

CHAPTER

52

DOORS



737-600/700/800/900

FAULT ISOLATION MANUAL

CHAPTER 52

DOORS

Page	Date	COC	Page	Date	COC	Page	Date	COC
EFFECTIVE PAGES			52-20 TASKS (cont)			52-40 TASKS (cont)		
1	Jun 15/2009		205	Feb 15/2009		204	Jun 10/2006	
2	BLANK		206	Feb 15/2009		52-50 TASKS		
52-HOW TO USE THE FIM			207	Feb 15/2008		201	Jun 10/2007	
1	Feb 10/2005		208	Feb 15/2009		202	Jun 10/2007	
2	Feb 10/2005		209	Feb 15/2009		203	Jun 10/2007	
3	Jun 10/2006		210	Feb 15/2009		204	Feb 15/2009	
4	Oct 10/2006		211	Feb 15/2009		205	Feb 15/2009	
5	Feb 10/2005		212	Feb 15/2009		206	Feb 15/2009	
6	Feb 10/2005		213	Feb 15/2008		207	Feb 15/2009	
52-FAULT CODE INDEX			214	Feb 15/2008		208	Feb 15/2009	
101	Jun 15/2008		215	Feb 15/2008		209	Feb 15/2009	
102	BLANK		216	Feb 15/2009		210	Feb 15/2009	
52-MAINT MSG INDEX			217	Feb 15/2009		211	Feb 15/2009	
R 101	Jun 15/2009		218	Feb 15/2009		212	Feb 15/2009	
O 102	Jun 15/2009		R 219	Jun 15/2009		213	Feb 15/2009	
103	Jun 10/2007		O 220	Jun 15/2009		214	Feb 15/2009	
104	Oct 10/2007		221	Feb 15/2009		215	Feb 15/2009	
52-10 TASKS			R 222	Jun 15/2009		216	BLANK	
R 201	Jun 15/2009		223	Feb 15/2009		52-60 TASKS		
R 202	Jun 15/2009		224	Feb 15/2008		201	Feb 15/2009	
R 203	Jun 15/2009		225	Feb 15/2008		202	Feb 15/2009	
O 204	Jun 15/2009		226	Feb 15/2008		203	Feb 15/2009	
O 205	Jun 15/2009		227	Feb 15/2008		204	Feb 15/2009	
O 206	Jun 15/2009		228	Feb 15/2009		205	Feb 15/2009	
O 207	Jun 15/2009		229	Feb 15/2008		206	BLANK	
O 208	Jun 15/2009		230	Feb 15/2009		52-99 TASKS		
O 209	Jun 15/2009		231	Feb 15/2008		201	Jun 10/2006	
O 210	Jun 15/2009		232	BLANK		202	BLANK	
O 211	Jun 15/2009		52-30 TASKS					
O 212	Jun 15/2009		201	Feb 10/2005				
O 213	Jun 15/2009		202	Feb 10/2005				
O 214	Jun 15/2009		203	Oct 15/2008				
A 215	Jun 15/2009		204	Feb 10/2005				
A 216	BLANK		205	Feb 10/2005				
52-20 TASKS			206	Oct 10/2006				
201	Feb 15/2009		52-40 TASKS					
202	Feb 15/2008		201	Jun 10/2006				
203	Feb 15/2008		202	Jun 10/2006				
204	Feb 15/2009		203	Jun 10/2006				

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

52-EFFECTIVE PAGES

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

YOU FIND A FAULT WITH
AN AIRPLANE SYSTEM

These are the possible types
of faults:

1. Observed Fault
2. Cabin Fault



USE BITE TO GET
MORE INFORMATION

If you did a BITE test already,
then you can go directly to the
fault isolation procedure for
the maintenance message.

For details, see Figure 2 →



GO TO THE
FAULT ISOLATION
TASK IN THE FIM

Use the fault code or description
to find the task in the FIM. There
is a numerical list of fault codes
in each chapter. There are lists
of fault descriptions at the front
of the FIM.

For details, see Figure 3 →



FOLLOW THE STEPS OF THE
FAULT ISOLATION TASK

The fault isolation task explains
how to find the cause of the fault.
When the task says "You corrected
the fault" you know that the fault
is gone.

For details, see Figure 4 →

Basic Fault Isolation Process
Figure 1

EFFECTIVITY
HAP ALL

52-HOW TO USE THE FIM

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

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

A maintenance message can be any of these:

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

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

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

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

Getting Fault Information from BITE
Figure 2

EFFECTIVITY
HAP ALL

52-HOW TO USE THE FIM

IF YOU HAVE:

THEN DO THIS TO FIND THE TASK IN THE FIM:

FAULT CODE

1. The first two digits of the fault code are the FIM chapter that you need. Go to the Fault Code Index in that chapter and find the fault code. If the fault code starts with a letter, then go to the Cabin Fault Code Index at the front of the FIM.
2. Find the task number on the same line as the fault code. Go to the task in the FIM and do the steps in the task (see Figure 4).

OBSERVED FAULT DESCRIPTION

1. Go to the Observed Fault List at the front of the FIM and find the best description for the fault.
2. Find the task number on the same line as the fault description. Go to the task in the FIM and do the steps of the task (see Figure 4).

CABIN FAULT DESCRIPTION

1. Go to the Cabin Fault List at the front of the FIM and find the best description for the fault.
2. Find the task number on the same line as the fault description. Go to the task in the FIM and do the steps of the task (see Figure 4).

MAINTENANCE MESSAGE (FROM BITE)

1. Go to the Maintenance Message Index in the chapter for the LRU (the front of each Index gives you the chapter number for all LRUs). Find the maintenance message in the Index.
2. Find the task number on the same line as the maintenance message. Go to the task in the FIM and do the steps in the task (see Figure 4).

Finding the Fault Isolation Task in the FIM
Figure 3

EFFECTIVITY
HAP ALL

52-HOW TO USE THE FIM

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

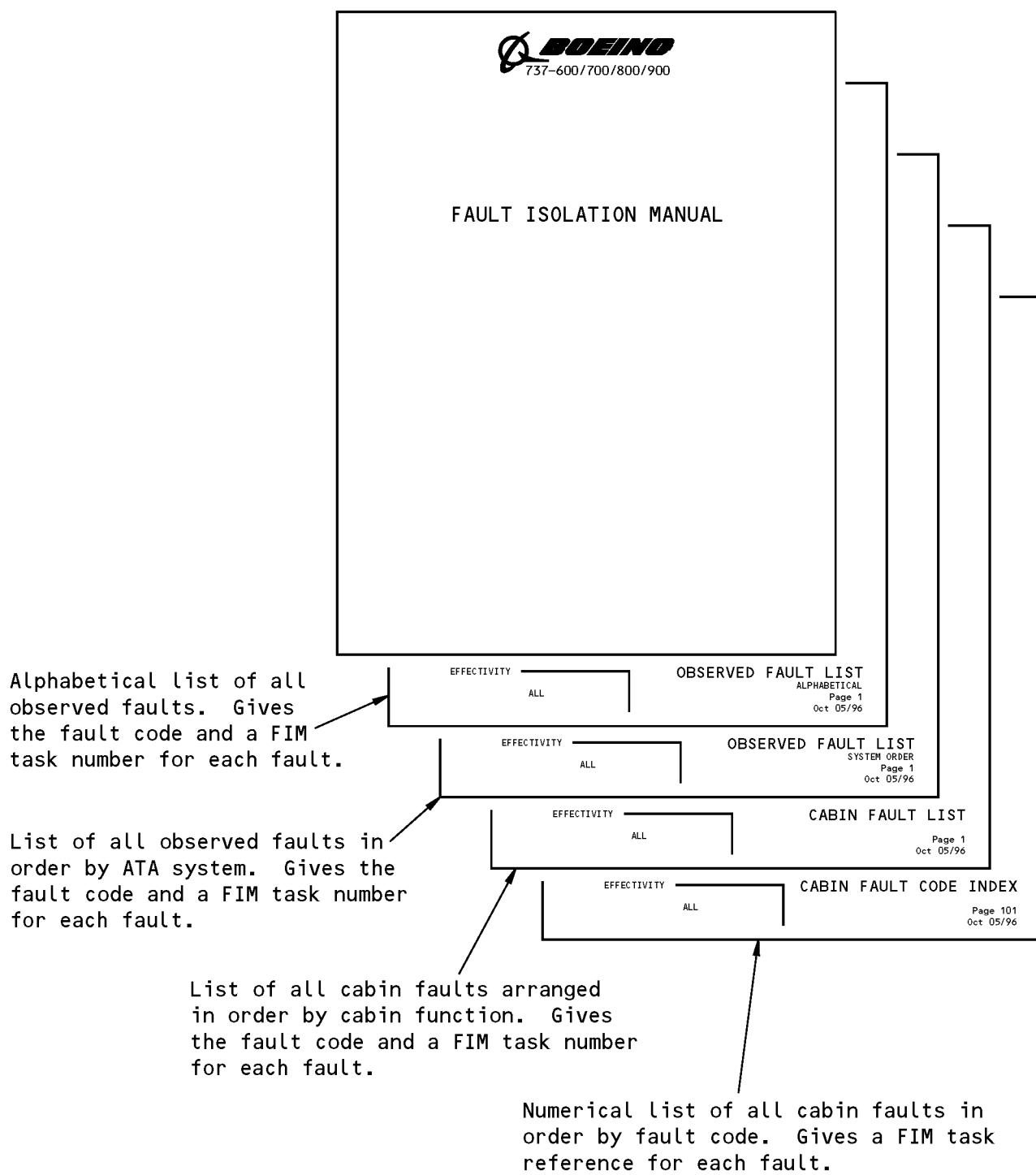
- Do the steps of the task in the specified order. The "If ... then" statements that you see will guide you along the correct path.
- When you are at the endpoint of the path, the step says "...you corrected the fault." Complete the step and exit the procedure.

