

CHAPTER

23

COMMUNICATIONS



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

CHAPTER 23
COMMUNICATIONS

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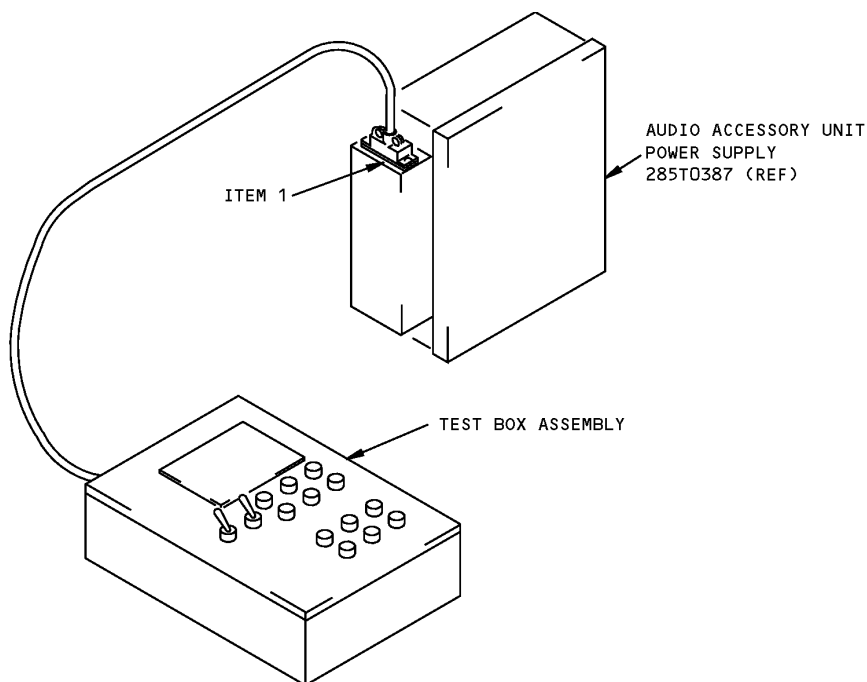
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PART NUMBER: A23011-1**NAME:** TEST BOX - POWER SUPPLY, AUDIO ACCESSORY UNIT**AIRPLANE MAINTENANCE:** NO**COMPONENT MAINTENANCE:** YES**USAGE & DESCRIPTION:** The A23011 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A23011 inclusion in the 767 ITEM is for information and historical purposes only.

This tool is used to test the Audio Accessory Unit power supply assembly. This tool is used on airplanes that have 285T0001-xx series Audio Accessory Unit. This tool is not used on airplanes that have 285T0001-2xx and on series Audio Accessory Unit. This tool is used on airplanes from line number 1 through 796 except the 767 freighter, 767-400 and those airplanes incorporating the provisions of PRR B13023. Refer to CMM 23-42-60 for further usage instructions.

WEIGHT: 2 lbs (0.9 kg)**DIMENSIONS:** 2 x 7 x 9 inches (51 x 178 x 229 mm)

**Audio Accessory Power Supply Unit Test Box
Figure 1**

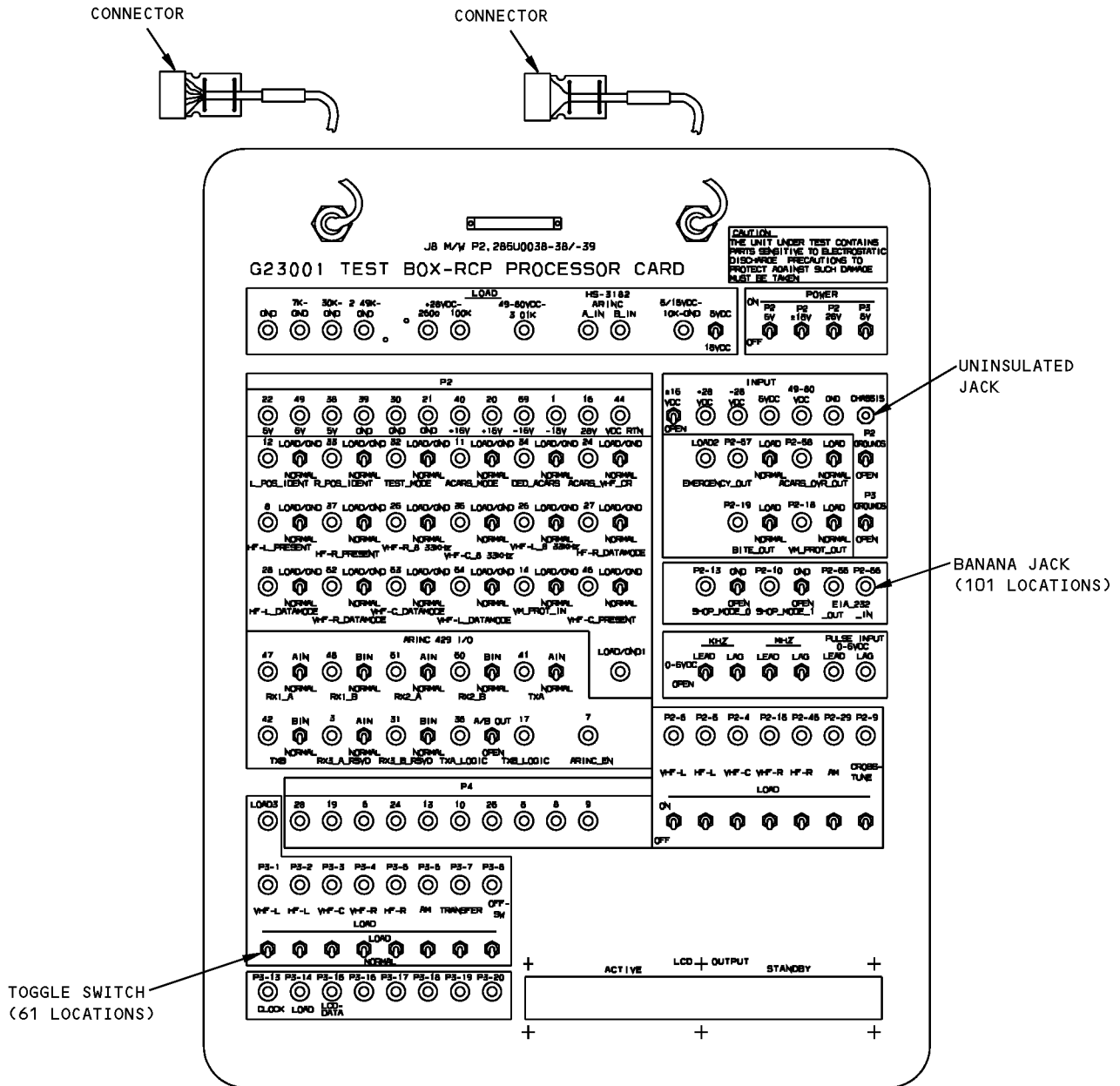


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REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	DE-9P	CONNECTOR	V71468

