

CHAPTER

34

NAVIGATION



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

CHAPTER 34 NAVIGATION

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34-30-01		1	Apr 10/2006		
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		1	Apr 10/2006		

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PART NUMBER: A34013-1, -18

NAME: TEST BOX - POWER SUPPLY CONTROL PANEL

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The A34013 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A34013 inclusion in the 767 ITEM is for information and historical purposes only.

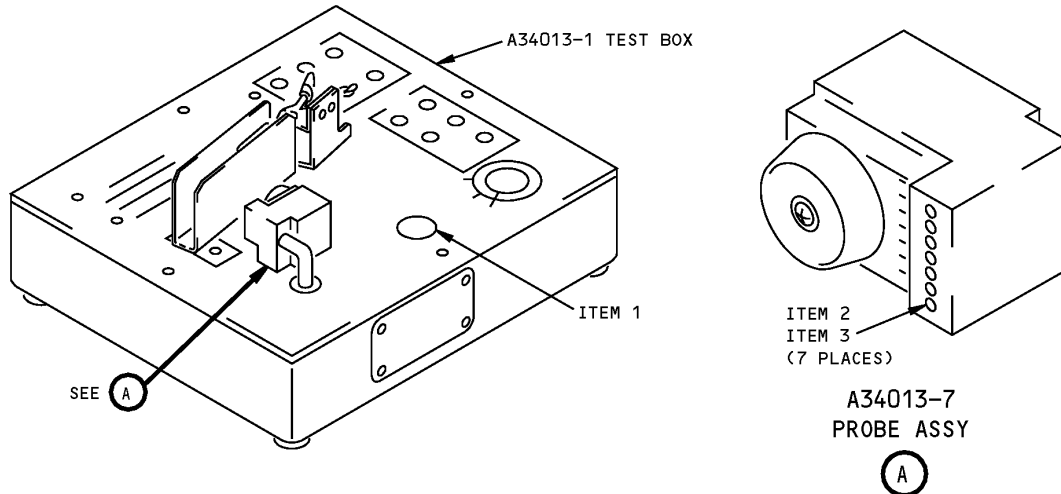
The A34013-1 or -18 test box is used during component maintenance on 767-200 and -200ER airplanes. A34013-1 is used in testing the 285T0433 control panel power supply module. Refer to CMM 34-09-53 for complete usage instructions. A34013-18 is used in testing the 285T0433 or 285T0542 control panel power supply modules. Refer to CMM 34-09-53 or CMM 34-09-53 for complete usage instructions.

WEIGHT: 5 lbs (2.3 kg)

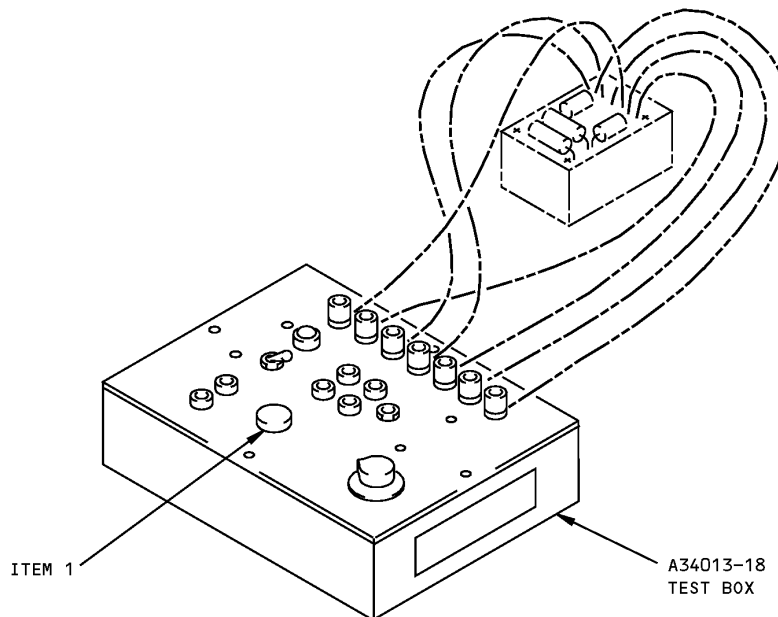
DIMENSIONS: 4 x 7 x 9 inches (102 mx 178 x 229 mm)

NOTE: A34013-18 replaces A34013-1 for future procurement.

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Power Supply Control Panel Test Box
Figure 1 (Sheet 1 of 2)



Power Supply Control Panel Test Box
Figure 1 (Sheet 2 of 2)



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REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	312.250	FUSE	V75915
2	55062	PROBE RECEPTACLE	V76918
3	204057	TEST PROBE	V76918



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PART NUMBER: A34011-1, -112, -119, -165

