CHAPTER

23

COMMUNICATIONS

CHAPTER 23
COMMUNICATIONS

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

23-EFFECTIVE PAGES

CHAPTER 23
COMMUNICATIONS

Subject/Page	Date	COC
23-31 TASKS	(cont)	
O 206	Jun 15/2016	
O 207	Jun 15/2016	
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212	Feb 15/2013	
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O 226	Jun 15/2016	
O 227	Jun 15/2016	
228	BLANK	
23-41 TASKS		
201	Jun 15/2013	
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O 203	Jun 15/2016	
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O 210	Jun 15/2016	

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23-42 TASKS	(cont)	
O 237	Jun 15/2016	
238	BLANK	
23-43 TASKS		
O 201	Jun 15/2016	
O 202	Jun 15/2016	
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O 206	Jun 15/2016	
23-51 TASKS		
201	Jun 15/2013	
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203	Jun 15/2013	
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O 205	Jun 15/2016	
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207	Jun 15/2013	
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210	Jun 15/2013	
211	Jun 15/2013	
212	Jun 15/2013	
213	Jun 15/2013	
214	BLANK	
23-71 TASKS		
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23-75 TASKS		
201	Jun 15/2013	
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204	Feb 15/2013	
205	Feb 15/2013	
206	Feb 15/2013	

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23-EFFECTIVE PAGES

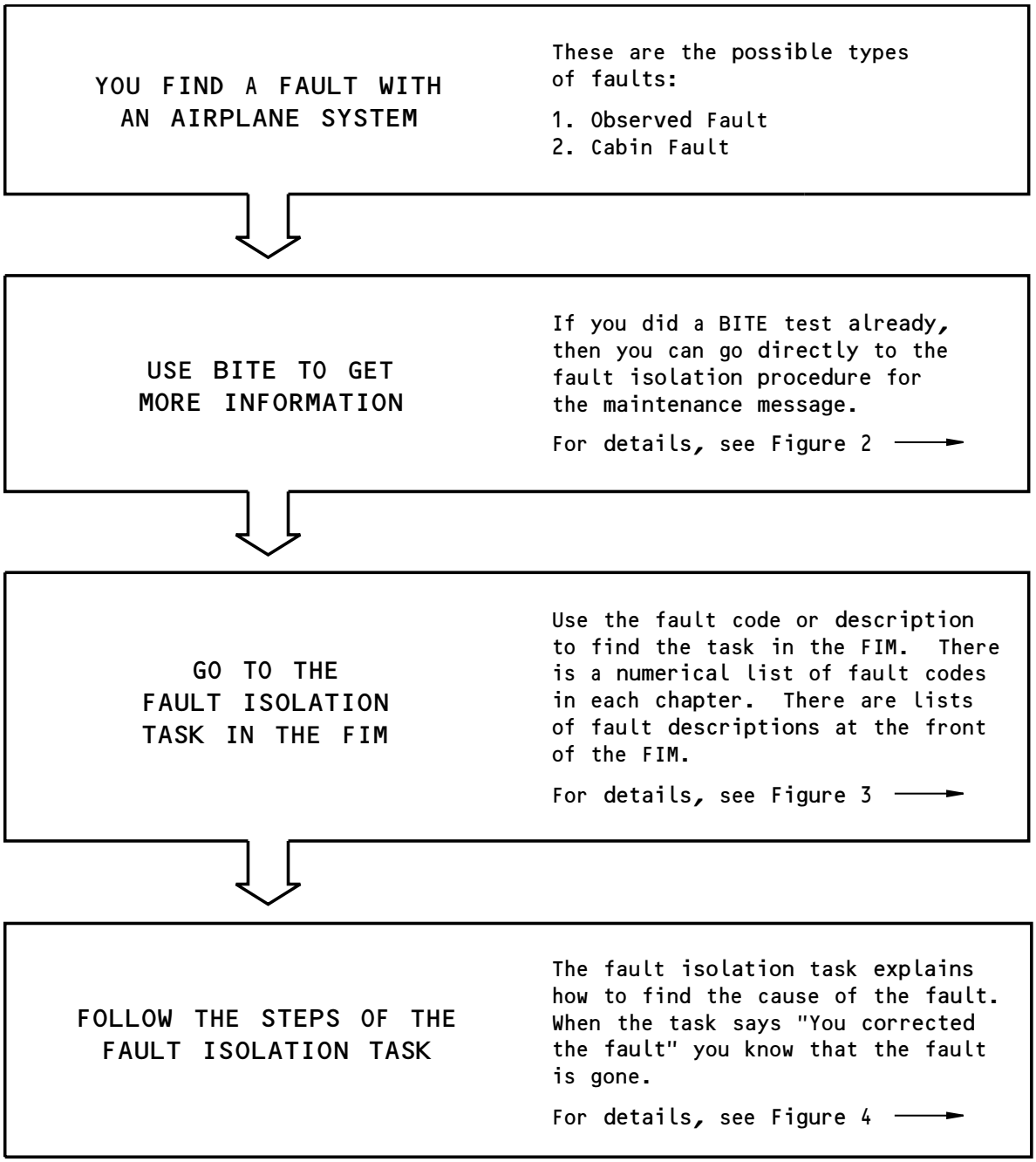
Subject/Page	Date	COC
23-75 TASKS (cont)		
O 207	Jun 15/2016	
R 208	Jun 15/2016	
209	Feb 15/2015	
210	BLANK	
23-82 TASKS		
O 201	Jun 15/2016	
O 202	Jun 15/2016	

Subject/Page	Date	COC

Subject/Page	Date	COC

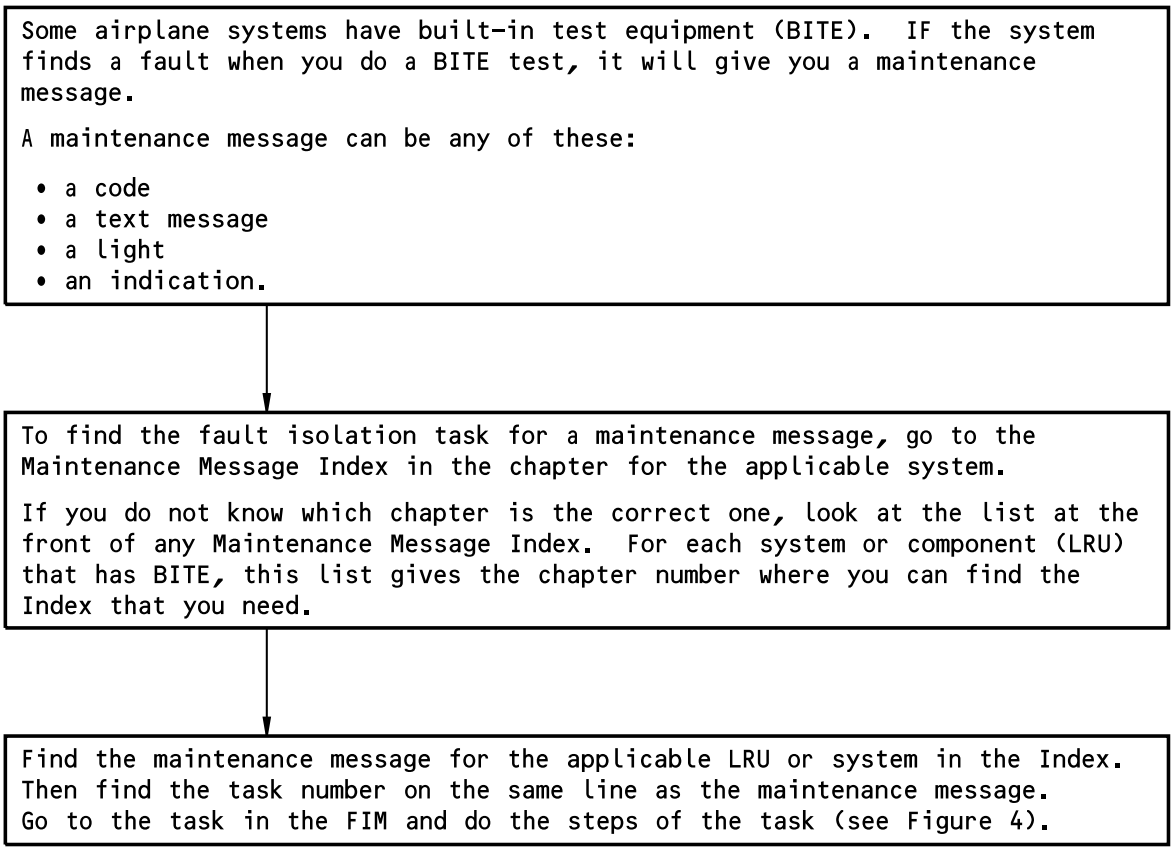
A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated Change

23-EFFECTIVE PAGES



G04902 S0000148576_V1

Basic Fault Isolation Process
Figure 1



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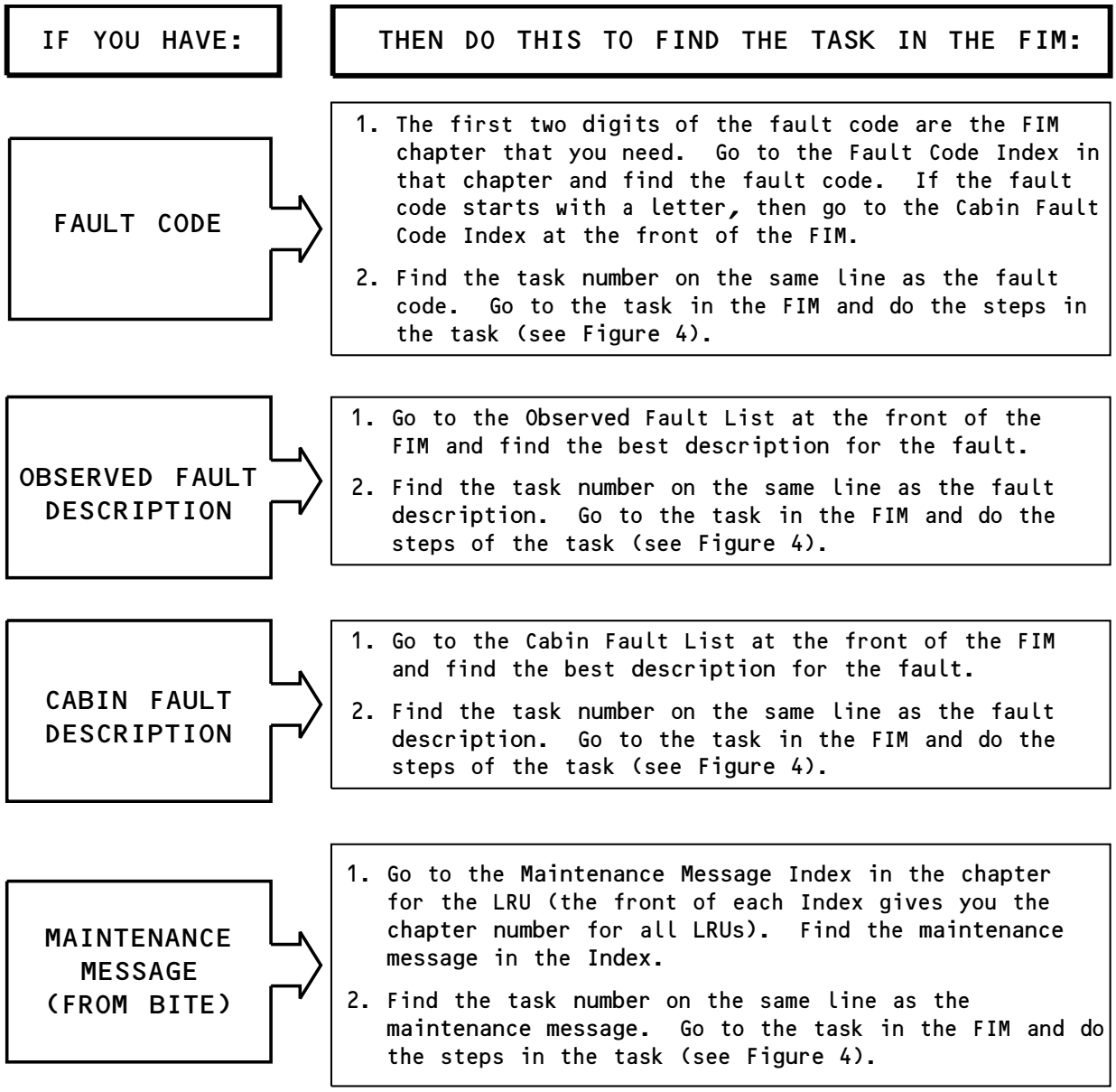
Getting Fault Information from BITE
Figure 2



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Finding the Fault Isolation Task in the FIM
Figure 3

ASSUMED CONDITIONS AT START OF TASK

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

POSSIBLE CAUSES

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

INITIAL EVALUATION PARAGRAPH

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

FAULT ISOLATION STEPS

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

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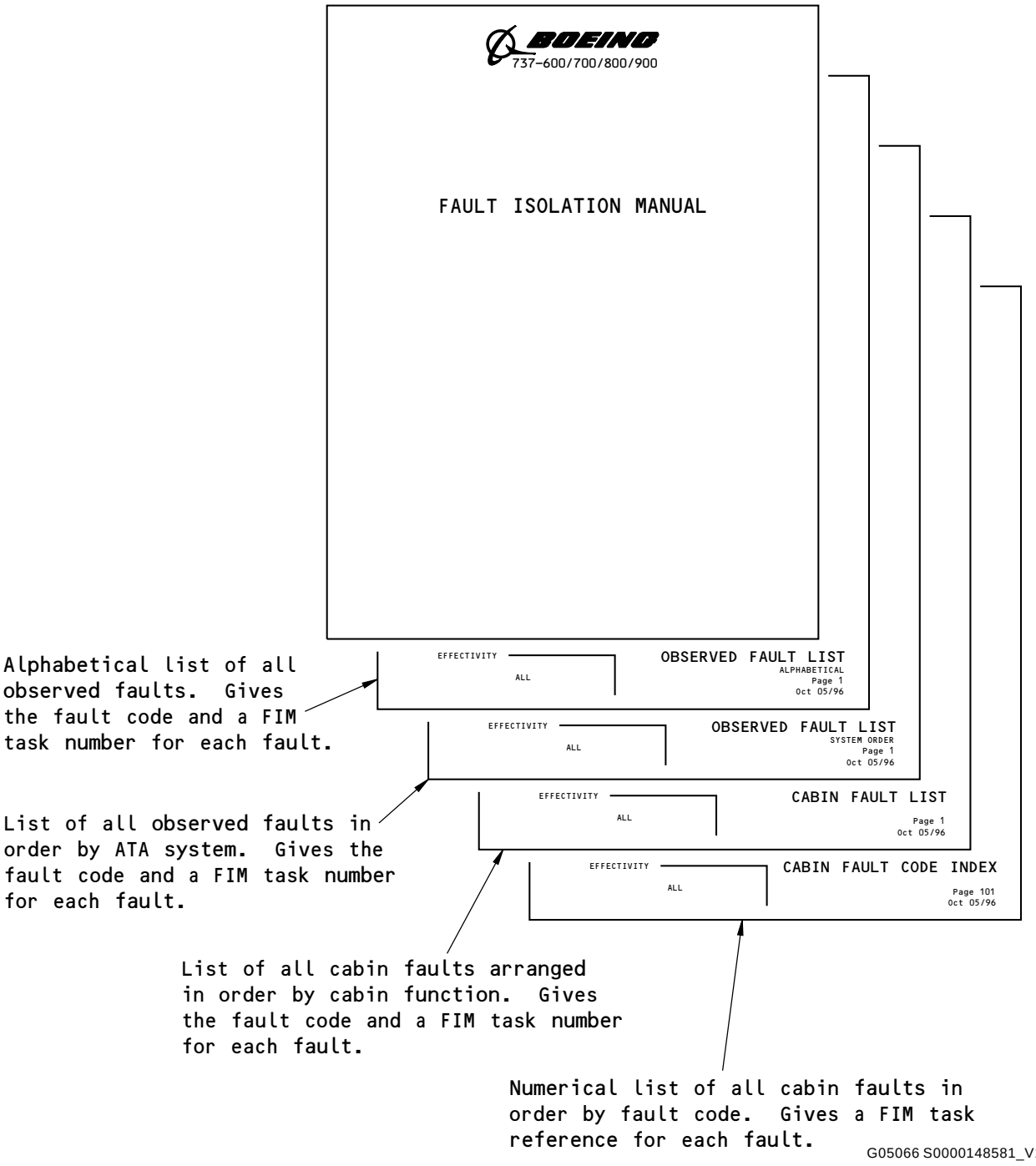
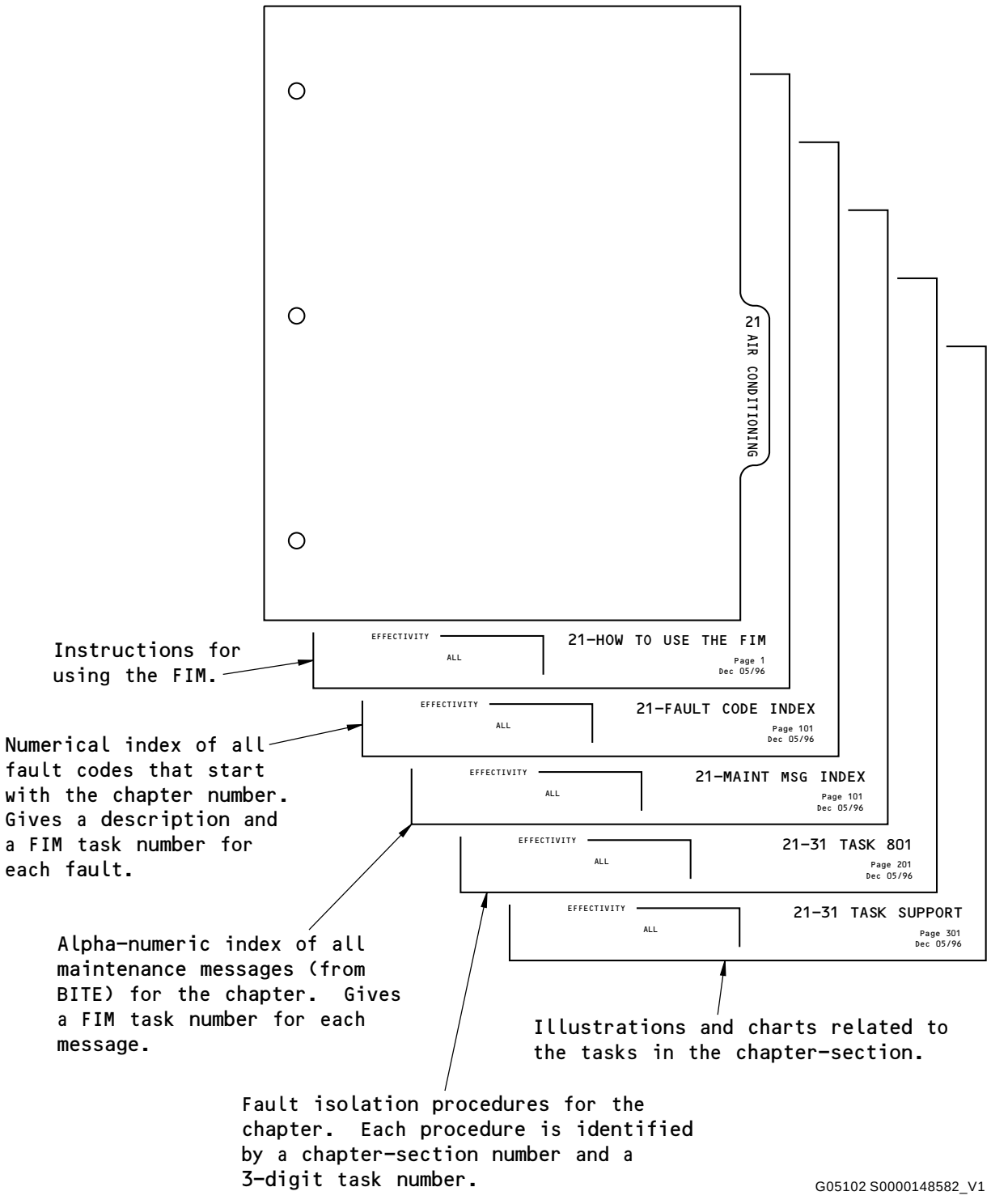
Doing the Fault Isolation Task
Figure 4



Subjects at Front of FIM
Figure 5



Subjects in Each FIM Chapter
Figure 6

FAULT CODE	FAULT DESCRIPTION	GO TO FIM TASK
231 060 31	HF 1 radio: reception and transmission problem at one station - captain's.	23-11 TASK 806
231 060 32	HF 1 radio: reception and transmission problem at one station - first officer's.	23-11 TASK 806
231 060 33	HF 1 radio: reception and transmission problem at one station - first observer's.	23-11 TASK 806
231 060 48	HF 1 radio: reception and transmission problem at all stations.	23-11 TASK 806
231 070 31	HF 1 radio: reception problem at one station - captain's.	23-11 TASK 806
231 070 32	HF 1 radio: reception problem at one station - first officer's.	23-11 TASK 806
231 070 33	HF 1 radio: reception problem at one station - first observer's.	23-11 TASK 806
231 070 48	HF 1 radio: reception problem at all stations.	23-11 TASK 806
231 080 31	HF 1 radio: Transmission problem at one station - captain's.	23-11 TASK 806
231 080 32	HF 1 radio: Transmission problem at one station - first officer's.	23-11 TASK 806
231 080 33	HF 1 radio: Transmission problem at one station - first observer's.	23-11 TASK 806
231 080 48	HF 1 radio: Transmission problem at all stations.	23-11 TASK 806
231 180 31	HF 2 radio: reception and transmission problem at one station - captain's.	23-11 TASK 806
231 180 32	HF 2 radio: reception and transmission problem at one station - first officer's.	23-11 TASK 806
231 180 33	HF 2 radio: reception and transmission problem at one station - first observer's.	23-11 TASK 806
231 180 48	HF 2 radio: reception and transmission problem at all stations.	23-11 TASK 806
231 190 31	HF 2 radio: reception problem at one station - captain's.	23-11 TASK 806
231 190 32	HF 2 radio: reception problem at one station - first officer's.	23-11 TASK 806
231 190 33	HF 2 radio: reception problem at one station - first observer's.	23-11 TASK 806
231 190 48	HF 2 radio: reception problem at all stations.	23-11 TASK 806
231 200 31	HF 2 radio: Transmission problem at one station - captain's.	23-11 TASK 806
231 200 32	HF 2 radio: Transmission problem at one station - first officer's.	23-11 TASK 806
231 200 33	HF 2 radio: Transmission problem at one station - first observer's.	23-11 TASK 806
231 200 48	HF 2 radio: Transmission problem at all stations.	23-11 TASK 806
231 300 31	Radio tuning panel problem - captain's.	23-12 TASK 815
231 300 32	Radio tuning panel problem - first officer's.	23-12 TASK 815
231 300 33	Radio tuning panel problem - first observer's.	23-12 TASK 815
231 310 31	VHF 1 radio: reception and transmission problem at one station - captain's.	23-12 TASK 816

FAULT CODE	FAULT DESCRIPTION	GO TO FIM TASK
231 310 32	VHF 1 radio: reception and transmission problem at one station - first officer's.	23-12 TASK 816
231 310 33	VHF 1 radio: reception and transmission problem at one station - first observer's.	23-12 TASK 816
231 310 48	VHF 1 radio: reception and transmission problem at all stations.	23-12 TASK 816
231 320 31	VHF 1 radio: reception problem at one station - captain's.	23-12 TASK 816
231 320 32	VHF 1 radio: reception problem at one station - first officer's.	23-12 TASK 816
231 320 33	VHF 1 radio: reception problem at one station - first observer's.	23-12 TASK 816
231 320 48	VHF 1 radio: reception problem at all stations.	23-12 TASK 816
231 330 31	VHF 1 radio: Transmission problem at one station - captain's.	23-12 TASK 816
231 330 32	VHF 1 radio: Transmission problem at one station - first officer's.	23-12 TASK 816
231 330 33	VHF 1 radio: Transmission problem at one station - first observer's.	23-12 TASK 816
231 330 48	VHF 1 radio: Transmission problem at all stations.	23-12 TASK 816
231 430 31	VHF 2 radio: reception and transmission problem at one station - captain's.	23-12 TASK 816
231 430 32	VHF 2 radio: reception and transmission problem at one station - first officer's.	23-12 TASK 816
231 430 33	VHF 2 radio: reception and transmission problem at one station - first observer's.	23-12 TASK 816
231 430 48	VHF 2 radio: reception and transmission problem at all stations.	23-12 TASK 816
231 440 31	VHF 2 radio: reception problem at one station - captain's.	23-12 TASK 816
231 440 32	VHF 2 radio: reception problem at one station - first officer's.	23-12 TASK 816
231 440 33	VHF 2 radio: reception problem at one station - first observer's.	23-12 TASK 816
231 440 48	VHF 2 radio: reception problem at all stations.	23-12 TASK 816
231 450 31	VHF 2 radio: Transmission problem at one station - captain's.	23-12 TASK 816
231 450 32	VHF 2 radio: Transmission problem at one station - first officer's.	23-12 TASK 816
231 450 33	VHF 2 radio: Transmission problem at one station - first observer's.	23-12 TASK 816
231 450 48	VHF 2 radio: Transmission problem at all stations.	23-12 TASK 816
231 550 31	VHF 3 radio: reception and transmission problem at one station - captain's.	23-12 TASK 816
231 550 32	VHF 3 radio: reception and transmission problem at one station - first officer's.	23-12 TASK 816
231 550 33	VHF 3 radio: reception and transmission problem at one station - first observer's.	23-12 TASK 816
231 550 48	VHF 3 radio: reception and transmission problem at all stations.	23-12 TASK 816
231 560 31	VHF 3 radio: reception problem at one station - captain's.	23-12 TASK 816

FAULT CODE	FAULT DESCRIPTION	GO TO FIM TASK
231 560 32	VHF 3 radio: reception problem at one station - first officer's.	23-12 TASK 816
231 560 33	VHF 3 radio: reception problem at one station - first observer's.	23-12 TASK 816
231 560 48	VHF 3 radio: reception problem at all stations.	23-12 TASK 816
231 570 31	VHF 3 radio: Transmission problem at one station - captain's.	23-12 TASK 816
231 570 32	VHF 3 radio: Transmission problem at one station - first officer's.	23-12 TASK 816
231 570 33	VHF 3 radio: Transmission problem at one station - first observer's.	23-12 TASK 816
231 570 48	VHF 3 radio: Transmission problem at all stations.	23-12 TASK 816
232 020 00	SELCAL: Call switch does not reset for HF 1, PTT reset OK.	23-28 TASK 801
232 030 00	SELCAL: Call switch does not reset for HF 2, PTT reset OK.	23-28 TASK 801
232 040 00	SELCAL: Call switch does not reset for VHF 1, PTT reset OK.	23-28 TASK 801
232 050 00	SELCAL: Call switch does not reset for VHF 2, PTT reset OK.	23-28 TASK 801
232 060 00	SELCAL: Call switch does not reset for VHF 3, PTT reset OK.	23-28 TASK 801
232 080 00	SELCAL: call light does not come on for calls on HF 1.	23-28 TASK 802
232 090 00	SELCAL: call light does not come on for calls on HF 2.	23-28 TASK 802
232 100 00	SELCAL: call light does not come on for calls on VHF 1.	23-28 TASK 802
232 110 00	SELCAL: call light does not come on for calls on VHF 2.	23-28 TASK 802
232 120 00	SELCAL: call light does not come on for calls on VHF 3.	23-28 TASK 802
232 140 00	SELCAL: Chime does not operate for calls on HF 1, SELCAL call light comes on.	23-28 TASK 803
232 150 00	SELCAL: Chime does not operate for calls on HF 2, SELCAL call light comes on.	23-28 TASK 803
232 160 00	SELCAL: Chime does not operate for calls on VHF 1, SELCAL call light comes on.	23-28 TASK 803
232 170 00	SELCAL: Chime does not operate for calls on VHF 2, SELCAL call light comes on.	23-28 TASK 803
232 180 00	SELCAL: Chime does not operate for calls on VHF 3, SELCAL call light comes on.	23-28 TASK 803
232 200 00	SELCAL: does not operate for HF 1.	23-28 TASK 804
232 210 00	SELCAL: does not operate for HF 2.	23-28 TASK 804
232 220 00	SELCAL: does not operate for VHF 1.	23-28 TASK 804
232 230 00	SELCAL: does not operate for VHF 2.	23-28 TASK 804
232 240 00	SELCAL: does not operate for VHF 3.	23-28 TASK 804
232 250 00	SELCAL: does not operate for any radio.	23-28 TASK 804
232 310 00	ACARS: does not operate correctly.	23-27 TASK 801
232 314 00	ACARS: Out-Off-On-In (OOOI) value not correct.	23-27 TASK 807
232 410 00	Emergency Locator Transmitter (ELT): no ELT signal on VHF when ELT switch set to ON during test.	23-24 TASK 801

FAULT CODE	FAULT DESCRIPTION	GO TO FIM TASK
232 411 00	Emergency Locator Transmitter (ELT): ELT light is on.	23-24 TASK 807
233 010 00	Passenger address system - does not operate from flight compartment.	23-31 TASK 801
233 020 00	Passenger address system - distorted from flight compartment.	23-31 TASK 801
233 030 00	Passenger address system - intermittent from flight compartment.	23-31 TASK 801
233 040 00	Passenger address system - volume problem from flight compartment.	23-31 TASK 802
234 010 00	Service interphone: does not connect to flight interphone.	23-41 TASK 801
234 020 48	Service interphone: does not operate - all jacks.	23-41 TASK 801
234 030 48	Service interphone: distorted - all jacks.	23-41 TASK 803
234 040 48	Service interphone: intermittent - all jacks.	23-41 TASK 803
234 050 48	Service interphone: volume problem - all jacks.	23-41 TASK 803
234 060 00	Service interphone: does not operate - jack at EE rack.	23-41 TASK 802
234 070 00	Service interphone: distorted - jack at EE rack.	23-41 TASK 802
234 080 00	Service interphone: intermittent - jack at EE rack.	23-41 TASK 802
234 090 00	Service interphone: volume problem - jack at EE rack.	23-41 TASK 802
234 100 00	Service interphone: does not operate - jack adjacent to APU.	23-41 TASK 802
234 110 00	Service interphone: intermittent - jack adjacent to APU.	23-41 TASK 802
234 120 00	Service interphone: distorted - jack adjacent to APU.	23-41 TASK 802
234 130 00	Service interphone: volume problem - jack adjacent to APU.	23-41 TASK 802
234 140 00	Service interphone: does not operate - jack at aft entry light panel.	23-41 TASK 802
234 150 00	Service interphone: distorted - jack at aft entry light panel.	23-41 TASK 802
234 160 00	Service interphone: intermittent - jack at aft entry light panel.	23-41 TASK 802
234 170 00	Service interphone: volume problem - jack at aft entry light panel.	23-41 TASK 802
234 180 00	Service interphone: does not operate - jack at external power receptacle panel.	23-41 TASK 802
234 190 00	Service interphone: distorted - jack at external power receptacle panel.	23-41 TASK 802
234 200 00	Service interphone: intermittent - jack at external power receptacle panel.	23-41 TASK 802
234 210 00	Service interphone: volume problem - jack at external power receptacle panel.	23-41 TASK 802
234 220 00	Service interphone: does not operate - jack at left wheel well.	23-41 TASK 802
234 230 00	Service interphone: distorted - jack at left wheel well.	23-41 TASK 802
234 240 00	Service interphone: intermittent - jack at left wheel well.	23-41 TASK 802

FAULT CODE	FAULT DESCRIPTION	GO TO FIM TASK
234 250 00	Service interphone: volume problem - jack at left wheel well.	23-41 TASK 802
234 260 00	Service interphone: does not operate - jack at right wheel well.	23-41 TASK 802
234 270 00	Service interphone: distorted - jack at right wheel well.	23-41 TASK 802
234 280 00	Service interphone: intermittent - jack at right wheel well.	23-41 TASK 802
234 290 00	Service interphone: volume problem - jack at right wheel well.	23-41 TASK 802
234 300 00	Service interphone: does not operate - jack at right wing refueling slat.	23-41 TASK 802
234 310 00	Service interphone: distorted - jack at right wing refueling slat.	23-41 TASK 802
234 320 00	Service interphone: intermittent - jack at right wing refueling slat.	23-41 TASK 802
234 330 00	Service interphone: volume problem - jack at right wing refueling slat.	23-41 TASK 802
234 340 00	Call horn: does not sound.	23-43 TASK 801
234 350 00	Call horn: operates continuously.	23-43 TASK 802
234 360 00	Call system: does not operate, ground crew to flight compartment.	23-43 TASK 803
234 370 00	Call system: call light does not come on, ground crew to flight compartment.	23-43 TASK 804
234 380 00	Call system: call light does not come on, attendant to flight compartment.	23-42 TASK 806
234 390 00	Call system: Chime does not sound in the flight compartment.	23-42 TASK 804
234 400 00	Call system: does not operate, flight compartment to attendant.	23-42 TASK 802
234 410 00	Service interphone: does not operate - jack in the electronic equipment bay.	23-41 TASK 802
234 420 00	Service interphone: intermittent - jack in the electronic equipment bay.	23-41 TASK 802
234 430 00	Service interphone: distorted - jack in the electronic equipment bay.	23-41 TASK 802
234 440 00	Service interphone: volume problem - jack in the electronic equipment bay.	23-41 TASK 802
234 811 00	Attendant control panel: amber light on ACP switch assembly does not come on during operational test.	23-42 TASK 841
235 010 31	Boom microphone/headset: does not operate - captain's.	23-51 TASK 801
235 010 32	Boom microphone/headset: does not operate - first officer's.	23-51 TASK 801
235 020 31	Boom microphone/headset: damaged - captain's.	23-51 TASK 802
235 020 32	Boom microphone/headset: damaged - first officer's.	23-51 TASK 802
235 030 31	Flight interphone: does not operate - captain's.	23-51 TASK 804
235 030 32	Flight interphone: does not operate - first officer's.	23-51 TASK 804
235 030 33	Flight interphone: does not operate - first observer's.	23-51 TASK 804

FAULT CODE	FAULT DESCRIPTION	GO TO FIM TASK
235 030 48	Flight interphone: does not operate - all stations.	23-51 TASK 803
235 040 31	Headphone: does not operate - captain's.	23-51 TASK 801
235 040 32	Headphone: does not operate - first officer's.	23-51 TASK 801
235 040 33	Headphone: does not operate - first observer's.	23-51 TASK 801
235 040 34	Headphone: does not operate - second observer's.	23-51 TASK 801
235 050 31	Hand microphone: does not operate - captain's.	23-51 TASK 801
235 050 32	Hand microphone: does not operate - first officer's.	23-51 TASK 801
235 050 33	Hand microphone: does not operate - first observer's.	23-51 TASK 801
235 060 31	Hand microphone: damaged - captain's.	23-51 TASK 802
235 060 32	Hand microphone: damaged - first officer's.	23-51 TASK 802
235 060 33	Hand microphone: damaged - first observer's.	23-51 TASK 802
235 070 31	Headphone: damaged - captain's.	23-51 TASK 802
235 070 32	Headphone: damaged - first officer's.	23-51 TASK 802
235 070 33	Headphone: damaged - first observer's.	23-51 TASK 802
235 070 34	Headphone: damaged - second observer's.	23-51 TASK 802
235 080 31	Speaker in the flight compartment: does not operate - captain's.	23-51 TASK 805
235 080 32	Speaker in the flight compartment: does not operate - first officer's.	23-51 TASK 806
235 101 31	Audio control panel indicator light problem - captain's.	23-51 TASK 807
235 101 32	Audio control panel indicator light problem - first officer's.	23-51 TASK 807
235 101 33	Audio control panel indicator light problem - first observer's.	23-51 TASK 807
235 102 31	Audio control panel volume control problem - captain's.	23-51 TASK 807
235 102 32	Audio control panel volume control problem - first officer's.	23-51 TASK 807
235 102 33	Audio control panel volume control problem - first observer's.	23-51 TASK 807
235 103 31	Audio control panel selector switch problem - captain's.	23-51 TASK 807
235 103 32	Audio control panel selector switch problem - first officer's.	23-51 TASK 807
235 103 33	Audio control panel selector switch problem - first observer's.	23-51 TASK 807
237 010 00	Voice recorder: Signal problem at monitor jack.	23-71 TASK 801
237 020 00	Voice recorder: STATUS light or TEST light does not come on when TEST switch is pushed.	23-71 TASK 804

LRU/SYSTEM	SHORT NAME	CHAPTER
Air Data Inertial Reference System	ADIRS	34
Air Traffic Controller Transponder - 1 (Left)	ATC XPDR - 1 (L)	34
Air Traffic Controller Transponder - 2 (Right)	ATC XPDR - 2 (R)	34
Airborne Vibration Monitor System Signal Conditioner	AVM SIG COND	77
Antiskid Control Unit	ANTISKID	32
Attendant Control Panel	ACP	23
Automatic Direction Finder Receiver - 1	ADF RECVR - 1	34
Automatic Direction Finder Receiver - 2	ADF RECVR - 2	34
Autothrottle 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
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
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Digital Flight Control System	DFCS	22
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Electronic Engine Controller - 1	ENGINE - 1	73
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Engine Accessory Unit	EAU	78
Engine Accessory Unit/TR DEPLOY ENG 1	EAU/TR DPLOY-ENG 1	78
Engine Accessory Unit/TR DEPLOY ENG 2	EAU/TR DPLOY-ENG 2	78
Engine Accessory Unit/TR STOW ENG 1	EAU/TR STOW-ENG 1	78
Engine Accessory Unit/TR STOW ENG 2	EAU/TR STOW-ENG 2	78
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Fuel Quantity Indicating System	FQIS	28

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

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
ACP	23-11001 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11002 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11003 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11004 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11005 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 808
ACP	23-11006 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 808
ACP	23-11007 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 808
ACP	23-11008 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 809
ACP	23-11010 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11011 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11012 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11013 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11014 INTERNAL ACP FAULT DETECTED IN FORWARD AND AFT ACPS	23-42 TASK 809
ACP	23-11015 <FORWARD | AFT> WORK LIGHT FAULT DETECTED	23-42 TASK 811
ACP	23-11016 <FORWARD | AFT> MDCD LIGHT FAULT DETECTED	32-42 TASK 812
ACP	23-11017 28 VDC POWER FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 814
ACP	23-11018 INTERNAL ACP FAULT DETECTED	23-42 TASK 808
ACP	23-11019 INTERNAL ACP FAULT DETECTED	23-42 TASK 808
ACP	23-11020 INTERNAL ACP FAULT DETECTED	23-42 TASK 808
ACP	23-11021 INTERNAL ACP FAULT DETECTED	23-42 TASK 808
ACP	23-11022 COMMUNICATION WITH AFT ACP LOST	23-42 TASK 815
ACP	23-11023 CABIN TEMPERATURE FAULT DETECTED	23-42 TASK 816
ACP	23-11024 <FORWARD | AFT> THRESHOLD LIGHT FAULT DETECTED	23-42 TASK 813

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
ACP	23-11025 INTERNAL ACP FAULT DETECTED	23-42 TASK 807
ACP	23-11026 LAVATORY INOPERATIVE	23-42 TASK 817
ACP	23-11027 CLEAN CHECK SENSORS	23-42 TASK 817
ACP	23-11028 LIGHT <COLUMN>-<ADDRESS> NO RESPONSE DURING ADDRESSING	23-42 TASK 810
ACP	23-11029 LIGHT <COLUMN>-<ADDRESS> OUT OF SEQUENCE RESPONSE DURING ADDRESSING	23-42 TASK 810
ACP	23-11030 LIGHT <COLUMN>-<ADDRESS> EXTRA RESPONSE DURING ADDRESSING	23-42 TASK 810
ACP	23-11031 LIGHT <COLUMN>-<ADDRESS> INCORRECT ZONE DETECTED	23-42 TASK 810
ACP	23-11032 LIGHT <COLUMN>-<ADDRESS> INCORRECT ZONE DETECTED	23-42 TASK 810
ACP	23-11033 LIGHT <COLUMN>-<ADDRESS> INCORRECT STANDARD SCENES DETECTED	23-42 TASK 810
ACP	23-11034 LIGHT <COLUMN>-<ADDRESS> INCORRECT CUSTOM SCENES DETECTED	23-42 TASK 810
ACP	23-11035 NO SYSTEM TEST LRU RESPONSES DETECTED ON COLUMN 1	23-42 TASK 819
ACP	23-11036 NO SYSTEM TEST LRU RESPONSES DETECTED ON COLUMN 2	23-42 TASK 819
ACP	23-11037 NO SYSTEM TEST LRU RESPONSES DETECTED ON COLUMN 3	23-42 TASK 819
ACP	23-11038 NO SYSTEM TEST LRU RESPONSES DETECTED ON COLUMN 4	23-42 TASK 819
ACP	23-11039 SYSTEM TEST RS-485 CABLE BREAK DETECTED AT LRU 1-<X>	23-42 TASK 818
ACP	23-11040 SYSTEM TEST RS-485 CABLE BREAK DETECTED AT LRU 2-<X>	23-42 TASK 818
ACP	23-11041 SYSTEM TEST RS-485 CABLE BREAK DETECTED AT LRU 3-<X>	23-42 TASK 818
ACP	23-11042 SYSTEM TEST RS-485 CABLE BREAK DETECTED AT LRU 4-<X>	23-42 TASK 818
ACP	23-11043 LIGHT <COLUMN>-<ADDRESS> NO RESPONSE DURING ADDRESSING	23-42 TASK 820
ACP	23-11044 LIGHT <COLUMN>-<ADDRESS> OUT OF SEQUENCE RESPONSE DURING ADDRESSING	23-42 TASK 820
ACP	23-11045 LIGHT <COLUMN>-<ADDRESS> EXTRA RESPONSE DURING ADDRESSING	23-42 TASK 821
ACP	23-11046 LIGHT <COLUMN>-<ADDRESS> INCORRECT LIGHT TYPE DETECTED	23-42 TASK 822

