector P1.

3) Replace the airstair switch, S4.

These are the tasks:

Extend Limit Switches (S3 and S4) Removal, AMM TASK 52-61-15-000-801,

Extend Limit Switches (S3 and S4) Installation, AMM TASK 52-61-15-400-801.

(d) Do the Repair Confirmation at the end of this task.

(3) Do this check of the Airstair Standby Motor, M2:

(a) Make sure the airstair door is fully open.

(b) Disconnect the airstair connector P2 from J2.

(c) With the airstair controls in the STANDBY EXTEND position, do a check for 28 VDC at pin 6 of J2.

(d) If, with the airstair controls in the STANDBY EXTEND position, there is not 28 VDC at pin 6 of J2, then do these steps:

1) Re-connect the connector P2.
2) Do the check of the Airstair Standby Extend/Retract Relay, K2.

(e) If, with the airstair controls in the STANDBY EXTEND position, there is 28 VDC at pin 6 of J2, then continue.

(f) With the airstair controls in the STANDBY EXTEND position, do a check for continuity between pin 7 of J2 and structure ground.

(g) If, with the airstair controls in the STANDBY EXTEND position, there is not continuity between pin 7 of J2 and structure ground, then do these steps:

1) Re-connect the connector P2.
2) Do the check of the Airstair Standby Extend/Retract Relay, K2.

(h) If, with the airstair controls in the STANDBY EXTEND position, there is continuity between pin 7 of J2 and structure ground, then continue.

(i) Re-connect the connector P2.

(j) Disconnect the airstair connector P3 from J3.

(k) With the airstair controls in the STANDBY EXTEND position, do a check for continuity between pin 3 of J3 and structure ground.

(l) If, with the airstair controls in the STANDBY EXTEND position, there is not continuity between pin 3 of J3 and structure ground, then do these steps:

1) Repair the wiring between pin 3 of J3 and pin 7 of P2.
2) Do the Repair Confirmation at the end of this task.

(m) If, with the airstair controls in the STANDBY EXTEND position, there is continuity between pin 3 of J3 and structure ground, then continue.

(n) With the airstair controls in the STANDBY EXTEND position, do a check for 28 VDC between pin 2 of J3 and structure ground.

(o) If, with the airstair controls in the STANDBY EXTEND position, there is not 28 VDC between pin 2 of J3 and structure ground, then do these steps:

1) Repair the wiring between pin 2 of J3 and pin 6 of P2.
2) Do the Repair Confirmation at the end of this task.

(p) If, with the airstair controls in the STANDBY EXTEND position, there is 28 VDC between pin 3 of J3 and structure ground, then do these steps:

1) Replace the airstair standby motor, M2 (CMM 52-60-10).
2) Re-connect the connector P3.
3) Do the Repair Confirmation at the end of this task.

(4) Do this check of the Airstair Standby Extend/Retract Relay, K2:

(a) Disconnect the airstair connector P1 from D934.

(b) Do a check for 28 VDC between pin 16 of D934 and structure ground.

(c) If there is not 28 VDC between pin 16 of D934 and structure ground, then do these steps:

1) Do the check of this circuit breaker

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

2) Re-connect the connector P1.

3) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC between pin 16 of D934 and structure ground, then continue.

(e) Do a check for continuity between pin 13 of D934 and structure ground.

(f) If there is continuity between pin 13 of D934 and structure ground, then continue.

1) Replace the airstair standby extend/retract relay, K2.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then do the check of the wiring.

(5) Do this check of the following circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

(a) Open the P6-4 circuit breaker panel.

(b) Do a check for 28 VDC between the load side terminal of the following circuit breaker and structure ground:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

(c) If there is not 28 VDC at the load side terminal of the following circuit breaker, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

1) Open this circuit breaker and install safety tag:

Standby Power Control Unit, M01720

Row	Col	Number	Name
B	4	C00169	SW HOT BAT BUS

2) Replace this circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

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

Standby Power Control Unit, M01720

Row	Col	Number	Name
B	4	C00169	SW HOT BAT BUS

4) Close the P6-4 circuit breaker panel.

5) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC at the load side terminal of the following circuit breaker, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

1) Repair the wiring between pin 16 of D934 and the following circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

2) Close the P6-4 circuit breaker panel.

3) Do the Repair Confirmation at the end of this task.

(6) Do this check of the wiring:

(a) Disconnect airstair connector P2 from J2.

(b) Disconnect airstair connector P1 from D934.

(c) Do a check for an open circuit between these pins and terminals:

23	**K2 Wire Terminal**
pin 6	B1
pin 7	C1

(d) Do a check for an open circuit between these pins and terminals:

P1	**K2 Wire Terminal**
pin 16	B2
pin 13	C2

(e) If there is an open circuit, then do these steps:

1) Repair the wiring.

2) Re-connect the connector P2.

3) Re-connect the connector P1.

4) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Make sure the airstair is operational:

(a) Use the external controls to fully extend and retract the airstair in the STANDBY mode.

(b) If the airstair extends and retracts, then you corrected the fault.

——— END OF TASK ———

815. Forward Airstair Door Does Not Open In The Normal Mode - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Airstair door motor - normal, M307

(2) Retract extend enable normal relay, R715

(3) Normal door latch actuator (switch), M1954

(4) Door open limit switch - normal, S205

(5) Forward airstair door open - normal relay, R80

(6) Forward airstair door close - normal relay, R81

(7) Forward airstair door circuit breaker, C409

(8) Wiring problems

C. Circuit Breakers

(1) This is the primary circuit breaker related to the fault:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

D. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

E. Initial evaluation

(1) Make sure the left engine is off.

NOTE: If the left engine is on, the external airstair controls will not operate the airstair.

(2) Make sure the forward entry door is fully open.

NOTE: If the forward entry door is closed and latched the airstair will not operate with the internal controls.

(3) Make sure a person is in a location to see the operation of the airstair door lockpin (Figure 201).

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(4) Use the internal controls to open and close the airstair door in the NORMAL mode.

(5) Use the external controls to open and close the airstair door in the NORMAL mode.

(6) If the airstair door opens and closes with the internal and external controls, then there was an intermittent fault.

(7) If the airstair door lockpin does not retract then, do this task: Forward Airstair Door Lockpin Does Not Operate In The NORMAL Mode - Fault Isolation, 52-60 TASK 827.

(8) If the airstair door does not open and close with the internal controls but does open and close with the external controls then, do this task: Forward Airstair And Airstair Door Do Not Operate With The Internal Controls - Fault Isolation, 52-60 TASK 825.

(9) If the airstair door does not open and close with the external controls but does open and close with the internal controls, do this task: Forward Airstair And Airstair Door Do Not Operate With The External Controls - Fault Isolation, 52-60 TASK 826.

(10) If the airstair door does not open in the NORMAL mode then, do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Do this check of the Airstair Door Motor - Normal, M307 and wiring:

(a) Disconnect connector D912 from the motor, M307.

(b) Do a check for continuity between pin 6 of D912 and structure ground.

(c) If there is not continuity between pin 6 of D912 and structure ground, then do these steps:

1) Repair the wiring between pin 6 of D912 and structure ground.

2) Re-connect connector D912 to the motor, M307.

3) Do the Repair Confirmation at the end of this task.

(d) If there is continuity between pin 6 of D912 and structure ground, then continue.

(e) With the external airstair controls in the NORMAL EXTEND position, do a check for 28 VDC between pin 4 of D912 and structure ground.

(f) If, with the external airstair controls in the NORMAL EXTEND position, there is 28 VDC between pin 4 of D912 and structure ground, then do these steps:

1) Replace the airstair door motor, M307.

These are the tasks:

Forward Airstair Door Actuator Normal System Motor Removal, AMM TASK 52-61-58-000-801,

Forward Airstair Door Actuator Normal System Motor Installation, AMM TASK 52-61-58-400-801.

2) Do the Repair Confirmation at the end of this task.

(g) If there is not 28 VDC between pin 4 of D912 and structure ground, then do these steps:

1) Re-connect connector D912 to the motor, M307.

2) Do the check of the Retract Extend Enable Normal Relay, R715 and wiring.

(2) Do this check of the Retract Extend Enable Normal Relay, R715, and wiring:

(a) Disconnect connector D40628P from the J23 Junction box.

(b) With the external airstair controls in the NORMAL EXTEND position, do a check for 28 VDC between pin 4 of D40628J and structure ground.

(c) If there is 28 VDC between pin 4 of D40628J and structure ground, then do these steps:

1) Re-connect connector D40628P to the J23 Junction box.

2) Do the check of the Door Open Limit Switch - Normal, S205.

(d) If there is not 28 VDC between pin 4 of D40628J and structure ground, then continue.

(e) Remove the cover from the J23 junction box.

(f) Remove relay, R715 from the J23 junction box.

(g) With the external airstair controls in the NORMAL EXTEND position, do a check for 28 VDC between pin X1 of relay socket R715 and structure ground.

(h) If there is not 28 VDC between X1 of the R715 relay socket and structure ground, then do these steps:

1) Re-install the relay, R715.
2) Re-install the J23 junction box cover.
3) Do the check of the Normal Door Latch Actuator (switch), M1954, and wiring.

(i) If there is 28 VDC between X1 of R715 and structure ground, then continue.

(j) With the external airstair controls in the NORMAL EXTEND position, do a check for 28 VDC between pin A2 of relay socket R715 and structure ground.

(k) If, with the external airstair controls in the NORMAL EXTEND position, there is not 28 VDC between A2 of the R715 relay socket and structure ground, then do these steps:

1) Repair the wiring between pin A2 of the R715 relay socket and splice SM4 of wire bundle W5052.
2) Re-install the relay, R715.
3) Re-install the J23 junction box cover.
4) Re-connect connector D40628P.
5) Do the Repair Confirmation at the end of this task.

(l) If there is 28 VDC between A2 of relay socket R715 and structure ground, then continue.

(m) Do a check for continuity between pin X2 of the R715 relay socket and structure ground.

(n) If there is not continuity between pin X2 of the R715 relay socket and structure ground, then do these steps:

1) Repair the wiring between pin X2 of the relay socket R715 and structure ground.
2) Re-install the relay, R715.
3) Re-install the J23 junction box cover.
4) Re-connect connector D40628P.
5) Do the Repair Confirmation at the end of this task.

(o) If there is continuity between pin X2 of the R715 relay socket and structure ground, then continue.

(p) Disconnect D40628P from the J23 junction box.

(q) Do a check for continuity between pin A1 of the R715 relay socket and pin 4 of D40628J.

(r) If there is not continuity between pin A1 of the R715 relay socket and pin 4 of D40628J, then do these steps:

1) Repair the wiring between pin A1 of the R715 relay socket and pin 4 of D40628J.
2) Re-install the relay, R715.
3) Re-install the J23 junction box cover.
4) Re-connect connector D40628P.
5) Do the Repair Confirmation at the end of this task.

(s) If there is continuity between pin A1 of the R715 relay socket and pin 4 of D40628J, then do these steps:

1) Install a new R715 relay.
2) Re-install the J23 junction box cover.
3) Re-connect the connector D40628P to the J23 junction box.

4) Do the Repair Confirmation at the end of this task.

(3) Do this check of the Normal Door Latch Actuator (switch), M1954, and wiring:

(a) Disconnect the latch actuator wiring from airplane wiring at splice SP610.

(b) With the external airstair controls in the NORMAL/EXTEND position, do a check for 28 VDC between latch actuator wiring at splice SP610 and structure ground.

(c) If there is 28 VDC between the latch actuator wiring at splice SP610 and structure ground, then do these steps:

1) Repair the wiring between pin X1 of the R715 relay socket and splice SP610 of wire bundle W5052.

2) Install a new splice SP610.

3) Do the Repair Confirmation at the end of this task.

(d) If there is not 28 VDC between the latch actuator wiring at splice SP610 and structure ground, then continue.

(e) Disconnect the latch actuator wiring from airplane wiring at splice SP614 of wire bundle W5052.

(f) With the external airstair controls in the NORMAL/EXTEND position, do a check for 28 VDC between airplane wiring at splice SP614 and structure ground.

(g) If, with the external airstair controls in the NORMAL/EXTEND position there is not 28 VDC between airplane wiring at splice SP614 and structure ground, then do these steps:

1) Repair the wiring between splice SP614 and splice SM12 of wire bundle W5052.

2) Install a new splice SP614.

3) Install a new splice SP610.

4) Do the Repair Confirmation at the end of this task.

(h) If, with the external airstair controls in the NORMAL/EXTEND position there is 28 VDC between airplane wiring at splice SP614 and structure ground, then do these steps:

1) Replace the latch actuator, M1954.

These are the tasks:

Forward Airstair Door Lockpin and Lockpin Actuator Removal, AMM TASK 52-61-53-000-802,

Forward Airstair Door Lockpin and Lockpin Actuator Installation, AMM TASK 52-61-53-400-802.

2) Do the Repair Confirmation at the end of this task.

(4) Do this check of the Airstair Door Open Limit Switch, S205 and wiring:

(a) Disconnect connector D40628P from the J23 Junction Box.

(b) Do a check for continuity between pins 4 and 12 of D40628P.

(c) If there is continuity between the pins 4 and 12 of D40628P, then do these steps:

1) Re-connect the connector D40628P.

2) Do the check of the Forward Airstair Door Open - Normal Relay, R80, and wiring.

(d) If there is not continuity between the pins 4 and 12 of D40626P, then continue.

(e) Disconnect the splice SP746 that connects the switch, S205 wiring to the wire bundle, W5052.

(f) Do a check for continuity between the splice SP746 on wire bundle W5052 and pin 4 of D40628P.

(g) If there is not continuity between the splice SP746 on wire bundle W5052 and pin 4 of D40628P, then do these steps:

1) Repair the wiring between splice SP746 and pin 4 of D40626P.
2) Install a new splice SP746.
3) Reconnect D40628P to the J23 junction box.
4) Do the Repair Confirmation at the end of this task.

(h) If there is continuity between the splice SP746 on wire bundle W5052 and pin 4 of D40628P, then continue.

(i) Disconnect the splice SP750 that connects the switch, S205 wiring to the wire bundle, W5052.

(j) Do a check for continuity between the splice SP750 on wire bundle W5052 and pin 12 of D40628P.

(k) If there is not continuity between the splice SP750 on wire bundle W5052 and pin 12 of D40628P, then do these steps:

1) Repair the wiring between splice SP750 and pin 12 of D40626P.
2) Install a new splice SP746.
3) Install a new splice SP750.
4) Reconnect the connector D40628P.
5) Do the Repair Confirmation at the end of this task.

(l) If there is continuity between the splice SP746 on wire bundle W5052 and pin 4 of D40628P, then do these steps:

1) Replace the switch, S205.

These are the tasks:

Forward Airstair Door Open Limit Switches (S201 and S205) Removal, AMM TASK 52-61-61-020-801,

Forward Airstair Door Open Limit Switches (S201 and S205) Installation, AMM TASK 52-61-61-400-801.

NOTE: There is a spare set of contacts in the switch S205. You may be able to attach the airplane wiring to the spare contacts instead of replacing the switch.

2) Reconnect the connector D40628P.
3) Do the Repair Confirmation at the end of this task.

(5) Do this check of the Forward Airstair Door Open - Normal Relay, R80, and wiring:

(a) Disconnect connector D40628P from the J23 junction box.

(b) Do a check for 28 VDC between pin 1 of D40628P and structure ground.

(c) If there is not 28 VDC between pin 1 of D40628P and structure ground, then do these steps:

1) Re-connect the D40628P and the J23 junction box.
2) Do the check of the Forward Airstair Actuator Circuit Breaker, C409.

(d) If there is 28 VDC between pin 1 of D40628P and structure ground, then continue.

(e) Remove the cover from the J23 junction box.

(f) Remove the relay, R80 from the J23 junction box.

(g) Do a check for continuity between pin 1 of D40628J and pin A2 of the R80 relay socket.

(h) If there is not continuity between pin 1 of D40628P and pin A2 of the R80 relay socket, then do these steps:

1) Repair the wiring between pin A2 of the R80 relay socket and pin 1 of D40628J.
2) Re-install the R80 relay.
3) Re-install the J23 junction box cover.
4) Re-connect the connector D40628P.
5) Do the Repair Confirmation at the end of this task.

(i) With the external airstair controls in the NORMAL EXTEND position, do a check for 28 VDC between pin X1 of the R80 relay socket and structure ground.

(j) If there is not 28 VDC between pin X1 of the R80 relay socket and structure ground, then do these steps:

1) Do the check of the Forward Airstair Door Close - Normal Relay, R81, and wiring.

(k) If there is 28 VDC between pin X1 of the R80 relay socket and structure ground, then continue.

(l) Do a check for continuity between pin X2 of the R80 relay socket and structure ground.

(m) If there is not continuity between pin X2 of the R80 relay socket and structure ground, then do these steps:

1) Repair the wiring between pin X2 of the R80 relay socket and structure ground.
2) Re-install the R80 relay.
3) Re-install the cover on the J23 junction box.
4) Re-connect the connector D40628P and to the J23 junction box.
5) Do the Repair Confirmation at the end of this task.

(n) If there is continuity between pin X2 of the R80 relay socket and structure ground, then continue

(o) Re-connect the connector D40628P.

(p) Disconnect the connector D912 from the motor, M307.

(q) Do a check for continuity between pin A1 of the R80 relay socket and pin 4 of D912.

(r) If there is continuity between pin A1 of the R80 relay socket and pin 4 of D912, then do these steps:

1) Install a new R80 relay.
2) Re-install the cover on the J23 junction box.
3) Re-connect the connector D912.
4) Do the Repair Confirmation at the end of this task.

(s) If there is not continuity between pin A1 of the R80 relay socket and pin 4 of D912, then do these steps:

1) Repair the wiring between pin A1 of the R80 relay socket and pin 4 of D912.
2) Re-install the R80 relay.
3) Re-install the cover on the J23 junction box.

4) Re-connect the connector D912.

5) Do the Repair Confirmation at the end of this task.

(6) Do this check of the Forward Airstair Door Close - Normal Relay, R81, and wiring:

(a) Remove relay, R81 from the J23 junction box.

(b) With the external airstair controls in the NORMAL EXTEND position, do a check for 28 VDC between pin B3 of the R81 relay socket and structure ground.

(c) If there is not 28 VDC between pin B3 of the R81 relay socket and structure ground, then do these steps:

1) Repair the wiring between B3 of the R81 relay socket and pin 12 of D40628J.

2) Re-install the R80 relay.

3) Re-install the R81 relay.

4) Re-install the cover on the J23 junction box.

5) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC between pin B3 of the R81 relay socket and structure ground, then continue.

(e) Do a check for continuity between pins B3 and B2 the relay R81.

(f) If there is not continuity between pins B3 and B2 of the relay R81, then do these steps:

1) Install a new R81 relay.

2) Re-install the R80 relay.

3) Re-install the cover on the J23 junction box.

4) Do the Repair Confirmation at the end of this task.

(g) If there is continuity between pin B3 and B2 of the relay R81, then do these steps:

1) Repair the wiring between pin B2 of the R81 relay socket and pin X1 of the R80 relay socket.

2) Re-install the R80 relay.

3) Re-install the R81 relay.

4) Re-install the cover on the J23 junction box.

5) Do the Repair Confirmation at the end of this task.

(7) Do this check of the following circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

(a) Open the P6-4 circuit breaker panel.

(b) Do a check for 28 VDC between the load side terminal of the following circuit breaker and structure ground:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

(c) If there is not 28 VDC at the load side terminal of the following circuit breaker, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

1) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
A	2	C03072	DC BUS 2 SECT 2

2) Replace this circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

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

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
A	2	C03072	DC BUS 2 SECT 2

4) Close the P6-4 circuit breaker panel.

5) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC at the load side terminal of the following circuit breaker, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

1) Repair the wiring between pin 1 of DF04628P and the following circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

2) Close the P6-4 circuit breaker panel.

3) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

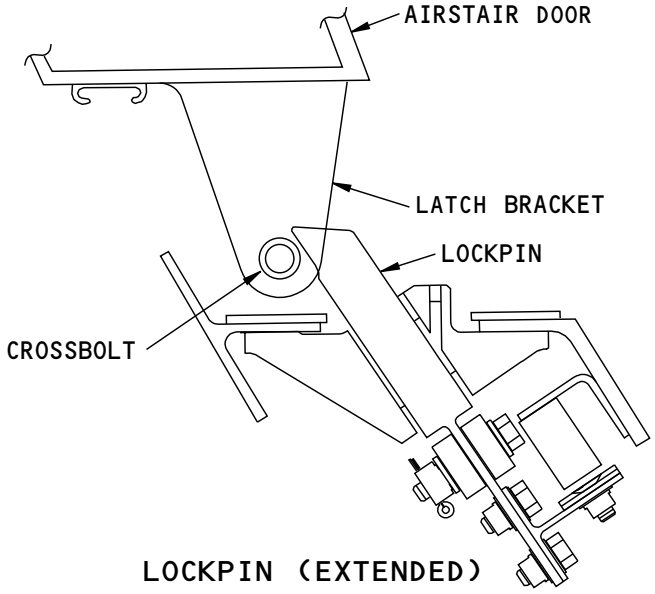
(1) Make sure the airstair door is operational:

(a) Use the external controls to open the airstair door in the NORMAL mode.

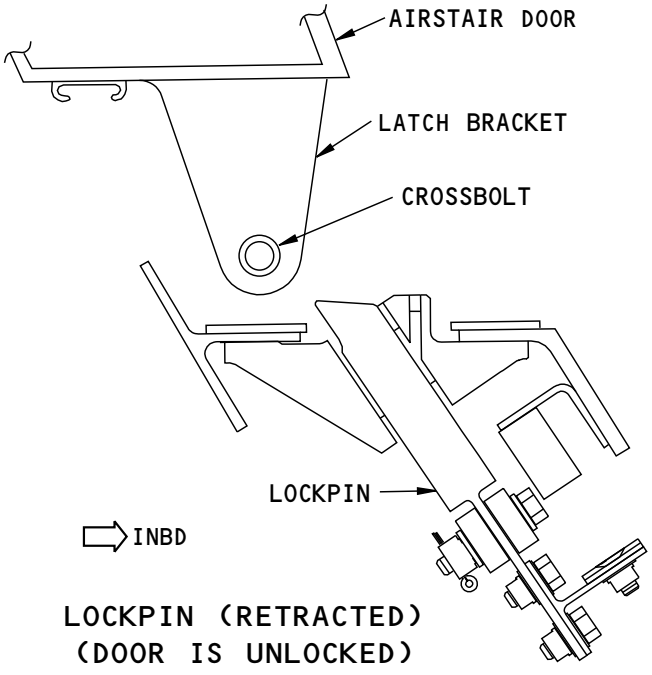
(b) Use the internal controls to open the airstair door in the NORMAL mode.

(c) If the airstair door opens with the internal and external controls, then you corrected the fault.