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G23001-41 TEST BOX

RCP Processor Card Test Box - G23001-41
 Figure 2



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PART NUMBER: J23001-1, -12

NAME: HOIST ADAPTER - SATCOM TOP - MOUNTED HIGH GAIN ANTENNA

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

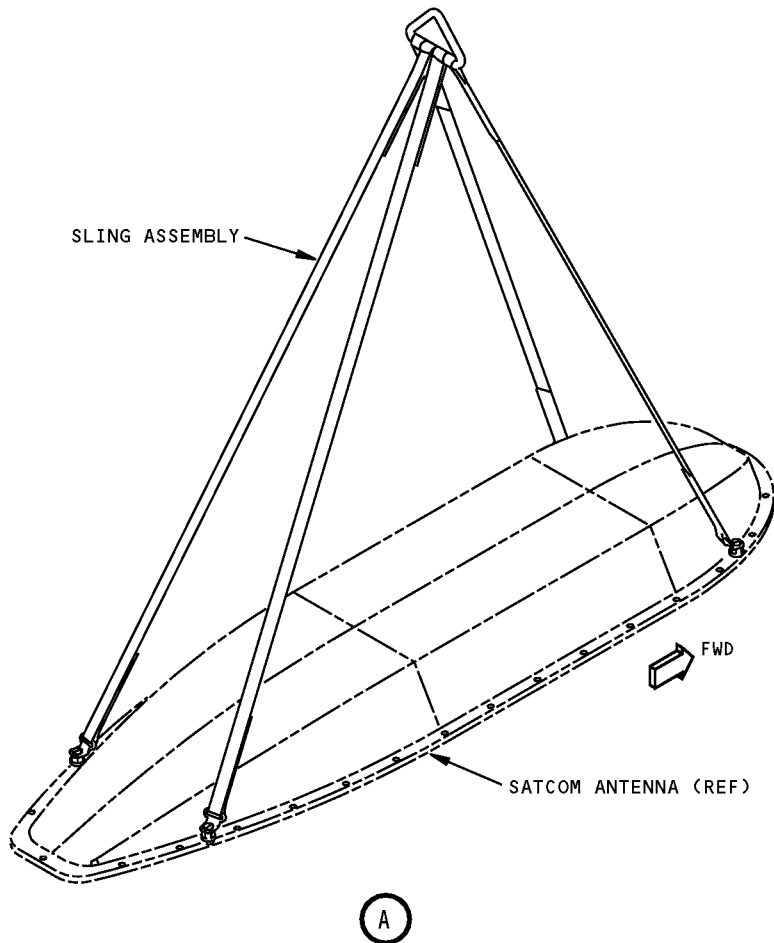
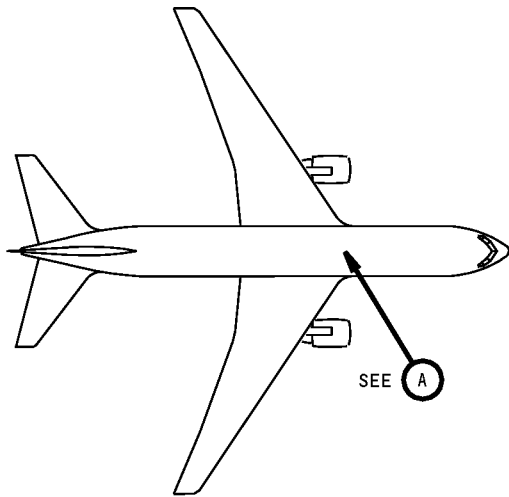
USAGE & DESCRIPTION: The J23001-1 or -12 tool is used to lift the SATCOM - High Gain Antenna during installation and maintenance for all 767 airplanes except the 767-200SF & -300BCF. Refer to Airplane Maintenance Manual 23-25-18 for complete usage instructions. These tools consist of a sling assembly and a storage box assembly.

WEIGHT: 3 lbs (1.4 kg)

DIMENSIONS: 6 x 6.5 x 9.5 inches (152 x 165 x 241 mm)

NOTE: J23001-12 replaces J23001-1 for future procurement.

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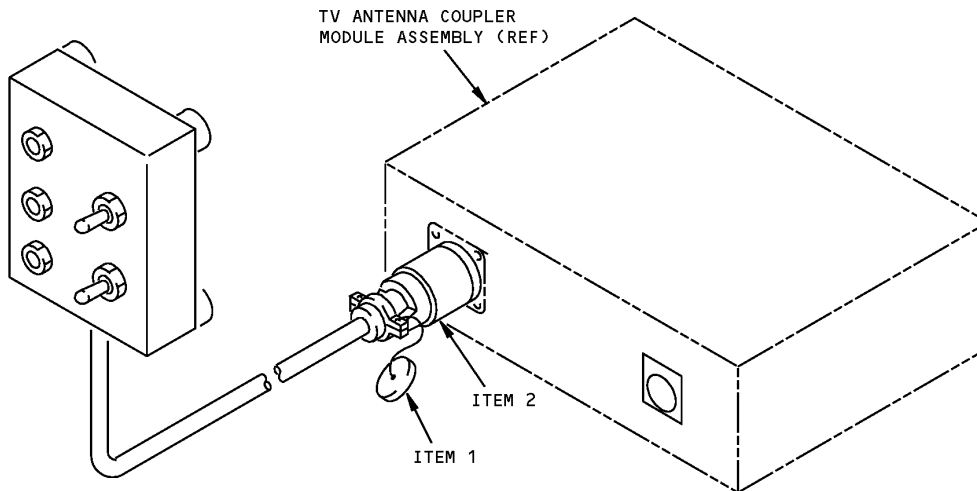


**Satcom Top-Mounted High Gain Antenna Hoist Adapter
Figure 1**

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PART NUMBER: A23002-1, -14**NAME:** TEST BOX ASSEMBLY - TV ANTENNA COUPLER**AIRPLANE MAINTENANCE:** NO**COMPONENT MAINTENANCE:** YES**USAGE & DESCRIPTION:** The A23002 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A23002 inclusion in the 767 ITEM is for information and historical purposes only.

This test equipment is connected to the J1 connector of the TV antenna coupler module assembly (M820) and is used to assist in measurement of both DC and RF parameters per Component Maintenance Manual 23-32-51. This tool is used on all 767 model airplanes except the 767 freighter.

WEIGHT: 5 lbs (2.3 kg)**DIMENSIONS:** 4 x 9 x 12 inches (102 x 229 x 305 mm)**NOTE:** A23002-14 replaces A23002-1 for future procurement.

