CHAPTER

23

COMMUNICATIONS

CHAPTER 23
COMMUNICATIONS

Subject/Page	Date	COC
23-EFFECTIVE PAGES		
1	JUN 15/2016	
2	BLANK	
23-030-00-01	SYS	
1	Feb 15/2016	
2	Feb 15/2015	
3	Jun 15/2015	
4	Feb 15/2015	
5	Feb 15/2015	
6	Feb 15/2015	
7	Feb 15/2015	
8	Feb 15/2015	
9	Oct 15/2014	
10	Oct 15/2015	
11	Jun 15/2015	
12	Jun 15/2015	
13	Jun 15/2015	
23-040-00-01	SYS	
1	Jun 15/2015	
2	Jun 15/2015	
23-050-00-01	SYS	
1	Jun 15/2015	
2	Jun 15/2015	
3	Oct 15/2015	
4	Oct 15/2015	
23-060-00-01	SYS	
R 1	Jun 15/2016	
2	Feb 15/2015	
3	Feb 15/2015	
R 4	Jun 15/2016	
5	Feb 15/2015	
6	Feb 15/2015	
7	Feb 15/2015	
8	Oct 15/2015	
9	Jun 15/2015	

Subject/Page	Date	COC
23-070-00-01	SYS	
1	Feb 15/2016	
R 2	Jun 15/2016	
3	Feb 15/2015	
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5	Oct 15/2014	
6	Feb 15/2015	
7	Jun 15/2015	
8	Feb 15/2015	
9	Oct 15/2015	
10	Jun 15/2015	
11	Oct 15/2014	
12	Oct 15/2014	
13	Jun 15/2015	
23-080-00-01	SYS	
1	Jun 15/2015	
2	Oct 15/2015	
3	Oct 15/2015	
4	Oct 15/2015	
5	Oct 15/2015	
6	Oct 15/2015	
7	Oct 15/2015	
8	Oct 15/2015	
23-090-00-01	SYS	
1	Jun 15/2015	
2	Jun 15/2015	
3	Jun 15/2015	
4	Jun 15/2015	
23-100-00-02	SYS	
1	Jun 15/2015	
2	Feb 15/2015	
3	Feb 15/2016	
23-110-00-02	SYS	
1	Oct 15/2014	
2	Oct 15/2014	
3	Oct 15/2014	
4	Oct 15/2015	

Subject/Page	Date	COC

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

23-EFFECTIVE PAGES

AIRLINE CARD NO		TITLE			BOEING CARD NO.
		RESISTANCE OF STATIC DISCHARGES			**23-030-00-01**
DATE	TASK **FUNCTIONAL**				RELATED CARD
TAIL NUMBER	WORK AREA **AIRPLANE**	VERSION **1.1**	THRESHOLD **4 YR**	REPEAT **4 YR**	APPLICABILITY AIRPLANE: **ALL** ENGINE: **ALL**
STATION	SKILL **AVION**				
		ACCESS			ZONE **325 326 330 340 526 570 572 626 670 672**

Functional check of resistance of static discharges.

A. References

Reference	Title
AMM 23-61-00-000-801	Static Discharger Removal (P/B 201)
AMM 23-61-00-000-802	Static Discharger Base Removal (Base Attached with Screws) (P/B 201)
AMM 23-61-00-000-803	Static Discharger Base Removal (Base Attached with Rivets) (P/B 201)
AMM 23-61-00-000-804	Static Discharger Base Removal (Adapter Plate Assembly) (P/B 201)
AMM 23-61-00-400-801	Static Discharger Installation (P/B 201)
AMM 23-61-00-400-802	Static Discharger Base Installation (With Screws) (P/B 201)
AMM 23-61-00-400-803	Static Discharger Base Installation (With Rivets) (P/B 201)
AMM 23-61-00-400-805	Static Discharger Base Installation (Adapter Plate Assembly With Rivets and Screws) (P/B 201)
AMM 24-22-00-860-812	Remove Electrical Power (P/B 201)
AMM 27-11-00-860-801	Pressure from the Aileron Hydraulic Systems A and B - Deactivation (P/B 201)
AMM 27-11-00-860-802	Pressure to the Aileron Hydraulic Systems A and B - Activation (P/B 201)
AMM 27-21-00-800-802	Pressure from the Rudder Hydraulic Systems A, B, and Standby - Deactivation (P/B 201)
AMM 27-21-00-840-802	Pressure to the Rudder Systems A, B, and Standby - Activation (P/B 201)
AMM 27-31-00-800-802	Remove Pressure from the Elevator Hydraulic Systems A and B (P/B 201)
AMM 27-31-00-840-802	Put the Elevator Systems A and B Back to the Condition Before the Pressure Removal (P/B 201)
AMM 51-21-99-300-802	Decorative Exterior Paint System Repair (P/B 701)
SWPM 20-20-00	Electrical Bonding Processes

B. Consumable Materials

Reference	Description	Specification
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5 Class A

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C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in Class I, Divisions I & II hazardous (classified) locations. Outside these hazardous locations, COM-614 can be used in lieu of COM-1550). Part #: C15292 (MODEL T477W) Supplier: 01014 Part #: M1 Supplier: 3AD17 Opt Part #: M1B Supplier: 3AD17
COM-6457	Meter - Insulation (Range: 1-1,000 VDC or equivalent, select meter per test requirements) Part #: 1863-9700 Supplier: 62015 Part #: 1864-9700 Supplier: 62015 Part #: 1865PLUS Supplier: 62015 Part #: 1865PLUSCE Supplier: 62015 Part #: 2471F Supplier: 21844 Opt Part #: 1865-00-CE Supplier: 62015

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TASK 23-61-00-760-801

1. Static Discharger Resistance Measurement

(Figure 2)

A. Prepare Procedure

SUBTASK 23-61-00-860-039

WARNING: MAKE SURE PRESSURE IS REMOVED FROM HYDRAULIC SYSTEMS. MAKE SURE HYDRAULIC POWER AND ELECTRICAL POWER ARE NOT SUPPLIED. IF HYDRAULIC PRESSURE IS PRESENT OR HYDRAULIC/ELECTRICAL POWER IS SUPPLIED, THE FLIGHT CONTROL SURFACE CAN MOVE. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

(1) To remove pressure and power from the hydraulic systems for the applicable flight control surfaces, do the applicable tasks as follow:

(a) Pressure from the Aileron Hydraulic Systems A and B - Deactivation, AMM TASK 27-11-00-860-801.

(b) Pressure from the Rudder Hydraulic Systems A, B, and Standby - Deactivation, AMM TASK 27-21-00-800-802.

(c) Remove Pressure from the Elevator Hydraulic Systems A and B, AMM TASK 27-31-00-800-802.

SUBTASK 23-61-00-860-040

(2) Do this task: Remove Electrical Power, AMM TASK 24-22-00-860-812.

B. Resistance Test for Static Discharger

WARNING: OBEY THE PRECAUTIONS THAT FOLLOW WHEN YOU USE A MEGOHMMETER. IF YOU DO NOT OBEY THESE PRECAUTIONS, THEN IT IS POSSIBLE THAT AN EXPLOSION OR FIRE CAN OCCUR.

SUBTASK 23-61-00-760-010

(1) If you must do a resistance check for a static discharger that is in a five foot diameter area around a fuel tank vent, open fuel tank doors or open fuel tank access panels, then do the Alternative Discharger Resistance Test procedures below.

SUBTASK 23-61-00-760-001

(2) Use these precautions for possible fuel vapors when you use a megohmmeter to measure the discharger resistance.

(a) Use a insulation meter, COM-6457 or equivalent meter with a 500 VDC test voltage and a maximum 5 milliampere short circuit current.

(b) Do not use a megohmmeter at these locations:

1) A five foot (1.524 meters) diameter, vertical column areas adjacent to or below:

- a wing fuel tank vent (from the vent to the ground).
- open fuel tank doors (from the door to the ground).
- open fuel tank access panels (from the panel to the ground).

2) Zero to 18 inches (457 mm) above the ground in the area around the airplane.

(c) Make sure that:

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1) Area is well ventilated.
2) Metal workstands are grounded.
3) Megohmmeter is plugged into a grounded receptacle.
4) Megohmmeter is insulated from metal work stand.

SUBTASK 23-61-00-760-009

(3) DAYTON-GRANGER AND OTHER STATIC DISCHARGERS NOT SUPPLIED BY CHELTON;

Use a megohmmeter to measure the resistance between the discharger tip and the discharger base:

(a) Set the megohmmeter to 500 VDC test voltage.

(b) Make a good surface bond with the end of the static discharger:

NOTE: A good connection between the discharger end and the megohmmeter is necessary for a correct resistance value.

1) Use water to make a cotton wiper, G00034 wet.
2) Make sure that the full end of the discharger touches the wet cotton wiper, G00034.

(c) Put one lead of the megohmmeter on the discharger base.

(d) Put the other lead of the megohmmeter on the wet cotton wiper, G00034.

(e) Measure the resistance value.

(f) Make sure that the resistance value is in a range of 6-100 megohms for dischargers.

NOTE: If the measured value is too high, add water to the wet material and then measure the resistance value again.

(g) For a discharger that does not agree with the correct resistance value, replace the static discharger (Static Discharger Removal, AMM TASK 23-61-00-000-801, Static Discharger Installation, AMM TASK 23-61-00-400-801).

SUBTASK 23-61-00-760-011

(4) CHELTON SUPPLIED STATIC DISCHARGERS ONLY;

Use a megohmmeter to measure the resistance between the discharger tip and the discharger base:

(a) Set the megohmmeter to 500 VDC test voltage.

(b) A good electrical bond between the end of the discharger tip and the megohmmeter is necessary for a correct measure of resistance.

(c) To make a good connection with the end of the discharger tip, use a wet material.

(d) Put the wet material on the END of the discharger tip.

NOTE: DO NOT WRAP the wet material around the discharger tip of Chelton static dischargers. This can give incorrect resistance values that cause unnecessary removals of serviceable static dischargers. Put the wet material between the tip of the discharger and the megohmmeter probe

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(e) Put one megohmmeter probe on the base and one probe on the wet material at the end of the discharger tip. See On Wing Discharger Resistance Test Detail I (Figure 1).

1) Make sure that the measured resistance is between 6-100 megohms.

2) If the resistance is more than 6-100 megohms, remove the wet material and put megohmmeter probe directly on the tip of the discharger core material.

(f) Add more water if it is necessary and measure again.

1) Use the lowest measured value.

C. Alternative Static Discharger Resistance Test

SUBTASK 23-61-00-020-007

(1) Do this task: Static Discharger Removal, AMM TASK 23-61-00-000-801.

SUBTASK 23-61-00-760-012

(2) DAYTON-GRANGER AND OTHER STATIC DISCHARGERS NOT SUPPLIED BY CHELTON;

Use a megohmmeter to measure the resistance between the discharger tip and the discharger shank:

(a) Set the megohmmeter to 500 VDC test voltage.

(b) A good electrical bond between the end of the discharger tip and the megohmmeter is necessary for a correct measure of resistance.

(c) To make a good connection with the end of the discharger tip, use a wet paper towel, cotton cloth or a sponge.

(d) Put the wet towel on the end of the discharger tip.

(e) Put the megohmmeter connectors on the shank of the static discharger and on the wet towel at the end of the tip.

1) Make sure that the measured resistance is between 6-100 megohms.

2) If the resistance measured is high, make sure that the meter lead and the end of the discharger tip touch the wet towel.

(f) Add more water if it is necessary and measure again.

1) Use the lowest measured value.

SUBTASK 23-61-00-760-014

(3) CHELTON SUPPLIED STATIC DISCHARGER ONLY;

Use a megohmmeter to measure the resistance between the discharger tip and the discharger shank:

(a) Set the megohmmeter to 500 V dc (volts direct current) test voltage.

(b) A good electrical bond between the end of the discharger tip and the megohmmeter is necessary for a correct measure of resistance.

(c) To make a good connection with the end of the discharger tip, use a wet material.

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(d) Put the wet material on the END of the discharger tip.

NOTE: DO NOT WRAP the wet material around the discharger tip of Chelton static dischargers. This can give incorrect resistance values that cause unnecessary removals of serviceable static dischargers. Put the wet material between the tip of the discharger and the megohmmeter probe.

(e) Put one megohmmeter probe on the shank of the static discharger and one probe on the edge of the wet material at the end of the discharger tip. See Alternate (Off Wing) Discharger Resistance Test Detail II (Figure 1).

1) Make sure that the measured resistance is between 6-100 megohms.

2) If the resistance is more than 6-100 megohms, remove the wet material and put megohmmeter probe directly on the tip of the discharger core material.

(f) Add more water if it is necessary and measure again.

1) Use the lowest measured value.

SUBTASK 23-61-00-420-013

(4) Do this task: Static Discharger Installation, AMM TASK 23-61-00-400-801.

D. Resistance Test for Static Discharger Installation

SUBTASK 23-61-00-760-016

WARNING: MAKE SURE THAT THE BONDING METER IS RESISTANT TO EXPLOSION. IF NOT, IT IS POSSIBLE THAT AN EXPLOSION OR FIRE CAN OCCUR.

(1) Do the resistance test between the static discharger shank and the static discharger base:

(a) STATIC DISCHARGERS WITH METALLIC SHANK;

Use a intrinsically safe approved bonding meter, COM-1550, (SWPM 20-20-00) to measure the resistance between the static discharger shank and the static discharger base.

1) Make sure that the resistance is not more than 1 ohm.

NOTE: A resistance of more than these values can cause damage if a lightning strike occurs.

(b) STATIC DISCHARGERS WITH PLASTIC SHANK;

Use a intrinsically safe approved bonding meter, COM-1550, (SWPM 20-20-00) to measure the resistance between the set screw in the static discharger shank and the static discharger base.