NAME: BREAKOUT BOX EQUIPMENT - ARINC 600, LINE MAINTENANCE

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

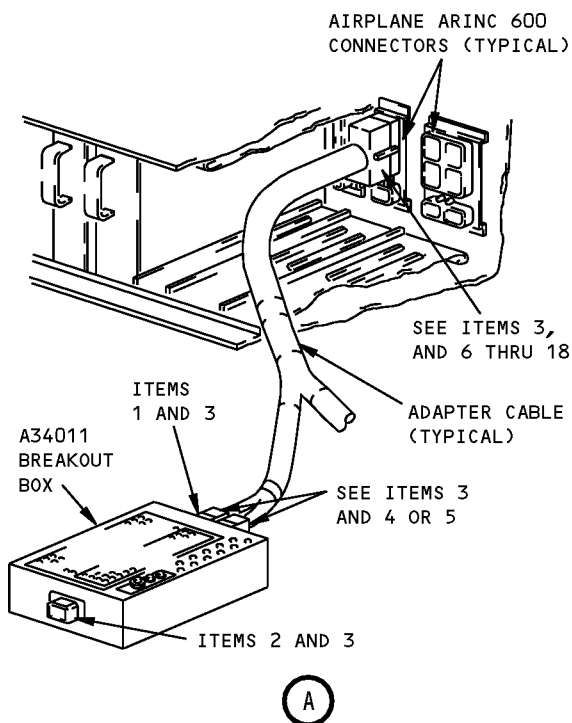
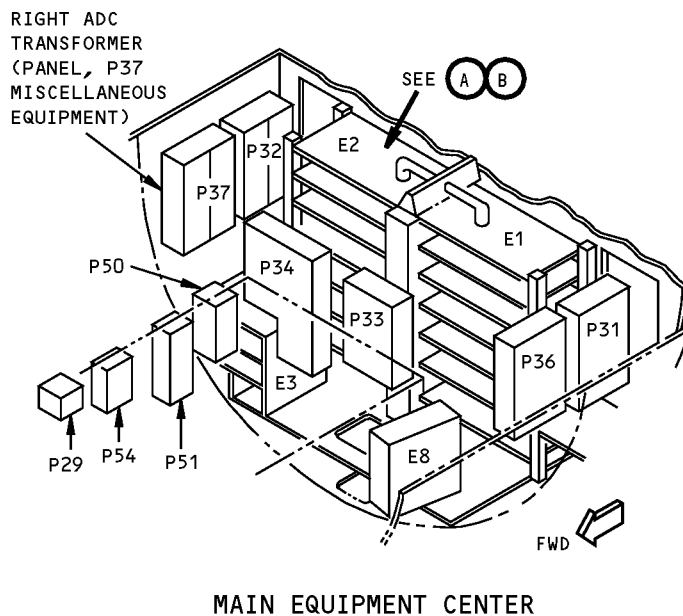
USAGE & DESCRIPTION: The A34011-1 breakout box equipment and A34011-112 connector kit are used on all 767 airplanes. The A34011-119 and -165 adapter cables are used on airplanes equipped with Rolls-Royce RB211-524H engines only. A34011 is used to probe ARINC 600 airplane connectors for checking continuity and for interfacing the ARINC 429 digital data bus analyzer with airplane wiring. Refer to AMM 34-12-00, AMM 34-21-00, AMM 34-22-00, AMM 34-31-00, AMM 34-33-00, AMM 34-43-00, AMM 34-46-00, AMM 33-51-00, AMM 34-53-00, AMM 34-55-00 and AMM 34-57-00 for complete usage instructions. The A34011-119 and -165 adapter cables are used on airplanes equipped with the Air Supply and Control Test Unit (ASCTU), maintains interconnection of ASCTU, airplane and the A34011-2 breakout box. The A34011-2 is active for procurement when used in conjunction with A34011-119 or -165. Use of the A34011-112 connector kit provides an optional method to that of using the A34011-1 equipment. With the A34011-112 connector kit, each connector pin to be checked is selected by the user with the aid of the fault isolation manual and/or appropriate wiring diagrams. The A34011-1 consists of the A34011-2 breakout box assembly, assorted adapter cable assemblies, a data package and a storage box. The A34011-112 consists of assorted connectors and a storage box. The A34011-119 consists of a A34011-114 adapter cable assembly and a A34011-135 storage box assembly. The A34011-165 consists of a A34011-161 adapter cable assembly and a A34011-162 storage box assembly. More detailed information, including appropriate cable usage can be found in the package contained in the current A34011 drawing.

WEIGHT: 25 lbs (11 kg)

DIMENSIONS: 16 x 24 x 24 inches (406 x 610 x 610 mm)

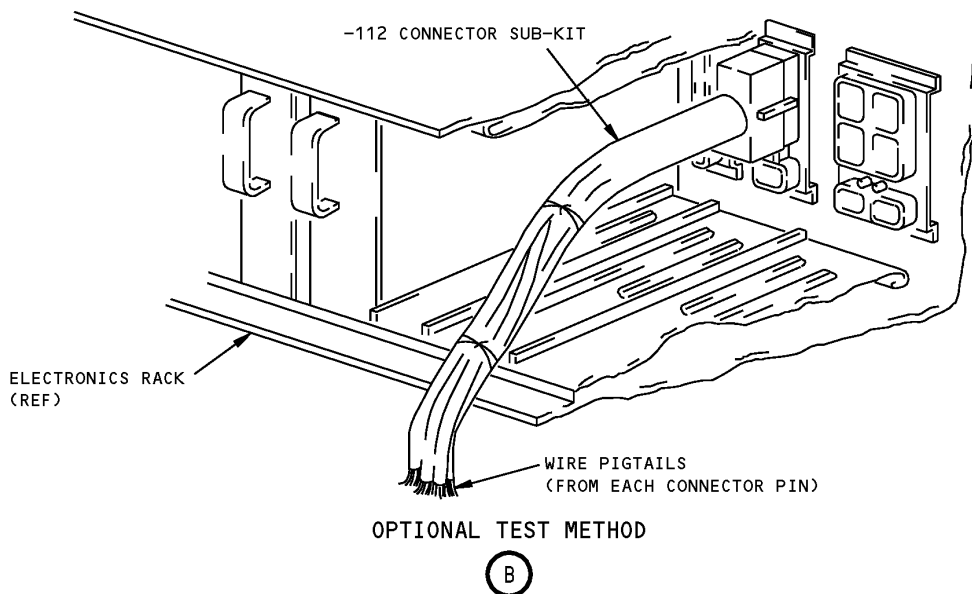
NOTE: A34011-165 replaces A34011-119 for future procurement.
A34016 replaces A34011-1 and -112 for future procurement.