——— END OF TASK ———



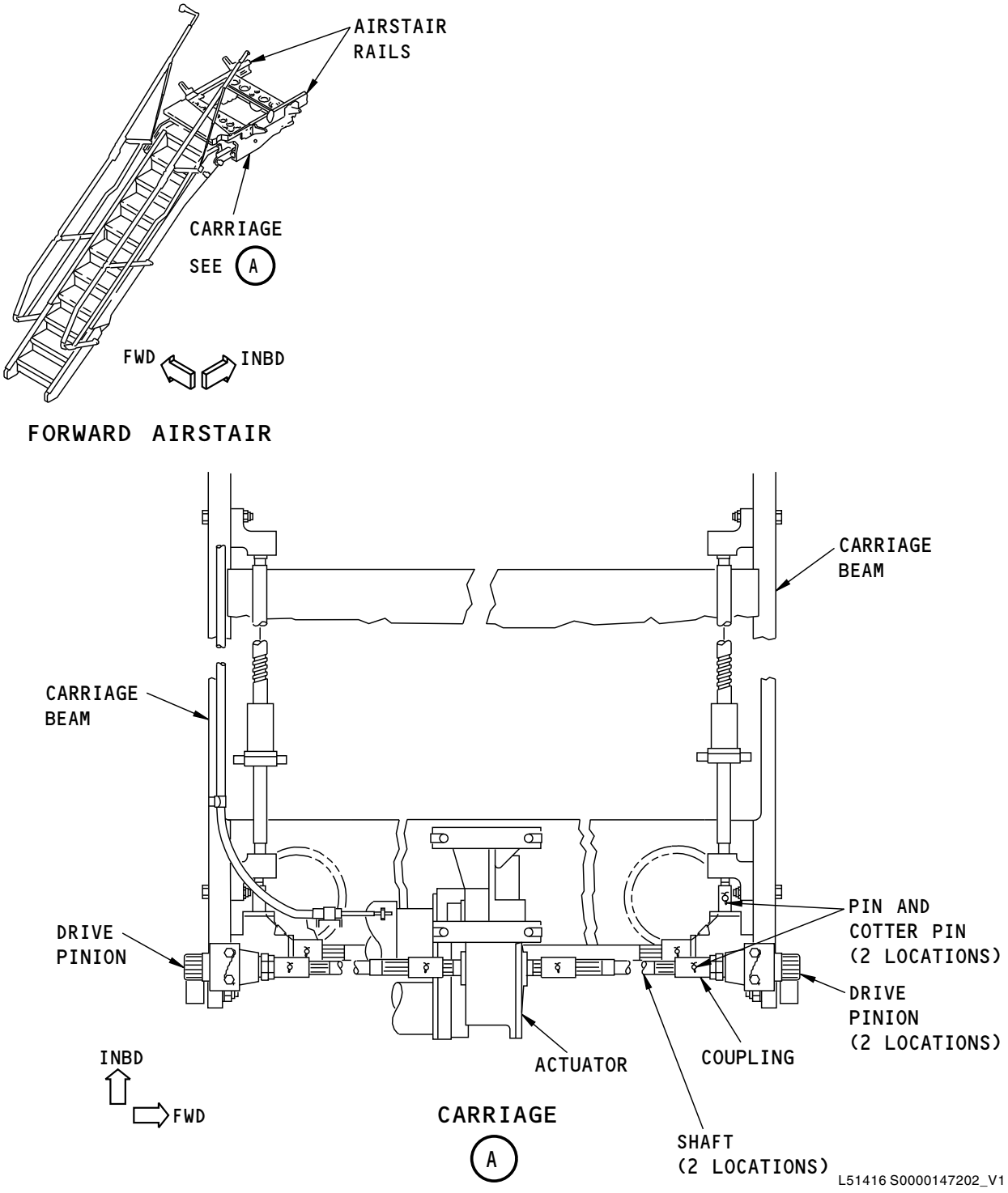
LOCKPIN (EXTENDED)
(DOOR IS LOCKED)



LOCKPIN (RETRACTED)
(DOOR IS UNLOCKED)

K94086 S0000147201_V1

Forward Airstair Door Lockpin
Figure 201/52-60-00-990-803



Carriage Drive Pinion
Figure 202/52-60-00-990-804

819. Forward Airstair Door Does Not Open In The Standby Mode - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Airstair door motor - standby, M308

(2) Retract extend enable standby relay, R716

(3) Standby door latch actuator (switch), M1953

(4) Door open limit switch - standby, S201

(5) Forward airstair door open - standby relay, R82

(6) Forward airstair door close - standby relay, R83

(7) Forward airstair standby door actuator circuit breaker - C411

(8) Wiring problems

C. Circuit Breakers

(1) This is the primary circuit breaker related to the fault:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

D. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

E. Initial evaluation

(1) Make sure the left engine is off.

NOTE: If the left engine is on, the external airstair controls will not operate the airstair.

(2) Make sure the forward entry door is fully open.

NOTE: If the forward entry door is closed and latched the airstair will not operate with the internal controls.

(3) Make sure a person is in a location to see the operation of the airstair door lockpin (Figure 201).

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(4) Use the internal controls to open and close the airstair door in the STANDBY mode.

(5) Use the external controls to open and close the airstair door in the STANDBY mode.

(6) If the airstair door opens and closes with the internal and external controls, then there was an intermittent fault.

(7) If the airstair door lockpin does not retract then, do this task: Forward Airstair Door Lockpin Does Not Operate In The Standby Mode - Fault Isolation, 52-60 TASK 828.

(8) If the airstair door does not open and close with the internal controls but does open and close with the external controls then, do this task: Forward Airstair And Airstair Door Do Not Operate With The Internal Controls - Fault Isolation, 52-60 TASK 825.

(9) If the airstair door does not open and close with the external controls but does open and close with the internal controls, do this task: Forward Airstair And Airstair Door Do Not Operate With The External Controls - Fault Isolation, 52-60 TASK 826.

(10) If the airstair door does not open then, do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Do this check of the Airstair Door Motor - Standby, M308 and wiring:

(a) Disconnect connector D914 from the motor, M308.

(b) Do a check for continuity between pin 6 of D914 and structure ground.

(c) If there is not continuity between pin 6 of D914 and structure ground, then do these steps:

1) Repair the wiring between pin 6 of D914 and structure ground.

2) Re-connect connector D914 to the motor, M308.

3) Do the Repair Confirmation at the end of this task.

(d) If there is continuity between pin 6 of D914 and structure ground, then continue.

(e) With the external airstair controls in the STANDBY EXTEND position, do a check for 28 VDC between pin 4 of D914 and structure ground.

(f) If, with the external airstair controls in the STANDBY EXTEND position, there is 28 VDC between pin 4 of D914 and structure ground, then do these steps:

1) Replace the motor, M308.

These are the tasks:

Forward Airstair Door Actuator Standby System Motor Removal, AMM TASK 52-61-59-000-801,

Forward Airstair Door Actuator Standby System Motor Installation, AMM TASK 52-61-59-400-801.

2) Do the Repair Confirmation at the end of this task.

(g) If there is not 28 VDC between pin 4 of D914 and structure ground, then do these steps:

1) Re-connect the connector D914.

2) Do the check of the Retract Extend Enable Standby Relay, R716.

(2) Do this check of the Retract Extend Enable Standby Relay, R716, and wiring:

(a) Disconnect connector D40628P from the J23 Junction box.

(b) With the external airstair controls in the STANDBY EXTEND position, do a check for 28 VDC between pin 6 of D40628J and structure ground.

(c) If there is 28 VDC between pin 6 of D40628J and structure ground, then do these steps:

1) Re-connect the connector D40628P.

2) Do the check of the Door Open Limit Switch - Standby, S201.

(d) If there is not 28 VDC between pin 6 of D40628J and structure ground, then continue.

(e) Remove the cover from the J23 junction box.

(f) Remove relay, R716 from the J23 junction box.

(g) With the external airstair controls in the STANDBY EXTEND position, do a check for 28 VDC between pin X1 of the R716 relay socket and structure ground.

(h) If there is not 28 VDC between pin X1 of the R716 relay socket and structure ground, then do these steps:

1) Re-install the relay, R716.
2) Re-install the J23 junction box cover.
3) Do the check of the Standby Door Latch Actuator (switch), M1953, and wiring.

(i) If there is 28 VDC between pin X1 of the R716 relay socket and structure ground, then continue.

(j) With the external airstair controls in the STANDBY EXTEND position, do a check for 28 VDC between pin A2 of the R716 relay socket and structure ground.

(k) If, with the external airstair controls in the STANDBY EXTEND position, there is not 28 VDC between pin A2 of the R716 relay socket and structure ground, then do these steps:

1) Repair the wiring between pin A2 of the R716 relay socket and terminal A13 of diode block R695 on TB23Y in the J23 junction box.
2) Re-install the relay, R716.
3) Re-install the J23 junction box cover.
4) Re-connect the connector D40628P.
5) Do the Repair Confirmation at the end of this task.

(l) If there is 28 VDC between pin A2 of the R716 relay socket and structure ground, then continue.

(m) Do a check for continuity between pin X2 of the R716 relay socket and structure ground.

(n) If there is not continuity between pin X2 of the R716 relay socket and structure ground, then do these steps:

1) Repair the wiring between pin X2 of the R716 relay socket and structure ground.
2) Re-install the relay, R716.
3) Re-install the J23 junction box cover.
4) Re-connect the connector D40628P.
5) Do the Repair Confirmation at the end of this task.

(o) If there is continuity between pin X2 of the R716 relay socket and structure ground, then continue.

(p) Disconnect D40628P from the J23 junction box.

(q) Do a check for continuity between pin A1 of the R716 relay socket and pin 6 of D40628J.

(r) If there is not continuity between pin A1 of the R716 relay socket and pin 6 of D40628J, then do these steps:

1) Repair the wiring between pin A1 of the R716 relay socket and pin 6 of D40628J.
2) Re-install the relay, R716.
3) Re-install the J23 junction box cover.
4) Re-connect the connector D40628P.
5) Do the Repair Confirmation at the end of this task.

(s) If there is continuity between pin A1 of the R716 relay socket and pin 4 of D40628J, then do these steps:

1) Install a new R716 relay.
2) Re-install the J23 junction box cover.
3) Re-connect the connector D40628P.
4) Do the Repair Confirmation at the end of this task.

(3) Do this check of the Standby Door Latch Actuator (switch), M1953, and wiring:
   (a) Disconnect the latch actuator wiring from airplane wiring at splice SP620.
   (b) With the external airstair controls in the STANDBY/EXTEND position, do a check for 28 VDC between latch actuator wiring at splice SP620 and structure ground.
   (c) If there is 28 VDC between the Latch Actuator wiring at splice SP620 and structure ground, then do these steps:
      1) Repair the wiring between pin X1 of the R716 relay socket and splice SP620 of wire bundle W5052.
      2) Install a new splice, SP620.
      3) Do the Repair Confirmation at the end of this task.
   (d) If there is not 28 VDC between the latch actuator wiring at splice SP620 and structure ground, then continue.
   (e) Disconnect the latch actuator wiring from airplane wiring at splice SP624 of wire bundle W5052.
   (f) Do a check for 28 VDC between airplane wiring at splice SP624 and structure ground.
   (g) If there is not 28 VDC between airplane wiring at splice SP624 and structure ground, then do these steps:
      1) Repair the wiring between splice SP624 and splice SM10 of wire bundle W5052.
      2) Install a new splice, SP624.
      3) Install a new splice, SP620.
      4) Do the Repair Confirmation at the end of this task.
   (h) If there is 28 VDC between airplane wiring at splice SP620 and structure ground, then do these steps:
      1) Install a new latch actuator, M1953.

         These are the tasks:

         Forward Airstair Door Actuator Standby System Motor Removal, AMM TASK 52-61-59-000-801,

         Forward Airstair Door Actuator Standby System Motor Installation, AMM TASK 52-61-59-400-801.

(4) Do this check of the Airstair Door Open Limit Switch - Standby, S201 and wiring:
   (a) Disconnect connector D40628P from the J23 Junction Box.
   (b) Do a check for continuity between pins 6 and 13 of D40628P.
   (c) If there is continuity between the pins 6 and 13 of D40628P, then do these steps:
      1) Re-connect the connector D40628P.
      2) Do the check of the Forward Airstair Door Open - Standby Relay, R82, and wiring.
   (d) If there is not continuity between the pins 6 and 13 of D40626P, then continue.
   (e) Disconnect the splice SP744 that connects the switch S201, to the wire bundle W5052.

(f) Do a check for continuity between the splice SP744 on wire bundle W5052 and pin 13 of D40628P.

(g) If there is not continuity between the splice SP744 on wire bundle W5052 and pin 13 of D40628P, then do these steps:

1) Repair the wiring between splice SP744 of wire bundle W5052 and pin 13 of D40628P.

2) Install a new splice SP744.

3) Re-connect the connector D40628P.

4) Do the Repair Confirmation at the end of this task.

(h) If there is continuity between the splice SP744 on wire bundle W5052 and pin 13 of D40628P, then continue.

(i) Disconnect the splice SP740 that connects the switch, S201 to the airplane wire bundle, W5052.

(j) Do a check for continuity between the splice SP740 on wire bundle W5052 and pin 6 of D40628P.

(k) If there is not continuity between the splice SP740 on wire bundle W5052 and pin 6 of D40628P, then do these steps:

1) Repair the wiring between splice SP740 of wire bundle W5052 and pin 6 of D40626.

2) Install a new splice SP744.

3) Install a new splice SP740.

4) Re-connect the connector D40628P.

5) Do the Repair Confirmation at the end of this task.

(l) If there is continuity between the splice SP740 on wire bundle W5052 and pin 6 of D40628P, then do these steps:

1) Replace the switch, S201.

These are the tasks:

Forward Airstair Door Open Limit Switches (S201 and S205) Removal, AMM TASK 52-61-61-020-801,

Forward Airstair Door Open Limit Switches (S201 and S205) Installation, AMM TASK 52-61-61-400-801.

NOTE: There is a spare set of contacts in the switch, S201. You may be able to attach the airplane wiring to the spare contacts instead of replacing the switch.

2) Re-connect the connector D40628P.

3) Do the Repair Confirmation at the end of this task.

(5) Do this check of the Forward Airstair Door Open - Standby Relay, R82, and wiring:

(a) Disconnect D40628P from the J23 junction box.

(b) Do a check for 28 VDC between pin 2 of D40628P and structure ground.

(c) If there is not 28 VDC between pin 2 of D40628P and structure ground, then do these steps:

1) Re-connect the connector D40628P.

2) Do the check of the Forward Airstair Actuator Circuit Breaker - Standby, C411.

(d) If there is 28 VDC between pin 2 of D40628P and structure ground, then continue.

(e) Remove the cover from the J23 junction box.

(f) Remove relay, R82 from the J23 junction box.

(g) Do a check for continuity between pin 2 of D40628J and pin A2 of the R82 relay socket.

(h) If there is not continuity between pin 2 of D40628P and pin A2 of the R82 relay socket, then do these steps:

1) Repair the wiring between pin A2 of the R82 relay socket and pin 2 of D40628J.
2) Re-install the R82 relay.
3) Re-connect the connector D40628P.
4) Do the Repair Confirmation at the end of this task.

(i) With the external airstair controls in the STANDBY EXTEND position, do a check for 28 VDC between pin X1 of the R82 relay socket and structure ground.

(j) If there is not 28 VDC between pin X1 of the R82 relay socket and structure ground, then do the check of the Forward Airstair Door Close - Standby Relay, R83, and wiring.

(k) If there is 28 VDC between X1 of the R82 relay socket and structure ground, then continue.

(l) Do a check for continuity between pin X2 of the R82 relay socket and structure ground.

(m) If there is not continuity between pin X2 of the R82 relay socket and structure ground, then do these steps:

1) Repair the wiring between pin X2 of the R82 relay socket and structure ground.
2) Re-install the R82 relay.
3) Re-connect the connector D40628P.
4) Re-install the J23 junction box cover.
5) Do the Repair Confirmation at the end of this task.

(n) Disconnect the connector D914 from the Airstair Door Motor - Standby, M308.

(o) Do a check for continuity between pin A1 of the R82 relay socket and pin 4 of D914.

(p) If there is continuity between pin A1 of the R82 relay socket and pin 4 of D914, then do these steps:

1) Install a new R82 relay.
2) Re-connect the connector D40628P.
3) Re-connect the connector D914.
4) Re-install the J23 junction box cover.
5) Do the Repair Confirmation at the end of this task.

(q) If there is not continuity between pin A1 of the R82 relay socket and pin 4 of D914, then do these steps:

1) Repair the wiring between pin A1 of the R82 relay socket and pin 4 of D914.
2) Re-install the R82 relay.
3) Re-connect the connector D40628P.
4) Re-connect the connector D914.
5) Re-install the J23 junction box cover.
6) Do the Repair Confirmation at the end of this task.

(6) Do this check of the Forward Airstair Door Close - Standby Relay, R83, and wiring:

(a) Remove relay, R83 from the J23 junction box.

(b) With the external airstair controls in the STANDBY EXTEND position, do a check for 28 VDC between pin B3 of the R83 relay socket and structure ground.

(c) If there is not 28 VDC between pin B3 of the R83 relay socket and structure ground, then do these steps:

1) Repair the wiring between pin B3 of the R83 relay socket and pin 13 of D40628J.

2) Re-install the R82 relay.

3) Re-install the R83 relay.

4) Re-connect the connector D40628P.

5) Re-install the J23 junction box cover.

6) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC between pin B3 of the R83 relay socket and structure ground, then continue.

(e) Do a check for continuity between pins B3 and B2 the relay R83.

(f) If there is not continuity between pins B3 and B2 of relay R83, then do these steps:

1) Install a new R83 relay.

2) Re-install the R82 relay.

3) Re-connect the connector D40628P.

4) Re-install the J23 junction box cover.

5) Do the Repair Confirmation at the end of this task.

(g) If there is continuity between pins B3 and B2 of relay R83, then do these steps:

1) Repair the wiring between pin B2 of the R83 relay socket and pin X1 of the R82 relay socket.

2) Re-install the R82 relay.

3) Re-install the R83 relay.

4) Re-connect the connector D40628P.

5) Re-install the J23 junction box cover.

6) Do the Repair Confirmation at the end of this task.

(7) Do this check of the following circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

(a) Open the P6-4 circuit breaker panel.

(b) Do a check for 28 VDC between the load side terminal of the following circuit breaker and structure ground:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

(c) If there is not 28 VDC at the load side terminal of the following circuit breaker, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

1) Open this circuit breaker and install safety tag:

Standby Power Control Unit, M01720

Row	Col	Number	Name
B	4	C00169	SW HOT BAT BUS

2) Replace this circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

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

Standby Power Control Unit, M01720

Row	Col	Number	Name
B	4	C00169	SW HOT BAT BUS

4) Close the P6-4 circuit breaker panel.

5) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC at the load side terminal of the following circuit breaker, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

1) Repair the wiring between pin 2 of D40628P and the following circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

2) Close the P6-4 circuit breaker panel.

3) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

(1) Make sure the airstair door is operational:

(a) Use the external controls to open the airstair door in the STANDBY mode.

(b) Use the internal controls to open the airstair door in the STANDBY mode.

(c) If the airstair door opens with the internal and external controls, then you corrected the fault.

——— END OF TASK ———

820. Forward Airstair Motor Operates, But Airstair Does Not Extend or Retract - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) The airstair mechanism is jammed.

(2) The airstair drive mechanism external to the actuator is sheared or stripped.

(3) The airstair motor, M1 or M2, output shafts are sheared or broken.

(4) The airstair actuator differential clutch does not engage.

C. Related Data

(1) (CMM 52-60-10)

(2) (CMM 52-60-06)

D. Initial evaluation

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Use the external controls to extend and retract the airstair in the NORMAL mode.

(2) If the airstair extends and retracts, then there was an intermittent fault.

(3) If the airstair motors operate but the airstair does not extend or retract, do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check to see if the airstair is jammed:

(a) Visually inspect the airstair mechanism for problems that prevent free movement.

(b) If you find a problem, repair it.

1) Do the Repair Confirmation at the end of this task.

(c) If you do not find a problem, then continue.

(2) Do this check to see if the airstair drive mechanism external to the actuator is sheared or stripped:

(a) While the airstair controls are in the NORMAL RETRACT position, see if the actuator output shafts turn.

(b) If you the actuator output shafts turn then do these steps:

1) Locate the sheared or stripped component.

2) Repair the sheared or stripped component.

3) Do the Repair Confirmation at the end of this task.

(c) If the actuator output shafts do not turn, then continue.

(3) Do this check of the airstair motors, M1 and M2, output shafts and the differential clutch:

(a) Remove the two motors, do this task: Forward Airstair Actuator Motor Removal, AMM TASK 52-61-12-000-801.

(b) Check the condition of the motor output shafts.

(c) If an output shaft is sheared or broken, then do these steps:

1) Install a new motor to replace the defective motor, do this task: Forward Airstair Actuator Motor Installation, AMM TASK 52-61-12-400-801.

2) Install the motor that is not broken, do this task: Forward Airstair Actuator Motor Installation, AMM TASK 52-61-12-400-801.

3) Do the Repair Confirmation at the end of this task.

(d) If the output shafts are not sheared or broken, then do these steps:

1) Replace the airstair actuator.

These are the tasks:

Forward Airstair Actuator Removal, AMM TASK 52-61-11-000-801,

Forward Airstair Actuator Installation, AMM TASK 52-61-11-400-801.

NOTE: The differential clutch is in the airstair actuator.

2) Install the two motors, do this task: Forward Airstair Actuator Motor Installation, AMM TASK 52-61-12-400-801.

3) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the airstair:

(a) Use the external controls to extend and retract the airstair.

(b) If the airstair extends and retracts, then you corrected the fault.

END OF TASK

821. Forward Airstair Does Not Retract In The NORMAL Mode - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Airstair door lockpin system

(2) Normal/standby airstair retract limit switch, S5

(3) Retract/Extend enable normal relay, R715

(4) Normal door latch actuator (switch), M1954

(5) Normal airstair normal extend/retract relay, K1

(6) Normal airstair motor, M1

(7) Airstair actuator circuit breaker, C850

(8) Airstair lower ladder operating limit switch, S10

(9) Aft airstair hand rail stowed limit switch, S2

(10) Forward airstair hand rail stowed limit switch, S1

(11) Wiring Problem

C. Circuit Breakers

(1) This is the primary circuit breaker related to the fault:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
B	17	C00850	FWD AIRSTAIR ACTUATOR

D. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

E. Initial evaluation

(1) Make sure the handrail extensions are properly stowed and latched in the handrails.

(2) Make sure the left engine is off.

NOTE: If the left engine is on, the external airstair controls will not operate the airstair.

(3) Make sure the forward entry door is fully open.

NOTE: If the forward entry door is closed and latched the airstair will not operate with the internal controls.

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(4) Use the internal controls to retract the airstair in the NORMAL mode.

(5) Use the external controls to retract the airstair in the NORMAL mode.

(6) If the airstair retracts with the internal and external controls, then there was an intermittent fault.

(7) If the airstair does not retract with the internal controls but does retract with the external controls, do this task: Forward Airstair And Airstair Door Do Not Operate With The Internal Controls - Fault Isolation, 52-60 TASK 825.

(8) If the airstair does not retract with the external controls but does retract with the internal controls, do this task: Forward Airstair And Airstair Door Do Not Operate With The External Controls - Fault Isolation, 52-60 TASK 826.

(9) If the airstair must be retracted immediately, do this task: Forward Airstair Manual Retraction, AMM TASK 52-61-00-980-802.

(10) If the airstair does not retract with the internal and external controls, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Do this check of the Airstair Door Lockpin System:

(a) With the external controls in the NORMAL RETRACT position, see if the airstair door lockpin is retracted (Figure 201).

(b) With the external controls in the NORMAL EXTEND position, see if the airstair door lockpin is retracted (Figure 201).

(c) If the lockpin retracts when the EXTEND and RETRACT controls are operated, then do the check of the normal/standby airstair retract limit switch, S5 and wiring.

(d) If the lockpin does not retract when the EXTEND or RETRACT controls are operated, do this task: Forward Airstair Door Lockpin Does Not Operate In The NORMAL Mode - Fault Isolation, 52-60 TASK 827.

(2) Do this check of the normal/standby airstair retract limit switch, S5 and wiring:

(a) Disconnect the airstair connector P1 from the connector D934.

(b) With the airstair controls in the NORMAL RETRACT position, do a check for 28 VDC between pin 10 of connector D934 and structure ground.

(c) Re-connect the airstair connector P1 to the connector D934.

(d) If, with the airstair controls in the NORMAL RETRACT position, there is not 28 VDC between pin 10 of connector D934 and structure ground, then do the check of the retract/extend enable normal relay, R715 and wiring.

(e) If, with the airstair controls in the NORMAL RETRACT position, there is 28 VDC between pin 10 of connector D934 and structure ground, then continue.

(f) With the airstair controls in the NORMAL RETRACT position, do a check for 28 VDC between terminal X1 of the airstair K1 relay and structure ground.

(g) If, with the airstair controls in the NORMAL RETRACT position, there is 28 VDC between terminal X1 of the airstair K1 relay and structure ground, then do the check of the Airstair Extend/Retract Relay, K1

(h) If, with the airstair controls in the NORMAL RETRACT position, there is not 28 VDC between terminal X1 of the airstair K1 relay and structure ground, then do these steps:

1) Replace the Retract Limit Switch, S5.

These are the tasks:

Forward Airstair Retract Limit Switch (S5) Removal, AMM TASK 52-61-14-000-801,

Forward Airstair Retract Limit Switch (S5) Installation, AMM TASK 52-61-14-400-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then do one of these possible repairs:

NOTE: The sealed switch prevents specific fault isolation.

<1> Repair the wiring between pin 1 of the airstair switch, S5 and pin 10 of the airstair connector P1.