1) Make sure that the resistance is not more than 1 ohm.

NOTE: A resistance of more than these values can cause damage if a lightning strike occurs.

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E. Resistance Test for Static Discharger Base

SUBTASK 23-61-00-760-002

WARNING: MAKE SURE THAT THE BONDING METER IS RESISTANT TO EXPLOSION. IF NOT, IT IS POSSIBLE THAT AN EXPLOSION OR FIRE CAN OCCUR.

(1) Use Method 1 or Method 2 to do a check of the electrical bond between the static discharger bases and the airplane surface:

(a) Method 1 - Measure the bond resistance from the discharger base to its mounting surface.

NOTE: It may be necessary to scratch the paint on the mounting surface to get a good connection.

1) Use a intrinsically safe approved bonding meter, COM-1550 to measure the bond between the static discharger base and the airplane surface (SWPM 20-20-00).

NOTE: This resistance value is for an in-service discharger. There is a different value for a new installed discharger base.

2) Put one lead on the static discharger base.

3) Put the other lead on the airplane surface.

4) Make sure that the two leads touch bare metal. If it is necessary, remove a small quantity of paint or use a sharp probe to go into the paint.

5) Make sure the resistance value for an in-service static discharger base is not more than:

NOTE: A resistance of more than these values can cause damage if a lightning strike occurs. Take the resistance measurement between the discharger base and the discharger mounting surface.

a) 0.05 ohms for the discharger base installed on the metal panels.

b) 0.5 ohms for the discharger base installed on an aluminum flame spray on top of the fiberglass laminate or the composite panels.

c) 0.5 ohms for the discharger base installed on an aluminum-covered fabric.

d) 5.0 ohms for the discharger base installed on a composite panels that do not have an aluminum layer.

(b) Method 2 - Measure the bond resistance between two adjacent discharger bases.

1) Use a intrinsically safe approved bonding meter, COM-1550 to measure the bond between a static discharger base and an adjacent static discharger base (SWPM 20-20-00).

NOTE: This resistance value is for an in-service discharger. There is a different value for a new installed discharger base.

2) Make sure that the resistance between the two adjacent static discharger bases is not more than:

NOTE: A resistance of more than these values can cause damage if a lightning strike occurs. Take the resistance measurement between two discharger bases.

a) 0.05 ohms for the discharger base installed on the metal panels.

b) 0.5 ohm for the discharger base installed on an aluminum flame spray on top of the fiberglass laminate or the composite panels.

c) 0.5 ohm for the discharger base installed on an aluminum-covered fabric.

d) 5.0 ohms for the discharger base installed on a composite panels that do not have an aluminum layer.

3) If the resistance shows more than the resistance values in Method 2, then do the procedure in Method 1 to find the defective static discharger base.

(c) For a static discharger base that shows more than the resistance value in Method 1, replace the static discharger base:

1) For a static discharger base attached with screws, do these tasks:

a) Static Discharger Base Removal (Base Attached with Screws), AMM TASK 23-61-00-000-802.

b) Static Discharger Base Installation (With Screws), AMM TASK 23-61-00-400-802.

2) For a static discharger base attached with rivets, do these tasks:

a) Static Discharger Base Removal (Base Attached with Rivets), AMM TASK 23-61-00-000-803.

b) Static Discharger Base Installation (With Rivets), AMM TASK 23-61-00-400-803.

3) For a static discharger adapter plate assembly attached with rivets and screws, do these tasks:

a) Static Discharger Base Removal (Adapter Plate Assembly), AMM TASK 23-61-00-000-804.

b) Static Discharger Base Installation (Adapter Plate Assembly With Rivets and Screws), AMM TASK 23-61-00-400-805.

(d) To paint the area where the paint was removed for the surface resistance test, do this task:

1) Decorative Exterior Paint System Repair, AMM TASK 51-21-99-300-802.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 23-61-00-010-011

(1) To put the hydraulic systems back to the usual condition, do the applicable tasks as follow:

(a) Pressure to the Aileron Hydraulic Systems A and B - Activation, AMM TASK 27-11-00-860-802.

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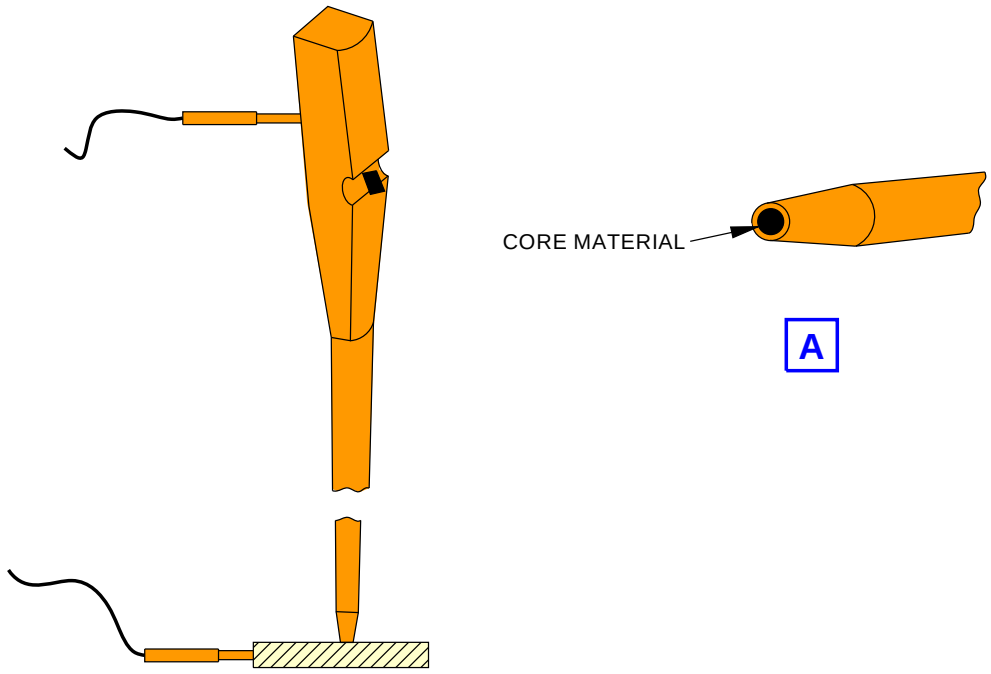
(b) Pressure to the Rudder Systems A, B, and Standby - Activation, AMM TASK 27-21-00-840-802.

(c) Put the Elevator Systems A and B Back to the Condition Before the Pressure Removal, AMM TASK 27-31-00-840-802.

——— END OF TASK ———

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-030-00-01

ON WING DISCHARGER RESISTANCE TEST



ALTERNATE (OFF WING) DISCHARGER RESISTANCE TEST

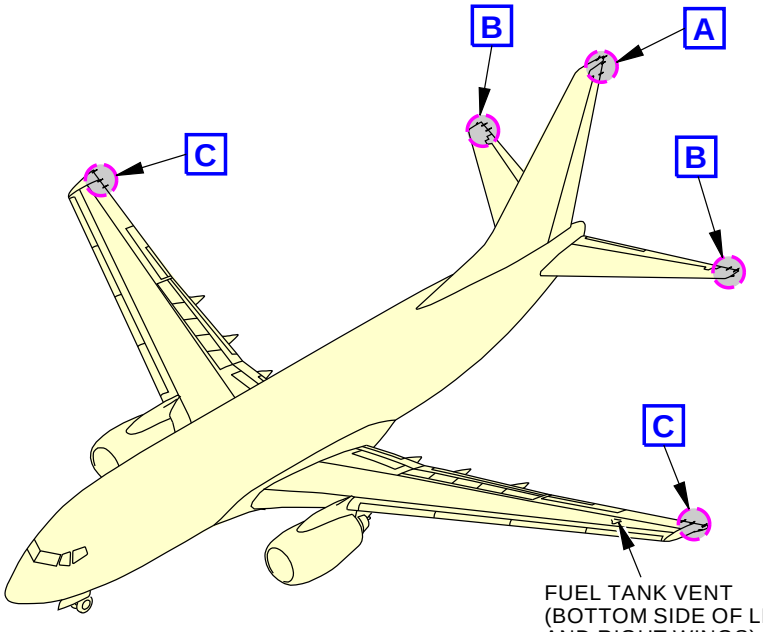
NOTE:

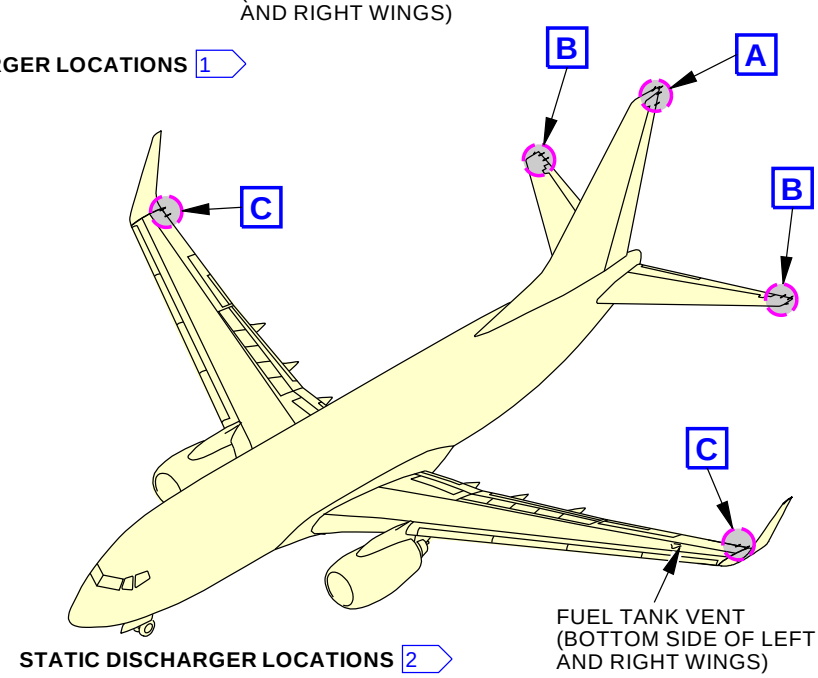
TEST PROCEDURES FOR THE TRAILING EDGE AND WING TIP DISCHARGERS ARE THE SAME.

1305888 S0000219428_V2

Chelton Static Discharger Resistance Test
Figure 1

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-030-00-01



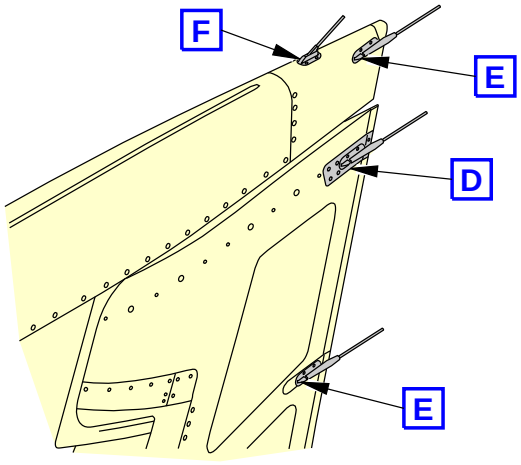


1 AIRPLANES WITHOUT WINGLETS
2 AIRPLANES WITH WINGLETS

M27416 S0006566063_V3

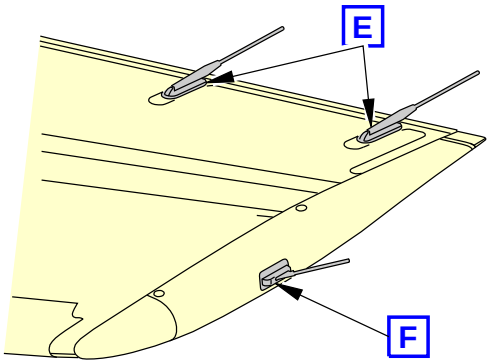
Static Discharger Inspection
Figure 2 (Sheet 1 of 3)

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-030-00-01



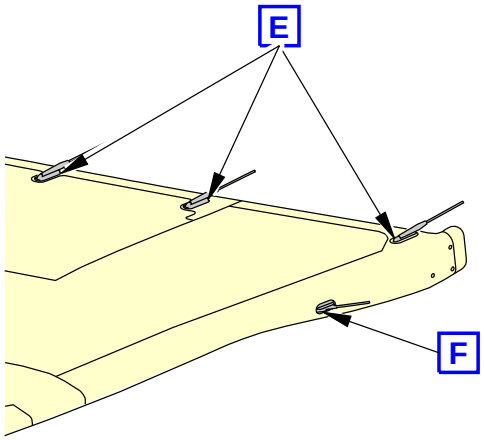
VERTICAL STABILIZER DISCHARGERS

A



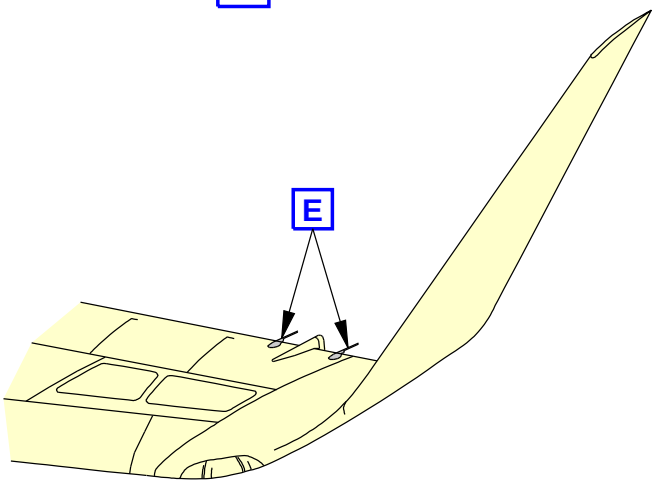
LEFT HORIZONTAL STABILIZER DISCHARGERS
(RIGHT HORIZONTAL STABILIZER
DISCHARGERS ARE OPPOSITE)