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
ACP	23-11047 LIGHT <COLUMN>-<ADDRESS> NO RESPONSE DURING ZONING	23-42 TASK 823
ACP	23-11048 LIGHT <COLUMN>-<ADDRESS> OUT OF SEQUENCE RESPONSE DURING ZONING	23-42 TASK 823
ACP	23-11049 LIGHT <COLUMN>-<ADDRESS> INCORRECT ZONE DETECTED	23-42 TASK 824
ACP	23-11050 LIGHT <COLUMN>-<ADDRESS> NO RESPONSE DURING STANDARD SCENE DOWNLOAD	23-42 TASK 823
ACP	23-11051 LIGHT <COLUMN>-<ADDRESS> OUT OF SEQUENCE RESPONSE DURING STANDARD SCENE DOWNLOAD	23-42 TASK 823
ACP	23-11052 LIGHT <COLUMN>-<ADDRESS> FAILED STANDARD SCENE DOWNLOAD	23-42 TASK 823
ACP	23-11053 LIGHT <COLUMN>-<ADDRESS> NO RESPONSE DURING CUSTOM SCENE DOWNLOAD	23-42 TASK 823
ACP	23-11054 LIGHT <COLUMN>-<ADDRESS> OUT OF SEQUENCE RESPONSE DURING CUSTOM SCENE DOWNLOAD	23-42 TASK 823
ACP	23-11055 LIGHT <COLUMN>-<ADDRESS> FAILED CUSTOM SCENE DOWNLOAD	23-42 TASK 823
ACP	23-11056 NO DATA LOAD LRU RESPONSES DETECTED ON COLUMN 1	23-42 TASK 825
ACP	23-11057 NO DATA LOAD LRU RESPONSES DETECTED ON COLUMN 2	23-42 TASK 825
ACP	23-11058 NO DATA LOAD LRU RESPONSES DETECTED ON COLUMN 3	23-42 TASK 825
ACP	23-11059 NO DATA LOAD LRU RESPONSES DETECTED ON COLUMN 4	23-42 TASK 825
ACP	23-11060 DATA LOAD RS-485 CABLE BREAK DETECTED ON COLUMN 1	23-42 TASK 826
ACP	23-11061 DATA LOAD RS-485 CABLE BREAK DETECTED ON COLUMN 2	23-42 TASK 826
ACP	23-11062 DATA LOAD RS-485 CABLE BREAK DETECTED ON COLUMN 3	23-42 TASK 826
ACP	23-11063 DATA LOAD RS-485 CABLE BREAK DETECTED ON COLUMN 4	23-42 TASK 826
ACP	23-11064 INTERNAL ACP FAULT DETECTED	23-42 TASK 827
ACP	23-11065 INTERNAL ACP FAULT DETECTED	23-42 TASK 827
ACP	23-11066 INTERNAL ACP FAULT DETECTED	23-42 TASK 827
ACP	23-11067 INTERNAL ACP FAULT DETECTED	23-42 TASK 827
ACP	23-11068 COMMUNICATIONS WITH AFT ACP LOST	23-42 TASK 828

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
ACP	23-11069 LSAP CONFIGURATION INVALID	23-42 TASK 829
ACP	23-11070 INTERNAL ACP FAULT DETECTED	23-42 TASK 830
ACP	23-11071 INTERNAL ACP FAULT DETECTED	23-42 TASK 830
ACP	23-11072 INTERNAL ACP FAULT DETECTED	23-42 TASK 830
ACP	23-11073 INTERNAL ACP FAULT DETECTED	23-42 TASK 830
ACP	23-11074 DISK FAULT DETECTED	23-42 TASK 831
ACP	23-11075 DISK FAULT DETECTED	23-42 TASK 831
ACP	23-11076 DISK FAULT DETECTED	23-42 TASK 831
ACP	23-11077 DISK FAULT DETECTED	23-42 TASK 831
ACP	23-11078 INCOMPATIBLE DISK DETECTED	23-42 TASK 832
ACP	23-11079 INCOMPATIBLE DISK DETECTED	23-42 TASK 832
ACP	23-11080 COMMUNICATIONS WITH ADL LOST	23-42 TASK 833
ACP	33-11001 Light <column>-<address> Component ID Error	33-20 TASK 817
ACP	33-11002 Light <column>-<address> Calibration Data CRC Error	33-20 TASK 817
ACP	33-11003 Light <column>-<address> Firmware Version Disagree Error	33-20 TASK 817
ACP	33-11004 Light <column>-<address> Power Supply Error	33-20 TASK 817
ACP	33-11005 Light <column>-<address> Temperature Sensor Error	33-20 TASK 817
ACP	33-11006 Light <column>-<address> RAM Check Error	33-20 TASK 817
ACP	33-11007 Light <column>-<address> Slave Token Error	33-20 TASK 817
ACP	33-11008 Light <column>-<address> Slave Communication Error	33-20 TASK 817
ACP	33-11009 Light <column>-<address> Slave Communication Error	33-20 TASK 817
ACP	33-11010 Light <column>-<address> Slave Communication Error	33-20 TASK 817
ACP	33-11011 Light <column>-<address> LED Wrap Data	33-20 TASK 817
ACP	33-11012 Light <column>-<address> Zone/Address Data CRC Error	33-20 TASK 818
ACP	33-11013 Light <column>-<address> Zone Address Disagree	33-20 TASK 818
ACP	33-11014 Light <column>-<address> Standard Scene CRC Error	33-20 TASK 818
ACP	33-11015 Light <column>-<address> Custom Scene CRC Error	33-20 TASK 818
ACP	33-11016 Light <column>-<address> Watchdog Timer Error	33-20 TASK 817

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
ACP	33-11017 Light <column>-<address> Master Token Timeout Error	33-20 TASK 819
ACP	33-11018 Light <column>-<address> Master Token Release Error	33-20 TASK 819
ACP	33-11019 Light <column>-<address> Loss of communication	33-20 TASK 819
ELT	LED does not flash exactly three times	23-24 TASK 805
HF XCVR	CONTROL INPUT FAIL	23-11 TASK 802
HF XCVR	KEY INTERLOCK	23-11 TASK 804
HF XCVR	LRU FAIL	23-11 TASK 803
HF XCVR	LRU FAIL	23-11 TASK 803
VHF XCVR	ANTENNA FAIL	23-12 TASK 813
VHF XCVR	CONTROL FAIL	23-12 TASK 812

801. HF Communication System - BITE Procedure

A. General

(1) You initiate a high frequency (HF) communication system BITE test:

(a) The BITE is initiated from the front panel of the HF transceiver.

(2) The HF transceiver is located in the aft cargo compartment on the electronic equipment rack E6.

(3) The HF communication system BITE test does a self check for existing internal and external faults. Results of the BITE test are displayed via fault lights on the front panel of the HF transceiver.

B. Procedure

WARNING: DO NOT OPERATE THE HF SYSTEM WHILE THE AIRPLANE IS REFUELED OR DEFUELED. THIS CAN CAUSE INJURY TO PERSONNEL AND DAMAGE TO EQUIPMENT.

WARNING: MAKE SURE THAT PERSONNEL STAY A MINIMUM OF 6 FEET AWAY FROM THE VERTICAL STABILIZER WHEN THE HF SYSTEM TRANSMITS. RF ENERGY FROM THE HF ANTENNA CAN CAUSE INJURIES TO PERSONNEL.

(1) Do not operate the HF system while a fuel operation is done on the airplane.

(2) Do these steps to do the BITE procedure for the HF communication system:

(a) Push and release the TEST switch on the HF transceiver front panel.

(b) Make sure that these conditions occur:

1) All three LEDs on the HF transceiver front panel turn red for one to three seconds.

2) The LRU STATUS LED turns green and the KEY INTERLOCK and CONTROL FAIL LEDs stay red for one to three seconds.

3) All three LEDs go off for one to seven seconds.

4) The LRU STATUS LED comes on green for about 30 seconds and the KEY INTERLOCK and CONTROL FAIL LEDs stay off.

(c) If the LRU STATUS LED comes on green for about 30 seconds and the KEY INTERLOCK and CONTROL FAIL LEDs stay off, then the BITE test passed.

(d) If the red LRU STATUS, KEY INTERLOCK, or CONTROL FAIL LED is on, then refer table at the end of this task to find the fault isolation task for the applicable maintenance message.

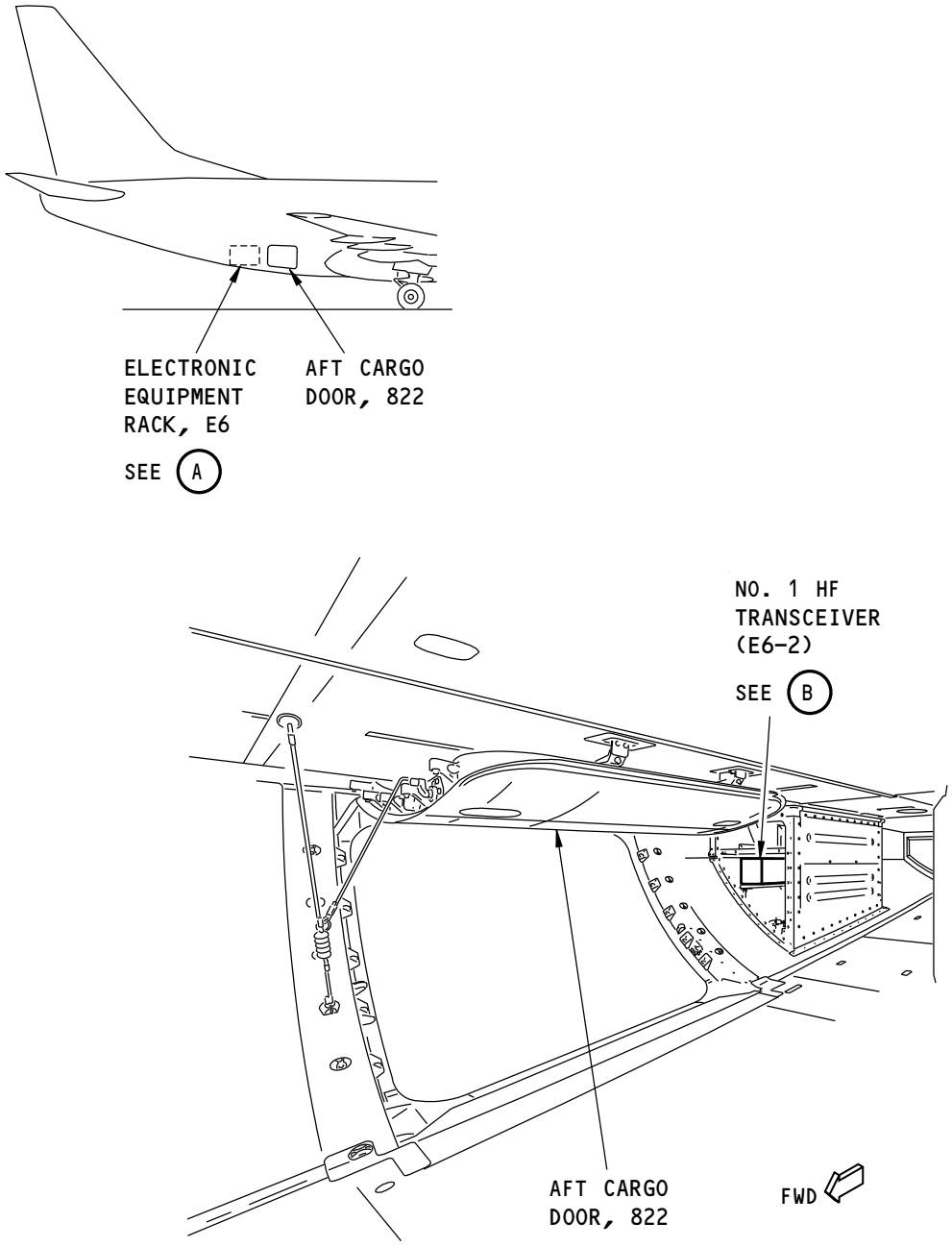
NOTE: LRU STATUS is the same as LRU FAIL.

CONTROL FAIL is the same as CONTROL INPUT FAIL.

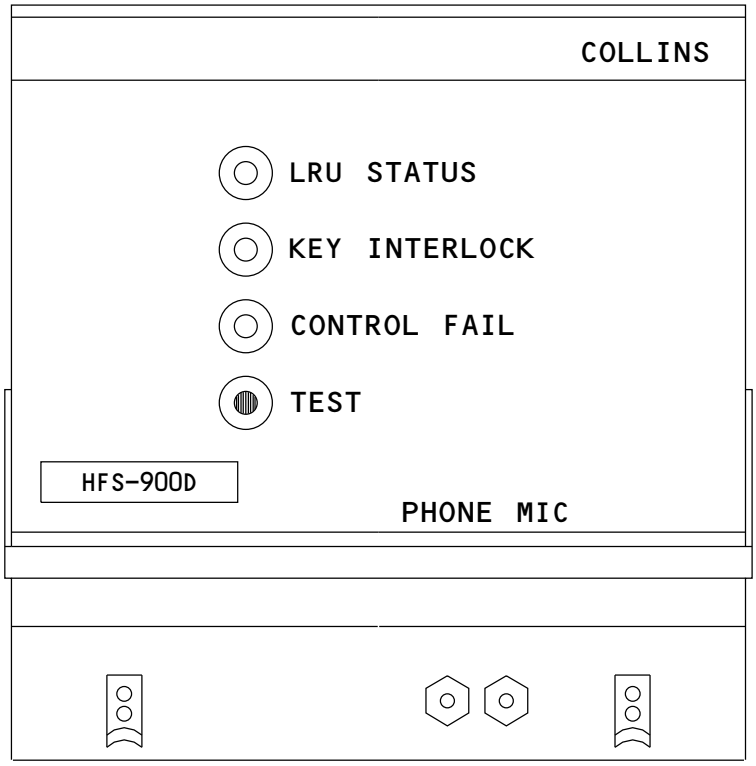
(3) If there are any maintenance messages, refer to the table at the end of this task to find the fault isolation task for the applicable maintainence messages.

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
HF XCVR	CONTROL INPUT FAIL	23-11 TASK 802
HF XCVR	KEY INTERLOCK	23-11 TASK 804
HF XCVR	LRU FAIL	23-11 TASK 803
HF XCVR	LRU FAIL	23-11 TASK 803

END OF TASK



HF Tranceiver Installation
Figure 201/23-11-00-990-828



HF TRANSCEIVER

L36671 S0000146937_V1

HF Transceiver Installation
Figure 202/23-11-00-990-820

802. HF Transceiver CONTROL INPUT FAIL Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:

(a) CONTROL INPUT FAIL

(2) The HF transceiver receives no input from the radio tuning panel.

B. Possible Causes

(1) Radio tuning panel, P8-71 (RTP-1) or P8-72 (RTP-2).

(2) Wiring problem.

(3) HF transceiver, M226 (HF-1).

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	11	C00165	COMMUNICATIONS VHF 1
E	11	C00839	COMMUNICATIONS HF 1

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	3	C00166	COMMUNICATIONS VHF 2

This circuit breaker is inoperative and should remain open:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	2	C00857	COMMUNICATIONS HF 2 (INOP)

D. Related Data

(1) (SSM 23-11-11)

(2) (WDM 23-11-11)

E. Initial Evaluation

(1) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

(a) If the maintenance message does not show on the front panel of the transceiver, then there was an intermittent fault.

(b) If the maintenance message shows on the front panel of the transceiver, then continue.

(2) Do these steps at the radio tuning panel, P8-71 (RTP-1) or P8-72 (RTP-2), on the aft electronic panel, P8:

(a) Push the HF 1 switch light.

1) Make sure that the switch light comes on.

(b) Set the STANDBY frequency window to an approved test frequency.

(c) Push the display transfer switch.

(d) Make sure that the ACTIVE frequency display shows the set frequency.

F. Fault Isolation Procedure - Frequency Is Not Shown

(1) Do this check for 28V DC at the radio tuning panel:

(a) Remove the radio tuning panel, P8-71 (RTP-1) or P8-72 (RTP-2). To remove it, do this task: Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801.

(b) Close these circuit breakers:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	11	C00165	COMMUNICATIONS VHF 1

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	3	C00166	COMMUNICATIONS VHF 2

(c) Do a check for 28V DC at pin 40 of connector D203 (RTP-1) or D209 (RTP-2), to structure ground.

(d) Open these circuit breakers:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	11	C00165	COMMUNICATIONS VHF 1

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	3	C00166	COMMUNICATIONS VHF 2

(e) If there was 28V DC at pin 40 of connector D203 (RTP-1) or D209 (RTP-2), then do these steps:

1) Install a new radio tuning panel, P8-71 (RTP-1) or P8-72 (RTP-2). To install it, do this task: Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

2) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

a) If the maintenance message does not show on the front panel of the transceiver, then you corrected the fault.

(f) If there was no 28V DC at pin 40 of connector D203 (RTP-1) or D209 (RTP-2), then continue.

(2) Do this check for 28V DC at the circuit breaker:

(a) Do a check for 28V DC between the load terminal of VHF-1 circuit breaker C165, or VHF-2 circuit breaker C166, and structure ground.

(b) If there is no 28V DC at the load terminal of VHF-1 circuit breaker C165, or VHF-2 circuit breaker C166, then do these steps:

1) Replace one of these circuit breakers:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	11	C00165	COMMUNICATIONS VHF 1

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	3	C00166	COMMUNICATIONS VHF 2

2) Re-install the radio tuning panel, P8-71 (RTP-1) or P8-72 (RTP-2). To install it, do this task: Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

3) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

a) If the maintenance message does not show on the front panel of the transceiver, then you corrected the fault.

(c) If there is 28V DC at the load terminal of VHF-1 circuit breaker C165, or VHF-2 circuit breaker C166, then do these steps:

1) Repair the wiring between pin 40 of connector, D203 (RTP-1) or D209 (RTP-2), at the radio tuning panel, P8-71 (RTP-1) or P8-72 (RTP-2), and the load terminal of VHF-1 circuit breaker, C165, or VHF-2 circuit breaker, C166, at the circuit breaker panel, P18-2 (VHF-1) or P6-1 (VHF-2)

2) Re-install the radio tuning panel, P8-71 (RTP-1) or P8-72 (RTP-2). To install it, do this task: Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801

3) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

a) If the maintenance message does not show on the front panel of the transceiver, then you corrected the fault.

G. Fault Isolation Procedure - Frequency Is Shown

(1) Replace the radio tuning panel, P8-71 (RTP-1) or P8-72 (RTP-2).

These are the tasks:

Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801,

Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

(2) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

(a) If the maintenance message does not show on the front panel of the transceiver, then you corrected the fault.

(b) If the maintenance message shows on the front panel of the transceiver, then continue.

(3) Replace the HF transceiver, M226 (HF-1).

These are the tasks:

HF Transceiver - Removal, AMM TASK 23-11-21-000-801,

HF Transceiver - Installation, AMM TASK 23-11-21-400-801.

(a) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

1) If the maintenance message does not show on the front panel of the transceiver, then you corrected the fault.

2) If the maintenance message shows on the front panel of the transceiver, then continue.

(4) Do this check of the wiring:

(a) Remove the radio tuning panels, P8-71 (RTP-1) and P8-72 (RTP-2). To remove them, do this task: Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801.

(b) Remove the HF transceiver, M226 (HF-1). To remove it, do this task: HF Transceiver - Removal, AMM TASK 23-11-21-000-801.

(c) Do a wiring check between these pins of connector, D203 (RTP-1) and D209 (RTP-2), at the aft electronic panel, P8, and these pins of connector, D345B, at the electronic equipment shelft:

	RTP CONNECTOR		RTP XCVR CONNECTOR
RTP-1 (P8-71)	**D203**		**D345B**
	pin 2	. . . . .	pin E3
	pin 3	. . . . .	pin F3

	RTP CONNECTOR		RTP XCVR CONNECTOR
RTP-2 (P8-72)	**D209**		**D345B**
	pin 2	. . . . .	pin G3
	pin 3	. . . . .	pin H3

(d) Repair any airplane wiring problems you find.

(e) Re-install the radio tuning panels, P8-71 (RTP-1) and P8-72 (RTP-2). To install them, do this task: Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

(f) Re-install the HF transceiver, M226 (HF-1). To install it, do this task: HF Transceiver - Installation, AMM TASK 23-11-21-400-801.

(g) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

1) If the maintenance message does not show on the front panel of the transceiver, then you corrected the fault.

——— END OF TASK ———

803. HF Transceiver LRU FAIL Problem - Fault Isolation

A. Description

(1) This task is for this maintenance message:

(a) LRU FAIL

(2) The HF transceiver has an internal fault.

B. Possible Causes

(1) HF transceiver, M226 (HF-1).

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
E	11	C00839	COMMUNICATIONS HF 1

This circuit breaker is inoperative and should remain open:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	2	C00857	COMMUNICATIONS HF 2 (INOP)

D. Related Data

(1) (SSM 23-11-11)

(2) (WDM 23-11-11)

E. Initial Evaluation

(1) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

(a) If the maintenance message LRU FAIL does not show on the front panel of the transceiver, then there was an intermittent fault.

(b) If the maintenance message LRU FAIL shows on the front panel of the transceiver, then continue.

F. Fault Isolation Procedure

(1) Replace the HF transceiver, M226 (HF-1).

These are the tasks:

HF Transceiver - Removal, AMM TASK 23-11-21-000-801,

HF Transceiver - Installation, AMM TASK 23-11-21-400-801.

(a) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

1) If the maintenance message LRU FAIL does not show on the front panel of the transceiver, then you corrected the fault.

——— **END OF TASK** ———

804. KEY INTERLOCK or COUPLER FAIL Fault - Fault Isolation

A. Description

(1) This task is for maintenance message:

(a) KEY INTERLOCK

(2) The HF transceiver detects an antenna coupler failure.

B. Possible Causes

(1) HF antenna coupler, M227 (HF-1).

(2) HF transceiver, M226 (HF-1).

(3) Wiring problem.

(4) HF antenna, M228.

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	11	C00165	COMMUNICATIONS VHF 1
E	11	C00839	COMMUNICATIONS HF 1

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	3	C00166	COMMUNICATIONS VHF 2

This circuit breaker is inoperative and should remain open:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	2	C00857	COMMUNICATIONS HF 2 (INOP)

D. Related Data

(1) (SSM 23-11-11)

(2) (WDM 23-11-11)

E. Initial Evaluation

(1) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

(a) If the maintenance message does not show on the front panel of the transceiver, then there was an intermittent fault.

(b) If the maintenance message shows on the front panel of the transceiver, then continue.

F. Fault Isolation Procedure

WARNING: DO NOT OPERATE THE HF SYSTEM WHILE THE AIRPLANE IS REFUELED OR DEFUELED. AN EXPLOSION CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO THE AIRPLANE.

WARNING: MAKE SURE THAT PERSONNEL STAY A MINIMUM OF 6 FEET AWAY FROM THE VERTICAL STABILIZER WHEN THE HF SYSTEM TRANSMITS. RF ENERGY FROM THE HF ANTENNA CAN CAUSE INJURIES TO PERSONNEL.

(1) Do not operate the HF system while a fuel operation is done on the airplane.

(2) Replace the HF antenna coupler, M227 (HF-1).

These are the tasks:

HF Antenna Coupler - Removal, AMM TASK 23-11-61-000-801,

HF Antenna Coupler - Installation, AMM TASK 23-11-61-400-801.

(a) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

1) If the maintenance message does not show on the front panel of the transceiver, then you corrected the fault.

2) If the maintenance message shows on the front panel of the transceiver, then continue.

(3) Replace the HF transceiver, M226 (HF-1).

These are the tasks:

HF Transceiver - Removal, AMM TASK 23-11-21-000-801,

HF Transceiver - Installation, AMM TASK 23-11-21-400-801.

(a) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

1) If the maintenance message shows on the front panel of the transceiver, then continue.

(4) Do this check of the coaxial cable:

(a) Remove the HF transceiver, M226 (HF-1). To remove it, do this task: HF Transceiver - Removal, AMM TASK 23-11-21-000-801.

(b) Remove this access panel:

Number	Name/Location
322AL	Vertical Fin, Fixed Leading Edge

(c) Disconnect the coaxial cable connector, D337, at the HF antenna coupler, M227 (HF-1).

(d) Do a time domain reflectometry check of the coaxial cable between connector, D345B, at the HF transceiver, M226 (HF-1), and connector, D337, at the HF antenna coupler, M227 (HF-1) (WDM 23-11-11), do this task: Coaxial Cable Inspection, AMM TASK 20-10-72-210-801.

(e) Repair any problems that you find.

(f) Re-connect the coaxial cable connector, D337, at the HF antenna coupler, M227 (HF-1).

(g) Install this access panel:

Number	Name/Location
322AL	Vertical Fin, Fixed Leading Edge

(h) Re-install the HF transceiver, M226 (HF-1). To install it, do this task: HF Transceiver - Installation, AMM TASK 23-11-21-400-801.

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	11	C00165	COMMUNICATIONS VHF 1
E	11	C00839	COMMUNICATIONS HF 1

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	3	C00166	COMMUNICATIONS VHF 2

(j) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

1) If the maintenance message shows on the front panel of the transceiver, then continue.

(5) Do a check of the electrical bond of the HF antenna, do this task: HF Antenna - Electrical Bond Check, AMM TASK 23-11-51-760-801

(a) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801

1) If the maintenance message does not show on the front panel of the transceiver, then you corrected the fault.

——— END OF TASK ———

806. HF Communication System Receive/Transmit Problem - Fault Isolation

A. Description

(1) The HF communication system does not operate correctly.

(a) Poor reception and/or poor transmission at any or all audio control panel (ACP) locations for the HF-1 communication system.

(b) HF operation while the airplane is in flight is intermittent, but is satisfactory when the airplane is on the ground.

B. Possible Causes

(1) HF-1 transceiver, M226.

(2) HF-1 antenna coupler, M227.

(3) HF antenna, M228.

(4) Radio tuning panel, P8-71 (RTP-1)

(5) Radio tuning panel, P8-72 (RTP-2)

(6) Radio tuning panel, P8-72 (RTP-3)

(7) Audio control panel, P8-6 (captain's)

(8) Audio control panel, P8-7 (first officer's)

(9) Audio control panel, P8-6 (first observer's)

(10) Remote electronics unit, M1353 (REU).

(11) Wiring.

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
E	11	C00839	COMMUNICATIONS HF 1

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
C	21	C00560	INTERPHONE POWER F/O DC 2
C	22	C00561	INTERPHONE POWER F/O BAT
C	23	C00239	INTERPHONE POWER CAPT DC 2
C	24	C00240	INTERPHONE POWER CAPT BAT
D	21	C00084	INTPH AND WARN
D	22	C00086	AUDIO F/O
D	23	C00083	AUDIO CAPT
D	24	C00085	AUDIO OBS

D. Related Data

(1) (SSM 23-11-11)

(2) WDM 23-11-11

E. Initial Evaluation

WARNING: DO NOT OPERATE THE HF SYSTEM WHILE THE AIRPLANE IS REFUELED OR DEFUELED. AN EXPLOSION CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO THE AIRPLANE.

WARNING: MAKE SURE THAT PERSONNEL STAY A MINIMUM OF 6 FEET AWAY FROM THE VERTICAL STABILIZER WHEN THE HF SYSTEM TRANSMITS. RF ENERGY FROM THE HF ANTENNA CAN CAUSE INJURIES TO PERSONNEL.

(1) Do not operate the HF system while a fuel operation is done on the airplane.

(2) Do this reception/transmission test of the HF communication system:

NOTE: HF communication can be degraded while the airplane is on the ground due to external interference or signal blockage. Before you identify a HF communication system fault, make sure you try to transmit and receive at several frequencies across the HF frequency band. Make sure the airplane is not in or near any large metal structures. In some cases, you can move the airplane to correct the problem.

(a) Connect a headset/boom microphone, M428 (captain's), to the boom microphone jack, D6027 (captain's).

(b) Do these steps at the audio control panel, P8-6 (captain's ACP):

1) Push and release the HF-1 switch.
   a) Make sure that the switch light comes on.
2) Push and release the HF-1 volume control.
   a) Make sure that the volume control indicator light comes on.
3) Set the volume control to the middle position.
4) Set the MASK/BOOM switch (if installed) to the BOOM position.

(c) Do these steps at the radio tuning panel, P8-71 (RTP-1):

1) Push the HF 1 switch light.
   a) Make sure that the switch light comes on.
2) Push the AM switch light for AM or USB mode of operation.
   a) Make sure the switch light is on for AM, or off for USB.
3) Turn the SENS control clockwise to the maximum position.
4) Set the STANDBY frequency window to an approved test frequency.
5) Push the display transfer switch.
   a) Make sure the STANDBY frequency moves to the ACTIVE frequency window.

(d) Push and release the captain's push-to-talk (PTT) switch.

1) Make sure you hear a 1 kHz tune-in-progress tone in the headset.

NOTE: A continuous or pulsed tone indicates that the coupler is tuning to a new frequency. The coupler tune tone will sound no longer than 15 seconds. The average coupler tune time is approximately 2 to 4 seconds typical, 7 seconds maximum. A continous tone indicates a failed HF coupler and as long as this failure exists, it will be annunciated on the front of the HF transceiver.

NOTE: Some coupler types are able to tune quickly when previously used frequencies are selected (about 1 second), in which case the tune tone may be only a momentary beep or may not be audible. But at the first tuning after a cold start, the tune tone is always audible regardless of whether this frequency is stored (average 2 to 4 seconds, 7 seconds maximum).

NOTE: Data for the last 100 tuned frequencies is stored in memeory. When either HF antenna or HF transceiver is replaced, the frequency memory is reset.

(e) Do these steps to do a voice communication test with a radio tower operator:

1) Push and hold the PTT switch while you speak.

NOTE: If no audio sidetone is heard, the HF transceiver has failed and as long as this failure exists, it will be annunciated on the front of the HF transceiver.

a) Make sure you hear the sidetone in the headset while you speak.

b) Make sure the HF transceiver blower fan operates when you transmit.

c) Make sure the FAIL lights on the front panel of the HF transceiver are not on.

2) Release the PTT switch while you listen.

a) Make sure the quality of the transmitted and received voice is satisfactory.

b) Make sure the sound of the received voice decreases and increases when you turn the SENS control counterclockwise and clockwise on the RTP.

c) Make sure the sound of the received voice changes when you turn the HF-1 volume control on the ACP, P8-6 (captain's), with no change in voice quality.

(f) If more than one mode of operation (AM and USB) is available at your location, do this step:

1) Push the AM switch light to the other mode of operation and make a voice transmission.

(g) At each remaining ACP, set the HF-1 switch and make a voice transmission.

1) Make sure the quality of the transmitted and received voice is satisfactory.

2) Make sure the sound of the received voice changes when you turn the HF-1 volume control on the applicable ACP with no change in voice quality.

(3) If the HF communication system operates satisfactorily, then there was an intermittent fault.

(4) If the HF communication system does not operate satisfactorily at one location, then do the Fault Isolation Procedure - Problem At One Location below.

(5) If the HF communication system does not operate satisfactorily at all locations, then do the Fault Isolation Procedure - Problem At All Locations below.

(6) If the HF communication system does not operate satisfactorily or is intermittent while in flight, but operates satisfactorily on the ground, do the Fault Isolation Procedure - Intermittent Operation In Flight, Ground Operation OK below.

F. Fault Isolation Procedure - Problem At One Location

(1) Replace the audio control panel, P8-6 (captain's ACP), P8-7 (first officer's ACP) or P5-15 (first observer's ACP).

These are the tasks:

Audio Control Panel Removal, AMM TASK 23-51-02-000-801,

Audio Control Panel Installation, AMM TASK 23-51-02-400-801.

(a) Do a voice communication test with a radio tower operator using the applicable ACP.

1) Make sure the quality of the transmitted and received voice is satisfactory.

(b) If the HF communication system operates satisfactorily, then you corrected the fault.

(c) If the HF communication system does not operate satisfactorily, then continue.

(2) Replace the remote electronics unit, M1353 (REU).

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

(a) Do a voice communication test with a radio tower operator using the applicable ACP.

1) Make sure the quality of the transmitted and received voice is satisfactory.

(b) If the HF communication system operates satisfactorily, then you corrected the fault.

G. Fault Isolation Procedure - Problem At All Locations

(1) Replace the HF transceiver, M226 (HF-1).

These are the tasks:

HF Transceiver - Removal, AMM TASK 23-11-21-000-801,

HF Transceiver - Installation, AMM TASK 23-11-21-400-801.

(a) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

(b) Do a voice communication test with a radio tower operator.

1) Make sure the quality of the transmitted and received voice is satisfactory.

(c) If the HF communication system operates satisfactorily, then you corrected the fault.

(d) If the HF communication system does not operate satisfactorily, then continue.

(2) Replace the radio tuning panel, P8-71 (RTP-1) or P8-72 (RTP-2).

These are the tasks:

Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801,

Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

(a) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

(b) Do a voice communication test with a radio tower operator.

1) Make sure the quality of the transmitted and received voice is satisfactory.

(c) If the HF communication system operates satisfactorily, then you corrected the fault.

(d) If the HF communication system does not operate satisfactorily, then continue.

(3) Replace the remote electronics unit, M1353 (REU).

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

(a) Do a voice communication test with a radio tower operator.

1) Make sure the quality of the transmitted and received voice is satisfactory.

(b) If the HF communication system operates satisfactorily, then you corrected the fault.

(c) If the HF communication system does not operate satisfactorily, then continue.

(4) Replace the HF antenna coupler, M227 (HF-1).

These are the tasks:

HF Antenna Coupler - Removal, AMM TASK 23-11-61-000-801,

HF Antenna Coupler - Installation, AMM TASK 23-11-61-400-801.

(a) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

(b) Do a voice communication test with a radio tower operator.

1) Make sure the quality of the transmitted and received voice is satisfactory.

(c) If the HF communication system operates satisfactorily, then you corrected the fault.

(d) If the HF communication system does not operate satisfactorily, then continue.

(5) Do this check of the coaxial cable:

(a) Remove the HF transceiver, M226 (HF-1). To remove it, do this task: HF Transceiver - Removal, AMM TASK 23-11-21-000-801.

(b) Remove this access panel:

Number	Name/Location
322AL	Vertical Fin, Fixed Leading Edge

(c) Disconnect the coaxial cable connector, D337, at the HF antenna coupler, M227 (HF-1).

(d) Do a time domain reflectometry check of the coaxial cable between connector, D345B, at the HF transceiver, M226 (HF-1), and connector, D337, at the HF antenna coupler, M227 (HF-1) (WDM 23-11-11), do this task: Coaxial Cable Inspection, AMM TASK 20-10-72-210-801.

(e) Repair any problems that you find.

(f) Re-connect the coaxial cable connector, D337, at the HF antenna coupler, M227 (HF-1).

(g) Install this access panel:

Number	Name/Location
322AL	Vertical Fin, Fixed Leading Edge

(h) Re-install the HF transceiver, M226 (HF-1). To install it, do this task: HF Transceiver - Installation, AMM TASK 23-11-21-400-801.

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	11	C00165	COMMUNICATIONS VHF 1
E	11	C00839	COMMUNICATIONS HF 1

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	3	C00166	COMMUNICATIONS VHF 2

(j) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

(k) Do a voice communication test with a radio tower operator.

1) Make sure the quality of the transmitted and received voice is satisfactory.

(l) If the HF communication system operates satisfactorily, then you corrected the fault.

(m) If the HF communication system does not operate satisfactorily, then continue.

(6) Do a check of the electrical bond of the HF antenna, do this task: HF Antenna - Electrical Bond Check, AMM TASK 23-11-51-760-801.

(a) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

(b) Do a voice communication test with a radio tower operator.

1) Make sure the quality of the transmitted and received voice is satisfactory.

(c) If the HF communication system operates satisfactorily, then you corrected the fault.

H. Fault Isolation Procedure - Intermittent Operation In Flight, Ground Operation OK below.

NOTE: This fault indicates that a HF antenna coupler has a pressurization leak. Make sure that the replacement HF coupler is fully pressurized with dry nitrogen in accordance with the applicable Component Maintenance Manual (CMM).

(1) Replace the HF antenna coupler, M227 (HF-1).

These are the tasks:

HF Antenna Coupler - Removal, AMM TASK 23-11-61-000-801,

HF Antenna Coupler - Installation, AMM TASK 23-11-61-400-801.

(a) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

(b) Monitor HF system performance on subsequent flights.

(c) If the HF communication system operates satisfactorily while in flight, then you corrected the fault.

——— END OF TASK ———

801. VHF Communication Transceiver System - BITE Procedure

A. General

(1) You do the very high frequency (VHF) communication system BITE test at the front panel of the VHF communication transceiver.

(2) The No. 1 VHF communication transceiver is located on the E1-3 shelf and the No. 2 VHF communication transceiver is located on the E1-5 shelf in the main equipment center.

(3) The No. 3 VHF communication transceiver is located on the E3-3 shelf in the main equipment center.

(4) The VHF communication system BITE test does a self check for existing internal and external faults.

(a) Results of the BITE test are displayed by fault lights on the front panel of the VHF communication transceiver.

B. BITE Procedure

(1) Do these steps to do the BITE procedure for the VHF communication system:

(a) Push and release the TEST switch on the front panel of the applicable VHF communication transceiver.

1) Make sure these conditions occur:

a) All three LEDs on the VHF transceiver front panel turn red for about two seconds.

b) The LRU STATUS LED turns green and the CONTROL FAIL and ANTENNA FAIL LEDs remain red for about two seconds.

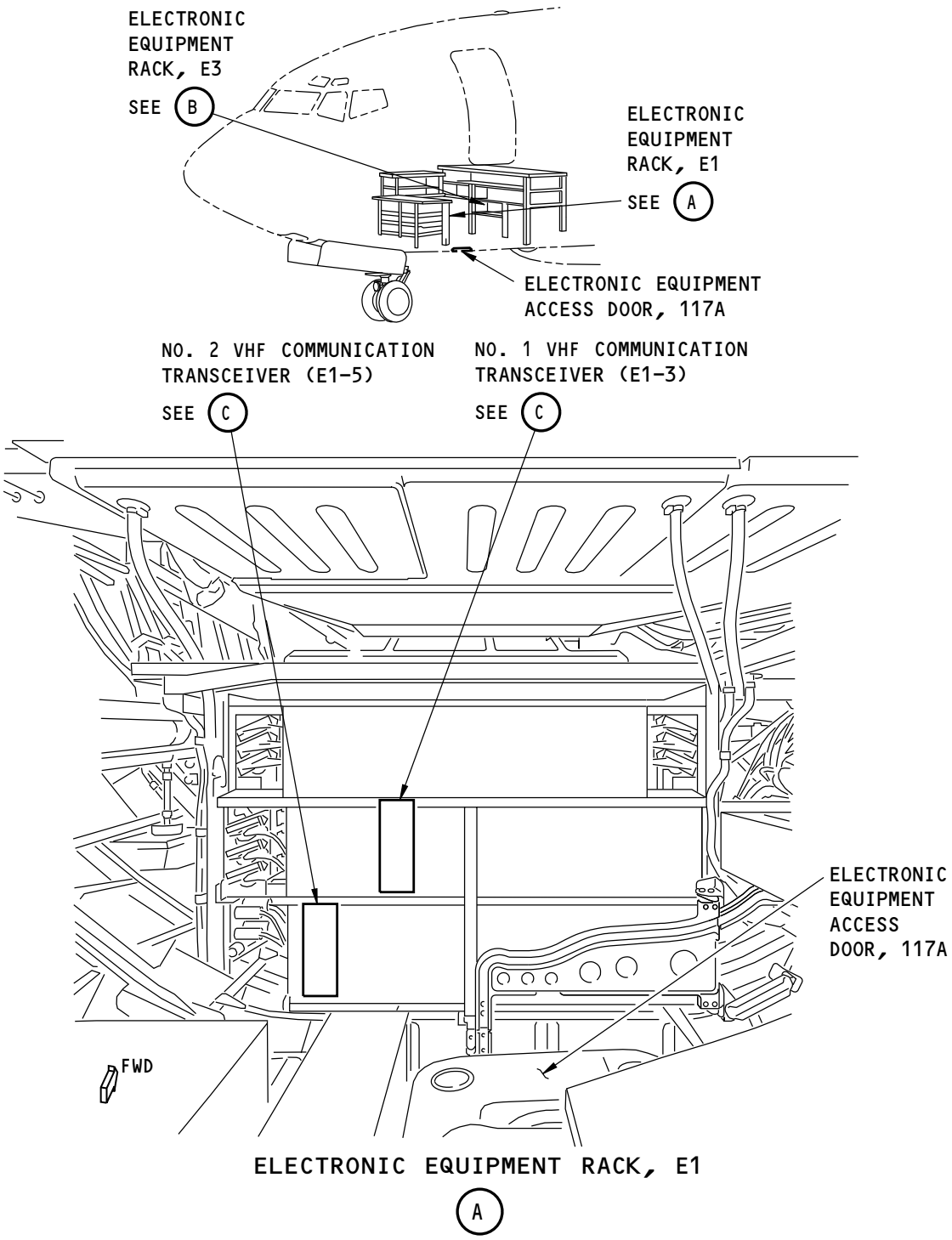
c) All three LEDs go off for about two seconds.

(b) If the LRU STATUS LED comes on green for about 30 seconds and the CONTROL FAIL and ANTENNA FAIL LEDs remain off, then the BITE test passed.