<2> Repair the wiring between pin 2 of the airstair switch, S5 and terminal X1 of the airstair relay, K1.

b) Do the Repair Confirmation at the end of this task.

(3) Do this check of the Retract Extend Enable Normal Relay, R715, and wiring:

(a) Remove the cover from the J23 junction box.

(b) Remove the R715 relay from the J23 junction box.

(c) With the airstair controls in the NORMAL RETRACT position, do a check for 28 VDC between pin X1 of the R715 relay socket, and structure ground.

(d) If there is not 28 VDC between pin X1 of the R715 relay socket and structure ground, then do these steps:

1) Re-install the relay, R715.
2) Re-install the J23 junction box cover.
3) Do the check of the Normal Door Latch Actuator (switch), M1954, and wiring.

(e) If there is 28 VDC between pin X1 of the R715 relay socket and structure ground, then continue.

(f) Do a check for continuity between pin X2 of relay socket R715 and structure ground.

(g) If there is not continuity between X2 of R715 and structure ground, then do these steps:
1) Repair the wiring between X2 of R715 and structure ground.
2) Re-install the relay, R715.
3) Re-install the J23 junction box cover.
4) Do the Repair Confirmation at the end of this task.

(h) If there is continuity between X2 of the R715 relay socket and structure ground, then continue.

(i) With the airstair controls in the NORMAL RETRACT position, do a check for 28 VDC between pin B2 of the R715 relay socket, and structure ground.

(j) If there is not 28 VDC between pin B2 of the R715 relay socket and structure ground, then do these steps:
1) Repair the wiring between pin B2 of the R715 relay socket and splice SM6 of wire bundle W5052
2) Re-install the relay, R715.
3) Re-install the J23 junction box cover.
4) Do the Repair Confirmation at the end of this task.

(k) If there is 28 VDC between pin B2 of the R715 relay socket and structure ground, then do these steps:
1) Install a new relay, R715.
2) Re-install the J23 junction box cover.
3) Do the Repair Confirmation at the end of this task.
a) If the Repair Confirmation is not satisfactory, then continue.
b) Repair the wiring between pin B1 of the R715 relay socket and pin 10 of connector D934.
c) Do the Repair Confirmation at the end of this task.

(4) Do this check of the Normal Door Latch Actuator (switch), M1954, and wiring:
(a) Disconnect the latch actuator wiring from airplane wiring at splice SP610.
(b) With the external airstair controls in the NORMAL/RETRACT position, do a check for 28 VDC between latch actuator wiring at splice SP610 and structure ground.
(c) If there is 28 VDC between the latch actuator wiring at splice SP610 and structure ground, then do these steps:
1) Repair the wiring between pin X1 of the relay socket R715 and splice SP610 of wire bundle W5052.
2) Install a new splice SP610.
3) Do the Repair Confirmation at the end of this task.

(d) If there is not 28 VDC between the latch actuator wiring at splice SP610 and structure ground, then continue.

(e) Disconnect the latch actuator wiring from airplane wiring at splice SP614.

(f) With the external airstair controls in the NORMAL/RETRACT position, do a check for 28 VDC between airplane wiring at splice SP614 and structure ground.

(g) If, with the external airstair controls in the NORMAL/RETRACT position there is not 28 VDC between airplane wiring at splice SP614 and structure ground, then do these steps:

1) Repair the wiring between splice SP614 and splice SM12 of wire bundle W5052.

2) Install a new splice SP610.

3) Install a new splice SP614.

4) Do the Repair Confirmation at the end of this task.

(h) If, with the external airstair controls in the NORMAL/RETRACT position there is 28 VDC between airplane wiring at splice SP614 and structure ground, then do these steps:

1) Replace the Normal Door latch actuator, M1954.

These are the tasks:

Forward Airstair Door Lockpin and Lockpin Actuator Removal, AMM TASK 52-61-53-000-802,

Forward Airstair Door Lockpin and Lockpin Actuator Installation, AMM TASK 52-61-53-400-802.

2) Install a new splice SP610.

3) Install a new splice SP614.

4) Do the Repair Confirmation at the end of this task.

(5) Do this check of the airstair normal extend/retract relay, K1 and wiring:

(a) Do a check for continuity between terminal X2 of the airstair relay, K1 and structure ground.

(b) If there is not continuity between terminal X2 of the airstair relay, K1 and structure ground, then do the check of the airstair lower ladder operating limit switch, S10.

(c) If there is continuity between terminal X2 of the airstair relay, K1 and structure ground, then continue.

(d) Do a check for 3-phase 115/200 VAC at terminals A1, B1 and C1 of the airstair relay, K1.

(e) If there is not 3-phase 115/200 VAC at terminals A1, B1 and C1 of the airstair relay, K1, then do the check of the airstair actuator circuit breaker, C850 and wiring.

(f) If there is 3-phase 115/200 VAC at terminals A1, B1 and C1 of the airstair relay, K1, then continue.

(g) With the airstair controls in the NORMAL RETRACT position, do a check for 3-phase 115/200 VAC at terminals A2, B2 and C2 of the airstair relay, K1.

(h) If, with the airstair controls in the NORMAL RETRACT position, there is 3-phase 115/200 VAC at terminals A2, B2 and C2 of the airstair relay, K1, then do the check of the airstair normal motor, M1 and wiring.

(i) If, with the airstair controls in the NORMAL RETRACT position, there is not 3-phase 115/200 VAC at terminals A2, B2 and C2 of the airstair relay, K1, then do these steps:

1) Replace the airstair relay, K1.

2) Do the Repair Confirmation at the end of this task.

(6) Do this check of the airstair normal motor, M1 and wiring:

(a) Disconnect the airstair connector P4 from J4.

(b) With the airstair controls in the NORMAL RETRACT position, do a check for 3-phase 115/200 VAC at pins 1, 2, 3 and 4 (neutral) of airstair connector J4.

(c) Re-connect the airstair connector P4 to J4.

(d) If, with the airstair controls in the NORMAL RETRACT position, there is not 3-phase 115/200 VAC at pins 1, 2, 3 and 4 (neutral) of airstair connector J4, then do these steps:

1) Repair the wiring between the motor, M1 and the airstair relay, K1.

2) Do the Repair Confirmation at the end of this task.

(e) If, with the airstair controls in the NORMAL RETRACT position, there is 3-phase 115/200 VAC at pins 1, 2, 3 and 4 (neutral) of airstair connector J4, then do these steps:

1) Install a new airstair motor, M1 (CMM 52-60-10).

2) Do the Repair Confirmation at the end of this task.

(7) Do this check of the following circuit breaker and wiring:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
B	17	C00850	FWD AIRSTAIR ACTUATOR

(a) Open the P6-4 circuit breaker panel.

(b) Do a check for 3-phase 115/200 VAC between the load side terminals of the following circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
B	17	C00850	FWD AIRSTAIR ACTUATOR

(c) If there is not 3-phase 115/200 VAC at the load side terminals of the following circuit breaker, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
B	17	C00850	FWD AIRSTAIR ACTUATOR

1) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
F	5	C03012	XFR BUS 2 SECT 2

2) Replace this circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
B	17	C00850	FWD AIRSTAIR ACTUATOR

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

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
F	5	C03012	XFR BUS 2 SECT 2

4) Close the P6-4 circuit breaker panel.

5) Do the Repair Confirmation at the end of this task.

(d) If there is 3-phase 115/200 VAC at the load side terminals of the following circuit breaker, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
B	17	C00850	FWD AIRSTAIR ACTUATOR

1) Repair the wiring between the load side terminals of the following circuit breaker and the airstair relay, K1:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
B	17	C00850	FWD AIRSTAIR ACTUATOR

2) Close the P6-4 circuit breaker panel.

3) Do the Repair Confirmation at the end of this task.

(8) Do this check of the airstair lower ladder operating limit switch, S10 and wiring:

(a) Disconnect the airstair connector P13 from airstair connector J13.

(b) Do a check for continuity between pins 1 and 3 of the P13 connector.

(c) If there is not continuity between pins 1 and 3 of the P13 connector, then do these steps:

1) Replace the switch, S10.

These are the tasks:

Forward Airstair Lower Ladder Operating Switch (S10) Removal, AMM TASK 52-61-16-000-801,

Forward Airstair Lower Ladder Operating Switch (S10) Installation, AMM TASK 52-61-16-400-801.

2) Re-connect connector P13 to J13.

3) Do the Repair Confirmation at the end of this task.

(d) If there is continuity between pins 1 and 3 of the P13 connector, then continue.

(e) Do a check for continuity between pin 3 of J13 and structure ground.

(f) If there is not continuity between pin 3 of J13 and structure ground, then do these steps:

1) Re-connect connector P13 to J13.

2) Do the check of the airstair aft hand rail stowed limit switch, S2 and wiring.

(g) If there is continuity between pin 3 of J13 and structure ground, then do these steps:

1) Repair the wiring between pin 1 of J13 and terminal X2 of airstair relay, K1.

2) Re-connect connector P13 to J13.

3) Do the Repair Confirmation at the end of this task.

(9) Do this check of the airstair aft hand rail stowed limit switch, S2 and wiring:

(a) Disconnect the airstair connector P16 from airstair connector J16.

(b) Do a check for continuity between pins 1 and 3 of the P16 connector.

(c) If there is not continuity between pins 1 and 3 of the P16 connector, then do these steps:

1) Replace the switch, S2.

These are the tasks:

Forward Airstair Handrail Switch (S1 or S2) Removal, AMM TASK 52-61-18-000-801,

Forward Airstair Handrail Switch (S1 or S2) Installation, AMM TASK 52-61-18-400-801.

2) Re-connect connector P16 to J16.

3) Do the Repair Confirmation at the end of this task.

(d) If there is continuity between pins 1 and 3 of the J16 connector, then continue.

(e) Do a check for continuity between pin 3 of J16 and structure ground.

(f) If there is not continuity between pin 3 of J16 and structure ground, then do these steps:

1) Re-connect connector P16 to J16.

2) Do the check of the airstair forward hand rail stowed limit switch, S1 and wiring.

(g) If there is continuity between pin 3 of J16 and structure ground, then do these steps:

1) Repair the wiring between pin 1 of J16 and pin 3 of J13.

2) Re-connect connector P16 to J16.

3) Do the Repair Confirmation at the end of this task.

(10) Do this check of the airstair forward hand rail stowed limit switch, S1 and wiring:

(a) Disconnect the airstair connector P15 from airstair connector J15.

(b) Do a check for continuity between pins 1 and 3 of the P15 connector.

(c) If there is not continuity between pins 1 and 3 of the P15 connector, then do these steps:

1) Replace the switch, S1.

These are the tasks:

Forward Airstair Handrail Switch (S1 or S2) Removal, AMM TASK 52-61-18-000-801,

Forward Airstair Handrail Switch (S1 or S2) Installation, AMM TASK 52-61-18-400-801.

2) Re-connect connector P15 to J15.

3) Do the Repair Confirmation at the end of this task.

(d) If there is continuity between pins 1 and 3 of the P15 connector, then continue.

(e) Do a check for continuity between pin 3 of J15 and structure ground.

(f) If there is not continuity between pin 3 of J15 and structure ground, then do these steps:

1) Repair the wiring between pin 3 of J16 and pin 1 of airstair connector P1.

2) Re-connect connector P15 to J15.

3) Do the Repair Confirmation at the end of this task.

(g) If there is continuity between pin 3 of J16 and structure ground, then do these steps:

1) Repair the wiring between pin 3 of J15 and pin 1 of J16.
2) Re-connect connector P15 to J15.
3) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

(1) Do an operational check of the airstair in NORMAL mode:
   (a) Use the external and internal controls to retract and extend the airstair in NORMAL mode.
   (b) If the airstair retracts and extends, then you corrected the fault.

——— END OF TASK ———

822. Forward Airstair Does Not Retract In The STANDBY Mode - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Airstair door lockpin system
(2) Normal/standby airstair retract limit switch, S5
(3) Retract/Extend enable standby relay, R716
(4) Standby door latch actuator (switch), M1953
(5) Standby airstair relay, K2
(6) Standby airstair motor, M2
(7) Fwd airstair standby door actuator circuit breaker - C411
(8) Airstair lower ladder operating limit switch, S10
(9) Aft airstair hand rail stowed limit switch, S2
(10) Forward airstair hand rail stowed limit switch, S1
(11) Wiring Problem

C. Circuit Breakers

(1) This is the primary circuit breaker related to the fault:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

D. Related Data

(1) (WDM 52-61-11)
(2) (SSM 52-61-11)
(3) (CMM 52-60-10)

E. Initial evaluation

(1) Make sure the handrail extensions are properly stowed and latched in the handrails.
(2) Make sure the left engine is off.

NOTE: If the left engine is on, the external airstair controls will not operate the airstair.

(3) Make sure the forward entry door is fully open.

NOTE: If the forward entry door is closed and latched the airstair will not operate with the internal controls.

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(4) Use the internal controls to retract the airstair in the STANDBY mode.

(5) Use the external controls to retract the airstair in the STANDBY mode.

(6) If the airstair retracts with the internal and external controls, then there was an intermittent fault.

(7) If the airstair does not retract with the internal controls but does retract with the external controls, do this task: Forward Airstair And Airstair Door Do Not Operate With The Internal Controls - Fault Isolation, 52-60 TASK 825.

(8) If the airstair does not retract with the external controls but does retract with the internal controls, do this task: Forward Airstair And Airstair Door Do Not Operate With The External Controls - Fault Isolation, 52-60 TASK 826.

(9) If the airstair must be retracted immediately, do this task: Forward Airstair Manual Retraction, AMM TASK 52-61-00-980-802.

(10) If the airstair does not retract with the internal and external controls, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Do this check of the Airstair Door Lockpin System:

(a) With the external controls in the STANDBY RETRACT position, see if the airstair door lockpin is retracted (Figure 201).

(b) With the external controls in the STANDBY EXTEND position, see if the airstair door lockpin is retracted.

(c) If the lockpin retracts when the EXTEND and RETRACT controls are operated, then do the check of the normal/standby airstair retract limit switch, S5 and wiring.

(d) If the lockpin does not retract when the EXTEND or RETRACT controls are operated, do this task: Forward Airstair Door Lockpin Does Not Operate In The Standby Mode - Fault Isolation, 52-60 TASK 828.

(2) Do this check of the normal/standby airstair retract limit switch, S5 and wiring:

(a) Disconnect the airstair connector P1 from the connector D934.

(b) With the airstair controls in the STANDBY RETRACT position, do a check for 28 VDC between pin 15 of connector D934 and structure ground.

(c) Re-connect the airstair connector P1 to the connector D934.

(d) If, with the airstair controls in the STANDBY RETRACT position, there is not 28 VDC between pin 15 of connector D934 and structure ground, then do the check of the retract/extend enable standby relay, R716 and wiring.

(e) If, with the airstair controls in the STANDBY RETRACT position, there is 28 VDC between pin 15 of connector D934 and structure ground, then continue.

(f) With the airstair controls in the STANDBY RETRACT position, do a check for 28 VDC between terminal X1 of the airstair relay, K2 and structure ground.

(g) If, with the airstair controls in the STANDBY RETRACT position, there is 28 VDC between terminal X1 of the airstair relay, K2 and structure ground, then do the check of the Airstair Extend/Retract Relay, K2

(h) If, with the airstair controls in the STANDBY RETRACT position, there is not 28 VDC between terminal X1 of the airstair relay, K2 and structure ground, then do these steps:

1) Replace the switch, S5.

These are the tasks:

Forward Airstair Retract Limit Switch (S5) Removal, AMM TASK 52-61-14-000-801,

Forward Airstair Retract Limit Switch (S5) Installation, AMM TASK 52-61-14-400-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then do one of these possible repairs:

NOTE: The sealed switch prevents specific fault isolation.

<1> Repair the wiring between pin 4 of the airstair switch, S5 and pin 15 of the airstair connector P1.

<2> Repair the wiring between pin 2 of the airstair switch, S5 and terminal X1 of the airstair relay, K2.

b) Do the Repair Confirmation at the end of this task.

(3) Do this check of the Retract Extend Enable Standby Relay, R716, and wiring:

(a) Remove the cover from the J23 junction box.

(b) Remove the R716 relay from the J23 junction box.

(c) With the airstair controls in the STANDBY RETRACT position, do a check for 28 VDC between pin X1 of the R716 relay socket, and structure ground.

(d) If there is not 28 VDC between pin X1 of the R716 relay socket and structure ground, then do these steps:

1) Re-install the relay, R716.

2) Re-install the J23 junction box cover.

3) Do the check of the Standby Door Latch Actuator (switch), M1953, and wiring.

(e) If there is 28 VDC between pin X1 of the R716 relay socket and structure ground, then continue.

(f) Do a check for continuity between pin X2 of relay socket R716 and structure ground.

(g) If there is not continuity between X2 of R716 and structure ground, then do these steps:

1) Repair the wiring between X2 of R716 and structure ground.

2) Re-install the relay, R716.

3) Re-install the J23 junction box cover.

4) Do the Repair Confirmation at the end of this task.

(h) If there is continuity between X2 of the R716 relay socket and structure ground, then continue.

(i) With the airstair controls in the STANDBY RETRACT position, do a check for 28 VDC between pin B2 of the R716 relay socket, and structure ground.

(j) If there is not 28 VDC between pin B2 of the R716 relay socket and structure ground, then do these steps:

1) Repair the wiring between pin B2 of the R716 relay socket and splice SM5 of wire bundle W5052

2) Re-install the relay, R716.

3) Re-install the J23 junction box cover.

4) Do the Repair Confirmation at the end of this task.

(k) If there is 28 VDC between pin B2 of the R716 relay socket and structure ground, then do these steps:

1) Install a new relay, R716.

2) Re-install the J23 junction box cover.

3) Do the Repair Confirmation at the end of this task. If the Repair Confirmation is not satisfactory, then continue.

4) Repair the wiring between pin B1 of the R716 relay socket and pin 15 of connector D934.

5) Do the Repair Confirmation at the end of this task.

(4) Do this check of the Standby Door Latch Actuator (switch), M1953, and wiring:

(a) Disconnect the latch actuator wiring from airplane wiring at splice SP620.

(b) With the external airstair controls in the STANDBY/RETRACT position, do a check for 28 VDC between latch actuator wiring at splice SP620 and structure ground.

(c) If there is 28 VDC between the latch actuator wiring at splice SP620 and structure ground, then do these steps:

1) Repair the wiring between pin X1 of the relay socket R716 and splice SP620 of wire bundle W5052.

2) Install a new splice SP620.

3) Do the Repair Confirmation at the end of this task.

(d) If there is not 28 VDC between the latch actuator wiring at splice SP620 and structure ground, then continue.

(e) Disconnect the latch actuator wiring from airplane wiring at splice SP624.

(f) With the external airstair controls in the STANDBY/RETRACT position, do a check for 28 VDC between airplane wiring at splice SP624 and structure ground.

(g) If, with the external airstair controls in the STANDBY/RETRACT position, there is not 28 VDC between airplane wiring at splice SP624 and structure ground, then do these steps:

1) Repair the wiring between splice SP624 and splice SM10 of wire bundle W5052.

2) Install a new splice SP620.

3) Install a new splice SP624.

4) Do the Repair Confirmation at the end of this task.

(h) If, with the external airstair controls in the STANDBY/RETRACT position there is 28 VDC between airplane wiring at splice SP624 and structure ground, then do these steps:

1) Replace the Standby Door latch actuator, M1953.

These are the tasks:

Forward Airstair Door Lockpin and Lockpin Actuator Removal, AMM TASK 52-61-53-000-802,

Forward Airstair Door Lockpin and Lockpin Actuator Installation, AMM TASK 52-61-53-400-802.

2) Install a new splice SP620.

3) Install a new splice SP624.

4) Do the Repair Confirmation at the end of this task.

(5) Do this check of the airstair extend/retract relay, K2 and wiring:

(a) Measure the resistance or voltage between these terminals of relay, K2 and structure ground:

1) Pin B2 and structure ground, specified voltage is 28 VDC

2) Pin C2 and structure ground, specified resistance is 0 ohms

3) Pin X2 and structure ground, specified resistance is 0 ohms

(b) If there is not continuity between terminal X2 of the airstair relay, K2 and structure ground, then do the check of the airstair lower ladder operating limit switch, S10.

(c) If there is not continuity between terminal C2 of the airstair relay, K2 and structure ground, then do these steps:

1) Repair the wiring between terminal C2 of the airstair relay, K2 and structure ground.

2) Do the Repair Confirmation at the end of this task.

(d) If there is not 28 VDC at terminal B2 of airstair relay, K2, then do the check of the airstair actuator circuit breaker, C411 and wiring.

(e) If the resistance and voltage are as specified, then continue.

(f) With the airstair controls in the STANDBY RETRACT position, do a check for 28 VDC at terminal B1 of the airstair relay, K2.

(g) If, with the airstair controls in the STANDBY RETRACT position, there is 28 VDC at terminal B1 of the airstair relay, K2, then do the check of the airstair standby motor, M2 and wiring.

(h) If, with the airstair controls in the STANDBY RETRACT position, there is not 28 VDC at terminal B1 of the airstair relay, K2, then do these steps:

1) Replace the airstair relay, K2.

2) Do the Repair Confirmation at the end of this task.

(6) Do this check of the airstair standby motor, M2 and wiring:

(a) Disconnect the airstair connector P3 from J3.

(b) With the airstair controls in the STANDBY RETRACT position, do a check for 28 VDC at pin 2 of airstair connector J3.

(c) Disconnect the airstair connector P3 from J3.

(d) If, with the airstair controls in the STANDBY RETRACT position, there is 28 VDC at pin 2 of airstair connector J3, then do these steps:

(e) Re-connect the airstair connector P3 to J3.

1) Repair the wiring between the motor, M2 and the airstair relay, K2.

2) Do the Repair Confirmation at the end of this task.

(f) If, with the airstair controls in the STANDBY RETRACT position, there is 28 VDC at pin 2 of airstair connector J3, then do these steps:

1) Install a new airstair motor, M2 (CMM 52-60-10).

2) Do the Repair Confirmation at the end of this task.

(7) Do this check of the airstair actuator circuit breaker, C411 and wiring:

(a) Open the P6-4 circuit breaker panel.

(b) Do a check for 28 VDC between the load side terminal of circuit breaker, C411 and structure ground.

(c) If there is not 28 VDC at the load side terminal of circuit breaker C411, then do these steps:

1) Open this circuit breaker and install safety tag:

Standby Power Control Unit, M01720

Row	Col	Number	Name
B	4	C00169	SW HOT BAT BUS

2) Replace the circuit breaker, C411.

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

Standby Power Control Unit, M01720

Row	Col	Number	Name
B	4	C00169	SW HOT BAT BUS

4) Close the P6-4 circuit breaker panel.

5) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC at the load side terminal of circuit breaker C411, then do these steps:

1) Repair the wiring between the load side terminal of circuit breaker, C411 and the airstair relay, K2.

2) Close the P6-4 circuit breaker panel.

3) Do the Repair Confirmation at the end of this task.

(8) Do this check of the airstair lower ladder operating limit switch, S10 and wiring:

(a) Disconnect the airstair connector P13 from airstair connector J13.

(b) Do a check for continuity between pins 1 and 3 of the P13 connector.

(c) If there is not continuity between pins 1 and 3 of the P13 connector, then do these steps:

1) Replace the switch, S10.

These are the tasks:

Forward Airstair Lower Ladder Operating Switch (S10) Removal, AMM TASK 52-61-16-000-801,

Forward Airstair Lower Ladder Operating Switch (S10) Installation, AMM TASK 52-61-16-400-801.

2) Re-connect connector P13 to J13.

3) Do the Repair Confirmation at the end of this task.

(d) If there is continuity between pins 1 and 3 of the P13 connector, then continue.

(e) Do a check for continuity between pin 3 of J13 and structure ground.

(f) If there is not continuity between pin 3 of J13 and structure ground, then do these steps:

1) Re-connect connector P13 to J13.

2) Do the check of the airstair aft hand rail stowed limit switch, S2 and wiring.

(g) If there is continuity between pin 3 of J13 and structure ground, then do these steps:

1) Repair the wiring between pin 1 of J13 and terminal X2 of airstair relay, K1.

2) Re-connect connector P13 to J13.

3) Do the Repair Confirmation at the end of this task.

(9) Do this check of the airstair aft hand rail stowed limit switch, S2 and wiring:

(a) Disconnect the airstair connector P16 from airstair connector J16.