B



LEFT WING DISCHARGERS
(RIGHT WING DISCHARGERS
ARE OPPOSITE)

C 1



LEFT WING DISCHARGERS
(RIGHT WING DISCHARGERS
ARE OPPOSITE)

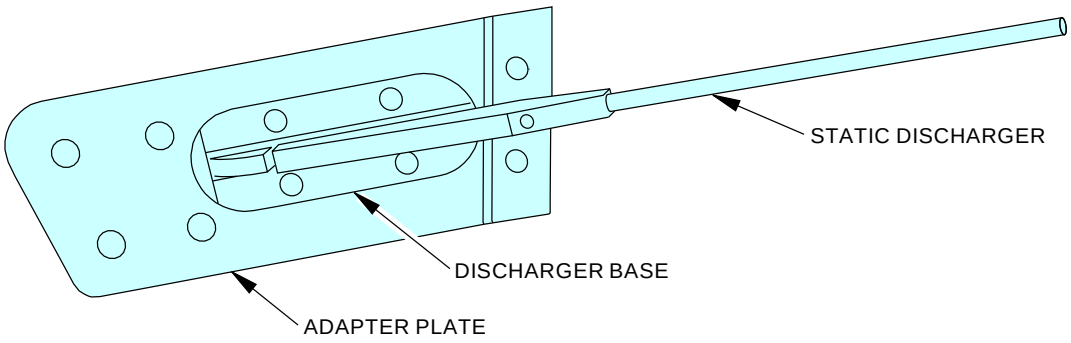
C 2

1 AIRPLANES WITHOUT WINGLETS
2 AIRPLANES WITH WINGLETS

M27429 S0006566066_V2

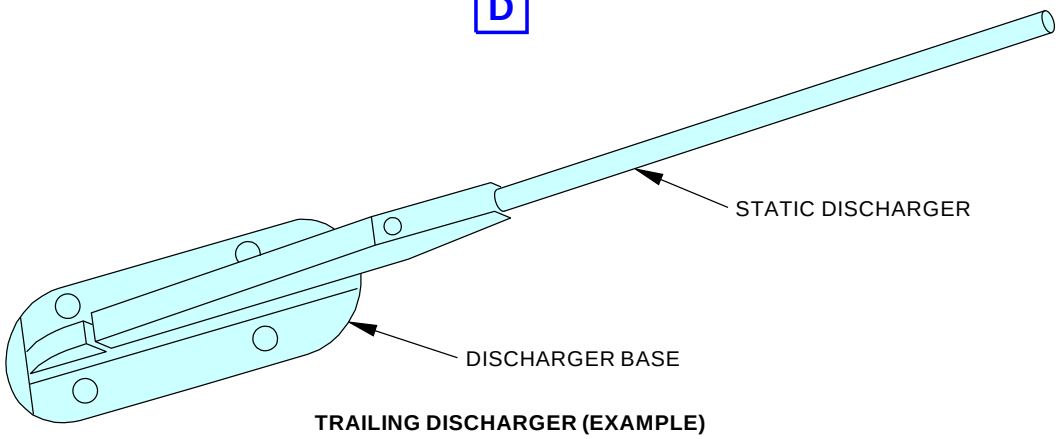
Static Discharger Inspection
Figure 2 (Sheet 2 of 3)

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-030-00-01



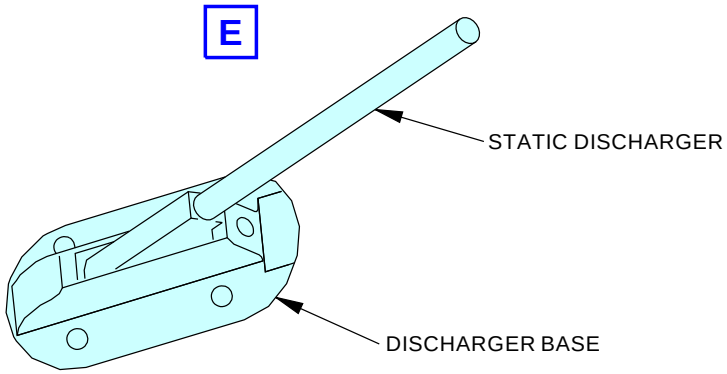
TRAILING DISCHARGER WITH ADAPTER PLATE (EXAMPLE)

D



TRAILING DISCHARGER (EXAMPLE)

E



TIP DISCHARGER (EXAMPLE)

F

F85121 S0006566067_V2

Static Discharger Inspection
Figure 2 (Sheet 3 of 3)

AIRLINE CARD NO		TITLE			BOEING CARD NO.
		VOICE RECORDER			**23-040-00-01**
DATE	TASK				RELATED CARD
	OPERATIONAL				
TAIL NUMBER	WORK AREA	VERSION	THRESHOLD	REPEAT	APPLICABILITY
	CREW CABIN	**1.1**	**300 FH**	**300 FH**	AIRPLANE **ALL** / ENGINE **ALL**
STATION	SKILL	**NOTE**			
	AIRPL				
		ACCESS			ZONE **211**

Operational check of the voice recorder and Recorder Independent Power Supply (RIPS) (if installed).

INTERVAL NOTE: Or national requirement.

A. References

Reference	Title
AMM 23-27-00-740-814-009	ACARS - Operational Test (P/B 501)
AMM 24-22-00-860-811	Supply Electrical Power (P/B 201)
AMM 24-22-00-860-812	Remove Electrical Power (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
STD-1390	Headphone - 600 Ohm, with 1/4 Inch Mono RCA Audio Plug

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-040-00-01

MECH	INSP

TASK 23-71-00-710-801

1. Voice Recorder System - Operational Test

A. Prepare for the Test

SUBTASK 23-71-00-860-001

(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.

SUBTASK 23-71-00-860-034

(2) Make sure that the ACARS system is serviceable (ACARS - Operational Test, AMM TASK 23-27-00-740-814-009).

SUBTASK 23-71-00-860-032

(3) Set the airplane's parking brake.

SUBTASK 23-71-00-420-001

(4) Connect a headphone, STD-1390 to the voice recorder control panel at the pilot's overhead panel, P5.

SUBTASK 23-71-00-860-003

(5) Set the volume control switches on the audio control panels (ACP) to the off position.

SUBTASK 23-71-00-710-014

(6) Make sure that you can hear the flight deck conversation in the headphone.

B. Operational Test

SUBTASK 23-71-00-700-001

(1) Do the Operational Test as follows:

AKS ALL; AIRPLANES WITH HONEYWELL VOICE RECORDER

(a) Push the TEST switch on the voice recorder control panel for approximately one half second.

1) Make sure that you hear a tone in the headphone.

2) Make sure that the STATUS light comes on once.

AKS ALL

C. Put the Airplane Back to Its Usual Condition

SUBTASK 23-71-00-080-002

(1) Disconnect the headphone from the voice recorder's control panel.

SUBTASK 23-71-00-860-010

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

——— END OF TASK ———

AIRLINE CARD NO		TITLE			BOEING CARD NO.
		VOICE RECORDER FOR AUDIO FIDELITY			**23-050-00-01**
DATE	TASK **FUNCTIONAL**				RELATED CARD
TAIL NUMBER	WORK AREA **CREW CABIN**	VERSION **1.1**	THRESHOLD **4 YR**	REPEAT **4 YR**	APPLICABILITY AIRPLANE: **ALL** ENGINE: **ALL**
STATION	SKILL **AVION**	**NOTE**			
		ACCESS			ZONE **210**

Functional check of the voice recorder for audio fidelity.

INTERVAL NOTE: Or national requirement.

A. References

Reference	Title
AMM 23-51-00-710-801	Flight Interphone System - Operational Test (P/B 501)
AMM 24-22-00-860-811	Supply Electrical Power (P/B 201)
AMM 24-22-00-860-812	Remove Electrical Power (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
STD-13898	Headset with Boom Mic and two-prong plug (For use on Flight Deck during CVR testing)
STD-1390	Headphone - 600 Ohm, with 1/4 Inch Mono RCA Audio Plug

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-050-00-01

MECH | INSP

TASK 23-71-00-730-801

1. Voice Recorder System - Audio Fidelity Test

A. General

(1) This procedure contains a task for the four-channel microphone test of the voice recorder system using the flight crew's microphones and the area microphone.

B. Prepare for the Test

SUBTASK 23-71-00-760-002

(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.

SUBTASK 23-71-00-760-003

(2) Make sure that the Flight Interphone System is serviceable (AMM TASK 23-51-00-710-801).

SUBTASK 23-71-00-480-001

(3) Connect a headphone, STD-1390 to the voice recorder control panel at the pilot's overhead panel, P5.

SUBTASK 23-71-00-860-008

(4) Set the volume control switches on the audio control panels (ACP) to the off position.

C. Audio Fidelity Test

SUBTASK 23-71-00-710-015

(1) Do an operational test for the voice recorder system:

AKS ALL; AIRPLANES WITH HONEYWELL VOICE RECORDER

(a) Push the TEST switch on the voice recorder control panel for approximately one half second.

1) Make sure that you hear a tone in the headphone.

2) Make sure that the STATUS light comes on once.

AKS ALL

SUBTASK 23-71-00-860-013

(2) Put a cover on the area microphone for the voice recorder system.

SUBTASK 23-71-00-710-001

(3) Do a test for the voice recorder microphone at the captain's position:

(a) Connect a boom microphone (on-board boom microphone headset, STD-13898) to the captain's jack panel.

(b) If the captain's ACP has a BOOM microphone switch, then make sure it is set to the BOOM position.

(c) Speak into the boom microphone.

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO. 23-050-00-01

MECH	INSP

1) Make sure that you hear your voice through the headphone at the voice recorder control panel.

NOTE: When you test the digital or solid state voice recorder you will hear your voice in the headset as you speak. When you test the analog or tape based voice recorder you will hear your voice in the headset after approximately a 0.5 second delay.

(d) Disconnect the boom microphone from the captain's jack panel.

SUBTASK 23-71-00-710-002

(4) Do a test for the voice recorder microphone at the first officer's position:

(a) Connect a boom microphone to the first officer's jack panel.

(b) If the first officer's ACP has a BOOM microphone switch, then make sure it is set to the BOOM position.

(c) Speak into the boom microphone.

1) Make sure that you hear your voice through the headphone at the voice recorder control panel.

NOTE: When you test the digital or solid state voice recorder you will hear your voice in the headset as you speak. When you test the analog or tape based voice recorder you will hear your voice in the headset after approximately a 0.5 second delay.

(d) Disconnect the boom microphone from the first officer's jack panel.

SUBTASK 23-71-00-700-003

(5) Remove the cover from the area microphone for the voice recorder system.

SUBTASK 23-71-00-710-005

(6) Do a test for the area microphone of the voice recorder system:

(a) Speak in an usual voice to the area microphone.

NOTE: Keep 3 to 4 feet (1 meter) away from the area microphone for the voice recorder.

1) Make sure that you hear your voice through the headphone at the voice control panel.

NOTE: When you test the digital or solid state voice recorder you will hear your voice in the headset as you speak. When you test the analog or tape based voice recorder you will hear your voice in the headset after approximately a 0.5 second delay.

SUBTASK 23-71-00-860-014

(7) Do these steps to erase the memory for the voice recorder:

(a) Set the airplane's parking brake.

(b) Push and hold the ERASE switch on the voice recorder control panel for a minimum of 3 seconds. Then release it.

1) Make sure that you hear a tone through the headphone at the voice recorder control panel.

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-050-00-01

MECH	INSP

D. Put the Airplane Back to the Usual Condition

SUBTASK 23-71-00-020-003

(1) Disconnect the headphone from the voice recorder control panel.

SUBTASK 23-71-00-860-002

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

——— END OF TASK ———

AIRLINE CARD NO		TITLE			BOEING CARD NO.
		ULB (UNDERWATER LOCATOR BEACON) FOR VOICE RECORDER			**23-060-00-01**
DATE	TASK **OPERATIONAL**				RELATED CARD **W-23-070-00-01**
TAIL NUMBER	WORK AREA **AFT CARGO**	VERSION **1.1**	THRESHOLD **NOTE**	REPEAT	APPLICABILITY AIRPLANE: **ALL** ENGINE: **ALL**
STATION	SKILL **AVION**	**NOTE**			
		ACCESS **822**			ZONE **142**

Operational check of the ULB at battery replacement.

INTERVAL NOTE: At battery replacement.

A. References

Reference	Title
AMM 23-71-11-000-801	Voice Recorder Removal (P/B 401)
AMM 23-71-11-400-801	Voice Recorder Installation (P/B 401)
AMM 23-71-21-700-805	Underwater Locator Beacon Test with a Seacom TS100 Test Set (P/B 201)
AMM 23-71-21-700-806	Underwater Locator Beacon Test with a TS200 Test Set (P/B 201)

B. Consumable Materials

Reference	Description	Specification
B00541	Cleaner - General Purpose Household Detergent	
G00270	Tape - Scotch Flatback Masking 250	ASTM D6123 (Supersedes A-A-883)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-10768	Test Set - 42A12, Underwater Locator Beacon (ULB) Part #: 42A12-1 Supplier: 94970
COM-10771	Test Set - Underwater Locator Beacon (ULB) Part #: 42A12-1 Supplier: 94970 Opt Part #: PL1 Supplier: 94970
COM-10772	Test Set - Underwater Locator Beacon (ULB) Part #: 42A12-1 Supplier: 94970 Opt Part #: PL3 Supplier: 94970
COM-978	Test Set - ATS-260, Underwater Locator Beacon (ULB) Part #: ATS-260 Supplier: 26858

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-060-00-01

MECH	INSP

TASK 23-71-21-000-801

1. Underwater Locator Beacon (ULB) Removal

(Figure 1)

A. General

(1) The ULB [4] has a battery as the power source. The ULB [4] has no external electrical connections.