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ARINC 600, Line Maintenance Breakout Box Equipment
Figure 1 (Sheet 1 of 2)

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ARINC 600, Line Maintenance Breakout Box Equipment
Figure 1 (Sheet 2 of 2)

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	DPX2MA-A106S67S-34B-0000	CONNECTOR	V71468
2	DPXAMA25W3-34P	CONNECTOR	V71468
3	DPXA-60	DUST CAP	V71468
4	DPX2MA-A106P67P-33B-1401	CONNECTOR	V71468
5	DPXAMA25W3-33S	CONNECTOR	V71468
6	82-61	CONNECTOR	V02660
7	BKA111622	CONNECTOR	V71468
8	BKA111623	CONNECTOR	V71468
9	BKA111624	CONNECTOR	V71468
10	BKA111625	CONNECTOR	V71468
11	BKA111626	CONNECTOR	V71468
12	BKA111627	CONNECTOR	V71468
13	BKA111628	CONNECTOR	V71468
14	BKA111629	CONNECTOR	V71468
15	BKA111640	CONNECTOR	V71468
16	DPXA-59	DUST CAP	V71468



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REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
17	BKA111641	CONNECTOR	V71468
18	BKA111640-001	CONNECTOR	V71468



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PART NUMBER: C34005-1

NAME: EXTENDER BOX - RADIO ALTIMETER RECEIVER TRANSMITTER

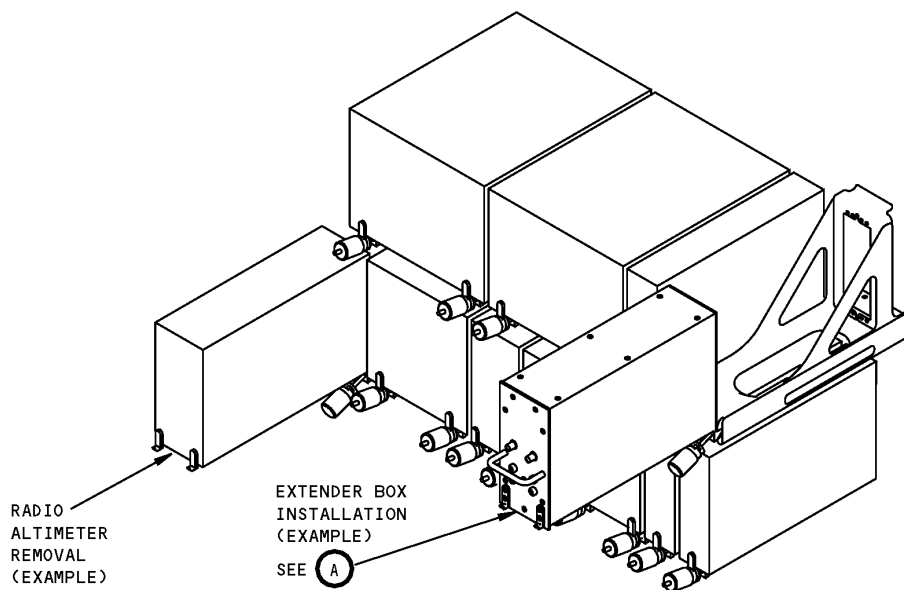
AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

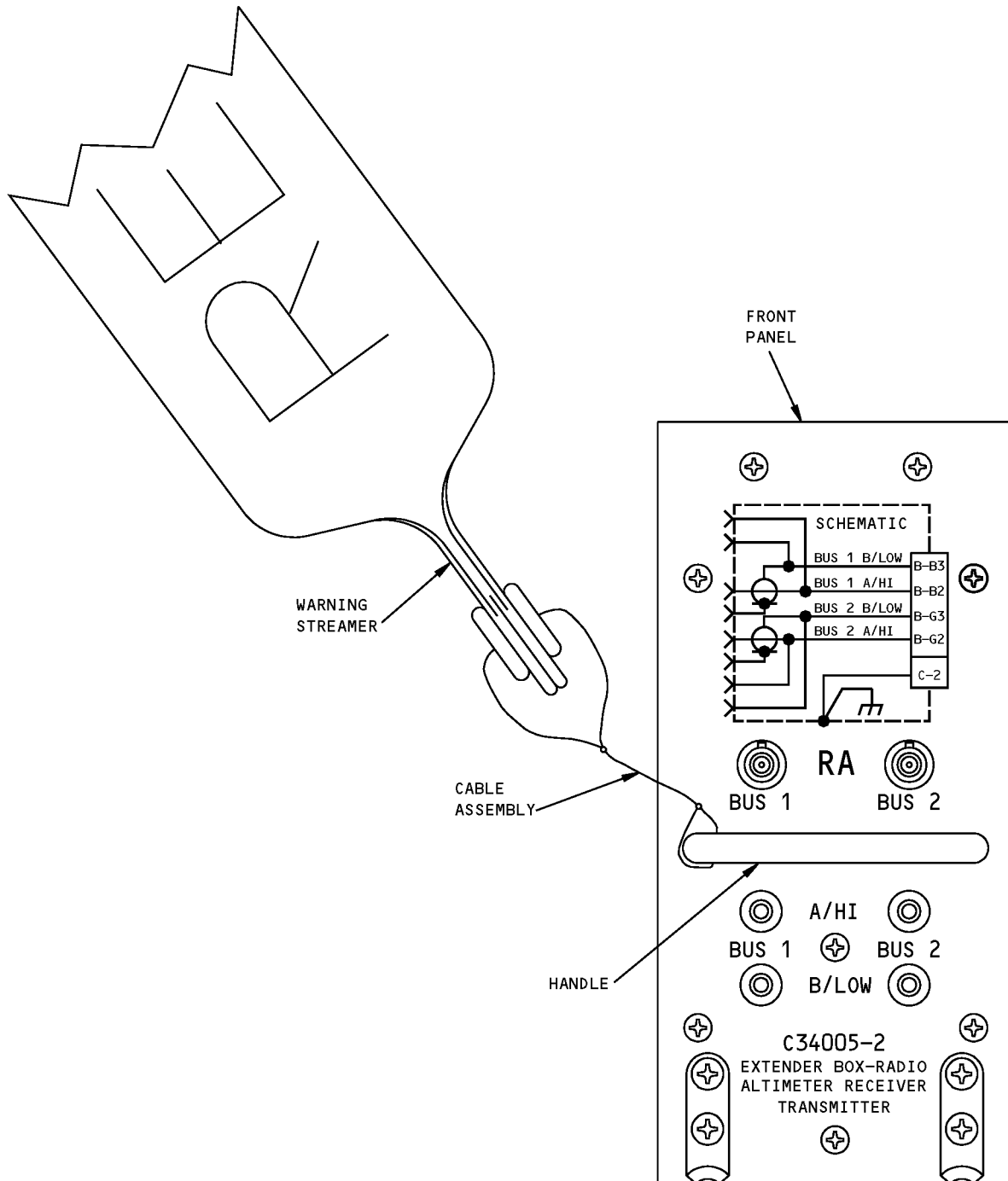
USAGE & DESCRIPTION: The C34005-1 extender box is used on 767 airplanes equipped with the Allied-Signal model ALA-52B RA RT, such as part no. 066-50007-0101 radio altimeter. The extender box is used in place of radio altimeter (RA) receiver-transmitter (RT). C34005 permits an external radio altitude signal input on bus 1 and/or bus 2 during warning system EFIS (electronic flight instrument system), RA system. TCAS (traffic alert and collision avoidance system), or GPWS (ground proximity warning system) maintenance system tests. The C34005-1 extender box consists of an C34005-2 extender box assembly contained in a storage case. The wiring schematic placard is located inside the extender box. Refer to AMM 34-33-00 for complete usage information.