(b) Do a check for continuity between pins 1 and 3 of the P16 connector.

(c) If there is not continuity between pins 1 and 3 of the P16 connector, then do these steps:

1) Replace the switch, S2.

These are the tasks:

Forward Airstair Handrail Switch (S1 or S2) Removal, AMM TASK 52-61-18-000-801,

Forward Airstair Handrail Switch (S1 or S2) Installation, AMM TASK 52-61-18-400-801.

2) Re-connect connector P16 to J16.

3) Do the Repair Confirmation at the end of this task.

(d) If there is continuity between pins 1 and 3 of the J16 connector, then continue.

(e) Do a check for continuity between pin 3 of J16 and structure ground.

(f) If there is not continuity between pin 3 of J16 and structure ground, then do these steps:

1) Re-connect connector P16 to J16.

2) Do the check of the airstair forward hand rail stowed limit switch, S1 and wiring.

(g) If there is continuity between pin 3 of J16 and structure ground, then do these steps:

1) Repair the wiring between pin 1 of J16 and pin 3 of J13.

2) Re-connect connector P16 to J16.

3) Do the Repair Confirmation at the end of this task.

(10) Do this check of the airstair forward hand rail stowed limit switch, S1 and wiring:

(a) Disconnect the airstair connector P15 from airstair connector J15.

(b) Do a check for continuity between pins 1 and 3 of the P15 connector.

(c) If there is not continuity between pins 1 and 3 of the P15 connector, then do these steps:

1) Replace the switch, S1.

These are the tasks:

Forward Airstair Handrail Switch (S1 or S2) Removal, AMM TASK 52-61-18-000-801,

Forward Airstair Handrail Switch (S1 or S2) Installation, AMM TASK 52-61-18-400-801.

2) Re-connect connector P15 to J15.

3) Do the Repair Confirmation at the end of this task.

(d) If there is continuity between pins 1 and 3 of the P15 connector, then continue.

(e) Do a check for continuity between pin 3 of J15 and structure ground.

(f) If there is not continuity between pin 3 of J15 and structure ground, then do these steps:

1) Repair the wiring between pin 3 of J16 and pin 1 of airstair connector P1.

2) Re-connect connector P15 to J15.

3) Do the Repair Confirmation at the end of this task.

(g) If there is continuity between pin 3 of J16 and structure ground, then do these steps:

1) Repair the wiring between pin 3 of J15 and pin 1 of J16.

2) Re-connect connector P15 to J15.

3) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

(1) Do an operational check of the airstair in STANDBY mode:

(a) Use the external controls to retract and extend the airstair in STANDBY mode.

(b) If the airstair retracts and extends, then you corrected the fault.

——— END OF TASK ———

823. Forward Airstair Door Does Not Close In The Normal Mode - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00).

B. Possible Causes

(1) Airstair Normal/Standby Retract Limit Switch, S5

(2) Door Close Limit Switch - Normal, S207

(3) Airstair Door Motor - Normal, M307

(4) Retract Extend Enable Normal Relay, R715

(5) Forward Airstair Door Open - Normal Relay, R80

(6) Forward Airstair Actuator Circuit Breaker, C409

(7) Forward Airstair Door Close - Normal Relay, R81

(8) Normal Door Latch Actuator (Switch), M1954

(9) Wiring

C. Circuit Breakers

(1) This is the primary circuit breaker related to the fault:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

D. Related Data

(1) WDM 52-61-11

(2) SSM 52-61-11

(3) CMM 52-60-10

E. Initial Evaluation

(1) Make sure that the handrail extensions are properly stowed and latched in the handrails.

(2) Make sure that the left engine is off.

NOTE: If the left engine is on, the external airstair controls will not operate the airstair.

(3) Make sure that the forward entry door is fully open.

NOTE: If the forward entry door is closed and latched the airstair will not operate with the internal controls.

(4) Make sure that a person is in a location to see the operation of the airstair door lockpin (Figure 201).

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR IN LESS THAN 20 MINUTES AFTER 3 FULL CYCLES THAT ARE ONE AFTER THE OTHER. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT BELOW THE FORWARD AIRSTAIR (AS AN EXAMPLE, WHEN THE AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

(5) Use the internal controls to open and close the airstair door in the NORMAL mode.

(6) Use the external controls to open and close the airstair door in the NORMAL mode.

(7) If the airstair door opens and closes with the internal and external controls, then there was an intermittent fault.

(8) If the airstair door lockpin does not retract then, do this task: Forward Airstair Door Lockpin Does Not Operate In The NORMAL Mode - Fault Isolation, 52-60 TASK 827.

(9) If the airstair door does not open and close with the internal controls but does open and close with the external controls then, do this task: Forward Airstair And Airstair Door Do Not Operate With The Internal Controls - Fault Isolation, 52-60 TASK 825.

(10) If the airstair door does not open and close with the external controls but does open and close with the internal controls, do this task: Forward Airstair And Airstair Door Do Not Operate With The External Controls - Fault Isolation, 52-60 TASK 826.

(11) If the airstair door does not close, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Do this check of the Airstair Normal/Standby Retract Limit Switch, S5 and wiring:

(a) Disconnect airstair connector P1 from connector D934.

(b) Do a check for continuity between pins 9 and 10 of airstair connector P1.

(c) Re-connect airstair connector P1 to connector D934.

(d) If there is continuity between pins 9 and 10, then do these steps:

1) Do the check of the Door Closed Limit Switch - Normal, S207.

(e) If there is no continuity between pins 9 and 10, then do these steps:

1) Do this task: Forward Airstair Retract Limit Switch (S5) Adjustment and Test, AMM TASK 52-61-14-400-802.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then do one of these possible repairs:

NOTE: The sealed switch prevents specific fault isolation.

<1> Repair the wiring between pin 10 of airstair connector P1 and pin 1 of the Switch, S5.

<2> Repair the wiring between pin 9 of airstair connector P1 and pin 3 of the Switch, S5.

<3> Replace the Switch, S5. These are the tasks:

- Forward Airstair Retract Limit Switch (S5) Removal, AMM TASK 52-61-14-000-801
- Forward Airstair Retract Limit Switch (S5) Installation, AMM TASK 52-61-14-400-801

b) Do the Repair Confirmation at the end of this task.

(2) Do this check of the Door Closed Limit Switch - Normal, S207 and wiring:

(a) Disconnect connector D40628P from the Junction Box, J23.

(b) Disconnect airstair connector P1 from connector D934.

(c) Do a continuity check between pin 5 of connector D40628P and pin 9 of connector D934.

(d) Re-connect connector D934 to the airstair connector P1.

(e) Re-connect connector D40626P from the Junction Box, J23.

(f) If there is continuity between pin 5 of connector D40628P and pin 9 of connector D934, then do these steps:

1) Do the check of the Airstair Door Motor - Normal, M307 and wiring.

(g) If there is no continuity between pin 5 of connector D40628P and pin 9 of connector D934, then do these steps:

1) Do this task: Forward Airstair Door Closed Switch Adjustment and Test, AMM TASK 52-61-60-820-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Replace the Switch, S207. These are the tasks:

- Forward Airstair Door Closed Switch Removal, AMM TASK 52-61-60-020-801
- Forward Airstair Door Closed Switch Installation, AMM TASK 52-61-60-420-801

4) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

5) Repair the wiring between pin 5 of connector D40628P and pin 9 of connector D934.

6) Do the Repair Confirmation at the end of this task.

(3) Do this check of the Airstair Door Motor - Normal, M307 and wiring:

(a) Disconnect connector D912 from the Airstair Door Motor, M307.

(b) Do a check for continuity between pin 6 of connector D912 and Structure Ground.

(c) If there is no continuity between pin 6 of connector D912 and Structure Ground, then do these steps:

1) Repair the wiring between pin 6 of connector D912 and Structure Ground.

2) Re-connect connector D912 to the Airstair Door Motor, M307.

3) Do the Repair Confirmation at the end of this task.

(d) If there is continuity between pin 6 of connector D912 and Structure Ground, then continue.

(e) With the external airstair controls in the NORMAL RETRACT position, do a check for 28 VDC between pin 2 of connector D912 and Structure Ground.

(f) If, with the external airstair controls in the NORMAL RETRACT position, there is 28 VDC between pin 2 of connector D912 and Structure Ground, then do these steps:

1) Replace the Airstair Door Motor, M307. These are the tasks:

- Forward Airstair Door Actuator Normal System Motor Removal, AMM TASK 52-61-58-000-801
- Forward Airstair Door Actuator Normal System Motor Installation, AMM TASK 52-61-58-400-801

2) Re-connect connector D912 to the Airstair Door Motor, M307.

3) Do the Repair Confirmation at the end of this task.

(g) If there is not 28 VDC between pin 2 of connector D912 and Structure Ground, then do these steps:

1) Re-connect connector D912 to the Airstair Door Motor, M307.

2) Do the check of the Retract Extend Enable Normal Relay, R715.

(4) Do this check of the Retract Extend Enable Normal Relay, R715 and wiring:

(a) Disconnect airstair connector P1 from connector D934.

(b) With the external airstair controls in the NORMAL RETRACT position, do a check for 28 VDC between pin 10 of connector D934 and Structure Ground.

(c) Re-connect airstair connector P1 to D934.

(d) If, with the external airstair controls in the NORMAL RETRACT position, there is 28 VDC between pin 10 of connector D934 and Structure Ground, then do these steps:

1) Do the check of the Forward Airstair Door Open - Normal Relay, R80.

(e) If there is not 28 VDC between pin 10 of connector D934 and Structure Ground, then continue.

(f) Remove the cover from the Junction Box, J23.

(g) Remove the Relay, R715 from the Junction Box, J23.

(h) With the external airstair controls in the NORMAL RETRACT position, do a check for 28 VDC between pin X1 of the Relay, R715 socket and Structure Ground.

(i) If there is not 28 VDC between pin X1 of the Relay, R715 socket and Structure Ground, then do these steps:

1) Re-install the Relay, R715.

2) Re-install the Junction Box, J23 cover.

3) Do the check of the Normal Door Latch Actuator (Switch), M1954 and wiring.

(j) If there is 28 VDC between pin X1 of the Relay, R715 socket and Structure Ground, then continue.

(k) With the external airstair controls in the NORMAL RETRACT position, do a check for 28 VDC between pin B2 of the Relay, R715 socket and Structure Ground.

(l) If, with the external airstair controls in the NORMAL RETRACT position, there is not 28 VDC between pin B2 of the Relay, R715 socket and Structure Ground, then do these steps:

1) Repair the wiring between pin B2 of the Relay, R715 socket and terminal A19 of diode block R697 on terminal board TB23Y.
2) Re-install the Relay, R715.
3) Re-install the Junction Box, J23 cover.
4) Do the Repair Confirmation at the end of this task.

(m) If there is 28 VDC between pin B2 of the Relay, R715 socket and Structure Ground, then continue.

(n) Do a check for continuity between pin X2 of the Relay, R715 socket and Structure Ground.

(o) If there is no continuity between pin X2 of the Relay, R715 socket and Structure Ground, then do these steps:

1) Repair the wiring between pin X2 of the Relay, R715 socket and Structure Ground.
2) Re-install the Relay, R715.
3) Re-install the Junction Box, J23 cover.
4) Do the Repair Confirmation at the end of this task.

(p) If there is continuity between pin X2 of the Relay, R715 socket and Structure Ground, then do these steps:

1) Install a new Relay, R715.
2) Re-install the Junction Box, J23 cover.
3) Do the Repair Confirmation at the end of this task.
   a) If the Repair Confirmation is not satisfactory, then continue.
4) Repair the wiring between pin B1 of the Relay, R715 socket and pin 9 of connector D934.
5) Do the Repair Confirmation at the end of this task.

(5) Do this check of the Forward Airstair Door Open - Normal Relay, R80 and wiring:

(a) Disconnect connector D40628P from the Junction Box, J23.

(b) Do a check for 28 VDC between pin 1 of connector D40628P and Structure Ground.

(c) Re-connect connector D40628P to the Junction Box, J23.

(d) If there is not 28 VDC between pin 1 of connector D40628P and Structure Ground, then do these steps:

1) Do the check of this circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

(e) If there is 28 VDC between pin 1 of connector D40628P and Structure Ground, then continue.

(f) Remove the cover from the Junction Box, J23.

(g) Remove the Forward Airstair Door Open - Normal Relay, R80.

(h) Do a check for continuity between pins B2 and B3 of the Relay, R80.

(i) If there is continuity between pins B2 and B3 of the Relay, R80, then do these steps:

1) Install a new Relay, R80.

2) Re-install the Junction Box, J23 cover.

3) Do the Repair Confirmation at the end of this task.

(j) If there is no continuity between pins B2 and B3 of the Relay, R80, then continue.

(k) With the airstair controls in the NORMAL RETRACT position, do a check for 28 VDC between pin B3 of the Relay, R80 socket and Structure Ground.

(l) Re-connect connector D40628P to the Junction Box, J23.

(m) If, with the airstair controls in the NORMAL RETRACT position, there is not 28 VDC between pin B3 of the Relay, R80 socket and Structure Ground, then do these steps:

1) Repair the wiring between pin B3 of the Relay, R80 socket and pin 5 of D40628J.

2) Re-install the Relay, R80.

3) Re-install the Junction Box, J23 cover.

4) Do the Repair Confirmation at the end of this task.

(n) If, with the airstair controls in the NORMAL RETRACT position, there is 28 VDC between pin B3 of the Relay, R80 socket and Structure Ground, then do these steps:

1) Re-install the Relay, R80.

2) Do the check of the Forward Airstair Door Close - Normal Relay, R81.

(6) Do the check of this circuit breaker and wiring:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

(a) Open the Circuit Breaker Panel, P6-4.

(b) Do a check for 28 VDC between the load side terminal of this circuit breaker and Structure Ground:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

(c) If there is not 28 VDC at the load side of this circuit breaker, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

1) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
A	2	C03072	DC BUS 2 SECT 2

2) Replace this circuit breaker:

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
A	2	C03072	DC BUS 2 SECT 2

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

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
A	2	C03072	DC BUS 2 SECT 2

4) Close the Circuit Breaker Panel, P6-4.

5) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC at the load side terminal of this circuit breaker, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

1) Repair the wiring between the load side of this circuit breaker and pin 1 of connector D40628P:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

2) Close the Circuit Breaker Panel, P6-4.

3) Do the Repair Confirmation at the end of this task.

(7) Do this check of the Forward Airstair Door Close - Normal Relay, R81 and wiring:

(a) Remove Forward Airstair Door Close - Normal Relay, R81.

(b) Do a check for 28 VDC between pins A2 of the Relay, R81 and Structure Ground.

(c) If there is not 28 VDC between pin A2 of Relay, R81 socket and Structure Ground, then do these steps:

1) Repair the wiring between pin A2 of the Relay, R81 socket and pin 1 of D40628J.

2) Re-install the Relay, R81.

3) Re-install the cover of the Junction Box, J23.

4) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC between pin A2 of Relay, R81 socket and Structure Ground, then continue.

(e) With the airstair controls in the NORMAL RETRACT position, do a check for 28 VDC between pin X1 of the Relay, R81 socket and Structure Ground.

(f) If, with the airstair controls in the NORMAL RETRACT position, there is not 28 VDC between pin X1 of the Relay, R81 socket and Structure Ground, then do these steps:

1) Repair the wiring between pin X1 of the Relay, R81 socket and pin B2 of the Relay, R80 socket.

2) Re-install the Relay, R81.

3) Re-install the Junction Box, J23 cover.

4) Do the Repair Confirmation at the end of this task.

(g) If, with the airstair controls in the NORMAL RETRACT position, there is 28 VDC between pin X1 of the Relay, R81 socket and Structure Ground, then continue.

(h) Do a check for continuity between pins X2 of the Relay, R81 and Structure Ground.

(i) If there is no continuity between pin X2 of Relay, R81 socket and Structure Ground, then do these steps:

1) Repair the wiring between pin X2 of the Relay, R81 socket and Structure Ground.

2) Re-install the Relay, R81.

3) Re-install the cover of the Junction Box, J23.

4) Do the Repair Confirmation at the end of this task.

(j) If there is continuity between pin X2 of Relay, R81 socket and Structure Ground, then do these steps:

1) Install a new Relay, R81.

2) Re-install the cover of the Junction Box, J23.

3) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

4) Repair the wiring between pin A1 of the Relay, R81 socket and pin 2 of connector D912 on the Airstair Door Motor - Normal, M307.

5) Do the Repair Confirmation at the end of this task.

(8) Do this check of the Normal Door Latch Actuator (Switch), M1954, and wiring:

(a) Disconnect the Latch Actuator wiring from airplane wiring at SP610.

(b) With the external airstair controls in the NORMAL/RETRACT position, do a check for 28 VDC between latch actuator wiring at SP610 and Structure Ground.

(c) If there is 28 VDC between the Latch Actuator wiring at SP610 and Structure Ground, then do these steps:

1) Repair the wiring between pin X1 of the Relay, R715 socket and SP610 of wire bundle W5052.

2) Install a new splice, SP610.

3) Do the Repair Confirmation at the end of this task.

(d) If there is not 28 VDC between the Latch Actuator wiring at SP610 and Structure Ground, then continue.

(e) Disconnect the Latch Actuator wiring from airplane wiring at SP614 of wire bundle W5052.

(f) With the external airstair controls in the NORMAL/RETRACT position, do a check for 28 VDC between airplane wiring at SP614 and Structure Ground.

(g) If, with the external airstair controls in the NORMAL/RETRACT position there is not 28 VDC between airplane wiring at SP614 and Structure Ground, then do these steps:

1) Repair the wiring between SP614 and SM12 of wire bundle W5052.

2) Install a new splice, SP610.

3) Install a new splice, SP614.

4) Do the Repair Confirmation at the end of this task.

(h) If, with the external airstair controls in the NORMAL/RETRACT position there is 28 VDC between airplane wiring at SP614 and Structure Ground, then do these steps:

1) Replace the Normal Door Latch Actuator, M1954. These are the tasks:

- Forward Airstair Door Lockpin and Lockpin Actuator Removal, AMM TASK 52-61-53-000-802
- Forward Airstair Door Lockpin and Lockpin Actuator Installation, AMM TASK 52-61-53-400-802

2) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

(1) Do an operational check of the normal airstair door close system:

(a) Use the external controls to open and close the airstair door in the NORMAL mode.

(b) If the airstair door opens and closes, then you corrected the problem.

——— END OF TASK ———

824. Forward Airstair Door Does Not Close In The Standby Mode - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Airstair normal/standby retract limit switch, S5
(2) Door close limit switch - standby, S208
(3) Airstair door motor - standby, M308
(4) Retract extend enable standby relay, R716
(5) Forward airstair door open - standby relay, R82
(6) Forward airstair actuator circuit breaker, C411
(7) Forward airstair door close - standby relay, R83
(8) Standby door latch actuator (switch), M1953
(9) Normal door latch actuator (switch), M1954
(10) Wiring problems

C. Circuit Breakers

(1) This is the primary circuit breaker related to the fault:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

D. Related Data

(1) (WDM 52-61-11)
(2) (SSM 52-61-11)
(3) (CMM 52-60-10)

E. Initial evaluation

(1) Make sure the handrail extensions are properly stowed and latched in the handrails.

(2) Make sure the left engine is off.

NOTE: If the left engine is on, the external airstair controls will not operate the airstair.

(3) Make sure the forward entry door is fully open.

NOTE: If the forward entry door is closed and latched the airstair will not operate with the internal controls.

(4) Make sure a person is in a location to see the operation of the airstair door lockpin (Figure 201).

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(5) Use the internal controls to open and close the airstair door in the STANDBY mode.

(6) Use the external controls to open and close the airstair door in the STANDBY mode.

(7) If the airstair door opens and closes with the internal and external controls, then there was an intermittent fault.

(8) If the airstair door lockpin does not retract then, do this task: Forward Airstair Door Lockpin Does Not Operate In The Standby Mode - Fault Isolation, 52-60 TASK 828.

(9) If the airstair door does not open and close with the internal controls but does open and close with the external controls then, do this task: Forward Airstair And Airstair Door Do Not Operate With The Internal Controls - Fault Isolation, 52-60 TASK 825.

(10) If the airstair door does not open and close with the external controls but does open and close with the internal controls, do this task: Forward Airstair And Airstair Door Do Not Operate With The External Controls - Fault Isolation, 52-60 TASK 826.

(11) If the airstair door does not open, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Do this check of the Airstair normal/standby retract limit switch, S5 and wiring:

(a) Disconnect airstair connector P1 from connector D934.

(b) Do a check for continuity between pins 14 and 15 of airstair connector P1.

(c) Re-connect airstair connector P1 to connector D934.

(d) If there is continuity between pins 14 and 15, then do these steps:

1) Do the check of the door closed limit switch - standby, S208.

(e) If there is not continuity between pins 14 and 15, then do these steps:

1) Do this task: Forward Airstair Retract Limit Switch (S5) Adjustment and Test, AMM TASK 52-61-14-400-802.

2) Do the Repair Confirmation at the end of this task.

a) If the repair confirmation is not satisfactory, then continue.

(f) Do a check for continuity between pin 14 of airstair connector P1 and pin 6 of the switch, S5

(g) Do a check for continuity between pin 15 of airstair connector P1 and pin 4 of the switch, S5

(h) If there is not continuity, then do these steps:

1) Repair the wiring.

2) Re-connect airstair connector P1 to connector D934.

3) Do the Repair Confirmation at the end of this task.

(i) If there is continuity, then do these steps:

1) Replace the switch, S5.

These are the tasks:

Forward Airstair Retract Limit Switch (S5) Removal, AMM TASK 52-61-14-000-801,

Forward Airstair Retract Limit Switch (S5) Installation, AMM TASK 52-61-14-400-801.

2) Re-connect airstair connector P1 to connector D934.

3) Do the Repair Confirmation at the end of this task.

(2) Do this check of the Door Closed Limit Switch - Standby, S208 and wiring:

(a) Disconnect connector D40628P from the J23 junction box.

(b) Disconnect airstair connector P1 from connector D934.

(c) Do a continuity check between pin 14 of D40628P and pin 14 of D934.

(d) Re-connect connector D934 to the airstair connector P1.

(e) Re-connect connector D40628P to the J23 junction box.

(f) If there is continuity between pin 14 of D40628P and pin 14 of D934, then do these steps:

1) Do the check of the Airstair Door Motor - Standby, M308 and wiring.

(g) If there is not continuity between pin 14 of D40628P and pin 14 of D934, then do these steps:

1) Do this task: Forward Airstair Door Closed Switch Adjustment and Test, AMM TASK 52-61-60-820-801.

2) Do the Repair Confirmation at the end of this task.

a) If the repair confirmation is not satisfactory, then continue.

3) Replace the switch, S208.

These are the tasks:

Forward Airstair Door Closed Switch Removal, AMM TASK 52-61-60-020-801,

Forward Airstair Door Closed Switch Installation, AMM TASK 52-61-60-420-801.

4) Do the Repair Confirmation at the end of this task.

a) If the repair confirmation is not satisfactory, then continue.

5) Repair the wiring between pin 14 of D40628P and pin 14 of D934.

6) Do the Repair Confirmation at the end of this task.

(3) Do this check of the Airstair Door Motor - Standby, M308 and wiring:

(a) Disconnect connector D914 from the M308 Airstair Door Motor.

(b) Do a check for continuity between pin 6 of D914 and structure ground.

(c) If there is not continuity between pin 6 of D914 and structure ground, then do these steps:

1) Repair the wiring between pin 6 of D914 and structure ground.

2) Re-connect connector D914 to the Airstair Door Motor, M308.

3) Do the Repair Confirmation at the end of this task.

(d) If there is continuity between pin 6 of D914 and structure ground, then continue.

(e) With the external airstair controls in the STANDBY RETRACT position, do a check for 28 VDC between pin 2 of D914 and structure ground.

(f) If, with the external airstair controls in the STANDBY RETRACT position, there is 28 VDC between pin 2 of D914 and structure ground, then do these steps:

1) Replace the airstair door motor, M308.

These are the tasks:

Forward Airstair Door Actuator Standby System Motor Removal, AMM TASK 52-61-59-000-801,

Forward Airstair Door Actuator Standby System Motor Installation, AMM TASK 52-61-59-400-801.

2) Re-connect connector D914 to the Airstair Door Motor, M308.

3) Do the Repair Confirmation at the end of this task.

(g) If there is not 28 VDC between pin 2 of D914 and structure ground, then do these steps:

1) Re-connect connector D914 to the Airstair Door Motor, M308.