Doing the Fault Isolation Task
Figure 4

EFFECTIVITY
HAP ALL

52-HOW TO USE THE FIM

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



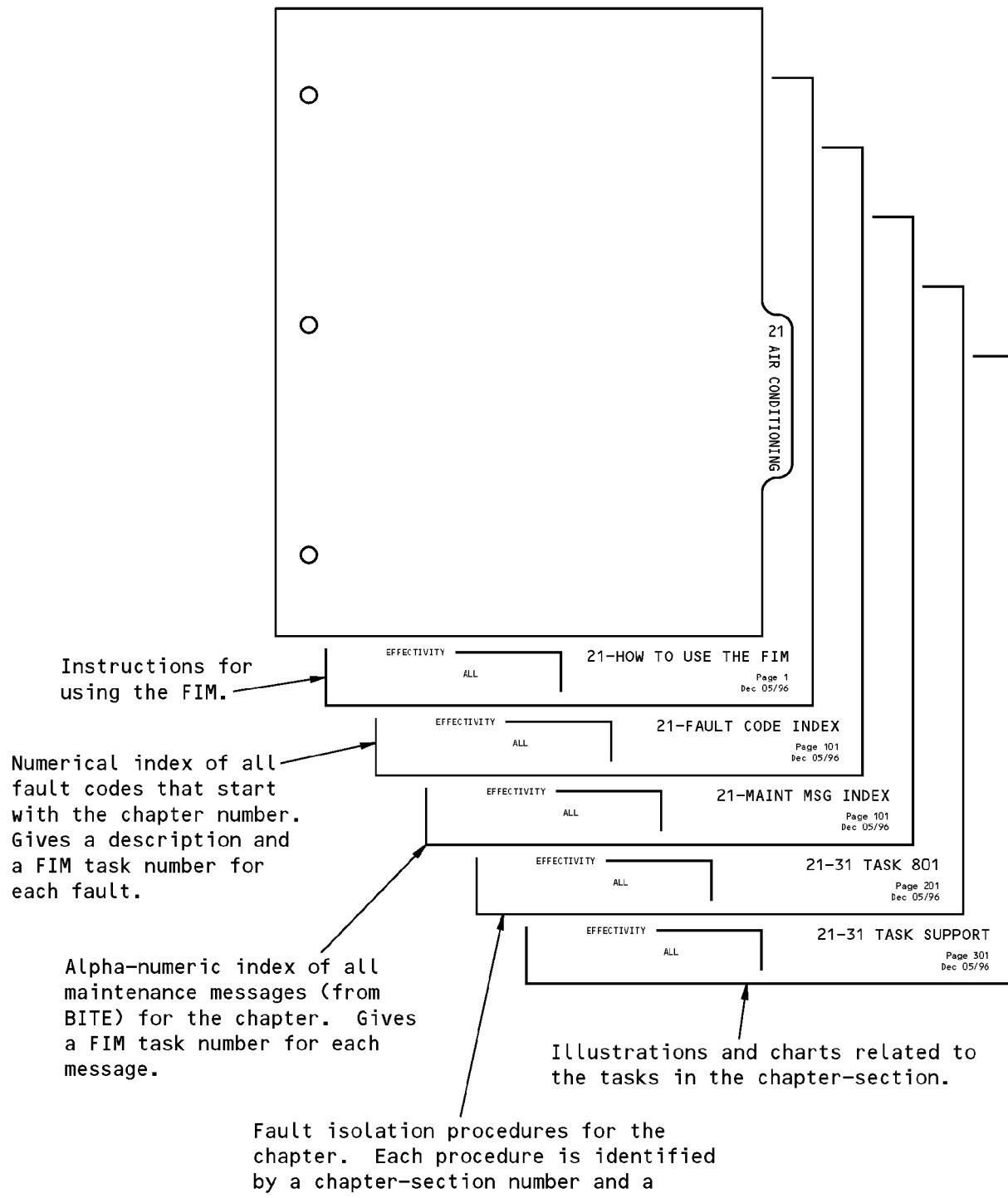
Subjects at Front of FIM
Figure 5



52-HOW TO USE THE FIM

Page 5
Feb 10/2005


BOEING®
737-600/700/800/900
FAULT ISOLATION MANUAL



Subjects in Each FIM Chapter
 Figure 6



52-HOW TO USE THE FIM



737-600/700/800/900

FAULT ISOLATION MANUAL

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
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
524 010 00	Galley service door exterior handle: difficult to operate.	52-10 TASK 811
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



52-FAULT CODE INDEX



737-600/700/800/900

FAULT ISOLATION MANUAL

<u>LRU/SYSTEM</u>	<u>SHORT NAME</u>	<u>CHAPTER</u>
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
Automatic Direction Finder Receiver - 1	ADF RECVR - 1	34
Autothrottle System	A/T	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 - Forward	CEU - FWD	26
Cargo Electronic Unit - Lower	CEU - LOWER	26
Cargo Electronic Unit - Main Aft	CEU - MAIN AFT	26
Cargo Electronic Unit - Main Forward	CEU - MAIN FWD	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	ENG ACCY UNIT	78
Engine and Auxiliary Power Unit Fire Detection Control Module	ENG/APU FIRE	26
Flap/Slat Electronics Unit	FSEU	27
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
Head Up Display	HUD	34

EFFECTIVITY
HAP ALL

52-MAINT MSG INDEX



737-600/700/800/900

FAULT ISOLATION MANUAL

<u>LRU/SYSTEM</u>	<u>SHORT NAME</u>	<u>CHAPTER</u>
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
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

EFFECTIVITY
HAP ALL

52-MAINT MSG INDEX



737-600/700/800/900

FAULT ISOLATION MANUAL

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	Reference Not Currently Available
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



52-MAINT MSG INDEX



737-600/700/800/900

FAULT ISOLATION MANUAL

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
PSEU	52-72023 R FWD OW SW DSGR	52-20 TASK 805
PSEU	52-72024 FOUR OW OPT FLT	52-20 TASK 804
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
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	52-76014 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



52-MAINT MSG INDEX



737-600/700/800/900

FAULT ISOLATION MANUAL

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

B. Possible Causes

- (1) The applicable sensor for the maintenance message listed above:
 - (a) Forward entry door indication sensor, S199
 - (b) Aft entry door indication sensor, S200
 - (c) Forward galley service door indication sensor, S194
 - (d) Aft galley service door indication sensor, S195
- (2) Wiring
- (3) Proximity switch electronics unit (PSEU), M2061

C. Related Data

- (1) (SSM 52-71-11)
- (2) (WDM 52-71-11)

D. Initial Evaluation

- (1) Look for any obvious damage to the applicable sensor, target, and adjacent structure.
 - (a) If you find any damage, then do the Fault Isolation Procedure below.
 - (b) If there is no obvious damage, then continue.
- (2) Do this check at 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 applicable entry or galley service door indication sensor is displayed:
 - 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.