WEIGHT: 3 lbs (1.4 kg)

DIMENSIONS: 7 x 15 x 19 inches (178 x 381 x 483 mm)



**Radio Altimeter Receiver Transmitter Extender Box
Figure 1 (Sheet 1 of 2)**



A

Radio Altimeter Receiver Transmitter Extender Box
Figure 1 (Sheet 2 of 2)

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PART NUMBER: C34006-53, -57

NAME: ADAPTER, TRAY - ELECTRONIC FLIGHT INSTRUMENT SYSTEM (EFIS) SYMBOL GENERATOR SOFTWARE LOADING

AIRPLANE MAINTENANCE: YES

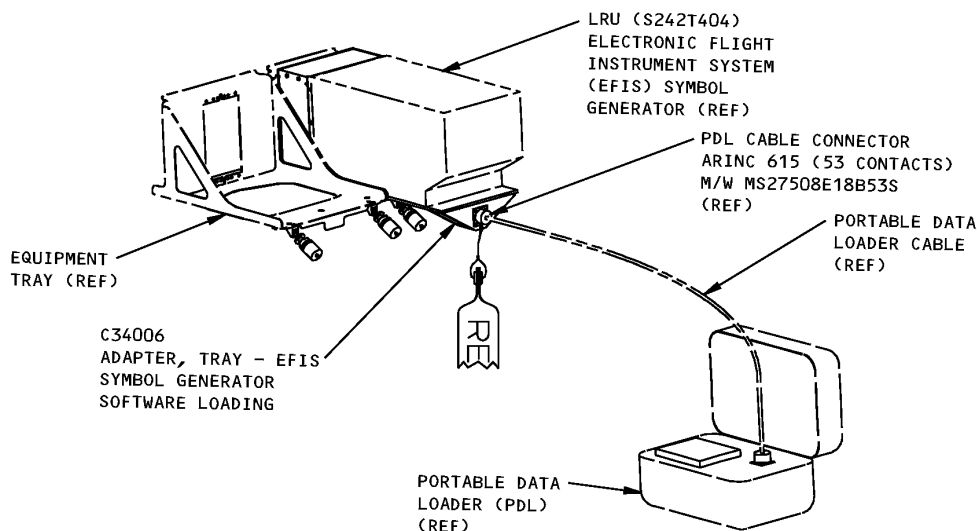
COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The C34006-53 or -57 adapter tray is used on all 767-200 and -300 airplanes. C34006 used to load software into the S242T404 EFIS (Electric Flight Instrument System) symbol generator. Refer to AMM 34-22-00 for complete usage instructions. C34006-53 consists of a C34006-54 system generator load adapter contained in a storage box. The C34006-57 consists of a C34006-58 system generator load adapter contained in a storage box.

WEIGHT: 9 lbs (4 kg)

DIMENSIONS: 8 x 10 x 19 inches (203 x 254 x 483 mm)

NOTE: C34006-57 replaces C34006-53 for future procurement.
C34006-53 supersedes C34006-1.



**EFIS Symbol Generator Software Loading Tray Adapter
Figure 1**



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PART NUMBER: C34012-2

NAME: TEST BOX - TOTAL AIR TEMPERATURE PROBE, AIR DATA SYSTEM

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The C34012-2 test box is used on all 767 airplanes equipped with the Goodrich (formerly Rosemount) total air temperature sensors 102AH2AF, 102AH2AG, 102AH2AJ, 102CP2AG, 102LA2AG or 102LJ2AG. Refer to the C34012 drawing for complete usage instructions.

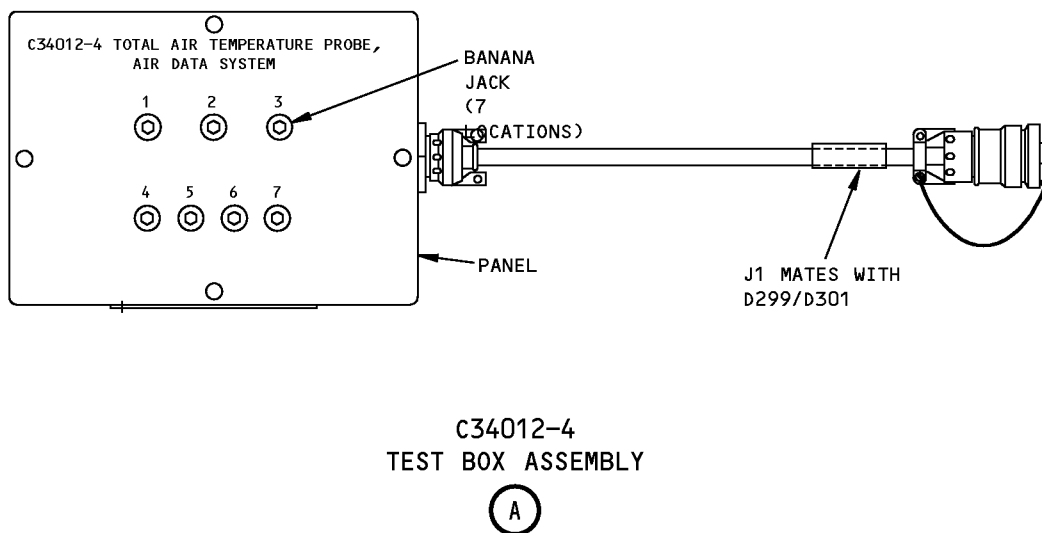
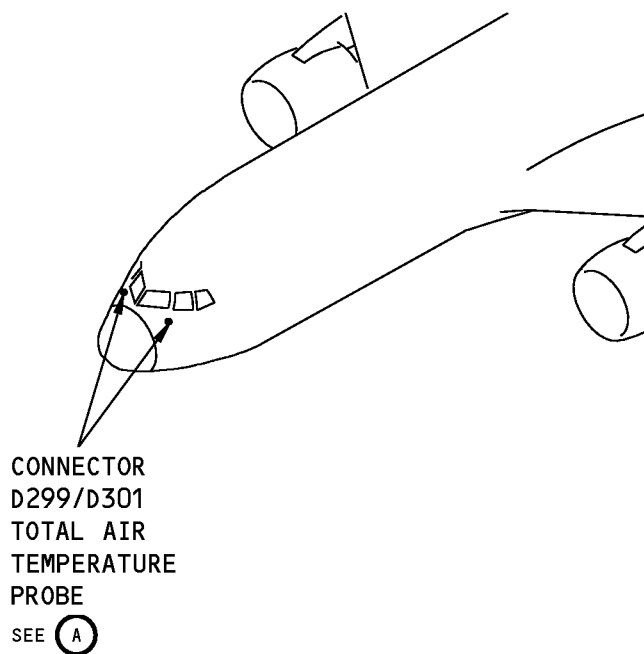
C34012 is used to connect a customer-furnished decade resistance box in place of the total air temperature probe while performing the air data system test. C34012-2 consists of:

C34012-2		
QUANTITY	NOMENCLATURE	PART NUMBER
1	TEST BOX ASSEMBLY	C34012-4
1	STORAGE BOX	

WEIGHT: 4 lbs (1.8 kg)

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

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Total Air Temperature Probe, Air Data System Test Box
Figure 1



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PART NUMBER: A34012-1, -19, -24

NAME: TEST FIXTURE - ANGLE OF ATTACK

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

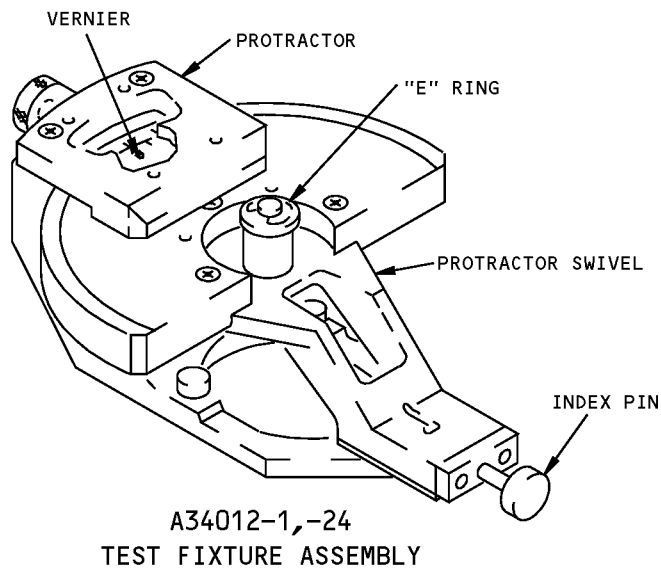
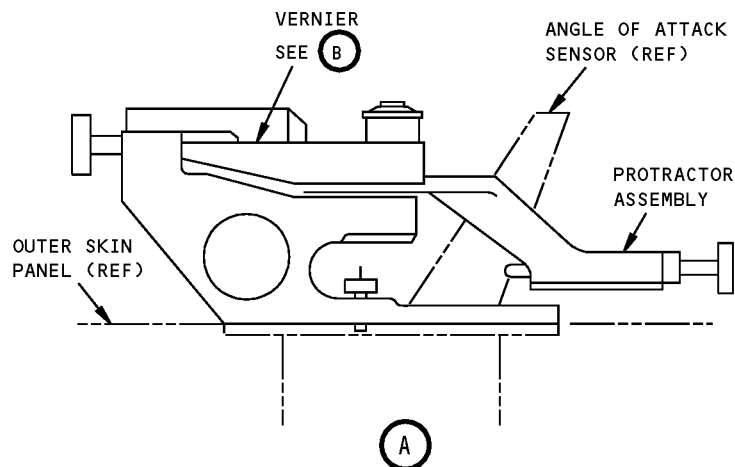
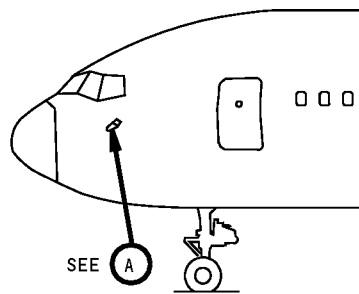
USAGE & DESCRIPTION: The A34012 -1 or -24 test fixture and the A34012-19 checking fixture are used on all 767 airplanes. The A34012-1 or -24 test fixture assembly is used to accurately measure angle-of attack (AOA) sensor deflection on the airplane. The A34012-19 checking fixture is used for alignment check and initial setting of the AOA sensor. The A34012-24 incorporates a vernier and circle which are different from those used on the A34012-1 assembly. Refer to AMM 34-12-00 and AMM 34-12-03 for complete usage instructions. A34012-1 can be made into a A34012-24 by following the rework instructions on the current A34012 drawing. A34012-24 consists of an A34012-25 fixture assembly contained in a storage box. A34012-19 consists of an A34012-36 fixture assembly contained in a storage box.

WEIGHT: A34012-1 or -24 - 3 lbs (1.4 kg)
A34012-19 - 1lb (0.5 kg)

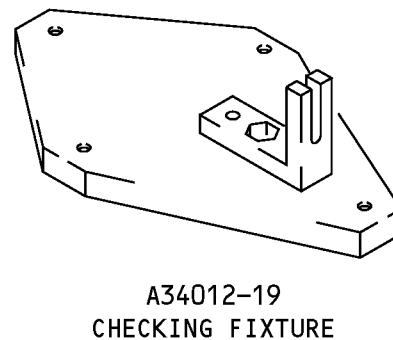
DIMENSIONS: A34012-1 or -24 - 4 x 7 x 11 inches (102 x 178 x 279 mm)
A34012-19 - 2 x 3 x 5 inches (51 x 76 x 127 mm)

NOTE: J34002 replaces A34012 for future procurement.
A34012-24 replaces A34012-1.