2) Do the check of the Retract Extend Enable Standby Relay, R716.

(4) Do this check of the Retract Extend Enable Standby Relay, R716, and wiring:

(a) Disconnect airstair connector P1 from connector D934.

(b) With the external airstair controls in the STANDBY RETRACT position, do a check for 28 VDC between pin 15 of D934 and structure ground.

(c) Re-connect airstair connector P1 to D934.

(d) If there is 28 VDC between pin 15 of D934 and structure ground, then do these steps:

1) Do the check of the forward airstair door open - standby relay, R82.

(e) If there is not 28 VDC between pin 15 of D934 and structure ground, then continue.

(f) Remove the cover from the J23 junction box.

(g) Remove relay, R716 from the J23 junction box.

(h) With the external airstair controls in the STANDBY RETRACT position, do a check for 28 VDC between pin X1 of the R716 relay socket and structure ground.

(i) If, with the external airstair controls in the STANDBY RETRACT position, there is not 28 VDC between pin X1 of the R716 relay socket and structure ground, then do these steps:

1) Re-install the relay, R716.

2) Re-install the J23 junction box cover.

3) Do the check of the Standby Door Latch Actuator (switch), M1953, and wiring.

(j) If there is 28 VDC between pin X1 of the R716 relay socket and structure ground, then continue.

(k) With the external airstair controls in the STANDBY RETRACT position, do a check for 28 VDC between pin B2 of the R716 relay socket and structure ground.

(l) If, with the external airstair controls in the STANDBY RETRACT position, there is not 28 VDC between pin B2 of the R716 relay socket and structure ground, then do these steps:

1) Repair the wiring between pin B2 of the R716 relay socket and terminal A15 of diode block R696 on terminal board TB23Y.
2) Re-install the relay, R716.
3) Re-install the J23 junction box cover.
4) Do the Repair Confirmation at the end of this task.

(m) If there is 28 VDC between pin B2 of the R716 relay socket and structure ground, then continue.

(n) Do a check for continuity between pin X2 of the R716 relay socket and structure ground.

(o) If there is not continuity between pin X2 of the R716 relay socket and structure ground, then do these steps:
1) Repair the wiring between pin X2 of the R716 relay socket and structure ground.
2) Re-install the relay, R716.
3) Re-install the J23 junction box cover.
4) Do the Repair Confirmation at the end of this task.

(p) If there is continuity between pin X2 of the R716 relay socket and structure ground, then do these steps:
1) Install a new relay, R716.
2) Re-install the J23 junction box cover.
3) Do the Repair Confirmation at the end of this task.
a) If the repair confirmation is not satisfactory, then continue.
4) Repair the wiring between pin B1 of the R716 relay socket and pin 15 of the D934 connector.
5) Do the Repair Confirmation at the end of this task.

(5) Do this check of the Forward Airstair Door Open - Standby Relay, R82, and wiring:

(a) Disconnect D40628P from the J23 junction box.

(b) Do a check for 28 VDC between pin 2 of D40628P and structure ground.

(c) Re-connect the D40628P to the J23 junction box.

(d) If there is not 28 VDC between pin 2 of D40628P and structure ground, then do these steps:
1) Do the check of this circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

(e) If there is 28 VDC between pin 2 of D40628P and structure ground, then continue.

(f) Remove the cover from the J23 junction box.

(g) Remove Forward Airstair Door Open - Standby Relay, R82.

(h) Do a check for continuity between pins B2 and B3 of the relay, R82.

(i) If there is not continuity between pins B2 and B3 of the relay, R82, then do these steps:
1) Install a new relay, R82.
2) Re-install the J23 junction box cover.

3) Do the Repair Confirmation at the end of this task.

(j) If there is continuity between pins B2 and B3 of the relay, R82, then continue.

(k) With the airstair controls in the STANDBY RETRACT position, do a check for 28 VDC between pin B3 of the R82 relay socket and structure ground.

(l) If, with the airstair controls in the STANDBY RETRACT position, there is not 28 VDC between pin B3 of the R82 relay socket and structure ground, then do these steps:

1) Repair the wiring between pin B3 of the R82 relay socket and pin 14 of D40628J.

2) Re-install the R82 relay.

3) Re-install the J23 junction box cover.

4) Do the Repair Confirmation at the end of this task.

(m) If, with the airstair controls in the STANDBY RETRACT position, there is 28 VDC between pin B3 of the R82 relay socket and structure ground, then do these steps:

1) Re-install the R82 relay.

2) Do the check of the forward airstair door close - NORML relay, R83.

(6) Do the check of this circuit breaker and wiring:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

(a) Open the P6-4 circuit breaker panel.

(b) Do a check for 28 VDC between the load side terminal of this circuit breaker and structure ground:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

(c) If there is not 28 VDC at the load side terminal of this circuit breaker, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

1) Open this circuit breaker and install safety tag:

Standby Power Control Unit, M01720

Row	Col	Number	Name
B	4	C00169	SW HOT BAT BUS

2) Replace this circuit breaker:

Standby Power Control Unit, M01720

Row	Col	Number	Name
B	4	C00169	SW HOT BAT BUS

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

Standby Power Control Unit, M01720

Row	Col	Number	Name
B	4	C00169	SW HOT BAT BUS

4) Close the P6-4 circuit breaker panel.

5) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC at the load side terminal of this circuit breaker, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

1) Repair the wiring between the load side of this circuit breaker and pin 2 of D40628P:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

2) Close the P6-4 circuit breaker panel.

3) Do the Repair Confirmation at the end of this task.

(7) Do this check of the Forward Airstair Door Close - Standby Relay, R83, and wiring:

(a) Remove Forward Airstair Door Close - Standby Relay, R83.

(b) Do a check for 28 VDC between pins A2 of the relay, R83 and structure ground.

(c) If there is not 28 VDC between pin A2 of relay socket R83 and structure ground, then do these steps:

1) Repair the wiring between pin A2 of the R83 relay socket and pin 2 of D40628J.

2) Re-install the R83 relay.

3) Re-install the cover of the J23 junction box.

4) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC between pin A2 of relay socket R82 and structure ground, then continue.

(e) With the airstair controls in the STANDBY RETRACT position, do a check for 28 VDC between pin X1 of the R83 relay socket and structure ground.

(f) If, with the airstair controls in the STANDBY RETRACT position, there is not 28 VDC between pin X1 of the R83 relay socket and structure ground, then do these steps:

1) Repair the wiring between pin X1 of the R83 relay socket and pin B2 of the R82 relay socket.

2) Re-install the R83 relay.

3) Re-install the J23 junction box cover.

4) Do the Repair Confirmation at the end of this task.

(g) If, with the airstair controls in the STANDBY RETRACT position, there is 28 VDC between pin X1 of the R83 relay socket and structure ground, then continue.

(h) Do a check for continuity between pins X2 of the relay, R83 and structure ground.

(i) If there is not continuity between pin X2 of relay socket R83 and structure ground, then do these steps:

1) Repair the wiring between pin X2 of the R83 relay socket and structure ground.
2) Re-install the R83 relay.
3) Re-install the cover of the J23 junction box.
4) Do the Repair Confirmation at the end of this task.

(j) If there is continuity between pin X2 of relay socket R83 and structure ground, then do these steps:

1) Install a new relay, R83.
2) Re-install the cover of the J23 junction box.
3) Do the Repair Confirmation at the end of this task.
   a) If the repair confirmation is not satisfactory, then continue.
4) Repair the wiring between pin A1 of the R83 relay socket and pin 2 of the D914 connector on the airstair door motor - standby, M308.
5) Do the Repair Confirmation at the end of this task.

(8) Do this check of the Standby Door Latch Actuator (switch), M1953, and wiring:

(a) Disconnect the Latch Actuator wiring from airplane wiring at SP620.

(b) With the external airstair controls in the STANDBY/RETRACT position, do a check for 28 VDC between latch actuator wiring at SP620 and structure ground.

(c) If there is 28 VDC between the Latch Actuator wiring at SP620 and structure ground, then do these steps:

1) Repair the wiring between pin X1 of the R716 relay socket and SP620 of wire bundle W5052.
2) Install a new splice, SP620.
3) Do the Repair Confirmation at the end of this task.

(d) If there is not 28 VDC between the Latch Actuator wiring at SP620 and structure ground, then continue.

(e) Disconnect the Latch Actuator wiring from airplane wiring at SP624 of wire bundle W5052.

(f) With the external airstair controls in the STANDBY/RETRACT position, do a check for 28 VDC between airplane wiring at SP624 and structure ground.

(g) If, with the external airstair controls in the STANDBY/RETRACT position there is not 28 VDC between airplane wiring at SP624 and structure ground, then do these steps:

1) Repair the wiring between SP624 and SM12 of wire bundle W5052.
2) Install a new splice, SP620.
3) Install a new splice, SP624.
4) Do the Repair Confirmation at the end of this task.

(h) If, with the external airstair controls in the STANDBY/RETRACT position there is 28 VDC between airplane wiring at SP624 and structure ground, then do these steps:

1) Replace the Standby Door Latch Actuator, M1953.

   These are the tasks:

Forward Airstair Door Lockpin and Lockpin Actuator Removal, AMM TASK 52-61-53-000-802,

Forward Airstair Door Lockpin and Lockpin Actuator Installation, AMM TASK 52-61-53-400-802.

2) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

(1) Do an operational check of the standby airstair door close system:

(a) Use the external controls to open and close the airstair door in the STANDBY mode.

(b) If the airstair door opens and closes, then you corrected the fault.

——— END OF TASK ———

825. Forward Airstair And Airstair Door Do Not Operate With The Internal Controls - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Forward Airstair Internal Control Panel, M1889

(2) Airstair door interlock air/ground relay, R657

(3) Proximity Switch Electronics Unit (PSEU), M2061

(4) Wiring Problem

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

D. Initial evaluation

(1) Make sure the handrail extensions are properly stowed and latched in the handrails.

(2) Make sure the left engine is off.

NOTE: If the left engine is on, the external airstair controls will not operate the airstair.

(3) Make sure the forward entry door is fully open.

NOTE: If the forward entry door is closed and latched, the internal controls will not operate the airstair.

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(4) Use the internal controls to open and close the airstair door in the NORMAL and STANDBY modes.

(5) Use the external controls to open and close the airstair door in the NORMAL and STANDBY modes.

(6) If the airstair door open and closes in the NORMAL and STANDBY modes with the internal controls, then there was an intermittent fault.

(7) If the airstair door does not open and close in NORMAL and STANDBY modes with the internal controls but does open and close in the NORMAL and STANDBY modes with the external controls, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the Forward Airstair Control Panel, M1889 and wiring:

(a) Remove the control panel, M1889 from the forward attendant panel, P13.

(b) Disconnect the P1 connector on the M1889 from the P7 connector in the forward attendant panel P13.

(c) Do a check for 28 VDC at pins A11 and E22 of connector P7 in the P13 panel.

(d) If there is not 28 VDC on the two pins, then do these steps:

1) Re-connect the P1 connector on the M1889 to the P7 connector in the forward attendant panel P13.

2) Re-install the M1889 control panel.

3) Do the check of the Airstair Door Interlock Relay, R657.

(e) If there is 28 VDC on the two pins, then do these steps:

1) Install a new control panel, M1889:

a) Re-connect the P1 connector on the M1889 to the P7 connector in the forward attendant panel P13.

b) Install the new control panel, M1889 in the forward attendant panel P13.

2) Do the Repair Confirmation at the end of this task. If the Repair Confirmation is not satisfactory, then continue.

3) Remove the control panel, M1889 from the forward attendant panel, P13.

4) Disconnect the connector P1 on the control panel M1889 from the connector P7 in the P13 panel.

5) Disconnect the connector D40626P from the J23 junction box.

6) Do a check for an open circuit between these pins of connector D40626P and connector P7 in the P13 panel:

D40626P	P7
pin 1	pin E25
pin 5	pin E24
pin 7	pin A9
pin 11	pin A10

7) If there is an open circuit, then do these steps:

a) Repair the wiring.

b) Re-connect the P1 connector on the M1889 to the P7 connector in the forward attendant panel P13.

c) Re-install the M1889 control panel.

d) Re-connect D40626P to the J23 junction box.

e) Do the Repair Confirmation at the end of this task.

(2) Do this check of the Airstair Door Interlock Relay, R657:

(a) Remove the cover from the J23 junction box.

(b) Remove the relay, R657.

(c) Measure the resistance or voltage between these pins of the R657 relay socket and structure ground:

1) Pin A2 and structure ground, specified voltage is 28 VDC.
2) Pin B2 and structure ground, specified voltage is 28 VDC.
3) Pin X1 and structure ground, specified voltage is 28 VDC.
4) Pin X2 and structure ground, specified resistance is 0 ohms.

(d) If the voltage and resistance are as specified, then do these steps:

1) Install a new airstair door interlock relay, R657.
2) Re-install the cover on the J23 junction box.
3) Do the Repair Confirmation at the end of this task. If the Repair Confirmation is not satisfactory, then continue.
4) Remove the control panel, M1889 from the forward attendant panel, P13.
5) Disconnect the connector P1 on the control panel M1889 from the connector P7 in the P13 panel.
6) Do a check for 28 VDC at pins A11 and E22 of connector P7 in the P13 panel and structure ground:
7) If there is not 28 VDC on the two pins, then do these steps:
   a) Repair the wiring between the M1889 control panel and the R657 relay.
   b) Re-connect the connector P1 on the control panel, M1889 to the connector P7 in the forward attendant panel, P13.
   c) Re-install the M1889 control panel.
   d) Do the Repair Confirmation at the end of this task.

(e) If there was not 28 VDC at pin A2 of the R657 relay socket, then repair the wiring between pin A2 of the R657 relay socket and SM0001 of wire bundle W5052.

(f) If there was not 28 VDC at pin B2 of the R657 relay socket, then repair the wiring between pin B2 of the R657 relay socket and SM0002 of wire bundle W5052.

(g) If there was not 28 VDC at pin X1 of the R657 relay socket, then repair the wiring between pin X1 of the R657 relay socket and terminal B24 of diode block R725 on terminal board TB23Y in the J23 junction box.

(h) If you repaired the wiring, then do these steps:

1) Re-install the relay, R657.
2) Re-install the J23 junction box cover.
3) Do the Repair Confirmation at the end of this task.

(i) If there is not continuity between pin X2 of the R657 relay socket and structure ground, then do these steps:

1) Do the fault isolation procedure for the PSEU. To check it, do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.
2) Re-install the relay, R657.
3) Re-install the J23 junction box cover.
4) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then repair the wiring between pin X2 of the R657 relay socket and pin 38 of D10988P that connects to the PSEU.

b) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the internal controls:

(a) Use the internal controls to open and close the airstair door in the NORMAL and STANDBY modes.

(b) If the airstair door opens and closes in the NORMAL and STANDBY modes, then you corrected the fault.

——— END OF TASK ———

826. Forward Airstair And Airstair Door Do Not Operate With The External Controls - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) External Control Actuator Switch, S1125.

(2) External Control Actuator Switch, S1124.

(3) Wiring problem.

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

D. Initial evaluation

(1) Make sure the handrail extensions are properly stowed and latched in the handrails.

(2) Make sure the left engine is off.

NOTE: If the left engine is on, the external airstair controls will not operate the airstair.

(3) Make sure the forward entry door is fully open.

NOTE: If the forward entry door is closed and latched, the internal controls will not operate the airstair.

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(4) Use the internal controls to open and close the airstair door in the NORMAL and STANDBY modes.

(5) Use the external controls to open and close the airstair door in the NORMAL and STANDBY modes.

(6) If the airstair door open and closes in the NORMAL and STANDBY modes with the external controls, then there was an intermittent fault.

(7) If the airstair door does not open and close in the NORMAL and STANDBY modes with the external controls, but does open and close in the NORMAL and STANDBY modes with the internal controls, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the external control actuator switch, S1125 and wiring:

(a) Do a check for 28 VDC at pins 7 and 9 of switch, S1125.

(b) If there is not 28 VDC at pin 7 of switch, S1125, then repair the wiring between switch, S1125 and splice SM10 of wire bundle W5052.

1) Do the Repair Confirmation at the end of this task.

(c) If there is not 28 VDC at pin 9 of switch, S1125, then repair the wiring between switch, S1125 and splice SM12 of wire bundle W5052.

1) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC at pins 7 and 9 of switch, S1125, then continue.

(e) With the switch, S1125 in the NORMAL position, measure the resistance or voltage between these pins of the switch:

1) Pins 2 and 3, specified resistance is 0 ohms.

2) Pins 5 and 6, specified resistance is 0 ohms.

3) Pin 9 and structure ground, specified voltage is 28 VDC.

(f) With the switch S1125 in the STANDBY position, measure the resistance or voltage between these pins of the switch:

1) Pins 1 and 2, specified resistance is 0 ohms.

2) Pins 4 and 5, specified resistance is 0 ohms.

3) Pin 7 and structure ground, specified voltage is 28 VDC.

(g) If the resistances and voltages are not as specified, then do these steps:

1) Replace the switch, S1125.

These are the tasks:

Forward Airstair Exterior Control Switches (S1124 and S1125) Removal, AMM TASK 52-61-53-000-804,

Forward Airstair Exterior Control Switches (S1124 and S1125) Installation, AMM TASK 52-61-53-420-802.

2) Do the Repair Confirmation at the end of this task.

(h) If the resistances and voltages are as specified, then do the check of the external control actuator switch, S1124.

(2) Do this check of the external control actuator switch, S1124 and wiring:

(a) Do a check for 28 VDC between pin 2 of switch, S1124 and structure ground.

(b) If there is not 28 VDC at pin 2 of switch, S1124, then repair the wiring between pin 2 of switch, S1124 and pin 8 of switch, S1125.

(c) With the switch, S1124 in the RETRACT position, do a check for 28 VDC between pin 1 of S1124 and structure ground.

(d) With the switch, S1124 in the EXTEND position, do a check for 28 VDC between pin 3 of S1124 and structure ground.

(e) If, with the switch, S1124 in the RETRACT or EXTEND position, there is not 28 VDC at pins 1 or 3 of switch, S1124, then do these steps:

1) Replace the switch, S1124.

These are the tasks:

Forward Airstair Exterior Control Switches (S1124 and S1125) Removal, AMM TASK 52-61-53-000-804,

Forward Airstair Exterior Control Switches (S1124 and S1125) Installation, AMM TASK 52-61-53-420-802.

2) Do the Repair Confirmation at the end of this task.

(f) If, with the switch, S1124 in the RETRACT or EXTEND position, there is 28 VDC at pins 1 or 3 of switch, S1124, then continue.

(g) Disconnect connector D40626P from the J23 junction box.

(h) Do a wiring check between pin 1 of switch, S1124 and pin 2 of switch, S1125.

(i) Do a wiring check between pin 3 of switch, S1124 and pin 5 of switch, S1125.

(j) Do a wiring check between these pins of switch, S1125 and connector D40626P on the J23 junction box:

S1125		D40626P
pin 1	. . . . .	pin 7
pin 3	. . . . .	pin 1
pin 4	. . . . .	pin 11
pin 6	. . . . .	pin 5

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

1) Repair the wiring.

2) Re-connect connector D40626P to the J23 junction box.

3) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the external controls:

(a) Use the external controls to open and close the airstair door in the NORMAL and STANDBY modes.

(b) If the airstair door opens and closes in the NORMAL and STANDBY modes, then you corrected the fault.

——— END OF TASK ———

827. Forward Airstair Door Lockpin Does Not Operate In The NORMAL Mode - Fault Isolation

Figure 201

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Diode, R697

(2) Diode, R698

(3) Airstair door interlock relay, R734

(4) Forward airstair control, normal circuit breaker, C246

(5) Diode Block, R724

(6) Normal door latch actuator timed relay, R659

(7) Normal door latch actuator (motor), M1954

(8) Wiring Problem

C. Circuit Breakers

(1) This is the primary circuit breaker related to the fault:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	17	C00246	FWD AIRSTAIR CONT NORMAL

D. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

E. Fault Isolation Procedure

(1) If the lockpin does not retract with the controls in the NORMAL/EXTEND position but does retract with the controls in the NORMAL/RETRACT position, then do this check of the diode, R697 and wiring:

(a) Remove the cover from the J23 junction box.

(b) Replace the diode block, R697.

(c) Do the Repair Confirmation at the end of this task.

1) If the repair confirmation is satisfactory, then re-install the cover on the J23 junction box.

2) If the repair confirmation is not satisfactory, then continue.

(d) Repair the wiring between terminal A17 of diode block, R697, and SM4 of wire bundle W5052.

(e) Re-install the cover on the J23 junction box.

(f) Do the Repair Confirmation at the end of this task.

(2) If the lockpin does not retract with the controls in the NORMAL/RETRACT position but does retract with the controls in the NORMAL/EXTEND position, then do this check of the diode, R698 and wiring:

(a) Remove the cover from the J23 junction box.

(b) Replace the diode block, R698.

(c) Do the Repair Confirmation at the end of this task.

1) If the repair confirmation is satisfactory, re-install the cover on the J23 junction box.

2) If the repair confirmation is not satisfactory, then continue.

(d) Repair the wiring between terminal B17 of diode block, R697, and SM6 of wire bundle W5052.

(e) Re-install the cover on the J23 junction box.

(f) Do the Repair Confirmation at the end of this task.

(3) If the lockpin does not retract with the controls in the NORMAL/RETRACT and the NORMAL/EXTEND positions, then do this check of the airstair door interlock relay, R734 and wiring:

(a) Disconnect the connector D40626P from the J23 junction box.

(b) Do a check for 28 VDC between pin 15 of connector D40626P and structure ground.

(c) If there is not 28 VDC at pin 15, then do these steps:

1) Re-connect connector D40626P.

2) Do the check of this circuit breaker and wiring:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	17	C00246	FWD AIRSTAIR CONT NORMAL

(d) If there is 28 VDC at pin 15, then continue.

(e) Do a check for continuity between pin 17 of connector D40626P and structure ground.

(f) If there is not continuity between pin 17 of connector D40626P and structure ground, then do these steps:

1) Do the fault isolation procedure for the PSEU. To check the PSEU, do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

2) Re-connect connector D40626P.

3) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

4) Repair the wiring between pin 17 of connector D40626P and pin 8 of D11140 on the PSEU.

5) Do the Repair Confirmation at the end of this task.

(g) If there is continuity between pin 17 of connector D40626P and structure ground, then continue.

(h) Re-connect connector D40626P.

(i) Remove the cover from the J23 junction box.

(j) Remove the R659 relay from the J23 junction box.

(k) Do a check for 28 VDC between pin A2 of the R659 relay socket, and structure ground.

(l) If there is 28 VDC between pin A2 of relay socket R659 and structure ground, then do the check of the Normal Door Latch Actuator Timed Relay, R659, and wiring.

(m) If there is not 28 VDC between pin A2 of relay socket R659 and structure ground, then continue.

(n) Remove the R734 relay from the J23 junction box.

(o) Do a check for continuity between pin A2 of the R659 relay socket and pin A1 of the R734 relay socket.

(p) If there is not continuity between pin A2 of the R659 relay socket and pin A1 of the R734 relay socket, then do these steps:

1) Repair the wiring between pin A2 of the R659 relay socket and pin A1 of the R734 relay socket.

2) Re-install the R659 relay.

3) Re-install the R734 relay.

4) Re-install the J23 junction box cover.

5) Do the Repair Confirmation at the end of this task.

(q) If there is continuity between pin A2 of the R659 relay socket and pin A1 of the R734 relay socket, then continue.

(r) Do a check for 28 VDC between pin A2 of the R734 relay socket and structure ground.

(s) If there is not 28 VDC between pin A2 of relay socket R734 and structure ground, then do these steps:

1) Repair the wiring between the pin A2 of the R734 relay socket and pin 15 of D40626J.

2) Re-install the R659 relay.

3) Re-install the R734 relay.

4) Re-install the J23 junction box cover.

5) Do the Repair Confirmation at the end of this task.

(t) If there is 28 VDC between pin A2 of relay socket R734 and structure ground, then continue.

(u) Do a check for 28 VDC between pin X1 of the R734 relay socket and structure ground.

(v) If there is 28 VDC between pin X1 of relay socket R734 and structure ground, then do these steps:

1) Install a new R734 relay.

2) Re-install the R659 relay.

3) Re-install the J23 junction box cover.

4) Do the Repair Confirmation at the end of this task.