52-10 TASK 801



737-600/700/800/900

FAULT ISOLATION MANUAL

- (j) Push the YES switch to display the sensor status.
- (k) If the sensor status is TGT NEAR, then do this other test of the sensor state:
 - 1) Put a deactuator on the sensor face.

NOTE: The deactuator is part of this tool set: proximity sensor test set, SPL-1690.
 - 2) If the display shows TGT FAR, then there was an intermittent fault. Do the following task to verify that the sensor clearance is correct: Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200), AMM TASK 52-71-11-820-801.
 - 3) If the display still shows TGT NEAR, then do the Fault Isolation Procedure below.
- (l) If the sensor status is TGT FAR or FAILSAFE, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) If you found any obvious damage to the applicable sensor, target, and adjacent structure, then do these steps:
 - (a) Repair the damage.
 - (b) Perform the PSEU check located in the initial evaluation.
 - (c) If a maintenance message shows, then continue..
- (2) If the sensor status is TGT NEAR, with a deactuator installed, then do these steps:
 - (a) For the forward entry door do the following:
 - 1) Do this task: Forward Entry Door Indication Sensor Plunger Adjustment (S199), AMM TASK 52-71-11-820-803.
 - 2) Open the forward entry 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 does show, then continue.
 - (b) Do this task: Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200), AMM TASK 52-71-11-820-801.
 - (c) Open the applicable entry or galley service door.
 - (d) Close and latch the door.
 - (e) If the maintenance message does not show, then you corrected the fault.
 - (f) If the maintenance message does show, 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) Open the applicable entry or galley service 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 does show, then continue.
 - (g) Replace the PSEU, M2061.





737-600/700/800/900

FAULT ISOLATION MANUAL

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.

- (h) Open the applicable entry or galley service door.
- (i) Close and latch the door.
- (j) If the maintenance message does not show, then you corrected the fault.

(3) If the sensor status is TGT FAR without a deactuator 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.
- (b) Open the applicable entry or galley service 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 does show, 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) Open the applicable entry or galley service door.
- 3) Close and latch the door.
- 4) If the maintenance message does not show, then you corrected the fault.

(4) If the sensor status is FAILSAFE, then do this check of the wiring 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:

D10988	S199
pin 19 -----	red
pin 36 -----	blue
ground -----	yellow

D10986	S200
pin 19 -----	red
pin 36 -----	blue
ground -----	yellow



52-10 TASK 801



737-600/700/800/900

FAULT ISOLATION MANUAL

D10988	S194
pin 58 -----	red
pin 57 -----	blue
ground -----	yellow

D10986	S195
pin 58 -----	red
pin 57 -----	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) Reactivate the sensor.
 - 4) Open the applicable entry or galley service door.
 - 5) Close and latch the door.
 - 6) If the maintenance message does not show, then you corrected the fault.

————— 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

HAP 006-010

- (e) 52-76012 AIRSTAIR WARN FLT

HAP 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





737-600/700/800/900

FAULT ISOLATION MANUAL

(g) Aft entry door light, L8

HAP 006-010

(h) Airstairs light, L9

HAP ALL

(2) Wiring

(3) 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. To do this, 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.

HAP 006-010

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

HAP 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.





737-600/700/800/900

FAULT ISOLATION MANUAL

- 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	_____
AFT CARGO, L2	D10986	D482
	pin 33	_____
AFT ENTRY, L8	D10986	D1406
	pin 60	_____
AFT SERVICE, L4	D10986	D1406
	pin 59	_____

HAP 006-010

AIRSTAIRS, L9	D10988	D1406
	pin 37	_____

HAP ALL

FWD CARGO, L1	D10988	D1406
	pin 37	_____
FWD ENTRY, L7	D10988	D1406
	pin 20	_____
FWD SERVICE, L3	D10988	D1406
	pin 59	_____

- (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.

**52-10 TASK 802**

FAULT ISOLATION MANUAL

- 6) If the maintenance message does show, then continue.
 - (e) If you did not find a problem with the wiring, then continue.
- (3) 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: 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.

**52-10 TASKS 802-807**

FAULT ISOLATION MANUAL

- 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) (SDS SUBJECT 52-10-00)

B. Possible Causes

- (1) Handle box assembly.



52-10 TASKS 807-808



737-600/700/800/900

FAULT ISOLATION MANUAL

C. Fault Isolation Procedure

- (1) Remove the applicable door lining:
 - (a) Do this task: Forward Entry Door Lining Removal, AMM TASK 52-11-31-000-802.
 - (b) Do this task: Aft Entry Door Lining Removal, AMM TASK 52-13-31-000-802.
 - (c) Do this task: 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 both cam follower crank assemblies are correctly installed.
 - (b) Make sure all handle fasteners to the hub are installed and tight.
 - (c) Make sure hub fasteners to the cam plate are installed and tight.
 - (d) Make sure 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:
 - (a) Do this task: Forward Entry Door Lining Installation, AMM TASK 52-11-31-400-802.
 - (b) Do this task: Aft Entry Door Lining Installation, AMM TASK 52-13-31-400-802.
 - (c) Do this task: 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 handle stays in position for both latched and unlatched positions, you have corrected the fault.

————— END OF TASK —————

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

A. Description

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

B. Possible Causes

- (1) Guide arm
- (2) Snubber

C. Fault Isolation Procedure

- (1) To fault isolate the hold open latch on the forward entry door, do these procedures:
 - (a) Open the door fully to engage the door hold open latch.
 - (b) Press the yellow release lever on the guide arm to release the hold open latch.
 - (c) If the hold open latch operates easily, then the fault was intermittent.
 - (d) If the hold open latch is hard to operate, then do these steps:
 - 1) To disassemble the hold open mechanism or to remove the roller, do this task: Forward Entry Door Guide Arm and Roller Removal, AMM TASK 52-11-21-000-802.
 - 2) Look for wear or damage to the hold open mechanism or to the roller.
 - 3) Make sure the spring on the hold open mechanism is correctly installed.
 - 4) If you find a problem, repair it and do these tasks:



52-10 TASKS 808-809



737-600/700/800/900

FAULT ISOLATION MANUAL

- a) Do this task: Forward Entry Door Guide Arm and Roller Installation, AMM TASK 52-11-21-400-802.

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

NOTE: Only do the guide arm adjustment.

- c) Do the Repair Confirmation at the end of this task.

- (2) To fault isolate the hold open latch on the aft entry door or the galley doors, do these procedures.

- (a) Open the door fully to engage the door hold open latch.

- (b) Press the yellow release button on the guide arm to release the hold open latch.

- (c) If the hold open latch operates easily, then the fault was intermittent.

- (d) If the release button is hard to operate, then do these steps:

- 1) Remove the roller for applicable door;

- a) For the aft entry door, do this task: Aft Entry Door Guide Arm and Roller Removal, AMM TASK 52-13-21-000-802.

- b) For the galley door, do this task: Galley Service Door Guide Arm and Roller Removal, AMM TASK 52-41-21-000-801.

- 2) Remove the snubber for applicable door;

- a) For the aft entry door, do this task: Aft Entry Door Removal, AMM TASK 52-13-00-000-802.

- b) For the galley door, do this task: Galley Service Door Removal, AMM TASK 52-41-00-000-801.

- 3) Look for wear or damage to the roller assembly.

- 4) Make certain that the snubber is not bottomed out.

- 5) If you find a problem, repair it.

- 6) Install the roller for applicable door;

- a) For the aft entry door, do this task: Aft Entry Door Guide Arm and Roller Installation, AMM TASK 52-13-21-400-802.