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(B)



Angle Of Attack Test Fixture
Figure 1



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PART NUMBER: J34002-18, -19

NAME: TEST FIXTURE - ANGLE OF ATTACK

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

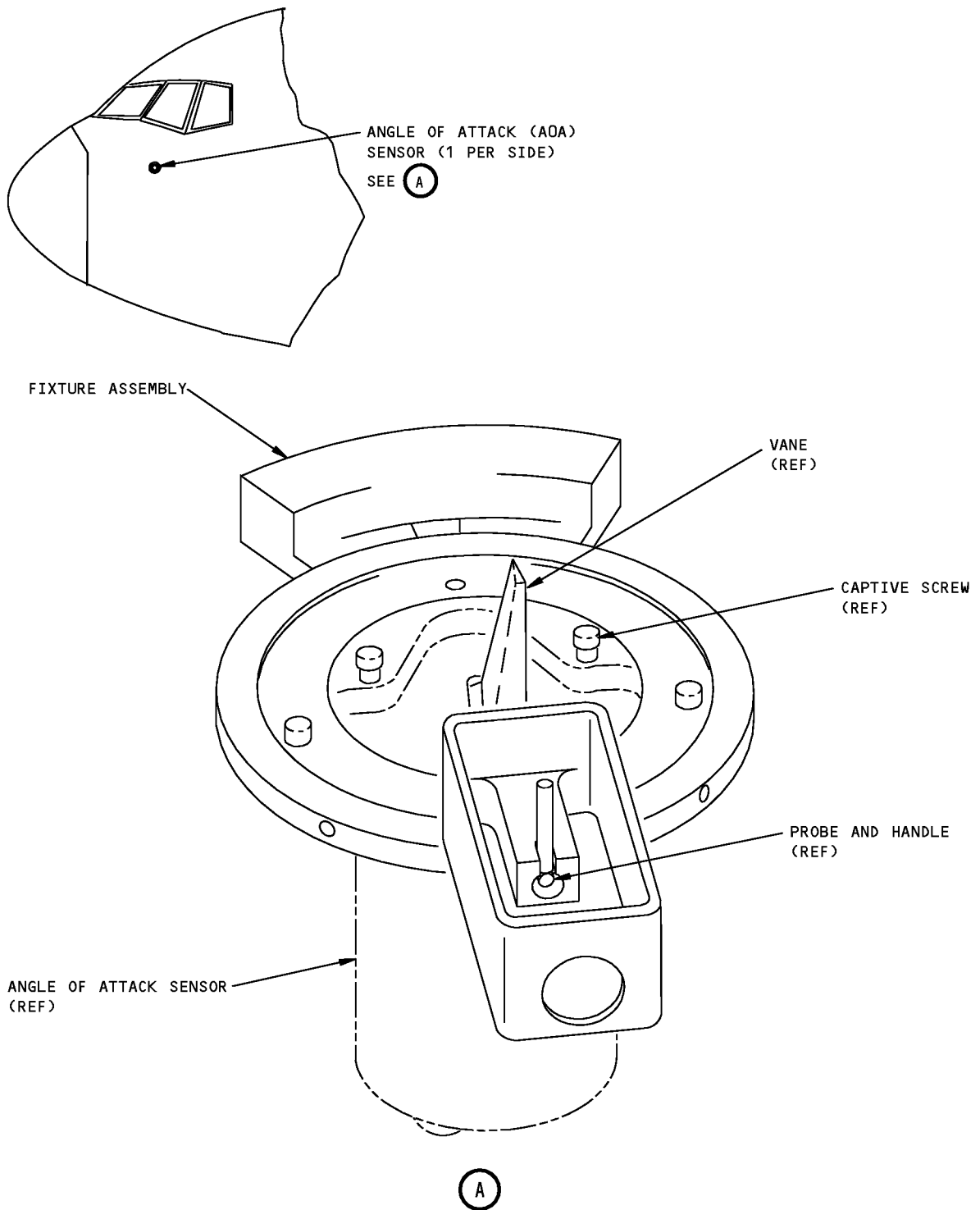
USAGE & DESCRIPTION: The J34002-18 or -19 test fixture is used on all 767 airplanes. J34002 is used to accurately measure the angle of attack (AOA) sensor deflection and for periodic alignment of the sensor. Refer to AMM 34-12-00 and AMM 34-12-00 for complete usage instructions. J34002-18 consists of two J34002-20 fixture assemblies contained in a storage box. J34002-19 consists of two J34002-21 fixture assemblies contained in a storage box.

WEIGHT: 5 lbs (2.3 kg)

DIMENSIONS: 3 X 15 X 20 inches (76 x 381 x 508 mm)

NOTE: J34002 replaces A34012 for future procurement.
J34002-19 replaces J34002-18 for future procurement.
J34002-18 supersedes J34002-1.

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Angle Of Attack Test Fixture
Figure 1



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PART NUMBER: A34016-1, -2, -5, -7, -8, -9, -10, -11, -16, -21, -22, -23, -24, -25, -26, -27, -28, -30, -33, -34, -35, -36, -38, -42, -44, -46, -47, -48, -49, -54, -59, -60, -61, -62, -63, -64, -65, -67, -69, -72, -73, -175, -176, -181, -186

NAME: BREAKOUT BOX EQUIPMENT - ARINC 600, LINE MAINTENANCE

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The A34016 breakout box is used for line electrical maintenance troubleshooting on all 767 airplanes. A34016 is also used on 737-300 thru -900, 747-400, 757 airplanes for signal and continuity checks. The A34016 uses multiple breakout boxes and a few cables to analyze the various airplane system wiring from the electronic equipment centers (ARINC 600 type rack connectors). To use the A34016, the applicable line replaceable unit (LRU) is removed from the electrical/electronics rack connector and replaced with the applicable breakout box and cable for pin access. Applicable connectors, airplane maintenance manuals, fault isolation manuals or airplane schematic and wire diagrams are to be determined by the user. Equipment typical to all 767's and the 767-400 are listed in the following table.