B. Removal Procedure

SUBTASK 23-71-21-020-001

(1) Do this task: Voice Recorder Removal, AMM TASK 23-71-11-000-801.

SUBTASK 23-71-21-020-003

(2) Remove the ULB [4] from the voice recorder:

(a) Loosen the four screws [1] that hold the ULB [4].

(b) Remove the two screws [1] and the clamp from one end of the ULB.

(c) Remove the ULB [4].

(d) Keep the screws [1] and the clamp.

——— END OF TASK ———

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO. 23-060-00-01

MECH | INSP

TASK 23-71-21-700-802

2. Underwater Locator Beacon Test with a PL1 Test Set

A. Procedure

SUBTASK 23-71-21-720-009

(1) If you have a ULB Test Set, COM-10771, do this test of the ULB:

NOTE: PL1 can only do a test for the DK100 ULB.

(a) Use Scotch Flatback Masking Tape 250, G00270 to attach a piece of wire or other conductive material to the ULB case and the center of the water switch.

NOTE: This will make a short circuit from the center of the water switch to the outer part of the ULB.

(b) Put the end of the ULB Test Set, COM-10771 against the ULB, approximately one inch from the water switch.

(c) Push and hold the operation switch on the ULB Test Set, COM-10771.

1) Make sure that the BEACON ACTIVE WHEN FLASHING light flashes.

2) Remove the piece of wire or other conductive material from the ULB case and the center of the water switch.

3) Make sure that the BEACON ACTIVE WHEN FLASHING light does not flash.

(d) Release the operation switch on the ULB Test Set, COM-10771.

(e) Remove the ULB Test Set, COM-10771.

(f) Make sure that the water switch end of the ULB has no grease or dirt.

(g) If necessary, do the steps that follow:

1) Clean the switch with water and detergent.

2) Dry the switch with a clean cloth.

——— END OF TASK ———

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-060-00-01

MECH	INSP

TASK 23-71-21-700-803

3. Underwater Locator Beacon Test with a PL3 Test Set

A. Procedure

SUBTASK 23-71-21-720-003

(1) If you have a ULB test set, COM-10772, do this test of the ULB [4]:

NOTE: PL3 can only do a test for the DK100 and DK120 ULBs.

(a) Push and hold the ULB test set, COM-10772 against the ULB [4] water switch.

1) Make sure that you hear a pulse sound.

2) Make sure that you see the LED light comes on and off.

(b) Remove the ULB test set, COM-10772.

(c) Make sure that the water switch end of the ULB [4] has no grease or dirt.

(d) If necessary, do the steps that follow:

1) Clean the switch with water and detergent.

2) Dry the switch with a clean cloth.

——— END OF TASK ———

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-060-00-01

MECH | INSP

TASK 23-71-21-700-804

4. Underwater Locator Beacon Test with an ATS-260 Test Set

A. Procedure

SUBTASK 23-71-21-720-004

(1) If you have a ATS-260 ULB test set, COM-978, do this test of the ULB [4]:

NOTE: ATS-260 can only do a test for the ELP-362D ULB.

(a) Put the ATS-260 ULB test set, COM-978 clip on the ULB [4].

(b) Push and hold the PUSH TO TEST button.

(c) Put the ATS-260 ULB test set, COM-978 probe on the ULB [4] water switch.

1) Make sure that a green light (LED) shows.

2) Make sure that you can hear sounds from the ATS-260 ULB test set, COM-978 and/or the amber light (LED) flashes.

(d) Release the PUSH TO TEST button.

(e) Remove the ATS-260 ULB test set, COM-978.

(f) Make sure that the water switch end of the ULB [4] has no grease or dirt.

(g) If necessary, do the steps that follow:

1) Clean the switch with water and detergent.

2) Dry the switch with a clean cloth.

——— END OF TASK ———

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO. 23-060-00-01

MECH | INSP

TASK 23-71-21-700-801

5. Underwater Locator Beacon Test with a 42A12 Series Test Set

A. Procedure

SUBTASK 23-71-21-720-008

(1) If you have a 42A12 ULB Test Set, COM-10768, do this test of the ULB:

NOTE: 42A12 can do a test for all ULBs.

(a) Put the 42A12 ULB Test Set, COM-10768 as close as possible to the ULB.

(b) Set the GAIN control switch on the 42A12 ULB Test Set, COM-10768 to the maximum clockwise position.

NOTE: A background noise is heard. If you do not hear noise from the test set, replace the test set battery.

(c) Set the TUNING control switch to the middle position.

(d) Make sure that the 42A12 ULB Test Set, COM-10768 operates correctly.

1) Rub your thumb and fingers together in front of the microphone to make sure that it operates.

NOTE: This will produce a rushing noise from the speaker.

a) Make sure that you hear sounds through the speaker.

(e) Use tape to attach a piece of wire, a shorting tab, or other conductive material to the ULB case and to the center of the water switch.

NOTE: This will make a short circuit from the center of the water switch to the outer part of the ULB.

(f) Set the GAIN control switch to a comfortable listening level.

(g) Point the microphone of the test set towards the water switch end of the beacon for best results.

1) Make sure you hear a pulse tone.

(h) Remove the wire, shorting tab, or other conducting material from the ULB case and the center of the water switch.

(i) Set the GAIN control switch to the OFF position.

(j) Make sure that the water switch on the ULB has no grease or dirt.

(k) If necessary, do the steps that follow:

1) Clean the switch with water and detergent.

2) Dry the switch with a clean cloth.

——— END OF TASK ———

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO. 23-060-00-01

MECH | INSP

TASK 23-71-21-400-801

6. Underwater Locator Beacon (ULB) Installation

(Figure 1)

A. Installation Procedure

SUBTASK 23-71-21-420-004

(1) Install the ULB [4] on the voice recorder:

(a) Make sure that the water switch end of the Underwater Locator Beacon [4] has no grease or dirt.

1) Clean the water switch with a weak general purpose household detergent cleaner, B00541.

(b) Put the Underwater Locator Beacon [4] into the bracket.

(c) Install the clamp on the end of the Underwater Locator Beacon [4] with the two screws [1].

(d) Make sure that you can read the replacement date on the Underwater Locator Beacon [4].

(e) Tighten the four screws [1].

SUBTASK 23-71-21-700-004

(2) Do one of these tasks to test the ULB:

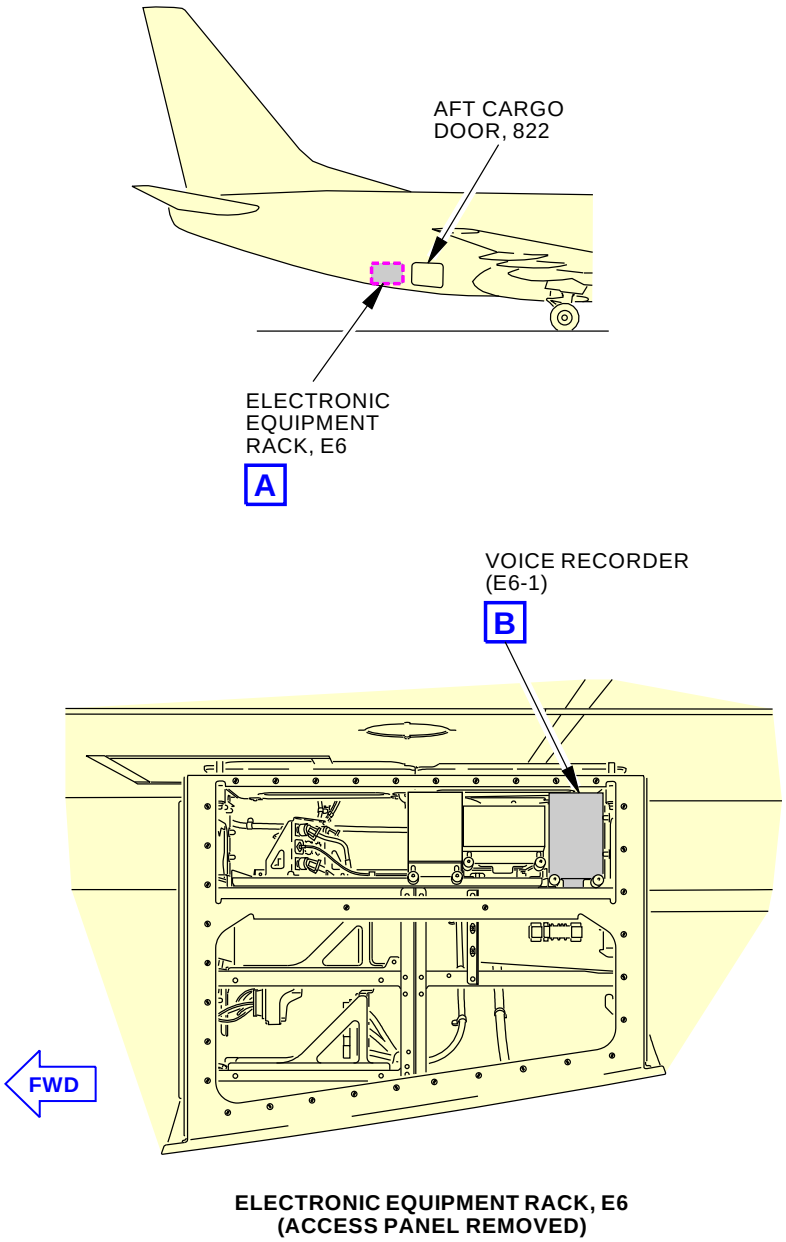
Underwater Locator Beacon Test with a 42A12 Series Test Set, TASK 23-71-21-700-801 or Underwater Locator Beacon Test with a PL1 Test Set, TASK 23-71-21-700-802 or Underwater Locator Beacon Test with an ATS-260 Test Set, TASK 23-71-21-700-804 or Underwater Locator Beacon Test with a PL3 Test Set, TASK 23-71-21-700-803 or Underwater Locator Beacon Test with a Seacom TS100 Test Set, AMM TASK 23-71-21-700-805 or Underwater Locator Beacon Test with a TS200 Test Set, AMM TASK 23-71-21-700-806

SUBTASK 23-71-21-420-005

(3) Do this task: Voice Recorder Installation, AMM TASK 23-71-11-400-801.

——— END OF TASK ———

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-060-00-01



ELECTRONIC EQUIPMENT RACK, E6
(ACCESS PANEL REMOVED)

A

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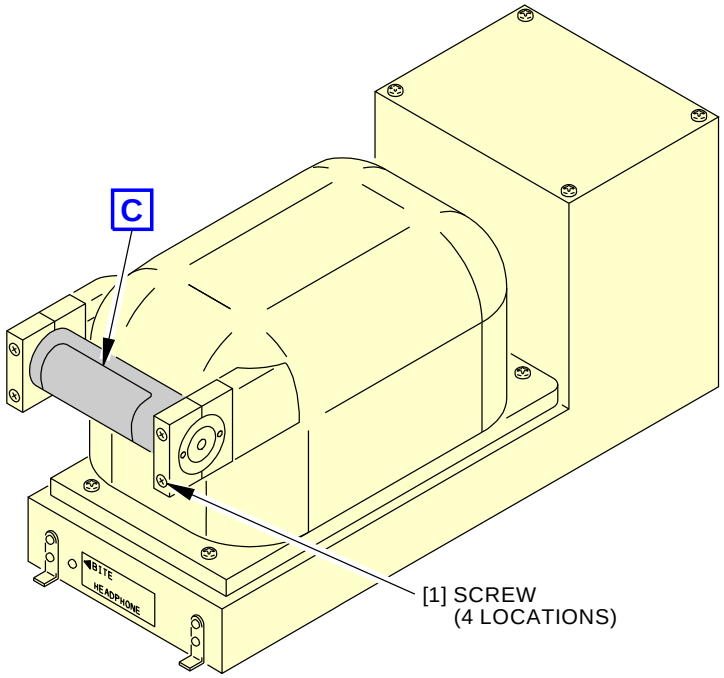
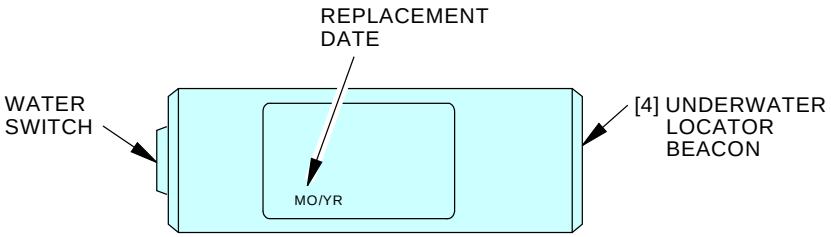
Underwater Locator Beacon Installation
Figure 1 (Sheet 1 of 2)

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-060-00-01



VOICE RECORDER

B



UNDERWATER LOCATOR BEACON

C

F68969 S0006566098_V2

Underwater Locator Beacon Installation
Figure 1 (Sheet 2 of 2)

AIRLINE CARD NO		TITLE			BOEING CARD NO.
		ULB (UNDERWATER LOCATOR BEACON) FOR VOICE RECORDER			**23-070-00-01**
DATE	TASK **REPLACE**				RELATED CARD **W-23-060-00-01**
TAIL NUMBER	WORK AREA **AFT CARGO**	VERSION **1.1**	THRESHOLD **VEN REC**	REPEAT	APPLICABILITY AIRPLANE: **ALL** ENGINE: **ALL**
STATION	SKILL **AVION**	**NOTE**			
		ACCESS **822**			ZONE **142**

Replace ULB battery at vendor's recommendation.

INTERVAL NOTE: At vendor's recommendation or national requirement.