- b) For the galley door, do this task: Galley Service Door Guide Arm and Roller Removal, AMM TASK 52-41-21-000-801.

- 7) Install the snubber on applicable door;

- a) For the aft entry door, do this task: Aft Entry Door Installation, AMM TASK 52-13-00-400-802.

NOTE: Only do the aft entry door snubber installation.

- b) For the galley door, do this task: Galley Service Door Installation, AMM TASK 52-41-00-400-801.

NOTE: Only do the galley door snubber installation.

- 8) For the aft entry door, do this task: Aft Entry Door Adjustment, AMM TASK 52-13-00-820-801.

- 9) For the galley door, do this task: Galley Service Door Adjustment, AMM TASK 52-41-00-820-801.

NOTE: Only do the guide arm snubber or adjustment.

- 10) Do the Repair Confirmation steps below.



D. Repair Confirmation

- (1) Open the door fully until the hold open latch engages.
- (2) On forward entry door, press yellow lever on guide arm.
- (3) On aft entry door or galley door, press yellow release button on guide arm.
 - (a) The hold open latch should operate easily.

————— 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 —————



52-10 TASKS 809-810



737-600/700/800/900

FAULT ISOLATION MANUAL

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 will not stow.
- (4) Forward entry door (SDS SUBJECT 52-10-00).
- (5) Aft entry door (SDS SUBJECT 52-10-00).
- (6) Galley doors (SDS SUBJECT 52-40-00).

B. Possible Cause

- (1) Lubrication
- (2) Dirt and unwanted material
- (3) Horizontal control rod
- (4) Bearing
- (5) Spring

C. Fault Isolation Procedure

- (1) Do this check of the exterior door handle:
 - (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) Examine handle box and exterior handle assembly for damage or loose hardware.
 - (c) Remove dirt and unwanted material from handle box.
 - (d) If the exterior handle is hard to pull out, do these tasks:
 - 1) Lubricate applicable handle shaft:
 - 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: Galley Service Door Lubrication - Mechanism, AMM TASK 12-25-13-640-802.
 - d) Do the repair confirmation the end of this task.
 - e) If the Repair Confirmation is not satisfactory, then continue.
 - 2) Remove the applicable exterior door handle:
 - a) Do this task: Forward Entry Door Hinge Arm Removal, AMM TASK 52-11-11-000-802.
 - b) Do this task: Aft Entry Door Hinge Arm Removal, AMM TASK 52-13-11-000-802.
 - c) Do this task: Galley Service Door Hinge Arm Removal, AMM TASK 52-41-11-000-801.



FAULT ISOLATION MANUAL

- 3) Do a check of both handle housing O-rings for wear or damage and replace the O-rings if it is necessary.
 - a) Do the Repair Confirmation at the end of this task.
 - b) 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 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 do these tasks:
 - 1) Examine handle shaft bearing.
 - a) Make sure the shaft turns freely in the bearing and replace 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:
 - 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) Do the Repair Confirmation at the end of this task.
 - e) 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 will not stow, do these tasks:
 - 1) Do a check of the handle shaft spring for compression and replace spring if necessary.
 - a) Do the Repair Confirmation at the end of this task.
 - b) If the Repair Confirmation is not satisfactory, then continue.
 - 2) Do the horizontal rod adjustment for the applicable door:
 - a) Do this task: Forward Entry Door Adjustment, AMM TASK 52-11-00-820-801.
 - b) (AMM TASK 52-13-00-820-801)
 - c) (AMM TASK 52-41-00-820-801)
 - d) Do the Repair Confirmation at the end of this task.
 - e) If the Repair Confirmation is not satisfactory, then continue.
 - 3) 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.
 - 4) Install the applicable exterior door handle:
 - a) Do this task: Forward Entry Door Hinge Arm Installation, AMM TASK 52-11-11-400-802.
 - b) Do this task: Aft Entry Door Hinge Arm Installation, AMM TASK 52-13-11-400-802.
 - c) Do this task: Galley Service Door Hinge Arm Installation, AMM TASK 52-41-11-400-801.
 - d) Do the Repair Confirmation steps below.

**52-10 TASK 811**



737-600/700/800/900

FAULT ISOLATION MANUAL

D. 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 fault.
 - (a) 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.

————— 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: Door Seals Repair, AMM TASK 52-09-10-390-801.
- (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,



52-10 TASKS 811-812



737-600/700/800/900

FAULT ISOLATION MANUAL

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 —————



52-10 TASK 812

Page 215
Jun 15/2009

D633A103-HAP



737-600/700/800/900

FAULT ISOLATION MANUAL

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

HAP 001-013, 015-026, 028-054

- (d) 52-72006 L FWD FL SW FAULT
- (e) 52-72106 L FWD FL SW FAULT

HAP ALL

- (f) 52-72008 R FL SW FAULT
- (g) 52-72108 R FL SW FAULT

HAP 001-013, 015-026, 028-054

- (h) 52-72009 R FWD FL SW FAULT
- (i) 52-72109 R FWD FL SW FAULT

HAP 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) Flight lock solenoid, M2219 (left) or M2221 (right)

HAP 001-013, 015-026, 028-054

(2) Flight lock solenoid, M2220 (left forward) or M2222 (right forward)

HAP ALL

(3) Wire problem.

(4) Flight lock switch, S1112 (left) or S1114 (right)

HAP 001-013, 015-026, 028-054

(5) Flight lock switch, S1113 (left forward) or S1115 (right forward)

HAP ALL

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



52-20 TASK 801



737-600/700/800/900

FAULT ISOLATION MANUAL

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 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



52-20 TASK 801



737-600/700/800/900

FAULT ISOLATION MANUAL

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.

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

(4) 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 THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING LOADED TO OPEN AUTOMATICALLY AND INJURIES COULD OCCUR.

- (a) Make sure that the flight lock solenoid is in the locked position:
 - 1) Pull the overwing exit door handle to open the door.
 - 2) Make sure that the overwing wing exit door does not open.
- (b) Move the engine thrust levers to idle.
- (c) The following steps must occur at the same time:
 - 1) Stand by the overwing doors and prepare to listen for a delay between the left door and right door flight lock actuation.
 - 2) Move the thrust levers forward.
 - 3) Listen for the left and right door flight lock actuation to occur at the same time.
 - a) If a flight lock actuates 1 or more seconds after the others, replace the slow actuating solenoid assembly.
- (d) Move the engine thrust levers back to idle.
- (e) Move the engine start levers to CUTOFF.

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

- (f) Make sure that the flight lock solenoid is not in the locked position:
 - 1) Pull the overwing exit door handle to open the door.
 - 2) Make sure the overwing exit door will open
- (g) Do the Fault Isolation Procedure below.



52-20 TASK 801



737-600/700/800/900

FAULT ISOLATION MANUAL

- 1) 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.
 - 1) AMM TASK 52-22-51-000-801
 - (b) Do a continuity check between the terminals of the applicable flight lock solenoid.