(c) If the red LRU STATUS, CONTROL FAIL, or ANTENNA FAIL LED is on, then refer to the table at the end of this task to find the fault isolation task for the applicable maintenance message.

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
VHF XCVR	ANTENNA FAIL	23-12 TASK 813
VHF XCVR	CONTROL FAIL	23-12 TASK 812

END OF TASK



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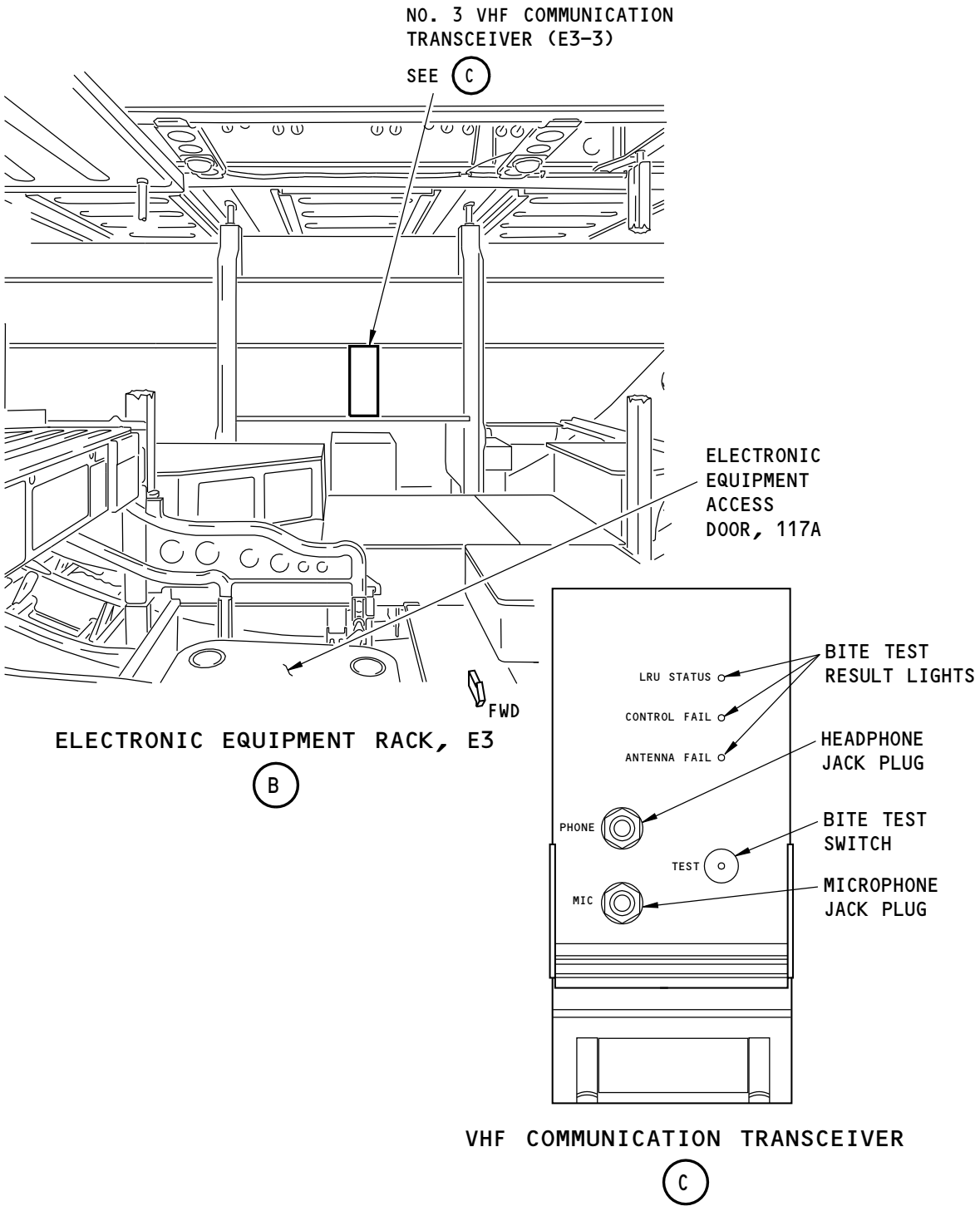
VHF Communication System Installation
Figure 201/23-12-00-990-803 (Sheet 1 of 2)



VHF Communication System Installation
Figure 201/23-12-00-990-803 (Sheet 2 of 2)

812. VHF Transceiver CONTROL Problem or TUNING PORT B MISSING INPUT Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:

(a) CONTROL FAIL

(2) The VHF communication transceiver receives no input from the radio tuning panel.

B. Possible Causes

(1) Radio tuning panels (RTP): P8-71 (RTP-1), P8-72 (RTP-2), or P8-73 (RTP-3)

(2) VHF communication transceiver, M149 (VHF-1), M150 (VHF-2), or M411 (VHF-3)

(3) Wiring problem

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	11	C00165	COMMUNICATIONS VHF 1
D	12	C00471	COMMUNICATIONS VHF 3

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	3	C00166	COMMUNICATIONS VHF 2

D. Related Data

(1) (SSM 23-12-11,-21, -31)

(2) (WDM 23-12-11,-21,-31)

E. Initial Evaluation

(1) Do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

(a) If the maintenance message or fail light does not show on the transceiver, then there was an intermittent fault.

(b) If the maintenance message or fail light shows on the transceiver, then continue.

(2) Set the radio tuning panels for the applicable VHF communication system.

(a) Set the STANDBY frequency to an approved test frequency.

(b) If the frequency is not shown, then do the Fault Isolation Procedure - Frequency Is Not Shown below.

(c) If the frequency is shown, then do the Fault Isolation Procedure - Frequency Is Shown below.

F. Fault Isolation Procedure - Frequency Is Not Shown

(1) Replace the radio tuning panel (RTP), P8-71 (RTP-1), P8-72 (RTP-2), or P8-73 (RTP-3).

These are the tasks:

Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801,

Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

(a) Do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

1) If the maintenance message does not show on the transceiver, then you corrected the fault.

2) If the maintenance message shows on the transceiver, then continue.

(2) Do this check for 28 VDC at the RTP:

(a) Remove the RTP, P8-71 (RTP-1), P8-72 (RTP-2), or P8-73 (RTP-3). To remove it, do this task: Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801.

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	11	C00165	COMMUNICATIONS VHF 1
D	12	C00471	COMMUNICATIONS VHF 3

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	3	C00166	COMMUNICATIONS VHF 2

(c) Do a check for 28V DC at pin 40 of connector, D203 (RTP-1), D209 (RTP-2), or D549 (RTP-3) to structure ground.

1) If there is not 28V DC at pin 40 of connector D203 (RTP-1), D209 (RTP2), or D549 (RTP-3), then do this check for 28 VDC at the circuit breaker:

2) Do a check for 28V DC from the load terminal of VHF 1 circuit breaker, C165, VHF 2 circuit breaker, C166, or VHF 3 circuit breaker, C471, to structure ground.

3) If there is not 28V DC at the load terminal, then do these steps:

a) Replace the applicable circuit breaker, VHF 1, C165, VHF 2, C166, or VHF 3, C471.

b) Re-install the RTP. To install it, do this task: Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

c) Do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

d) If the maintenance message does not show on the transceiver, then you corrected the fault.

G. Fault Isolation Procedure - Frequency Is Shown

(1) Replace the radio tuning panel (RTP), P8-71 (RTP-1) for VHF-1, P8-72 (RTP-2) for VHF-2, or P8-73 (RTP-3) for VHF-3.

These are the tasks:

Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801,

Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

(a) Do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

1) If the maintenance message does not show on the transceiver, then you corrected the fault.

2) If the maintenance message shows on the transceiver, then continue.

(2) Replace the VHF communications transceiver, M149 (VHF-1), M-150 (VHF-2), or M411 (VHF-3).

These are the tasks:

VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801,

VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801.

(a) Do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

1) If the maintenance message does not show on the transceiver, then you corrected the fault.

2) If the maintenance message shows on the transceiver, then continue.

(3) Do this check of the wiring:

(a) Remove the applicable VHF communication transceiver, M149 (VHF-1), M150 (VHF-2), or M411 (VHF-3). To remove it, do this task: VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801.

(b) Remove the applicable radio tuning panels (see table below): P8-71 (RTP-1), P8-72 (RTP-2), or P8-73 (RTP-3). To remove them, do this task: Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801.

(c) Do a wiring check between these pins of the applicable VHF communication transceiver in the electronic equipment compartment, and the specified RTPs at the aft electronic panel, P8, (WDM 23-12-11,-21,-31):

VHF COMM TRANSCEIVER	TRANS CONNECTOR		RTP CONNECTOR	RTP
VHF-1 (M149)	D199B pin A11 pin B11	----- -----	D203 pin 2 pin 3	RTP-1 (P8-71)
	D199B pin A7 pin B7	----- -----	D209 pin 2 pin 3	RTP-2 (P8-72)
VHF-2 (M150)	D201B pin A7 pin B7	----- -----	D203 pin 2 pin 3	RTP-1 (P8-71)
	D201B pin A11 pin B11	----- -----	D209 pin 2 pin 3	RTP-2 (P8-72)
VHF-3 (M411)	D539B pin A7 pin B7	----- -----	D549 pin 2 pin 3	RTP-3 (P8-73)

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

1) Repair the wiring.

2) Re-install the VHF communication transceiver. To install it, do this task: VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801.

3) Re-install the RTPs. To install it, do this task: Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

4) Do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

a) If the maintenance message does not show on the transceiver, then you corrected the fault.

——— END OF TASK ———

813. VHF Transceiver ANTENNA FAIL or RF FAULT Problem - Fault Isolation

A. Description

(1) This task is for these maintenance messages:

(a) ANTENNA FAIL

(2) The VHF communication transceiver BITE detects an RF fault.

B. Possible Causes

(1) VHF communication transceiver, M149 (VHF-1), M150 (VHF-2), or M411 (VHF-3).

(2) VHF communication antenna, M57 (VHF-1), M58 (VHF-2), or M225 (VHF-3).

(3) Coaxial cable problem.

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	11	C00165	COMMUNICATIONS VHF 1
D	12	C00471	COMMUNICATIONS VHF 3

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	3	C00166	COMMUNICATIONS VHF 2

D. Related Data

(1) (SSM 23-12-11,-21, -31)

(2) (WDM 23-12-11,-21,-31)

E. Initial Evaluation

(1) Do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

(a) If the red ANTENNA FAIL LED is not on, on the front panel of the transceiver, then there was an intermittent fault.

(b) If the red ANTENNA FAIL LED is on, on the front panel of the transceiver, then continue.

F. Fault Isolation Procedure

(1) Replace the VHF communication transceiver, M149 (VHF-1), M150 (VHF-2), or M411 (VHF-3).

These are the tasks:

VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801,

VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801.

(2) Do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

(a) If the red ANTENNA FAIL LED is not on, on the front panel of the transceiver, then you corrected the fault.

(b) If the red ANTENNA FAIL LED is on, on the front panel of the transceiver, then continue.

(3) Do this check of the VHF communication antenna, M57 (VHF-1), M58 (VHF-2), or M225 (VHF-3), and the RF coaxial cable:

(a) Remove the VHF communication transceiver, M149 (VHF-1), M150 (VHF-2), or M411 (VHF-3). To remove it, do this task: VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801.

(b) Do a time domain reflectometry check of the coaxial cable from the VHF communication transceiver, M149 (VHF-1), M150 (VHF-2), or M411 (VHF-3), to the VHF communication antenna, M57 (VHF-1), M58 (VHF-2), or M225 (VHF-3) (WDM 23-12-11,-21,-31), do this task: Coaxial Cable Inspection, AMM TASK 20-10-72-210-801.

(c) If you find a problem with the coaxial cable, then do this step:

1) Repair or replace the coaxial cable.

(d) If you find a problem with the VHF communication antenna, then do this step:

1) Replace the VHF communication antenna, M57 (VHF-1), M58 (VHF-2), or M225 (VHF-3).

These are the tasks:

VHF Communication Antenna - Removal, AMM TASK 23-12-11-000-801,

VHF Communication Antenna - Installation, AMM TASK 23-12-11-400-801.

(e) Re-install the VHF communication transceiver, M149 (VHF-1), M150 (VHF-2), or M411 (VHF-3). To install it, do this task: VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801.

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	11	C00165	COMMUNICATIONS VHF 1
D	12	C00471	COMMUNICATIONS VHF 3

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	3	C00166	COMMUNICATIONS VHF 2

(a) Do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

1) If the red ANTENNA FAIL LED is not on, on the front panel of the transceiver, then you corrected the fault.

——— END OF TASK ———

815. Radio Tuning Panel Problem - Fault Isolation

A. Description

(1) The radio tuning panel (RTP) does not operate correctly.

NOTE: INOP can be manually set or removed from some RTP displays. For instructions to set or remove INOP, refer to this task: Radio Tuning Panel - INOP Display Toggle (AMM TASK 23-12-41-800-802).

B. Possible Causes

(1) Radio tuning panel (RTP), P8-71 (RTP-1), P8-72 (RTP-2), or P8-73 (RTP-3).

(2) Wiring problem.

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	11	C00165	COMMUNICATIONS VHF 1
D	12	C00471	COMMUNICATIONS VHF 3
E	11	C00839	COMMUNICATIONS HF 1

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	3	C00166	COMMUNICATIONS VHF 2

This circuit breaker is inoperative and should remain open:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	2	C00857	COMMUNICATIONS HF 2 (INOP)

D. Related Data

(1) (SSM 23-12-11,-21, -31)

(2) (SSM 23-11-11)

(3) (WDM 23-12-11,-21,-31)

(4) (WDM 23-11-11)

E. Initial Evaluation

(1) AIRPLANES WITH GABLES P/N G7404-XX RADIO TUNING PANELS;

Do these steps for a frequency lock-up problem:

(a) Push the VHF-1 switch on all the RTPs.

(b) Make sure that you can change the ACTIVE frequency for VHF-1 at each RTP.

1) Make sure that the ACTIVE frequencies at the other RTP(s) also change to the new frequency.

(c) If you can change the ACTIVE frequency at one RTP, but the other RTP(s) will not accept a frequency change, then do these steps:

1) Push the OFF switch on the RTP that operates satisfactorily.

a) Make sure the RTP is in the off condition.

2) Set the other RTP(s) to new ACTIVE frequencies to see if they will now accept a frequency change.

3) If the RTP(s) with the frequency lock-up problem now operate satisfactorily, then do the Fault Isolation Procedure - RTP Frequency Lock-up Problem below.

(2) Do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

(a) If there is a maintenance message shown on the front panel of the transceiver, then do the fault isolation procedure for the maintenance message.

(3) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

(a) If there is a maintenance message shown on the front panel of the transceiver, then do the fault isolation procedure for the maintenance message.

WARNING: DO NOT OPERATE THE HF SYSTEM WHILE THE AIRPLANE IS REFUELED OR DEFUELED. THIS CAN CAUSE INJURY TO PERSONNEL AND DAMAGE TO EQUIPMENT.

WARNING: MAKE SURE THAT PERSONNEL STAY A MINIMUM OF 6 FEET AWAY FROM THE VERTICAL STABILIZER WHEN THE HF SYSTEM TRANSMITS. RF ENERGY FROM THE HF ANTENNA CAN CAUSE INJURIES TO PERSONNEL.

(4) Do a VHF communication test (AMM TASK 23-12-00-730-801) and/or an HF communication test (AMM TASK 23-11-00-730-801) to confirm the problem.

(a) If the radio tuning panel (RTP) operates satisfactorily, then there was an intermittent fault.

(b) If the radio tuning panel (RTP) does not operate satisfactorily, then do the Fault Isolation Procedure - RTP Problem below.

F. Fault Isolation Procedure - RTP Problem

(1) Replace the radio tuning panel (RTP), P8-71 (RTP-1), P8-72 (RTP-2), or P8-73 (RTP-3).

These are the tasks:

Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801,

Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

(a) Do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

(b) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

WARNING: DO NOT OPERATE THE HF SYSTEM WHILE THE AIRPLANE IS REFUELED OR DEFUELED. THIS CAN CAUSE INJURY TO PERSONNEL AND DAMAGE TO EQUIPMENT.

WARNING: MAKE SURE PERSONNEL STAY A MINIMUM OF 6 FEET AWAY FROM THE VERTICAL STABILIZER WHEN THE HF SYSTEM TRANSMITS. RF ENERGY FROM THE HF ANTENNA CAN CAUSE INJURIES TO PERSONNEL.

(c) Do a VHF communication test and/or an HF communication test with a radio tower operator.

1) Make sure the quality of the transmitted and received voice is satisfactory.

(d) If the radio tuning panel (RTP) operates satisfactorily, then you corrected the fault.

(e) If the radio tuning panel (RTP) does not operate satisfactorily, then continue.

(2) Do this check of the wiring:

(a) Remove the applicable radio tuning panel (RTP) (see table below). To remove it, do this task: Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801.

(b) Remove the applicable VHF or HF communication transceiver (see table below).

1) To remove the VHF communication transceiver, do this task: VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801.

2) To remove the HF transceiver, do this task: HF Transceiver - Removal, AMM TASK 23-11-21-000-801.

(c) Do a wiring check between these pins of the radio tuning panel (RTP) at the aft electronic panel, P8, and the applicable transceiver in the electronic equipment compartment (WDM 23-12-11,-21,-31) (WDM 23-11-11, -21):

Table 201/23-12-00-993-802

RADIO TUNING PANEL (RTP)	RTP CONNECTOR		XCVR CONNECTOR	TRANSCEIVER
RTP-1 (P8-71)	D203		D199B	VHF-1 (M149)
	pin 2	-----	pin A11	
	pin 3	-----	pin B11	
	pin 8	-----	pin A7	
	pin 9	-----	pin B7	
	D203		D345B	HF-1 (M226) (if installed)
	pin 2	-----	pin E3	
	pin 3	-----	pin F3	
	pin 8	-----	pin G3	
	pin 9	-----	pin H3	
	D203		D201B	VHF-2 (M150)
	pin 2	-----	pin A7	
	pin 3	-----	pin B7	
	pin 8	-----	pin A11	
	pin 9	-----	pin B11	
	D203		D623B	HF-2 (M439) (if installed)
	pin 2	-----	pin G3	
	pin 3	-----	pin H3	
	pin 8	-----	pin E3	
	pin 9	-----	pin F3	
	D203		D539B	VHF-3 (M411) (if installed)
	pin 5	-----	pin A7	
	pin 6	-----	pin B7	

Table 201/23-12-00-993-802 (Continued)

RADIO TUNING PANEL (RTP)	RTP CONNECTOR		XCVR CONNECTOR	TRANSCEIVER
RTP-2 (P8-72)	D209		D201B	VHF-2 (M150)
	pin 2	-----	pin A11	
	pin 3	-----	pin B11	
	pin 5	-----	pin A7	
	pin 6	-----	pin B7	
	D209		D623B	HF-2 (M439) (if installed)
	pin 2	-----	pin E3	
	pin 3	-----	pin F3	
	pin 5	-----	pin G3	
	pin 6	-----	pin H3	
	D209		D199B	VHF-1 (M149)
	pin 2	-----	pin A7	
	pin 3	-----	pin B7	
	pin 5	-----	pin A11	
	pin 6	-----	pin B11	
	D209		D345B	HF-1 (M226) (if installed)
	pin 2	-----	pin G3	
	pin 3	-----	pin H3	
	pin 5	-----	pin E3	
	pin 6	-----	pin F3	
	D209		D539B	VHF-3 (M411) (if installed)
	pin 8	-----	pin A7	
	pin 9	-----	pin B7	

Table 201/23-12-00-993-802 (Continued)

RADIO TUNING PANEL (RTP)	RTP CONNECTOR		XCVR CONNECTOR	TRANSCEIVER
RTP-3 (P8-73) (if installed)	D549		D539B	VHF-3 (M411) (if installed)
	pin 2	-----	pin A7	
	pin 3	-----	pin B7	
	D549		D623B	HF-2 (M439) (if installed)
	pin 5	-----	pin E3	
	pin 6	-----	pin F3	
	pin 8	-----	pin G3	
	pin 9	-----	pin H3	
	D549		D199B	VHF-1 (M149)
	pin 5	-----	pin A7	
	pin 6	-----	pin B7	
	pin 8	-----	pin A11	
	pin 9	-----	pin B11	
	D549		D345B	HF-1 (M226) (if installed)
	pin 5	-----	pin G3	
	pin 6	-----	pin H3	
	pin 8	-----	pin E3	
	pin 9	-----	pin F3	
	D549		D201B	VHF-2 (M150)
	pin 5	-----	pin A11	
	pin 6	-----	pin B11	
	pin 8	-----	pin A7	
	pin 9	-----	pin B7	

(d) Repair any airplane wiring problems you find.

(e) Re-install the applicable radio tuning panel (RTP). To install it, do this task: Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

(f) Re-install the applicable VHF or HF communication transceiver:

1) To install the VHF communication transceiver, do this task: VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801.

2) To install the HF transceiver, do this task: HF Transceiver - Installation, AMM TASK 23-11-21-400-801.

(g) Do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

(h) Do this task: HF Communication System - BITE Procedure, 23-11 TASK 801.

WARNING: DO NOT OPERATE THE HF SYSTEM WHILE THE AIRPLANE IS REFUELED OR DEFUELED. THIS CAN CAUSE INJURY TO PERSONNEL AND DAMAGE TO EQUIPMENT.

WARNING: MAKE SURE THAT PERSONNEL STAY A MINIMUM OF 6 FEET AWAY FROM THE VERTICAL STABILIZER WHEN THE HF SYSTEM TRANSMITS. RF ENERGY FROM THE HF ANTENNA CAN CAUSE INJURIES TO PERSONNEL.

(i) Do a VHF communication test and/or an HF communication test with a radio tower operator.

1) Make sure the quality of the transmitted and received voice is satisfactory.

(j) If the radio tuning panel (RTP) operates satsifactorily, then you corrected the fault.

G. Fault Isolation Procedure - RTP Frequency Lock-up Problem

(1) Replace the radio tuning panel, P8-71 (RTP-1), P8-72 (RTP-2), or P8-73 (RTP-3), that you set to off in the Initial Evaluation.

NOTE: If an RTP has a cross-tuning failure, it may tune frequencies satisfactorily while it prevents other RTPs from tuning frequencies satisfactorily.

(a) Set each RTP to a new ACTIVE frequency to make sure that each RTP will accept a frequency change.

1) If the RTPs operate satisfactorily, then you corrected the fault.

2) If the RTPs do not operate satisfactorily, then continue the procedure.

(2) Do this check of the wiring:

(a) Remove the RTPs. To remove the RTPs, do this task: Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801.

(b) Do a wiring check between these pins of RTP connectors D203, D209 and D549 at P8 (WDM 23-12-11,-21,-31 OR -41,):

D203 (RTP-1)	**D209 (RTP-2)**
pin 2	pin 5
pin 3	pin 6
pin 5	pin 8
pin 6	pin 9
pin 8	pin 2
pin 9	pin 3

D203 (RTP-1)	**D549 (RTP-3)**
pin 2	pin 8
pin 3	pin 9
pin 5	pin 2
pin 6	pin 3
pin 8	pin 5
pin 9	pin 6

D209 (RTP-2)		D549 (RTP-3)
pin 2	. . . . .	pin 5
pin 3	. . . . .	pin 6
pin 5	. . . . .	pin 8
pin 6	. . . . .	pin 9
pin 8	. . . . .	pin 2
pin 9	. . . . .	pin 3

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

1) Repair the wiring.

(d) Install the RTPs. To install the RTPs, do this task: Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

(e) Set each RTP to a new ACTIVE frequency to make sure that each RTP will accept a frequency change.

1) If the RTP operates satisfactorily, then you corrected the fault.

——— END OF TASK ———

816. VHF Communication System - Receive/Transmit Problem

A. Description

(1) The VHF-1, VHF-2, or VHF-3 communication system does not operate correctly.

(2) Poor reception and/or poor transmission at the audio control panel, P8-6 (captain), P8-7 (first officer) or P5-15 (first observer) on the VHF-1, VHF-2, or VHF-3 communication system.

B. Possible Causes

(1) VHF communication transceiver, M149 (VHF-1), M150 (VHF-2), or M411 (VHF-3)

(2) Radio tuning panels (RTP): P8-71 (RTP-1), P8-72 (RTP-2), or P8-73 (RTP-3)

(3) Audio control panel, P8-6 (captain), P8-7 (first officer) or P5-15 (first observer)

(4) A push-to-talk (PTT) switch is stuck in transmit

(5) Remote electronics unit, M1353

(6) VHF communication antenna, M57 (VHF-1), M58 (VHF-2), or M225 (VHF-3)

(7) RF coaxial cable problem

(8) Wiring problem

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	11	C00165	COMMUNICATIONS VHF 1
D	12	C00471	COMMUNICATIONS VHF 3

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	3	C00166	COMMUNICATIONS VHF 2

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
C	21	C00560	INTERPHONE POWER F/O DC 2
C	22	C00561	INTERPHONE POWER F/O BAT
C	23	C00239	INTERPHONE POWER CAPT DC 2
C	24	C00240	INTERPHONE POWER CAPT BAT
D	22	C00086	AUDIO F/O
D	23	C00083	AUDIO CAPT
D	24	C00085	AUDIO OBS

D. Related Data

(1) (SSM 23-12-11,-21, -31)

(2) (SSM 23-51-11,-21,-31)

(3) (WDM 23-12-11,-21,-31)

(4) (WDM 23-51-11,-21,-31)

E. Initial Evaluation

(1) Make sure that none of the push-to-talk (PTT) switches are stuck in transmit (AMM TASK 23-51-00-710-801).

NOTE: A stuck PTT can be a cause of a temporary VHF transmit failure.

(a) Do these steps to do a fast check for a PTT that is stuck in transmit:

1) Set all the audio control panels to the Flight Interphone (or Interphone) transmit position.

2) Without pushing a PTT switch, speak into the microphones at the different crew stations.

3) If the station transmits, then it has a stuck PTT switch.

(2) Do a BITE test of the VHF communication transceivers. To do the BITE test, do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

(a) If the BITE test finds a fault, then do the fault isolation procedure for the maintenance message.

(3) Do this reception/transmission test of the VHF communication system:

NOTE: VHF communications can be degraded while the airplane is on the ground due to external interference or signal blockage. Before you identify a VHF communication system fault, make sure you try to transmit and receive at several frequencies across the VHF frequency band. Make sure the airplane is not in or near any large metal structures. In some cases, you can move the airplane to correct the problem.

(a) Use a boom microphone/headphone to do the test.

(b) At the audio control panel, P8-6 (captain), P8-7 (first officer) or P5-15 (first observer), do these steps:

1) Push and release the applicable microphone selector switch (VHF-1, VHF-2, or VHF-3).

a) Make sure the applicable switch light comes on.

2) Adjust the applicable volume control switch to the middle position.

3) Make sure the BOOM/MASKS switch is set to the BOOM position.

(c) Set the radio tuning panel for the applicable VHF communication system.

1) Set the STANDBY frequency to an approved test frequency.

2) Push the transfer switch.

3) Make sure the STANDBY and ACTIVE frequencies are exchanged.

(d) Do these steps to do a voice communication test with a radio operator:

1) Push and hold a push-to-talk (PTT) switch while you speak into the microphone.

a) Make sure you hear the sidetone in the headset while you speak.

2) Release the PTT switch while you listen.

a) Make sure the quality of the transmitted and received voice is satisfactory.

b) Make sure the volume of the received voice changes when you turn the volume control on the audio control panel, P8-6 (captain), P8-7 (first officer) or P5-15 (first observer) with no change in voice quality.

(4) If the VHF communication system operates satisfactorily, then there was an intermittent fault.

(5) If the VHF communication system does not operate satisfactorily, then do a reception/transmission test of the VHF communication system at each audio control panel.

(a) If the problem occurs at all audio control panels, then do Problem at All Audio Control Panels - Fault Isolation Procedure below.

(b) If the problem occurs at only one audio control panel, then do Problem at Only One Audio Control Panel - Fault Isolation Procedure below.

F. Problem at All Audio Control Panels - Fault Isolation Procedure

(1) Do this exchange check of the VHF communication transceiver, M149 (VHF-1), M150 (VHF-2) or M411 (VHF-3):

(a) Put a tag that reads SUSPECT on the VHF communication transceiver with poor reception or transmission.

(b) Put a tag that reads OK on the other VHF communication transceiver.

(c) Exchange the locations of the two VHF communication transceivers.

These are the tasks:

VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801,

VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801.

(d) Do a BITE test of each VHF communication transceiver. To do the BITE test, do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

(e) Speak with the radio operator on each VHF communication system.

1) Make sure the transmitted and received voice signals are satisfactory.

(f) If the poor reception or transmission moves with the VHF communication transceiver tagged SUSPECT, then do these steps:

1) Replace the VHF communication transceiver tagged SUSPECT.

These are the tasks:

VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801,

VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801.

NOTE: If it is your airlines' policy, you must install the VHF communication transceiver with the OK tag in its initial location.

2) Do a BITE test of the applicable VHF communication transceiver. To do the BITE test, do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

3) Speak with a radio operator on each VHF communication system.

a) Make sure the transmitted and received voice is satisfactory.

4) If the VHF communication system operates correctly, then you corrected the fault.

a) Remove the tags from the VHF communication transceivers.

(g) If the poor reception or transmission goes away after you exchange the VHF communication transceivers, then do these steps to complete the task:

NOTE: There was an intermittent fault in either the equipment rack connector, or in the VHF transceiver with the SUSPECT tag.

1) If it is your airlines' policy, you must install the VHF communication transceivers in their initial locations.

These are the tasks:

VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801,

VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801.

2) Remove the tags from the VHF communication transceivers.

(h) If the poor reception or transmission stays with the applicable communication system after you exchanged the VHF communication transceivers, then continue:

1) If it is your airlines' policy, you must install the VHF communication transceivers in their initial locations.

These are the tasks:

VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801,

VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801.

2) Remove the tags from the VHF communication transceivers.

(2) Do this exchange check of the radio tuning panels, P8-71 (RTP-1), P8-72 (RTP-2), or P8-73 (RTP-3):

(3) Do the following steps:

(a) Put a tag that reads SUSPECT on the panel that has the reception or transmission problem.

(b) Put a tag that reads OK on the other panel.

(c) Exchange the locations of the radio tuning panels.

These are the tasks:

Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801,

Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

(d) Do a BITE test of the VHF communication transceivers. To do the BITE test, do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

(e) Do a voice communication test with a radio operator on each VHF communication system.

1) Make sure the transmitted and received voice signals are satisfactory.

(f) If the fault moves with the panel tagged SUSPECT, then do these steps:

1) Replace the radio tuning panel tagged SUSPECT.

These are the tasks:

Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801,

Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

NOTE: If it is your airlines' policy, you must install the radio tuning panel with the OK tag in its initial location.

2) Do a BITE test of the applicable VHF communication transceiver. To do the BITE test, do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

3) Do a voice communication test on each VHF communication system.

a) Make sure the transmitted and received voice signals are satisfactory.

4) If the VHF communication system operates correctly, then you corrected the fault.

a) Remove the tags from the panels.

(g) If the fault goes away after you exchange the panels, then do these steps to complete the task:

NOTE: There was an intermittent fault in the panel connector, or in the panel tagged SUSPECT.

1) If it is your airlines' policy, you must install the radio tuning panels in their initial locations.

These are the tasks:

Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801,

Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

2) Remove the tags from the panels.

(h) If the poor transmission or reception stays with the communication system after you exchange the panels, then continue the procedure.

1) If it is your airlines' policy, you must install the radio tuning panels in their initial locations.

These are the tasks:

Radio Tuning Panel (RTP) - Removal, AMM TASK 23-12-41-000-801,

Radio Tuning Panel (RTP) - Installation, AMM TASK 23-12-41-400-801.

2) Remove the tags from the panels.

(4) Replace the remote electronics unit, M1353.

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

(a) Do a radio check with the radio operator on the applicable VHF communication system.

1) Make sure the transmitted and received voice is satisfactory.

(b) If the VHF communication system operates correctly, then you corrected the fault.

(c) If the VHF communication system does not operate correctly, then continue.

(5) Do this check of the VHF communication antenna, VHF-1, VHF-2 or VHF-3 and the RF coaxial cable:

(a) Remove the VHF communication transceiver, M149 (VHF-1), M150 (VHF-2), or M411 (VHF-3). To remove the VHF communication transceiver, do this task: VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801.

(b) Do a check of the coaxial cable from the VHF communication transceiver, M149 (VHF-1), M150 (VHF-2), or M411 (VHF-3) to the VHF communication antenna, VHF-1, VHF-2, or VHF-3 (WDM 23-12-11,-21,-31). To do the TDR (time domain reflectometer) check, do this task: Coaxial Cable Inspection, AMM TASK 20-10-72-210-801.

(c) If you find a problem with the coaxial cable, then do this step:

1) Repair or replace the coaxial cable.

(d) If you find a problem with the VHF communication antenna, then do this step:

1) Replace the VHF communication antenna, VHF-1, VHF-2 or VHF-3.

These are the tasks:

VHF Communication Antenna - Removal, AMM TASK 23-12-11-000-801,

VHF Communication Antenna - Installation, AMM TASK 23-12-11-400-801.

(e) Re-install the VHF communication transceiver. To install the transceiver, do this task: VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801.

(f) Do a BITE test of the VHF communication transceiver. To do the BITE test, do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

(g) Do a radio check with the radio operator on the applicable VHF communication system.

1) Make sure the transmitted and received voice is satisfactory.

(h) If the VHF communication system operates correctly, then you corrected the fault.

G. Problem at Only One Audio Control Panel - Fault Isolation Procedure

(1) Replace the applicable audio control panel, P8-6 (captain), P8-7 (first officer) or P5-15 (first observer).

These are the tasks:

Audio Control Panel Removal, AMM TASK 23-51-02-000-801,

Audio Control Panel Installation, AMM TASK 23-51-02-400-801.

(a) Do a radio check with the radio operator on the applicable VHF communication system.

1) Make sure the transmitted and received voice is satisfactory.

(b) If the VHF communication system operates correctly, then you corrected the fault.

(c) If the VHF communication system does not operate correctly, then continue.

(2) Replace the remote electronics unit, M1353.

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

(a) Do a radio check with the radio operator on the applicable VHF communication system.

1) Make sure the transmitted and received voice is satisfactory.

(b) If the VHF communication system operates correctly, then you corrected the fault.

END OF TASK

818. VHF Transceiver Internal Fault Problem - Fault Isolation

A. Description

(1) This task is for this maintenance message:

(a) LRU STATUS

(2) The VHF communication transceiver has an internal fault.

B. Possible Causes

(1) VHF communication transceiver, M149 (VHF-1), M150 (VHF-2), or M411 (VHF-3).

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	11	C00165	COMMUNICATIONS VHF 1
D	12	C00471	COMMUNICATIONS VHF 3

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	3	C00166	COMMUNICATIONS VHF 2

D. Related Data

(1) (SSM 23-12-11,-21, -31)

(2) (WDM 23-12-11,-21,-31)

E. Initial Evaluation

(1) Do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

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

(b) If the maintenance message shows on the transceiver, then continue.

F. Fault Isolation Procedure

(1) Replace the VHF communication transceiver, M149 (VHF-1), M150 (VHF-2), or M411 (VHF-3).

These are the tasks:

VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801,

VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801.

(a) Do this task: VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801.

1) If the maintenance message does not show on the transceiver, then you corrected the fault.

END OF TASK

801. Emergency Locator Transmitter (ELT) BITE Procedure

A. General

(1) You do the emergency locator transmitter (ELT) BITE procedure from the front panel of the ELT. The ELT is above an access panel in the aft passenger cabin ceiling.

(2) The ELT BITE test does an operational check of the emergency locator transmitter (ELT) system. If the BITE test is good, the LED on the ELT front panel comes on and goes off three times.

B. Prepare Procedure

(1) Make sure that the airplane has electrical power.

(a) If it is necessary, do this task: Supply Electrical Power, AMM TASK 24-22-00-860-811.

(2) Make sure that you do the ELT test in the first five minutes of the hour (UTC).

NOTE: The ELT will transmit the 121.5/243.0 emergency signals during the ELT test.

(a) If you do the ELT test outside of the first five minutes of the hour (UTC), then do this:

1) Speak to the applicable emergency authority (Air Traffic Control Tower or Flight Service Station) to tell them that there will be an ELT test transmission on the emergency frequency.

(3) Open the access panel to get access to the ELT unit if applicable (Lowered Ceiling Removal, AMM TASK 25-21-71-000-801).

C. BITE Procedure

(1) Do the BITE procedure for the ELT (Figure 201):

(a) Do this task: ELT System - System Test, AMM TASK 23-24-00-730-802-002.

(b) Make sure the light-emitting diode (LED) on the ELT unit comes ON and then goes OFF exactly three times.

NOTE: There should be a delay of approximately 3-4 seconds from the time when the switch is set to "ARMED" and the blinking of the LED on the ELT front panel.

1) Refer to the table at the end of this task to find the fault isolation task for the applicable maintenance message.

(c) If you do not hear the ELT signal on VHF COMM 2, then, do this task: ELT BITE or Transmission Problem - Fault Isolation, 23-24 TASK 805.

(2) Speak to the applicable emergency authority to tell them that the ELT test is completed if applicable.

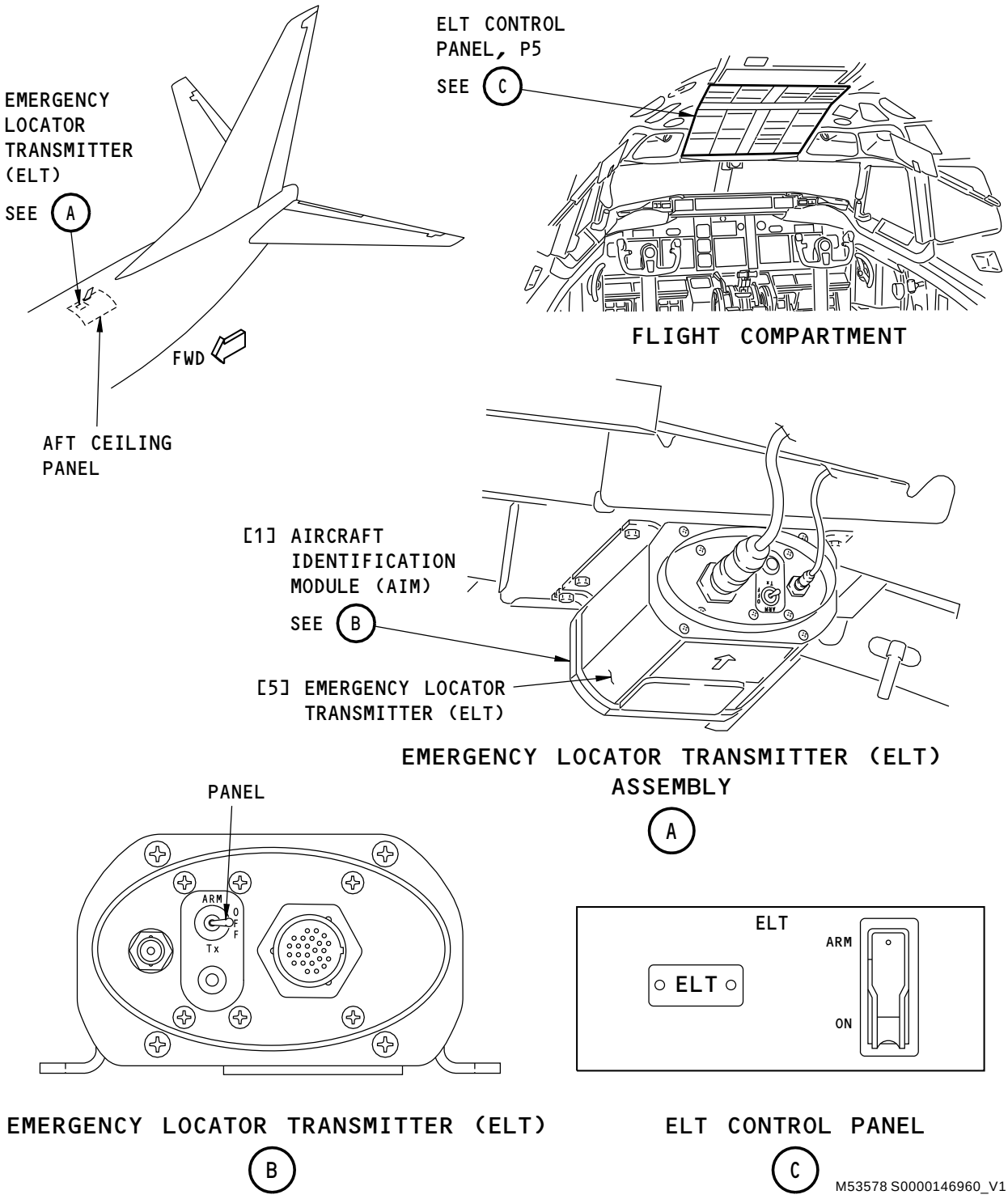
D. Put the Airplane Back to Its Usual Condition

(1) Close the access panel for the ELT unit if applicable (Lowered Ceiling Installation, AMM TASK 25-21-71-400-801).

(2) If the electrical power is not necessary, do this task: Remove Electrical Power, AMM TASK 24-22-00-860-812.

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
ELT	LED does not flash exactly three times	23-24 TASK 805

END OF TASK



Emergency Locator Transmitter (ELT)
Figure 201/23-24-00-990-803

805. ELT BITE or Transmission Problem - Fault Isolation

A. Description

(1) This task is for the maintenance message:

(a) LED does not flash exactly three times during BITE test.

(b) LED does not flash exactly two times during BITE test.

(2) This task is for the observed fault:

(a) ELT: transmission problem.