**TV Antenna Coupler Test Box Assembly
Figure 1**



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REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	M83723/59-110AC	CAP	
2	M83723/86R105N	CONNECTOR	



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PART NUMBER: A23001-1, -4, -8, -9

NAME: ACOUSTIC COUPLER - ATTENDANT'S HANDSET

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

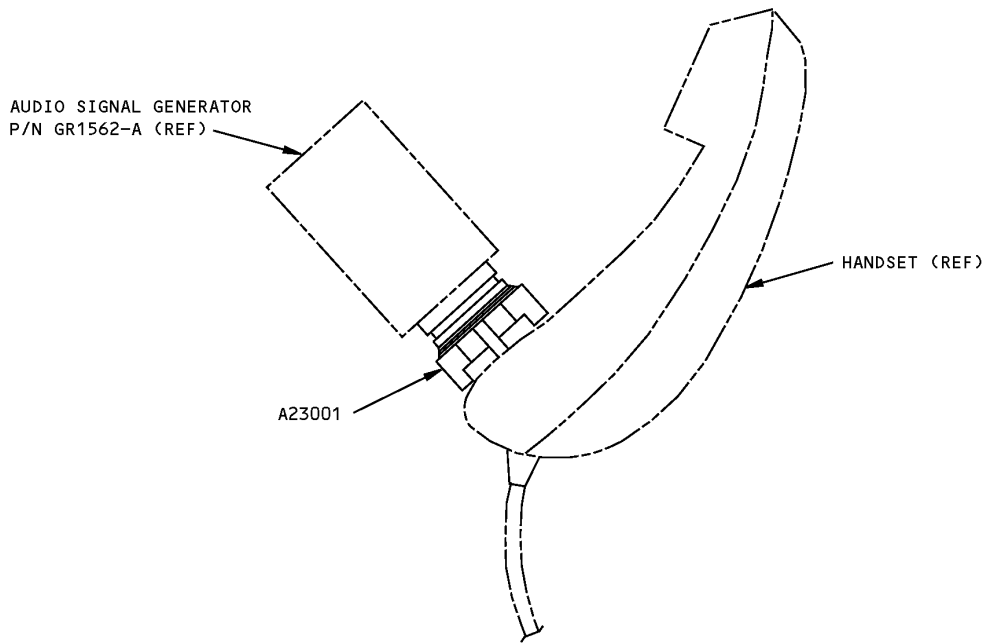
USAGE & DESCRIPTION: The A23001 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A23001 inclusion in the 767 ITEM is for information and historical purposes only.

This tool is used in conjunction with A23004 flight attendant interphone test box to test 285T0038 interphone assembly per CMM 23-42-51, CMM 23-42-63 and 285N0412 per CMM 23-42-64. This tool is used on all 767 model airplanes except the 767 freighter. The -1 is used on 767s equipped with 285T0038 interphone assembly. The -1 and -4 are used on 767s equipped with genrad 1562-A audio signal generators. The -8 is used on 767s equipped with cirrus CRL-S11E audio signal generators. The -9 is used on 767s equipped with guest QC-20 audio signal generators. Also -4, -8, -9 are used on 767s equipped with 285N0412 handsets. The -1 consists of a -2 coupler. The -4 consists of a -5 coupler. The -8 consists of a -10 coupler. The -9 consists of a -11 coupler. All of -1, -4, -8 and -9 are stored in a -7 box assembly.

WEIGHT: 0.5 lb (0.2 kg)

DIMENSIONS: 1.5 x 2 x 4 inches (38 x 51 x 102 mm)

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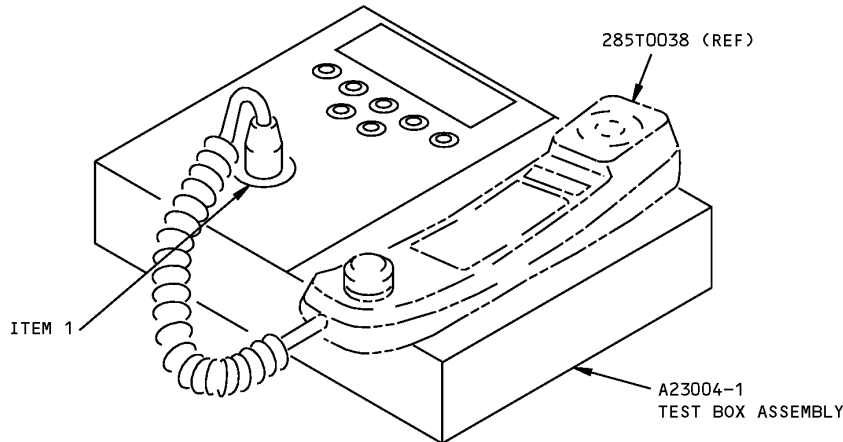


**Attendant's Handset Acoustic Coupler
Figure 1**

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PART NUMBER: A23004-1**NAME:** TEST BOX - FLIGHT ATTENDANT INTERPHONE**AIRPLANE MAINTENANCE:** NO**COMPONENT MAINTENANCE:** YES**USAGE & DESCRIPTION:** The A23004 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A23004 inclusion in the 767 ITEM is for information and historical purposes only.

This test box is used to test the 285T0038 flight attendant interphone handset assembly per Component Maintenance Manual 23-42-51 and Component Maintenance Manual 23-42-63 and 285N0412 handset assembly per Component Maintenance Manual 23-42-64. This tool is used on all 767 model airplanes except the 767 freighter.

WEIGHT: 5 lbs (2.3 kg)**DIMENSIONS:** 2 x 7 x 9 inches (51 x 178 x 229 kg)

**Flight Attendant Interphone Test Box
Figure 1**



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REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	C5F	CONNECTOR	V82389



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PART NUMBER: A23003-29, -30, -41, -42

NAME: TEST BOX - PRINTED CIRCUIT CARDS, AUDIO ACCESSORY UNIT

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The A23003 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A23003 inclusion in the 767 ITEM is for information and historical purposes only.