Table 201

MAINTENANCE MESSAGE	SOLENOID	TERMINALS
52-72005 L FL SW FAULT	M2219	A, B
52-72007 L FL SW FAULT		
52-72107 L FL SW FAULT		
HAP 001-013, 015-026, 028-054		
52-72006 L FWD FL SW FAULT	M2220	A, B
52-72106 L FWD FL SW FAULT		
HAP ALL		
52-72008 R FL SW FAULT	M2221	A, B
52-72108 R FL SW FAULT		
HAP 001-013, 015-026, 028-054		
52-72009 R FWD FL SW FAULT	M2222	A, B
52-72109 R FWD FL SW FAULT		

HAP ALL

- 1) If there is no continuity, then replace the flight lock solenoid.
 - a) Emergency Exit Door Flight Lock Solenoid Removal, AMM TASK 52-22-41-000-802,
Emergency Exit Door Flight Lock Solenoid Installation, AMM TASK 52-22-41-400-802.
 - b) 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:





737-600/700/800/900

FAULT ISOLATION MANUAL

Table 202

MAINTENANCE MESSAGE NUMBER	RELAY CONNECTOR	SOLENOID CONNECTOR
52-72005	D12756	D40196P
52-72007		
52-72107	pin A1	pin 18
HAP 001-013, 015-026, 028-054		
52-72006	D12756	D40196P
52-72106	pin B1	pin 22
HAP ALL		
52-72008	D12758	D40296P
52-72108	pin A1	pin 24
HAP 001-013, 015-026, 028-054		
52-72009	D12758	D40296P
52-72109	pin B1	pin 27

HAP ALL

- 1) If you find a problem with the wire, then do these steps:
 - a) Repair or replace the wire.
 - <1> Re-install the applicable flight lock relay.
 - <2> Re-connect the electrical connector for the applicable flight lock solenoid.
 - b) 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 Running Relays (Eng 1 - R737, Eng 1 - 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.
 - a) 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 flightlock solenoid and the applicable relay:

**52-20 TASK 801**


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

Table 203

MAINTENANCE MESSAGE NUMBER	SOLENOID CONNECTOR	R737 CONNECTOR
52-72005	D40196P	D12538
52-72007		
52-72107	pin 17	pin A1
HAP 001-013, 015-026, 028-054		
52-72006	D40196P	D12538
52-72106	pin 17	pin A1
HAP ALL		
52-72008	D40296P	D12538
52-72108	pin 23	pin A1
HAP 001-013, 015-026, 028-054		
52-72009	D40296P	D12538
52-72109	pin 23	pin A1

Table 204

MAINTENANCE MESSAGE NUMBER	SOLENOID CONNECTOR	R738 CONNECTOR
52-72005	D40196P	D12540
52-72007		
52-72107	pin 17	pin B1
HAP 001-013, 015-026, 028-054		
52-72006	D40196P	D12540
52-72106	pin 17	pin B1
HAP ALL		
52-72008	D40296P	D12540
52-72108	pin 23	pin B1
HAP 001-013, 015-026, 028-054		
52-72009	D40296P	D12540
52-72109	pin 23	pin B1

HAP ALL

- 3) If you find a problem with the wires, then do these steps:
 - a) Repair or replace the wires.

<1> Re-connect the connector for the applicable flight lock solenoid.





737-600/700/800/900

FAULT ISOLATION MANUAL

<2> Re-install the applicable engine running relay.

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

4) If you do not find a problem with the wires, then replace the engine running relays (R737 and 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.
 - a) 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:

Table 205

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

6) If the continuity check is not correct, then replace the applicable flight lock switch.

a) 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.

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

7) 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:



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

Table 206

MAINTENANCE MESSAGE NUMBER	PSEU CONNECTOR	GROUND AT SWITCH
52-72005	D10986	
52-72007		
52-72107	pin 20	_____
HAP 001-013, 015-026, 028-054		
52-72006	D10986	
52-72106	pin 53	_____
HAP ALL		
52-72008	D10988	
52-72108	pin 2	_____
HAP 001-013, 015-026, 028-054		
52-72009	D10988	
52-72109	pin 52	_____
HAP ALL		

- 3) If you find a problem with the wire, then do these steps:
 - a) Repair or replace the wire.
 - <1> Re-connect the electrical connector to the flight lock switch.
 - <2> Re-connect the electrical connector to the PSEU.
 - b) Do the Repair Confirmation at the end of this task.
- 4) If you do not find a problem with the wiring, then replace the PSEU, M2061.
 - a) 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.
- 5) 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.



52-20 TASK 801

FAULT ISOLATION MANUAL

- (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.
- (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 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

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	3	C00360	FUEL SPAR VALVE ENG 2
B	4	C00359	FUEL SPAR VALVE ENG 1

- (9) Make sure that the door linings are correctly installed.

- (a) AMM TASK 52-22-51-400-801

 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

HAP 001-013, 015-026, 028-054

- (c) 52-72012 L FWD OW SW A FLT
- (d) 52-72013 L FWD OW SW B FLT

HAP ALL

- (e) 52-72014 R OW SW A FAULT
- (f) 52-72015 R OW SW B FAULT

**52-20 TASKS 801-802**

FAULT ISOLATION MANUAL

HAP 001-013, 015-026, 028-054

- (g) 52-72016 R FWD OW SW A FLT
- (h) 52-72017 R FWD OW SW B FLT

HAP 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

HAP 001-013, 015-026, 028-054

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

HAP ALL

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

HAP 001-013, 015-026, 028-054

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

HAP 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) 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.

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

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

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



52-20 TASK 802

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

Table 207

MAINTENANCE MESSAGE	SWITCH
52-72010 L OW SW A FAULT	S1104
52-72011 L OW SW B FAULT	S1105
HAP 001-013, 015-026, 028-054	
52-72012 L FWD OW SW A FLT	S1108
52-72013 L FWD OW SW B FT	S1109
HAP ALL	
52-72014 R OW SW A FAULT	S1106
52-72015 R OW SW B FAULT	S1107
HAP 001-013, 015-026, 028-054	
52-72016 R FWD OW SW A FLT	S1110
52-72017 R FWD OW SW B FLT	S1111

HAP 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.
 - (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 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:

Table 208

MAINTENANCE MESSAGE NUMBER	GROUND AT SWITCH	PSEU CONNECTOR
52-72010		D10986
	S1104	pin 8
HAP 001-013, 015-026, 028-054		D10988
52-72011		pin 21
	S1105	
HAP 001-013, 015-026, 028-054		D10986
52-72012		pin 52
	S1108	
52-72013		D10988



52-20 TASK 802



737-600/700/800/900

FAULT ISOLATION MANUAL**HAP 001-013, 015-026, 028-054 (Continued)**

(Continued)

MAINTENANCE MESSAGE NUMBER	GROUND AT SWITCH	PSEU CONNECTOR
	S1109	pin 35

HAP ALL

52-72014	S1106	D10986 pin 61
52-72015	S1107	D10988 pin 1

HAP 001-013, 015-026, 028-054

52-72016	S1110	D10986 pin 15
52-72017	S1111	D10988 pin 30

HAP ALL

- (c) 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.
- (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

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.
- (3) If the maintenance message does not show, then you corrected the fault.
- (4) Put the airplane back to its usual condition.
 - (a) Do this task: Return the Airplane to the Ground Mode, AMM TASK 32-09-00-860-802.

————— END OF TASK —————

**52-20 TASK 802**



737-600/700/800/900

FAULT ISOLATION MANUAL

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 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 73-22-14)
- (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
A	3	C00153	ENGINE 1 IGNITION LEFT



52-20 TASK 803



737-600/700/800/900

FAULT ISOLATION MANUAL

F/O Electrical System Panel, P6-1

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
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.

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

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

- (a) Move the engine thrust levers to idle.
- (b) Move the engine start levers to CUTOFF.
- (c) Do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

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

F/O Electrical System Panel, P6-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
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.



52-20 TASK 803



737-600/700/800/900

FAULT ISOLATION MANUAL

D10986

pin 47 ----- **D10916**

pin A1

- (e) If you find a problem with the wiring, then do these steps:
 - 1) Repair the wiring.
 - 2) Reinstall the left 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

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
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

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
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.



52-20 TASK 803

Page 215

Feb 15/2008

FAULT ISOLATION MANUAL

- (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, return to the Fault Isolation Procedure and continue.
- (b) If the maintenance message does not show, then you corrected the fault, continue 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

HAP 001-013, 015-026, 028-054

- (b) 52-72024 FOUR OW OPT FLT

HAP ALL

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

HAP 001-013, 015-026, 028-054

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

**52-20 TASKS 803-804**



737-600/700/800/900

FAULT ISOLATION MANUAL

HAP 001-013, 015-026, 028-054 (Continued)

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

HAP 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
HAP 001-013, 015-026, 028-054		
52-72024 FOUR OVWG OPT FLT	D10986	11
HAP 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.



52-20 TASK 804



737-600/700/800/900

FAULT ISOLATION MANUAL

- (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.

HAP 001-013, 015-026, 028-054

- (b) 52-72021 L FWD OW SW DSGR

HAP ALL

- (c) 52-72022 R OW SW DISAGREE

HAP 001-013, 015-026, 028-054

- (d) 52-72023 R FWD OW SW DSGR

HAP 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

HAP 001-013, 015-026, 028-054

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

HAP ALL

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

HAP 001-013, 015-026, 028-054

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

HAP 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.