(3) The ELT BITE test does an operational check of the emergency locator transmitter (ELT) system. The LED on the ELT front panel does not flash exactly three times when the ELT detects a problem in the ELT system.

(4) The ELT BITE test does an operational check of the emergency locator transmitter (ELT) system. The LED on the ELT front panel does not flash exactly two times when the ELT detects a problem in the ELT system.

(5) If you do not hear the ELT signal on VHF COMM 2 during the BITE test, there is a problem in the ELT system transmission.

B. Possible Causes

(1) Connections at the transmitter unit

(2) ELT battery

(3) ELT, M1523

(4) Aircraft Identification Module (AIM), M2114

(5) Programmable switch module, M2115

(6) Connections at the ELT antenna

(7) Wiring

(8) ELT antenna, M1522

C. Related Data

(1) (WDM 23-24-11)

(2) (SSM 23-24-11)

D. Initial Evaluation

(1) Do this task: ELT System - System Test, AMM TASK 23-24-00-730-802-002.

(a) If the LED does not flash exactly three times, then do the Fault Isolation Procedure - BITE Problem below.

(b) If the LED does flash three times, then continue the procedure.

(c) If you do not hear the ELT signal on VHF COMM 2, then do the Fault Isolation Procedure - Transmission Problem below.

(d) If you do hear the ELT signal, then there was an intermittent fault.

(2) Do this task: ELT System - System Test, AMM TASK 23-24-00-730-802-002.

(a) If the LED does not flash exactly two times, then do the Fault Isolation Procedure - BITE Problem below.

(b) If the LED does flash two times, then continue the procedure.

(c) If you do not hear the ELT signal on VHF COMM 2, then do the Fault Isolation Procedure - Transmission Problem below.

(d) If you do hear the ELT signal, then there was an intermittent fault.

E. Fault Isolation Procedure - BITE Problem

(1) If the LED does not flash, there is a failure with the emergency locator transmitter (ELT), M1523. Do the steps that follow:

(a) Do a check for loose or damaged connectors at the front panel of the emergency locator transmitter (ELT), M1523:

NOTE: The ELT is above an access panel in the aft passenger cabin ceiling.

1) Repair the problems that you find.
2) Do this task: ELT System - System Test, AMM TASK 23-24-00-730-802-002.
3) If the LED flashes three times, then you corrected the fault.
4) If the LED does not flash three times, then continue the procedure.
5) If the LED flashes two times, then you corrected the fault.
6) If the LED does not flash two times, then continue the procedure.

(b) Do a check for loose or damaged connectors at the ELT antenna, M1522:

1) Repair the problems that you find.
2) Do this task: ELT System - System Test, AMM TASK 23-24-00-730-802-002.
3) If the LED flashes three times, then you corrected the fault.
4) If the LED does not flash three times, then continue the procedure.
5) If the LED flashes two times, then you corrected the fault.
6) If the LED does not flash two times, then continue the procedure.

(c) Replace the ELT, M1523.

These are the tasks:

Emergency Locator Transmitter - Removal, AMM TASK 23-24-00-000-802-002,

Emergency Locator Transmitter - Installation, AMM TASK 23-24-00-400-802-002.

1) Do this task: ELT System - System Test, AMM TASK 23-24-00-730-802-002.
2) If the LED flashes three times, then you corrected the fault.
3) If the LED flashes two times, then you corrected the fault.

(2) If the LED flashes one time, there is a failure with the Aircraft Identification Module (AIM), M2114. Do the steps that follow:

(a) Replace the Aircraft Identification Module (AIM), M2114.

These are the tasks:

Aircraft Identification Module - Removal, AMM TASK 23-24-00-000-803-002,

Aircraft Identification Module - Installation, AMM TASK 23-24-00-400-803-002.

(b) Do this task: ELT System - System Test, AMM TASK 23-24-00-730-802-002.

(c) If the LED flashes three times, then you corrected the fault.

(d) If the LED flashes two times, then you corrected the fault.

(3) If the LED flashes two times, do these steps:

(a) Examine the HEX identification label on the AIM to make sure that it has a valid NULL message installed:

NOTE: A null AIM that is compatible with the ELT will be identified as protocol "NULL-M1". A non-compatible AIM will be marked protocol "NULL".

1) Make sure that it shows PROTOCOL: NULL-M1.

2) If you do not find PROTOCOL: NULL-M1 on the label, do the steps that follow:

a) Replace the AIM, M23643 with the one that has a valid NULL message or the HEX identification label that shows PROTOCOL: NULL-M1.

These are the tasks:

Aircraft Identification Module - Removal, AMM TASK 23-24-00-000-803-002,

Aircraft Identification Module - Installation, AMM TASK 23-24-00-400-803-002.

b) If the LED flashes three times, then you corrected the fault.

c) If the LED does not flash three times, then continue the procedure.

(b) Do a check of the programmable switch module, M2115:

1) Disconnect connector D11993 at the Aircraft Identification Module, M2114.

2) Do a check of the wiring for the correct aircraft 24-bit identification (WDM 23-24-11).

3) If you find a problem with the wiring or the programmable switch module then do these steps:

a) Replace or repair as necessary.

b) Do this task: ELT System - System Test, AMM TASK 23-24-00-730-802-002.

c) If the LED flashes three times, then you corrected the fault.

F. Fault Isolation Procedure - Transmission Problem

(1) Replace the ELT, M1523.

These are the tasks:

Emergency Locator Transmitter - Removal, AMM TASK 23-24-00-000-802-002,

Emergency Locator Transmitter - Installation, AMM TASK 23-24-00-400-802-002.

(a) Do this task: ELT System - System Test, AMM TASK 23-24-00-730-802-002.

(b) If you hear the ELT signal on VHF COMM 2, then you corrected the fault.

(c) If you do not hear the ELT signal on VHF COMM 2, then continue the procedure.

(2) Do this check of the wiring:

(a) Disconnect connector D2905 from the ELT, M1523.

(b) Do a check of the coaxial cable from connector D2905 to ELT antenna. To do the check, do this task: Coaxial Cable Inspection, AMM TASK 20-10-72-210-801.

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

1) Repair the wiring.

2) Re-connect the connector D2905.

3) Do this task: ELT System - System Test, AMM TASK 23-24-00-730-802-002.

4) If you hear the ELT signal on VHF COMM 2, then you corrected the fault.

(d) If you do not find a problem with the wiring, then do these steps:

1) Re-connect the connector D2905.

2) Do this task: ELT System - System Test, AMM TASK 23-24-00-730-802-002.

3) If you hear the ELT signal on VHF COMM 2, then you corrected the fault.

4) If you do not hear the ELT signal on VHF COMM 2, then continue the procedure.

(3) Replace the ELT antenna.

These are the tasks:

ELT Antenna - Removal, AMM TASK 23-24-02-000-801,

ELT Antenna - Installation, AMM TASK 23-24-02-400-801.

(a) Do this task: ELT System - System Test, AMM TASK 23-24-00-730-802-002.

(b) If you hear the ELT signal on VHF COMM 2, then you corrected the fault.

——— END OF TASK ———

807. ELT On - Fault Isolation

A. Initial Evaluation

(1) The emergency locator transmitter (ELT) is on. Set the ELT ARM/ON switch on the overhead panel, P5, to the ON position for approximately one second and move it back to the ARM position (ELT System - Operational Test, AMM TASK 23-24-00-710-802-002).

(a) If the ELT annunciator goes OFF, then no maintenance action is necessary.

(b) If the ELT annunciator stays ON, then do the Fault Isolation Procedure below.

B. Fault Isolation Procedure

(1) Disconnect connector D3003 from the ELT, M1523.

(a) If the ELT annunciator goes OFF, then do the steps that follow:

1) Replace the ELT, M1523.

These are the tasks:

Emergency Locator Transmitter - Removal, AMM TASK 23-24-00-000-802-002

Emergency Locator Transmitter - Installation, AMM TASK 23-24-00-400-802-002

a) If the ELT annunciator goes OFF, then you corrected the fault.

b) If the ELT annunciator stays ON, then continue the procedure.

(b) If the ELT annunciator stays ON, then do these steps:

1) Connect the connector D3003 back to the ELT, M1523.

2) Continue the procedure.

(2) Do a wiring check of the ELT ARM/ON switch on the ELT control panel, P5–80 (P5) (WDM 23-24-11).

(a) If you find a problem with the switch, then replace the ELT control panel.

These are the tasks:

Emergency Locator Transmitter (ELT) Control Panel Removal, AMM TASK 23-24-03-000-801

Emergency Locator Transmitter (ELT) Control Panel Installation, AMM TASK 23-24-03-400-801

1) If the ELT annunciator goes OFF, then you corrected the fault.

2) If the ELT annunciator stays ON, then continue the procedure.

(b) If you do not find a problem with the switch, then continue the procedure.

(3) Do a wiring check between the ELT ARM/ON switch on the ELT control panel, P5–80 (P5) and the ELT, M1523 (WDM 23-24-11).

(a) Repair the problems that you find.

(b) If the ELT annunciator goes OFF, then you corrected the fault.

END OF TASK

801. ACARS System Problem - Fault Isolation

A. Description

(1) The Aircraft Communications Addressing and Reporting System (ACARS) communication management unit does not operate correctly.

(2) Use this procedure when one or more of these conditions exist:

(a) The ACARS Observed Fault is ACARS: does not operate correctly.

(b) The ACARS prompt does not show on the flight management computer system Control and Display Unit (CDU) MENU page.

(c) The DATALINK FAIL message shows on the flight management computer system Control and Display Unit (CDU).

B. Possible Causes

(1) ACARS Communications Management Unit (CMU) 1, M2127 software.

(2) ACARS Communications Management Unit (CMU) 1, M2127.

(3) VHF Communication Transceiver No. 3, M411

(4) VHF Communication Antenna No. 3, M225

(5) Wiring problem

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
AKS 001			
E	7	C01484	CMU-2 AC
AKS ALL			
E	8	C01483	CMU-1 AC

This circuit breaker is inoperative and should remain open:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
E	9	C01500	CMU/ACARS DC (INOP)

D. Related Data

(1) (SSM 23-27-11) or (SSM 23-27-31)

(2) (WDM 23-27-11) or (WDM 23-27-31) or (WDM 23-12-31)

E. Initial Evaluation

NOTE: This Initial Evaluation is for airplanes with an Allied Signal (Honeywell) ACARS CMU P/N 965-0758-00X connected to VHF No. 3 and controlled by MCDUs.

(1) Do the ACARS CMU BITE Test:

(a) Push and hold the RESET button on the front of the ACARS CMU.

(b) Make sure that all the lights on the front of the CMU are on.

(c) Release the button. Wait a minimum of one minute.

(d) If the green XFER COMP or LOAD SW light is on, make sure that the system select switch on the data loader control panel (P61) is set to NORM or NORMAL.

(e) If the HW FAIL, XFER BUSY or XFER FAIL light is on, reload the correct ACARS software. To reload the software, do this task: ACARS Software Installation with a Portable Data Loader (PDL), AMM TASK 23-27-33-470-801 or ACARS Communications Management Unit Software Installation with an Enhanced Airborne Data Loader (eADL), AMM TASK 23-27-33-470-805.

NOTE: Incorrect or incomplete ACARS software can cause these lights to be on.

(f) Make sure that only the Green MU PASS light is on.

(g) If the ACARS CMU BITE Test is not satisfactory, do the Fault Isolation Procedure - ACARS Management Unit Problem below.

(h) If the ACARS CMU BITE Test is satisfactory, then continue.

(2) Do these steps to make sure the software is correct:

NOTE: Make sure that you know the correct software part numbers for the ACARS CMU. For ACARS to be an approved installation, the correct software part numbers must be installed.

(a) Push the MENU key on the left and right Control and Display Units (CDU-1 and CDU-2).

(b) If the <DLK prompt shows:

1) Push the line-select-key (LSK) adjacent to the <DLK prompt.

2) Push the LSK adjacent to the MAINT> prompt.

3) Push the LSK adjacent to the <PART NUMBERS prompt.

a) Make sure that the CMU PART NUMBERS page show on the CDU.

b) Make sure that the correct ACARS software part numbers show on the CDU.

c) If the <CMU software part numbers are not correct, do this task: ACARS Software Installation with a Portable Data Loader (PDL), AMM TASK 23-27-33-470-801 or ACARS Communications Management Unit Software Installation with an Enhanced Airborne Data Loader (eADL), AMM TASK 23-27-33-470-805 or replace the ACARS CMU with one that has the correct software (ACARS Communications Management Unit (CMU) Removal, AMM TASK 23-27-33-020-801) (ACARS Communications Management Unit (CMU) Installation, AMM TASK 23-27-33-420-801).

(c) Push the MENU function key on both CDUs.

(3) Do the VHF Link Test (Subtask 23-27-00-730-082-009) contained in this task: ACARS - System Test, AMM TASK 23-27-00-700-812-009.

(a) If the test is not satisfactory, do this task: NO COMM shows in the CDU display - Fault Isolation, 23-27 TASK 806.

(b) If the test is satisfactory, then continue.

(4) Do the OOOI Sensor Test (Subtask 23-27-00-730-087-009) contained in this task: AMM TASK 23-27-00-700-812-009.

(a) If the test is not satisfactory, do this task: An Out-Off-On-In (OOOI) value is not correct - Fault Isolation, 23-27 TASK 807

(b) If the test is satisfactory, then you have corrected the fault.

F. Fault Isolation Procedure - ACARS Management Unit Problem

(1) Replace the ACARS communications management unit (CMU) 1, M2127.

These are the tasks:

ACARS Communications Management Unit (CMU) Removal, AMM TASK 23-27-33-020-801,

ACARS Communications Management Unit (CMU) Installation, AMM TASK 23-27-33-420-801.

(a) If the installation test for the ACARS CMU is satisfactory, then you corrected the fault.

G. Fault Isolation Procedure - ACARS System Problem

(1) Do this check of the wiring:

(a) Remove the ACARS communications management unit (CMU). To remove it, do this task: ACARS Communications Management Unit (CMU) Removal, AMM TASK 23-27-33-020-801.

(b) Close these circuit breakers:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
AKS 001			
E	7	C01484	CMU-2 AC
AKS ALL			
E	8	C01483	CMU-1 AC

(c) Do a check for 115 VAC between pins 1 and 7 of connector D10727C at the ACARS CMU 1, M2127.

NOTE: The ACARS CMU 1 is on the E4-1 shelf.

(d) If there is not 115 VAC between pins 1 and 7 of connector D10727C at the ACARS CMU 1, M2127, then do these steps:

1) Do a check for 115 VAC between the load terminal of CMU 1 AC circuit breaker, C1483 and structure ground.

2) If there is not 115 VAC at the load terminal, then do these steps:

a) Replace the applicable circuit breaker, C1483 (WDM 23-27-31).

b) Do this task: ACARS - Operational Test, AMM TASK 23-27-00-740-814-009.

c) If the operational test is satisfactory, then you corrected the fault.

3) If there is 115 VAC at the load terminal, then do these steps:

a) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
E	8	C01483	CMU-1 AC

b) Do a wiring check between the load terminal of circuit breaker C1483 and connector D10727C at the ACARS CMU 1, M2127 (WDM 23-27-31):

C1483		D10727C
Load terminal	. . . . .	pin 1

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

<1> Repair the wiring.

<2> Re-install the ACARS communications management unit. To install it, do this task: ACARS Communications Management Unit (CMU) Installation, AMM TASK 23-27-33-420-801.

<3> If the installation test for the ACARS CMU is satisfactory, then you corrected the fault.

(e) If there is 115 VAC between pins 1 and 7 of connector D10727C at the ACARS CMU 1, then continue.

(2) Install a new ACARS communications management unit. To install it, do this task: ACARS Communications Management Unit (CMU) Installation, AMM TASK 23-27-33-420-801.

(a) If the installation test for the ACARS CMU is satisfactory, then you corrected the fault.

——— END OF TASK ———

806. NO COMM shows in the CDU display - Fault Isolation

A. Description

(1) A NO COMM message shows on the flight management computer system Control and Display Unit (CDU).

B. Possible Causes

(1) Communications Management Unit (CMU), M2127 or M2128 software

(2) Communications Management Unit (CMU), M2127 or M2128

(3) VHF Communication Transceiver No. 3, M411

(4) VHF Communication Antenna No. 3, M225

(5) Wiring problem

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
AKS 001			
E	7	C01484	CMU-2 AC
AKS ALL			
E	8	C01483	CMU-1 AC

This circuit breaker is inoperative and should remain open:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
E	9	C01500	CMU/ACARS DC (INOP)

D. Related Data

(1) (SSM 23-27-11) or (SSM 23-27-31)

(2) (WDM 23-27-11) or (WDM 23-27-31)

E. Initial Evaluation

(1) Push the MENU key on the left and right Control and Display Units (CDU-1 and CDU-2).

(a) Do the VHF Link Test subtask (23-27-00-730-082-009) contained in this task: ACARS - System Test, AMM TASK 23-27-00-700-812-009

1) If the test is satisfactory, there was an intermittent fault.

2) If the test is not satisfactory, do this task: ACARS - Operational Test, AMM TASK 23-27-00-740-814-009

a) If the ACARS Operational test is not satisfactory, do the Fault Isolation Procedure - ACARS Management Unit Problem below.

b) If the ACARS Operational test was satisfactory, then do the Fault Isolation Procedure - NO COMM Message below.

F. Fault Isolation Procedure - NO COMM Message

(1) Push the MENU key on the left or right Control and Display Unit (CDU-1 or CDU-2).

(a) Push the line select key (LSK) adjacent to the <DLK prompt.

(b) Push LSK 2R adjacent to AOC MENU>.

(c) Push the LSK adjacent to the <MISC prompt.

(d) Push the LSK adjacent to the <DATA FREQUENCY prompt.

(e) Look at the fequency that shows under the CMU DATA FREQ prompt.

1) If the letter M is in front of the frequency, push the LSK adjacent to the AUTOMATIC> prompt.

(f) Make sure that the CMU selects the correct frequency.

(g) Make sure the airplane is within range of the ground station. Also, the VHF antenna must have a clear view to the station tower.

NOTE: It may be necessary to move the airplane to a different location for a clear view to the station tower.

NOTE: For the ACARS system to operate correctly, it must be linked to an ACARS ground station. The ACARS ground station must be operational.

(2) Do the VHF Link Test subtask (23-27-00-730-082-009) contained in this task: ACARS - System Test, AMM TASK 23-27-00-700-812-009

(3) If the VHF Link test is satisfactory, then you corrected the fault.

(4) If the VHF Link test is not satisfactory, then do these steps:

(a) Make sure that the datalink service provider (DSP) received the message from the airplane.

1) If the DSP received the message sent from the airplane, ACARS and the VHF system are transmitting correctly.

2) If the DSP did not receive the message, then continue.

(5) Do this exchange of the VHF Communication Transceiver No. 2, M150 and VHF No. 3, M411:

(a) Put a tag that reads SUSPECT on the VHF Communication Transceiver No. 3, M411.

(b) Put a tag that reads OK on the other VHF communication transceiver.

(c) Exchange the locations of the two VHF communication transceivers. These are the tasks:

VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801

VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801

(d) Do the VHF Link Test subtask (23-27-00-730-082-009) contained in this task: ACARS - System Test, AMM TASK 23-27-00-700-812-009

(e) If VHF Link test is satisfactory, then do these steps:

1) Replace the VHF communication transceiver tagged SUSPECT. These are the tasks:

VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801,

VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801.

NOTE: If it is your airlines' policy, you must install the VHF communication transceiver with the OK tag in its initial location and do the VHF Link test again using the new VHF No. 3 transceiver.

2) If the VHF Link test is satisfactory, then you have corrected the fault.

(f) If the VHF Link test is not satisfactory, then do these steps:

1) If it is your airlines' policy, you must install the VHF communication transceivers in their initial locations. These are the tasks:

VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801,

VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801.

2) Remove the tags from the VHF communication transceivers.

3) Continue the procedure.

(6) Do these steps to do a check of the VHF Communication Antenna No. 3 system:

(a) If possible, do a voice transmission using VHF Communication Transceiver No. 3:

1) If the voice transmission was satisfactory, then do the Fault Isolation Procedure - ACARS MU and Wiring Check below.

2) If a voice transmission is not possible or the voice transmission was not satisfactory, then continue.

(b) Visually inspect the VHF Communication Antenna No. 3.

1) If you find any damage, then do these steps:

a) Replace VHF Communication Antenna No. 3 or repair any damage found (AMM TASK 23-12-11-000-801) (AMM TASK 23-12-11-400-801).

b) Do the VHF Link Test subtask (23-27-00-730-082-009) contained in this task: ACARS - System Test, AMM TASK 23-27-00-700-812-009

c) If the VHF Link test is satisfactory, then you corrected the fault.

d) If the VHF Link test is not satisfactory, then continue.

2) If you do not find any damage, then continue the procedure.

(7) Do this check of the VHF Communication Antenna No. 3, M225, and the RF coaxial cable:

(a) Remove the VHF Communication Transceiver No. 3, M411. To remove it, do this task: VHF Communication Transceiver - Removal, AMM TASK 23-12-21-020-801.

(b) Do a time domain reflectometry check of the coaxial cable from the VHF Communication Transceiver No. 3, M411 to the VHF Communication Antenna No. 3, M225 (WDM 23-12-31). To do the check, do this task: Coaxial Cable Inspection, AMM TASK 20-10-72-210-801.

(c) If you find a problem with the coaxial cable, repair or replace the coaxial cable.

(d) If you find a problem with the VHF communication antenna, replace the VHF Communication Antenna No. 3, M225. These are the tasks:

VHF Communication Antenna - Removal, AMM TASK 23-12-11-000-801,

VHF Communication Antenna - Installation, AMM TASK 23-12-11-400-801.

(e) Re-install the VHF Communication Transceiver No. 3, M411. To install it, do this task: VHF Communication Transceiver - Installation, AMM TASK 23-12-21-420-801.

(f) Do the VHF Link Test subtask (23-27-00-730-082-009) contained in this task: ACARS - System Test, AMM TASK 23-27-00-700-812-009

1) If the VHF Link test is satisfactory, then you corrected the fault.

2) If the VHF Link test is not satisfactory, do the Fault Isolation Procedure - ACARS MU and Wiring Check below.

G. Fault Isolation Procedure - ACARS Management Unit Problem

(1) Replace the ACARS management unit (CMU), M2127or M2128. These are the tasks:

ACARS Communications Management Unit (CMU) Removal, AMM TASK 23-27-33-020-801,

ACARS Communications Management Unit (CMU) Installation, AMM TASK 23-27-33-420-801.

(a) If the installation test for the ACARS CMU is satisfactory, then you corrected the fault.

H. Fault Isolation Procedure - ACARS MU and Wiring Check

(1) Do these steps:

(a) Replace the ACARS communications management unit (CMU), M2127 or M2128. These are the tasks:

ACARS Communications Management Unit (CMU) Removal, AMM TASK 23-27-33-020-801,

ACARS Communications Management Unit (CMU) Installation, AMM TASK 23-27-33-420-801.

(b) Do the VHF Link Test subtask (23-27-00-730-082-009) contained in this task: ACARS - System Test, AMM TASK 23-27-00-700-812-009

1) If the VHF Link test is satisfactory, then you corrected the fault.

2) If the VHF Link test is not satisfactory, do the Fault Isolation Procedure - ACARS MU and Wiring Check below.

(2) Do these steps:

(a) Do a check of the wiring between between the ACARS communications management unit (CMU), M2127 or M2128 and VHF Communication Transceiver No. 3 (WDM 23-27-35).

(b) Repair any problems that you find.

(c) Do the VHF Link Test subtask (23-27-00-730-082-009) contained in this task: ACARS - System Test, AMM TASK 23-27-00-700-812-009

1) If the VHF Link test is satisfactory, then you corrected the fault.

2) If the VHF Link test is not satisfactory, do the Fault Isolation Procedure - ACARS MU and Wiring Check below.

——— END OF TASK ———

807. An Out-Off-On-In (OOOI) value is not correct - Fault Isolation

A. Description

(1) An Out-Off-On-In (OOOI) value is not correct.

B. Possible Causes

(1) Communications Management Unit (CMU1-1), M2127 software

(2) Communications Management Unit (CMU-1), M2127

(3) Proximity Switch Electronics Unit, M2061

(4) Wiring problem

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
AKS 001			
E	7	C01484	CMU-2 AC
AKS ALL			
E	8	C01483	CMU-1 AC

This circuit breaker is inoperative and should remain open:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
E	9	C01500	CMU/ACARS DC (INOP)

D. Related Data

(1) (SSM 23-27-11) or (SSM 23-27-31)

(2) (WDM 23-27-11) or (WDM 23-27-31)

E. Initial Evaluation

(1) Push the MENU key on the left and right Control and Display Units (CDU-1 and CDU-2) or MIDU.

(2) Do the OOOI Test subtask contained in this task: ACARS - System Test, AMM TASK 23-27-00-700-812-009

(a) If the OOOI test is satisfactory, then there was an intermittent fault.

(b) If the OOOI test is not satisfactory, Do the Fault Isolation Procedure - OOOI Problem below.

F. Fault Isolation Procedure - OOOI Problem

(1) Do this task: ACARS - Operational Test, AMM TASK 23-27-00-740-814-009.

(a) If the ACARS Operational Test is satisfactory, then do the Fault Isolation Procedure - OOOI Switch Test below.

(b) If the ACARS Operational Test is not satisfactory, then replace the ACARS communications management unit (CMU1), M2127.

These are the tasks:

ACARS Communications Management Unit (CMU) Removal, AMM TASK 23-27-33-020-801,

ACARS Communications Management Unit (CMU) Installation, AMM TASK 23-27-33-420-801.

1) Do the OOOI Test subtask contained in this task: ACARS - System Test, AMM TASK 23-27-00-700-812-009

a) If the OOOI test is satisfactory, then you corrected the fault.

b) If the OOOI test is not satisfactory, then do the Fault Isolation Procedure - OOOI Switch Test below.

G. Fault Isolation Procedure - OOOI Switch Test

(1) Open and close a failing OOOI switch.

(a) If the OOOI value changed correctly, there was an intermittent fault.

(b) If the OOOI value did not change correctly, then continue.

1) Do a check of the OOOI switch and wiring.

NOTE: See Related Data WDMs for additional OOOI switch information.

2) Repair any problems that you find.

3) Do the OOOI Test subtask contained in this task: ACARS - System Test, AMM TASK 23-27-00-700-812-009

a) If the OOOI test is satisfactory, then you corrected the fault.

END OF TASK

808. VHF-3 transmits continuously on the ELT VHF frequency - Fault Isolation

A. Description

(1) The #3 VHF transceiver is transmitting continuously on the ELT VHF frequency of 121.5 Mhz.

B. Possible Causes

(1) ACARS Communications Management Unit

(2) VHF Communication Transceiver No. 3

(3) Wiring problem.

C. Related Data

(1) (SSM 23-12-31) or (SSM 23-27-31)

(2) (WDM 23-12-31) or (WDM 23-27-35)

D. Initial Evaluation

(1) Prepare to cycle the circuit breakers. Do the steps that follow:

(a) Make sure that the circuit breakers are open for a minimum of 10 seconds.

(b) Open these circuit breakers:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
AKS 001			
E	7	C01484	CMU-2 AC
AKS ALL			
E	8	C01483	CMU-1 AC

This circuit breaker is inoperative and should remain open:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
E	9	C01500	CMU/ACARS DC (INOP)

(c) Measure the time.

(d) Close these circuit breakers:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
AKS 001			
E	7	C01484	CMU-2 AC
AKS ALL			
E	8	C01483	CMU-1 AC

This circuit breaker is inoperative and should remain open:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
E	9	C01500	CMU/ACARS DC (INOP)

(e) If the VHF radio does not transmit on the ground, then there was an intermittent fault.

(f) If the VHF radio continues to transmit on the ground then continue.

(g) Open and close this circuit breaker:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	12	C00471	COMMUNICATIONS VHF 3

(h) If the VHF radio does not transmit on the ground, then there was an intermittent fault.

(i) If the VHF radio continues to transmit on the ground then continue.

(2) Do the ACARS CMU BITE test:

(a) Push and hold the TEST switch on the front of the ACARS CMU.

(b) Make sure that all the lights on the front of the CMU are on.

(c) Release the switch and wait at least one minute.

(d) If the green XFER COMP light is on, make sure the system select switch on the data loader control panel (P61) is set to NORM or NORMAL.

(e) If the HW FAIL, LOAD SW, XFER BUSY or XFER FAIL light is on, reload the correct ACARS software. To reload the software, do this task: ACARS Software Installation with a Portable Data Loader (PDL), AMM TASK 23-27-33-470-801 or ACARS Communications Management Unit Software Installation with an Enhanced Airborne Data Loader (eADL), AMM TASK 23-27-33-470-805.

NOTE: Incorrect or incomplete ACARS CMU software can cause these lights to be on.

AKS 002-999

(f) f the HW FAIL, LOAD SW, XFER BUSY or XFER FAIL light is on, reload the correct ACARS software. To reload the software, do this task: ACARS Software Installation with a Portable Data Loader (PDL), AMM TASK 23-27-33-470-801 or ACARS Communications Management Unit Software Installation with an Enhanced Airborne Data Loader (eADL), AMM TASK 23-27-33-470-805

NOTE: Incorrect or incomplete ACARS CMU software can cause these lights to be on.

AKS ALL

(g) Make sure that only the green MU PASS light is on.

(h) If the ACARS CMU BITE test is not satisfactory, do the Fault Isolation Procedure - ACARS Communications Management Unit Problem below.

(i) If the ACARS CMU BITE test is satisfactory, do the Fault Isolation Procedure - ACARS/VHF-3 Interface Problem below.

E. Fault Isolation Procedure - ACARS Communications Management Unit Problem

(1) Replace the ACARS communications management unit (CMU).

These are the tasks:

ACARS Communications Management Unit (CMU) Removal, AMM TASK 23-27-33-020-801,

ACARS Communications Management Unit (CMU) Installation, AMM TASK 23-27-33-420-801.

(a) If the installation test for the ACARS CMU is satisfactory, then you corrected the fault.

F. Fault Isolation Procedure - ACARS/VHF-3 Interface Problem

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
AKS 001			
E	7	C01484	CMU-2 AC
AKS ALL			
E	8	C01483	CMU-1 AC

This circuit breaker is inoperative and should remain open:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
E	9	C01500	CMU/ACARS DC (INOP)

(2) If the transmission on the ELT VHF frequency stops, then do these steps:

(a) Replace the ACARS communications management unit (CMU). These are the tasks:

ACARS Communications Management Unit (CMU) Removal, AMM TASK 23-27-33-020-801,

ACARS Communications Management Unit (CMU) Installation, AMM TASK 23-27-33-420-801.

1) If the installation test for the ACARS CMU is satisfactory, then you corrected the fault.

(3) If the transmission on the ELT VHF frequency does not stop, then do these steps:

(a) Replace the VHF-3 communication transceiver. These are the tasks:

AMM TASK 23-12-21-020-801

AMM TASK 23-12-21-420-801

1) If the installation test for the VHF-3 communication transceiver is satisfactory, then you corrected the fault.

END OF TASK

820. ACARS Call Annunciation Problem - Fault Isolation

A. Description

(1) Use this task when the flight compartment chime does not sound for an ACARS uplink message.

(2) Use this task when the ACARS message does not show on the Engine Display for an ACARS uplink message.

B. Possible Causes

(1) Software (CMU or DEU)

(2) ACARS Communications Management Unit (CMU-1), M2127

(3) Display Electronic Unit (DEU), M1808 or DEU, M1809

(4) Aural Warning Unit Module, M315

(5) Wiring

C. Initial Evaluation

(1) Have an ACARS ground station send an uplink message to the airplane on VHF-3.

(a) If the ACARS message shows on the Engine Display and the flight compartment chime sounds, then there was an intermittent fault.

(b) If the ACARS message does not show on the Engine Display, then do the ACARS Message Annunciation Problem fault isolation procedure below.

(c) If the chime does not sound, then do the ACARS Message Chime Problem fault isolation procedure below.

D. ACARS Message Annunciation Problem - Fault Isolation Procedure

(1) Do a check to make sure the CMU has the correct software installed. This is the task:

ACARS Communications Management Unit (CMU) Software Configuration Check, AMM TASK 23-27-33-700-802

(2) Do a check to make sure the DEU has the correct software installed (Display Electronic Unit Installation, AMM TASK 31-62-21-400-801).

(3) If the fault continues, replace the CMU, M2127. These are the tasks:

ACARS Communications Management Unit (CMU) Removal, AMM TASK 23-27-33-020-801

ACARS Communications Management Unit (CMU) Installation, AMM TASK 23-27-33-420-801

(4) If the fault continues, replace the DEU, M1808 or M1809. These are the tasks:

Display Electronic Unit Removal, AMM TASK 31-62-21-000-801

Display Electronic Unit Installation, AMM TASK 31-62-21-400-801

(5) If the fault continues, examine the wiring between the CMU and the DEU (WDM 23-27-38), (WDM 31-62-15, WDM 31-62-25).

E/E Compartment

CMU, M2127	**DEU-1, M1808**
D10727B	**D3973D**
J10	J15
K10	K15

(a) If the resistance check does not show continuity, repair the problems with the wiring.

E. ACARS Message Chime Problem - Fault Isolation Procedure

(1) Do a check to make sure the CMU has the correct software installed. This is the task:

ACARS Communications Management Unit (CMU) Software Configuration Check, AMM TASK 23-27-33-700-802

(2) Do a check to make sure the DEU has the correct software installed (Display Electronic Unit Installation, AMM TASK 31-62-21-400-801).

(3) If the fault continues, replace the Aural Warning Module, M315.

Aural Warning Module Removal, AMM TASK 31-51-04-000-801

Aural Warning Module Installation, AMM TASK 31-51-04-400-801

(4) If the fault continues, replace the DEU, M1808 or M1809.

Display Electronic Unit Removal, AMM TASK 31-62-21-000-801

Display Electronic Unit Installation, AMM TASK 31-62-21-400-801

(5) If the fault continues, examine the wiring between the CMU and the DEU (WDM 23-27-38).

	E/E Compartment
CMU, M2127	**DEU-1, M1808**
D10727B	**D3973D**
J10	J15
K10	K15

(a) If the resistance check does not show continuity, repair the problems with the wiring.

(6) If the fault continues, examine the wiring between the DEU and the Aural Warning Module (WDM 23-22-11 and WDM 31-62-41).

	E/E Compartment
	Aural Warning
DEU-1, M1808	**Module, M315**
D3973A	**D940**
E2	8

(a) If the resistance check does not show continuity, repair the problems with the wiring.

END OF TASK

826. ACARS Message CHECK TRANSPONDER I/F - Fault Isolation

A. Description

(1) Use this task when the scratchpad on the ACARS pages shows the message “CHECK TRANSPONDER I/F” while on the ground.

B. Possible Causes

(1) ATC CP Switch Settings.

(2) Wiring.

C. Related Data

(1) WDM 23-27-37.

(2) WDM 34-45-21.

D. Initial Evaluation

(1) Set the ATC Transponder Control Panel to not be in the STBY, TA/RA, or TA ONLY position.

(a) If the CHECK TRANSPONDER I/F fault message does not show, it is because of a known condition in the CMU Software. There is no problem with the CMU/transponder interface.

(b) If the CHECK TRANSPONDER I/F fault message shows, then do the fault isolation procedure below.

E. ACARS Message CHECK TRANSPONDER I/F - Fault Isolation Procedure

(1) If the fault continues, examine the wiring between the CMU and the ATC Transponder (WDM 23-27-37 and WDM 34-45-21).

(a) Remove ACARS CMU-1, M2127. To remove it, do this task: ACARS Communications Management Unit (CMU) Removal, AMM TASK 23-27-33-020-801.

(b) Remove ATC-1 Transponder, M163 and ATC-2 Transponder, M381. To remove them, do this task: ATC Transponder Removal, AMM TASK 34-53-02-020-801.

	E4-1 SHELF		
	CMU-1, M2127	**ATC-1 Transponder, M163**	
E4-1, SHELF	**D10727B**	**D149A**	**0**
	C8	G5	0
	D8	H5	0

1) If the resistance check does not show continuity, repair the problems with the wiring.

	E4-1 SHELF		
	CMU-1, M2127	**ATC-2 Transponder, M381**	
E4-1, SHELF	**D10727B**	**D155A**	**0**
	A10	G5	0
	B10	H5	0

1) If the resistance check does not show continuity, repair the problems with the wiring.

(e) Install the ACARS CMU-1, M2127. To install it, do this task: ACARS Communications Management Unit (CMU) Installation, AMM TASK 23-27-33-420-801.

(f) Install ATC-1 Transponder, M163 and ATC-2 Transponder, M381. To install them, do this task: ATC Transponder Installation, AMM TASK 34-53-02-400-801.

F. Repair Confirmation

(1) If the CHECK TRANSPONDER I/F fault message does not show, then you corrected the fault.

——— END OF TASK ———

827. ACARS Input Problem - Fault Isolation

A. Description

(1) The ground station reports that downlink messages from the ACARS system are incomplete.

B. Possible Causes

(1) ACARS Communications Management Unit (CMU-1), M2127

(2) Flight Management Computer 1 (FMC-1), M1175

(3) Flight Management Computer 2 (FMC-2), M1632 (if installed)

(4) Digital Flight Data Acquisition Unit (DFDAU), M675

(5) Proximity Switch Electronics Unit (PSEU), M2061

(6) Wiring

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
AKS 001			
E	7	C01484	CMU-2 AC
AKS ALL			
E	8	C01483	CMU-1 AC

This circuit breaker is inoperative and should remain open:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
E	9	C01500	CMU/ACARS DC (INOP)

D. Related Data

(1) SSM 23-27-33, 23-27-35, 23-27-36, 23-27-38

(2) WDM 23-27-33, 23-27-35, 23-27-36, 23-27-38

E. Initial Evaluation

(1) If the data reported missing from the downlink messages is from flight crew manual entries, make sure the flight crew enters their data correctly.

(2) If the data reported missing from the downlink messages is OOOI data (Out, Off, On, In), do the Missing OOOI Data - Fault Isolation Procedure below.

(3) If the data reported missing from the downlink messages is from a LRU that talks to the ACARS CMU over a ARINC-429 data bus, do the Missing ARINC Data - Fault Isolation Procedure below.

F. Missing OOOI Data - Fault Isolation Procedure

(1) Look at the FAIL indicator on the CMU front panel.

(a) If the FAIL indicator is off, go to step (2) below.

(b) If the FAIL indicator is on, replace the ACARS CMU. These are the tasks:

ACARS Communications Management Unit (CMU) Removal, AMM
TASK 23-27-33-020-801

ACARS Communications Management Unit (CMU) Installation, AMM
TASK 23-27-33-420-801

(2) On a CDU, access the ACARS OOOI STATUS screen.

(a) If one of the sensor states disagrees with the actual position of the sensor, do the fault isolation procedure for the failed sensor:

1) PSEU Entry and Galley Service Door Monitored Problem - Fault Isolation, 52-10 TASK 801 for entry and galley doors.

2) PSEU Cargo Door Monitored Problem - Fault Isolation, 52-30 TASK 803 for cargo doors.

3) Parking Brake Switch Problem - Fault Isolation, 32-09 TASK 806 for the parking brake.

4) Nose Landing Gear Air/Ground Sensor Fault - Fault Isolation, 32-09 TASK 802 for the air/ground sensor.

(b) If all of the sensor states agree with the actual position of the sensor, do these steps:

1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
AKS 001			
E	7	C01484	CMU-2 AC
AKS ALL			
E	8	C01483	CMU-1 AC

This circuit breaker is inoperative and should remain open:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
E	9	C01500	CMU/ACARS DC (INOP)

2) Wait 30 seconds.

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
AKS 001			
E	7	C01484	CMU-2 AC
AKS ALL			
E	8	C01483	CMU-1 AC

This circuit breaker is inoperative and should remain open:

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
E	9	C01500	CMU/ACARS DC (INOP)

4) If the fault continues, install the ACARS software. This is the task: ACARS Software Installation with a Portable Data Loader (PDL), AMM TASK 23-27-33-470-801 or ACARS Communications Management Unit Software Installation with an Enhanced Airborne Data Loader (eADL), AMM TASK 23-27-33-470-805.

5) If the fault continues after the software is installed, replace the ACARS CMU. These are the tasks:

ACARS Communications Management Unit (CMU) Removal, AMM TASK 23-27-33-020-801

ACARS Communications Management Unit (CMU) Installation, AMM TASK 23-27-33-420-801

G. Missing ARINC Data - Fault Isolation Procedure

(1) Look at the FAIL indicator on the CMU front panel.

(a) If the FAIL indicator is off, go to step (2) below.

(b) If the FAIL indicator is on, replace the ACARS CMU. These are the tasks:

ACARS Communications Management Unit (CMU) Removal, AMM
TASK 23-27-33-020-801

ACARS Communications Management Unit (CMU) Installation, AMM
TASK 23-27-33-420-801

(2) On a CDU, access the CMU LRU STATUS screen, pages 1 thru 6.

(a) If the state of each connected input LRU (except for MCDU and PRINTER) shows "ACTIVE", do the fault isolation procedure for the failed source LRU:

1) DFDAU - DFDAU Internal Failure - Fault Isolation, 31-31 TASK 802
2) FMC - FMC Hardware/Software Faults - Fault Isolation, 34-61 TASK 807
3) HFDR-1 - HF Communication System - BITE Procedure, 23-11 TASK 801
4) HFDR-2 - HF Communication System - BITE Procedure, 23-11 TASK 801
5) VHF-3 - VHF Communication Transceiver System - BITE Procedure, 23-12 TASK 801

(b) If the state of one of the connected input LRU (except for MCDU and PRINTER) shows "INACTIVE", do these steps:

1) Cycle the power for the source LRU that shows INACTIVE.
2) If the fault continues, replace the source LRU.