(w) If there is not 28 VDC between pin X1 of relay socket R734 and structure ground, then do these steps:

1) Do the check of the Diode Block, R724 and wiring.

(4) Do the check of this circuit breaker and wiring:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	17	C00246	FWD AIRSTAIR CONT NORMAL

(a) Open the P6-4 circuit breaker panel.

(b) Do a check for 28 VDC between the load side terminal of this circuit breaker and structure ground:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	17	C00246	FWD AIRSTAIR CONT NORMAL

(c) If there is not 28 VDC between the load side terminal of this circuit breaker and structure ground, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	17	C00246	FWD AIRSTAIR CONT NORMAL

1) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
A	2	C03072	DC BUS 2 SECT 2

2) Replace the circuit breaker, C246.

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

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
A	2	C03072	DC BUS 2 SECT 2

4) Close the P6-4 circuit breaker panel.

5) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC between the load side terminal of this circuit breaker and structure ground, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	17	C00246	FWD AIRSTAIR CONT NORMAL

1) Repair the wiring between the load side terminal of this circuit breaker and pin 15 of connector D40626P

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	17	C00246	FWD AIRSTAIR CONT NORMAL

2) Close the P6-4 circuit breaker panel.

3) Do the Repair Confirmation at the end of this task.

(5) Do this check of the Diode Block, R724 and wiring:

(a) Do a check for 28 VDC between the terminal A3 of diode block R724 and the structure ground.

(b) If there is not 28 VDC between the terminal A3 of diode block R724 and structure ground, then do these steps:

1) Repair the wiring between terminal A3 of diode block R724 and pin 15 of D40626J.

2) Re-install the R659 relay in the J23 junction box.

3) Re-install the R734 relay in the J23 junction box.

4) Re-install the cover on the J23 junction box.

5) Do the Repair Confirmation at the end of this task.

(c) If there is 28 VDC between the terminal A3 of diode block R724 and structure ground, then continue.

(d) Do a check for 28 VDC between the terminal B3 of diode block R724 and the structure ground.

(e) If there is not 28 VDC between the terminal B3 of diode block R724 and structure ground, then do these steps:

1) Replace the diode block R724.

2) Re-install the R659 relay in the J23 junction box.
3) Re-install the R734 relay in the J23 junction box.
4) Re-install the cover on the J23 junction box.
5) Do the Repair Confirmation at the end of this task.

(f) If there is 28 VDC between the terminal B3 of diode block R724 and structure ground, then do these steps:
1) Repair the wiring between the terminal B3 of diode block R724 and the pin X1 of relay socket R657.
2) Re-install the R659 relay in the J23 junction box.
3) Re-install the R724 relay in the J23 junction box.
4) Re-install the cover on the J23 junction box.
5) Do the Repair Confirmation at the end of this task.

(6) Do this check of the Normal Door Latch Actuator Timed Relay, R659, and wiring:
(a) Do a check for resistance between pin A1 of the R659 relay socket and structure ground.
(b) If there is not 27 to 37 ohms between pin A1 of the R659 relay socket and structure ground, then do these steps:
1) Re-install the relay, R659.
2) Re-install the cover on the J23 junction box.
3) Do the check of the Normal Door latch actuator (motor), M1954 and wiring.
(c) If there is 20 to 37 ohms between pin A1 of the R659 relay socket and structure ground, then continue.
(d) Do a check for continuity between pin X2 of the R659 relay socket and structure ground.
(e) If there is not continuity between pin X2 of the R659 relay socket and structure ground, then do these steps:
1) Repair the wiring between pin X2 of the relay socket R659 and structure ground.
2) Re-install the relay, R659.
3) Re-install the cover on the J23 junction box.
4) Do the Repair Confirmation at the end of this task.
(f) If there is continuity between pin X2 of the R659 relay socket and structure ground, then continue.
(g) With the external airstair controls in the NORMAL RETRACT position, do a check for 28 VDC between pin X1 of the R659 relay socket and structure ground.
(h) If there is 28 VDC between pin X1 of relay socket R659 and structure ground, then do these steps:
1) Install a new relay, R659.
2) Re-install the cover on the J23 junction box.
3) Do the Repair Confirmation at the end of this task.
4) If the Repair Confirmation is not satisfactory, then do the check of the Normal Door Latch Actuator (motor), M1954 and wiring.
(i) If there is not 28 VDC between pin X1 of relay socket R659 and structure ground, then do these steps:

1) Repair the wiring between terminal B17 of diode block, R697 on the terminal board, TB23Y in the J23 junction box.
2) Re-install the relay, R659.
3) Re-install the cover on the J23 junction box.
4) Do the Repair Confirmation at the end of this task.

(7) Do this check of the Normal Door Latch Actuator (motor), M1954, and wiring:
(a) Disconnect the latch actuator wiring from airplane wiring at splice SP618.
(b) With the external airstair controls in the NORMAL/RETRACT position, do a check for 28 VDC between airplane wiring at splice SP618 and structure ground.
(c) If there is not 28 VDC between airplane wiring at splice SP618 and structure ground, then do these steps:
1) Repair the wiring between and pin A1 of the R659 relay socket and splice SP618 of wire bundle W5052.
2) Install a new splice SP618.
3) Do the Repair Confirmation at the end of this task.
(d) If there is 28 VDC between airplane wiring at splice SP618 and structure ground, then continue.
(e) Disconnect the latch actuator wiring from airplane wiring at splice SP616.
(f) Do a check for continuity between airplane wiring at splice SP616 and structure ground.
(g) If there is not continuity between airplane wiring at splice SP616 and structure ground, then do these steps:
1) Install a new splice SP618.
2) Install a new splice SP616.
3) Repair the airplane wiring between splice SP616 and structure ground.
4) Do the Repair Confirmation at the end of this task.
(h) If there is continuity between airplane wiring at splice SP616 and structure ground, then do these steps:
1) Replace the latch actuator, M1954.

These are the tasks:

Forward Airstair Door Lockpin and Lockpin Actuator Removal, AMM TASK 52-61-53-000-802,

Forward Airstair Door Lockpin and Lockpin Actuator Installation, AMM TASK 52-61-53-400-802.

2) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the airstair door lockpin in the NORMAL mode:
(a) Use the external controls to open and close the airstair door in the NORMAL mode.
(b) If the airstair door opens and closes, then you corrected the fault.

——— END OF TASK ———

828. Forward Airstair Door Lockpin Does Not Operate In The Standby Mode - Fault Isolation

Figure 201

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Diode Block, R695

(2) Diode Block, R696

(3) Airstair door interlock air/ground relay, R734

(4) Diode Block, R725

(5) Forward airstair control, standby circuit breaker, C1254

(6) Standby door latch time delay relay, R658

(7) Standby door latch actuator (motor), M1953

(8) Wiring problems

C. Circuit Breakers

(1) This is the primary circuit breaker related to the fault:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	16	C01254	FWD AIRSTAIR CONT STBY

D. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

E. Fault Isolation Procedure

(1) If the lockpin does not retract with the controls in the STANDBY/EXTEND position but does retract with the controls in the STANDBY/RETRACT position, then do this check of the diode, R695 and wiring:

(a) Remove the cover from the J23 junction box.

(b) Replace the diode block, R695.

(c) Do the Repair Confirmation at the end of this task.

1) If the repair confirmation is satisfactory, then re-install the cover on the J23 junction box.

2) If the repair confirmation is not satisfactory, then continue.

(d) Repair the wiring between terminal A13 of diode block, R695, and SM3 of wire bundle W5052.

(e) Re-install the cover on the J23 junction box.

(f) Do the Repair Confirmation at the end of this task.

(2) If the lockpin does not retract with the controls in the STANDBY/RETRACT position but does retract with the controls in the STANDBY/EXTEND position, then do this check of the diode, R696 and wiring:

(a) Remove the cover from the J23 junction box.

(b) Replace the diode block, R696.

(c) Do the Repair Confirmation at the end of this task.

1) If the repair confirmation is satisfactory, re-install the cover on the J23 junction box.

2) If the repair confirmation is not satisfactory, then continue.

(d) Repair the wiring between terminal B13 of diode block, R695, and SM5 of wire bundle W5052.

(e) Re-install the cover on the J23 junction box.

(f) Do the Repair Confirmation at the end of this task.

(3) If the lockpin does not retract with the controls in the STANDBY/RETRACT and the STANDBY/EXTEND positions, then do this check of the airstair door interlock relay, R734 and wiring:

(a) Disconnect the connector D40626P from the J23 junction box.

(b) Do a check for 28 VDC between pin 16 of D40626P and structure ground.

(c) If there is not 28 VDC at pin 16, then do the check of this circuit breaker and wiring:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	16	C01254	FWD AIRSTAIR CONT STBY

(d) If there is 28 VDC at pin 16 of D40626P, then continue.

(e) Do a check for continuity between pin 17 of D40626P and structure ground.

(f) If there is not continuity between pin 17 of D40626P and structure ground, then do these steps:

1) Do the fault isolation procedure for the PSEU. To check the PSEU, do this task: Proximity Switch Electronics Unit (PSEU) BITE Procedure, 32-09 TASK 801.

2) Re-connect connector D40626P.

3) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

b) Repair the wiring between pin 17 of D40626P and pin 8 of D11140 on the PSEU.

c) Do the Repair Confirmation at the end of this task.

(g) If there is continuity between pin 17 of D40626P and structure ground, then continue.

(h) Re-connect the connector D40626P.

(i) Remove the cover from the J23 junction box.

(j) Remove the relay R658 from the J23 junction box.

(k) Do a check for 28 VDC between pin A2 of the R658 relay socket, and structure ground.

(l) If there is 28 VDC between pin A2 of the R658 relay socket and structure ground, do the check of the Standby Door Latch Actuator Timed Relay, R658, and wiring.

(m) If there is not 28 VDC between pin A2 of the R658 relay socket and structure ground, then continue.

(n) Remove the relay, R734 from the J23 junction box.

(o) Do a check for continuity between pin A2 of the R658 relay socket and pin B1 of the R734 relay socket.

(p) If there is not continuity between pin A2 of the R658 relay socket and pin B1 of the R734 relay socket, then do these steps:

1) Repair the wiring between pin A2 of the R658 relay socket and pin B1 of the R734 relay socket.
2) Re-install the R658 relay.
3) Re-install the R734 relay.
4) Re-install the J23 junction box cover.
5) Do the Repair Confirmation at the end of this task.

(q) If there is continuity between pin A2 of the R658 relay socket and pin B1 of the R734 relay socket, then continue.

(r) Do a check for 28 VDC between pin B2 of the R734 relay socket and structure ground.

(s) If there is not 28 VDC between pin B2 of the R734 relay socket and structure ground, then do these steps:

1) Repair the wiring between the pin B2 of the R734 relay socket and pin 16 of D40626J.
2) Re-install the R658 relay.
3) Re-install the R734 relay.
4) Re-install the J23 junction box cover.
5) Do the Repair Confirmation at the end of this task.

(t) If there is 28 VDC between pin B2 of the R734 relay socket and structure ground, then continue.

(u) Do a check for 28 VDC between pin X2 of the R734 relay socket and structure ground.

(v) If there is not 28 VDC between pin X2 of the R734 relay socket and structure ground, then do these steps:

1) Repair the wiring between the pin X2 of the R734 relay socket and pin 17 of D40626J.
2) Re-install the R658 relay.
3) Re-install the R734 relay.
4) Re-install the J23 junction box cover.
5) Do the Repair Confirmation at the end of this task.

(w) If there is 28 VDC between pin X2 of the R734 relay socket and structure ground, then continue.

(x) Do a check for 28 VDC between pin X1 of the R734 relay socket and structure ground.

(y) If there is 28 VDC between pin X1 of R734 relay socket and structure ground, then do these steps:

1) Install a new R734 relay.
2) Re-install the R658 relay.
3) Re-install the J23 junction box cover.
4) Do the Repair Confirmation at the end of this task.

(z) If there is not 28 VDC between pin X1 of the R734 relay socket and structure ground, then do the check of the Diode Block, R725 and wiring.

(4) Do this check of the Diode Block, R725 and wiring:

(a) Do a check for 28 VDC between the terminal A24 of the diode block R725 at TB23Y in the J23 junction box and structure ground.

(b) If there is not 28 VDC between the terminal A24 of diode block R725 and structure ground, then do these steps:

1) Repair the wiring between terminal A24 of the diode block R725 and pin 16 of D40626J.

2) Re-install the R658 relay in the J23 junction box.

3) Re-install the R734 relay in the J23 junction box.

4) Re-install the J23 junction box cover.

5) Do the Repair Confirmation at the end of this task.

(c) If there is 28 VDC between the terminal A24 of diode block R725 and structure ground, then continue.

(d) Do a check for 28 VDC between the terminal B24 of diode block R725 and the structure ground.

(e) If there is not 28 VDC between the terminal B24 of diode block R725 and structure ground, then do these steps:

1) Replace the diode block, R725.

2) Re-install the R658 relay.

3) Re-install the R734 relay.

4) Re-install the J23 junction box cover.

5) Do the Repair Confirmation at the end of this task.

(f) If there is 28 VDC between the terminal B24 of diode block R725 and structure ground, then do these steps:

1) Repair the wiring between the terminal B24 of diode block R725 and the pin X1 of the R734 relay socket.

2) Re-install the R658 relay.

3) Re-install the R734 relay.

4) Re-install the J23 junction box cover.

5) Do the Repair Confirmation at the end of this task.

(5) Do the check of this circuit breaker and wiring:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	16	C01254	FWD AIRSTAIR CONT STBY

(a) Open the P6-4 circuit breaker panel.

(b) Do a check for 28 VDC between the load side terminal of circuit breaker, C1254 and structure ground.

(c) If there is not 28 VDC at the load side terminal of this circuit breaker, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	16	C01254	FWD AIRSTAIR CONT STBY

1) Open this circuit breaker and install safety tag:

Standby Power Control Unit, M01720

Row	Col	Number	Name
B	4	C00169	SW HOT BAT BUS

2) Replace this circuit breaker:

Standby Power Control Unit, M01720

Row	Col	Number	Name
B	4	C00169	SW HOT BAT BUS

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

Standby Power Control Unit, M01720

Row	Col	Number	Name
B	4	C00169	SW HOT BAT BUS

4) Close the P6-4 circuit breaker panel.

5) Re-connect the connector D40626P.

6) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC at the load side terminal of this circuit breaker, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	16	C01254	FWD AIRSTAIR CONT STBY

1) Repair the wiring betwen the load side of this circuit breaker and pin 16 of D40626P:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	16	C01254	FWD AIRSTAIR CONT STBY

2) Close the P6-4 circuit breaker panel.

3) Re-connect the connector D40626P.

4) Do the Repair Confirmation at the end of this task.

(6) Do this check of the Standby Door Latch Actuator Timed Relay, R658, and wiring:

(a) Make sure connectors D40626P and D40626J are connected.

(b) Do a check for resistance between pin A1 of the R658 relay socket and structure ground.

(c) If there is not 27 to 37 ohms between pin A1 of the R658 relay socket and structure ground, then do these steps:

1) Re-install the relay, R658.

2) Re-install the J23 junction box cover.

3) Do the check of the Standby Door Latch Actuator (motor), M1953 and wiring.

(d) If there is 27 to 37 ohms between pin A1 of the R658 relay socket and structure ground, then continue.

(e) Do a check for continuity between pin X2 of the R658 relay socket and structure ground.

(f) If there is not continuity between pin X2 of the R658 relay socket and structure ground, then do these steps:

1) Repair the wiring between pin X2 of the R658 relay socket and structure ground.
2) Re-install the relay, R658.
3) Re-install the J23 junction box cover.
4) Do the Repair Confirmation at the end of this task.

(g) If there is continuity between pin X2 of the R658 relay socket and structure ground, then continue.

(h) With the external airstair controls in the STANDBY EXTEND position, do a check for 28 VDC between pin X1 of the R658 relay socket and structure ground.

(i) If there is 28 VDC between pin X1 of the R658 relay socket and structure ground, then do these steps:

1) Install a new relay, R658.
2) Re-install the J23 junction box cover.
3) Do the Repair Confirmation at the end of this task.
   a) If the Repair Confirmation is not satisfactory, then continue.
   b) Do the check of the Standby Door Latch Actuator (motor), M1953 and wiring.

(j) If there is not 28 VDC between pin X1 of the R658 relay socket and structure ground, then do the check of the Diode Block, R695 and wiring.

1) Repair the wiring between pin X1 of the R658 relay socket and terminal B13 of diode block, R695 on the TB23Y terminal board in the J23 junction box.
2) Re-install the relay, R658.
3) Re-install the J23 junction box cover.
4) Do the Repair Confirmation at the end of this task.

(7) Do this check of the Standby Door Latch Actuator (motor), M1953, and wiring:

(a) Disconnect the latch actuator wiring from airplane wiring at splice SP628.

(b) With the external airstair controls in the STANDBY/EXTEND position, do a check for 28 VDC between airplane wiring at splice SP628 and structure ground.

(c) If there is not 28 VDC between airplane wiring at splice SP628 and structure ground, then do these steps:

1) Repair the wiring between and pin A1 of the R658 relay socket and splice SP628 of wire bundle W5052.
2) Install a new splice, SP628.
3) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VDC between airplane wiring at splice SP628 and structure ground, then continue.

(e) Disconnect the latch actuator wiring from airplane wiring at splice SP626.

(f) Do a check for continuity between airplane wiring at splice SP626 and structure ground.

(g) If there is not continuity between airplane wiring at splice SP626 and structure ground, then do these steps:

1) Repair the airplane wiring between splice SP626 and structure ground.
2) Install a new splice, SP628.

3) Install a new splice, SP626.

4) Do the Repair Confirmation at the end of this task.

(h) If there is continuity between airplane wiring at splice SP626 and structure ground, then do these steps:

1) Replace the latch actuator, M1953.

These are the tasks:

Forward Airstair Door Lockpin and Lockpin Actuator Removal, AMM TASK 52-61-53-000-802,

Forward Airstair Door Lockpin and Lockpin Actuator Installation, AMM TASK 52-61-53-400-802.

2) Re-connect the connector D40626P.

3) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Make sure the airstair door lockpin is operational:

(a) Use the external controls to open and close the airstair door in the STANDBY mode.

(b) If the airstair door opens and closes, then you corrected the fault.

——— END OF TASK ———

829. Forward Airstair Does Not Fully Retract - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Forward handrail stowed limit switch, S1

(2) Aft handrail stowed limit switch, S2

(3) Airstair lower ladder closed switch, S11

(4) Normal/Standby retract limit switch, S5

(5) Wiring problem

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

D. Initial evaluation

(1) Make sure the handrail extensions are properly stowed and latched in the handrails.

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Use the external controls to retract the airstair in the NORMAL mode.

(3) If the airstair retracts, then there was an intermittent fault.

(4) If the airstair motor operates, but the airstair does not retract then, do this task: Forward Airstair Motor Operates, But Airstair Does Not Extend or Retract - Fault Isolation, 52-60 TASK 820.

(5) If the airstair does not fully retract, do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the airstair forward hand rail stowed limit switch, S1:

(a) If the airstair motor operates when the airstair is stopped, do the check of the airstair actuator clutch.

(b) Disconnect the airstair connector P15 from airstair connector J15.

(c) Do a check for continuity between pins 1 and 3 of the P15 connector.

(d) Re-connect connector P15 to J15.

(e) If there is not continuity between pins 1 and 3 of the P15 connector, then do these steps:

1) Replace the switch, S1.

These are the tasks:

Forward Airstair Handrail Switch (S1 or S2) Removal, AMM TASK 52-61-18-000-801,

Forward Airstair Handrail Switch (S1 or S2) Installation, AMM TASK 52-61-18-400-801.

2) Do the Repair Confirmation at the end of this task.

(f) If there is continuity between pins 1 and 3 of the P15 connector, then continue.

(2) Do this check of the airstair aft hand rail stowed limit switch, S2:

(a) Disconnect the airstair connector P16 from airstair connector J16.

(b) Do a check for continuity between pins 1 and 3 of the P16 connector.

(c) Re-connect connector P16 to J16.

(d) If there is not continuity between pins 1 and 3 of the P16 connector, then do these steps:

1) Replace the switch, S2.

These are the tasks:

Forward Airstair Handrail Switch (S1 or S2) Removal, AMM TASK 52-61-18-000-801,

Forward Airstair Handrail Switch (S1 or S2) Installation, AMM TASK 52-61-18-400-801.

2) Do the Repair Confirmation at the end of this task.

(e) If there is continuity between pins 1 and 3 of the P16 connector, then continue.

(3) Do this check of the airstair lower ladder operating limit switch, S11 and wiring:

(a) Disconnect the airstair connector P14 from airstair connector J14.

(b) Do a check for continuity between pins 1 and 3 of the P14 connector.

(c) Re-connect connector P14 to J14.

(d) If there is not continuity between pins 1 and 3 of the P14 connector, then do these steps:

1) Replace the switch, S11.

These are the tasks:

Forward Airstair Lower Ladder Closed Switch (S11) Removal, AMM TASK 52-61-17-000-801,

Forward Airstair Lower Ladder Closed Switch (S11) Installation, AMM TASK 52-61-17-400-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Repair the wiring between pin 1 of J14 and pin 3 of P12 or pin 3 of J14 and pin 1 of J5.

4) Do the Repair Confirmation at the end of this task.

(e) If there is continuity between pins 1 and 3 of the P13 connector, then continue.

(4) Do this check of the normal/standby airstair retract limit switch, S5:

(a) Disconnect the airstair connector P1 from the connector D934.

(b) Do a check for continuity between pins 9 and 10 of airstair connector P1.

(c) Re-connect the airstair connector P1 to the connector D934.

(d) If there is continuity between pins 9 and 10 of airstair connector P1, then do these steps:

1) Do this task: Forward Airstair Retract Limit Switch (S5) Adjustment and Test, AMM TASK 52-61-14-400-802.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Replace the Retract Limit Switch, S5.

These are the tasks:

Forward Airstair Retract Limit Switch (S5) Removal, AMM TASK 52-61-14-000-801,

Forward Airstair Retract Limit Switch (S5) Installation, AMM TASK 52-61-14-400-801.

F. Repair Confirmation

(1) Do an operational check of the airstair:

(a) Use the external controls to retract the airstair.

(b) If the airstair retracts, then you corrected the fault.

——— END OF TASK ———

830. Forward Airstair Stops Within 5 Inches (12.7 Centimeters) Of Full Extension - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00).

B. Possible Causes

(1) Standby Airstair Extend Limit Switch, S4

(2) Normal Airstair Extend Limit Switch, S3

C. Related Data

(1) WDM 52-61-11

(2) SSM 52-61-11

(3) CMM 52-60-10

D. Initial Evaluation

(1) Make sure the handrail extensions are properly stowed and latched in the handrails.

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR IN LESS THAN 20 MINUTES AFTER 3 FULL CYCLES THAT ARE ONE AFTER THE OTHER. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT BELOW THE FORWARD AIRSTAIR (AS AN EXAMPLE, WHEN THE AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Use the external controls to extend and retract the airstair.

(a) If the airstair extends and retracts, then there was an intermittent fault.

(b) If the airstair stops within 5 in. (12.7 cm) of full extension, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the Normal Airstair Extend Limit Switch, S3:

(a) Disconnect the airstair connector P1 from the connector D934.

(b) Do a check for continuity between pin 5 of airstair connector P1 and terminal Y1 of the Airstair Relay, K1.

(c) Re-connect the airstair connector P1 to the connector D934.

(d) If there is no continuity between pin 5 of airstair connector P1 and terminal Y1 of the Airstair Relay, K1, then do these steps:

1) Do this task: Extend Limit Switches (S3 and S4) Adjustment, AMM TASK 52-61-15-820-801.

a) Do the Repair Confirmation at the end of this task.

2) Replace the Switch, S3. These are the tasks:

- Extend Limit Switches (S3 and S4) Removal, AMM TASK 52-61-15-000-801
- Extend Limit Switches (S3 and S4) Installation, AMM TASK 52-61-15-400-801

a) Do the Repair Confirmation at the end of this task.

(e) If there is continuity between pin 5 of airstair connector P1 and terminal Y1 of the Airstair Relay, K1, then continue.

(2) Do this check of the Standby Airstair Extend Limit Switch, S4:

(a) Disconnect the airstair connectors P1 and P20.

(b) Do a check for continuity between pin 15 of airstair connector P1 and pin 4 of airstair connector P20.