EFFECTIVITY

HAP ALL

52-20 TASKS 804-805



737-600/700/800/900

FAULT ISOLATION MANUAL

- (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, 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. To adjust it, 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
HAP 001-013, 015-026, 028-054	
52-72021 L FWD OW SW DSGR	S1108, S1109
HAP ALL	
52-72022 R OW SW DISAREE	S1106, S1107
HAP 001-013, 015-026, 028-054	
52-72023 R FWD OW SW DSGR	S1110, S1111
HAP 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 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.
 - 1) If the Repair Confirmation is not satisfactory, then continue.
- (3) Do this wiring check:
 - (a) Disconnect the connector for the applicable indication switch from the PSEU.
 - (b) Do a wiring check between the ground of the connector for the indication switch and the connector for the PSEU:

Table 211

MAINTENANCE MESSAGE NUMBER	GROUND AT SWITCH	PSEU CONNECTOR
52-72020	S1104	D10986
52-72020	S1105	pin 8
	_____	D10988
	_____	pin 21

**52-20 TASK 805**

Page 219

Jun 15/2009



737-600/700/800/900

FAULT ISOLATION MANUAL

(Continued)

MAINTENANCE MESSAGE NUMBER	GROUND AT SWITCH	PSEU CONNECTOR
HAP 001-013, 015-026, 028-054		
52-72021		D10986
	S1108	pin 52
52-72021		D10988
	S1109	pin 35
HAP ALL		
52-72022		D10986
	S1106	pin 61
52-72022		D10988
	S1107	pin 1
HAP 001-013, 015-026, 028-054		
52-72023		D10986
	S1110	pin 15
52-72023		D10988
	S1111	pin 30

HAP 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) Re-connect 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 —————



52-20 TASK 805



737-600/700/800/900

FAULT ISOLATION MANUAL

806. Overwing Exit Door Open Problem - Fault Isolation

A. Description

- (1) This task is for these maintenance messages:

- (a) 52-74001 L OVWG OPEN

HAP 001-013, 015-026, 028-054

- (b) 52-74002 L FWD OW OPEN

HAP ALL

- (c) 52-74003 R OVWG OPEN

HAP 001-013, 015-026, 028-054

- (d) 52-74004 R FWD OW OPEN

HAP 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

HAP 001-013, 015-026, 028-054

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

HAP ALL

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

HAP 001-013, 015-026, 028-054

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

HAP 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.

EFFECTIVITY

HAP ALL

52-20 TASK 806



737-600/700/800/900

FAULT ISOLATION MANUAL**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 212

MAINTENANCE MESSAGE	SWITCHES
52-74001 L OVWG OPEN	S1104, S1105
HAP 001-013, 015-026, 028-054	
52-74002 L FWD OW OPEN	S1108, S1109
HAP ALL	
52-74003 R OVWG OPEN	S1106, S1107
HAP 001-013, 015-026, 028-054	
52-74004 R FWD OW OPEN	S1110, S1111
HAP 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 213

MAINTENANCE MESSAGE NUMBER	GROUND AT SWITCH	PSEU CONNECTOR
52-74001		D10986
	S1104	pin 8
52-74001		D10988
	S1105	pin 21
HAP 001-013, 015-026, 028-054		
52-74002		D10986
	S1108	pin 52
52-74002		D10988

**52-20 TASK 806**



737-600/700/800/900

FAULT ISOLATION MANUAL**HAP 001-013, 015-026, 028-054 (Continued)**

(Continued)

MAINTENANCE MESSAGE NUMBER	GROUND AT SWITCH	PSEU CONNECTOR
	S1109	pin 35

HAP ALL

52-74003	_____	D10986
	_____	pin 61
52-74003	_____	D10988
	_____	pin 1

HAP 001-013, 015-026, 028-054

52-74004	_____	D10986
	_____	pin 15
52-74004	_____	D10988
	_____	pin 30

HAP 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.

**52-20 TASKS 806-807**

FAULT ISOLATION MANUAL

- (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

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
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

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
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

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	1	C01399	PSEU PRI
D	2	C01400	PSEU ALTN



52-20 TASK 807

FAULT ISOLATION MANUAL

(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 illuminate.

(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.



52-20 TASK 807

FAULT ISOLATION MANUAL

- (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 214

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

- 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 215

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

- (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:



52-20 TASK 807



737-600/700/800/900

FAULT ISOLATION MANUAL

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



52-20 TASK 807



737-600/700/800/900

FAULT ISOLATION MANUAL

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

HAP 001-013, 015-026, 028-054

- (b) 52-76020 L FWD OW WARN FLT

HAP ALL

- (c) 52-76021 R OW WARN FLT

HAP 001-013, 015-026, 028-054

- (d) 52-76022 R FWD OW WARN FLT

HAP 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)

HAP 001-013, 015-026, 028-054

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

HAP 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.

EFFECTIVITY

HAP ALL

52-20 TASK 808

Page 228

Feb 15/2009

D633A103-HAP



737-600/700/800/900

FAULT ISOLATION MANUAL

(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:



52-20 TASK 808



737-600/700/800/900

FAULT ISOLATION MANUAL

Table 216

MAINTENANCE MESSAGE NUMBER	WARNING LIGHT CONNECTOR	PSEU CONNECTOR
52-76019	D1406 pin 10	_____ pin 5
HAP 001-013, 015-026, 028-054		
52-76020	D482 pin 4	_____ pin 9
HAP ALL		
52-76021	D1406 pin 7	_____ pin 31
HAP 001-013, 015-026, 028-054		
52-76022	D482 pin 11	_____ pin 54

HAP 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.



52-20 TASK 808



737-600/700/800/900

FAULT ISOLATION MANUAL

- (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

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	3	C00360	FUEL SPAR VALVE ENG 2
B	4	C00359	FUEL SPAR VALVE ENG 1

————— END OF TASK —————



52-20 TASK 808

Page 231
Feb 15/2008



737-600/700/800/900

FAULT ISOLATION MANUAL

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.



52-30 TASK 801

Page 201

Feb 10/2005



737-600/700/800/900

FAULT ISOLATION MANUAL

- 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 ————



52-30 TASK 801



737-600/700/800/900

FAULT ISOLATION MANUAL

802. Cargo Door Difficult to Unlatch or Latch - Fault Isolation

A. Description

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

B. Possible Causes

- (1) Blockage of the handle of the latch mechanism
- (2) Latch mechanism and handle
- (3) Hinge arms
- (4) Interference with fuselage frame

C. 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.
- (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.
 - 2) If you find a problem, then repair it.
 - a) Do the Repair Confirmation at the end of this task.
 - b) If the Repair Confirmation is not satisfactory, then continue.
 - 3) Make sure the latch torque tube is lubricated; do this task: Cargo Door Servicing, AMM TASK 12-25-31-640-801
 - a) Do the Repair Confirmation.
 - b) If the Repair Confirmation is not okay, then continue.
 - (d) Adjust the latch mechanism, do this tasks: do this task: Cargo Door Adjustment, AMM TASK 52-31-00-820-801.



FAULT ISOLATION MANUAL

- 1) Do the Repair Confirmation.
- 2) If the Repair Confirmation is not okay, then continue.
- (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 a problem is found, repair it.
 - a) Do the repair Confirmation
 - b) If the Repair Confirmation is not okay, then continue.
 - (4) Do this check for interference between the door and the fuselage frame:
 - (a) Try to unlatch, open, close, and latch the door.
 - (b) Look and listen for points of interference between the door and fuselage frame.
 - (c) Make sure the door seal does not cause interference.
 - (d) 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.

 - (e) If a problem is found, repair it and do this task: do this task: Cargo Door Adjustment, AMM TASK 52-31-00-820-801.
 - 1) Do the repair Confirmation
 - 2) If the Repair Confirmation is not okay, then continue.