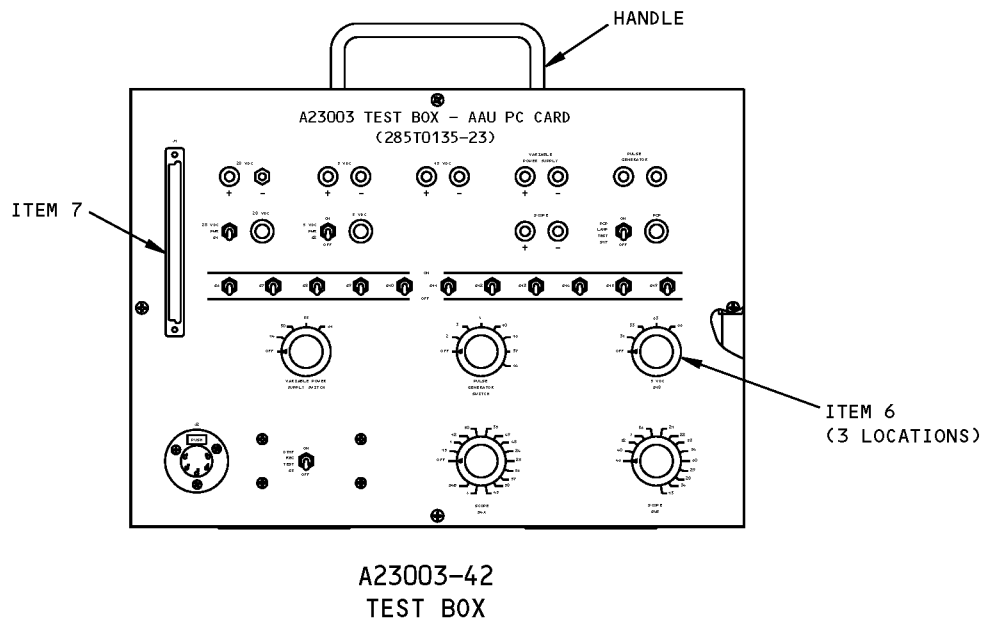
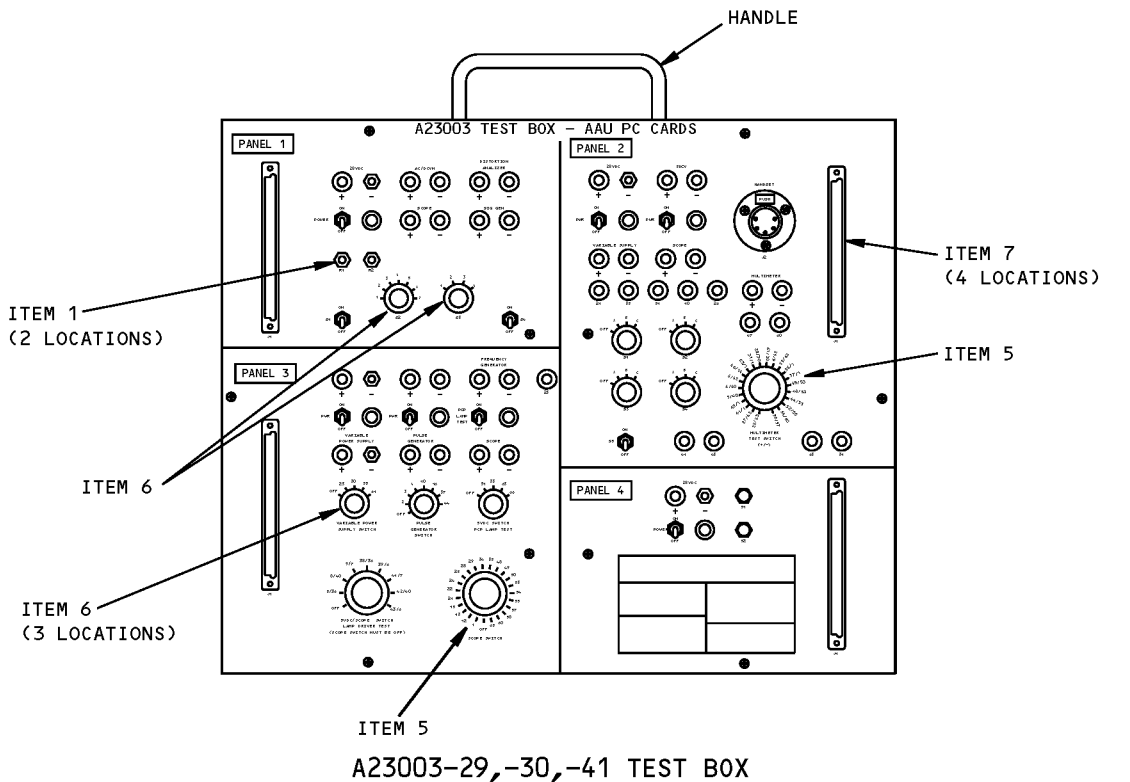
A23003-29, -30, -40 and -41 used to perform functional tests on the interphone amplifier, main logic input/output, dual handset interface, and call interface printed circuit cards (PCA) in the audio accessory unit. A23003-41 and -42 are preferred for future procurement. The A23003-29,-30,-41 and -42 test box is used on all 767 airplanes except 767-400, 767 freighters and any 767 airplanes built after line number 796. A23003-29 and -30 have limited usage when testing handset interface PCA (285T0133). Refer to CMM 23-42-56. A23003-29,-30 and -41 have limited usage when testing call interface PCA (285T0135-23). A23003-42 is used in conjunction with A23003-29,-40 or -41 as applicable, for testing 285T0001 PCA's. A23003-42 also tests the 285T0135-23 call interface PCA's. Refer to CMM 23-42-58. Refer to CMM 23-42-53, CMM 23-42-54, CMM 23-42-56 and CMM 23-42-57 for complete usage instructions.

WEIGHT: A23003-29, -30, -41 - 10 lbs (4.5 kg)
A23003-42 - 4 lbs (1.8 kg)

DIMENSIONS: A23003-29 - 4 x 16 x 18 inches (102 x 406 x 457 mm)
A23003-30 - 4 x 16 x 18 inches (102 x 406 x 457 mm)
A23003-41 - 4 x 16 x 18 inches (102 x 406 x 457 mm)
A23003-42 - 4 x 12 x 14 inches (102 x 305 x 356 mm)

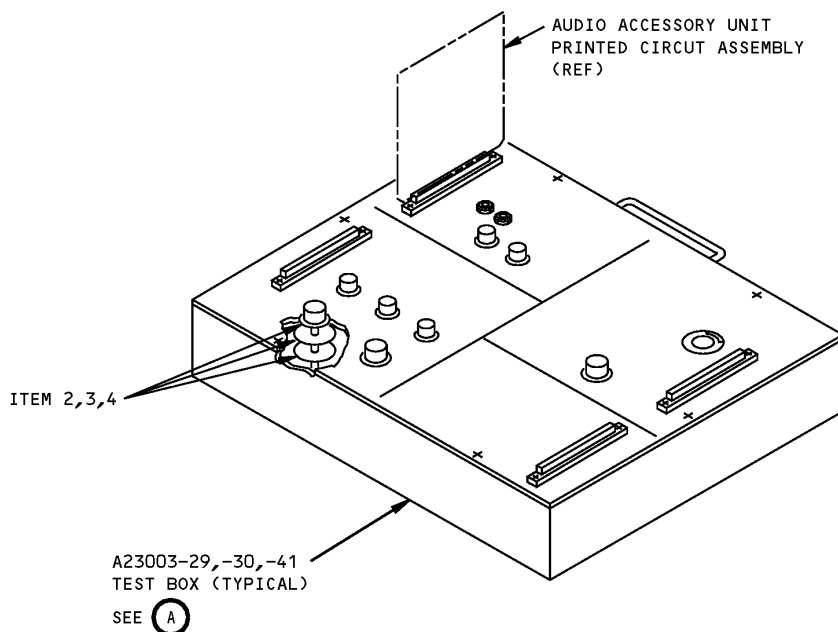
NOTE: A23003-41 supersedes A23003-34.
A23003-41 replaces A23003-29 and -30 for future procurement.