——— END OF TASK ———

801. SELCAL Call Switch Problem - Fault Isolation

A. Description

(1) A call switch on Audio control panel, does not operate correctly.

B. Possible Causes

(1) Audio control panel, P8-6 (captain's), P8-7 (first officer's) or P5-15 (first observer's).

(2) SELCAL decoder, M25

(3) Wiring problem

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	15	C00058	COMMUNICATIONS SELCAL

D. Related Data

(1) (SSM 23-22-11)

(2) (WDM 23-22-11)

E. Initial Evaluation

(1) Do this check of the Audio control panel:

(a) Push the PTT for the applicable HF switch or VHF switch to reset the Call Light.

1) If the call light goes off for the applicable HF switch or VHF switch, then there was an intermittent fault.

2) If the call light does not go off for the applicable HF switch or VHF switch, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Replace the Audio control panel.

These are the tasks:

Audio Control Panel Removal, AMM TASK 23-51-02-000-801,

Audio Control Panel Installation, AMM TASK 23-51-02-400-801.

(a) If the call switch resets correctly, then you corrected the fault.

(b) If the call switch does not reset correctly, then continue.

(2) Replace the SELCAL decoder unit.

These are the tasks:

SELCAL Decoder Unit Removal, AMM TASK 23-28-11-020-801,

SELCAL Decoder Installation, AMM TASK 23-28-11-420-801.

(a) If the call switch does reset correctly, then you corrected the fault.

(b) If the call switch does not reset correctly, then continue.

(3) Do this check of the wiring:

(a) Remove the Remote Electronics Unit. To remove it, do this task: AMM TASK 23-51-01-000-801.

(b) Remove the SELCAL decoder unit, M00025. To remove it, do this task: SELCAL Decoder Unit Removal, AMM TASK 23-28-11-020-801.

(c) Do a wiring check between the pins of connector D2501A for the Remote Electronics Unit (REU), and connector D2555B for the SELCAL decoder unit: Refer to WDM 23-22-11 for details.

FUNCTION KEY	REU CONNECTOR		SELCAL DECODER CONNECTOR
HF1 (if applicable)	**D2501A**		**D2555B**
	pin C10	. . . . .	pin C7
HF2 (if applicable)	**D2501A**		**D2555B**
	pin J7	. . . . .	pin D7
VHF1	**D2501A**		**D2555B**
	pin H6	. . . . .	pin D6
VHF2	**D2501A**		**D2555B**
	pin A9	. . . . .	pin A7
VHF3 (if applicable)	**D2501A**		**D2555B**
	pin F7	. . . . .	pin B7

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

1) Repair the wiring.
2) Re-connect the connectors.
3) Re-install the Remote Electronics Unit. To install it, do this task: AMM TASK 23-51-01-000-802.
4) Re-install the SELCAL decoder unit. To install it, do this task: SELCAL Decoder Installation, AMM TASK 23-28-11-420-801.
5) If the call switch does reset correctly, then you corrected the fault.

——— END OF TASK ———

802. SELCAL Call Light Problem - Fault Isolation

A. Description

(1) The mic/call light on the Audio Control Panel does not operate correctly.

B. Possible Causes

(1) Audio Control Panel, captain's, first officer's, or observer's.
(2) SELCAL decoder, M25
(3) Wiring problem

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	15	C00058	COMMUNICATIONS SELCAL

D. Related Data

(1) (SSM 23-22-11)

(2) (WDM 23-22-11)

E. Initial Evaluation

(1) Push the mic/call light.

(a) If the light comes on, then do these steps:

1) Push the mic call light again.

a) If the mic/call light goes off, then there was an intermittent fault.

b) If the mic/call light stays on, then, do this task: SELCAL Call Switch Problem - Fault Isolation, 23-28 TASK 801.

(b) If the light does not come on, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Replace the Audio Control Panel.

These are the tasks:

AMM TASK 23-51-02-000-801,

AMM TASK 23-51-02-400-801.

(a) If the call light does reset correctly, then you corrected the fault.

(b) If the call light does not reset correctly, then continue.

(2) Replace the SELCAL decoder unit.

These are the tasks:

SELCAL Decoder Unit Removal, AMM TASK 23-28-11-020-801,

SELCAL Decoder Installation, AMM TASK 23-28-11-420-801.

(a) If the call switch does reset correctly, then you corrected the fault.

(b) If the call switch does not reset correctly, then continue.

(3) Do this check of the wiring:

(a) Remove the Audio Control Panel. To remove it, do this task: Audio Control Panel Removal, AMM TASK 23-51-02-000-801.

(b) Remove the SELCAL decoder unit, M00025. To remove it, do this task: SELCAL Decoder Unit Removal, AMM TASK 23-28-11-020-801.

(c) Do a wiring check between the pins of connector D141 for the Audio Control Panel (observer's) and connector D2555B for the SELCAL decoder unit: Refer to WDM 23-22-11 for details.

FUNCTION KEY	ACP CONNECTOR		SELCAL DECODER CONNECTOR
HF1 (if applicable)	**D141**		**D2555B**
	pin 4	. . . . .	pin C7
HF2 (if applicable)	**D141**		**D2555B**
	pin 5	. . . . .	pin D7
VHF1	**D141**		**D2555B**
	pin 1	. . . . .	pin D6
VHF2	**D141**		**D2555B**
	pin 2	. . . . .	pin A7
VHF3 (if applicable)	**D141**		**D2555B**
	pin 3	. . . . .	pin B7

(d) Do the wiring check for the captain's ACP and the first officer's ACP. Refer to WDM 23-22-11 for ACP connector numbers.

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

1) Repair the wiring.

2) Re-connect the connectors.

3) Re-install the Audio Control Panel. To install it, do this task: Audio Control Panel Installation, AMM TASK 23-51-02-400-801.

4) Re-install the SELCAL decoder unit. To install it, do this task: SELCAL Decoder Installation, AMM TASK 23-28-11-420-801.

5) If the call switch does reset correctly, then you corrected the fault.

——— END OF TASK ———

803. Aural Warning Unit Chimes Problem - Fault Isolation

A. Description

(1) The chime on the aural warning unit module, M315 does not operate correctly for calls on VHF or HF.

B. Possible Causes

(1) Remote electronics unit, M1353

(2) Aural warning unit, M315

(3) Wiring problem

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	15	C00058	COMMUNICATIONS SELCAL

D. Related Data

(1) (SSM 23-22-11)

(2) (WDM 23-22-11)

E. Initial Evaluation

(1) Initiate the chime in the aural warning unit, M315.

(a) If the chime comes on, then there was an intermittent fault.

(b) If the chime does not come on, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Replace the aural warning unit, M315.

These are the tasks:

Aural Warning Module Removal, AMM TASK 31-51-04-000-801,

Aural Warning Module Installation, AMM TASK 31-51-04-400-801.

(a) If the chime operates correctly, then you corrected the fault.

(b) If the chime does not operate correctly, then continue.

(2) Replace the remote electronics unit, M1353.

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

(a) If the chime operates correctly, then you corrected the fault.

(b) If the chime does not operate correctly, then continue.

(3) Do this check of the wiring:

(a) Remove the Audio Selector Panel P5-15, P8-6, and P8-7. To remove it, do this task: AMM TASK 23-51-02-000-801.

(b) Remove the aural warning unit, M315. To remove it, do this task: AMM TASK 31-51-04-000-801.

(c) Do a wiring check between these pins of connector D141 for the Audio control panel and connector D940 for the aural warning unit:

	ASP CONNECTOR		AURAL WARN UNIT CONNECTOR
HF1 (if applicable)	**D141** pin 4	. . . . .	**D940** pin 8
HF2 (if applicable)	**D141** pin 5	. . . . .	**D940** pin 8
VHF1	**D141** pin 1	. . . . .	**D940** pin 8
VHF2	**D141** pin 2	. . . . .	**D940** pin 8
VHF3 (if applicable)	**D141** pin 3	. . . . .	**D940** pin 8

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

1) Repair the wiring.
2) Re-connect the connectors.
3) Re-install the Audio Selector Panel P5-15, P8-6, and P8-7. To remove it, do this task: AMM TASK 23-51-02-400-801.
4) Re-install the aural warning unit. To install it, do this task: AMM TASK 31-51-04-400-801.
5) If the chime operates correctly, then you corrected the fault.

——— END OF TASK ———

804. SELCAL Operation Problem - Fault Isolation

A. Description

(1) The SELCAL system does not operate correctly for VHF or HF calls.

B. Possible Causes

(1) SELCAL decoder unit, M25

(2) Wiring problem

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	15	C00058	COMMUNICATIONS SELCAL

D. Related Data

(1) (SSM 23-22-11)

(2) (WDM 23-22-11)

E. Fault Isolation Procedure

(1) Replace the SELCAL decoder unit.

These are the tasks:

SELCAL Decoder Unit Removal, AMM TASK 23-28-11-020-801,

SELCAL Decoder Installation, AMM TASK 23-28-11-420-801.

(a) If the call switch does reset correctly, then you corrected the fault.

(b) If the call switch does not reset correctly, then continue.

(2) Do this check of the wiring:

(a) Remove the Audio Selector Panel P5-15, P8-6, and P8-7. To remove it, do this task: AMM TASK 23-51-02-000-801.

(b) Remove the SELCAL decoder unit, M25. To remove it, do this task: AMM TASK 23-28-11-020-801.

(c) Do a wiring check between the pins of connector D141 for the Audio Selector Panel, and connector D2555B for the SELCAL decoder unit:

	FUNCTION KEY	
	AUDIO SELECTOR PANEL	**SELCAL DECODER CONNECTOR**
HF1 (if applicable)	**D141**	**D2555B**
	pin 4	pin C7
HF2 (if applicable)	**D141**	**D2555B**
	pin J7	pin D7
VHF1	**D141**	**D2555B**
	pin 1	pin D6
VHF2	**D141**	**D2555B**
	pin 2	pin A7
VHF3 (if applicable)	**D141**	**D2555B**
	pin	pin B7

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

1) Repair the wiring.

2) Re-connect the connectors.

3) Re-install the Audio Selector Panel. To install it, do this task: AMM TASK 23-51-02-400-801.

4) Re-install the SELCAL decoder unit. To install it, do this task: AMM TASK 23-28-11-420-801.

5) If the call switch does reset correctly, then you corrected the fault.

——— END OF TASK ———

801. Passenger Address Does Not Operate from Flight Deck - Fault Isolation

A. Description

(1) No, intermittent, or poor quality audio can be heard from the passenger address (PA) speakers when the flight crew makes a PA announcement.

B. Possible Causes

(1) Microphone

(2) Wiring

(3) Control Wheel PTT switch.

(4) Passenger address amplifier, M63

(5) Remote electronic unit (REU), M1353.

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	4	C00082	COMMUNICATIONS PA AMPL BAT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
C	21	C00560	INTERPHONE POWER F/O DC 2
C	22	C00561	INTERPHONE POWER F/O BAT
C	23	C00239	INTERPHONE POWER CAPT DC 2
C	24	C00240	INTERPHONE POWER CAPT BAT
D	21	C00084	INTPH AND WARN
D	22	C00086	AUDIO F/O
D	23	C00083	AUDIO CAPT
D	24	C00085	AUDIO OBS

D. Related Data

(1) (SSM 23-31-11)

(2) (SSM 23-31-12)

(3) (SSM 23-31-13)

(4) (SSM 23-31-14)

(5) (SSM 23-51-11)

(6) (SSM 23-51-21)

(7) (SSM 23-51-31)

(8) (WDM 23-31-01)

(9) (WDM 23-31-02)

(10) (WDM 23-31-03)

(11) (WDM 23-31-04)

(12) (WDM 23-51-11)

(13) (WDM 23-51-21)

(14) (WDM 23-51-31)

E. Fault Isolation Procedure

(1) Do this check of the microphone:

(a) Use a microphone in the flight deck, other than where the problem was reported, to make an announcement over the passenger address system.

1) Make sure you can hear the announcement on all of the applicable speakers.

(b) If you can hear the announcement on the speakers, then replace the microphone where the problem was reported.

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

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

(c) If you cannot hear the announcement on the speakers, or the announcement is intermittent, then continue.

(2) Do these steps to examine and repair the wires to the applicable microphone:

(a) For the PA microphone at the aft end of the control stand, use the 23-31 SSM and WDM listed in Related Data To examine these wires:

1) Examine and repair the wires between the connector D2639B at the passenger address amplifier and the connector D6001 in the control stand.

a) If you found a problem, then do the Repair Confirmation at the end of this task.

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

(b) For other flight deck microphones, use the 23-51 SSM and WDM listed in Related Data to examine these wires:

NOTE: Other microphones are the Captains's or First Officer's hand microphone, boom microphone, oxygen mask microphone or the Observer seat microphones.

1) Remove the remote electronic unit (REU). To remove it, do this task: Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801.

2) Examine and repair the wires between the connector D2501B at the REU and the applicable microphone jack:

NOTE: Airplanes without active noise suppression may use a three wire or four wire microphone connector. Airplanes with active noise suppression may use a three wire, four wire, or five wire microphone connector.

(c) If you found and repaired a wire problem, then do these steps:

1) Re-install the REU. To install it, do this task: Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

2) If it is necessary, re-install the applicable microphone.

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

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

(d) If no wire problem was found, then re-install the REU. To install it, do this task: Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

(3) Do this check of the Control Wheel PTT switch:

(a) Press and hold the control wheel PTT switch in the interphone position.

(b) Use a microphone in the flight deck to make an announcement over the passenger address system.

1) Make sure you can hear the announcement on all of the applicable speakers.

2) If you can hear the announcement on the speakers, do the Repair Confirmation at the end of this task.

3) If you cannot hear the announcement on the speakers, or the announcement is intermittent, then continue.

(4) Replace the passenger address amplifier, M63.

These are the tasks:

Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801,

Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

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

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

(5) Replace the remote electronic unit, M1353.

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

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

F. Repair Confirmation

(1) Do this test of the passenger address system:

(a) Set the PA microphone selector switch on the audio control panel (ACP) to ON.

1) Make sure its light comes on.

(b) Push and hold the R/T - I/C switch on the ACP in the R/T position.

(c) Speak into the microphone.

1) Make sure you can hear the announcement on all of the applicable speakers.

(d) If you can hear the announcement on the speakers, then you corrected the fault.

——— END OF TASK ———

802. Passenger Address Volume Problem - Fault Isolation

A. Description

(1) The audio heard from the passenger address speakers is too loud or too quiet.

(2) The audio heard on the attendant and lavatory speakers is too loud or too quiet.

B. Possible Causes

(1) Master gain on PA amplifier

(2) PA Gain on Remote Electronic Unit (REU), M1353

(3) Passenger address (PA) amplifier, M63

(4) Wiring

(5) Remote electronic unit (REU), M1353

C. Related Data

(1) (SSM 73-22-31)

(2) (WDM 23-31-01)

(3) (WDM 23-31-02)

(4) (WDM 23-31-03)

(5) (WDM 23-31-04)

(6) (WDM 23-51-11)

(7) (WDM 23-51-21)

(8) (WDM 23-51-31)

D. Fault Isolation Procedure

AKS ALL; AIRPLANES WITH PA P/N 622-5342-101

(1) Adjust the master gain on the PA amplifier:

(a) Set and hold the test mode switch on the PA amplifier front panel to LEVEL.

(b) Turn the MASTER GAIN screw on the front panel clockwise or counterclockwise to the desired level.

NOTE: To get the maximum undistorted audio, turn the master gain screw clockwise until the front panel LEDs show 70.7.

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

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

AKS ALL

(2) Replace the passenger address (PA) amplifier, M63.

These are the tasks:

Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801,

Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

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

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

(3) Do this check of the wiring:

(a) Remove the remote electronic unit (REU). To remove it, do this task: Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801.

(b) Open this access panel to get access to junction box J22:

Number	Name/Location
113AW	Forward Nose Wheel Well Panel

(c) Disconnect electrical connector D10918 from the engine 1 running relay, R564.

(d) Open this access panel to get access to junction box J24:

Number	Name/Location
114AW	Forward Nose Wheel Well Panel

(e) Disconnect electrical connector D10916 from the engine 2 running relay, R563.

(f) Do a continuity check between these pins:

	REU CONNECTOR	RELAY CONNECTOR
ENGINE 1 RUNNING RELAY (R564)	**D2501A** pin F5	**D10918** pin A3
ENGINE 2 RUNNING RELAY (R563)	**D2501A** pin K5	**D10916** pin A3

(g) If there is not continuity between the pins, then do these steps:

1) Repair the wiring.
2) Re-connect electrical connector D10918 to R564.
3) Close this access panel:

Number	Name/Location
113AW	Forward Nose Wheel Well Panel

4) Re-connect electrical connector D10916 to R563.
5) Close this access panel:

Number	Name/Location
114AW	Forward Nose Wheel Well Panel

6) Re-install the REU. To install it, do this task: Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.
7) Do the Repair Confirmation at the end of this task.
   a) If the Repair Confirmation is not OK, then continue.

(h) If there is continuity, then do these steps and continue:

1) Re-connect electrical connector D10918 to R564.
2) Close this access panel:

Number	Name/Location
113AW	Forward Nose Wheel Well Panel

3) Re-connect electrical connector D10916 to R563.
4) Close this access panel:

Number	Name/Location
114AW	Forward Nose Wheel Well Panel

(4) Install a new remote electronic unit (REU), M1353. To install it, do this task: Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.
   (a) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

(1) Do this test of the passenger address system:
   (a) Set the PA microphone selector switch on the audio control panel (ACP) to ON.

1) Make sure its light comes on.

(b) Push and hold the R/T - I/C switch on the ACP in the R/T position.

(c) Speak into the microphone.

1) Make sure you can hear the announcement from the passenger address speakers.

(d) If you can hear the announcement on the speakers, then you corrected the fault.

——— END OF TASK ———

803. Chimes Do Not Turn Off - Fault Isolation

A. Description

(1) The chime in the passenger cabin does not turn off.

B. Fault Isolation Procedure

AKS ALL; AIRPLANES WITH PA P/N 622-5342-101

(1) Replace the passenger address (PA) amplifier, M63.

These are the tasks:

Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801,

Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

(a) Put the OPERATE/TONE switch on the front panel of the PA amplifier to the TONE position.

1) Make sure you can hear a high chime sound on the passenger address speakers.

(b) Put the OPERATE/TONE switch to the OPERATE position.

1) Make sure the chime sound is not heard.

(c) If the chime sound is not heard, then you corrected the fault.

AKS ALL

——— END OF TASK ———

804. Cabin Chime Does Not Operate - Fault Isolation

A. Description

(1) The chime in the passenger cabin does not sound when one or all of these conditions occurs:

(a) Passenger call button on the passenger service unit (PSU) is pushed

(b) Lavatory call button is pushed

(c) NO SMOKING switch is set to the ON position

(d) FASTEN BELTS switch is set to the ON position.

B. Possible Causes

(1) Passenger address (PA) amplifier, M63

(2) Wiring

(3) Passenger service unit (PSU)

(4) Lavatory call switch

(5) No smoking switch, S45

(6) No power to the no smoking relay

(7) No smoking relay, R25

(8) Fasten belts switch, S46

(9) No power to the fasten belts relay

(10) Fasten belts relay, R26

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	8	C01403	PASSENGER CABIN PASS CALL LEFT
B	8	C01404	PASSENGER CABIN PASS CALL RIGHT
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	4	C00082	COMMUNICATIONS PA AMPL BAT

D. Related Data

(1) (SSM 23-31-11)

(2) (WDM 23-31-01)

E. Initial Evaluation

AKS ALL; AIRPLANES WITH PA P/N 622-5342-101

(1) Do this test of the passenger address (PA) amplifier:

(a) Put the OPERATE/TONE switch on the front panel of the passenger address (PA) amplifier, M63, to the TONE position.

1) Make sure you can hear a high chime sound on the attendant, lavatory, and passenger service unit speakers.

(b) Put the OPERATE/TONE switch to the OPERATE position.

(c) If you do not hear a high chime on the speakers, then do the Fault Isolation Procedure - No Chime below.

(d) If you hear a high chime on the speakers, then continue.

AKS ALL

(2) Do this test of the passenger call:

(a) Push the attendant call button on the PSU.

1) Make sure you hear a high chime on the attendant, lavatory, and passenger service unit speakers.

(b) If you do not hear a high chime on the speakers, then do the Fault Isolation Procedure - Passenger Call below.

(c) If you hear a high chime on the speakers, then continue.

(3) Do this test of the lavatory call:

(a) Push the call button in the lavatory.

1) Make sure you hear a high chime on the attendant, lavatory, and passenger service unit speakers.

(b) If you do not hear a high chime on the speakers, then do the Fault Isolation Procedure - Lavatory Call below.

(c) If you hear a high chime on the speakers, then continue.

(4) Do this test of the NO SMOKING switch:

(a) Set the NO SMOKING switch, on the P5 overhead panel in the flight compartment, to the ON position.

1) Make sure you hear a low chime on the attendant, lavatory, and passenger service unit speakers.

(b) If you do not hear a low chime on the speakers, then do the Fault Isolation Procedure - No Smoking Chime below.

(c) If you hear a low chime on the speakers, then continue.

(5) Do this test of the FASTEN BELTS switch:

(a) Set the FASTEN BELTS switch, on the P5 overhead panel in the flight compartment, to the ON position.

1) Make sure you hear a low chime on the attendant, lavatory, and passenger service unit speakers.

(b) If you do not hear a low chime on the speakers, then do the Fault Isolation Procedure - Fasten Belts Chime below.

(c) If you hear a low chime on the speakers, then there was an intermittent fault.

F. Fault Isolation Procedure - No Chime

AKS ALL; AIRPLANES WITH PA P/N 622-5342-101

(1) Replace the passenger address (PA) amplifier, M63.

These are the tasks:

Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801,

Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

(a) Put the OPERATE/TONE switch on the front panel of the PA amplifier to the TONE position.

1) Make sure you can hear a high chime sound on the attendant, lavatory, and passenger service unit speakers.

(b) Put the OPERATE/TONE switch to the OPERATE position.

(c) If you hear a chime, then you corrected the fault.

AKS ALL

G. Fault Isolation Procedure - Passenger Call

(1) Do this check of the wiring:

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	8	C01403	PASSENGER CABIN PASS CALL LEFT
B	8	C01404	PASSENGER CABIN PASS CALL RIGHT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	4	C00082	COMMUNICATIONS PA AMPL BAT

(b) Remove the passenger service unit (PSU). To remove it, do this task: Passenger Service Unit - Removal, AMM TASK 25-23-61-000-804.

(c) Remove the passenger address (PA) amplifier, M63. To remove it, do this task: Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801.

(d) Do a check for continuity between pin A11 of connector D2639B on the PA amplifier, M63, and pin 2 of the PSU connector.

(e) If there is not continuity, then do these steps:

1) Repair the wiring.

2) Re-install the PA amplifier, M63. To install it, do this task: Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

3) Re-install the PSU. To install it, do this task: Passenger Service Unit - Installation, AMM TASK 25-23-61-400-804.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	8	C01403	PASSENGER CABIN PASS CALL LEFT
B	8	C01404	PASSENGER CABIN PASS CALL RIGHT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	4	C00082	COMMUNICATIONS PA AMPL BAT

5) Push the attendant call button on the PSU.

a) Make sure you hear a chime over the attendant, lavatory, and passenger service unit speakers.

6) If you hear a chime over the speakers, then you corrected the fault.

7) If you did not hear a chime over the speakers, then continue.

(f) If there is continuity, then do these steps:

1) Install a new passenger service unit (PSU). To install it, do this task: Passenger Service Unit - Installation, AMM TASK 25-23-61-400-804.

2) Re-install the PA amplifier, M63. To install it, do this task: Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	8	C01403	PASSENGER CABIN PASS CALL LEFT
B	8	C01404	PASSENGER CABIN PASS CALL RIGHT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	4	C00082	COMMUNICATIONS PA AMPL BAT

4) Push the attendant call button on the PSU.

a) Make sure you hear a chime over the attendant, lavatory, and passenger service unit speakers.

5) If you hear a chime over the speakers, then you corrected the fault.

H. Fault Isolation Procedure - Lavatory Call

(1) Do this test of the lavatory call:

(a) Push the call button in the lavatory.

1) Make sure the amber light on the exit locator signs comes on.

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

1) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	8	C01403	PASSENGER CABIN PASS CALL LEFT
B	8	C01404	PASSENGER CABIN PASS CALL RIGHT

2) Replace the lavatory call switch.

a) To replace it, do this task: Lavatory Call Light - Light/Switch Replacement, AMM TASK 33-27-00-960-802.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	8	C01403	PASSENGER CABIN PASS CALL LEFT
B	8	C01404	PASSENGER CABIN PASS CALL RIGHT

4) Push the call button in the lavatory.

a) Make sure you hear a high chime on the attendant, lavatory, and passenger service unit speakers.

5) If you hear a high chime on the speakers, then you corrected the fault.

6) If you do not hear a high chime on the speakers, then continue.

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

(2) Do this test of the wiring:

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	8	C01403	PASSENGER CABIN PASS CALL LEFT
B	8	C01404	PASSENGER CABIN PASS CALL RIGHT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	4	C00082	COMMUNICATIONS PA AMPL BAT

(b) Disconnect electrical connector D3732 from the left forward lavatory A module, M1415.

(c) Disconnect electrical connector D3738 from the left aft lavatory D module, M1418.

(d) Disconnect electrical connector D3740 from the right aft lavatory E module, M1419.

(e) Remove the passenger address (PA) amplifier, M63. To remove it, do this task: Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801.

(f) Do a check for continuity between these pins:

		LAVATORY
	PA AMP CONNECTOR	**LAV CONNECTOR**
LEFT FORWARD LAV A MODULE (M1415)	**D2639B**	**D3732**
	pin A11	pin 2
RIGHT AFT LAV C MODULE (M1417)	**D2639B**	**D3736**
	pin A11	pin 2
LEFT AFT LAV D MODULE (M1418)	**D2639B**	**D3738**
	pin A11	pin 2
RIGHT AFT LAV E MODULE (M1419)	**D2639B**	**D3740**
	pin A11	pin 2

	LAVATORY	
	PA AMP CONNECTOR	**LAV CONNECTOR**
LEFT FWD LAV F MODULE (M1420)	**D2639B** pin A11	**D3742** pin 2
RIGHT AFT LAV G MODULE (M2191)	**D2639B** pin A11	**D12596** pin 2
RIGHT AFT LAV H MODULE (M2435)	**D2639B** pin A11	**D13426** pin 2
LEFT FWD LAV K MODULE (M2435)	**D2639B** pin A11	**D13324** pin 2
LEFT FWD LAV R MODULE (M2435)	**D2639B** pin A11	**D13650** pin 2

	LAVATORY	
	PA AMP CONNECTOR	**LAV CONNECTOR**
LEFT FORWARD LAV A MODULE (M1415)	**D2639B** pin A11	**D3732** pin 2

LEFT AFT LAV D MODULE (M1418)	**D2639B** pin A11	**D3738** pin 2
RIGHT AFT LAV G MODULE (M2191)	**D2639B** pin A11	**D12596** pin 2

(g) If there is not continuity, then do these steps:

1) Repair the wiring.

2) Re-install the PA amplifier, M63. To install it, do this task: Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

3) Re-connect electrical connector D3732 to the left forward lavatory A module, M1415.

4) Re-connect electrical connector D3738 to the left aft lavatory D module, M1418.

5) Re-connect electrical connector D3740 to the right aft lavatory E module, M1419.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	8	C01403	PASSENGER CABIN PASS CALL LEFT
B	8	C01404	PASSENGER CABIN PASS CALL RIGHT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	4	C00082	COMMUNICATIONS PA AMPL BAT

(i) Push the lavatory call button.

1) Make sure you hear a chime over the attendant, lavatory, and passenger service unit speakers.

(j) If you hear a chime over the speakers, then you corrected the fault.

I. Fault Isolation - No Smoking Chime

(1) Do this check of the no smoking switch:

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

(b) Disconnect electrical connector D1620 from the no smoking relay, R25, in the P6 panel.

(c) Set the NO SMOKING switch, on the P5 overhead panel in the flight compartment, to the ON position.

(d) Do a check for continuity between pin X2 of connector D1620 and structure ground.

(e) If there is not continuity, then do these steps:

1) Replace the NO SMOKING switch, S45.

2) Make sure the NO SMOKING switch is in the OFF position.

3) Re-connect electrical connector D1620 to the no smoking relay, R25, in the P6 panel.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

5) Set the NO SMOKING switch to the ON position.

a) Make sure you hear a low chime on the attendant, lavatory, and passenger service unit speakers.

6) If you hear a chime on the speakers, then you corrected the fault.

7) If you did not hear a chime on the speakers, then do these steps:

a) Set the NO SMOKING switch to the OFF position.

b) Open this circuit breaker and install safety tag:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

c) Repair the wiring between pin X2 of connector D1620 on the no smoking relay, R25, and the NO SMOKING switch, S45.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

e) Set the NO SMOKING switch to the ON position.

f) Make sure you hear a low chime on the attendant, lavatory, and passenger service unit speakers.

8) If you hear a chime on the speakers, then you corrected the fault.

(f) If there is continuity, then continue.

(2) Do this check for power to the no smoking relay:

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

(b) Do a check for 28V DC at pins X1, B2 of connector D1620 on the no smoking relay, R25, and structure ground.

(c) If there is not voltage, then do these steps:

1) Open this circuit breaker and install safety tag:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

2) Repair the wiring between the no smoking relay, R25, and this circuit breaker:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

3) Re-connect electrical connector D1620 to the no smoking relay, R25, in the P6 panel.

4) Set the NO SMOKING switch to the OFF position.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

6) Set the NO SMOKING switch to the ON position.

a) Make sure you hear a chime on the attendant, lavatory, and passenger service unit speakers.

7) If you hear a chime on the speakers, then you corrected the fault.

(d) If there is voltage, then continue.

(3) Do this check of the wiring:

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	4	C00082	COMMUNICATIONS PA AMPL BAT

(b) Remove the passenger address (PA) amplifier, M63. To remove it, do this task: Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801.

(c) Do a check for continuity between pin B1 of connector D1620 on the no smoking relay, R25, and pin D11 of connector D2639B on the PA amplifier, M63.

(d) If there is not continuity, then do these steps:

1) Repair the wiring.

2) Re-install the PA amplifier, M63. To install it, do this task: Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

3) Re-connect electrical connector D1620 to the no smoking relay, R25, in the P6 panel.

4) Set the NO SMOKING switch to the OFF position.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	4	C00082	COMMUNICATIONS PA AMPL BAT

6) Set the NO SMOKING switch to the ON position.

a) Make sure you hear a chime on the attendant, lavatory, and passenger service unit speakers.

7) If you hear a chime on the speakers, then you corrected the fault.

(e) If there is continuity, then continue.

1) Re-install the PA amplifier, M63. To install it, do this task: Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

(4) Replace the no smoking relay:

(a) Replace the no smoking relay, R25.

1) Re-connect electrical connector D1620 to the no smoking relay, R25, in the P6 panel.

2) Set the NO SMOKING switch to the OFF position.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	4	C00082	COMMUNICATIONS PA AMPL BAT

4) Set the NO SMOKING switch to the ON position.

a) Make sure you hear a chime on the attendant, lavatory, and passenger service unit speakers.

5) If you hear a chime on the speakers, then you corrected the fault.

J. Fault Isolation - Fasten Belts Chime

(1) Do this check of the FASTEN BELTS switch:

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

(b) Disconnect electrical connector D1622 from the fasten belts relay, R26, in the P6 panel.

(c) Set the FASTEN BELTS switch, on the P5 overhead panel in the flight compartment, to the ON position.

(d) Do a check for continuity between pin X2 of connector D1622 and structure ground.

(e) If there is not continuity, then do these steps:

1) Replace the FASTEN BELTS switch, S46.

2) Make sure the FASTEN BELTS switch is in the OFF position.

3) Re-connect electrical connector D1622 to the fasten belts relay, R26, in the P6 panel.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

5) Set the FASTEN BELTS switch to the ON position.

a) Make sure you hear a low chime on the attendant, lavatory, and passenger service unit speakers.

6) If you hear a chime on the speakers, then you corrected the fault.

7) If you did not hear a chime on the speakers, then do these steps:

a) Set the FASTEN BELTS switch to the OFF position.

b) Open this circuit breaker and install safety tag:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

c) Repair the wiring between pin X2 of connector D1622 on the fasten belts relay, R26, and the FASTEN BELTS switch, S46.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

e) Set the FASTEN BELTS switch to the ON position.

f) Make sure you hear a low chime on the attendant, lavatory, and passenger service unit speakers.

8) If you hear a chime on the speakers, then you corrected the fault.

(f) If there is continuity, then continue.

(2) Do this check for power to the fasten belts relay:

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

(b) Do a check for 28V DC at pins X1, B2 of connector D1622 on the fasten belts relay, R26, and structure ground.

(c) If there is not voltage, then do these steps:

1) Open this circuit breaker and install safety tag:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

2) Repair the wiring between the fasten belts relay, R26, and this circuit breaker:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

3) Re-connect electrical connector D1622 to the fasten belts relay, R26, in the P6 panel.

4) Set the FASTEN BELTS switch to the OFF position.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

6) Set the FASTEN BELTS switch to the ON position.

a) Make sure you hear a chime on the attendant, lavatory, and passenger service unit speakers.

7) If you hear a chime on the speakers, then you corrected the fault.

(d) If there is voltage, then continue.

(3) Do this check of the wiring:

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	4	C00082	COMMUNICATIONS PA AMPL BAT

(b) Remove the passenger address (PA) amplifier, M63. To remove it, do this task: Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801.

(c) Do a check for continuity between pin B1 of connector D1622 on the fasten belts relay, R26, and pin C11 of connector D2639B on the PA amplifier, M63.

(d) If there is not continuity, then do these steps:

1) Repair the wiring.

2) Re-install the PA amplifier, M63. To install it, do this task: Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

3) Re-connect electrical connector D1622 to the fasten belts relay, R26, in the P6 panel.

4) Set the FASTEN BELTS switch to the OFF position.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	4	C00082	COMMUNICATIONS PA AMPL BAT

6) Set the FASTEN BELTS switch to the ON position.

a) Make sure you hear a chime on the attendant, lavatory, and passenger service unit speakers.

7) If you hear a chime on the speakers, then you corrected the fault.

(e) If there is continuity, then continue.

1) Re-install the PA amplifier, M63. To install it, do this task: Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

(4) Replace the fasten belts relay:

(a) Replace the no smoking relay, R26.

1) Re-connect electrical connector D1622 to the fasten belts relay, R26, in the P6 panel.

2) Set the FASTEN BELTS switch to the OFF position.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	11	C00442	PASSENGER CABIN SIGNS PASS SIGN CONT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	4	C00082	COMMUNICATIONS PA AMPL BAT

4) Set the FASTEN BELTS switch to the ON position.

a) Make sure you hear a chime on the attendant, lavatory, and passenger service unit speakers.

5) If you hear a chime on the speakers, then you corrected the fault.

END OF TASK

805. Passenger Address System Problem - Fault Isolation

A. Description

(1) No, intermittent, or poor quality audio can be heard from the passenger address (PA) speakers during an announcement.

B. Possible Causes

(1) Attendant's handset

(2) Cabin attendant's control panel, P13 (forward) or P14 (aft)

(3) Wiring

(4) Passenger address amplifier, M63

(5) Remote electronic unit (REU), M1353.

(6) PRAM (Pre-Recorded Announcement Machine), M1276

C. Circuit Breakers

(1) (SSM 23-31-11)

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	6	C01583	ENTERTAINMENT PA SYS BAT
D	4	C00082	COMMUNICATIONS PA AMPL BAT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
C	21	C00560	INTERPHONE POWER F/O DC 2
C	22	C00561	INTERPHONE POWER F/O BAT
C	23	C00239	INTERPHONE POWER CAPT DC 2
C	24	C00240	INTERPHONE POWER CAPT BAT
D	21	C00084	INTPH AND WARN
D	22	C00086	AUDIO F/O
D	23	C00083	AUDIO CAPT
D	24	C00085	AUDIO OBS

D. Related Data

(1) (SSM 23-31-11)

(2) (SSM 23-31-12)

(3) (SSM 23-31-13)

(4) (SSM 23-31-14)

(5) (WDM 23-31-01)

(6) (WDM 23-31-02)

(7) (WDM 23-31-03)

(8) (WDM 23-31-04)

(9) (WDM 23-31-06)

E. Fault Isolation Procedure

(1) Do this check of the attendant's handset:

(a) Use an attendant's handset, other than where the problem was reported, to make an announcement over the passenger address system.

1) Make sure you can hear the announcement on the attendant, PSU, and lavatory speakers.

(b) If you can hear the announcement on the speakers, then replace the attendant's handset where the problem was reported.

These are the tasks:

Attendant Handset Removal, AMM TASK 23-42-01-000-801,

Attendant Handset Installation, AMM TASK 23-42-01-400-803.

1) Do the Repair Confirmation at the end of this task.
   a) If the Repair Confirmation is not satisfactory, then continue.

(c) If you cannot hear the announcement on the speakers, or the announcement is intermittent, then continue.

(2) Replace the applicable cabin attendant's control panel.

These are the tasks:

Attendant's Panel with LCD Touch Panel - Removal, AMM TASK 25-25-11-000-802,

Attendant's Panel with LCD Screen - Installation, AMM TASK 25-25-11-400-802.

(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 of the wiring between the passenger address (PA) amplifier and the attendant's handset:

(a) Remove the PA amplifier. To remove it, do this task: Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801.

(b) Do a continuity check between the PA amplifier and the attendant panel:

Table 201

ATTENDANT PANEL	PA AMP CONNECTOR		ATTENDANT PANEL CONNECTOR
FORWARD ATTENDANT'S PANEL	D2639B		D14366
	pin A2	--------	pin 20
	pin B2	--------	pin 21
AFT ATTENDANT'S PANEL	D2639B		D14374
	pin A2	--------	pin 20
	pin B2	--------	pin 21
LAV D ATTENDANT'S PANEL	D2639B		D10021
	pin A2	--------	pin 20
	pin B2	--------	pin 21
LAV E ATTENDANT'S PANEL	D2639B		D10021
	pin A2	--------	pin 23
	pin B2	--------	pin 24

(c) If there is not continuity between these pins, then do these steps:
   1) Repair the wiring.
   2) Re-install the PA amplifier. To install it, do this task: Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.
   3) Do the Repair Confirmation at the end of this task.

(d) If there is continuity between these pins, then continue.
   1) Re-install the PA amplifier. To install it, do this task: Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

(4) Replace the passenger address amplifier, M63.

These are the tasks:

Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801,

Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

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

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

(5) Replace the remote electronic unit, M1353.

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

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

(6) Replace the PRAM, M1276. These are the tasks:

Reference Not Currently Available

Reference Not Currently Available

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

(7) Do a wiring check between the PRAM and the PA Amplifier. Look at INPUT 1 PTT signal that shows on SSM 23-31-12.

NOTE: The PRAM could have an effect on no PA announcements made from the handsets, but still operable for the flight deck if it was shorting the PTT#1 line, for example. The PA system has the highest priority for input 1 (pilot input). If the PTT 1 is keyed, all PA handsets and PRAM messages and boarding music will be overridden.

(a) If you find a problem, repair the wiring.

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

F. Repair Confirmation

(1) Do this test of the passenger address system:

(a) Set the attendant's handset to the PA mode.

(b) Push the PTT button on the attendant's handset.

(c) Speak into the attendant's handset.

1) Make sure you can hear the announcement on the other attendant, PSU, and lavatory speakers.

(d) If you can hear the announcement on the speakers, then you corrected the fault.

——— END OF TASK ———

806. Passenger Address Speaker Problem - Fault Isolation

A. Description

(1) No, intermittent, or poor quality audio can be heard on one of these passenger address speakers during an announcement:

(a) Attendant

(b) Lavatory

(c) Passenger service unit.

B. Possible Causes

(1) Speaker

(2) Wiring

(3) Remote electronic unit, M1353

C. Related Data

(1) (SSM 23-31-11)

(2) (SSM 23-31-12)

(3) (SSM 23-31-13)

(4) (SSM 23-31-14)

(5) (WDM 23-31-01)

(6) (WDM 23-31-02)

(7) (WDM 23-31-03)

(8) (WDM 23-31-04)

(9) (WDM 23-31-06)

D. Initial Evaluation

(1) Do this test of the passenger address system:

(a) Use a microphone in the flight deck to make an announcement on the passenger address system.

1) Make sure you can hear the announcement on the attendant, lavatory, and passenger service unit speakers.

(b) If you cannot hear the announcement on both forward attendant speakers or both aft attendant speakers, then do the Fault Isolation Procedure - Both Attendant Speakers below.

(c) If you cannot hear the announcement, or the quality of the audio is bad, on an attendant speaker, then do the Fault Isolation Procedure - One Attendant Speaker below.

(d) If you cannot hear the announcement, or the quality of the audio is bad, on a lavatory speaker, then do the Fault Isolation Procedure - Lavatory Speaker below.

(e) If you cannot hear the announcement, or the quality of the audio is bad, on a passenger service unit (PSU) speaker, then do the Fault Isolation Procedure - PSU Speaker below.

(f) If you hear the announcement on all speakers, then there was an intermittent fault.

E. Fault Isolation Procedure - Both Attendant Speakers

(1) Replace the remote electronic unit (REU), M1353.

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

(a) Use a microphone in the flight deck to make an announcement over the passenger address system.

1) Make sure you can hear the announcement on both attendant's speakers.

(b) If you heard the announcement on both attendant's speakers, then you corrected the fault.

(c) If you did not hear the announcement on the attendant's speaker, then continue.

(2) Do this check of the wiring:

(a) Remove the remote electronic unit (REU), M1353. To remove it, do this task: Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801.