(c) Re-connect the airstair connectors P1 and P20.

(d) If there is no continuity between pin 15 of airstair connector P1 and pin 4 of airstair connector P20, then do these steps:

1) Do this task: Extend Limit Switches (S3 and S4) Adjustment, AMM TASK 52-61-15-820-801.

a) Do the Repair Confirmation at the end of this task.

2) Replace the Switch, S4. These are the tasks:

- Extend Limit Switches (S3 and S4) Removal, AMM TASK 52-61-15-000-801
- Extend Limit Switches (S3 and S4) Installation, AMM TASK 52-61-15-400-801

a) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the airstair:

(a) Use the external controls to extend the airstair.

1) If the airstair fully extends, then you corrected the problem.

2) If the airstair stops within 5 in. (12.7 cm) of full extension, then continue the Fault Isolation Procedure at the subsequent step.

——— END OF TASK ———

831. Forward Airstair Stops Immediately After The Lower Ladder Unlocks From The Upper Ladder - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Lower ladder operating switch, S10

(2) Wiring problem

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

D. Initial evaluation

CAUTION DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Use the external controls to extend the airstair.

(2) If the airstair fully extends, then there was an intermittent fault.

(3) If the airstair stops immediately after the lower ladder unlocks from the upper ladder, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the airstair lower ladder operating limit switch, S10 and wiring:

(a) Make sure the S10 switch actuator is pushed into the switch housing.

(b) Disconnect the airstair connector P13 from airstair connector J13.

(c) Do a check for continuity between pins 1 and 3 of the P13 connector.

(d) Re-connect connector P13 to J13.

(e) If there is not continuity between pins 1 and 3 of the P13 connector, then do these steps:

1) Replace the switch, S10.

These are the tasks:

Forward Airstair Lower Ladder Operating Switch (S10) Removal, AMM TASK 52-61-16-000-801,

Forward Airstair Lower Ladder Operating Switch (S10) Installation, AMM TASK 52-61-16-400-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

(f) If there is continuity between pins 1 and 3 of the P13 connector, then continue.

(g) Disconnect the airstair connectors P12, P13 and P14.

(h) Do a check for continuity between pin 1 of the J13 connector and pin 3 of the P12 connector.

(i) Do a check for continuity between pin 3 of the J13 connector and pin 1 of the J14 connector.

(j) Re-connect the airstair connectors P12, P13 and P14.

(k) If there is not continuity, repair the wiring.

1) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the airstair:

(a) Use the external controls to extend the airstair.

(b) If the airstair fully extends, then you corrected the fault.

——— END OF TASK ———

832. Forward Airstair Retracts When Handrail Extensions Are Deployed - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Forward handrail stowed limit switch, S1

(2) Aft handrail stowed limit switch, S2

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

D. Initial evaluation

(1) Make sure the forward entry door is open.

(2) Do this check of the airstair handrail switches:

(a) Fully extend the forward handrail extension.

CAUTION

IF YOU SEE THE AIRSTAIR MOVE OR HEAR THE AIRSTAIR MOTOR OPERATE, IMMEDIATELY RELEASE THE EXTERIOR CONTROLS. YOU CAN CAUSE DAMAGE TO THE AIRPLANE IF THE MOTOR CONTINUES TO OPERATE.

(b) Put the exterior controls to the NORMAL RETRACT position.

1) Make sure the airstair motor does not operate.

(c) Release the exterior controls.

(d) Fully extend the aft handrail extension.

(e) Move the forward handrail to its stowed position.

CAUTION

IF YOU SEE THE AIRSTAIR MOVE OR HEAR THE AIRSTAIR MOTOR OPERATE, IMMEDIATELY RELEASE THE EXTERIOR CONTROLS. YOU CAN CAUSE DAMAGE TO THE AIRSTAIR MECHANISM IF THE MOTOR CONTINUES TO OPERATE.

(f) Put the exterior controls to the NORMAL RETRACT position.

1) Make sure the airstair motor does not operate.

(3) If the airstair does not retract when either of the handrail extension are deployed, then there was an intermittent fault.

(4) If the airstair retracts when either of the handrail extension are deployed, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the airstair forward hand rail stowed limit switch, S1:

(a) Disconnect the airstair connector P15 from airstair connector J15.

(b) Do a check for continuity between pins 1 and 3 of the P15 connector.

(c) Re-connect connector P15 to J15.

(d) If there is continuity between pins 1 and 3 of the P15 connector, then do these steps:

1) Replace the switch, S1.

These are the tasks:

Forward Airstair Handrail Switch (S1 or S2) Removal, AMM TASK 52-61-18-000-801,

Forward Airstair Handrail Switch (S1 or S2) Installation, AMM TASK 52-61-18-400-801.

2) Do the Repair Confirmation at the end of this task.

(e) If there is not continuity between pins 1 and 3 of the P15 connector, then continue.

(2) Do this check of the airstair aft hand rail stowed limit switch, S2:

(a) Disconnect the airstair connector P16 from airstair connector J16.

(b) Do a check for continuity between pins 1 and 3 of the P16 connector.

(c) Re-connect connector P16 to J16.

(d) If there is continuity between pins 1 and 3 of the P16 connector, then do these steps:

1) Replace the switch, S2.

These are the tasks:

Forward Airstair Handrail Switch (S1 or S2) Removal, AMM TASK 52-61-18-000-801,

Forward Airstair Handrail Switch (S1 or S2) Installation, AMM TASK 52-61-18-400-801.

2) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do this check of the airstair handrail switches:

(a) Fully extend the forward handrail extension.

CAUTION

IF YOU SEE THE AIRSTAIR MOVE OR HEAR THE AIRSTAIR MOTOR OPERATE, IMMEDIATELY RELEASE THE EXTERIOR CONTROLS. YOU CAN CAUSE DAMAGE TO THE AIRPLANE IF THE MOTOR CONTINUES TO OPERATE.

(b) Put the exterior controls to the NORMAL RETRACT position.

1) Make sure the airstair motor does not operate.

(c) Release the exterior controls.

(d) Fully extend the aft handrail extension.

(e) Move the forward handrail to its stowed position.

CAUTION

IF YOU SEE THE AIRSTAIR MOVE OR HEAR THE AIRSTAIR MOTOR OPERATE, IMMEDIATELY RELEASE THE EXTERIOR CONTROLS. YOU CAN CAUSE DAMAGE TO THE AIRSTAIR MECHANISM IF THE MOTOR CONTINUES TO OPERATE.

(f) Put the exterior controls to the NORMAL RETRACT position.

1) Make sure the airstair motor does not operate.

(2) If the airstair does not retract when either of the handrail extension are deployed, then you corrected the fault.

——— END OF TASK ———

833. Forward Airstair Motor Operates In The Normal Mode After The Airstair Is Fully Retracted - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Airstair retract limit switch, S5

(2) Airstair normal extend/retract relay, K1

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

D. Initial evaluation

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Use the external controls to retract the airstair in the NORMAL mode.

(2) If the airstair motor does not operate after the airstair is retracted, then there was an intermittent fault.

(3) If the airstair motor operates after the airstair is retracted, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the airstair retract limit switch, S5:

(a) Make sure the airstair is fully retracted.

(b) Disconnect the airstair connector P1 from connector D934.

(c) Do a check for continuity between pin 10 of P1 and terminal X1 of airstair relay, K1.

(d) Re-connect the airstair connector P1 to connector D934.

(e) If there is continuity between pin 10 of P1 and terminal X1 of airstair relay K1, then do these steps:

1) Do this task: Forward Airstair Retract Limit Switch (S5) Adjustment and Test, AMM TASK 52-61-14-400-802.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Replace the switch, S5.

These are the tasks:

Forward Airstair Retract Limit Switch (S5) Removal, AMM TASK 52-61-14-000-801,

Forward Airstair Retract Limit Switch (S5) Installation, AMM TASK 52-61-14-400-801.

4) Do the Repair Confirmation at the end of this task.

(f) If there is not continuity between pin 10 of P1 and terminal X1 of airstair relay K1, then continue.

(2) Do this check of the airstair normal extend/retract relay, K1:

(a) Do a check for 115 VAC between terminals A2, B2 and C2 of relay, K1 and structure ground.

(b) If there is 115 VAC between terminals A2, B2 and C2 of airstair relay, K1 and structure ground, then do these steps:

1) Replace the airstair relay, K1.

2) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the airstair retract system:

(a) Use the external controls to retract the airstair in the NORMAL mode.

(b) If the airstair motor does not operate after the airstair is fully retracted, then you corrected the fault.

——— END OF TASK ———

834. Forward Airstair Motor Operates In The Standby Mode After The Airstair Is Fully Retracted - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Airstair retract limit switch, S5

(2) Airstair standby extend/retract relay, K2

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

D. Initial evaluation

CAUTION DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Use the external controls to retract the airstair in the STANDBY mode.

(2) If the airstair motor does not operate after the airstair is retracted, then there was an intermittent fault.

(3) If the airstair motor operates after the airstair is retracted, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the airstair retract limit switch, S5:

(a) Make sure the airstair is fully retracted.

(b) Disconnect the airstair connector P1 from connector D934.

(c) Do a check for continuity between pin 15 of P1 and terminal X1 of airstair relay, K2.

(d) Re-connect the airstair connector P1 to connector D934.

(e) If there is continuity between pin 15 of P1 and terminal X1 of airstair relay K2, then do these steps:

1) Do this task: Forward Airstair Retract Limit Switch (S5) Adjustment and Test, AMM TASK 52-61-14-400-802.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Replace the switch, S5.

These are the tasks:

Forward Airstair Retract Limit Switch (S5) Removal, AMM TASK 52-61-14-000-801,

Forward Airstair Retract Limit Switch (S5) Installation, AMM TASK 52-61-14-400-801.

(f) If there is not continuity between pin 15 of P1 and terminal X1 of airstair relay K2, then continue.

(2) Do this check of the airstair standby extend/retract relay, K2:

(a) Do a check for 28 VDC between terminal B1 of airstair relay, K2 and structure ground.

(b) If there is 28 VDC between terminal B1 of airstair relay, K2 and structure ground, then do these steps:

1) Replace the airstair relay, K2.

2) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the airstair retract system:

(a) Use the external controls to retract the airstair in the STANDBY mode.

(b) If the airstair motor does not operate after the airstair is fully retracted, then you corrected the fault.

——— END OF TASK ———

835. Forward Airstair Motor Operates In The Normal Mode After The Airstair Is Fully Extended - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) NORMAL airstair extend limit switch, S3.

(2) NORMAL airstair relay, K1.

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

(4) (CMM 52-60-06)

D. Initial evaluation

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Use the external controls to extend the airstair in the NORMAL mode.

(2) If the airstair motor does not operate after the airstair is extended, then there was an intermittent fault.

(3) If the airstair motor operates after the airstair is extended, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the normal airstair extend limit switch, S3:

(a) Make sure the airstair is fully extended.

(b) Disconnect the airstair connector P1 from connector D934.

(c) Do a check for continuity between pin 5 of P1 and terminal Y1 of airstair relay, K1.

(d) Re-connect the airstair connector P1 to connector D934.

(e) If there is continuity between pin 5 of P1 and terminal Y1 of airstair relay K1, then do these steps:

1) Do this task: Extend Limit Switches (S3 and S4) Adjustment, AMM TASK 52-61-15-820-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Replace the switch, S3.

These are the tasks:

Extend Limit Switches (S3 and S4) Removal, AMM TASK 52-61-15-000-801,

Extend Limit Switches (S3 and S4) Installation, AMM TASK 52-61-15-400-801.

4) Do the Repair Confirmation at the end of this task.

(f) If there is not continuity between pin 5 of P1 and terminal Y1 of airstair relay K1, then continue.

(2) Do this check of the airstair normal extend/retract relay, K1:

(a) Do a check for 115 VAC between terminals A2, B2 and C2 of relay, K1 and structure ground.

(b) If there is 115 VAC between terminals A2, B2 and C2 of airstair relay, K1 and structure ground, then do these steps:

1) Replace the airstair relay, K1.

2) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the airstair extend system:

(a) Use the external controls to extend the airstair in the NORMAL mode.

(b) If the airstair motor does not operate after the airstair is fully extended, then you corrected the fault.

——— END OF TASK ———

836. Forward Airstair Motor Operates In The Standby Mode After The Airstair Is Fully Extended - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) STANDBY airstair extend limit switch, S4.

(2) STANDBY airstair relay, K2.

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

D. Initial evaluation

(1) Make sure the handrail extensions are properly stowed and latched in the handrails.

CAUTION DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Use the external controls to extend the airstair in the STANDBY mode.

(3) If the airstair motor does not operate after the airstair is extended, then there was an intermittent fault.

(4) If the airstair motor operates after the airstair is extended, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the normal airstair extend limit switch, S4:

(a) Make sure the airstair is fully extended.

(b) Disconnect the airstair connector P1 from connector D934.

(c) Do a check for continuity between pin 17 of P1 and terminal Y1 of airstair relay, K2.

(d) Re-connect the airstair connector P1 to connector D934.

(e) If there is continuity between pin 17 of P1 and terminal Y1 of airstair relay K2, then do these steps:

1) Do this task: Extend Limit Switches (S3 and S4) Adjustment, AMM TASK 52-61-15-820-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Replace the switch, S4.

These are the tasks:

Extend Limit Switches (S3 and S4) Removal, AMM TASK 52-61-15-000-801,

Extend Limit Switches (S3 and S4) Installation, AMM TASK 52-61-15-400-801.

4) Do the Repair Confirmation at the end of this task.

(f) If there is not continuity between pin 17 of P1 and terminal Y1 of airstair relay K2, then continue.

(2) Do this check of the airstair standby extend/retract relay, K2:

(a) Do a check for 28 VDC between terminal C1 of airstair relay, K2 and structure ground.

(b) If there is 28 VDC between terminal C1 of airstair relay, K2 and structure ground, then do these steps:

1) Replace the airstair relay, K2.

2) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the airstair extend system:

(a) Use the external controls to extend the airstair in the STANDBY mode.

(b) If the airstair motor does not operate after the airstair is fully extended, then you corrected the fault.

END OF TASK

837. Forward Airstair Door Motor Operates In The Normal Mode After The Airstair Door Is Fully Closed - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) NORMAL door closed limit switch, S207

(2) NORMAL door closed relay, R81

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

D. Initial evaluation

CAUTION DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Use the external controls to close the airstair door in the NORMAL mode.

(2) If the airstair door motor does not operate after the door is closed, then there was an intermittent fault.

(3) If the airstair door motor operates after the door is fully closed, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the normal door closed limit switch, S207:

(a) Make sure the airstair door is fully closed.

(b) Disconnect the connectors D40628P and D40626J from the J23 junction box.

(c) Do a check for continuity between pin 5 of D40628P and pin 2 of D40626P.

(d) Re-connect the connectors D40628P and D40626J to the J23 junction box.

(e) If there is continuity between pins 5 and 2, then do these steps:

1) Do this task: Forward Airstair Door Closed Switch Adjustment and Test, AMM TASK 52-61-60-820-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Replace the switch, S207.

These are the tasks:

Forward Airstair Door Closed Switch Removal, AMM TASK 52-61-60-020-801,

Forward Airstair Door Closed Switch Installation, AMM TASK 52-61-60-420-801.

4) Do the Repair Confirmation at the end of this task.

(f) If there is not continuity between pins 5 and 2, then continue.

(2) Do this check of the normal door closed relay, R81:

(a) Disconnect the connector D40628P from the J23 junction box.

(b) Do a check for 28 VDC between pin 8 of D40628P and structure ground.

(c) Re-connect the connector D40628P to the J23 junction box.

(d) If there is 28 VDC between pin 8 and structure ground, then do these steps:

1) Remove the cover from the J23 junction box.

2) Replace the relay, R81.

3) Re-install the cover on the J23 junction box.

4) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the airstair door system:

(a) Use the external controls to fully close the airstair door in the NORMAL mode.

(b) If the airstair door motor does not operate after the door is closed, then you corrected the fault.

——— END OF TASK ———

838. Forward Airstair Door Motor Operates In The Standby Mode After The Airstair Door Is Fully Closed - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) STANDBY door closed limit switch, S208

(2) STANDBY door closed relay, R83

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

D. Initial evaluation

CAUTION DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Use the external controls to close the airstair door in the STANDBY mode.

(2) If the airstair door motor does not operate after the door is closed, then there was an intermittent fault.

(3) If the airstair door motor operates after the door is fully closed, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the standby door closed limit switch, S208:

(a) Make sure the airstair door is fully closed.

(b) Disconnect the connectors D40628P and D40626J from the J23 junction box.

(c) Do a check for continuity between pin 14 of D40628P and pin 8 of D40626P.

(d) Re-connect the connectors D40628P and D40626J to the J23 junction box.

(e) If there is continuity between pins 14 and 8, then do these steps:

1) Do this task: Forward Airstair Door Closed Switch Adjustment and Test, AMM TASK 52-61-60-820-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Replace the switch, S208.

These are the tasks:

Forward Airstair Door Closed Switch Removal, AMM TASK 52-61-60-020-801,

Forward Airstair Door Closed Switch Installation, AMM TASK 52-61-60-420-801.

4) Do the Repair Confirmation at the end of this task.

(f) If there is not continuity between pins 5 and 2, then continue.

(2) Do this check of the standby door closed relay, R83:

(a) Disconnect the connector D40628P from the J23 junction box.

(b) Do a check for 28 VDC between pin 9 of D40628P and structure ground.

(c) Re-connect the connector D40628P to the J23 junction box.

(d) If there is 28 VDC between pin 9 and structure ground, then do these steps:

1) Remove the cover from the J23 junction box.

2) Replace the relay, R83.

3) Re-install the cover on the J23 junction box.

4) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the airstair door system:

(a) Use the external controls to fully close the airstair door in the STANDBY mode.

(b) If the airstair door motor does not operate after the door is closed, then you corrected the fault.

——— END OF TASK ———

839. Forward Airstair Door Motor Operates In The Normal Mode After The Airstair Door Is Fully Open - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) NORMAL door open limit switch, S205

(2) NORMAL door open relay, R80

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

D. Initial evaluation

CAUTION	DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Use the external controls to open the airstair door in the NORMAL mode.

(2) If the airstair door motor does not operate after the door is fully open, then there was an intermittent fault.

(3) If the airstair door motor operates after the door is fully open, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the normal door closed limit switch, S205:

(a) Make sure the airstair door is fully open.

(b) Disconnect the connector D40628P from the J23 junction box.

(c) Do a check for continuity between pins 4 and 12 of D40628P.

(d) Re-connect the connectors D40628P to the J23 junction box.

(e) If there is continuity between pins 4 and 12, then do these steps:

1) Do this task: Forward Airstair Door Open Limit Switches (S201 and S205) Adjustment, AMM TASK 52-61-61-820-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Replace the switch, S205.

These are the tasks:

Forward Airstair Door Open Limit Switches (S201 and S205) Removal, AMM TASK 52-61-61-020-801,

Forward Airstair Door Open Limit Switches (S201 and S205) Installation, AMM TASK 52-61-61-400-801.

4) Do the Repair Confirmation at the end of this task.

(f) If there is not continuity between pins 4 and 12, then continue.

(2) Do this check of the normal door closed relay, R80:

(a) Disconnect the connector D40628P from the J23 junction box.

(b) Do a check for 28 VDC between pin 7 of D40628P and structure ground.

(c) Re-connect the connector D40628P to the J23 junction box.

(d) If there is 28 VDC between pin 7 and structure ground, then do these steps:

1) Remove the cover from the J23 junction box.

2) Replace the relay, R80.

3) Re-install the cover on the J23 junction box.

4) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the airstair door system:

(a) Use the external controls to fully open the airstair door in the NORMAL mode.

(b) If the airstair door motor does not operate after the door is opened, then you corrected the fault.

——— END OF TASK ———

840. Forward Airstair Door Motor Operates In The Standby Mode After The Airstair Door Is Fully Open - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) STANDBY door open limit switch, S201

(2) STANDBY door open relay, R82

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

D. Initial evaluation

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Use the external controls to open the airstair door in the STANDBY mode.

(2) If the airstair door motor does not operate after the door is fully open, then there was an intermittent fault.

(3) If the airstair door motor operates after the door is fully open, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check of the standby door open limit switch, S201:

(a) Make sure the airstair door is fully open.

(b) Disconnect the connector D40628P from the J23 junction box.

(c) Do a check for continuity between pins 6 and 13 of D40628P.

(d) Re-connect the connectors D40628P to the J23 junction box.

(e) If there is continuity between pins 6 and 13, then do these steps:

1) Do this task: Forward Airstair Door Open Limit Switches (S201 and S205) Adjustment, AMM TASK 52-61-61-820-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Replace the switch, S201.

These are the tasks:

Forward Airstair Door Open Limit Switches (S201 and S205) Removal, AMM TASK 52-61-61-020-801,

Forward Airstair Door Open Limit Switches (S201 and S205) Installation, AMM TASK 52-61-61-400-801.

4) Do the Repair Confirmation at the end of this task.

(f) If there is not continuity between pins 6 and 13, then continue.

(2) Do this check of the normal door closed relay, R82:

(a) Disconnect the connector D40628P from the J23 junction box.

(b) Do a check for 28 VDC between pin 10 of D40628P and structure ground.

(c) Re-connect the connector D40628P to the J23 junction box.

(d) If there is 28 VDC between pin 10 and structure ground, then do these steps:

1) Remove the cover from the J23 junction box.

2) Replace the relay, R82.

3) Re-install the cover on the J23 junction box.

4) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the airstair door system:

(a) Use the external controls to fully open the airstair door in the STANDBY mode.

(b) If the airstair door motor does not operate after the door is opened, then you corrected the fault.

END OF TASK

841. Forward Airstair Carriage and Ladders Bounce or Bind - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Ballscrew has too much end play

(2) Ballscrew ballnuts are not correctly aligned

(3) Carriage drive pinions are not correctly aligned

C. Related Data

(1) (CMM 52-60-10)

D. Initial evaluation

CAUTION

DO NOT OPERATE THE FORWARD AIRSTAIR LOCKPIN AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. IF YOU OPERATE THE FORWARD AIRSTAIR LOCKPIN FOR MORE THAN 3 FULL CYCLES IN LESS THAN 20 MINUTES, DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Use the external controls to extend and retract the airstair in the NORMAL mode.

(2) If the airstair extends and retracts smoothly, then there was an intermittent fault.

(3) If the airstair bounces or binds, do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Do this check for too much ballscrew endplay:

(a) Do this task: Forward Airstair Ballscrew Assembly End Play Check, AMM TASK 52-61-10-200-801.

(b) If the ballscrew endplay is not correct, do this task: Forward Airstair Ballscrew Endplay Adjustment, AMM TASK 52-61-23-820-801.

1) Do the Repair Confirmation at the end of this task.

(c) If the ballscrew endplay is correct, then continue.

(2) Do this check for ballscrew ballnuts that are not correctly aligned:

(a) Do this task: Forward Airstair Ballscrew Ballnut Adjustment, AMM TASK 52-61-23-820-802.

1) Do the Repair Confirmation at the end of this task.

2) If the Repair Confirmation is not satisfactory, then continue.

(3) Do this check for carriage drive pinions that are not correctly aligned (Figure 202):

(a) Make sure the airstair rails are parallel to the carriage beams.

(b) If the airstair rails are not parallel to the carriage beams, then do these steps:

1) Remove the pin and cotter pin from one of the two couplings that connect the carriage drive pinions to the airstair actuator.

2) Move the coupling along the shaft until it disengages the splines.

3) Move the carriage until it is parallel with the rails.

4) Move the coupling along the shaft until it engages the splines.

5) Install the pin and cotter pin in the coupling.

6) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the airstair:

(a) Use the external controls to extend and retract the airstair.

(b) If the airstair extends and retracts smoothly, then you corrected the fault.

——— END OF TASK ———

842. Forward Airstair Operates Too Fast or Too Slow in the NORMAL Mode - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Standby airstair system

(2) Slow down operating retract switch, S15

(3) Speed up operating switch, S13

(4) Slow down operating switch, S12

(5) Wiring Problem

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

(3) (CMM 52-60-10)

D. Initial evaluation

(1) Use the external controls to extend and retract the airstair in the NORMAL mode.

(2) If the airstair extends and retracts at the usual speed, then there was an intermittent fault.

(3) If the airstair operates too fast or too slow, continue.

(4) Use the external controls to extend and retract the airstair in the STANDBY mode.