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**Audio Accessory Unit Printed Circuit Cards Test Box
Figure 1**

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Audio Accessory Unit Printed Circuit Cards Test Box
Figure 2

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	389N-100K-S	POTENTIOMETER	V12697
2	399174-AM	ROTARY SWITCH SECTION	V76854
2	D1D-0107	ROTARY SWITCH SECTION (OPTIONAL)	V79692
3	399117-AM	ROTARY SWITCH SECTION	V76854
3	D1D-0106	ROTARY SWITCH SECTION (OPTIONAL)	V79692
4	399257-A	ROTARY SWITCH INDEX ASSEMBLY	V76854
4	D1-0108	ROTARY SWITCH INDEX ASSEMBLY (OPTIONAL)	V79692
5	D9G0223N	ROTARY SWITCH	V79692
6	D3C0111N	ROTARY SWITCH	V79692
7	300052-001	CONNECTOR	V03877



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PART NUMBER: A23009-20, -31

NAME: TEST BOX - AUDIO SELECTOR PANEL

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

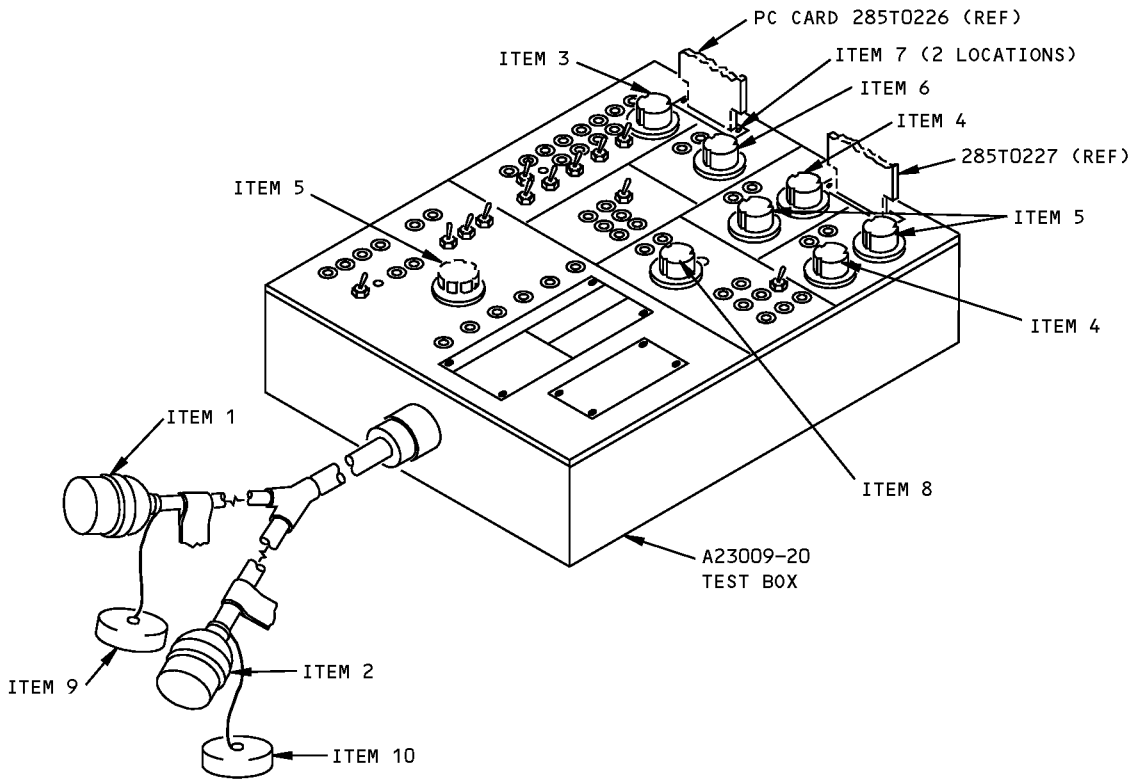
USAGE & DESCRIPTION: The A23009 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A23009 inclusion in the 767 ITEM is for information and historical purposes only.

A23009-20 or -31 are applicable to all 767 airplanes equipped with the 285T0022 audio selector panel. A23009-31 is a newer, simplified, smaller and lighter test box that is preferred for future procurement. A23009-20 has the same functionality. The A23009 tools are used to functionally test the 285T0022 audio selector panel and printed circuit assemblies 285T0226 and 285T0227. Refer to CMM 23-51-51, CMM 23-51-54 and 285T0226 per CMM 23-51-52 for usage instructions.

WEIGHT: A23009-20 - 10 lbs (4.5 kg)
A23009-31 - 8 lbs (3.6 kg)

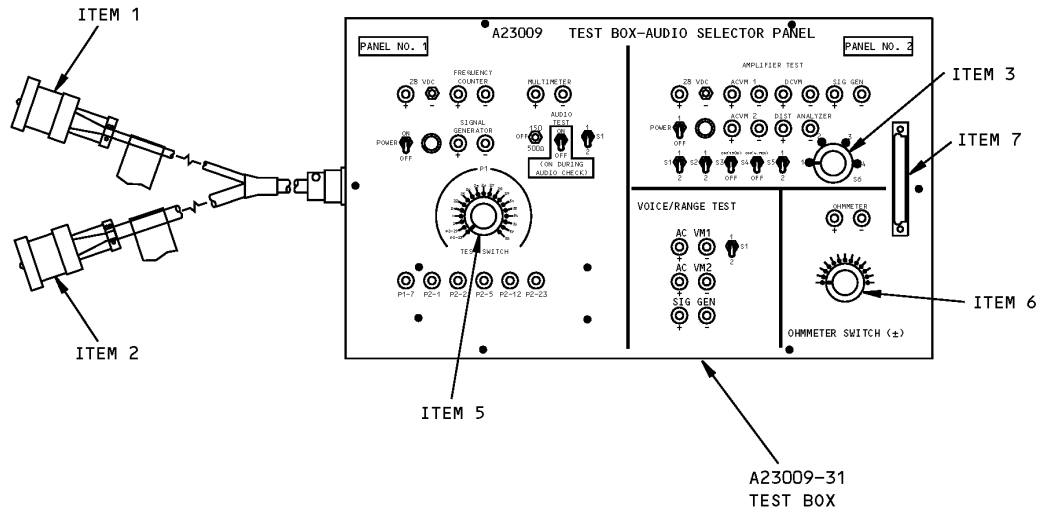
DIMENSIONS: A23009-20 - 6 x 15 x 18 inches (152 x 381 x 457 mm)
A23009-31 - 4 x 10 x 17 inches (102 x 254 x 432 mm)

NOTE: A23009-31 supersedes A23009-25.
A23009-31 replaces A23009-20 for future procurement.



Audio Selector Panel Test Box - A23009-20
Figure 1

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Audio Selector Panel Test Box - A23009-31
Figure 2

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	MS24266R18B31SN	CONNECTOR	
2	MS24266R20B41SN	CONNECTOR	
3	2550	SWITCH	V71950
4	PA-1001	SWITCH	V71950
5	PA-4001	SWITCH	V71950
6	PA-4003	SWITCH	V71950
7	300055-003	CONNECTOR	V03877
8	PA-6019	SWITCH	V71950



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PART NUMBER: A23006-45, -46, -47

NAME: TEST BOX - AUDIO ACCESSORY UNIT

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The A23006 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A23006 inclusion in the 767 ITEM is for information and historical purposes only.