(b) Remove the passenger address (PA) amplifier, M63. To remove it, do this task: Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801.

(c) Remove the attendant speakers. To remove them, do this task: Attendant Speaker Removal, AMM TASK 23-31-03-000-801.

(d) Do a check for continuity between connector D2501B of the REU, or connector D2639B of the PA amplifier, and the attendant speakers:

Table 202

ATTENDANT SPEAKER	PA OR REU CONNECTOR		ATTENDANT SPEAKER
RIGHT FORWARD ATTENDANT'S SPEAKER (M1464)	D2501B		M1464
	pin H2	----------	pin 2K
	D2639B		
	pin B15	----------	pin C
LEFT FORWARD ATTENDANT'S SPEAKER (M157)	D2501B		M157
	pin H2	----------	pin 2K
	D2639B		
	pin B15	----------	pin C
RIGHT AFT ATTENDANT'S SPEAKER (M1212)	D2501B		M1212
	pin C1	----------	pin 2K
	D2639B		
	pin B15	----------	pin C
LEFT AFT ATTENDANT'S SPEAKER (M1213)	D2501B		M1213
	pin C1	----------	pin 2K
	D2639B		
	pin B15	----------	pin C

(e) If there is not continuity between the pins, then do these steps:

1) Repair the wiring.

2) Re-install the speakers. To install them, do this task: Attendant Speaker Installation, AMM TASK 23-31-03-400-801.

3) Re-install the PA amplifier. To install it, do this task: Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

4) Re-install the REU. To install it, do this task: Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

5) Use a microphone in the flight deck to make an announcement over the passenger address system.
   a) Make sure you can hear the announcement on both attendant's speakers.
6) If you heard the announcement on both attendant's speakers, then you corrected the fault.

F. Fault Isolation Procedure - One Attendant Speaker

(1) Replace the attendant speaker.

These are the tasks:

Attendant Speaker Removal, AMM TASK 23-31-03-000-801,

Attendant Speaker Installation, AMM TASK 23-31-03-400-801.

(a) Use a microphone in the flight deck to make an announcement over the passenger address system.
   1) Make sure you can hear the announcement on the attendant's speaker.

(b) If you heard the announcement on the attendant's speaker, then you corrected the fault.

(c) If you did not hear the announcement on the attendant's speaker, then continue.

(2) Do this check of the wiring.

(a) Remove the remote electronic unit (REU), M1353. To remove it, do this task: Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801.

(b) Remove the passenger address (PA) amplifier, M63. To remove it, do this task: Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801.

(c) Remove the attendant speakers. To remove them, do this task: Attendant Speaker Removal, AMM TASK 23-31-03-000-801.

(d) Do a check for continuity between connector D2501B of the REU, or connector D2639B of the PA amplifier, and the attendant speakers:

Table 203

ATTENDANT SPEAKER	PA OR REU CONNECTOR		ATTENDANT SPEAKER
RIGHT FORWARD ATTENDANT'S SPEAKER (M1464)	D2501B		M1464
	pin H2	----------	pin 2K
	D2639B		
	pin B15	----------	pin C
LEFT FORWARD ATTENDANT'S SPEAKER (M157)	D2501B		M157
	pin H2	----------	pin 2K
	D2639B		
	pin B15	----------	pin C
RIGHT AFT ATTENDANT'S SPEAKER (M1212)	D2501B		M1212
	pin C1	----------	pin 2K

Table 203 (Continued)

ATTENDANT SPEAKER	PA OR REU CONNECTOR		ATTENDANT SPEAKER
	D2639B		
	pin B15	----------	pin C
LEFT AFT ATTENDANT'S SPEAKER (M1213)	D2501B		M1213
	pin C1	----------	pin 2K
	D2639B		
	pin B15	----------	pin C

(e) If there is not continuity between the pins, then do these steps:

1) Repair the wiring.
2) Re-install the speakers. To install them, do this task: Attendant Speaker Installation, AMM TASK 23-31-03-400-801.
3) Re-install the PA amplifier. To install it, do this task: Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.
4) Re-install the REU. To install it, do this task: Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.
5) Use a microphone in the flight deck to make an announcement over the passenger address system.
   a) Make sure you can hear the announcement on both attendant's speakers.
6) If you heard the announcement on both attendant's speakers, then you corrected the fault.

G. Fault Isolation Procedure - Lavatory Speaker

(1) Replace the lavatory speaker.

These are the tasks:

Lavatory Speaker Removal, AMM TASK 23-31-05-000-801,

Lavatory Speaker Installation, AMM TASK 23-31-05-400-801.

(a) Use a microphone in the flight deck to make an announcement over the passenger address system.
   1) Make sure you can hear the announcement on the lavatory speaker.
(b) If you heard the announcement on the lavatory speaker, then you corrected the fault.
(c) If you did not hear the announcement on the lavatory speaker, then continue.

(2) Do this check of the wiring.

(a) Remove the passenger address (PA) amplifier, M63. To remove it, do this task: Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801.
(b) Disconnect electrical connector D3732 from the left forward lavatory module.
(c) Disconnect electrical connector D3738 from the left aft lavatory module.
(d) Disconnect electrical connector D3740 from the right aft lavatory module.
(e) Do a check for continuity between the PA amplifier and the lavatory module connectors:

Table 204

LAVATORY SPEAKER	PA AMP CONNECTOR		LAVATORY MODULE CONNECTOR
LEFT FORWARD LAVATORY SPEAKER	D2639B		D3732
	pin A15	----------	pin 13
	pin B15	----------	pin 14
LEFT AFT LAVATORY SPEAKER	D2639B		D3738
	pin A15	----------	pin 13
	pin B15	----------	pin 14
RIGHT AFT LAVATORY SPEAKER	D2639B		D3740
	pin A15	----------	pin 13
	pin B15	----------	pin 14

(f) If there is not continuity between the pins, then do these steps:

1) Repair the wiring.
2) Re-connect electrical connector D3732 to the left forward lavatory module.
3) Re-connect electrical connector D3738 to the left aft lavatory module.
4) Re-connect electrical connector D3740 to the right aft lavatory module.
5) Re-install the PA amplifier. To install it, do this task: Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.
6) Use a microphone in the flight deck to make an announcement over the passenger address system.
   a) Make sure you can hear the announcement on the lavatory speaker.
7) If you heard the announcement on the lavatory speaker, then you corrected the fault.

H. Fault Isolation Procedure - PSU Speaker

(1) Replace the PSU speaker.

(a) These are the tasks:

1) Passenger Service Unit (PSU) Speaker Removal, AMM TASK 23-31-02-000-801
2) Passenger Service Unit (PSU) Speaker Installation, AMM TASK 23-31-02-400-801

(b) Use a microphone in the flight deck to make an announcement over the passenger address system.

1) Make sure you can hear the announcement on the PSU speaker.

(c) If you heard the announcement on the PSU speaker, then you corrected the fault.

(d) If you did not hear the announcement on the PSU speaker, then continue.

——— END OF TASK ———

801. Service Interphone Connection Problem - Fault Isolation

A. Description

(1) The service interphone does not connect to the flight interphone or other service interphone locations.

B. Possible Causes

(1) Remote Electronic Unit (REU), M1353

(2) SERVICE INTERPHONE switch, S50

(3) Wiring

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
C	21	C00560	INTERPHONE POWER F/O DC 2
C	22	C00561	INTERPHONE POWER F/O BAT
C	23	C00239	INTERPHONE POWER CAPT DC 2
C	24	C00240	INTERPHONE POWER CAPT BAT
D	21	C00084	INTPH AND WARN
D	22	C00086	AUDIO F/O
D	23	C00083	AUDIO CAPT
D	24	C00085	AUDIO OBS

D. Related Data

(1) (SSM 23-41-11)

(2) (WDM 23-41-11)

E. Initial Evaluation

(1) Do these steps to prepare the service interphone system for initial evaluation and for fault isolation:

(a) Set the SERVICE INTERPHONE switch, S50, on the P5 Overhead Panel to the ON position.

(b) Connect a boom mic/headset to the pilot's station in the flight deck.

(c) Connect a boom mic/headset to the service interphone jack at the EE rack.

(d) Push the SERV INT microphone selector switch on the pilot's audio control panel (ACP).

(e) Push the volume control for the SVC microphone selector switch and turn to the middle position.

(2) Do this check of the service interphone system:

(a) Push and hold the PTT switch on the pilot's control wheel to the INT position.

(b) Speak into the pilot's boom microphone.

(c) Make sure the ground crew can hear the voice clearly from the headset.

(d) Release the PTT switch on the pilot's control wheel.

(e) Have the ground crew speak into the boom microphone.

(f) Make sure you can hear the voice clearly on the pilot's headset.

(g) If the voice is not heard on either headset, then do the Fault Isolation Procedure below.

(h) If the voice is heard on both headsets, then there was an intermittent fault.

F. Fault Isolation Procedure

NOTE: You must do the steps to prepare for fault isolation that are in the Initial Evaluation before you can do these steps.

(1) Replace the Remote Electronic Unit (REU), M1353.

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

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

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

(2) Replace the SERVICE INTERPHONE switch, S50, on the P5 overhead panel.

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

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

(3) Do this check of the wiring for open circuit:

(a) Remove the REU, M1353 from the E4-1 shelf. To remove it, do this task: Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801.

(b) Remove the SERVICE INTERPHONE switch, S50, from the P5 overhead panel.

(c) Do a check for an open circuit between these pins of the SERVICE INTERPHONE switch, S50, and connector D2501B of the REU:

S50		D2501B
pin 2	. . . . .	pin D6

(d) Remove the EE rack service interphone jack, D6025.

(e) Do a check for an open circuit between these pins of the SERVICE INTERPHONE switch, S50, and the EE rack service interphone jack, D6025:

S50		D6025
pin 1	. . . . .	pin R

(f) Do a check for an open circuit between these pins of connector D2501B of the REU and the EE rack service interphone jack, D6025:

D2501B		D6025
pin D7	. . . . .	pin S
pin E7	. . . . .	pin T

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

1) Repair the wiring.

2) Re-install the REU. To install it, do this task: Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

3) Re-install the SERVICE INTERPHONE switch.

4) Re-install the EE rack service interphone jack.

5) Do the Repair Confirmation at the end of this task:

a) If the Repair Confirmation is not OK, then continue.

(4) Do this check for short circuit:

(a) Remove the REU, M1353 from the E4-1 shelf. To remove it, do this task: Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801.

(b) Make sure the SERVICE INTERPHONE switch, S50, is at the ON position

(c) Do a check for short circuit at connector D2501B:

D2501B	D2501B
Pin D6	D7
Pin E7	D7

(d) If a short circuit is identified, then do these steps:

1) Inspect and isolate each jack and wiring for the source of short circuit such as corrosion, fluid contamination or spring contacts touching the jeck body. Refer to WDM 23-41-11.

NOTE: Inspect jacks D6017, D6011 and D6057 before you check the other jacks. Due to their location, they are more likely to have short circuit problems.

2) Repair or replace the damaged jack or wiring

(e) Re-install the REU. To install it, do this task: Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

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

G. Repair Confirmation

(1) Do this check of the service interphone system:

NOTE: You must do the steps to prepare for fault isolation that are in the Initial Evaluation before you can do this check.

(a) Push and hold the PTT switch on the pilot's control wheel to the INT position.

(b) Speak into the pilot's boom microphone.

(c) Make sure the ground crew can hear the voice clearly on the headset.

(d) Release the PTT switch on the pilot's control wheel.

(e) Have the ground crew speak into the boom microphone.

(f) Make sure you can hear the voice clearly on the pilot's headset.

(g) If the voice is heard on both headsets, then you corrected the fault.

——— END OF TASK ———

802. Service Interphone Audio Problem at One Jack - Fault Isolation

A. Description

(1) The audio heard at one of the service interphone jacks is unsatisfactory.

B. Possible Causes

(1) Service Interphone Jack

(2) Wiring

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
C	21	C00560	INTERPHONE POWER F/O DC 2
C	22	C00561	INTERPHONE POWER F/O BAT
C	23	C00239	INTERPHONE POWER CAPT DC 2
C	24	C00240	INTERPHONE POWER CAPT BAT
D	21	C00084	INTPH AND WARN
D	22	C00086	AUDIO F/O
D	23	C00083	AUDIO CAPT
D	24	C00085	AUDIO OBS

D. Related Data

(1) (SSM 23-41-11)

(2) (WDM 23-41-11)

E. Initial Evaluation

(1) Do this check of the service interphone jack:

(a) Push and hold the PTT switch on the pilot's control wheel to the INT position.

(b) Speak into the pilot's boom microphone.

(c) Make sure the ground crew can hear the voice clearly on the headset at the applicable service interphone jack.

(d) Release the PTT switch on the pilot's control wheel.

(e) Have the ground crew speak into the boom microphone.

(f) Make sure you can hear the voice clearly on the pilot's headset.

(g) If the voice is not heard on either headset, then do the Fault Isolation Procedure below.

(h) If the voice is heard on both headsets, then there was an intermittent fault.

F. Fault Isolation Procedure

NOTE: You must do the steps to prepare for fault isolation that are in the Initial Evaluation before you can do these steps.

(1) Replace the applicable jack.

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

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

(2) Do this check of the wiring:

(a) Remove the REU from the E4-1 shelf. To remove it, do this task: Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801.

(b) Do a check for an open circuit between these pins of connector D2501B of the REU and the applicable service interphone jack:

	JACK LOCATION	
	REU CONNECTOR	JACK CONNECTOR
EE RACK	D2501B	D6025
	pin D7	pin S
	D2501B	D6025
	pin E7	pin T
APU	D2501B	D6017
	pin D7	pin S
	D2501B	D6017
	pin E7	pin T
AFT ENTRY LIGHT PANEL	D2501B	D6015
	pin D7	pin S
	D2501B	D6015
	pin E7	pin T
LEFT WHEEL WELL	D2501B	D6011
	pin D7	pin S
	D2501B	D6011
	pin E7	pin T
RIGHT WHEEL WELL	D2501B	D6057
	pin D7	pin S
	D2501B	D6057
	pin E7	pin T
RIGHT WING REFUELING SLAT	D2501B	D6013
	pin D7	pin S
	D2501B	D6013
	pin E7	pin T

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

1) Repair the wiring.

2) Re-install the REU. To install it, do this task: Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

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

G. Repair Confirmation

(1) Do this check of the service interphone system:

NOTE: You must do the steps to prepare for fault isolation that are in the Initial Evaluation before you can do this check.

(a) Push and hold the PTT switch on the pilot's control wheel to the INT position.

(b) Speak into the pilot's boom microphone.

(c) Make sure the ground crew can hear the voice clearly on the headset at the applicable service interphone jack.

(d) Release the PTT switch on the pilot's control wheel.

(e) Have the ground crew speak into the boom microphone.

(f) Make you can hear the voice clearly on the pilot's headset.

(g) If the voice is heard on both headsets, then you corrected the fault.

——— END OF TASK ———

803. Service Interphone Audio Problem at All Jacks - Fault Isolation

A. Description

(1) The audio heard at all of the service interphone jacks is unsatisfactory.

B. Possible Causes

(1) Remote Electronic Unit (REU), M1353

(2) Wiring

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
C	21	C00560	INTERPHONE POWER F/O DC 2
C	22	C00561	INTERPHONE POWER F/O BAT
C	23	C00239	INTERPHONE POWER CAPT DC 2
C	24	C00240	INTERPHONE POWER CAPT BAT
D	21	C00084	INTPH AND WARN
D	22	C00086	AUDIO F/O
D	23	C00083	AUDIO CAPT
D	24	C00085	AUDIO OBS

D. Related Data

(1) (SSM 23-41-11)

(2) (WDM 23-41-11)

E. Initial Evaluation

(1) Do these steps to prepare the service interphone system for initial evaluation and for fault isolation:

(a) Set the SERVICE INTERPHONE switch, S50, on the P5 Overhead Panel to the ON position.

(b) Connect a boom mic/headset to the pilot's station in the flight deck.

(c) Connect a boom mic/headset to the EE rack service interphone jack.

(d) Push the CABIN microphone selector switch on the pilot's audio control panel (ACP).

(e) Push the volume control for the CABIN microphone selector switch and turn to the middle position.

(2) Do this check of the service interphone system:

(a) Push and hold the PTT switch on the pilot's control wheel to the INT position.

(b) Speak into the pilot's boom microphone.

(c) Make sure the ground crew can hear the voice clearly on the headset at the EE rack service interphone jack.

NOTE: Repeat this step at several of the service interphone jack locations to make sure the problem occurs at all jacks.

(d) Release the PTT switch on the pilot's control wheel.

(e) Have the ground crew speak into the boom microphone.

(f) Make sure you can hear the voice clearly on the pilot's headset.

(g) If the voice is not heard on either headset, from each service interphone jack you tried, then do the Fault Isolation Procedure below.

(h) If the voice is heard on both headsets, then there was an intermittent fault.

F. Fault Isolation Procedure

NOTE: You must do the steps to prepare for fault isolation that are in the Initial Evaluation before you can do these steps.

(1) Replace the Remote Electronic Unit (REU), M1353.

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

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

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

(2) Do this check of the wiring:

(a) Remove the REU from the E4-1 shelf. To remove it, do this task: Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801.

(b) Remove the EE rack service interphone jack, D6025.

(c) Do a check for an open circuit between these pins of connector D2501B of the REU and the EE rack service interphone jack, D6025:

D2501B		D6025
pin D7	. . . . .	pin S
pin E7	. . . . .	pin T

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

1) Repair the wiring.

2) Re-install the REU. To install it, do this task: Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

3) Re-install the EE rack service interphone jack, D6025.

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

G. Repair Confirmation

(1) Do this check of the service interphone system:

NOTE: You must do the steps to prepare for fault isolation that are in the Initial Evaluation before you can do these steps.

(a) Push and hold the PTT switch on the pilot's control wheel to the INT position.

(b) Speak into the pilot's boom microphone.

(c) Make sure the ground crew can hear the voice clearly on the headset at the EE rack service interphone jack.

(d) Release the PTT switch on the pilot's control wheel.

(e) Have the ground crew speak into the boom microphone.

(f) Make sure you can hear the voice clearly on the pilot's headset.

(g) If the voice is heard on both headsets, then you corrected the fault.

——— END OF TASK ———

804. Attendant Handset Problem - Fault Isolation

A. Description

(1) The audio heard at an attendant handset is unsatisfactory.

(2) If the attendant handset has problems with PA announcement, refer to : Passenger Address System Problem - Fault Isolation, 23-31 TASK 805.

B. Possible Causes

(1) Handset, M74 or M75

(2) Cabin attendant's control panel, P13 (forward) or P14 (aft)

(3) Remote Electronic Unit (REU), M1353

(4) Wiring

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
C	21	C00560	INTERPHONE POWER F/O DC 2
C	22	C00561	INTERPHONE POWER F/O BAT
C	23	C00239	INTERPHONE POWER CAPT DC 2
C	24	C00240	INTERPHONE POWER CAPT BAT
D	21	C00084	INTPH AND WARN
D	22	C00086	AUDIO F/O
D	23	C00083	AUDIO CAPT
D	24	C00085	AUDIO OBS

D. Related Data

(1) (SSM 23-41-11)

(2) (SSM 23-42-11)

(3) (WDM 23-41-11)

(4) (WDM 23-42-11)

E. Initial Evaluation

(1) Do this check of the attendant handset:

(a) Lift the handset from the cradle.

(b) Push the button for the attendant on the handset keypad.

(c) Make sure a chime is heard from the PA speakers and a master call light at the attendant's station comes on.

(d) Make voice communication to the other attendant's station.

(e) If the sound heard on the attendant's handset is not satisfactory, do the Fault Isolation Procedure below.

(f) If the sound heard on the attendant's handset is satisfactory, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Make sure the connection between the handset and cord is correct.

NOTE: To connect a cord to the handset, push the cord connector into the handset connector until an audible click is heard.

(2) Replace the attendant's handset/cord assembly, M74 or M75. These are the task:

Attendant Handset Removal, AMM TASK 23-42-01-000-801,

Attendant Handset Cord Removal, AMM TASK 23-42-01-000-802,

Attendant Handset Installation, AMM TASK 23-42-01-400-803,

Attendant Handset Cord Installation, AMM TASK 23-42-01-400-802.

(a) Push the button for the attendant on the handset keypad.

(b) Make sure a chime is heard from the PA speakers and a master call light at the attendant's station comes on.

(c) Make voice communication to the other attendant's station.

1) If the sound heard on the attendant's handset is satisfactory, you corrected the fault.

2) If the sound heard at the attendant's handset is not satisfactory, then continue.

(3) Replace the applicable cabin attendant's control panel.

These are the tasks:

Attendant's Panel with LCD Touch Panel - Removal, AMM TASK 25-25-11-000-802,

Attendant's Panel with LCD Screen - Installation, AMM TASK 25-25-11-400-802.

(a) Push the button for the attendant on the handset keypad.

(b) Make sure a chime is heard from the PA speakers and a master call light at the attendant's station comes on.

(c) Make voice communication to the other attendant's station.

1) If the sound heard on the attendant's handset is satisfactory, you corrected the fault.

2) If the sound heard at the attendant's handset is not satisfactory, then continue.

(4) Replace the Remote Electronic Unit (REU), M1353.

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

(a) Push the button for the attendant on the handset keypad.

(b) Make sure a chime is heard from the PA speakers and a master call light at the attendant's station comes on.

(c) Make voice communication to the other attendant's station.

1) If the sound heard on the attendant's handset is satisfactory, you corrected the fault.

2) If the sound heard at the attendant's handset is not satisfactory, then continue.

(5) Do this check of the wiring:

(a) Remove the attendant's handset.

(b) Remove the REU, M1353. To remove it, do this task: Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801.

(c) Do a check for an open circuit between these pins of connector P-A on the attendant's handset, M74 or M75, and connector D2501B of the REU, M1353:

P-A		D2501B
pin C5	. . . . .	pin G8
pin C6	. . . . .	pin F7
pin D5	. . . . .	pin G9

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

1) Repair the wiring.

2) Re-install the attendant's handset.

3) Re-install the REU, M1353. To install it, do this task: Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

(e) Push the button for the attendant on the handset keypad.

(f) Make sure a chime is heard from the PA speakers and a master call light at the attendant's station comes on.

(g) Make voice communication to the other attendant's station.

1) If the sound heard at the attendant's handset is satisfactory, you corrected the fault.

——— END OF TASK ———

801. Attendant Control Panel (ACP) - BITE Procedure

A. General

(1) This procedure provides the system test for the Attendant Control Panels (ACPs). The system test is performed at the forward ACP.

(a) For the system test, the forward ACP will initiate BITE test on both the forward and the aft ACPs. The BITE test will check the ACPs for internal faults and their communication status. The forward ACP will then query the light LRU's for fault information. If there are ACP or lighting faults, the ACP will show the faults at the end of the test.

(2) The procedure also provides the task to view faults that are generated during data loading.

B. System Test Procedure

(1) At the forward ACP, do the steps that follow to start the system test:

(a) In the ACP main menu column, push the Maintenance button.

(b) In the Maintenance menu column, push the System Test button.

(c) In the control window, push the Start Test button.

NOTE: When the system test operates, the System Test and Start Test buttons are active, the other buttons become disabled and the status bar will display the approximate percent complete. When the test completes, the System Test and the Start Test buttons remain active and other buttons will be available for selection.

(d) Check the result window for the system test faults.

NOTE: The result window will show the faults with their maintenance message numbers and corrective actions. If there are no faults, a message will be displayed to indicate that there are no system test faults.

(e) To save the fault data on a diskette, refer to: Attendant Control Panel (ACP) - Saving Fault Data, AMM TASK 23-42-03-970-802.

(f) To correct the fault, do the actions recommended on the screen or use the fault maintenance message number and refer to the table at the end of this task to find the fault isolation task for the applicable maintenance message.

C. Data Load Fault Data Review Procedure

(1) Do the steps that follow to view the Data Load Faults:

NOTE: These faults are generated during data loading, user will see the warning messages about the faults.

(a) In the Maintenance menu column, push the Fault Data button.

NOTE: After you push the Fault Data button, four buttons will appear in the control window: System Test Faults, Data Load Faults, Save All and Exit. The result window will show instructions for user to view or save the fault data.

(b) Push the Data Load Faults button in the control window.

(c) Check the result window for the data load faults.

NOTE: The result window will show the faults with their maintenance message numbers and corrective actions. If there are no faults, a message will be displayed to indicate that there are no data load faults.

(d) To save the fault data on a diskette, refer to: Attendant Control Panel (ACP) - Saving Fault Data, AMM TASK 23-42-03-970-802.

(e) To correct the faults, do the actions recommended on the screen or using the fault maintenance message number and refer to the table at the end of this task to find the fault isolation task for the applicable maintenance messages.

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
ACP	23-11001 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11002 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11003 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11004 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11005 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 808
ACP	23-11006 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 808
ACP	23-11007 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 808
ACP	23-11008 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 809
ACP	23-11010 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11011 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11012 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11013 INTERNAL ACP FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 807
ACP	23-11014 INTERNAL ACP FAULT DETECTED IN FORWARD AND AFT ACPS	23-42 TASK 809
ACP	23-11015 <FORWARD | AFT> WORK LIGHT FAULT DETECTED	23-42 TASK 811
ACP	23-11016 <FORWARD | AFT> MDCD LIGHT FAULT DETECTED	32-42 TASK 812
ACP	23-11017 28 VDC POWER FAULT DETECTED IN <FORWARD | AFT> ACP	23-42 TASK 814
ACP	23-11018 INTERNAL ACP FAULT DETECTED	23-42 TASK 808
ACP	23-11019 INTERNAL ACP FAULT DETECTED	23-42 TASK 808
ACP	23-11020 INTERNAL ACP FAULT DETECTED	23-42 TASK 808
ACP	23-11021 INTERNAL ACP FAULT DETECTED	23-42 TASK 808
ACP	23-11022 COMMUNICATION WITH AFT ACP LOST	23-42 TASK 815
ACP	23-11023 CABIN TEMPERATURE FAULT DETECTED	23-42 TASK 816

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
ACP	23-11024 <FORWARD | AFT> THRESHOLD LIGHT FAULT DETECTED	23-42 TASK 813
ACP	23-11025 INTERNAL ACP FAULT DETECTED	23-42 TASK 807
ACP	23-11026 LAVATORY INOPERATIVE	23-42 TASK 817
ACP	23-11027 CLEAN CHECK SENSORS	23-42 TASK 817
ACP	23-11028 LIGHT <COLUMN>-<ADDRESS> NO RESPONSE DURING ADDRESSING	23-42 TASK 810
ACP	23-11029 LIGHT <COLUMN>-<ADDRESS> OUT OF SEQUENCE RESPONSE DURING ADDRESSING	23-42 TASK 810
ACP	23-11030 LIGHT <COLUMN>-<ADDRESS> EXTRA RESPONSE DURING ADDRESSING	23-42 TASK 810
ACP	23-11031 LIGHT <COLUMN>-<ADDRESS> INCORRECT ZONE DETECTED	23-42 TASK 810
ACP	23-11032 LIGHT <COLUMN>-<ADDRESS> INCORRECT ZONE DETECTED	23-42 TASK 810
ACP	23-11033 LIGHT <COLUMN>-<ADDRESS> INCORRECT STANDARD SCENES DETECTED	23-42 TASK 810
ACP	23-11034 LIGHT <COLUMN>-<ADDRESS> INCORRECT CUSTOM SCENES DETECTED	23-42 TASK 810
ACP	23-11035 NO SYSTEM TEST LRU RESPONSES DETECTED ON COLUMN 1	23-42 TASK 819
ACP	23-11036 NO SYSTEM TEST LRU RESPONSES DETECTED ON COLUMN 2	23-42 TASK 819
ACP	23-11037 NO SYSTEM TEST LRU RESPONSES DETECTED ON COLUMN 3	23-42 TASK 819
ACP	23-11038 NO SYSTEM TEST LRU RESPONSES DETECTED ON COLUMN 4	23-42 TASK 819
ACP	23-11039 SYSTEM TEST RS-485 CABLE BREAK DETECTED AT LRU 1-<X>	23-42 TASK 818
ACP	23-11040 SYSTEM TEST RS-485 CABLE BREAK DETECTED AT LRU 2-<X>	23-42 TASK 818
ACP	23-11041 SYSTEM TEST RS-485 CABLE BREAK DETECTED AT LRU 3-<X>	23-42 TASK 818
ACP	23-11042 SYSTEM TEST RS-485 CABLE BREAK DETECTED AT LRU 4-<X>	23-42 TASK 818
ACP	23-11043 LIGHT <COLUMN>-<ADDRESS> NO RESPONSE DURING ADDRESSING	23-42 TASK 820
ACP	23-11044 LIGHT <COLUMN>-<ADDRESS> OUT OF SEQUENCE RESPONSE DURING ADDRESSING	23-42 TASK 820
ACP	23-11045 LIGHT <COLUMN>-<ADDRESS> EXTRA RESPONSE DURING ADDRESSING	23-42 TASK 821

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
ACP	23-11046 LIGHT <COLUMN>-<ADDRESS> INCORRECT LIGHT TYPE DETECTED	23-42 TASK 822
ACP	23-11047 LIGHT <COLUMN>-<ADDRESS> NO RESPONSE DURING ZONING	23-42 TASK 823
ACP	23-11048 LIGHT <COLUMN>-<ADDRESS> OUT OF SEQUENCE RESPONSE DURING ZONING	23-42 TASK 823
ACP	23-11049 LIGHT <COLUMN>-<ADDRESS> INCORRECT ZONE DETECTED	23-42 TASK 824
ACP	23-11050 LIGHT <COLUMN>-<ADDRESS> NO RESPONSE DURING STANDARD SCENE DOWNLOAD	23-42 TASK 823
ACP	23-11051 LIGHT <COLUMN>-<ADDRESS> OUT OF SEQUENCE RESPONSE DURING STANDARD SCENE DOWNLOAD	23-42 TASK 823
ACP	23-11052 LIGHT <COLUMN>-<ADDRESS> FAILED STANDARD SCENE DOWNLOAD	23-42 TASK 823
ACP	23-11053 LIGHT <COLUMN>-<ADDRESS> NO RESPONSE DURING CUSTOM SCENE DOWNLOAD	23-42 TASK 823
ACP	23-11054 LIGHT <COLUMN>-<ADDRESS> OUT OF SEQUENCE RESPONSE DURING CUSTOM SCENE DOWNLOAD	23-42 TASK 823
ACP	23-11055 LIGHT <COLUMN>-<ADDRESS> FAILED CUSTOM SCENE DOWNLOAD	23-42 TASK 823
ACP	23-11056 NO DATA LOAD LRU RESPONSES DETECTED ON COLUMN 1	23-42 TASK 825
ACP	23-11057 NO DATA LOAD LRU RESPONSES DETECTED ON COLUMN 2	23-42 TASK 825
ACP	23-11058 NO DATA LOAD LRU RESPONSES DETECTED ON COLUMN 3	23-42 TASK 825
ACP	23-11059 NO DATA LOAD LRU RESPONSES DETECTED ON COLUMN 4	23-42 TASK 825
ACP	23-11060 DATA LOAD RS-485 CABLE BREAK DETECTED ON COLUMN 1	23-42 TASK 826
ACP	23-11061 DATA LOAD RS-485 CABLE BREAK DETECTED ON COLUMN 2	23-42 TASK 826
ACP	23-11062 DATA LOAD RS-485 CABLE BREAK DETECTED ON COLUMN 3	23-42 TASK 826
ACP	23-11063 DATA LOAD RS-485 CABLE BREAK DETECTED ON COLUMN 4	23-42 TASK 826
ACP	23-11064 INTERNAL ACP FAULT DETECTED	23-42 TASK 827
ACP	23-11065 INTERNAL ACP FAULT DETECTED	23-42 TASK 827
ACP	23-11066 INTERNAL ACP FAULT DETECTED	23-42 TASK 827

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
ACP	23-11067 INTERNAL ACP FAULT DETECTED	23-42 TASK 827
ACP	23-11068 COMMUNICATIONS WITH AFT ACP LOST	23-42 TASK 828
ACP	23-11069 LSAP CONFIGURATION INVALID	23-42 TASK 829
ACP	23-11070 INTERNAL ACP FAULT DETECTED	23-42 TASK 830
ACP	23-11071 INTERNAL ACP FAULT DETECTED	23-42 TASK 830
ACP	23-11072 INTERNAL ACP FAULT DETECTED	23-42 TASK 830
ACP	23-11073 INTERNAL ACP FAULT DETECTED	23-42 TASK 830
ACP	23-11074 DISK FAULT DETECTED	23-42 TASK 831
ACP	23-11075 DISK FAULT DETECTED	23-42 TASK 831
ACP	23-11076 DISK FAULT DETECTED	23-42 TASK 831
ACP	23-11077 DISK FAULT DETECTED	23-42 TASK 831
ACP	23-11078 INCOMPATIBLE DISK DETECTED	23-42 TASK 832
ACP	23-11079 INCOMPATIBLE DISK DETECTED	23-42 TASK 832
ACP	23-11080 COMMUNICATIONS WITH ADL LOST	23-42 TASK 833
ACP	33-11001 Light <column>-<address> Component ID Error	33-20 TASK 817
ACP	33-11002 Light <column>-<address> Calibration Data CRC Error	33-20 TASK 817
ACP	33-11003 Light <column>-<address> Firmware Version Disagree Error	33-20 TASK 817
ACP	33-11004 Light <column>-<address> Power Supply Error	33-20 TASK 817
ACP	33-11005 Light <column>-<address> Temperature Sensor Error	33-20 TASK 817
ACP	33-11006 Light <column>-<address> RAM Check Error	33-20 TASK 817
ACP	33-11007 Light <column>-<address> Slave Token Error	33-20 TASK 817
ACP	33-11008 Light <column>-<address> Slave Communication Error	33-20 TASK 817
ACP	33-11009 Light <column>-<address> Slave Communication Error	33-20 TASK 817
ACP	33-11010 Light <column>-<address> Slave Communication Error	33-20 TASK 817
ACP	33-11011 Light <column>-<address> LED Wrap Data	33-20 TASK 817
ACP	33-11012 Light <column>-<address> Zone/Address Data CRC Error	33-20 TASK 818
ACP	33-11013 Light <column>-<address> Zone Address Disagree	33-20 TASK 818
ACP	33-11014 Light <column>-<address> Standard Scene CRC Error	33-20 TASK 818
ACP	33-11015 Light <column>-<address> Custom Scene CRC Error	33-20 TASK 818

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
ACP	33-11016 Light <column>-<address> Watchdog Timer Error	33-20 TASK 817
ACP	33-11017 Light <column>-<address> Master Token Timeout Error	33-20 TASK 819
ACP	33-11018 Light <column>-<address> Master Token Release Error	33-20 TASK 819
ACP	33-11019 Light <column>-<address> Loss of communication	33-20 TASK 819

——— END OF TASK ———

802. Flight Deck to Attendant, Call System Does Not Operate - Fault Isolation

A. Description

(1) The pink attendant call light on the Exit Locator Signs does not come on and the call chime does not sound when the flight crew presses the ATTEND button on the P5 forward overhead panel.

B. Possible Causes

(1) Attendant Call Switch, S36

(2) Wiring

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	9	C00073	PASSENGER CABIN CREW CALL

D. Related Data

(1) (SSM 23-42-11)

(2) (SSM 23-43-11)

(3) (WDM 23-42-11)

(4) (WDM 23-43-11)

E. Initial Evaluation

(1) Do this check of the attendant's CALL light:

(a) Press the ATTEND button on the P5 forward overhead panel.

1) Make sure the pink call light on the forward and aft Exit Locator Signs comes on.

2) Make sure you hear a chime in the passenger cabin.

(b) Press the button for reset on the attendant's handset.

(c) If the pink call lights do not come on and the chime does not sound, then do the Fault Isolation Procedure below.

(d) If the pink call lights go on and the chime sounds, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Replace the Attendant's Call switch, S36, on the P5 forward overhead panel.

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

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

(2) Do these checks of the wiring:

(a) Remove the Exit Locator Sign, L1086 (forward) or L1223 (aft).

(b) Remove the attendant control panel. To remove it, do this task: Attendant's Panel with LCD Touch Panel - Removal, AMM TASK 25-25-11-000-802

(c) Do a check for an open circuit between connector D3160 (forward) or D10180 (aft), of the Exit Locator Sign, and connector D14368 (forward attendant control panel) or D14376 (aft attendant control panel). For correct pins, refer to WDM 23-42-11.

(d) Remove the Attendant's Call switch, S36, from the P5 forward overhead panel.

(e) Do a check for an open circuit between connector D40170J of the attendant's call switch, S36, and connector D14368 of the forward attendant control panel. For correct pins, refer to WDM 23-42-11.

(f) If there is an open circuit, then do these steps:

1) Repair the wiring.

2) Re-install the Attendant's Call switch.

3) Re-install the attendant control panel. Do this task: Attendant's Panel with LCD Screen - Installation, AMM TASK 25-25-11-400-802.

4) Re-install the Exit Locator Sign.

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

G. Repair Confirmation

(1) Do this check of the attendant's CALL light:

(a) Press the ATTEND button on the P5 forward overhead panel.

1) Make sure the pink call light on the forward and aft Exit Locator Signs comes on.

2) Make sure you hear a chime in the passenger cabin.

(b) Press the button for reset on the attendant's handset.

(c) If the pink call lights go on and the chime sounds, then you corrected the fault.

——— END OF TASK ———

803. Attendant Call Chime Does Not Operate - Fault Isolation

A. Description

(1) The chime from the Passenger Address system does not come on, but the call lights come on when the flight crew presses the ATTENDANT button on the P5 forward overhead panel.

B. Possible Causes

(1) Passenger Address Amplifier, M63

(2) Wiring

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	9	C00073	PASSENGER CABIN CREW CALL

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	4	C00082	COMMUNICATIONS PA AMPL BAT

D. Related Data

(1) (SSM 23-42-11)

(2) (SSM 23-43-11)

(3) (WDM 23-42-11)

(4) (WDM 23-43-11)

E. Initial Evaluation

(1) Do this check of the call chime:

(a) Press either the ATTEND button on the P5 forward overhead panel, or the button for the attendant on the attendant handset.

1) Make sure you hear a chime in the passenger cabin.

(b) Press the button for reset on the attendant's handset.

(c) If the chime does not sound, then do the Fault Isolation Procedure below.

(d) If the chime sounds, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Replace the Passenger Address Amplifier, M63.

These are the tasks:

Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801,

Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

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

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

(2) Do this check of the wiring:

(a) Remove the Passenger Address Amplifier, M63. To remove it, do this task: Passenger Address (PA) Amplifier Removal, AMM TASK 23-31-01-000-801.

(b) Remove the attendant control panel. To remove it, do this task: Attendant's Panel with LCD Touch Panel - Removal, AMM TASK 25-25-11-000-802

(c) Do a check for an open circuit between the Passenger Address Amplifier M63, and connector D14368 (forward attendant control panel) or D14376 (aft attendant control module). Refer to WDM 23-42-11.

(d) If there is an open circuit, then do these steps:

1) Repair the wiring.

2) Re-install the Passenger Address Amplifier. To install it, do this task: Passenger Address (PA) Amplifier Installation, AMM TASK 23-31-01-400-801.

3) Re-install the attendant control panel. Do this task: Attendant's Panel with LCD Screen - Installation, AMM TASK 25-25-11-400-802.

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

G. Repair Confirmation

(1) Do this check of the attendant's CALL light:

(a) Press either the ATTEND button on the P5 forward overhead panel, or the button for the attendant on the attendant handset.

1) Make sure you hear a chime in the passenger cabin.

(b) Press the button for reset on the attendant's handset.

(c) If you heard a chime, then you corrected the fault.

——— END OF TASK ———

804. Flight Compartment Call Chime Does Not Operate - Fault Isolation

A. Description

(1) The chime from the Aural Warning Module does not come on, but the CALL light on the P5 forward overhead panel comes on when the ground crew presses the PILOT CALL button on the P19 external power panel or an attendant presses the button for the pilot on the attendant handset.

B. Possible Causes

(1) Aural Warning Module, M315

(2) Handset, M74 or M75

(3) PILOT CALL switch, S33

(4) Wiring

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	9	C00073	PASSENGER CABIN CREW CALL

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	18	C00451	LANDING GEAR AURAL WARN

D. Related Data

(1) (SSM 23-42-11)

(2) (SSM 23-43-11)

(3) (WDM 23-42-11)

(4) (WDM 23-43-11)

E. Initial Evaluation

(1) Do this check of the call chime:

(a) Press the PILOT CALL button on the P19 External Power panel and the button for the pilot on the forward and aft handsets.

(b) Make sure you hear a chime in the flight deck.

(c) If you do not hear a chime when you push the button for the pilot on one handset but you hear the chime for the other handset, then do the Fault Isolation Procedure - Handset.

(d) If you do not hear a chime when you push the button for the pilot on the two handsets but you hear a chime when you push the PILOT CALL button on the P19 External Power panel, then do the Fault Isolation Procedure - Handset Wiring.

(e) If you hear a chime when you push the button for the pilot on one of the handsets but you do not hear a chime when you push the PILOT CALL button on P19 panel, then do the Fault Isolation Procedure - Switch.

(f) If you do not hear a chime when you push the button for the pilot on the two handsets and the PILOT CALL button on P19 panel, then do the Fault Isolation Procedure - Aural Warning Module.

F. Fault Isolation Procedure - Handset

(1) Replace the defective handset, M74 or M75.

These are the tasks:

Attendant Handset Removal, AMM TASK 23-42-01-000-801,

Attendant Handset Installation, AMM TASK 23-42-01-400-803.

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

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

(2) Do this check of the wiring (WDM 23-42-11).

(a) Remove the defective handset. To remove it, do this task:

Attendant Handset Removal, AMM TASK 23-42-01-000-801.

(b) Do a check between pin E13 on the handset and the terminator box SM9.