A. References

Reference	Title
AMM 23-71-11-000-801	Voice Recorder Removal (P/B 401)
AMM 23-71-11-400-801	Voice Recorder Installation (P/B 401)
AMM 23-71-21-700-801	Underwater Locator Beacon Test with a 42A12 Series Test Set (P/B 201)
AMM 23-71-21-700-802	Underwater Locator Beacon Test with a PL1 Test Set (P/B 201)
AMM 23-71-21-700-803	Underwater Locator Beacon Test with a PL3 Test Set (P/B 201)
AMM 23-71-21-700-804	Underwater Locator Beacon Test with an ATS-260 Test Set (P/B 201)
AMM 23-71-21-700-805	Underwater Locator Beacon Test with a Seacom TS100 Test Set (P/B 201)
AMM 23-71-21-700-806	Underwater Locator Beacon Test with a TS200 Test Set (P/B 201)

B. Consumable Materials

Reference	Description	Specification
B00541	Cleaner - General Purpose Household Detergent	
D50082	Lubricant - 810-346	
G02440	Battery - Lithium Battery	MIL-I-45208A
G50272	Battery - Teledyne Benthos (P/N C362-04270-2)	
G50273	O-ring - Lubricated, Teledyne Benthos (P/N 2-022)	
G50275	O-ring	

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-070-00-01

Reference	Description
COM-1619	Wrench - Spanner, Used on Underwater Locator Beacon Part #: 008407 Supplier: 26858 Part #: 810-2007/KVS Supplier: 94970 Part #: 810-325 Supplier: 94970 Opt Part #: B362-04180A Supplier: 26858 Opt Part #: B362-09111 Supplier: 26858
COM-1793	Multimeter - Digital/Analog (or equivalent meter meets task requirements) Part #: 117 Supplier: 89536 Part #: 260-8XPI Supplier: 55026 Part #: 260-8XPI Supplier: 88277 Part #: 287 Supplier: 89536 Part #: 289 Supplier: 89536 Part #: 87V Supplier: 89536 Part #: FLUKE 27 II Supplier: 89536 Part #: FLUKE-77-4 Supplier: 89536 Opt Part #: 187 Supplier: 89536 Opt Part #: 189 Supplier: 89536 Opt Part #: 21 Supplier: 89536 Opt Part #: 77 SERIES III Supplier: 89536 Opt Part #: 87 Supplier: 89536 Opt Part #: FLUKE 27 Supplier: 89536
COM-2543	Torque - Adapter, Used on Underwater Locator Beacon Part #: 008407 Supplier: 26858 Opt Part #: B362-04180A Supplier: 26858 Opt Part #: B362-09111 Supplier: 26858
STD-1066	Hose - Radiator, Split, 1-1/4 Inch Diameter, 5 Inch Length

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO. 23-070-00-01

MECH | INSP

TASK 23-71-21-000-801

1. Underwater Locator Beacon (ULB) Removal

(Figure 1)

A. General

(1) The ULB [4] has a battery as the power source. The ULB [4] has no external electrical connections.

B. Removal Procedure

SUBTASK 23-71-21-020-001

(1) Do this task: Voice Recorder Removal, AMM TASK 23-71-11-000-801.

SUBTASK 23-71-21-020-003

(2) Remove the ULB [4] from the voice recorder:

(a) Loosen the four screws [1] that hold the ULB [4].

(b) Remove the two screws [1] and the clamp from one end of the ULB.

(c) Remove the ULB [4].

(d) Keep the screws [1] and the clamp.

——— END OF TASK ———

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO. 23-070-00-01

MECH | INSP

TASK 23-71-21-960-802

2. Teledyne Benthos Underwater Locator Beacon Battery - Replacement

(Figure 2)

A. General

(1) This procedure contains the steps to replace the Teledyne Benthos ULB battery.

B. Prepare for the Removal

SUBTASK 23-71-21-860-001

(1) Measure the battery voltage of the ELP-362D ULB [4]. Use a high-impedance digital voltmeter with a minimum input impedance of 10 Megohms.

(a) Put the negative meter lead on the water switch.

(b) Put the positive meter lead on the bare aluminum surface of the beacon housing.

(c) Read the voltmeter.

C. Removal Procedure

SUBTASK 23-71-21-510-002

(1) If the measured voltage is less than 6.0 Volts, send the ELP-362D ULB [4] to the manufacturer for servicing.

SUBTASK 23-71-21-020-005

(2) If the measured voltage is 6.0 Volts or more, remove the battery [28] from the ELP-362D ULB [4]:

CAUTION: DO NOT HOLD THE ULB [4] WITH A VISE. THIS CAN CAUSE DAMAGE TO THE ULB [4].

(a) Hold the ULB [4] body with a radiator hose - 1-1/4 Inch Diameter, 5 Inch Length, STD-1066.

(b) Use the underwater locator beacon torque adapter, COM-2543 to remove the end-cap [25] identified as “BATTERY ACCESS”.

(c) Turn the housing up to remove the battery [28] from the unit.

(d) Discard the battery [28].

NOTE: Refer to local instructions when you discard the battery [28].

D. Installation Procedure

SUBTASK 23-71-21-420-002

(1) Install the ULB battery, G50272 [28]:

NOTE: The Teledyne Benthos C362–04270–2 is a six year battery.

(a) Set the battery [28] until the arrow points to the top end of the unit.

NOTE: The battery label has an arrow mark.

(b) On the date label [23], write the next scheduled replacement date for the new ULB battery that you installed.

NOTE: The date label [23] is blank so you can write in a replacement date based on your maintenance schedule.

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-070-00-01

MECH	INSP

CAUTION: INSTALL THE ULB BATTERY [28] CORRECTLY. INCORRECT POLARITY WILL CAUSE PERMANENT DAMAGE TO THE ULB [4].

(c) Put the new battery, G50272 [28] in the ULB [4] with the end identified INSERT THIS END in first.

(d) Remove the O-ring [26] from its groove in the end-cap [25].

CAUTION: DIRT OR OTHER UNWANTED MATERIALS CAN CAUSE DAMAGE TO THE THREADS AND THE O-RING SEAL. THIS CAN PERMIT WATER LEAKAGE.

(e) Clean the O-ring groove of dirt, lint, and other unwanted materials.

(f) Apply the O-ring lubricant to the new O-ring [26].

(g) Put the lubricated o-ring, G50273 [26] in the end-cap groove.

(h) Attach the end-cap [25] to the housing.

(i) Use the underwater locator beacon torque adapter, COM-2543 to install the end-cap [25] tightly.

NOTE: Only use hand force on the underwater locator beacon torque adapter, COM-2543.

(j) Torque the end-cap [25] to 25 to 30 inch pounds.

——— END OF TASK ———

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-070-00-01

MECH | INSP

TASK 23-71-21-960-801

3. Dukane Underwater Locator Beacon Battery - Replacement

(Figure 3 or Figure 4)

A. General

(1) This procedure contains the steps to replace the Dukane ULB battery.

B. Removal Procedure

SUBTASK 23-71-21-800-001

WARNING: DO NOT REMOVE THE BATTERY FROM THE DK100/DK130 ULB. DO NOT CAUSE DAMAGE TO THE DK100/DK130 ULB. DO NOT DISCARD THE DK100/DK130 ULB. THE MANUFACTURER HAS A REPLACEMENT PROGRAM FOR EXPIRED ULBS. ON OR BEFORE THE EXPIRED DATE, SEND THE DK100/DK130 ULB TO THE MANUFACTURER FOR SERVICING. THE BATTERY CONTAINS DANGEROUS CHEMICAL MATERIALS WHICH CAN CAUSE INJURIES TO PERSONNEL.

(1) If you have a DK100/DK130 ULB [4], send it to the manufacturer for servicing.

SUBTASK 23-71-21-020-006

(2) If you do not have a DK100/DK130 ULB [4], remove the ULB battery [28]:

CAUTION: DO NOT HOLD THE UNDERWATER LOCATOR BEACON IN A VISE. THIS CAN CAUSE DAMAGE TO THE BEACON BODY.

(a) Hold the ULB [4] body with a radiator hose - 1-1/4 Inch Diameter, 5 Inch Length, STD-1066 [22].

(b) Use the spanner wrench, COM-1619 [21] to remove the end cap [25] that is identified BATTERY ACCESS.

(c) Remove the rubber shock cushion [27] from the battery end if it is not removed with the end cap [25].

(d) Hit the ULB [4] lightly to remove the battery [28].

C. Installation Procedure

SUBTASK 23-71-21-420-006

(1) Make sure that the new battery is the same as the battery code on the ULB label. See the table below.

NOTE: It is necessary to replace the removed Battery Code C with a new Battery Code C. Battery Codes B and D are interchangeable.

BATTERY CODE	REQUIRED BATTERY KIT
B	810-2007/K
C	810-2008/K
D	810-2007/K

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO. 23-070-00-01

MECH	INSP

(2) Install the ULB battery, G02440 [28].

NOTE: The Dukane 810-2007/K battery or the Dukane 810-2008/K are 6 year lithium batteries used in the Dukane model DK120 and DK140 ULB.

NOTE: Battery, O-ring and lubricant are provided in battery replacement kit.

(a) Put a new battery replacement label [23] on the ULB [4] body.

(b) On the date label [23], write the next scheduled replacement date for the new ULB battery that you installed.

NOTE: The date label [23] is blank so you can write in a replacement date based on your maintenance schedule.

CAUTION: REMOVE ALL OF THE CONTAMINATION FROM THE THREADS AND THE O-RING GROOVES. CONTAMINATION CAN CAUSE DAMAGE TO THE THREADS. THREAD DAMAGE CAN CAUSE LEAKS.

(c) Clean the threads and the O-ring contact area in the ULB [4] body.

CAUTION: MAKE SURE THE POLARITY IS CORRECT. INCORRECT POLARITY CAN CAUSE PERMANENT DAMAGE TO THE BEACON.

(d) Put the new battery, G02440 [28] in the ULB [4] with the end identified INSERT THIS END in first.

(e) Do these steps to test the beacon off-current:

1) Put the positive probe of a digital/analog multimeter, COM-1793 on the positive end of the battery [28].

2) Put the negative probe on the outer surface of the ULB [4].

3) Make sure that the multimeter shows an electrical current of 3 microamperes or less.

a) If the current is more than 3 microamperes, then replace the ULB.

(f) Remove and discard the used O-ring [26] from the end cap [25].

CAUTION: REMOVE ALL OF THE CONTAMINATION FROM THE THREADS AND THE O-RING GROOVES. CONTAMINATION CAN CAUSE DAMAGE TO THE THREADS. THREAD DAMAGE CAN CAUSE LEAKS.

(g) Clean the threads and the O-ring groove in the ULB [4] body.

(h) Apply a thin layer of lubricant, D50082 to the new o-ring, G50275 [26], O-ring groove, and threads.

(i) Install the new o-ring, G50275 [26] on the end cap [25].

(j) Put the rubber shock cushion [27] smoothly on the end cap [25].

(k) Put the end cap [25] into the ULB [4] body.

(l) Use the spanner wrench, COM-1619 [21] to tighten the end cap [25] until the cap flange touches the ULB [4] body.

NOTE: Only use hand force on the spanner wrench, COM-1619 [21].

——— END OF TASK ———

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO. 23-070-00-01

MECH | INSP

TASK 23-71-21-400-801

4. Underwater Locator Beacon (ULB) Installation

(Figure 1)

A. Installation Procedure

SUBTASK 23-71-21-420-004

(1) Install the ULB [4] on the voice recorder:

(a) Make sure that the water switch end of the Underwater Locator Beacon [4] has no grease or dirt.

1) Clean the water switch with a weak general purpose household detergent cleaner, B00541.

(b) Put the Underwater Locator Beacon [4] into the bracket.

(c) Install the clamp on the end of the Underwater Locator Beacon [4] with the two screws [1].

(d) Make sure that you can read the replacement date on the Underwater Locator Beacon [4].

(e) Tighten the four screws [1].