D. Repair Confirmation

- (1) Do these steps to confirm the repair:
 - (a) Try to unlatch and latch the door.
 - (b) If it is easy to unlatch and latch the door, you have corrected the fault. Do these steps:
 - 1) Re-install the door lining, if it is necessary.

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

B. Possible Causes

- (1) Forward cargo door indication switch, S960
- (2) Aft cargo door indication switch, S961
- (3) Wiring
- (4) Proximity switch electronics unit (PSEU), M2061

**52-30 TASKS 802-803**



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

C. Related Data

- (1) (SSM 52-71-12)
- (2) (WDM 52-71-12)

D. Initial Evaluation

- (1) Close and latch the applicable cargo door.
- (2) Open the cargo 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 applicable cargo door indication switch adjustment:

Table 201

CARGO DOOR	SWITCH
Forward Cargo Door	S960
Aft Cargo Door	S961

- (a) Open the cargo door.
- (b) Do this task: Cargo Door Indication Switch Adjustment, AMM TASK 52-71-31-820-801.
- (c) Close and latch the door.
- (d) If the maintenance message does not show, then you corrected the fault.
- (e) If the maintenance message does show, then continue.

- (2) Do this check of the PSEU:

- (a) Disconnect the applicable connector from the PSEU.

Table 202

CARGO DOOR	PSEU CONNECTOR
Forward Cargo Door	D10988
Aft Cargo Door	D10986

- (b) Close and latch the applicable cargo door.
- (c) Do a continuity check between pin 56 of the connector on the PSEU and structure ground.
- (d) If there is continuity between pin 56 and structure ground, then do these steps:
 - 1) 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.

 - 2) Re-connect the connector to the PSEU.
 - 3) Do the PSEU replacement test.
 - 4) If the PSEU replacement test is satisfactory, then you corrected the fault.



52-30 TASK 803



737-600/700/800/900

FAULT ISOLATION MANUAL

- 5) If the PSEU replacement test is not satisfactory, then do the fault isolation procedures for the maintenance messages that you find.
- (e) If there is not continuity between pin 56 and structure ground, then continue.
 - 1) Re-connect the connector to the PSEU.
- (3) Do this check of the applicable cargo door indication switch wiring:

Table 203

CARGO DOOR	SWITCH
Forward Cargo Door	S960
Aft Cargo Door	S961

- (a) Open the applicable cargo door.
- (b) Actuate the switch.
- (c) Do a continuity check between terminal C of the switch and structure ground.
- (d) If there is not continuity between terminal C and structure ground, then do these steps:
 - 1) De-actuate the switch.
 - 2) Repair the ground wire.
 - 3) Close and latch the door.
 - 4) If the maintenance message does not show, then you corrected the fault.
 - 5) If the maintenance message does show, then continue.
- (e) If there is continuity between terminal C and structure ground, then do these steps:
 - 1) Open the door.
 - 2) Replace the switch.

These are the tasks:

Cargo Door Indication Switch Removal, AMM TASK 52-71-31-000-801,
Cargo Door Indication Switch Installation, AMM TASK 52-71-31-400-801.

 - 3) Close and latch the door.
 - 4) If the maintenance message does not show, then you corrected the fault.
 - 5) If the maintenance message does show, then continue.
- (4) Do this check of the wiring between the PSEU and the applicable cargo door indication switch.
 - (a) Open the applicable cargo door.
 - (b) Disconnect the applicable connector from the PSEU.
 - (c) Do a continuity check between pin 56 of the connector and terminal NO of switch.
 - (d) If there is not continuity between pin 56 of the connector and terminal NO of the switch, then do these steps:
 - 1) Repair the wiring between the pin 56 of the connector and switch.
 - 2) Re-connect the connector to the PSEU.
 - 3) Close and latch the door.
 - 4) If the maintenance message does not show, then you corrected the fault.

— END OF TASK —



801. PSEU Forward Access Door Monitored Problem - Fault Isolation**A. Description**

- (1) This task is for this maintenance message:
 - (a) 52-72003 FWD ACC DR OPEN
 - (2) (SDS SUBJECT 52-71-00)

B. Possible Causes

- (1) Forward access door indication switch, S196
- (2) Wiring
- (3) Proximity switch electronics unit (PSEU), M2061

C. Related Data

- (1) (SSM 52-71-12)
- (2) (WDM 52-71-12)

D. Initial Evaluation

- (1) Close and latch the forward access door.
- (2) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
112A	Forward Access 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) Disconnect the connector D10988 from the PSEU.
- (b) Actuate the forward access door indication switch, S196.
- (c) Do a continuity check between pin 6 of the connector on the PSEU and structure ground.
- (d) If there is continuity between pin 6 and structure ground, then do these steps:
 - 1) De-actuate the switch S196.
 - 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.

- 3) Do the PSEU replacement test.
- 4) If the PSEU replacement test is satisfactory, then you corrected the fault.
- 5) If the PSEU replacement test is not satisfactory, then do the fault isolation procedures for the maintenance messages that you find.

- (e) If there is not continuity between pin 6 and structure ground, then continue.
 - 1) Re-connect the connector D10988 to the PSEU.

- (2) Do this check of the forward access door indication switch, S196:



52-40 TASK 801



737-600/700/800/900

FAULT ISOLATION MANUAL

- (a) Make sure the switch S196 is actuated.
- (b) Do a continuity check between terminal NO of the switch S196 and structure ground.
- (c) If there is not continuity between terminal NO and structure ground, then do these steps:
 - 1) De-actuate the switch S196.
 - 2) Repair the ground wire.
 - 3) Close and latch the forward access door.
 - 4) Open the forward access door.
 - 5) If the maintenance message does not show, then you corrected the fault.
 - 6) If the maintenance message does show, then continue.
- (d) If there is continuity between terminal NO and structure ground, then do these steps:
 - 1) Replace the 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.
 - 2) Close and latch the forward access door.
 - 3) Open the forward access door.
 - 4) If the maintenance message does not show, then you corrected the fault.
 - 5) If the maintenance message does show, then continue.
- (3) Do this check of the wiring between the PSEU and the forward access door indication switch, S196.
 - (a) Make sure the switch S196 is de-actuated.
 - (b) Disconnect the connector D10988 from the PSEU.
 - (c) Do a continuity check between pin 6 of connector D10988 and terminal C of switch S196.
 - (d) If there is not continuity between pin 6 of the connector and terminal C of the switch, then do these steps:
 - 1) Repair the wiring between the pin 6 of connector D10988 and switch S196.
 - 2) Re-connect the connector D10988 to the PSEU.
 - 3) Close and latch the access panel:

Number	Name/Location
112A	Forward Access Door
 - 4) Open this access panel:

Number	Name/Location
112A	Forward Access Door
 - 5) If the maintenance message does not show, then you corrected the fault.

————— END OF TASK —————

802. PSEU Electronic Equipment Access Door Monitored Problem - Fault Isolation

A. Description

- (1) This task is for this maintenance message:
 - (a) 52-72004 EE ACC DR OPEN



FAULT ISOLATION MANUAL

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

B. Possible Causes

(1) Electronic equipment access door indication switch, S197

(2) Wiring

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

C. Related Data

(1) (SSM 52-71-12)

(2) (WDM 52-71-12)

D. Initial Evaluation

(1) Close and latch the electronic equipment access door.

(2) Open the electronic equipment access 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) Disconnect the connector D10986 from the PSEU.

(b) Close and latch the electronic equipment access door.

(c) Do a continuity check between pin 6 of the connector on the PSEU and structure ground.

(d) If there is continuity between pin 6 and structure ground, then do these steps:

1) 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.

2) Do the PSEU replacement test.

3) If the PSEU replacement test is satisfactory, then you corrected the fault.

4) If the PSEU replacement test is not satisfactory, then do the fault isolation procedures for the maintenance messages that you find.

(e) If there is not continuity between pin 6 and structure ground, then continue.

1) Re-connect the connector D10986 to the PSEU.

(2) Do this check of the electronic equipment access door indication switch, S197:

(a) Open the electronic equipment access door.

(b) Actuate the switch S197.

(c) Do a continuity check between terminal NO of the switch S197 and structure ground.