(5) If the airstair does not extend or retract in the STANDBY mode, then do the applicable step:

(a) Do this task: Forward Airstair Does Not Retract In The STANDBY Mode - Fault Isolation, 52-60 TASK 822.

(b) Do this task: Forward Airstair Does Not Extend In The Standby Mode - Fault Isolation, 52-60 TASK 811.

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(6) If the airstair extends and retracts in the STANDBY mode, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Adjust the switches that conrol the speed of the airstair:

(a) Do this task: Forward Airstair Ladder Slow-Down Extend Switch (S12) Adjustment, AMM TASK 52-61-20-820-801.

(b) Do this task: Forward Airstair Ladder Speed-up Operating Switch (S13) Adjustment and Test, AMM TASK 52-61-21-420-802.

(c) Do this task: Forward Airstair Lower Ladder Slow-Down Retract Switch (S15) Adjustment, AMM TASK 52-61-24-820-801.

(d) Do the Repair Confirmation at the end of this task.

1) If the Repair Confirmation is not satisfactory, then continue.

(2) Do this check of the slow down operating retract switch, S15:

(a) Use the external controls to position the airstair so the switch, S13 is operated and the switch, S15 is operated.

(b) Do a check for continuity between terminal X1 of airstair relay K1 and terminal Y1 of airstair relay K2.

(c) If there is not continuity between terminal X1 of relay K1 and terminal Y1 of relay K2, then do these steps:

1) Replace the switch, S15.

These are the tasks:

Forward Airstair Lower Ladder Slow-Down Retract Switch (S15) Removal, AMM TASK 52-61-24-000-801,

Forward Airstair Lower Ladder Slow-Down Retract Switch (S15) Installation, AMM TASK 52-61-24-400-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Repair the wiring between the switch, S15 and the relay, K2 or the wiring between the switch, S15 and the relay, K1.

4) Do the Repair Confirmation at the end of this task.

(d) If there is continuity between terminal X1 of relay K1 and terminal Y1 of relay K2, then continue.

(e) Use the external controls to position the airstair so the switch, S13 is operated and the switch, S15 is not operated.

(f) Do a check for continuity between terminal X1 of relay K1 and terminal X1 of relay K2.

(g) If there is not continuity between terminal X1 of relay K1 and terminal X1 of relay K2, then do these steps:

1) Do a check for continuity between terminal 2 of switch, S15 and terminal X1 of relay K1.

2) If there is continuity between terminal 2 of switch, S15 and terminal X1 of relay K1, then do the check of the speed up operating switch, S13.

3) If there is not continuity between terminal 2 of switch, S15 and terminal X1 of relay K1, then do these steps:

a) These are the tasks:

Forward Airstair Lower Ladder Slow-Down Retract Switch (S15) Removal, AMM TASK 52-61-24-000-801,

Forward Airstair Lower Ladder Slow-Down Retract Switch (S15) Installation, AMM TASK 52-61-24-400-801.

b) Do the Repair Confirmation at the end of this task.

(h) If there is continuity between terminal X1 of relay K1 and terminal X1 of relay K2, then continue.

(3) Do this check of the speed up operating switch, S13:

(a) If, with the switch, S13 operated and the switch, S15 not operated, there was not continuity between terminal X1 of relay K1 and terminal X1 of relay K2, then do these steps:

1) Replace the switch, S13.

These are the tasks:

Forward Airstair Ladder Speed-up Operating Switch (S13) Removal, AMM TASK 52-61-21-020-801,

Forward Airstair Ladder Speed-up Operating Switch (S13) Installation, AMM TASK 52-61-21-420-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Repair the wiring between terminal X1 of relay, K2 and switch, S13 or the wiring between pin 4 of switch, S13 and pin 2 of switch, S15.

4) Do the Repair Confirmation at the end of this task.

(b) If, with the switch, S13 operated and the switch, S15 not operated, there was continuity between terminal X1 of relay K1 and terminal X1 of relay K2, then continue.

(c) Do a check for continuity between terminal Y1 of relay, K2 and terminal 4 of airstair terminal block, TB2.

(d) If there is not continuity between terminal Y1 of relay, K2 and terminal 4 of terminal block, TB2, then do these steps:

1) Replace the switch, S13.

These are the tasks:

Forward Airstair Ladder Speed-up Operating Switch (S13) Removal, AMM TASK 52-61-21-020-801,

Forward Airstair Ladder Speed-up Operating Switch (S13) Installation, AMM TASK 52-61-21-420-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Repair the wiring between terminal Y1 of relay, K2 and switch, S13 or the wiring between switch, S13 and terminal 4 of terminal block, TB2.

4) Do the Repair Confirmation at the end of this task.

(e) If there is continuity between terminal Y1 of relay, K2 and terminal 4 of terminal block, TB2, then continue.

(f) Use the external controls to position the airstair so the switch, S13 is not operated and the switch, S15 is not operated.

(g) Do a check for continuity between terminal Y1 of relay, K2 and terminal 4 of terminal block, TB2.

(h) Do a check for continuity between terminal X1 of relay K1 and terminal X1 of relay K2.

(i) If there is continuity between between terminal Y1 of relay, K2 and terminal 4 of terminal block, TB2 or there is continuity between terminal X1 of relay K1 and terminal X1 of relay K2, then do these steps:

1) Replace the switch, S13.

These are the tasks:

Forward Airstair Ladder Speed-up Operating Switch (S13) Removal, AMM TASK 52-61-21-020-801,

Forward Airstair Ladder Speed-up Operating Switch (S13) Installation, AMM TASK 52-61-21-420-801.

2) Do the Repair Confirmation at the end of this task.

(j) If there is not continuity between between terminal Y1 of relay, K2 and terminal 4 of airstair terminal block, TB2 and beteween terminal X1 of the airstair relay K1 and terminal X1 of airstair relay K2, then continue.

(4) Do this check of the slow down operating switch, S12:

(a) Use the external controls to position the airstair so the switch, S12 is operated.

(b) Do a check for continuity between terminal Y1 of the airstair relay K1 and terminal X1 of airstair relay K2.

(c) If there is not continuity between terminal Y1 of the relay, K1 and terminal X1 of relay K2, then do these steps:

1) Replace the switch, S12.

These are the tasks:

Forward Airstair Ladder Slow-Down Extend Switch (S12) Removal, AMM TASK 52-61-20-000-801,

Forward Airstair Ladder Slow-Down Extend Switch (S12) Installation, AMM TASK 52-61-20-400-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Repair the wiring between terminal Y1 of relay, K1 and switch, S12 or the wiring between switch, S12 and terminal X1 of relay, K2.

4) Do the Repair Confirmation at the end of this task.

(d) If there is continuity between terminal Y1 of the relay, K1 and terminal X1 of relay K2, then continue.

(e) Do a check for continuity between terminal X2 of the airstair relay K1 and structure ground.

(f) If there is not continuity between continuity between terminal X2 of the airstair relay K1 and structure ground, then do these steps:

1) Replace the switch, S12.

These are the tasks:

Forward Airstair Ladder Slow-Down Extend Switch (S12) Removal, AMM TASK 52-61-20-000-801,

Forward Airstair Ladder Slow-Down Extend Switch (S12) Installation, AMM TASK 52-61-20-400-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Repair the wiring between the switch, S12 and structure ground or the switch, S12 and the terminal X2 of relay, K1.

4) Do the Repair Confirmation at the end of this task.

(g) If there is continuity between continuity between terminal X2 of relay K1 and structure ground, then continue.

(h) Use the external controls to position the airstair so the switch, S12 is not operated.

(i) Do a check for continuity between terminal Y1 of relay K1 and terminal 4 of terminal block, TB2.

(j) Do a check for continuity between terminal X2 of relay K1 and structure ground.

(k) If there is continuity between terminal X2 of relay K1 and structure ground or there is not continuity between terminal Y1 of relay K1 and terminal 4 of terminal block, TB2, then do these steps:

1) Replace the switch, S12.

These are the tasks:

Forward Airstair Ladder Slow-Down Extend Switch (S12) Removal, AMM TASK 52-61-20-000-801,

Forward Airstair Ladder Slow-Down Extend Switch (S12) Installation, AMM TASK 52-61-20-400-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Repair the wiring between terminal Y1 of relay K1 and terminal 4 of terminal block, TB2.

4) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

(1) Do an operational check of the airstair:

(a) Use the external controls to extend and retract the airstair in the NORMAL mode.

(b) If the airstair extends and retracts at the usual speed, then you corrected the fault.

——— END OF TASK ———

843. Forward Airstair Tread Lights Do Not Operate Correctly - Fault Isolation

A. Description

(1) (SDS SUBJECT 52-61-00)

B. Possible Causes

(1) Airstair Internal Control Panel, M1889

(2) Forward airstair tread lights circuit breaker, C270

(3) Airstair Normal Extend Limit Switch, S3

(4) Wiring Problem

C. Circuit Breakers

(1) This is the primary circuit breaker related to the fault:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	18	C00270	FWD AIRSTAIR TREAD LIGHT

D. Related Data

(1) (WDM 33-46-11)

(2) (SSM 33-46-11)

(3) (CMM 52-60-10)

E. Initial evaluation

(1) Make sure the Light switch on the Forward Airstair Control Panel, M1889 is in the AUTO position.

(2) Use the internal controls to fully extend the airstair in the NORMAL mode.

(3) Make sure the tread lights are off while the airstair extends.

(4) After the airstair is fully extended, make sure the tread lights are on.

(5) Turn the Light switch to the ON position.

(6) Make sure the tread lights are on.

(7) If the tread lights were on and off at the applicable times, then there was an intermittent fault.

(8) If the tread lights were not on or off at the applicable times, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Do this check of the Forward Airstair Control Panel, M1889 and wiring:

(a) Make sure the Light switch is in the AUTO position.

(b) Disconnect the airstair connector P1 from connector D934.

(c) Do a check for 28 VAC between structure ground and pins 3 and 4 of connector D934.

(d) Turn the Light switch to the ON position.

(e) Do a check for 28 VAC between structure ground and pins 11 and 12 of connector D934.

(f) Do a check for continuity between structure ground and pin 2 of connector D934.

(g) Re-connect connector P1 to connector D934.

(h) If there is not continuity between structure ground and pin 2 of connector D934, then do these steps:

1) Repair the wiring between pin 2 of connector D934 and structure ground.

2) Do the Repair Confirmation at the end of this task.

(i) If there is continuity between structure ground and pin 2 of connector D934, then continue.

(j) If there is 28 VAC at pins 3, 4, 11 and 12 of connector D934, then do the check of the normal extend limit switch, S3.

(k) If there is not 28 VAC at pins 3, 4, 11 and 12 of connector D934, then continue.

(l) Remove the control panel, M1889 from the forward attendant panel, P13.

(m) Disconnect the P1 connector on the M1889 from the J1 connector on the forward attendant panel P13.

(n) Do a check for 28 VAC at pin 85 of connector J1 on the P13 panel.

(o) If there is not 28 VAC on pin 85, then do these steps:

1) Re-connect connectors P1 and J1.

2) Re-install the control panel, M1889.

3) Do the check of the airstair tread lights circuit breaker, C270.

(p) If there is 28 VAC on pin 85, then continue.

(q) Turn the Light switch to the AUTO position.

(r) Do a check for continuity between pins 2 and 85 of connector P1 on the M1889 panel.

(s) Turn the Light switch to the ON position.

(t) Do a check for continuity between pins 24 and 85 of connector P1 on the M1889 panel.

(u) If there is not continuity when the Light switch is in the AUTO and ON positions, then do these steps:

1) Install a new control panel, M1889.

2) Do the Repair Confirmation at the end of this task.

(v) If there is continuity when the Light switch is in the AUTO and ON positions, then do these steps:

1) Repair the wiring between pins 3, 4, 11 and 12 of connector D934 and the control panel, M1889.

2) Re-connect connectors P1 and J1.

3) Re-install the control panel, M1889.

4) Do the Repair Confirmation at the end of this task.

(2) Do the check of this circuit breaker and wiring:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	18	C00270	FWD AIRSTAIR TREAD LIGHT

(a) Open the P6-4 circuit breaker panel.

(b) Do a check for 28 VAC between the load side terminal of this circuit breaker and structure ground:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	18	C00270	FWD AIRSTAIR TREAD LIGHT

(c) If there is not 28 VAC between the load side terminal of this circuit breaker and structure ground, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	18	C00270	FWD AIRSTAIR TREAD LIGHT

1) Open this circuit breaker and install safety lock:

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
C	6	C02048	P6 DIST

2) Replace this circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	18	C00270	FWD AIRSTAIR TREAD LIGHT

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

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
C	6	C02048	P6 DIST

4) Close the P6-4 circuit breaker panel.

5) Do the Repair Confirmation at the end of this task.

(d) If there is 28 VAC between the load side terminal of this circuit breaker and structure ground, then do these steps:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	18	C00270	FWD AIRSTAIR TREAD LIGHT

1) Repair the wiring between the load side terminal of this circuit breaker and pin 85 of connector J1 on the P13 panel:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	18	C00270	FWD AIRSTAIR TREAD LIGHT

2) Close the P6-4 circuit breaker panel.

3) Do the Repair Confirmation at the end of this task.

(3) Do this check of the normal airstair extend limit switch, S3 and wiring:

(a) Make sure the airstair is fully extended.

(b) Disconnect the airstair connector P1 from connector D934.

(c) Do a check for continuity between pins 3 and 11 of connector P1.

(d) Do a check for continuity between pins 4 and 12 of connector P1.

(e) Re-connect connector P1 to connector D934.

(f) If there is not continuity between the two sets of pins, then do these steps:

1) Do this task: Extend Limit Switches (S3 and S4) Adjustment, AMM TASK 52-61-15-820-801.

2) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

3) Replace the switch, S3.

These are the tasks:

Extend Limit Switches (S3 and S4) Removal, AMM TASK 52-61-15-000-801,

Extend Limit Switches (S3 and S4) Installation, AMM TASK 52-61-15-400-801.

4) Do the Repair Confirmation at the end of this task.

a) If the Repair Confirmation is not satisfactory, then continue.

5) Repair the wiring between pins 3, 4, 11 and 12 of connector P1 and the switch, S3.

6) Do the Repair Confirmation at the end of this task.

(g) If there is continuity between the two sets of pins, then continue.

(h) Use the external controls to retract the airstair until the switch, S3 is not operated.

(i) Disconnect the airstair connector P1 from connector D934.

(j) Do a continuity check between these pins of the connector, P1.

CONNECTOR P1		CONNECTOR P1
pin 3	. . . . .	pin 11
pin 4	. . . . .	pin 12
pin 2	. . . . .	pin 11
pin 2	. . . . .	pin 12

(k) Re-connect the connector P1 to connector D934.

(l) If there is continuity between pins 3 and 11, or pins 4 and 12 of connector P1, then do these steps:

1) Replace the switch, S3.

These are the tasks:

Extend Limit Switches (S3 and S4) Removal, AMM TASK 52-61-15-000-801,

Extend Limit Switches (S3 and S4) Installation, AMM TASK 52-61-15-400-801.

2) Do the Repair Confirmation at the end of this task.

(m) If there is not continuity between pins 2 and 11, or pins 2 and 12 of connector P1, then do these steps:

1) Repair the wiring between the pins 2 and 11 or the pins 2 and 12 of connector P1.

2) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

(1) Do an operational check of the airstair tread lights:

(a) Use the internal controls to retract the airstair.

(b) Make sure the Light switch on the M1889 Forward Airstair Control Panel is in the AUTO position.

(c) Use the internal controls to fully extend the airstair in the NORMAL mode.

(d) Make sure the tread lights are off while the airstair extends.

(e) After the airstair is fully extended, make sure the tread lights are on.

(f) Turn the Light switch to the ON position

(g) Make sure the tread lights are on.

(h) If the tread lights were on and off at the applicable times, then you corrected the fault.

——— END OF TASK ———

851. Top Step of the Forward Airstair is not Stable when the Airstairs are extended.

A. Description

(1) The top step of the forward airstair is not stable when the airstairs are extended.

B. Possible Causes

(1) Airstair Actuator Rollers

(2) Airstair Actuator Blocks

(3) Airstair Adjustment

C. Related Data

(1) (WDM 52-61-11)

(2) (SSM 52-61-11)

D. Fault Isolation Procedure

(1) Do this Task, AMM TASK 52-61-10-211-801

E. Repair Confirmation

(1) Do this Task, AMM TASK 52-61-00-860-801

(a) If the top step of the airstair is stable, you have corrected the problem.

(b) Do this Task, AMM TASK 52-61-00-860-802

——— END OF TASK ———

852. Forward Airstair Uncommanded Motion - Fault Isolation

A. Description

(1) This task is for this observed fault:

(a) The Forward Airstair had uncommanded motion.

(2) This observed fault cannot be replicated during maintenance. It is recommended that you keep a maintenance record of this fault occuring to help in the troubleshooting of this fault.

B. Possible Causes

(1) Forward Airstair Control Panel, M1889

(2) Normal Extend Limit Switch, S3

(3) RETRACT/EXTEND Switch, S1124

(4) Forward Airstair Door Open - Normal Relay, R80

(5) Forward Airstair Door Open - Standby Relay, R82

(6) Normal Extend/Retract Relay, K1

(7) Standby Extend/Retract Relay, K2

(8) Wiring

C. Circuit Breakers

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

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

D. Related Data

(1) CMM 52-60-10

(2) SDS SUBJECT 52-61-00

(3) SSM 52-61-11

(4) WDM 52-61-11

E. Initial Evaluation

(1) This Observed Fault cannot be replicated by maintenance.

(2) Use the references above to identify the most probable cause and do the necessary troubleshooting steps. Keep a maintenance record to help you troubleshoot the fault if it re-occurs again.

(3) Do the steps in the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Replace the Forward Airstair Control Panel, M1889. These are the tasks:

- Attendant's Panel and Components Removal, AMM TASK 25-25-11-000-801
- Attendant's Panel and Components Installation, AMM TASK 25-25-11-400-801

(a) Do the Repair Confirmation at the end of this task.

(2) Adjust the Extend Limit Switches, S3 and S4. This is the task: Extend Limit Switches (S3 and S4) Adjustment, AMM TASK 52-61-15-820-801.

(a) If you find a problem during adjustment, then do these steps:

1) Repair the wiring or replace the Extend Limit Switch, S3 or S4, as necessary. These are the tasks:

- Extend Limit Switches (S3 and S4) Removal, AMM TASK 52-61-15-000-801
- Extend Limit Switches (S3 and S4) Installation, AMM TASK 52-61-15-400-801

2) Do the Repair Confirmation at the end of this task.

(b) If you do not find a problem during adjustment, then continue.

(3) Do this check of the RETRACT/EXTEND Switch, S1124 and the wiring (SSM 52-61-11):

(a) Remove the S1124 and S1125 Switches. This is the task: Forward Airstair Exterior Control Switches (S1124 and S1125) Removal, AMM TASK 52-61-53-000-804.

(b) Do the continuity check between the NORMAL/STANDBY Switch, S1125 and the RETRACT/EXTEND Switch, S1124:

RETRACT/EXTEND Switch, S1124 Terminal	**NORMAL/STANDBY Switch, S1125 Terminal**
terminal 1	terminal 2
terminal 2	terminal 8
terminal 3	terminal 5

1) If there was a problem with the wiring, then do these steps:

a) Repair the wiring.

b) Re-install the S1124 and S1125 Switches. This is the task: Forward Airstair Exterior Control Switches (S1124 and S1125) Installation, AMM TASK 52-61-53-420-802.

c) Do the Repair Confirmation at the end of this task.

2) If there was not a problem with the wiring, then do these steps:

a) Replace the S1124 Switch. These are the tasks:

- Forward Airstair Exterior Control Switches (S1124 and S1125) Removal, AMM TASK 52-61-53-000-804
- Forward Airstair Exterior Control Switches (S1124 and S1125) Installation, AMM TASK 52-61-53-420-802

<1> Do the Repair Confirmation at the end of this task.

b) Replace the S1125 Switch. These are the tasks:

- Forward Airstair Exterior Control Switches (S1124 and S1125) Removal, AMM TASK 52-61-53-000-804
- Forward Airstair Exterior Control Switches (S1124 and S1125) Installation, AMM TASK 52-61-53-420-802

<1> Do the Repair Confirmation at the end of this task.

(4) Do this check of the Forward Airstair Door Open - Normal Relay, R80 and wiring (WDM 52-61-11):

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

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

(b) Disconnect connector D40628P from the Junction Box, J23.

(c) Remove a cover from the Junction Box, J23.

(d) Remove the Forward Airstair Door Open - Normal Relay, R80 and Forward Airstair Door Close - Normal Relay, R81 from the Junction Box, J23.

(e) Do a continuity check as follows:

JUNCTION BOX, J23 D40628J		FWD AIRSTAIR DOOR OPEN - NORMAL, R80 D12368
pin 1	. . . . .	socket A2
pin 5	. . . . .	socket B3
pin 7	. . . . .	socket A1

FWD AIRSTAIR DOOR CLOSE - NORMAL, R81 D12370		FWD AIRSTAIR DOOR OPEN - NORMAL, R80 D12368
socket B2	. . . . .	socket X1
socket A2	. . . . .	socket A2

(f) Make sure that socket X2 of relay socket D12368 has continuity to the Structure Ground.

1) If there is no continuity, then do these steps:

a) Repair the wiring.

b) Re-install the Forward Airstair Door Open - Normal Relay, R80 and Forward Airstair Door Close - Normal Relay, R81.

c) Re-install a cover to the Junction Box, J23.

d) Re-connect connector D40628P.

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

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

f) Do the Repair Confirmation at the end of this task.

2) If there is continuity, then do these steps:

a) Re-install the Forward Airstair Door Close - Normal Relay, R81.

b) Install a new Forward Airstair Door Open - Normal Relay, R80.

c) Re-install a cover to the Junction Box, J23.

d) Re-connect connector D40628P.

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

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

f) Do the Repair Confirmation at the end of this task.

(5) Do this check of the Forward Airstair Door Open - Standby Relay, R82 and wiring (WDM 52-61-11):

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

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

(b) Disconnect connector D40628P from the Junction Box, J23.

(c) Remove a cover from the Junction Box, J23.

(d) Remove the Forward Airstair Door Open - Standby Relay, R82 and Forward Airstair Door Close - Standby Relay, R83 from the Junction Box, J23.

(e) Do a continuity check as follows:

JUNCTION BOX, J23 D40628J	**FWD AIRSTAIR DOOR OPEN - STANDBY, R82 D12372**
pin 2	socket A2
pin 14	socket B3
pin 10	socket A1

FWD AIRSTAIR DOOR CLOSE - STANDBY, R83 D12374	**FWD AIRSTAIR DOOR OPEN - STANDBY, R82 D12372**
socket B2	socket X1
socket A2	socket A2

(f) Make sure that socket X2 of relay socket D12372 has continuity to the Structure Ground.

1) If there is no continuity, then do these steps:

a) Repair the wiring.

b) Re-install the Forward Airstair Door Open - Standby Relay, R82 and Forward Airstair Door Close - Standby Relay, R83.

c) Re-install a cover to the Junction Box, J23.

d) Re-connect connector D40628P.

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

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

f) Do the Repair Confirmation at the end of this task.

2) If there is continuity, then do these steps:

a) Re-install the Forward Airstair Door Close - Standby Relay, R83.

b) Install a new Forward Airstair Door Open - Standby Relay, R82.

c) Re-install a cover to the Junction Box, J23.

d) Re-connect connector D40628P.

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

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

f) Do the Repair Confirmation at the end of this task.

(6) Do this check of the Normal Extend/Retract Relay, K1 and the Standby Extend/Retract Relay, K2 (WDM 52-61-11):

(a) Replace the Relays.

1) Do the Repair Confirmation at the end of this task.

(b) Refer to the (WDM 52-61-11) to do a wiring check of the relays.

1) If you find a problem with the wiring, then do these steps:

a) Repair the wiring.

b) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

(1) Do the Forward Airstair Operational Test, AMM TASK 52-61-00-710-801.

(2) Monitor the airplane in subsequent operation.

(a) If the uncommanded motion observed fault does not re-occur, then you have corrected the fault.

(b) If the uncommanded motion observed fault re-occurs, then continue to do the Fault Isolation Procedure.

——— END OF TASK ———

801. Airline Method Procedure - Fault Isolation

A. Initial Evaluation

NOTE: Use the standard method of your airline to correct this fault.

END OF TASK