SUBTASK 23-71-21-700-004

(2) Do one of these tasks to test the ULB:

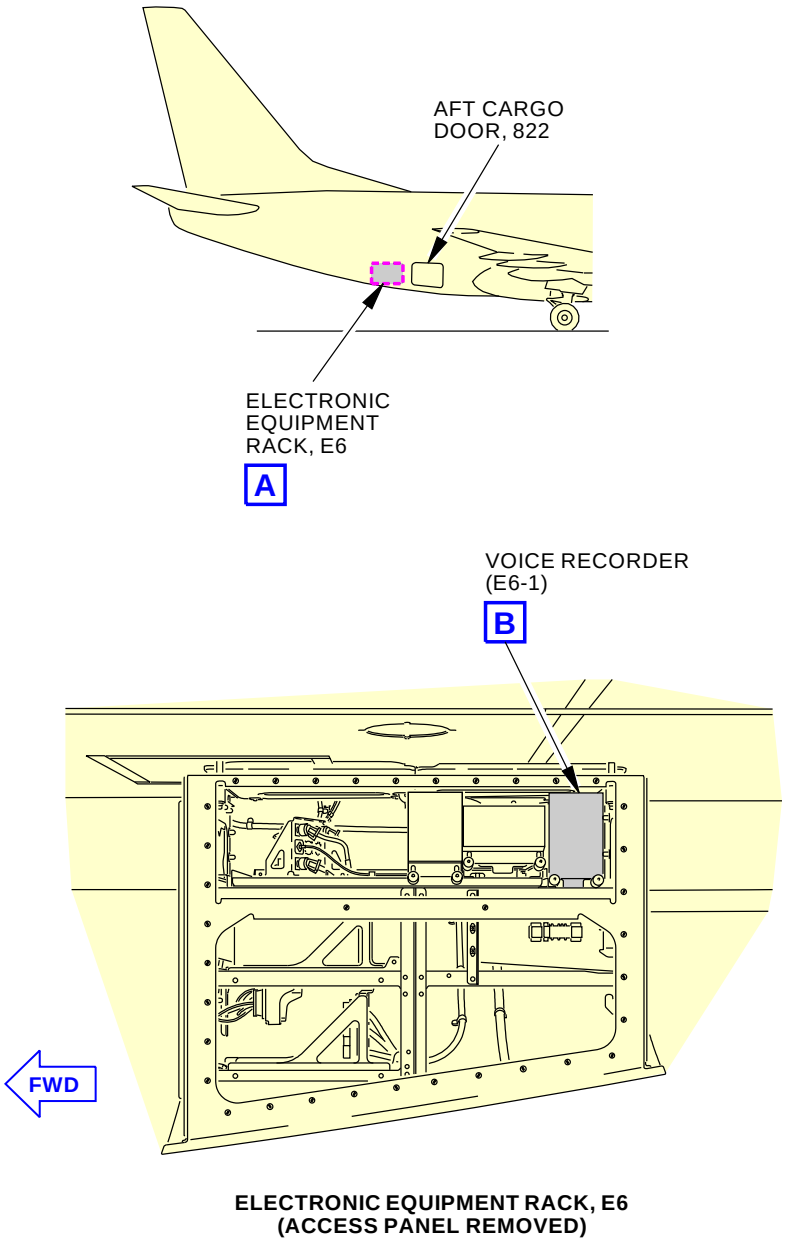
Underwater Locator Beacon Test with a 42A12 Series Test Set, AMM TASK 23-71-21-700-801 or Underwater Locator Beacon Test with a PL1 Test Set, AMM TASK 23-71-21-700-802 or Underwater Locator Beacon Test with an ATS-260 Test Set, AMM TASK 23-71-21-700-804 or Underwater Locator Beacon Test with a PL3 Test Set, AMM TASK 23-71-21-700-803 or Underwater Locator Beacon Test with a Seacom TS100 Test Set, AMM TASK 23-71-21-700-805 or Underwater Locator Beacon Test with a TS200 Test Set, AMM TASK 23-71-21-700-806

SUBTASK 23-71-21-420-005

(3) Do this task: Voice Recorder Installation, AMM TASK 23-71-11-400-801.

——— END OF TASK ———

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-070-00-01



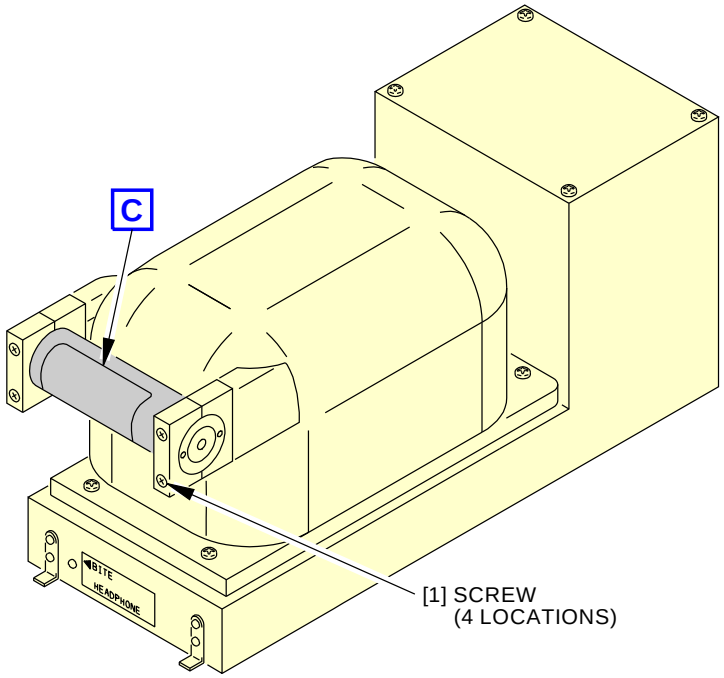
ELECTRONIC EQUIPMENT RACK, E6
(ACCESS PANEL REMOVED)

A

H94847 S0006566096_V2

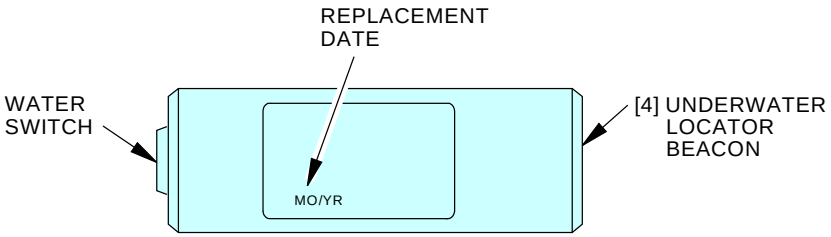
Underwater Locator Beacon Installation
Figure 1 (Sheet 1 of 2)

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-070-00-01



VOICE RECORDER

B



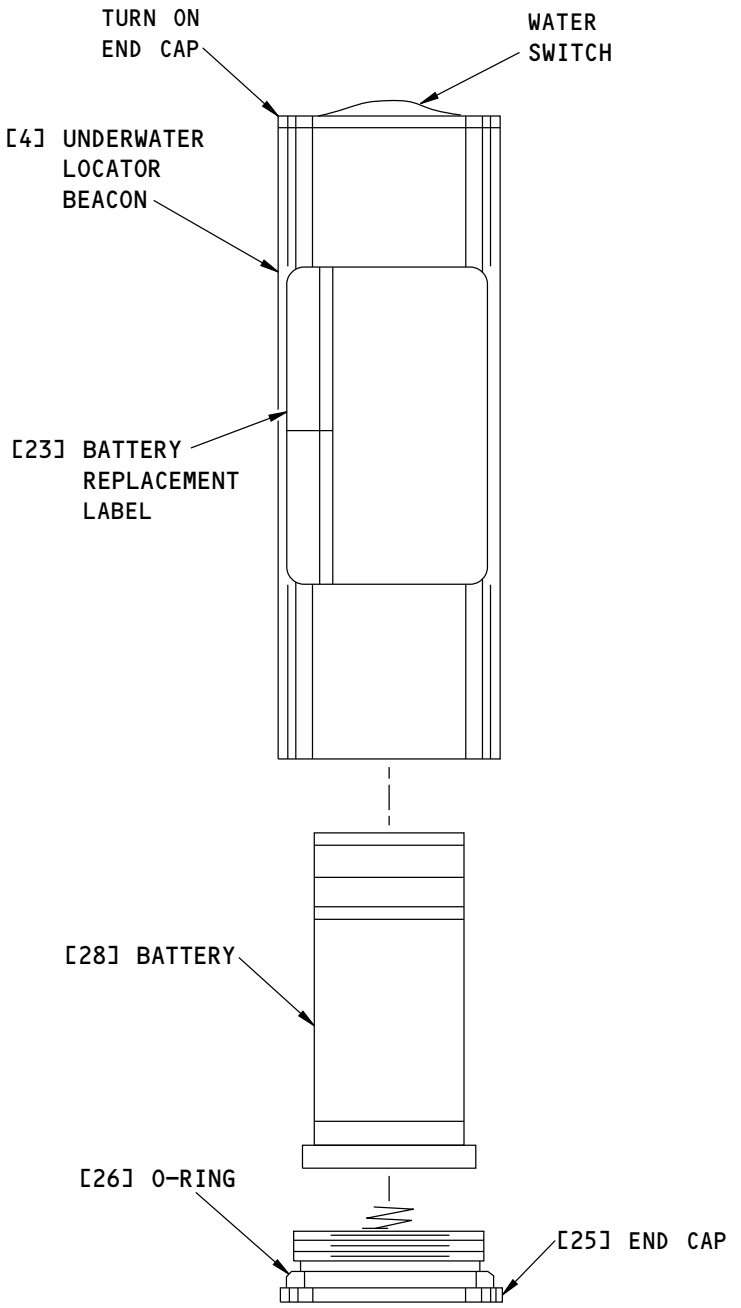
UNDERWATER LOCATOR BEACON

C

F68969 S0006566098_V2

Underwater Locator Beacon Installation
Figure 1 (Sheet 2 of 2)

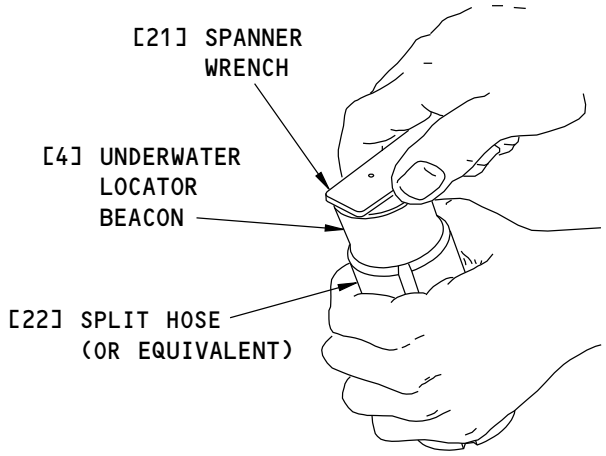
DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-070-00-01

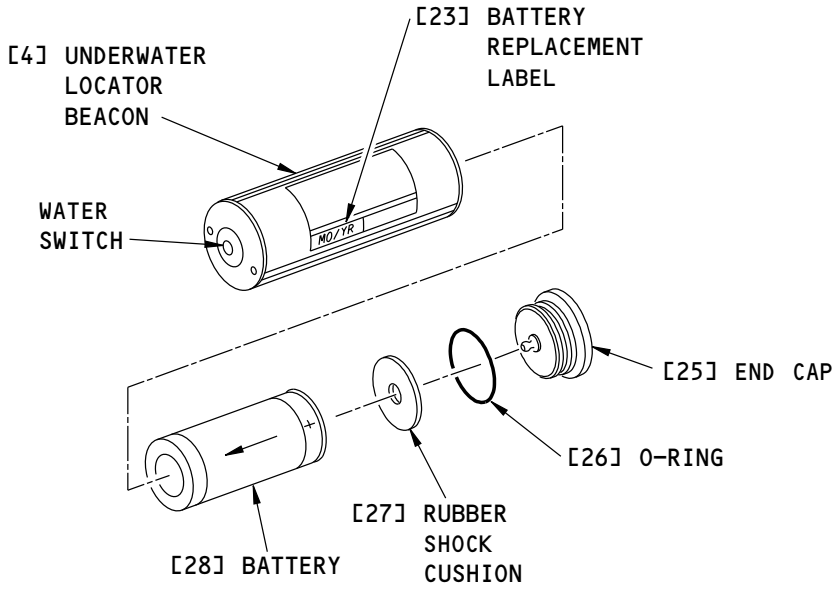


1578730 S0000296580_V1

Underwater Locator Beacon Battery Replacement
Figure 2

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-070-00-01

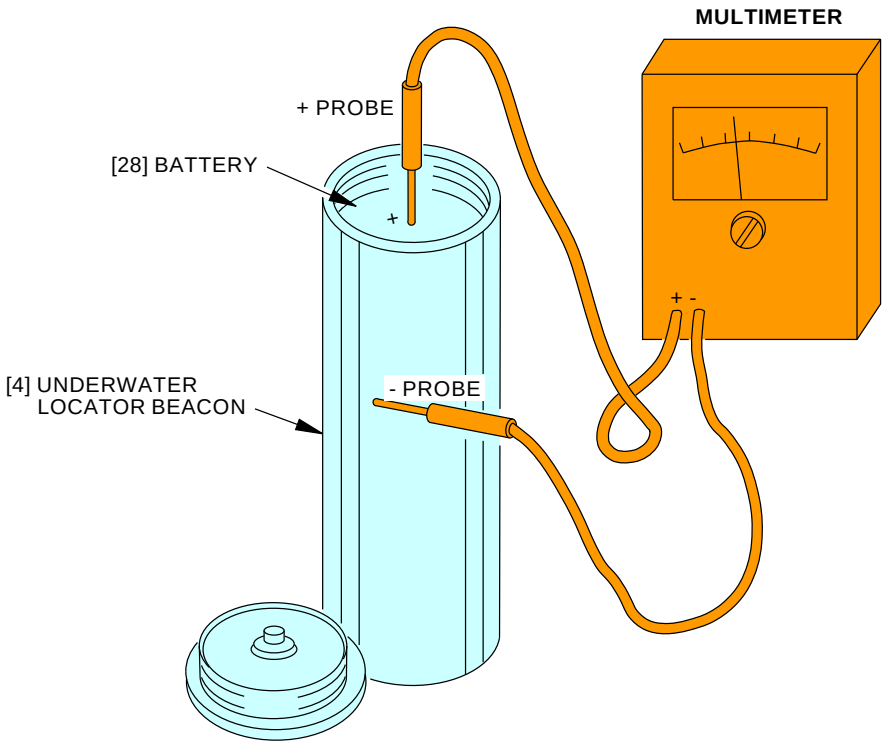




E11040 S0006417281_V2

Underwater Locator Beacon Battery Replacement
Figure 3

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-070-00-01



2279078 S0000514233_V2

Beacon Off-Current Test
Figure 4

AIRLINE CARD NO		TITLE			BOEING CARD NO.
		OXYGEN MASK MICROPHONE			**23-080-00-01**
DATE	TASK				RELATED CARD
	OPERATIONAL				
TAIL NUMBER	WORK AREA	VERSION	THRESHOLD	REPEAT	APPLICABILITY
	CREW CABIN	**1.1**	**6000 FH**	**6000 FH**	AIRPLANE: **ALL** ENGINE: **ALL**
STATION	SKILL				
	AIRPL				
		ACCESS			ZONE
		821			**210**

Operational check of oxygen mask microphone.

A. References

Reference	Title
AMM 24-22-00-860-811	Supply Electrical Power (P/B 201)
AMM 24-22-00-860-812	Remove Electrical Power (P/B 201)
AMM 35-12-85-910-801	Crew Oxygen Mask Stowage (P/B 201)

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-080-00-01

MECH	INSP

TASK 23-51-00-710-801

1. Flight Interphone System - Operational Test

A. Operational Test

SUBTASK 23-51-00-860-011

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

SUBTASK 23-51-00-860-009

(2) Make sure the oxygen system for the flight crew is pressurized.