(c) If you find problems with the wiring, do these steps:

1) Repair the wiring.

2) Re-install the handset. To install it, do this task:

Attendant Handset Installation, AMM TASK 23-42-01-400-803.

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

G. Fault Isolation Procedure - Handset Wiring

(1) Do a check of the wiring from the handsets to the Aural Warning Module.

(a) Remove the defective handset. To remove it, do this task:

Attendant Handset Removal, AMM TASK 23-42-01-000-801.

(b) Remove the Aural Warning Module. To remove it, do this task:

Aural Warning Module Removal, AMM TASK 31-51-04-000-801.

(c) Do a check of the wiring beween pin E13 on the handset and pin 7 on the Aural Warning Module connector D940.

(d) If you find problems with the wiring, do these steps:

1) Repair the wiring.

2) Re-install the handset. To install it, do this task:

Attendant Handset Installation, AMM TASK 23-42-01-400-803.

3) Re-install the Aural Warning Module. To install it, do this task:

Aural Warning Module Installation, AMM TASK 31-51-04-400-801.

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

H. Fault Isolation Procedure - Switch

(1) Replace the PILOT CALL switch, S33 on the P19 External Power panel.

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

I. Fault Isolation Procedure - Aural Warning Module

(1) Replace the Aural Warning Module, M315.

These are the tasks:

Aural Warning Module Removal, AMM TASK 31-51-04-000-801,

Aural Warning Module Installation, AMM TASK 31-51-04-400-801.

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

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

(2) Do this check of the wiring:

(a) Remove the Aural Warning Module. To remove it, do this task: Aural Warning Module Removal, AMM TASK 31-51-04-000-801.

(b) Press and hold the PILOT CALL switch, S33, on the P19 External Power panel or the button for the pilot on the attendant's handset.

(c) Do a check for 28 VDC at the Aural Warning Module connector D940, pin 7 (pin 6 ground).

(d) Release the PILOT CALL switch or button for the pilot on the attendant handset.

(e) If there is not 28 VDC, then do these steps:

1) Repair the wiring.

2) Re-install the Aural Warning Module. To install it, do this task: Aural Warning Module Installation, AMM TASK 31-51-04-400-801.

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

J. Repair Confirmation

(1) Do this check of the call chime:

(a) Press either the PILOT CALL button on the P19 External Power panel, or the button for the pilot on the attendant handset.

(b) Make sure you hear a chime in the flight deck.

(c) If the chime sounds, then you corrected the fault.

——— END OF TASK ———

805. Attendant to Flight Deck, Call System Does Not Operate - Fault Isolation

A. Description

(1) The cabin crew cannot communicate with the flight deck or between the crew stations using the crew call and interphone system.

B. Possible Causes

(1) Cabin attendant's control panel

(2) Magnetic actuated reset switch

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	9	C00073	PASSENGER CABIN CREW CALL

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	18	C00451	LANDING GEAR AURAL WARN

D. Related Data

(1) (SSM 23-42-11)

(2) (SSM 23-43-11)

(3) (WDM 23-42-11)

(4) (WDM 23-43-11)

E. Initial Evaluation

(1) Do this check of the attendant handset:

(a) Lift the handset from the handle cradle.

(b) Push the button for the attendant on the handset keypad.

1) Make sure you hear a chime on the PA speakers.

2) Make sure the pink attendant call light at the other attendant's station comes on.

(c) Make voice communication to the calling attendant's station.

1) Make sure communication can be made.

(d) If the voice is not heard in the attendant' station, then do the Fault Isolation Procedure below:

F. Fault Isolation Procedure

(1) Replace the applicable cabin attendant's control panel.

These are the tasks:

Attendant's Panel with LCD Touch Panel - Removal, AMM TASK 25-25-11-000-802,

Attendant's Panel with LCD Screen - Installation, AMM TASK 25-25-11-400-802.

(a) 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 cradle reset magnet:

(a) Remove the handset handle cradle, do this task: Attendant Handset Cradle Removal, AMM TASK 23-42-01-000-803

(b) Remove the retainer.

(c) Repair the cradle reset magnet, do this task: Attendant Handset Cradle Installation, AMM TASK 23-42-01-400-801

(d) Re-install the retainer.

(e) Re-install the handset cradle.

(f) Set the handset in the cradle.

G. Repair Confirmation

(1) Do this check of the handset:

(a) Lift the handset from the handle cradle.

(b) Push the button for the attendant on the handset keypad.

1) Make sure you hear a chime on the PA speakers.

2) Make sure the pink attendant call light at the other attendant's station comes on.

(c) Make voice communication to the calling attendant's station.

1) Make sure communication can be made.

(d) If the voice is heard, then you corrected the fault.

——— END OF TASK ———

806. Attendant To Flight Deck, Captain's Call Light Does Not Operate - Fault Isolation

A. Description

(1) The CALL light on the forward overhead panel does not come on, but the call chime sounds when the PILOT button is pushed on an attendant's handset.

B. Possible Causes

(1) Master Dim and Test switch, S3

(2) Captain's Call Light, L19

(3) Wiring

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	9	C00073	PASSENGER CABIN CREW CALL

D. Related Data

(1) (SSM 23-42-11)

(2) (SSM 23-43-11)

(3) (WDM 23-42-11)

(4) (WDM 23-43-11)

E. Initial Evaluation

(1) Do this check of the captain's CALL light:

(a) Set the Master Dim and Test switch, S3, on the P1 main instrument panel, to BRT.

(b) Press and hold the button for the pilot on the attendant's handset.

1) Make sure the CALL light on the P5 forward overhead panel goes on.

(c) Release the button on the attendant's handset.

(d) If the CALL light does not go on, then do the Fault Isolation Procedure below.

(e) If the CALL light goes on, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Do this test of the Captain's CALL light, L19:

(a) Set the Master Dim and Test switch, S3, on the P1 main instrument panel, to TEST.

(b) If the CALL light does not go on, then replace the Captain's CALL light.

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

a) If the Repair Confirmation is not OK, then continue.

(c) If the CALL light goes on, then continue.

(2) Do this check of the wiring:

(a) Remove the Captain's CALL light, L19, from the P5 forward overhead panel.

(b) Remove the attendant control panel. To remove it, do this task: Attendant's Panel with LCD Touch Panel - Removal, AMM TASK 25-25-11-000-802

(c) Do a check for an open circuit between connector D40170J at the Captain's CALL light, L19, and connector D14368 (forward attendant control panel) or D14376 (aft attendant control panel). For correct pins, refer to WDM 23-42-11.

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

1) Repair the wiring.

2) Re-install the attendant control panel. Do this task: Attendant's Panel with LCD Screen - Installation, AMM TASK 25-25-11-400-802.

3) Re-install the Captain's CALL light.

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

G. Repair Confirmation

(1) Do this check of the Captain's CALL light:

(a) Press and hold the button for the pilot on the attendant's handset.

1) Make sure the CALL light on the P5 forward overhead panel goes on.

(b) Release the button on the attendant's handset.

(c) If the CALL light goes on, then you corrected the fault.

——— END OF TASK ———

807. Internal ACP Fault In Forward/Aft ACP - Fault Isolation

A. Description

(1) This task is for the following maintenance messages:

(a) 23-11001

(b) 23-11002

(c) 23-11003

(d) 23-11004

(e) 23-11010

(f) 23-11011

(g) 23-11012

(h) 23-11013

(i) 23-11025

(2) The fault(s) is generated by the system test.

B. Possible Causes

(1) Attendant Control Panel (ACP)

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Open and close the circuit breaker C01936 to cycle the power to the ACP's.

(2) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

(a) If the fault message does not show, then you corrected the fault. If the message shows, then continue.

(3) Replace the applicable ACP. Refer to:AMM PAGEBLOCK 25-25-11/401

(4) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

——— END OF TASK ———

808. Internal ACP Fault - Data Loading - Fault Isolation

A. Description

(1) This task is for the following maintenance messages:

(a) 23-11005

(b) 23-11006

(c) 23-11007

(d) 23-11018

(e) 23-11019

(f) 23-11020

(g) 23-11021

(2) The fault(s) is generated by the system test.

B. Possible Causes

(1) Data load

C. Initial Evaluation

(1) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

(b) If the fault shows, then continue.

D. Fault Isolation Procedure

(1) Do ADL to ACP or Phase 1 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801

(2) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

——— END OF TASK ———

809. Internal ACP Fault - HW Config - Fault Isolation

A. Description

(1) This task is for the following maintenance messages:

(a) 23-11008

(b) 23-11014

(2) The fault(s) is generated by the system test.

B. Possible Causes

(1) Attendant Control Panel (ACP)

C. Initial Evaluation

(1) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

(b) If the fault shows, then continue.

D. Fault Isolation Procedure

(1) Replace the applicable ACP. Refer to:AMM PAGEBLOCK 25-25-11/401.

(2) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

(a) If the fault does not show, then you corrected the fault.

——— END OF TASK ———

810. Light Column Address Fault - Fault Isolation

A. Description

(1) This task is for the following maintenance messages:

(a) 23-11028

(b) 23-11029

(c) 23-11030

(d) 23-11031

(e) 23-11032

(f) 23-11033

(g) 23-11034

(2) The fault(s) is generated by the system test.

B. Possible Causes

(1) Data load

C. Initial Evaluation

(1) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

(b) If the fault shows, then continue.

D. Fault Isolation Procedure

(1) Set the cabin/utility switch on the overhead panel P5 to OFF and ON position to cycle power to the light LRU's.

(2) Do the system test, refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

(a) If the fault message does not show, then you corrected the fault. If the message shows, then continue.

(3) Do ACP to LRU or Phase 2 Data Load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(4) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

——— END OF TASK ———

811. Fwd/Aft Work Light Fault - Fault Isolation

A. Description

(1) This task is for the maintenance message 23-11015.

(2) The fault is generated by the system test.

B. Possible Causes

(1) Wiring to the Fwd/Aft Work Light

(2) Attendant Control Panel (ACP)

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Open and close the circuit breaker C01936 to cycle the power to the ACP's.

(2) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

(a) If the fault message does not show, then you corrected the fault. If the message shows, then continue.

(3) Do the wiring check and correct problems (if applicable) for the Work Light. Refer to: Passenger Compartment Lighting Problem - Fault Isolation, 33-20 TASK 801.

(4) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

(a) If the fault message does not show, then you corrected the fault. If the message shows, then continue.

(5) Replace the applicable ACP. Refer to:AMM PAGEBLOCK 25-25-11/401.

(6) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

——— END OF TASK ———

812. Fwd/Aft MDCD Light Fault - Fault Isolation

A. Description

(1) This task is for the maintenance message 23-11016.

(2) The fault is generated by the system test.

B. Possible Causes

(1) Wiring to the Main Deck Cargo Door (MDCD) Light

(2) Attendant Control Panel (ACP)

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Open and close the circuit breaker C01936 to cycle the power to the ACP's.

(2) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

(a) If the fault message does not show, then you corrected the fault. If the message shows, then continue.

(3) Do the wiring check and correct problems (if applicable) for the MDCD Light. Refer to: Cargo/Service Compartment Lighting Problem - Fault Isolation, 33-30 TASK 801.

(4) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

(a) If the fault message does not show, then you corrected the fault. If the message shows, then continue.

(5) Replace the applicable ACP. Refer to:AMM PAGEBLOCK 25-25-11/401.

(6) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

END OF TASK

813. Fwd/Aft Threshold Light Fault - Fault Isolation

A. Description

(1) This task is for the maintenance message 23-11024.

(2) The fault is generated by the system test.

B. Possible Causes

(1) Wiring to the Fwd/Aft Threshold Light

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Open and close the circuit breaker C01936 to cycle the power to the ACP's.

(2) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

(a) If the fault message does not show, then you corrected the fault. If the message shows, then continue.

(3) Do the wiring check and correct problems (if applicable) for the Threshold Light. Refer to: Passenger Compartment Lighting Problem - Fault Isolation, 33-20 TASK 801.

(4) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

END OF TASK

814. 28 Vdc Power Fault in Fwd/Aft ACP - Fault Isolation

A. Description

(1) This task is for the maintenance message 23-11017.

(2) The fault is generated by the system test.

B. Possible Causes

(1) 28 Vdc Power

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) If the fault shows for both forward and aft ACP's, do this check for 28 Vdc at the circuit breaker:

(a) Do a check for 28 Vdc at the load terminal of the circuit breaker C01936 ATTENDANT PANEL to structure ground.

(b) If there is not 28 Vdc at the load terminal, replace the circuit breaker.

(2) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

(3) Do a check for wiring from the circuit breaker C01936 to the applicable ACP and fix problems.

(4) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

END OF TASK

815. Communication with Aft ACP Lost - Fault Isolation

A. Description

(1) This task is for the maintenance message 23-11022.

(2) The fault is generated by the system test.

B. Possible Causes

(1) Wiring

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the system test. Refer to:Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Open and close the circuit breaker C01936 to cycle the power to the ACP's.

(2) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

(a) If the fault message does not show, then you corrected the fault. If the message shows, then continue.

(3) Do a check for the wiring between the forward ACP and the aft ACP and fix problems if you find them. Refer to :WDM 23-42-XX.

(4) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

——— END OF TASK ———

816. Cabin Temperature Fault - Fault Isolation

A. Description

(1) This task is for the maintenance message 23-11023.

(2) The fault is generated by the system test.

B. Possible Causes

(1) Data Load

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Do data load for the CDB software. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(2) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

(a) If the fault message does not show, then you corrected the fault. If the message shows, then continue.

(3) Do data load for the OPS software. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(4) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

——— END OF TASK ———

817. Lavatory Inoperative / Clean Check Sensors - Fault Isolation

A. Description

(1) This task is for the maintenance messages 23-11026 and 23-11027.

(2) The fault is generated by the system test.

B. Possible Causes

(1) The Lavatory Logic Control Module

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Do a check of the Lavatory Logic Control Module and correct problems (if applicable). Refer to: LOGIC CONTROL MODULE - MAINTENANCE PRACTICES, AMM 38-33-03/201.

(2) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

(a) If the fault message does not show, then you corrected the fault. If the message shows, then continue.

(3) Do a check of wiring to the Lavatory Logic Control Module and correct problems (if applicable). Refer to: WDM 38-3X.

(4) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

——— END OF TASK ———

818. RS-485 Cable Break - Fault Isolation

A. Description

(1) This task is for the following maintenance messages:

(a) 23-11039

(b) 23-11040

(c) 23-11041

(d) 23-11042

(2) The fault(s) is generated by the system test.

B. Possible Causes

(1) Wiring connection

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Do a check for wiring connection and correct problems (if applicable) for the light(s) indicated on the ACP. Refer to: Passenger Compartment Lighting Problem - Fault Isolation, 33-20 TASK 801.

(2) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

——— END OF TASK ———

819. No LRU Responses - Fault Isolation

A. Description

(1) This task is for the following maintenance messages:

(a) 23-11035

(b) 23-11036

(c) 23-11037

(d) 23-11038

(2) The fault(s) is generated by the system test.

B. Possible Causes

(1) Wiring connection at the light

(2) Wiring connection at the forward ACP

(3) Forward ACP

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Do a wiring connection check and correct problems (if applicable) at the specified light. Refer to: Passenger Compartment Lighting Problem - Fault Isolation, 33-20 TASK 801.

(2) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

(a) If the fault message does not show, then you corrected the fault. If the message shows, then continue.

(3) Do a wiring connection check and correct problems (if applicable) at the forward ACP. Refer to: WDM 23-42-XX.

(4) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

(a) If the fault message does not show, then you corrected the fault. If the message shows, then continue.

(5) Replace the forward ACP. Refer to:AMM PAGEBLOCK 25-25-11/401.

(6) Do the system test. Refer to: Attendant Control Panel (ACP) - BITE Procedure, 23-42 TASK 801.

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

——— END OF TASK ———

820. LRU Address Fault - Fault Isolation

A. Description

(1) This task is for the maintenance messages:

(a) 23-11043

(b) 23-11044

(2) The fault(s) is generated during the ACP to LRU or Phase 2 data load.

B. Possible Causes

(1) The light LRU

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the ACP to LRU or Phase 2 data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Do a check and correct problems (if applicable) for the light LRU. Refer to: Passenger Compartment Lighting Problem - Fault Isolation, 33-20 TASK 801.

(2) Do the ACP to LRU or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not shows, then you corrected the fault.

——— END OF TASK ———

821. LRU Address - Extra Response - Fault Isolation

A. Description

(1) This task is for the maintenance message:

(a) 23-11045

(2) The fault is generated during the ACP to LRU or Phase 2 data load.

B. Possible Causes

(1) The Configuration Database (CDB) software

(2) The light LRU

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the ACP to LRU or Phase 2 data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Make sure that the CDB part number is correct.

(a) If the CDB part number is not correct, do the data load again with the correct CDB. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

1) If the fault does not show, then you corrected the fault.

(b) If the CDB part number is correct, then continue.

(2) Make sure the CDB matches the airplane configuration.

(a) If the CDB does not match the airplane configuration, do the ACP to LRU or Phase 2 data load again with the correct CDB that matches the airplane configuration. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

1) If the fault does not show, then you corrected the fault.

(b) If the CDB matches the airplane configuration, then continue.

(3) Do a check for wiring connection and correct problems for the light LRU. Refer to: Passenger Compartment Lighting Problem - Fault Isolation, 33-20 TASK 801.

(4) Do the ACP to LRU or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault.

——— END OF TASK ———

822. LRU Address - Incorrect Light - Fault Isolation

A. Description

(1) This task is for the maintenance message:

(a) 23-11046

(2) The fault is generated during the ACP to LRU or Phase 2 data load.

B. Possible Causes

(1) The Configuration Database (CDB) software

(2) The light LRU

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the ACP to LRU or Phase 2 data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Make sure that the CDB part number is correct.

(a) If the CDB part number is not correct, do the data load again with the correct CDB. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

1) If the fault does not show, then you corrected the fault.

(b) If the CDB part number is correct, then continue.

(2) Make sure the CDB matches the airplane configuration.

(a) If the CDB does not match the airplane configuration, do the ACP to LRU or Phase 2 data load again with the correct CDB that matches the airplane configuration. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

1) If the fault does not show, then you corrected the fault.

(b) If the CDB matches the airplane configuration, then continue.

(3) Make sure the LRU light part number is correct.

(a) If the LRU light part number is not correct, replace it with the correct light. Refer to chapter 33 for the correct procedure.

(4) Do the ACP to LRU or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault.

END OF TASK

823. LRU Address Fault - Zone/Scene Download - Fault Isolation

A. Description

(1) This task is for the maintenance messages:

(a) 23-11047

(b) 23-11048

(c) 23-11050

(d) 23-11051

(e) 23-11052

(f) 23-11053

(g) 23-11054

(h) 23-11055

(2) The fault(s) is generated during the ACP to LRU or Phase 2 data load.

B. Possible Causes

(1) The light LRU

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the ACP to LRU or Phase 2 data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Set the cabin/utility switch on the overhead panel P5 to OFF and ON position to cycle power to the light LRU's.

(2) Do the ACP to LRU or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault message does not show, then you corrected the fault. If the message shows, then continue.

(3) Replace the light LRU.

(4) Do the ACP to LRU or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault.

——— END OF TASK ———

824. LRU Address - Incorrect Zone - Fault Isolation

A. Description

(1) This task is for the maintenance message:

(a) 23-11049

(2) The fault is generated during the ACP to LRU or Phase 2 data load.

B. Possible Causes

(1) The Configuration Database (CDB)

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the ACP to LRU or Phase 2 data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Make sure that the CDB part number is correct.

(a) If the CDB part number is not correct, do the data load again with the correct CDB. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

1) If the fault does not show, then you corrected the fault.

(b) If the CDB part number is correct, then continue.

(2) Make sure the CDB matches the airplane configuration.

(a) If the CDB does not match the airplane configuration, do the ACP to LRU or Phase 2 data load again with the correct CDB that matches the airplane configuration. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

1) If the fault does not show, then you corrected the fault.

END OF TASK

825. No Data Load LRU Responses - Fault Isolation

A. Description

(1) This task is for the maintenance messages:

(a) 23-11056

(b) 23-11057

(c) 23-11058

(d) 23-11059

(2) The fault(s) is generated during the ACP to LRU or Phase 2 data load.

B. Possible Causes

(1) Wiring

(2) The forward ACP

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the ACP to LRU or Phase 2 data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Set the cabin/utility switch on the overhead panel P5 to OFF and ON position to cycle power to the light LRU's.

(2) Do the ACP to LRU or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault. If the fault shows, then continue.

(3) Do a wiring connection check and correct problems (if applicable) at the specified light. Refer to: Passenger Compartment Lighting Problem - Fault Isolation, 33-20 TASK 801.

(4) Do the ACP to LRU or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault. If the fault shows, then continue.

(5) Replace the forward ACP. Refer to:AMM PAGEBLOCK 25-25-11/401.

(6) Do the ACP to LRU or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault.

END OF TASK

826. Data Load RS-485 Cable Break - Fault Isolation

A. Description

(1) This task is for the maintenance messages:

(a) 23-11060

(b) 23-11061

(c) 23-11062

(d) 23-11063

(2) The fault(s) is generated during the ACP to LRU or Phase 2 data load.

B. Possible Causes

(1) Wiring

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the ACP to LRU or Phase 2 data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Set the cabin/utility switch on the overhead panel P5 to OFF and ON position to cycle power to the light LRU's.

(2) Do the ACP to LRU or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault. If the fault shows, then continue.

(3) Do a wiring connection check and correct problems (if applicable) at the specified light(s). Refer to: Passenger Compartment Lighting Problem - Fault Isolation, 33-20 TASK 801.

(4) Do the ACP to LRU or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault.

——— END OF TASK ———

827. Aft ACP Internal Fault - Fault Isolation

A. Description

(1) This task is for the maintenance messages:

(a) 23-11064

(b) 23-11065

(c) 23-11066

(d) 23-11067

(2) The fault is generated during the ACP to ACP or Phase 2 data load.

B. Possible Cause

(1) The aft ACP

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the ACP to ACP or Phase 2 data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Open and close the circuit breaker C01936 to cycle the power to the ACP's.

(2) Do the ACP to ACP or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault. If the fault shows, then continue.

(3) Replace the aft ACP. Refer to:AMM PAGEBLOCK 25-25-11/401.

(4) Do the ACP to ACP or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault.

——— END OF TASK ———

828. Communication with Aft ACP Lost - Fault Isolation

A. Description

(1) This task is for the maintenance message 23-11068.

(2) The fault is generated during the ACP to ACP or Phase 2 data load.

B. Possible Causes

(1) Wiring

(2) The ACP's

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the ACP to ACP or Phase 2 data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

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

(b) If the fault shows on the screen, then continue.

E. Fault Isolation Procedure

(1) Do a wiring check between the forward and the aft ACP's. Refer to: WDM 23-42-XX.

(a) Correct the problems that you find (if applicable).

(2) Do the ACP to ACP or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault. If the fault shows, then continue.

(3) Replace the aft ACP. Refer to:AMM PAGEBLOCK 25-25-11/401.

(4) Do the ACP to ACP or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault. If the fault shows, then continue.

(5) Replace the forward ACP. Refer to:AMM PAGEBLOCK 25-25-11/401.

(6) Do the ACP to ACP or Phase 2 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault.

——— END OF TASK ———

829. LSAP Configuration Invalid - Fault Isolation

A. Description

(1) This task is for the maintenance message 23-11069.

(2) The fault is generated during the ACP to ACP or Phase 2 data load.

B. Possible Causes

(1) Incorrect LSAP

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the ACP to ACP or Phase 2 data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Make sure the LSAP part number is correct. If it is not correct, do the ACP to ACP or Phase 2 data load again with the correct LSAP part number. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault.

——— END OF TASK ———

830. Forward ACP Internal Fault - Fault Isolation

A. Description

(1) This task is for the maintenance messages:

(a) 23-11070

(b) 23-11071

(c) 23-11072

(d) 23-11073

(2) The fault is generated during the ADL to ACP or Phase 1 data load.

B. Possible Causes

(1) The forward ACP

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the ADL to ACP or Phase 1 data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Open and close the circuit breaker C01936 to cycle the power to the ACP's.

(2) Do the ADP to ACP or Phase 1 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault. If the fault shows, then continue.

(3) Replace the forward ACP. Refer to:AMM PAGEBLOCK 25-25-11/401.

(4) Do the ADP to ACP or Phase 1 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault.

——— END OF TASK ———

831. LSAP Disk Fault - Fault Isolation

A. Description

(1) This task is for the maintenance messages:

(a) 23-11074

(b) 23-11075

(c) 23-11076

(d) 23-11077

(2) The fault is generated during the ADL to ACP or Phase 1 data load.

B. Possible Causes

(1) The LSAP diskette

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the ADL to ACP or Phase 1 data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Check the LSAP diskette, make sure that it is not physically broken. If it is broken, replace it with another diskette (same LSAP part number).

(2) Do the ADL to ACP or Phase 1 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault.

——— END OF TASK ———

832. Incompatible Disk Fault - Fault Isolation

A. Description

(1) This task is for the maintenance messages:

(a) 23-11078

(b) 23-11079

(2) The fault is generated during the ADL to ACP or Phase 1 data load.

B. Possible Causes

(1) Incorrect LSAP

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the ADL to ACP or Phase 1 data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Make sure that the LSAP diskette part number is correct. If it is not correct, replace it with the diskette with correct LSAP part number.

(2) Do the ADL to ACP or Phase 1 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault.

END OF TASK

833. Communications with ADL Lost - Fault Isolation

A. Description

(1) This task is for the maintenance message 23-11080.

(2) The fault is generated during the ADL to ACP or Phase 1 data load.

B. Possible Causes

(1) Incorrect ADL set up

(2) Wiring

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

D. Initial Evaluation

(1) Do the ADL to ACP or Phase 1 data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

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

(b) If the fault shows, then continue.

E. Fault Isolation Procedure

(1) Make sure that the ADL selector switch is in the correct position.

(a) If the ADL selector switch is not in the correct position, reset the switch and do the data load again. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

1) If the fault does not show, then you corrected the fault.

(b) If the ADL selector switch is correct, then continue.

(2) Open and close the circuit breaker C01936 to cycle the power to the ACP's.

(3) Do the ADL to ACP or Phase 1 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault. If the fault shows, then continue.

(4) Do a wiring check from the ACP to the ADL. Refer to: WDM 23-42-XX

(5) Do the ADL to ACP or Phase 1 data load. Refer to: Attendant Control Panel (ACP) Software Loading, AMM TASK 23-42-03-470-801.

(a) If the fault does not show, then you corrected the fault.

END OF TASK

839. LED on the ACP Switch Assembly (ISA) is ON - Fault Isolation

A. Description

(1) When the LED on the ISA is on steadily (not flashing), this indicates an over temperature condition and the ACP is not operational.

(2) When the LED on the ISA is on and flashing, this indicates an internal critical fault with the ACP and the ACP is shut down.

B. Possible Causes

(1) Ambient temperature is out of range

(2) ACP internal fault

C. Initial Evaluation

(1) If the LED is on and not flashing (indicating that ambient temperature is out of range), no maintenance action is necessary. The ACP will become operational when the temperature is in range (32°F (0°C) to122°F (50°C)).

(2) If the LED is flashing, there is an internal fault with the ACP. Do the fault isolation procedure that follows.

D. Fault Isolation Procedure

(1) Do the steps that follow when the LED is flashing:

(a) Replace the applicable ACP. Refer to:AMM PAGEBLOCK 25-25-11/401.

(b) If the LED on the ISA does not turn on, then you corrected the fault.

——— END OF TASK ———

840. Attendant Control Panel - Touch Screen Inoperative

A. Description

(1) When the ACP Touch Screen is inoperative, it does not respond to any touching inputs.

B. Possible Causes

(1) The ACP Touch Screen is locked up.

(2) The Touch Screen Display function is not operative.

C. Initial Evaluation

(1) To activate the Touch Screen, touch the two opposite corners of the screen sequentially.

(a) If the Touch Screen responds to inputs then you corrected the problem.

(b) If the Touch Screen does not respond to any touching inputs, do the fault isolation procedure that follows.

D. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

E. Fault Isolation Procedure

(1) Open and close the circuit breaker C01936 to cycle the power to the ACP.

(a) Touch the two opposite corners of the Touch Screen to activate the Touch Screen

(b) If the Touch screen responds to inputs, then there was an intermittent fault.

(c) If the Touch Screen does not respond to touching inputs, then continue.

(2) Replace the applicable ACP. Refer to:AMM PAGEBLOCK 25-25-11/401.

(a) If the touch screen operates, then you corrected the fault.

——— END OF TASK ———

841. Amber LED Light on ACP Switch Assembly does not come on during operational test

A. Description

(1) After power-up, the amber LED at the left corner of the ACP should turn on for about 2 seconds and then turn off. If the LED does not turn on at power-up, it might be inoperative.

B. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	12	C01936	ATTENDANT PANELS

C. Fault Isolation Procedure

(1) Open and close the circuit breaker C01936 to cycle the power to the ACP.

(a) Check the LED again during the first 2 seconds of power-up.

(b) If the LED light turns on during the first 2 seconds of power-up and then turn off, then there was an intermittent fault.

(c) If the LED light does not turn on during the first 2 seconds of power-up, then continue.

(2) Replace the applicable ACP. Refer to:AMM PAGEBLOCK 25-25-11/401.

(a) If the LED light turns on during the first 2 seconds of power-up and then turn off, then you corrected the fault.

——— END OF TASK ———

801. Ground Crew Call Horn Does Not Operate - Fault Isolation

A. Description

(1) The ground crew call horn does not sound in the nose wheel well area.

B. Possible Causes

(1) Ground Crew Call Horn, M53

(2) Ground Crew Call Switch, S32

(3) Wiring

(4) No power to the Ground Crew Call Horn

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	9	C00073	PASSENGER CABIN CREW CALL

D. Related Data

(1) (SSM 23-43-11)

(2) (WDM 23-43-11)

E. Initial Evaluation

(1) Do this check of the ground crew call horn:

(a) Push and hold the GND CALL switch on the P5 forward overhead panel.

1) Make sure that you hear the ground crew call horn in the nose wheel well area.

(b) Release the GND CALL switch.

(c) If the ground crew call horn does not sound, then do the Fault Isolation Procedure below.

(d) If the ground crew call horn sounds, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Do this check for electrical power to the ground crew call horn:

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	9	C00073	PASSENGER CABIN CREW CALL

(b) Remove the Ground Crew Call Horn, M53, from the nose wheel well area. To remove it, do this task: Ground Crew Call Horn Removal, AMM TASK 23-43-02-000-801.

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	9	C00073	PASSENGER CABIN CREW CALL

(d) Push and hold the GND CALL switch on the P5 forward overhead panel.

(e) Do a check for 28 VDC across the Ground Crew Call Horn wires (one 28 VDC, the other ground).

(f) Release the GND CALL switch.

(g) If there is 28 VDC, then do these steps:

1) Install a new Ground Crew Call Horn. To install it, do this task: Ground Crew Call Horn Installation, AMM TASK 23-43-02-420-801.

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

(h) If there is not 28 VDC, then continue.

(2) Replace the Ground Crew Call Switch, S32, on the P5 forward overhead panel.

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

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

(3) Repair the wiring between the ground crew call horn, M53, and the circuit breaker, C73, on the P18-3 circuit breaker panel.

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

G. Repair Confirmation

(1) Do this check of the ground crew call horn:

(a) Push and hold the GND CALL switch on the P5 forward overhead panel.

1) Make sure that you hear the ground crew call horn in the nose wheel well area.

(b) Release the GND CALL switch.

(c) If the ground crew call horn sounds, then you corrected the fault.

——— END OF TASK ———

802. Ground Crew Call Horn Operates Continuously - Fault Isolation

A. Description

(1) The ground crew call horn stays on continuously.

B. Possible Causes

(1) Air Data Inertial Reference Unit (ADIRU), M1749 (left) or M1752 (right)

(2) The electrical battery is discharging.

(3) Ground crew call switch, S32

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-1

Row	Col	Number	Name
E	7	C01007	ADIRU LEFT AC

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	9	C00073	PASSENGER CABIN CREW CALL
A	17	C01433	EQPT COOLING LOW FLOW DETECT SUPPLY
A	18	C01434	EQPT COOLING LOW FLOW DETECT EXHAUST

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
C	14	C01008	ADIRU RIGHT AC

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	12	C01116	EQPT COOLING SUPPLY FAN CONT-NORMAL
C	13	C01117	EQPT COOLING SUPPLY FAN CONTROL-ALTN
C	14	C01435	EQPT COOLING EXHAUST FAN CONT NORMAL
C	15	C01436	EQPT COOLING EXHAUST FAN CONT ALTN

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
A	8	C00935	EQPT CLG SPLY FAN PWR-ALTN
E	1	C00836	EQPT CLG EXH FAN PWR-NORM

Power Distribution Panel Number 2, P92

Row	Col	Number	Name
D	10	C00934	EQPT CLG SPLY FAN PWR-NORM
D	12	C00837	EQPT CLG EXH FAN PWR-ALTN

D. Related Data

(1) (SSM 23-43-11)

(2) (WDM 23-43-11)

E. Fault Isolation Procedure

(1) Do this task: Ground Crew Call Horn Sounds - Fault Isolation, 34-21 TASK 829.

(a) If the ground crew call horn goes off, then you corrected the fault.

(b) If you still hear the ground crew call horn, then continue.

(2) Do the steps that follow for the electrical battery:

(a) Check the battery chager power and the battery switch to make sure the battery is not dischaging.

NOTE: The battery discharges when the battery charger power is off and the battery switch is on.

(b) If you still hear the ground crew call horn, then continue.

(3) Replace the Ground Crew Call Switch, S32, on the P5 forward overhead panel.

(a) Do this check of the ground crew call horn:

1) Push and hold the GND CALL switch on the P5 forward overhead panel.

a) Make sure you hear the ground crew call horn in the nose wheel well area.

2) Release the GND CALL switch.

a) Make sure that the ground crew call horn goes off.

3) If the ground crew call horn sounds and goes off, then you corrected the fault.

——— END OF TASK ———

803. Ground Crew to Flight Deck, Call System Does Not Operate - Fault Isolation

A. Description

(1) The CALL light on the forward overhead panel does not come on and the Aural Warning Unit does not chime when the ground crew pushes the PILOT CALL button on the External Power Panel.

B. Possible Causes

(1) PILOT CALL Switch, S33

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	9	C00073	PASSENGER CABIN CREW CALL

D. Related Data

(1) (SSM 23-43-11)

(2) (WDM 23-43-11)

E. Initial Evaluation

(1) Do this check of the captain's CALL light:

(a) Press and hold the PILOT CALL button on the P19 External Power panel.

1) Make sure the CALL light on the P5 forward overhead panel goes on.

2) Make sure that you hear a chime in the flight deck.

(b) Release the PILOT CALL button.

(c) If the CALL light does not go on and the chime does not sound, then do the Fault Isolation Procedure below.

(d) If the CALL light goes on and the chime sounds, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Replace the PILOT CALL switch, S33, on the P19 External Power panel.

(a) Do this check of the captain's CALL light:

1) Press and hold the PILOT CALL button on the P19 External Power panel.

a) Make sure the CALL light on the P5 forward overhead panel goes on.

b) Make sure that you hear a chime in the flight deck.

2) Release the PILOT CALL button.

3) If the CALL light goes on and you hear a chime, then you corrected the fault.

——— END OF TASK ———

804. Ground Crew to Flight Deck, Call Light Does Not Operate - Fault Isolation

A. Description

(1) The CALL light on the forward overhead panel does not come on, but the call chime sounds when the ground crew pushes the PILOT CALL button on the External Power Panel.

B. Possible Causes

(1) Master Dim and Test Switch, S3

(2) Captain's Call Light, L19

(3) Wiring

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	9	C00073	PASSENGER CABIN CREW CALL

D. Related Data

(1) (SSM 23-43-11)

(2) (WDM 23-43-11)

E. Initial Evaluation

(1) Do this check of the captain's CALL light:

(a) Set the Master Dim and Test switch, S3, on the P1 main instrument panel, to BRT.

(b) Push and hold the PILOT CALL button, S33, on the P19 External Power panel.

1) Make sure the CALL light on the P5 forward overhead panel goes on.

(c) Release the PILOT CALL button.

(d) If the CALL light does not go on, then do the Fault Isolation Procedure below.

(e) If the CALL light goes on, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Do this test of the Captain's CALL light, L19:

(a) Set the Master Dim and Test switch, S3, on the P1 main instrument panel, to TEST.

(b) If the CALL light does not go on, then replace the Captain's CALL light.

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

a) If the Repair Confirmation is not OK, then continue.

(c) If the CALL light goes on, then continue.

(2) Do this check of the wiring:

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	9	C00073	PASSENGER CABIN CREW CALL

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT

(b) Remove the Captain's CALL light, L19, from the P5 forward overhead panel.

(c) Remove the PILOT CALL switch, S33, from the P19 External Power panel.

(d) Do a check for an open circuit between these pins of the Captain's CALL light, L19, and the PILOT CALL switch, S33:

L19		S33
pin 1	. . . . .	pin C

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

1) Repair the wiring.
2) Re-install the PILOT CALL switch.
3) Re-install the Captain's CALL light.
4) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
A	9	C00073	PASSENGER CABIN CREW CALL

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	11	C00133	INDICATOR MASTER DIM DIM/TST CONT

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

G. Repair Confirmation

(1) Do this check of the captain's CALL light:

(a) Press and hold the PILOT CALL switch, S33, on the P19 External Power panel.

1) Make sure the captain's CALL light, L19, on the P5 forward overhead panel goes on.

(b) Release the PILOT CALL switch.

(c) If the CALL light goes on, then you corrected the fault.

——— END OF TASK ———

801. Microphone/Headset Problem - Fault Isolation

A. Description

(1) A flight interphone hand microphone, headset, or boom microphone/headset does not operate.

B. Possible Causes

(1) Hand microphone, headset, or boom microphone/headset

(2) Microphone, headset, or boom microphone/headset jack

(3) Audio Control Panel (ACP), P8-6 (captain's), P8-7 (first officer's), or P5-15 (observer's)

(4) Oxygen Mask stowage panels.

(5) Remote Electronic Unit (REU), M1353

(6) Wiring

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
C	21	C00560	INTERPHONE POWER F/O DC 2
C	22	C00561	INTERPHONE POWER F/O BAT
C	23	C00239	INTERPHONE POWER CAPT DC 2
C	24	C00240	INTERPHONE POWER CAPT BAT
D	21	C00084	INTPH AND WARN
D	22	C00086	AUDIO F/O
D	23	C00083	AUDIO CAPT
D	24	C00085	AUDIO OBS

D. Related Data

(1) (SSM 23-51-11)

(2) (SSM 23-51-21)

(3) (SSM 23-51-31)

(4) (WDM 23-51-11)

(5) (WDM 23-51-21)

(6) (WDM 23-51-31)

E. Initial Evaluation

(1) Do these steps to prepare the flight interphone for initial evaluation and for fault isolation:

(a) Make sure the AURAL WARN MUTE switch on the front panel of the REU is not in the “Mute” position.

NOTE: The switch is in “Mute” position when it is horizontal to the bottom edge of the front panel.

(b) Set the SERVICE INTERPHONE switch, S50, on the P5 Overhead Panel to the OFF position.

(c) Connect a microphone and headset to all flight interphone stations.

(d) Push the flight microphone selector switch on all Audio Control Panels (ACPs). The flight microphone selector switch is labelled FLT, FLT INT, or INT.

(e) Push the volume control for the flight microphone selector switch to on.

(2) Do this check of the flight interphone:

(a) Push and hold the test switch on the affected station's Audio Control Panel in the R/T or RADIO position. The switch is labelled R/T - I/C or RADIO - INT.

(b) Speak into the affected station's microphone.

1) Make sure you can hear the voice clearly from the other stations' headset.

(c) Release the test switch.

(d) If the voice is not heard on all headsets, then do the Fault Isolation Procedure below.

(e) If the voice is heard on all headsets, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Replace the affected hand microphone, headset, or boom microphone/headset.

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

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

(2) Replace the affected station's hand microphone, headset, or boom microphone/headset jack.

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

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

(3) Replace the affected Audio Control Panel (ACP),

These are the tasks:

Audio Control Panel Removal, AMM TASK 23-51-02-000-801,

Audio Control Panel Installation, AMM TASK 23-51-02-400-801.

or

These are the tasks:

Audio Control Panel Removal, AMM TASK 23-51-02-000-801,

Audio Control Panel Installation, AMM TASK 23-51-02-400-801.

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

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

(4) Replace the Remote Electronic Unit (REU), M1353.

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

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

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

(5) Use the SSM and WDM listed in Related Data to do a check of the wires from the remote electronics unit:

(a) Remove the affected station's hand microphone, headset, or boom microphone/headset jack.

(b) Remove the REU, M1353 from the E4-1 shelf. To remove it, do this task: Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801.

(c) Examine and repair the wires between the REU connector D2501B and the microphone, headset, or boom microphone/headset jack connector.

1) If you found and repaired a wire problem, then do these steps:

a) Re-install the REU. To install it, do this task: Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

b) If it is necessary, re-install the hand microphone, headset, or boom microphone/headset jack.

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

G. Repair Confirmation

(1) If it is necessary, do these steps to prepare the flight interphone for Repair Confirmation:

(a) Make sure that the SERVICE INTERPHONE switch, S50, on the P5 Overhead Panel to the OFF position.

(b) Make sure that a microphone and headset is connected at all flight interphone stations.

(c) Makes sure that these steps are completed:

1) Push the flight microphone selector switch on all Audio Control Panels (ACPs). The flight microphone selector switch is labelled FLT, FLT INT, or INT.

2) Push the volume control for the flight microphone selector switch to on.