A34016 BREAKOUT BOX APPLICATION TABLE	
EXTENDER BOX PART NUMBER	NOTES
A34016-1 (with a storage box) or A34016-36 (the same extender box without a storage box).	Limited applicability. Airplane typically has 1-2 LRU's that are applicable. Mate-with BACC66F11X03 for SELCAL only. Airplane connector equipment D00441.
A34016-2 (with a storage box) or A34016-38 (the same extender box without a storage box).	Airplane typically has 6 or more LRU's that are applicable.
A34016-5 (with a storage box) or A34016-42 (the same extender box without a storage box).	Airplane typically has 6 or more LRU's that are applicable. All 767's except 767-400.
A34016-7 (with a storage box) or A34016-41 (the same extender box without a storage box).	Airplane typically has 1-2 LRU's that are applicable. Customer specified option. Mate-with BACC66H122 for optional version of weather radar unit. Airplane connector equipment D00391 and D00393. All 767's except 767-400.
A34016-8 (with a storage box) or A34016-46 (the same extender box without a storage box).	Airplane typically has 3-5 LRU's that are applicable.
A34016-9 (with a storage box) or A34016-47 (the same extender box without a storage box).	Airplane typically has 3-5 LRU's that are applicable.
A34016-10 (with a storage box) or A34016-48 (the same extender box without a storage box).	Airplane typically has 1-2 LRU's that are applicable. Mate-with BACC66H24 for weather radar unit. Airplane connector equipment D00391 and D00393.

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A34016 BREAKOUT BOX APPLICATION TABLE	
EXTENDER BOX PART NUMBER	NOTES
A34016-11 (with a storage box) or A34016-49 (the same extender box without a storage box).	Limited applicability, airplane typically has 1-2 LRU's that are applicable. Mate-with BACC66H26. Generally for airplane line numbers 431 and on. For S345T002 use A28007 test box.
A34016-16 (with a storage box) or A34016-54 (the same extender box without a storage box).	Airplane typically has 1-2 LRU's that are applicable. Mate-with BACC66H34 for camera interface unit/audio management unit.
A34016-21 (with a storage box) or A34016-59 (the same extender box without a storage box).	Airplane typically has 3-5 LRU's that are applicable. Mate-with BACC66H40 for multimode receiver. Airplane connector equipment D03761 and D03765.
A34016-22 (with a storage box) or A34016-60 (the same extender box without a storage box).	Limited applicability. Customer specified option. Airplane typically has 1-2 LRU's that are applicable. Mate-with BACC66H41 for baseline units. Airplane connector equipment D14707 and D14708. Only used on 767-400.
A34016-23 (with a storage box) or A34016-61 (the same extender box without a storage box).	Limited applicability. Customer specified option. Airplane typically has 1-2 LRU's that are applicable. Mate-with BACC66H42 for radio frequency unit. Airplane connector equipment D14709 and D14710. Only used on 767-400.
A34016-24 (with a storage box) or A34016-62 (the same extender box without a storage box).	Limited applicability. Customer specified option. Airplane typically has 1-2 LRU's that are applicable. Mate-with BACC66H43 for power supply unit. Only used on 767-400.
A34016-25 (with a storage box) or A34016-63 (the same extender box without a storage box).	Airplane typically has 3-5 LRU's that are applicable. Mate-with BACC66H40 for multimode receiver. Only used on 767-400.
A34016-26 (with a storage box) or A34016-64 (the same extender box without a storage box).	Limited applicability. Customer specified option. Airplane typically has 1-2 LRU's that are applicable. Mate-with BACC66H45 for SATCOM data unit. Airplane connector equipment D10813.
A34016-27 (with a storage box) or A34016-65 (the same extender box without a storage box).	Airplane typically has 3-5 LRU's that are applicable.
A34016-28 (with a storage box) or A34016-67 (the same extender box without a storage box).	Limited applicability. Customer specified option. Airplane typically has 1-2 LRU's that are applicable. Mate-with BACC66K33 for S242N701 EICAS computer. Airplane connector D0881 and D0883. All 767's except 767-400.



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A34016 BREAKOUT BOX APPLICATION TABLE	
EXTENDER BOX PART NUMBER	NOTES
A34016-30 (with a storage box) or A34016-69 (the same extender box without a storage box).	Limited applicability. Customer specified option. Airplane typically has 1-2 LRU's that are applicable. Mate-with BACC66K35 and BKAE-6705-54 (with environmental seal) for TCAS. Airplane connector D02463.
A34016-33 (with a storage box) or A34016-72 (the same extender box without a storage box).	Limited applicability. Customer specified option. Airplane typically has 1-2 LRU's that are applicable on all 767's except 767-400. Mate-with BACC66K38 for S242N701 EICAS computer. Airplane connector equipment D0881 and D0883. Typically has 3-5 LRU's that are applicable for 767-400.
A34016-34 (with a storage box) or A34016-73 (the same extender box without a storage box).	Airplane typically has 1-2 LRU's that are applicable. Mate-with BACC66K39 for yaw damper module. Only used on 767-400.
A34016-35 cable assembly/spacer equipment	Required for all troubleshooting using A34016-X extender boxes as applicable to the tool dash number.
A34016-175 (with a storage box) or A34016-176 (the same extender box without a storage box).	Limited applicability. Customer specified option. Airplane typically has 1-2 LRU's that are applicable. Mate-with BACC66H46 for ETHERNET hub within applicable purser station or video control center. Airplane connector equipment D11317 EHUB (prov) Very Limited. All 767's except 767-400.
A34016-181 (with a storage box) or A34016-186 (the same extender box without a storage box).	Limited applicability. Customer specified option. Airplane typically has 1-2 LRU's that are applicable. Mate-with BACC66H50 (and BACC66H47) for electronic flight bag electronics unit. Airplane connector D02425 and D02640. The indicated extender box does not include fiber optic breakout capability.