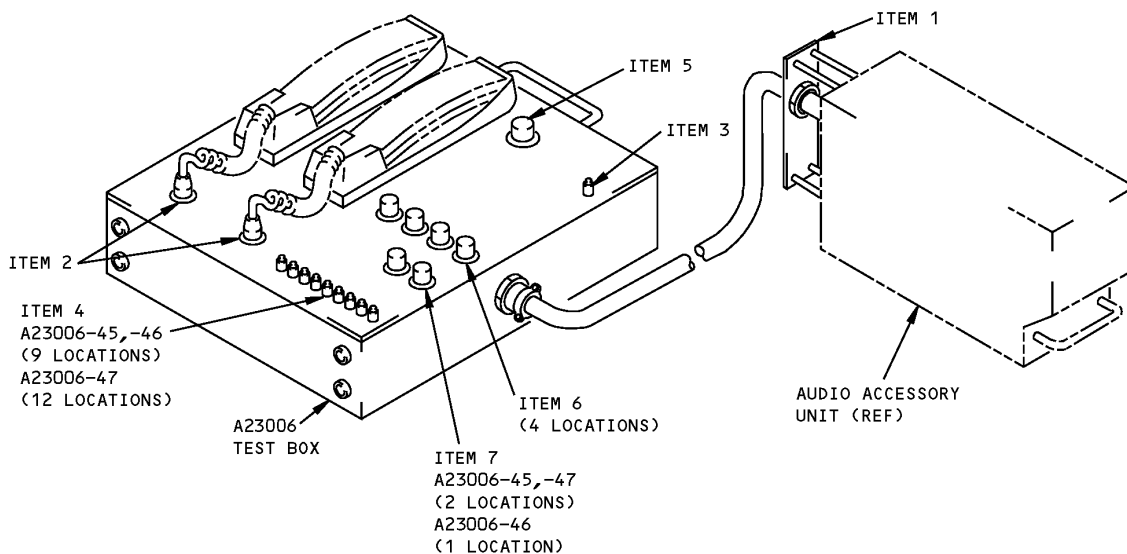
This tool is used to test Audio Accessory Unit 285T0001. This tool is used on airplanes that have 285T0001-xx series Audio Accessory Unit. This tool is not used on airplanes that have 285T0001-2xx and on series Audio Accessory Unit. This tool is used on airplanes from line number 1 through 796 except 767 freighter, 767-400 and those airplanes incorporating the provisions of PRR B13023. The -45 is used on all 767 airplanes except 767 airplanes listed above and airplanes equipped with 285T0001-46, 285T0001-69 and 285T0001-70 Audio Accessory Unit. The -46 is used on 767 airplanes equipped with 285T0001-46, 285T0001-69 and 285T0001-70 Audio Accessory Unit. The -47 is used on all 767 airplanes, except for the airplanes listed above. Refer to CMM 23-42-52 and CMM 23-42-61 for further usage instructions. Each of the -45, -46, -47 consists of a -19 board assembly, a -20 board assembly, two receptacle assemblies, two cup assemblies, related components and hardware. Also each of -46 and -47 includes a -18 switch assembly.

WEIGHT: 10 lbs (4.5 kg)

DIMENSIONS: 6 x 17 x 20 inches (152 x 432 x 508 mm)

NOTE: A23006-47 replaces A23006-45 and -46 for future procurement.
A23006-47 supersedes A23006-39.
A23006-39, -45, -46 supersede A23006-34, -26, -27 respectively.
A23006-26, -27 supersede A23006-23, -22, -16, -1.

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Audio Accessory Unit Test Box
Figure 1

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	BKAD1-125-30001	CONNECTOR	V71468
2	C5F	AUDIO RECEPTACLE	V82389
3	507-3918-1471-600	28V RED LAMP	V83330
4	507-3918-1473-600	28V AMBER LAMP	V83330
5	PA-4001	ROTARY SWITCH	
6	PSA-201	ROTARY SWITCH	
7	PSA-211	ROTARY SWITCH	

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PART NUMBER: B23001-1

NAME: EXTENDER BOARD - AUDIO ACCESSORY UNIT ASSEMBLY

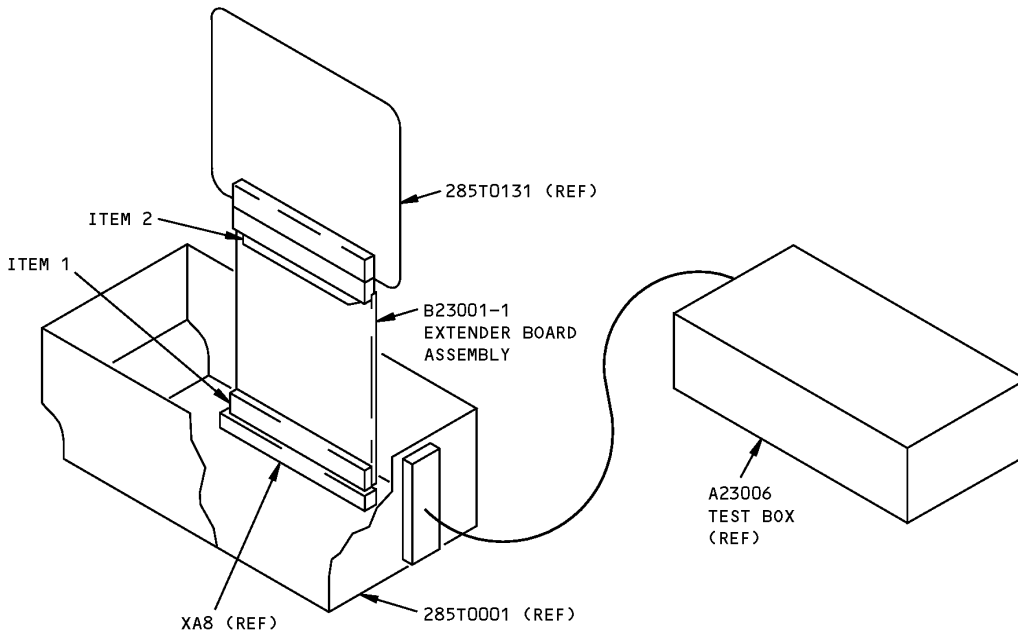
AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B23001 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The B23001 inclusion in the 767 ITEM is for information and historical purposes only.

Used in conjunction with A23006 Audio Accessory Unit Test Box during test of 285T0001 Audio Accessory Unit Assembly. The Extender Board Assembly consists of a printed circuit board, bracket, solder and wire wrap.