SUBTASK 23-51-00-860-002

(3) Make sure the SERVICE INTERPHONE switch on the captain's and first officer's overhead panel is in the OFF position.

SUBTASK 23-51-00-860-006

(4) Set all audio control panels (ACPs) to these conditions:

(a) Push all audio monitor switches to off.

(b) Push the FLT microphone selector switch to on.

1) Make sure its light comes on.

(c) Push the volume control for the FLT microphone selector switch.

(d) Turn the volume control for the FLT microphone selector switch clockwise to the middle position.

SUBTASK 23-51-00-860-004

(5) Set the captain's and first officer's ACPs to these conditions:

(a) Push the SPKR volume control switch to ON.

1) Make sure its light comes on.

(b) Turn the SPKR volume control switch clockwise to the middle position or to the volume level you are comfortable with.

SUBTASK 23-51-00-710-001

(6) Do the communication test between each of the flight crew stations with the PTT switch on the hand microphone:

(a) Push and hold the PTT switch on the hand microphone.

(b) Speak into the hand microphone.

1) Make sure you can hear the voice clearly from the other headsets.

2) Make sure the voice level from the flight deck speakers decreases.

(c) Release the PTT switch on the hand microphone.

SUBTASK 23-51-00-710-002

(7) Do the communication test between each of the flight crew stations with the PTT switch on the captain's and first officer's control wheel:

(a) Push and hold the PTT switch on the captain's and first officer's control wheel to the INT position.

(b) Speak into the captain's and first officer's boom microphone.

1) Make sure you can hear the voice clearly from the other headsets.

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO. 23-080-00-01

MECH | INSP

2) Make sure the voice level from the flight deck speakers decreases.

(c) Release the PTT switch on the captain's and first officer's control wheel.

SUBTASK 23-51-00-710-008

(8) Do the communication test between each of the flight crew stations with the PTT switch on the captain's and first officer's glareshield:

(a) Push and hold the PTT switch on the captain's and first officer's glareshield.

(b) Speak into the captain's and first officer's boom microphone.

1) Make sure you can hear the voice clearly from the other headsets.

2) Make sure the voice level from the flight deck speakers decreases.

(c) Release the PTT switch on the captain's and first officer's glareshield panel.

SUBTASK 23-51-00-710-003

(9) Do the communication test between each of the flight crew stations with the R/T - I/C switch on the captain's and first officer's ACP:

(a) Push and hold the R/T - I/C switch on the captain's and first officer's ACP to the R/T position.

(b) Speak into the captain's and first officer's boom microphone.

1) Make sure you can hear the voice clearly from the other headsets.

2) Make sure the voice level from the flight deck speakers decreases.

(c) Release the R/T - I/C switch on the ACP.

AKS 001-016, 019

(d) Push and hold the R/T - I/C switch on the captain's and first officer's ACP to the I/C position.

AKS 017, 018, 020-999

(e) Push the R/T - I/C switch on the captain's and first officer's ACP to the I/C position.

AKS ALL

(f) Speak into the captain's and first officer's boom microphone.

1) Make sure you can hear the voice clearly from the other headsets.

2) Make sure the voice level from the flight deck speakers decreases.

AKS 001-016, 019

(g) Release the R/T - I/C switch on the captain's and first officer's ACP.

AKS 017, 018, 020-999

(h) Push the R/T - I/C switch back to the center position.

AKS ALL

SUBTASK 23-51-00-710-012

(10) Do the communication test between each of the flight crew stations with the oxygen mask:

(a) Remove the oxygen mask from the stowage box at the flight crew's station.

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO. 23-080-00-01

MECH	INSP

(b) If necessary, connect the oxygen mask microphone to the interphone jack at the flight crew's station.

AKS 001-016, 019

(c) Push and hold the R/T - I/C switch on the flight crew's ACPs to the I/C position.

AKS 017, 018, 020-999

(d) Push the R/T - I/C switch on the flight crew's ACPs to the I/C position.

AKS ALL

(e) Speak into the flight crew's oxygen mask microphone.

1) Make sure the person at the other end can hear your voice clearly.

2) Make sure you can hear the voice at both flight deck speakers.

3) Make sure the voice level from the flight deck speakers does not decrease.

(f) Make sure you can hear the voice clearly when the person at the other end speaks to you.

AKS 001-016, 019

(g) Release the R/T - I/C switch on the flight crew's ACP.

AKS 017, 018, 020-999

(h) Push the R/T - I/C switch on the flight crew's ACP back to the center position.

AKS ALL

(i) Speak into the flight crew's oxygen mask microphone.

1) Make sure the person at the other end cannot hear your voice.

2) Make sure you cannot hear the voice at both flight deck speakers.

(j) Do this task to stow the Oxygen Masks: Crew Oxygen Mask Stowage, AMM TASK 35-12-85-910-801

(k) Close the door of all mask stowage boxes.

SUBTASK 23-51-00-710-005

(11) Do a test of the flight interphone jack at the external power panel:

(a) Connect a headset to the FLIGHT INTERPHONE jack on the external power panel.

(b) Push and hold the PTT switch on the ground crew microphone.

(c) Speak into the ground crew microphone.

1) Make sure you can hear the voice clearly on the flight compartment speakers.

(d) Release the PTT switch on the ground crew microphone.

(e) Push and hold the PTT switch on the captain's and first officer's control wheel to the INT position.

(f) Speak into the captain's and first officer's boom microphone.

1) Make sure you can hear the voice clearly on the ground crew headphone.

(g) Release the PTT switch on the captain's and first officer's control wheel.

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO. 23-080-00-01

MECH	INSP

SUBTASK 23-51-00-760-001

(12) Do the dual power source test:

(a) Do the test for the captain's station:

1) Open these circuit breakers and install safety tags:

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
C	23	C00239	INTERPHONE POWER CAPT DC 2

2) Push and hold the PTT switch on the captain's control wheel to the INT position.

3) Speak into the captain's boom microphone.

a) Make sure you hear the voice clearly on the flight deck speakers.

4) Release the PTT switch on the captain's control wheel.

5) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
C	24	C00240	INTERPHONE POWER CAPT BAT

6) Push and hold the PTT switch on the captain's control wheel to the INT position.

7) Speak into the captain's boom microphone.

a) Make sure you cannot hear the voice on the flight deck speakers.

8) Release the PTT switch on the captain's control wheel.

a) Make sure that VHF-1 is the only microphone selector button on the captain's ACP that is on.

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
C	23	C00239	INTERPHONE POWER CAPT DC 2

10) Make sure that the FLT microphone selector button on the captain's ACP comes on.

(b) Do the test for the first officer's station:

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO. 23-080-00-01

MECH	INSP

1) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
C	21	C00560	INTERPHONE POWER F/O DC 2

2) Push and hold the PTT switch on the first officer's control wheel to the INT position.

3) Speak into the first officer's boom microphone.

   a) Make sure you hear the voice clearly on the flight deck speakers.

4) Release the PTT switch on the first officer's control wheel.

5) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
C	22	C00561	INTERPHONE POWER F/O BAT

6) Push and hold the PTT switch on the first officer's control wheel to the INT position.

7) Speak into the first officer's boom microphone.

   a) Make sure you cannot hear the voice on the flight deck speakers.

8) Release the PTT switch on the first officer's control wheel.

   a) Make sure that VHF-2 is the only microphone selector button on the first officer's ACP that is on.

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

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
C	21	C00560	INTERPHONE POWER F/O DC 2

10) Make sure that the FLT microphone selector button on the first officer's ACP comes on.

SUBTASK 23-51-00-710-011

(13) Do the test for the ALT/NORM switch:

(a) Put the ALT/NORM switch on the captain's and first observer's ACP to the ALT position.

1) Make sure that the VHF-1 microphone selector button on the captain's and first observer's ACP comes on.

(b) Put the ALT/NORM switch on the captain's and first observer's ACP to the NORM position.

1) Make sure that the FLT microphone selector button on the captain's and first observer's ACP comes on.

(c) Put the ALT/NORM switch on the first officer's ACP to the ALT position.

1) Make sure that the VHF-2 microphone selector button on the first officer's ACP comes on.

MECH	INSP

(d) Put the ALT/NORM switch on the first officer's ACP to the NORM position.

1) Make sure that the FLT microphone selector button on the first officer's ACP comes on.

SUBTASK 23-51-00-710-014

(14) Do the test to verify the position of the REU Aural Warning mute switch:

(a) Open this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

(b) With the REU Aural Warning Mute switch in the “ON” position:

1) Push the SYS TEST switch on the ground proximity panel, P3.

2) Make sure that the PULL UP message is not audible in the flight deck headphones.

(c) With the REU Aural Warning Mute switch in the “OFF” position:

1) Push the SYS TEST switch on the ground proximity panel, P3.

2) Make sure that the PULL UP message is audible in the flight deck headphones.

(d) Close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

B. Put the Airplane Back to Its Usual Condition

SUBTASK 23-51-00-860-005

(1) Put all ACPs back to their usual condition:

(a) Push all microphone selector switches to off.

(b) Push the volume control switch for all microphone selector switches to off.

(c) Push the SPKR volume control switch to off.

SUBTASK 23-51-00-760-002

(2) 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

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	22	C00561	INTERPHONE POWER F/O BAT
C	24	C00240	INTERPHONE POWER CAPT BAT

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-080-00-01

MECH	INSP

SUBTASK 23-51-00-860-010

(3) If it is necessary, do this task: Remove Electrical Power, AMM TASK 24-22-00-860-812.

——— END OF TASK ———

AIRLINE CARD NO		TITLE			BOEING CARD NO.
		PASSENGER ADDRESS SPEAKERS			**23-090-00-01**
DATE	TASK				RELATED CARD
	OPERATIONAL				
TAIL NUMBER	WORK AREA	VERSION	THRESHOLD	REPEAT	APPLICABILITY
	PASS CABIN	**1.1**	**30000 FH**	**30000 FH**	AIRPLANE: **ALL** ENGINE: **ALL**
STATION	SKILL				
	AVION				
		ACCESS			ZONE
					210 220

Operational check of the passenger address speakers.

A. References

Reference	Title
AMM 24-22-00-860-811	Supply Electrical Power (P/B 201)
AMM 24-22-00-860-812	Remove Electrical Power (P/B 201)

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-090-00-01

TASK 23-31-00-740-801

MECH	INSP

1. Passenger Address System - Operational Test

A. General

(1) The operational test is a fast check of the system. The test has a number of different parts. All parts of the test follow in a given sequence.

(2) The operational test has these test sections:

(a) Passenger Address Operation Test

(b) Chime Operation Test

B. Procedure

SUBTASK 23-31-00-860-007

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

SUBTASK 23-31-00-710-005

(2) Do a test to do a check of the Passenger Address priority system from the aft control stand:

(a) Attach a PA microphone to the jack (D6001) on the aft control stand if a microphone or handset is not installed.

(b) Push and hold the PTT switch on the control stand PA microphone.

1) Make sure you can hear the announcement from these speakers:

a) Attendant's speakers.

b) Lavatory speakers

c) PSU speakers

(c) Release the PTT switch.

(d) Remove the PA microphone from the jack as applicable.

SUBTASK 23-31-00-710-027

(3) Do a test of the passenger address operation from the from the captain's boom mic:

(a) Push and hold the PTT switch on the captain's control wheel to MIC.

(b) Speak into the captain's boom mic

1) Make sure you can hear the announcement from these speakers:

a) Attendant's speakers.

b) Lavatory speakers

c) PSU speakers

SUBTASK 23-31-00-710-017

(4) Do a test of the passenger address operation from a forward attendant station:

(a) Set the attendant handset to the PA mode.

(b) Push and hold the PTT switch on the captain's control wheel to the MIC position.

(c) Push the PTT button on the attendant handset.

(d) At the same time, speak into the captain's boom mic and have someone speak into the attendant handset.

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1) Make sure you can hear the captain's announcement on these speakers:
   a) Attendant's speakers.
   b) Lavatory speakers.
   c) PSU speakers
2) Make sure you cannot hear the announcement from the attendant handset on the speakers.

(e) Release the PTT switch on the captain's control wheel.
1) Make sure you can hear the announcement from the attendant handset on the speakers.
2) Make sure that you cannot hear the announcement on the forward attendant speakers.

(f) Put the attendant handset in the handset cradle.

(g) Do this test again using a handset from a different Forward attendant station (if installed).

SUBTASK 23-31-00-710-028

(5) Do a test of the passenger address operation from an aft attendant station:

(a) Set the handset from an aft attendant station to the PA mode.

(b) Push and hold the PTT switch on the captain's control wheel to the MIC position.

(c) Push the PTT button on the attendant handset.

(d) At the same time, speak into the captain's boom mic and have someone speak into the aft attendant handset.
1) Make sure you can hear the captain's announcement on the attendant, PSU, and lavatory speakers.
2) Make sure you cannot hear the announcement from the attendant handset on the speakers.

(e) Release the PTT switch on the captain's control wheel.
1) Make sure you can hear the announcement from the attendant handset on the forward attendant, PSU, and lavatory speakers.
2) Make sure that you cannot hear the announcement from the attendant handset on the aft attendant speakers.

(f) Put the attendant handset in the handset cradle.

(g) Do this test again using a handset from a different Aft attendant station (if installed).

SUBTASK 23-31-00-710-006

(6) Do a test of the chime operation:

(a) Push the attendant call button on a PSU.
1) Make sure you hear one high tone on the PA speakers.

(b) Push the attendant call button on all other PSUs.
1) Make sure you hear a high tone each time you push an attendant call button.