(d) If there is not continuity between terminal NO and structure ground, then do these steps:

1) De-actuate the switch S197.

2) Repair the ground wire.

3) Close and latch the electronic equipment access door.

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

**52-40 TASK 802**

Page 203

Jun 10/2006



737-600/700/800/900

FAULT ISOLATION MANUAL

- 5) If the maintenance message does show, then continue.
- (e) If there is continuity between terminal NO and structure ground, then do these steps:
 - 1) Open the electronic equipment access door.
 - 2) Replace the 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.

 - 3) Close and latch the electronic equipment access door.
 - 4) If the maintenance message does not show, then you corrected the fault.
 - 5) If the maintenance message does show, then continue.- (3) Do this check of the wiring between the PSEU and the electronic equipment access door indication switch, S197.
 - (a) Open the electronic equipment access door.
 - (b) Disconnect the connector D10986 from the PSEU.
 - (c) Do a continuity check between pin 6 of connector D10986 and terminal C of switch S197.
 - (d) If there is not continuity between pin 6 of the connector and terminal C of the switch, then do these steps:
 - 1) Repair the wiring between the pin 6 of connector D10986 and switch S197.
 - 2) Re-connect the connector D10986 to the PSEU.
 - 3) Close and latch the electronic equipment access door.
 - 4) If the maintenance message does not show, then you corrected the fault.

————— END OF TASK ————

EFFECTIVITY
HAP ALL

52-40 TASK 802



737-600/700/800/900

FAULT ISOLATION MANUAL

HAP 023, 026 PRE SB 737-25-1496

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.



52-50 TASK 801



737-600/700/800/900

FAULT ISOLATION MANUAL

HAP 023, 026 PRE SB 737-25-1496 (Continued)

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:
 - 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:



52-50 TASK 801



737-600/700/800/900

FAULT ISOLATION MANUAL

HAP 023, 026 PRE SB 737-25-1496 (Continued)

- (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

- (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.

HAP ALL

————— END OF TASK —————

802. Control Cabin Door Difficult to Open/Close - Fault Isolation

A. Description

- (1) (SDS SUBJECT 52-51-00)

B. Possible Causes

- (1) Header





737-600/700/800/900

FAULT ISOLATION MANUAL

- (2) Trim angle
- (3) Hinge
- (4) Control cabin door lock

C. Fault Isolation Procedure

- (1) If the door is difficult to open or close, then do this check:
 - (a) Look for unwanted material on door lock and hinges.
 - (b) Look for worn areas and damage.
 - (c) Look and listen for points of interference between door and frame.
- 1) Do the steps to adjust the door header and the trim angle.

HAP 023, 026 PRE SB 737-25-1496

- a) For the adjustment, refer to Crew Door Installation, AMM TASK 52-51-00-400-801.

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

- b) For the adjustment, refer to Flight Compartment Door Installation, AMM TASK 52-51-01-400-801.

HAP ALL

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

D. Repair Confirmation

- (1) Open and close the control cabin door.
- (2) If it is easy to open and close the control cabin door, you have corrected the fault.

————— END OF TASK —————

HAP 023, 026 PRE SB 737-25-1496

803. Control Cabin Door Does Not Release Electrically - Fault Isolation

A. Description

- (1) (SDS SUBJECT 52-51-00)

B. Possible Causes

- (1) Door lock, M117
- (2) Control cabin door lock switch S2, P8-47
- (3) Wiring

C. Circuit Breakers

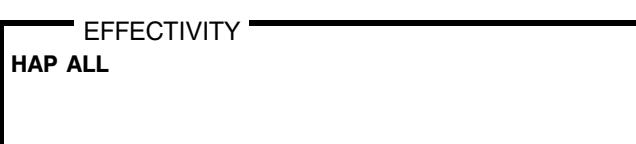
- (1) This is the circuit breaker:

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)



52-50 TASKS 802-803



737-600/700/800/900

FAULT ISOLATION MANUAL

HAP 023, 026 PRE SB 737-25-1496 (Continued)

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 Solenoid	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.

- (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 _____

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

804. Door Does Not Lock in the AUTO Position - Fault Isolation

A. Description

- (1) (SDS SUBJECT 52-51-00)



52-50 TASKS 803-804

FAULT ISOLATION MANUAL

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)

B. Possible Causes

- (1) Electric Strike, M2538
- (2) Flight Compartment Door Lock Switch S2, P8-47 Panel
- (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 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 FORCE THE DOOR OPEN. IF YOU FORCE THE DOOR OPEN 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 open, then do the Fault Isolation Procedure-Out of Tolerance.
- (e) If the flight compartment door did not open, then there was an intermittent fault.

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 and door latch engagement is 0.330-0.360 inch (8.382-9.144 mm).



52-50 TASK 804

FAULT ISOLATION MANUAL

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)

(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 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 IIGHT 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 engages with the door switch, S2 in the AUTO position you have corrected the problem.

(b) If the electric strike did not engage with the door switch, S2 in the AUTO position, 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.

1) If the electric strike engages with the flight compartment door switch in the AUTO position you have corrected the problem.

2) If the electric strike 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 chime module, M2537. To install the chime module, do this task: Chime Module Installation, AMM TASK 52-51-06-400-801.

b) Install the electric strike, M2538. To install the electric strike, do this task: Electric Strike Removal, AMM TASK 52-51-03-000-801

(3) If the LOCK FAIL IIGHT is not on, then do these steps:

(a) Remove the Chime Module, M2537. To remove the chime module, do this 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 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 chime module M2537. To install the chime module, do this task: Chime Module Installation, AMM TASK 52-51-06-400-801.



52-50 TASK 804

Page 207

Feb 15/2009

FAULT ISOLATION MANUAL

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)

- 1) If the flight compartment door locks with the door lock switch, S2 in the AUTO position you have corrected the problem.
- 2) If the flight compartment door does not lock with the door lock switch, S2 in the AUTO position, then continue.

(f) Replace the flight compartment door lock switch, S2. To replace the switch, 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 door lock switch, S2 in the AUTO position you have corrected the problem.
- 2) If the flight compartment door does not lock with the door lock switch, S2 in the AUTO position, then continue.

(g) Repair the wiring between connector D2 on the chime module, M2537 and the electric strike, M2538 (WDM 52-51-11).

- 1) If the flight compartment door locks with the control switch, S2 in the AUTO position, you have corrected the problem.
- 2) If the flight compartment door does not lock with the 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 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)



52-50 TASKS 804-805

FAULT ISOLATION MANUAL

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)

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 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 —————



52-50 TASK 805

FAULT ISOLATION MANUAL

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)

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.



52-50 TASKS 805-806

FAULT ISOLATION MANUAL**HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)**

- 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.

**52-50 TASKS 806-807**

FAULT ISOLATION MANUAL**HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)**

- (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

**52-50 TASKS 807-808**

FAULT ISOLATION MANUAL

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)

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)



52-50 TASKS 808-809

FAULT ISOLATION MANUAL

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)

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.



52-50 TASK 809

FAULT ISOLATION MANUAL

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)

(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 —————



52-50 TASK 809



737-600/700/800/900

FAULT ISOLATION MANUAL

842. Forward Airstair Operates Too Fast or Too Slow in the NORMAL Mode - Fault Isolation

A. Description

- (1) (Reference Not Currently Available)

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: Reference Not Currently Available.
 - (b) Do this task: Reference Not Currently Available.
pref
- (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 control 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, 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.



52-60 TASK 842

FAULT ISOLATION MANUAL

(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.

FAULT ISOLATION MANUAL

- 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 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 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 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.





737-600/700/800/900

FAULT ISOLATION MANUAL

- (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,

EFFECTIVITY
HAP 006-010

52-60 TASK 842



737-600/700/800/900

FAULT ISOLATION MANUAL

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 ————



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

52-60 TASK 842

Page 205
Feb 15/2009



737-600/700/800/900

FAULT ISOLATION MANUAL

801. Airline Method Procedure - Fault Isolation

A. Initial Evaluation

NOTE: Use the standard method of your airline to correct this fault.

————— END OF TASK —————



52-99 TASK 801

Page 201
Jun 10/2006

D633A103-HAP