DIMENSIONS: 5 x 10 inches (127 x 254 mm)



Audio Accessory Unit Assembly Extender Board
Figure 1

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	300044-001 (OPT)	CONNECTOR	V03877
1	191-366-0006 (OPT)	CONNECTOR	V26742
2	300052-004 (OPT)	CONNECTOR	V03877



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REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
2	192-366-0010 (OPT)	CONNECTOR	V26742

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PART NUMBER: C23002-1

NAME: ACOUSTIC COUPLER EQUIPMENT - TRANSMITTER AND RECEIVER ASSEMBLY

AIRPLANE MAINTENANCE: NO

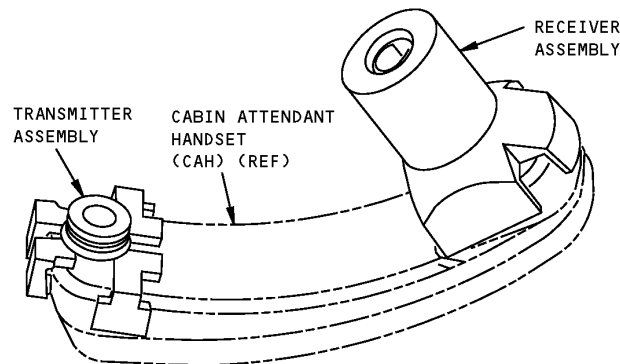
COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The C23002 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The C23002 inclusion in the 767 ITEM is for information and historical purposes only.

This tool is used to connect the cabin attendant handset to sound level calibrator and sound level meter for functional testing of the handset module. Refer to CMM 23-42-15 for further usage instructions. This tool is used on the 767-400 airplanes. This tool consists of a transmitter assembly, a receiver assembly and a storage box assembly.

WEIGHT: 2 lbs (0.9 kg)

DIMENSIONS: 3 x 8 x 8 inches (76 x 203 x 203 mm)



**Transmitter and Receiver Assembly Acoustic Coupler Equipment
Figure 1**

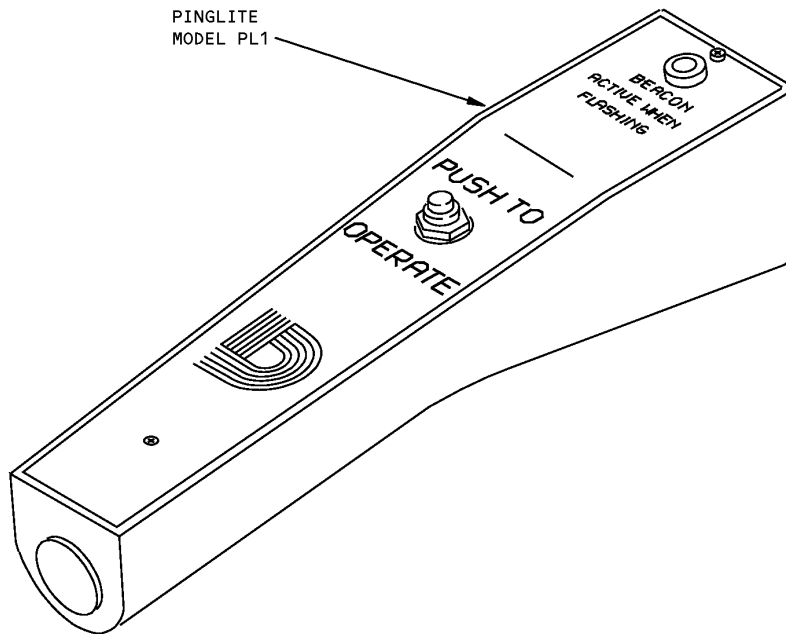
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PART NUMBER: PL1**NAME:** PINGLITE**AIRPLANE MAINTENANCE:** YES**COMPONENT MAINTENANCE:** NO

USAGE & DESCRIPTION: This tool is used to check the operational status of Underwater Acoustic Beacons (pingers) in the 37.5 kHz range. It is intended primarily for use as a hand held, self-contained, checkout device to perform an operational test on a beacon without removing it from its mount on an aircraft, FDR, CVR, or other equipment.

NOTE: This tool is a supplier proprietary item and can only be obtained from Dukane, Seacom Division, St. Charles, Illinois 60174.

NOTE: PL1 replaces 42A12



**Pinglite
Figure 1**



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PART NUMBER: 810-325

NAME: SPANNER WRENCH

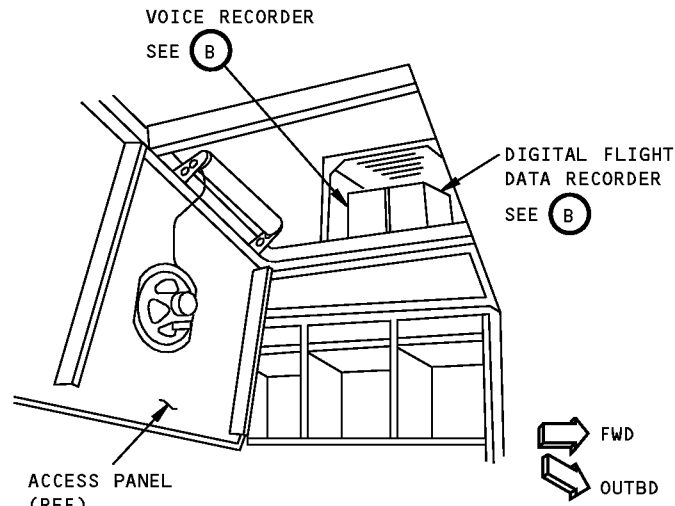
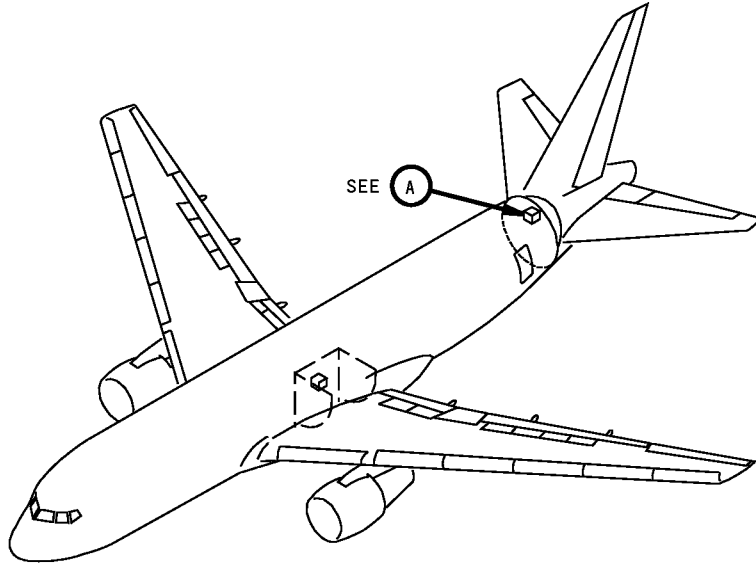
AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The 810-325 spanner wrench is used to remove/install battery access covers of Dukane Underwater Locator Beacon (ULB) on Honeywell Voice Recorders and Flight Data Recorders. Refer to 767 AMM's 23-71-03, 31-31-02, and Honeywell CMM's 23-70-40, 23-70-44, 31-30-32, 31-30-37, 31-30-40 for further usage instructions.