(2) Do this check of the flight interphone:

(a) Push and hold the test switch on the affected station's Audio Control Panel in the R/T or RADIO position. The switch is labelled R/T - I/C or RADIO - INT.

(b) Speak into the affected station's microphone.

1) Make sure you can hear the voice clearly from the other stations' headset.

(c) Release the test switch.

(d) If the voice is heard on all headsets, then you have corrected the problem.

——— END OF TASK ———

802. Damaged Microphone/Headset - Fault Isolation

A. Fault Isolation Procedure

(1) Replace the affected hand microphone, headphone, or boom microphone/headset.

——— END OF TASK ———

803. Flight Interphone Problem At All Stations - Fault Isolation

A. Description

(1) The flight interphone does not operate at any flight deck station.

B. Possible Causes

(1) Remote Electronics Unit (REU), M1353

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
C	21	C00560	INTERPHONE POWER F/O DC 2
C	22	C00561	INTERPHONE POWER F/O BAT
C	23	C00239	INTERPHONE POWER CAPT DC 2
C	24	C00240	INTERPHONE POWER CAPT BAT
D	21	C00084	INTPH AND WARN

(Continued)

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	22	C00086	AUDIO F/O
D	23	C00083	AUDIO CAPT
D	24	C00085	AUDIO OBS

D. Related Data

(1) (SSM 23-51-11)

(2) (SSM 23-51-21)

(3) (SSM 23-51-31)

(4) (WDM 23-51-11)

(5) (WDM 23-51-21)

(6) (WDM 23-51-31)

E. Initial Evaluation

(1) Do these steps to prepare the flight interphone for initial evaluation and for fault isolation:

(a) Set the SERVICE INTERPHONE switch, S50, on the P5 Overhead Panel to the OFF position.

(b) Connect a boom mic/headset to both pilots' boom microphone/headset jacks in the flight deck.

(c) Push the flight microphone selector switch on all Audio Control Panels (ACPs). The flight microphone selector switch is labelled FLT, FLT INT, or INT.

(d) Push the volume control for the flight microphone selector switch to on.

(2) Do this check of the flight interphone:

(a) Push and hold the PTT switch on the affected pilot's control wheel to the MIC position.

(b) Speak into the boom microphone.

1) Make sure you can hear the voice clearly from the other pilot's headset.

(c) Release the PTT switch on the control wheel.

(d) Push and hold the PTT switch on the other pilot's control wheel to the MIC position.

(e) Speak into the boom microphone.

1) Make sure you can hear the voice clearly from the other pilot's headset.

(f) Release the PTT switch on the control wheel.

(g) If the voice is not heard on either headset, then do the Fault Isolation Procedure below.

(h) If the voice is heard on both headsets, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Replace the Remote Electronic Unit (REU), M1353.

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

(a) Do this check of the flight interphone:

NOTE: You must do the steps to prepare for fault isolation that are in the Initial Evaluation before you can do this check.

1) Push and hold the PTT switch on the pilot's control wheel to the MIC position.
2) Speak into the boom microphone/headset.
   a) Make sure you can hear the voice clearly from the other pilot's headset.
3) Release the PTT switch on the control wheel.
4) Push and hold the PTT switch on the other pilot's control wheel to the MIC position.
5) Speak into the boom microphone.
   a) Make sure you can hear the voice clearly from the other pilot's headset.
6) Release the PTT switch on the control wheel.
7) If the voice is heard on both headsets, then you corrected the fault.

——— END OF TASK ———

804. Flight Interphone Problems At One Station - Fault Isolation

A. Description

(1) The flight interphone does not operate at one station. The other stations operate correctly.

B. Possible Causes

(1) PTT switch, S519 (captain's) or S520 (first officer's)
(2) Glareshield PTT switch, S1091 (captain's) or S989 (first officer's)
(3) Audio Control Panel (ACP), P8-6 (captain's), P8-7 (first officer's), or P5-15 (observer's)
(4) Remote Electronic Unit (REU), M1353

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
C	21	C00560	INTERPHONE POWER F/O DC 2
C	22	C00561	INTERPHONE POWER F/O BAT
C	23	C00239	INTERPHONE POWER CAPT DC 2
C	24	C00240	INTERPHONE POWER CAPT BAT
D	21	C00084	INTPH AND WARN
D	22	C00086	AUDIO F/O
D	23	C00083	AUDIO CAPT
D	24	C00085	AUDIO OBS

D. Related Data

(1) (SSM 23-51-11)
(2) (SSM 23-51-21)
(3) (SSM 23-51-31)
(4) (WDM 23-51-11)
(5) (WDM 23-51-21)
(6) (WDM 23-51-31)

E. Initial Evaluation

(1) Do these steps to prepare the flight interphone for initial evaluation and for fault isolation:

(a) Set the SERVICE INTERPHONE switch, S50, on the P5 Overhead Panel to the OFF position.

(b) Connect a microphone and headset to jacks at all flight interphone stations in the flight deck.

(c) Push the flight microphone selector switch on all Audio Control Panels (ACPs). The flight microphone selector switch is labelled FLT, FLT INT, or INT.

(d) Push the volume control for the flight microphone selector switch to on.

(2) Do this check of the flight interphone:

(a) Push and hold the test switch on the affected station's Audio Control Panel in the R/T or RADIO. The switch is labelled R/T - I/C or RADIO - INT.

(b) Speak into the affected station's microphone.

1) Make sure you can hear the voice clearly from the other stations' headset.

(c) Release the test switch.

(d) If the voice is not heard on all headsets, then do the Fault Isolation Procedure below.

(e) If the voice is heard on all headsets, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Replace the PTT switch, S519 (captain's) or S520 (first officer's).

These are the tasks:

Control Wheel PTT Switch Removal, AMM TASK 23-51-04-000-801,

Control Wheel PTT Switch Installation, AMM TASK 23-51-04-400-801.

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

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

(2) Replace the glareshield PTT switch, S1091 (captain's) or S989 (first officer's).

These are the tasks:

Control Wheel PTT Switch Removal, AMM TASK 23-51-04-000-801,

Control Wheel PTT Switch Installation, AMM TASK 23-51-04-400-801.

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

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

(3) Replace the affected Audio Control Panel (ACP),

These are the tasks:

Audio Control Panel Removal, AMM TASK 23-51-02-000-801,

Audio Control Panel Installation, AMM TASK 23-51-02-400-801.

or

These are the tasks:

Audio Control Panel Removal, AMM TASK 23-51-02-000-801,

Audio Control Panel Installation, AMM TASK 23-51-02-400-801.

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

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

(4) Replace the Remote Electronic Unit (REU), M1353.

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

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

G. Repair Confirmation

(1) If it is necessary, do these steps to prepare the flight interphone for Repair Confirmation:

(a) Make sure that the SERVICE INTERPHONE switch, S50, on the P5 Overhead Panel to the OFF position.

(b) Make sure that a microphone and headset is connected at all flight interphone stations.

(c) Makes sure that these steps are completed:

1) Push the flight microphone selector switch on all Audio Control Panels (ACPs). The flight microphone selector switch is labelled FLT, FLT INT, or INT.

2) Push the volume control for the flight microphone selector switch to on.

(2) Do this check of the flight interphone:

(a) Push and hold the test switch on the affected station's Audio Control Panel in the R/T or RADIO position. The switch is labelled R/T - I/C or RADIO - INT.

(b) Speak into the affected station's microphone.

1) Make sure you can hear the voice clearly from the other stations' headset.

(c) Release the test switch.

(d) If the voice is heard on all headsets, then you have corrected the problem.

END OF TASK

805. Captain's Flight Interphone Speaker Problem - Fault Isolation

A. Description

(1) Sound is not heard from the captain's flight interphone speaker.

B. Possible Causes

(1) Captain's Flight Interphone Speaker, M77

(2) Captain's Audio Control Panel, P8-6

(3) Remote Electronic Unit (REU), M1353

(4) Wiring

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
C	21	C00560	INTERPHONE POWER F/O DC 2
C	22	C00561	INTERPHONE POWER F/O BAT
C	23	C00239	INTERPHONE POWER CAPT DC 2
C	24	C00240	INTERPHONE POWER CAPT BAT
D	21	C00084	INTPH AND WARN
D	22	C00086	AUDIO F/O

(Continued)

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	23	C00083	AUDIO CAPT
D	24	C00085	AUDIO OBS

D. Related Data

(1) (SSM 23-51-11)

(2) (SSM 23-51-21)

(3) (SSM 23-51-31)

(4) (WDM 23-51-11)

(5) (WDM 23-51-21)

(6) (WDM 23-51-31)

E. Initial Evaluation

(1) Do these steps to prepare the flight interphone for initial evaluation and for fault isolation:

(a) Set the SERVICE INTERPHONE switch, S50, on the P5 Overhead Panel to the OFF position.

(b) Connect a microphone to the first officer's microphone jack.

(c) Set all audio control panels (ACPs) to these conditions:

1) Push all audio monitor switches to off.

2) Push the flight microphone selector switch to on. The flight microphone selector switch is labelled FLT, FLT INT, or INT.

a) Make sure its light comes on.

3) Push the volume control for the flight microphone selector switch. The flight microphone selector switch is labelled FLT, FLT INT, or INT.

a) Make sure its light comes on.

4) Turn the volume control for the flight microphone selector switch to the middle position. The flight microphone selector switch is labelled FLT, FLT INT, or INT.

(d) Set the captain's ACP to these conditions:

1) Push the SPKR volume control switch to on.

a) Make sure its light comes on.

2) Turn the SPKR volume control switch to the middle position or to the volume level you are comfortable with.

(2) Do this check of the captain's flight interphone speaker:

(a) Push and hold the PTT switch on the first officer's control wheel to the MIC position.

(b) Speak into the first officer's microphone.

(c) Make sure you can hear the voice clearly from the captain's flight interphone speaker.

(d) If the voice is not heard on the captain's flight interphone speaker, then do the Fault Isolation Procedure below.

(e) If the voice is heard on the captain's flight interphone speaker, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Replace the captain's flight interphone speaker,

These are the tasks:

Flight Interphone Speaker Removal, AMM TASK 23-51-03-000-802,

Flight Interphone Speaker Installation, AMM TASK 23-51-03-000-804.

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

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

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

(2) Replace the captain's Audio Control Panel (ACP),

These are the tasks:

Audio Control Panel Removal, AMM TASK 23-51-02-000-801,

Audio Control Panel Installation, AMM TASK 23-51-02-400-801.

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

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

(3) Replace the Remote Electronic Unit (REU),

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

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

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

(4) Do this check of the wiring:

(a) Remove the REU, M1353 from the E4-1 shelf. To remove it, do this task: Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801.

(b) Remove the captain's flight interphone speaker. To remove it, do this task: Flight Interphone Speaker Removal, AMM TASK 23-51-03-000-802.

(c) Do a check for an open circuit between connector D2501B, pin D8 of the REU, M1353, and connector D127, pin 1 of the captain's flight interphone speaker, M77:

(d) If there is an open circuit, then do these steps:

1) Repair the wiring.

2) Re-install the captain's flight interphone speaker. To install it, do this task: Flight Interphone Speaker Installation, AMM TASK 23-51-03-000-804.

3) Re-install the REU. To install it, do this task: Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

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

G. Repair Confirmation

(1) Do this check of the captain's flight interphone speaker:

NOTE: You must do the steps to prepare for fault isolation that are in the Initial Evaluation before you can do this check.

(a) Push and hold the PTT switch on the first officer's control wheel to the MIC position.

(b) Speak into the first officer's microphone.

(c) Make sure you can hear the voice clearly from the captain's flight interphone speaker.

(d) If the voice is heard on the captain's flight interphone speaker, then you corrected the fault.

——— END OF TASK ———

806. First Officer's Flight Interphone Speaker Problem - Fault Isolation

A. Description

(1) Sound is not heard from the first officer's flight interphone speaker.

B. Possible Causes

(1) Remote Electronic Unit (REU), M1353

(2) First Officer's Audio Control Panel, P8-6

(3) First Officer's Flight Interphone Speaker, M78

(4) Wiring

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
C	21	C00560	INTERPHONE POWER F/O DC 2
C	22	C00561	INTERPHONE POWER F/O BAT
C	23	C00239	INTERPHONE POWER CAPT DC 2
C	24	C00240	INTERPHONE POWER CAPT BAT
D	21	C00084	INTPH AND WARN
D	22	C00086	AUDIO F/O
D	23	C00083	AUDIO CAPT
D	24	C00085	AUDIO OBS

D. Related Data

(1) (SSM 23-51-11)

(2) (SSM 23-51-21)

(3) (SSM 23-51-31)

(4) (WDM 23-51-11)

(5) (WDM 23-51-21)

(6) (WDM 23-51-31)

E. Initial Evaluation

(1) Do these steps to prepare the flight interphone for initial evaluation and for fault isolation:

(a) Set the SERVICE INTERPHONE switch, S50, on the P5 Overhead Panel to the OFF position.

(b) Connect a microphone to the captain's microphone jack.

(c) Set all audio control panels (ACPs) to these conditions:

1) Push all audio monitor switches to off.

2) Push the flight microphone selector switch to on. The flight microphone selector switch is labelled FLT, FLT INT, or INT.

a) Make sure its light comes on.

3) Push the volume control for the flight microphone selector switch. The flight microphone selector switch is labelled FLT, FLT INT, or INT.

a) Make sure its light comes on.

(d) Set the first officer's ACP to these conditions:

1) Push the SPKR volume control switch to on.

a) Make sure its light comes on.

2) Turn the SPKR volume control switch to the middle position or to the volume level you are comfortable with.

(2) Do this check of the first officer's flight interphone speaker:

(a) Push and hold the PTT switch on the captain's control wheel to the MIC position.

(b) Speak into the captain's microphone.

(c) Make sure you can hear the voice clearly from the first officer's flight interphone speaker.

(d) If the voice is not heard on the first officer's flight interphone speaker, then do the Fault Isolation Procedure below.

(e) If the voice is heard on the first officer's flight interphone speaker, then there was an intermittent fault.

F. Fault Isolation Procedure

(1) Replace the first officer's Audio Control Panel (ACP),

These are the tasks:

Audio Control Panel Removal, AMM TASK 23-51-02-000-801,

Audio Control Panel Installation, AMM TASK 23-51-02-400-801.

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

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

(2) Replace the Remote Electronic Unit (REU),

These are the tasks:

Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801,

Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

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

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

(3) Replace the first officer's flight interphone speaker,

These are the tasks:

Flight Interphone Speaker Removal, AMM TASK 23-51-03-000-802,

Flight Interphone Speaker Installation, AMM TASK 23-51-03-000-804.

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

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

(4) Do this check of the wiring:

(a) Remove the REU, M1353 from the E4-1 shelf. To remove it, do this task: Remote Electronics Unit (REU) Removal, AMM TASK 23-51-01-000-801.

(b) Remove the first officer's flight interphone speaker. To remove it, do this task: Flight Interphone Speaker Removal, AMM TASK 23-51-03-000-802.

(c) Do a check for an open circuit between connector D2501B, pin C11 of the REU, M1353, and connector D129, pin 1 of the first officer's flight interphone speaker, M78:

(d) If there is an open circuit, then do these steps:

1) Repair the wiring.

2) Re-install the first officer's flight interphone speaker. To install it, do this task: Flight Interphone Speaker Installation, AMM TASK 23-51-03-000-804.

3) Re-install the REU. To install it, do this task: Remote Electronics Unit (REU) Installation, AMM TASK 23-51-01-000-802.

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

G. Repair Confirmation

(1) Do this check of the first officer's flight interphone speaker:

NOTE: You must do the steps to prepare for fault isolation that are in the Initial Evaluation before you can do this check.

(a) Push and hold the PTT switch on the captain's control wheel to the MIC position.

(b) Speak into the captain's microphone.

(c) Make sure you can hear the voice clearly from the first officer's flight interphone speaker.

(d) If the voice is heard on the first officer's flight interphone speaker, then you corrected the fault.

——— END OF TASK ———

807. Audio Control Panel Problems - Fault Isolation

A. Description

(1) The audio control panel does not operate correctly at one station. The other stations operate correctly.

B. Possible Causes

(1) Audio Control Panel (ACP), P8-6 (captain's), P8-7 (first officer's), or P5-15 (observer's)

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
C	21	C00560	INTERPHONE POWER F/O DC 2
C	22	C00561	INTERPHONE POWER F/O BAT
C	23	C00239	INTERPHONE POWER CAPT DC 2
C	24	C00240	INTERPHONE POWER CAPT BAT
D	21	C00084	INTPH AND WARN
D	22	C00086	AUDIO F/O
D	23	C00083	AUDIO CAPT
D	24	C00085	AUDIO OBS

D. Related Data

(1) (SSM 23-51-11)

(2) (SSM 23-51-21)

(3) (SSM 23-51-31)

(4) (WDM 23-51-11)

(5) (WDM 23-51-21)

(6) (WDM 23-51-31)

E. Initial Evaluation

(1) Do these steps to prepare the audio control panel for initial evaluation and for fault isolation:

(a) Visually examine the audio control panel.

1) Identify the light or switch that does not operate correctly.

(2) Replace the affected Audio Control Panel (ACP),

These are the tasks:

Audio Control Panel Removal, AMM TASK 23-51-02-000-801,

Audio Control Panel Installation, AMM TASK 23-51-02-400-801.

or

These are the tasks:

Audio Control Panel Removal, AMM TASK 23-51-02-000-801,

Audio Control Panel Installation, AMM TASK 23-51-02-400-801.

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

F. Repair Confirmation

(1) Do this check of the audio control panel:

(a) Operate the light or switch that did not operate correctly.

(b) If the light or switch now operates correctly, then you corrected the fault.

——— END OF TASK ———

801. Voice Recorder Monitor Jack Signal Problem - Fault Isolation

A. Description

(1) No sound is heard through the headset/headphone.

B. Possible Causes

(1) Headset/headphone

(2) Voice recorder unit, M383

(3) Voice recorder control panel, P5-7

(4) Wiring or connector.

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	7	C00107	VOICE RCDR

This circuit breaker is inoperative and should remain open:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	6	C01948	VOICE RCDR/RIPS (INOP)

D. Related Data

(1) (SSM 23-71-11)

(2) (WDM 23-71-01)

E. Initial Evaluation

(1) Connect the headphone, STD-1390 to the voice recorder control panel at the pilot's overhead panel, P5.

(2) Set the volume control switches on the audio control panels (ACP) to the off position.

(3) Make sure that you can hear the flight deck conversation in the headphone.

(4) Push and hold the TEST switch on the voice recorder control panel.

(a) Make sure that you can hear a tone in the headphone.

1) If you hear a tone in the headphone, then continue.

2) If you do not hear a tone in the headphone, then do the Fault Isolation procedure below.

(5) Release the TEST switch.

(6) Speak into the microphones for the captain, the first officer, and the first observer, and the area microphone on the P5 overhead panel.

(a) If you hear your voice on all four channels through the headphone at the voice recorder control panel, then there was an intermittent fault.

(b) If you can not hear your voice on all four channels through the headphone at the voice recorder control panel, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Replace the voice recorder, M383.

These are the tasks:

Voice Recorder Removal, AMM TASK 23-71-11-000-801,

Voice Recorder Installation, AMM TASK 23-71-11-400-801.

(a) Push and hold the TEST switch on the voice recorder control panel.

(b) If you hear a modulated sound through the headphone at the voice recorder control panel, then you corrected the fault.

(c) If you do not hear a modulated sound through the headphone at the voice recorder control panel, then continue.

(d) Release the TEST switch.

(2) Replace the voice recorder control panel, P5-7.

These are the tasks:

Voice Recorder Control Panel Removal, AMM TASK 23-71-12-000-801,

Voice Recorder Control Panel Installation, AMM TASK 23-71-12-400-801.

(a) Push and hold the TEST switch on the voice recorder control panel.

(b) If you hear a modulated sound through the headphone at the voice recorder control panel, then you corrected the fault.

(c) If you do not hear a modulated sound through the headphone at the voice recorder control panel, then continue.

(d) Release the TEST switch.

(3) Do this check of the wiring:

(a) Remove the voice recorder control panel, P5-7. To remove it, do this task: Voice Recorder Control Panel Removal, AMM TASK 23-71-12-000-801.

(b) Do a wiring check between these pins of connector D179, at the P5 overhead panel, and connector D177, at the voice recorder rack.

D179		D177
pin B	. . . . .	pin 13
pin C	. . . . .	pin 14
pin L	. . . . .	pin 47
pin K	. . . . .	pin 45
pin V	. . . . .	pin 5
pin W	. . . . .	pin 6

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

1) Repair the wiring.

2) Re-install the voice recorder unit, M383. To install it, do this task:Voice Recorder Installation, AMM TASK 23-71-11-400-801.

3) Re-install the voice recorder control panel, P5-7. To install it, do this task:Voice Recorder Control Panel Installation, AMM TASK 23-71-12-400-801.

4) Push the TEST switch on the voice recorder control panel for 3 to 5 seconds.

5) If you hear a modulated sound through the headphone at the voice recorder control panel, then you corrected the fault.

——— END OF TASK ———

804. Voice Recorder STATUS Light or TEST Light Problem - Fault Isolation

A. Description

(1) When you push the TEST button on the CVR Control Panel for approximately one half second, the STATUS or TEST light does not come on momentarily.

B. Possible Causes

(1) Voice recorder unit, M383.

(2) Voice recorder control panel, P5-7.

(3) Wiring or connector.

C. Circuit Breakers

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

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	7	C00107	VOICE RCDR

This circuit breaker is inoperative and should remain open:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
D	6	C01948	VOICE RCDR/RIPS (INOP)

D. Related Data

(1) (SSM 23-71-11)

(2) (WDM 23-71-01)

E. Initial Evaluation

(1) Do this task: ACARS - Operational Test, AMM TASK 23-27-00-740-814-009 to make sure that ACARS system is serviceable.

NOTE: The ACARS system must be serviceable with the correct software installed in the ACARS CMU in order to get the operational test of the voice recorder system to pass.

(2) Push the TEST switch on the voice recorder control panel for approximately one half second.

(a) If the STATUS or TEST light comes on momentarily, then there was an intermittent problem.

(b) If the STATUS or TEST light does not come on momentarily, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

(1) Look at the front panel of the voice recorder.

(a) If the BITE indicator comes on and stays on, then replace the voice recorder unit, M383.

These are the tasks:

Voice Recorder Removal, AMM TASK 23-71-11-000-801,

Voice Recorder Installation, AMM TASK 23-71-11-400-801.

1) Push the TEST switch on the voice recorder control panel for approximately one half second.
   a) If the STATUS or TEST light comes on momentarily, then you corrected the fault.
   b) If the STATUS or TEST light does not come on momentarily, then continue.

(b) If the BITE indicator does not come on, then continue.

(2) Replace the voice recorder control panel, P5-7.

These are the tasks:

Voice Recorder Control Panel Removal, AMM TASK 23-71-12-000-801,

Voice Recorder Control Panel Installation, AMM TASK 23-71-12-400-801.

(a) Push the TEST switch on the voice recorder control panel for approximately one half second.
   1) If the STATUS or TEST light comes on momentarily, then you corrected the fault.
   2) If the STATUS or TEST light does not come on momentarily, then continue.

(3) Do this check of the wiring:

(a) Remove the voice recorder control panel, P5-7. To remove it, do this task: Voice Recorder Control Panel Removal, AMM TASK 23-71-12-000-801.

(b) Remove the voice recorder, M383. To remove it, do this task: Voice Recorder Removal, AMM TASK 23-71-11-000-801.

(c) Do a wiring check between these pins of connector D179, at the P5 overhead panel and connector D177 at the voice recorder rack.

D179		**D177**
pin D	. . . . .	pin 15
pin E	. . . . .	pin 16

(d) If you find a problem with the wiring, then do these steps:
   1) Repair the wiring.
   2) Install the voice recorder unit, M383. To install it, do this task: Voice Recorder Installation, AMM TASK 23-71-11-400-801.
   3) Install the voice recorder control panel, P5-7. To install it, do this task: Voice Recorder Control Panel Installation, AMM TASK 23-71-12-400-801.
   4) Push the TEST switch on the voice recorder control panel for approximately one half second.
      a) If you see the STATUS light or TEST light come on momentarily, then you corrected the fault.

——— END OF TASK ———

807. No Surveillance Video For One Camera - Fault Isolation

A. Description

(1) Use this task when there is no surveillance video for one of the three cameras.

B. Possible Causes

(1) Video camera:

- Camera 1, M3002, or
- Camera 2, M3026, or
- Camera 3, M3004.

(2) Camera Control Unit:

- Camera Control Unit 1, M3005
- Camera Control Unit 2, M3030
- Camera Control Unit 3, M3009

(3) Video switch, M3001.

(4) Wiring

C. Circuit Breakers

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

F/O Electrical System Panel, P6-12

Row	Col	Number	Name
B	1	C01641	SURVEILLANCE CAMERA

D. Related Data

(1) WDM 23-70-11.

E. Initial Evaluation

(1) Do the FDEVSS system check, Flight Deck Entry Video Surveillance System - System Test, AMM TASK 23-75-00-730-804

(a) If the video is operational from some of the cameras, but not all, then do the fault isolation procedure that follows.

F. Fault Isolation Procedure

(1) Examine the camera lens.

(a) Make sure the lens is not covered, or blocked by debris.

(2) Replace the camera at the applicable position, M3002 for camera 1 (left), M3026 for camera 2 (center), or M3004 for camera 3 (right). These are the tasks:

Video Camera - Removal, AMM TASK 23-75-02-000-804, and

Video Camera - Installation, AMM TASK 23-75-02-400-804.

(a) If surveillance video shows for the applicable camera, then you corrected the fault.

(b) If you replaced the camera but the fault continues, then continue.

(3) Make sure there is power from the video switch, M3001, to the applicable camera control unit (CCU).

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

F/O Electrical System Panel, P6-12

Row	Col	Number	Name
B	1	C01641	SURVEILLANCE CAMERA

(b) On the CCU, disconnect the PL1 connector.

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

F/O Electrical System Panel, P6-12

Row	Col	Number	Name
B	1	C01641	SURVEILLANCE CAMERA

(d) On the applicable CCU connector, D12491, D12947, or D12495, do a voltage check for 24V dc (volts direct current) between pin 1, camera power, and pin 3, chassis ground (WDM 23-70-11).

1) If voltage is present, then continue at the next step, replace the CCU.

2) If voltage is not present, then continue at the pin check between the CCU and VS, that follows.

(4) Replace the applicable CCU. These are the tasks:

Camera Control Unit - Removal, AMM TASK 23-75-11-000-801, and

Camera Control Unit - Installation, AMM TASK 23-75-11-400-801.

(a) If surveillance video shows for the applicable camera, then you corrected the fault.

(b) If you replaced the camera and CCU but the fault continues, then continue.

(5) Do a continuity check between the video switch and applicable CCU.

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

F/O Electrical System Panel, P6-12

Row	Col	Number	Name
B	1	C01641	SURVEILLANCE CAMERA

(b) On the CCU, disconnect the PL1 connector.

(c) On the VS, disconnect the D12489A connector.

(d) Do the applicable wiring check as follows:

STA 340, BL0, WL 295 VIDEO SWITCH, M3001 D12489		CCU 1, M3005 D12491	
D3	. . . . .	1	0
D4	. . . . .	2	0
A1	. . . . .	4	0
C1	. . . . .	5	0

STA 340, BL0, WL 295 VIDEO SWITCH, M3001 D12489		CCU 2, M3030 D12947	
D5	. . . . .	1	0
D6	. . . . .	2	0
A2	. . . . .	4	0
C2	. . . . .	5	0

STA 340, BL0, WL 295 VIDEO SWITCH, M3001 D12489		CCU 3, M3009 D12495	
D1	. . . . .	1	0
D2	. . . . .	2	0
A3	. . . . .	4	0
C3	. . . . .	5	0

(e) If you find a problem, repair the wiring.

(f) Reconnect the connectors.

(g) Do the repair confirmation step that follows.

1) If video shows on the MFD for the applicable camera, then you corrected the fault.

2) If the problem remains, then continue.

(6) Replace the video switch, M3001. These are the tasks:

Video Switch - Removal, AMM TASK 23-75-07-000-801, and

Video Switch - Installation, AMM TASK 23-75-07-400-801.

(a) If surveillance video shows for the applicable camera, then you corrected the fault.

(b) If you replaced the camera, CCU, and VS, but the fault continues, do the wiring check again.

G. Repair Confirmation

(1) Do this task: Flight Deck Entry Video Surveillance System - System Test, AMM TASK 23-75-00-730-804.

(a) If the video shows correctly on the common display system (CDS) from all three cameras, then you corrected the fault.

——— END OF TASK ———

808. Distorted Surveillance Video for One Camera - Fault Isolation

A. Description

(1) Use this task when the video for one surveillance camera shows but is distorted. For example:

- The surveillance video shows, but the display is dark
- Lines show on the video display
- Surveillance video is jittery or jumpy or the picture appears to roll
- Any other surveillance video display that is not normal.

B. Possible Causes

(1) Video camera:

- Camera 1, M3002, or
- Camera 2, M3026, or
- Camera 3, M3004.

(2) Camera Control Unit

- Camera Control Unit 1, M3005, or
- Camera Control Unit 2, M3030, or
- Camera Control Unit 3, M3009.

(3) Video switch, M3001.

(4) Wiring.

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
E	12	C01373	DISPLAY CTR LWR

F/O Electrical System Panel, P6-12

Row	Col	Number	Name
B	1	C01641	SURVEILLANCE CAMERA

D. Related Data

(1) WDM 23-70-11.

(2) WDM 31-62-42.

E. Initial Evaluation

(1) Do a test of the video surveillance system: Flight Deck Entry Video Surveillance System - System Test, AMM TASK 23-75-00-730-804.

(a) If surveillance video from all three cameras shows normal on the lower center display, then the fault is intermittent.

NOTE: Only the lower-center MFD can show flight deck entry video. The inboard left, and inboard right MFD units are connected to FDEVSS. However to show video successfully, the optional video-capable MFDs are required.

(b) If surveillance video shows for all three cameras but on one camera the video is dark, the display is jumpy, lines appear or there are other display problems then do these steps:

1) Make a record of the camera Control Panel (CP) position (R-C-L) with the fault.

NOTE: Position C on the control panel, M3000, is camera 1, M3002 on the wiring diagram. Position L on the control panel is camera 2, M3026, and position R is camera 3, M3004.

NOTE: Only the lower-center MFD can show flight deck entry video. The inboard left, and inboard right MFD units are connected to FDEVSS. However to show video successfully, the optional video-capable MFDs are required.

2) Do the fault isolation procedure that follows.

F. Fault Isolation Procedure

(1) Examine the camera and lens.

(a) Make sure that the lens is not covered, and the view is not blocked.

(2) Replace the applicable video camera: camera 1, M3002, or camera 2, M3026, or camera 3, M3004. These are the tasks:

Video Camera - Removal, AMM TASK 23-75-02-000-804, and

Video Camera - Installation, AMM TASK 23-75-02-400-804

(a) If surveillance video shows and is not distorted for the applicable camera, then you corrected the fault.

(b) If you replaced the camera but the fault continues, then continue.

(3) Replace the applicable camera control unit: CCU 1, M3005, or CCU 2, M3030, or CCU 3, M3009. These are the tasks:

Camera Control Unit - Removal, AMM TASK 23-75-11-000-801, and

Camera Control Unit - Installation, AMM TASK 23-75-11-400-801.

(a) If surveillance video shows and is not distorted for the applicable camera, then you corrected the fault.

(b) If you replaced the CCU but the fault continues, then continue.

(4) Examine the wiring as follows:

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

F/O Electrical System Panel, P6-12

Row	Col	Number	Name
B	1	C01641	SURVEILLANCE CAMERA

(b) At the video switch, M3001, disconnect connector D12489.

(c) At the applicable CCU, (M3005, M3030, or M3009), disconnect the PL1 connector.

(d) Do a check for continuity between these pins on VS connector DA12489, and these pins on the applicable CCU connector:

STA 344 WL250 BL0

VS (M3001) DA1248912		**CCU 1 (M3005) D12491**	
A1	. . . . .	D	0
C1	. . . . .	E	0

STA 344 WL250 BL0

VS (M3001) DA1248912		**CCU 3 (M3009) D12495**	
A3	. . . . .	D	0
C3	. . . . .	E	0

STA 344 WL250 BL0		
VS (M3001)	**CCU 2 (M3030)**	
DA1248912	**D12947**	
A2	D	0
C2	E	0

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

1) Repair the wiring.

2) Reconnect the applicable CCU connector and the VS connector.

3) Do the repair confirmation that follows.

a) If surveillance video shows for the applicable camera, then you corrected the fault.

b) If the fault remains, then continue.

(5) Replace the video switch, M3001. These are the tasks:

Video Switch - Removal, AMM TASK 23-75-07-000-801

Video Switch - Installation, AMM TASK 23-75-07-400-801

(a) If surveillance video shows for the applicable camera, then you corrected the fault.

(b) If you replaced the camera, CCU, and VS, but the fault continues, do the wiring check again.

G. Repair Confirmation

(1) Do this task: Flight Deck Entry Video Surveillance System - System Test, AMM TASK 23-75-00-730-804.

(a) If the video shows correctly on the common display system (CDS) from all three cameras, then you corrected the fault.

——— END OF TASK ———

809. Surveillance Video Problems for All Cameras - Fault Isolation

A. Description

(1) Use this task when no video shows for all three video surveillance cameras.

(2) Use this task when the lower center multi-function display shows CAMERA FAIL.

B. Possible Causes

(1) Video Switch (VS), M03001.

(2) Camera CP, M03000.

(3) Wiring.

(4) Impedance transformer:

- T03022 (for lower center DU, N00190, WDM 23-70-11).

C. Circuit Breakers

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

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
E	12	C01373	DISPLAY CTR LWR

F/O Electrical System Panel, P6-11

Row	Col	Number	Name
A	8	C01627	CABIN UTIL RLY PWR

F/O Electrical System Panel, P6-12

Row	Col	Number	Name
B	1	C01641	SURVEILLANCE CAMERA

D. Related Data

(1) WDM 23-70-11.

(2) WDM 31-62-42.

E. Initial Evaluation

(1) Do a test of the video surveillance system: Flight Deck Entry Video Surveillance System - System Test, AMM TASK 23-75-00-730-804.

(a) If surveillance video from all three cameras shows correctly on the lower center MFD, then there was an intermittent fault.

(b) If the MFD does not show surveillance video for all three cameras, then do the fault isolation procedure that follows.

(c) If the MFD shows the message CAMERA FAIL, then do the fault isolation procedure that follows.

F. Fault Isolation Procedure

(1) On the electric meters, battery and galley power module, P5-13, make sure that the IFE/PASS SEAT switch is set to ON.

(2) Make sure the video switch (VS) has power as follows:

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

F/O Electrical System Panel, P6-12

Row	Col	Number	Name
B	1	C01641	SURVEILLANCE CAMERA

(b) On the VS, M03001, disconnect connector D12489A.

(c) Close this circuit breaker:

F/O Electrical System Panel, P6-12

Row	Col	Number	Name
B	1	C01641	SURVEILLANCE CAMERA

(d) Look for 115V ac (volts alternating current) on connector D12489A between pins A10 and B10

(WDM 23-70-11).

(e) If you do not find 115V ac at the VS connector, then do the steps that follow:

1) Examine and repair the wiring between the VS, M3001, and circuit breaker C01641 (WDM 23-70-11).

2) Reconnect connector D12489A to the VS.

3) If surveillance video shows for all three cameras, you corrected the fault.

(f) If you find 115V ac at the VS connector, then continue.

(3) Replace the VS. These are the tasks:

Video Switch - Removal, AMM TASK 23-75-07-000-801, and

Video Switch - Installation, AMM TASK 23-75-07-400-801.

(4) Do the system check, Flight Deck Entry Video Surveillance System - System Test, AMM TASK 23-75-00-730-804.

(a) If surveillance video from all three cameras shows correctly on the lower-center MFD, then you corrected the fault.

(b) If the lower-center MFD does not show surveillance video for each of the three cameras, then continue.

I (5) Replace the impedance transformer for the lower center MFD, T03022.

(WDM 23-70-11).

(a) If surveillance video shows correctly, and is not distorted for the applicable camera, then you corrected the fault.

(b) If you replaced the impedance transformer but the fault continues, then continue.

(6) Do a continuity check of the camera control panel circuitry at the VS connector:

(a) Disconnect connector DA12489A from the video switch (VS), M3001,

(WDM 23-70-11).

(b) Do a check to make sure that each position of the 3-position rotary switch, on the camera control panel, has continuity to the VS.

NOTE: You must set the rotary switch to the position specified to complete each of the three circuits.

	STA 344 WL 290 BL0		
	VS Connector, DA12489	**VS Connector, DA12489**	
Camera CP-Position L	**DA12489**	**DA12489**	
	B6	A6	0
Camera CP-Position C	**DA12489**	**DA12489**	
	B6	A7	0
Camera CP-Position R	**DA12489**	**DA12489**	
	B6	A8	0

(c) Do a continuity check of the DSPL (display) push-button on the camera CP from the VS connector:

NOTE: To complete the circuit, you must push DSPL on the camera control panel. The position of the rotary switch does not affect this check.

	STA 344 WL250 BL0		
	VS, M3001	Camera CP DSPL	
VS connector	DA12489A	DA12489A	
	A5	N5	0 (when DSPL is pressed)

(7) If you find a problem, replace the camera control panel. These are the tasks:

Control Panel - Removal, AMM TASK 23-75-03-000-803, and

Camera Control Panel - Installation, AMM TASK 23-75-03-400-803.

(8) Do the wiring check again.

(a) If you find a problem, repair the wiring.

(9) Reconnect connector DA12489A to the VS.

(10) Do the repair confirmation that follows.

G. Repair Confirmation

(1) Do the system check, Flight Deck Entry Video Surveillance System - System Test, AMM TASK 23-75-00-730-804.

(a) If surveillance video from all three cameras shows correctly on the lower center MFD, then you corrected the fault.

——— END OF TASK ———

801. Flight Compartment Outlet Unit LED Problems - Fault Isolation

A. Description

(1) The Outlet Unit (OU) status LED is red in color or does not come on.

NOTE: Normal operation is when the OU status LED is green in color. This indicates power is available and the outlet is enabled. If the OU status LED is red in color, this indicates a fault with the OU or ISPS. If the OU status LED does not come on, this indicates that power is not available.

B. Possible Causes

(1) Outlet Unit

(2) In-Seat Power Supply

(3) Circuit Breaker

(4) Wiring or connector

C. Circuit Breakers

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

F/O Electrical System Panel, P6-12

Row	Col	Number	Name
A	3	C01643	FD - PC POWER

D. Initial Evaluation

(1) Make sure power is applied to the Flight Compartment PC power system.

(a) Test the system again by cycling the applicable circuit breaker.

(b) If the LED is green in color, there was an intermittent fault.

(c) If the LED is red in color, do the fault isolation task below for OU Status LED is Red in Color.

(d) If the LED is not on, do the fault isolation task below for OU Status LED is Not On.

E. OU Status LED is Red in Color-Fault Isolation Procedure

(1) If the OU status LED is red in color, do the steps that follow:

(a) Examine all OU status LEDs in the flight compartment.

NOTE: There are two OU's installed in the flight compartment. The OU's are at P6 and P18 panels.

(b) If only one OU status LED in the flight compartment is red in color, then do the steps that follow:

1) Replace the applicable OU. These are the tasks:

Outlet Unit Removal, AMM TASK 23-82-01-000-801,

Outlet Unit Installation, AMM TASK 23-82-01-400-801.

2) If the OU status LED changes to green in color, then you corrected the fault.

3) If the problem continues, examine the wiring between the ISPS and the OU.

a) If you find a problem, repair or replace the applicable wiring.

4) If the OU status LED changes to green in color, then you corrected the fault.

(c) If all the OU status LEDs in the flight compartment are red in color, then do the steps that follow:

1) Replace the ISPS. These are the tasks:
In-Seat Power Supply Removal, AMM TASK 23-82-02-000-801,
In-Seat Power Supply Installation, AMM TASK 23-82-02-400-801.
2) If the OU status LEDs change to green in color, then you corrected the fault.

F. OU Status LED is Not On - Fault Isolation Procedure

(1) If the OU status LED is not on, do the steps that follow:

(a) Examine all OU status LEDs in the flight compartment.

NOTE: There are two OU's installed in the flight compartment. The OU's are at P6 and P18 panels.

(b) If only one OU status LED in the flight compartment is not on, then do the steps that follow:

1) Replace the applicable OU. These are the tasks:
Outlet Unit Removal, AMM TASK 23-82-01-000-801,
Outlet Unit Installation, AMM TASK 23-82-01-400-801.
2) If the OU status LED changes to green in color, then you corrected the fault.
3) If the problem continues, examine the wiring between the ISPS and the OU.
a) If you find a problem, repair or replace the applicable wiring.
4) If the OU status LED changes to green in color, then you corrected the fault.

(c) If all the OU status LEDs in the flight compartment are not on, then do the steps that follow:

1) Disconnect connector D14212 from connector J2 of the ISPS, M2566.
2) Check for 115 VAC at pin 1 of connector D14212.
3) If pin 1 of connector D14212 reads 115 VAC, replace the ISPS. These are the tasks:
In-Seat Power Supply Removal, AMM TASK 23-82-02-000-801,
In-Seat Power Supply Installation, AMM TASK 23-82-02-400-801.
4) If the OU status LEDs change to green in color, then you corrected the fault.
5) If pin 1 of connector D14212 does not read 115 VAC, replace the circuit breaker.
6) If the OU status LEDs change to green in color, then you corrected the fault.
7) If the problem continues, check and repair the wiring as necessary.
8) If the OU status LED changes to green in color, then you corrected the fault.

——— END OF TASK ———