(c) Push the attendant call buttons once more to reset them.

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MECH	INSP

1) Make sure the attendant light goes off.

(d) Push the PILOT call button on each attendant handset.

1) Make sure you hear a high tone in the flight compartment.

(e) Push the button for the attendant on each attendant handset.

1) Make sure you hear a high/low tone on the attendant speakers and in the passenger cabin.

(f) Push the ATT call button on the captain's overhead panel (P5).

1) Make sure you hear a high/low tone on the attendant speakers and in the passenger cabin.

(g) Put the attendant handsets in the handset cradles.

(h) Do these steps to do a check of the Fasten Seat Belt warning function:

1) Make sure the FASTEN BELTS sign switch on the captain's overhead panel is in the OFF position.

2) Put the FASTEN BELTS sign switch to the ON position.

a) Make sure you hear a low tone in the passenger cabin.

3) Put the FASTEN BELTS sign switch to the OFF position.

a) Make sure you hear a low tone in the passenger cabin.

SUBTASK 23-31-00-860-004

(7) If it is necessary, do this task: Remove Electrical Power, AMM TASK 24-22-00-860-812.

——— END OF TASK ———

AIRLINE CARD NO		TITLE			BOEING CARD NO.
		EMERGENCY LOCATOR TRANSMITTER (AUTOMATIC / FIXED TYPE)			**23-100-00-02**
DATE	TASK **OPERATIONAL**				RELATED CARD
TAIL NUMBER	WORK AREA **PASS CABIN**	VERSION **1.1**	THRESHOLD **NOTE**	REPEAT	APPLICABILITY AIRPLANE: **ALL** **NOTE** ENGINE: **ALL**
STATION	SKILL **AIRPL**	**NOTE**			
		ACCESS			ZONE **242**

Operationally check the Emergency Locator Transmitter (Automatic / Fixed Type).

INTERVAL NOTE: At Vendor's Recommendation.

AIRPLANE NOTE: If Installed.

A. References

Reference	Title
AMM 23-24-00 P/B 201 Config 2	EMERGENCY LOCATOR TRANSMITTER - MAINTENANCE PRACTICES
AMM 23-24-00-710-802-002	ELT System - Operational Test (P/B 501)
AMM 24-22-00-860-812	Remove Electrical Power (P/B 201)
AMM 25-21-45-000-803-001	Main Ceiling Panel - Removal (P/B 401)
AMM 25-21-45-400-803-001	Main Ceiling Panel - Installation (P/B 401)

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TASK 23-24-00-730-802-002

1. ELT System - System Test

A. General

(1) This task provides a procedure to do a system test of the ELT system. The system test includes the ELT operational test at the ELT control panel in the flight deck and the ELT self-test at the ELT front panel.

B. Prepare Procedure

SUBTASK 23-24-00-910-015-002

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

NOTE: Free Space Transmission Tests from the aircraft on 121.5/243 MHz are generally allowed any time within five minutes after each hour. Check your local regulations. THERE IS NO ALLOWANCE FOR TRANSMITTING A VALID 406 MHZ MESSAGE AT ANY TIME.

The ELT will begin transmitting on 121.5/243 MHz immediately following activation and 406 MHz distress signals approximately 50 seconds after activation. If the ELT is inadvertently kept in the ON position for longer than approximately 50 seconds, you will hear a brief interruption of the 121.5 MHz signal while the 406 MHz message is transmitted. If this occurs, then you must reset the ELT immediately and tell the local emergency authorities. This will prevent emergency search and rescue operations that are not necessary.

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

1) Speak with the local emergency authority (Air Traffic Control Tower or Flight Service Station) to let them know there will be an ELT Test Transmission on the Emergency Frequencies 121.5/243 MHz.

SUBTASK 23-24-00-910-016-002

WARNING: MAKE SURE THAT YOU FOLLOW THE LOCAL ELT OPERATION REGULATIONS. IF YOU MAKE AN ACCIDENTAL TRANSMISSION, TELL THE AUTHORITIES. THIS WILL PREVENT EMERGENCY SEARCH OPERATIONS THAT ARE NOT NECESSARY.

(2) Follow the local ELT operation requirements.

C. ELT Operational Test at the ELT Control Panel (Pilots' overhead panel, P5)

SUBTASK 23-24-00-710-015-002

(1) Do this task: ELT System - Operational Test, AMM TASK 23-24-00-710-802-002.

D. ELT Self-Test at the Front Panel of the ELT Unit

SUBTASK 23-24-00-730-004-002

(1) Remove the ceiling panel to get access to the ELT (AMM TASK 25-21-45-000-803-001).

NOTE: For the location of the ELT, refer to the ELT - Maintenance Practices procedure (AMM PAGEBLOCK 23-24-00/201 Config 2).

SUBTASK 23-24-00-730-005-002

(2) Do the steps that follow to do the self-test at the ELT front panel:

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CAUTION: READ ALL THE STEPS THAT FOLLOW BEFORE YOU START THE ELT TEST PROCEDURE. YOU MUST BECOME FAMILIAR WITH THE INSTRUCTIONS. MAKE SURE THAT YOU USE A TIMING DEVICE TO MONITOR THE TIME DURING THE ELT TEST. YOU MUST COMPLETE THE ELT TEST PROCEDURE IN LESS THAN 50 SECONDS. THIS WILL HELP PREVENT ACCIDENTAL ACTIVATION OF THE ELT.

(a) Read all of the instructions below before you do the subsequent steps.

CAUTION: MAKE SURE THAT YOU DO THE ELT LIVE TRANSMISSION TEST IN THE FIRST FIVE MINUTES OF THE HOURS (UTC). COORDINATE WITH THE APPLICABLE LOCAL EMERGENCY AUTHORITY (AIR TRAFFIC CONTROL TOWER OR FLIGHT SERVICE STATION) FOR THE APPROVAL OF THIS TEST IF YOU DO THIS TEST OUTSIDE OF THE FIRST FIVE MINUTES OF THE HOURS (UTC).

(b) Move the ELT switch on the front panel of the ELT from the ARM position to the OFF position.

(c) Move the ELT switch on the front panel of the ELT from the OFF position to the ARM position.

1) Make sure the light-emitting diode (LED) on the ELT comes on and then goes off two times.

NOTE: The first flash indicates ELT self-test pass. The second flash indicates the AIM self-test pass.

E. Put the Airplanes Back to Its Usual Condition

SUBTASK 23-24-00-910-017-002

(1) Tell the local emergency authority that the ELT test is completed (if applicable).

SUBTASK 23-24-00-410-009-002

(2) Install the ceiling panel that gets access to the ELT (AMM TASK 25-21-45-400-803-001).

SUBTASK 23-24-00-860-017-002

(3) Remove the electrical power from the airplane, if it is not necessary for other tasks (AMM TASK 24-22-00-860-812).

——— END OF TASK ———

AIRLINE CARD NO		TITLE			BOEING CARD NO.
		EMERGENCY LOCATOR TRANSMITTER (AUTOMATIC / FIXED TYPE) BATTERY			**23-110-00-02**
DATE	TASK **DISCARD**				RELATED CARD
TAIL NUMBER	WORK AREA **PASS CABIN**	VERSION **1.1** **NOTE**	THRESHOLD **NOTE**	REPEAT	APPLICABILITY AIRPLANE **ALL** **NOTE** ENGINE **ALL**
STATION	SKILL **AIRPL**				
		ACCESS			ZONE **242**

Discard the Emergency Locator Transmitter (Automatic / Fixed Type) Battery.

INTERVAL NOTE: At Vendor's Recommendation.

AIRPLANE NOTE: If Installed.

A. References

Reference	Title
AMM 23-24-00-730-802-002	ELT System - System Test (P/B 501)
AMM 25-21-45-000-803-001	Main Ceiling Panel - Removal (P/B 401)
AMM 25-21-45-400-803-001	Main Ceiling Panel - Installation (P/B 401)

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TASK 23-24-00-000-802-002

1. Emergency Locator Transmitter - Removal

(Figure 1)

A. Removal Procedure

SUBTASK 23-24-00-010-003-002

(1) Do this task: Main Ceiling Panel - Removal, AMM TASK 25-21-45-000-803-001.

SUBTASK 23-24-00-020-003-002

(2) Do these steps to remove the ELT [5]:

(a) Make sure the ELT switch is in the OFF position.

(b) Disconnect the electrical connectors [4] from the ELT front panel.

(c) Remove the four bolts [3] that attach the ELT [5] to the airplane structure.

(d) Move the ELT [5] forward until it disconnects from the Aircraft Identification Module.

(e) Remove the ELT [5].

——— END OF TASK ———

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TASK 23-24-00-400-802-002

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2. Emergency Locator Transmitter - Installation

(Figure 1)

A. Installation Procedure

SUBTASK 23-24-00-420-003-002

(1) Do these steps to install the ELT [5]:

(a) Make sure the ELT switch is in the OFF position.

(b) Put the ELT [5] in its position, just forward of AIM connector.

(c) Move the ELT aft until it connects to the AIM.

(d) Install the four bolts [3] through the mounting slots of the ELT to attach it to the airplane structure.

(e) Connect the electrical connectors [4] to the ELT [5].

(f) Set the ELT switch to the ARM position.

SUBTASK 23-24-00-410-003-002

(2) Do this task: Main Ceiling Panel - Installation, AMM TASK 25-21-45-400-803-001.

B. ELT Installation Test

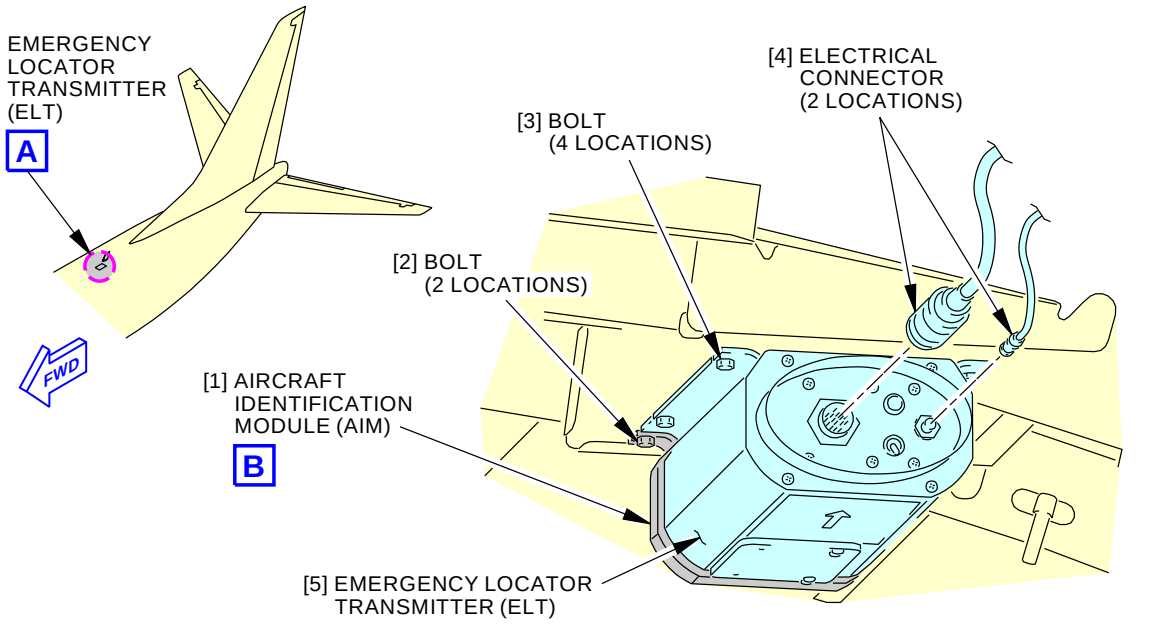
SUBTASK 23-24-00-710-003-002

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

NOTE: It is the responsibility of the airlines to report any change in the registered ELT information to their designated registration authority.

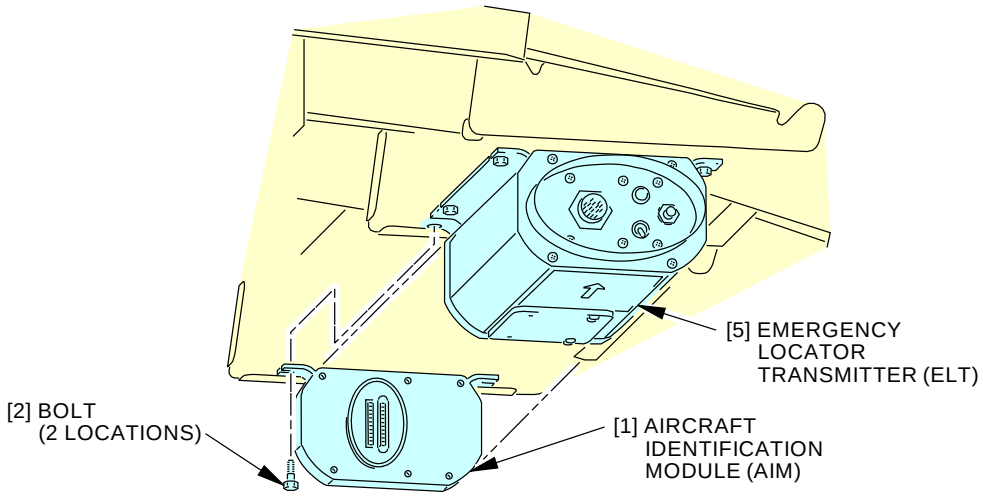
——— END OF TASK ———

DATE	TAIL NUMBER	STATION	AIRLINE CARD NO.	BOEING CARD NO.
				23-110-00-02



EMERGENCY LOCATOR TRANSMITTER (ELT) ASSEMBLY

A



AIRCRAFT IDENTIFICATION MODULE (AIM)

B

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Emergency Locator Transmitter (ELT)
Figure 1