NOTE: This tool is a supplier proprietary item and can only be obtained from Dukane, Ultrasonic Division, St. Charles, Illinois 60174.

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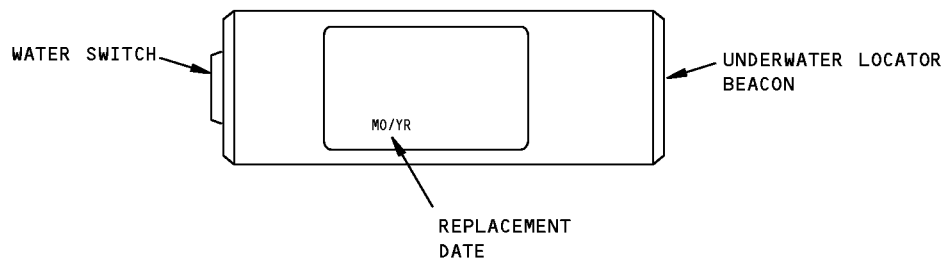
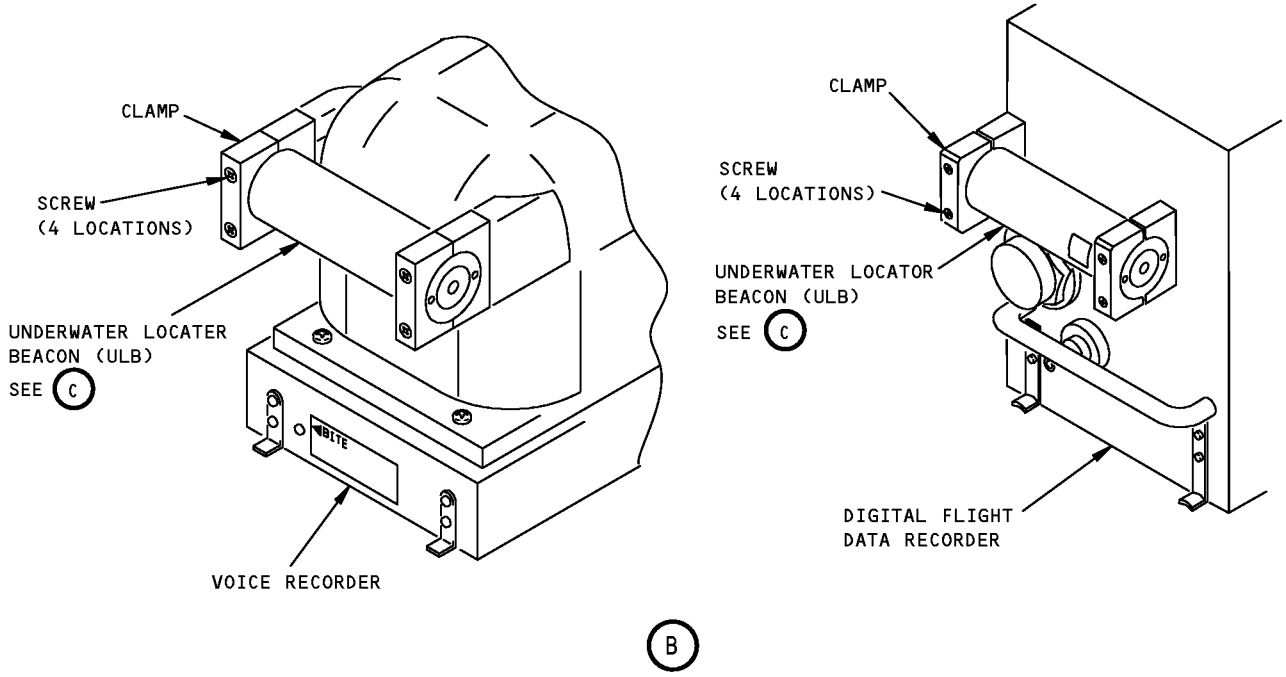


**VOICE RECORDER AND FLIGHT RECORDER
(ELECTRONIC EQUIPMENT RACK, E7)**

A

**Voice Recorder and Flight Data Recorder Location
Figure 1**

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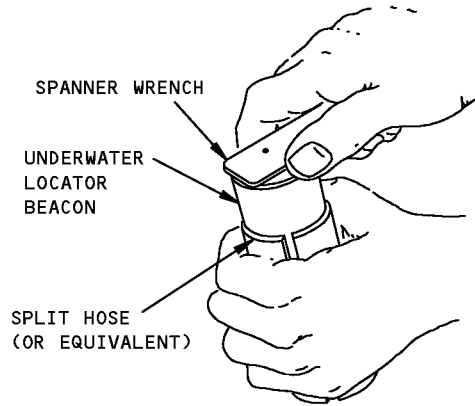


UNDERWATER LOCATOR BEACON (ULB)

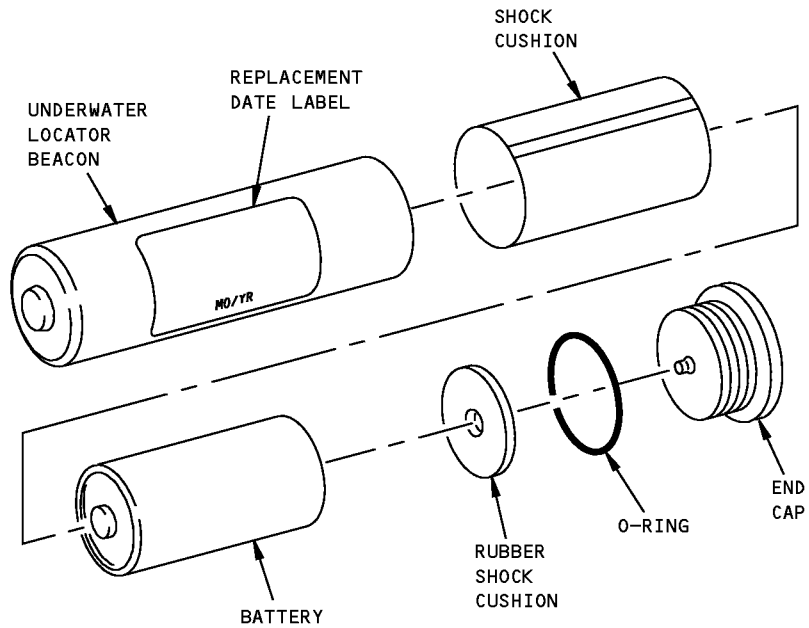
(C)

**Underwater Locator Beacon (ULB) Location
Figure 2**

ILLUSTRATED TOOL AND EQUIPMENT MANUAL



ULB DISASSEMBLY (BATTERY ACCESS)



BATTERY INSTALLATION

**Underwater Locator Beacon (ULB) Battery Installation
Figure 3**