WEIGHT:

A34016-35 cable assemblies/spacer equipment: 22 lbs (10 kg) (Including case)

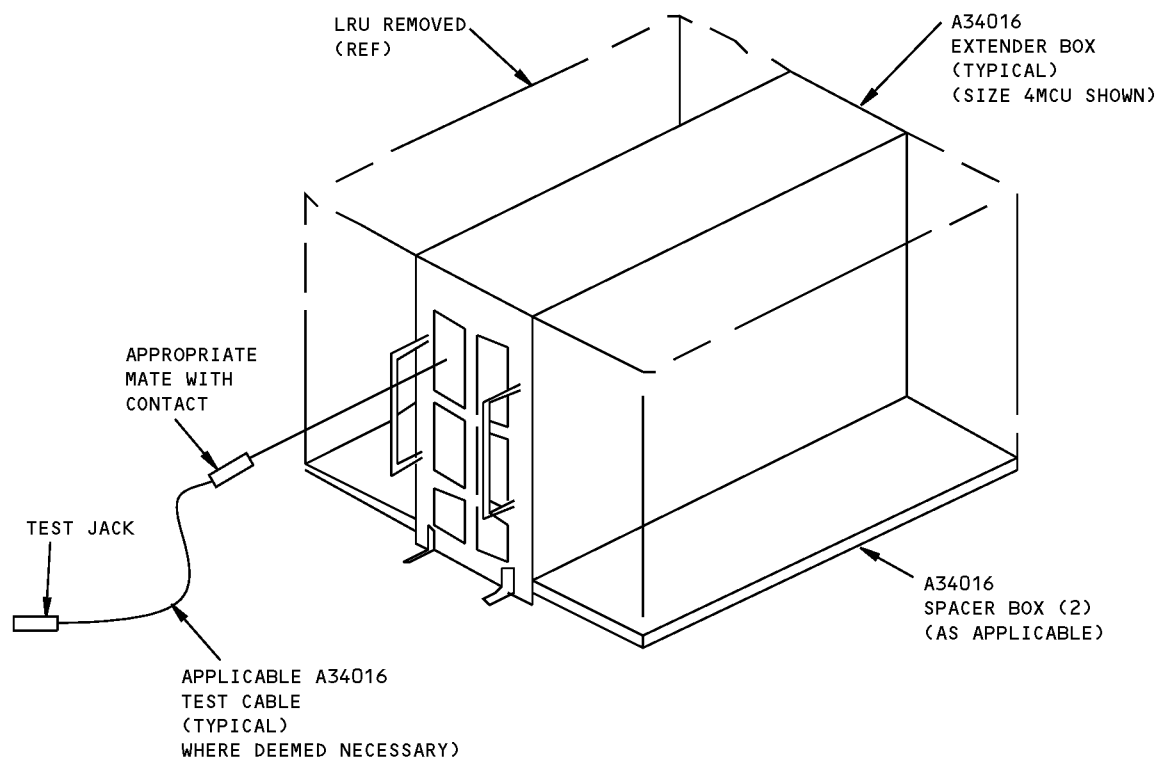
Typical breakout box: 12 lbs (5.4 kg)

DIMENSIONS:

7 x 13 x 16 inches (178 x 330 x 406 mm) (exterior case)

NOTE:

A34016 replaces A34011 for future procurement.



NOTE: THE CONTACTS ON THE FRONT PANEL OF THE A34016 EXTENDER BOXES ARE THE SAME PATTERN AS THE AIRPLANE PLUG CONNECTOR.

ARINC 600 Line Maintenance Breakout Box Equipment
Figure 1



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: A34008-1

NAME: TEST BOX - FRONT MODULE, INSTRUMENT LANDING SYSTEM (ILS)

AIRPLANE MAINTENANCE: NO

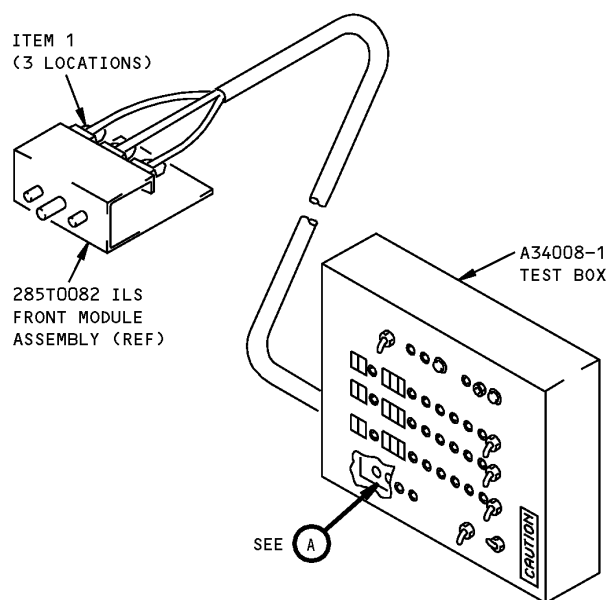
COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The A34008 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A34008 inclusion in the 767 ITEM is for information and historical purposes only.

The A34008-1 test box is applicable to 767-200 airplanes line number 1 through 37 only. A34008 is used in conjunction with 285T0020-8,-9 and -10 and is used to functionally test the Instrument Landing System (ILS) front module 285T0082. Refer to CMM 34-31-51 for complete usage instructions.

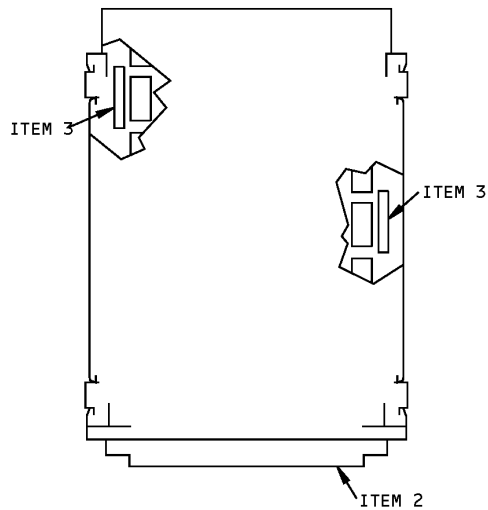
WEIGHT: 7 lbs (3.2 kg)

DIMENSIONS: 3 x 12 x 14 inches (76 x 305 x 356 mm)



ILS Front Module Test Box
Figure 1 (Sheet 1 of 2)

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ILLUSTRATED TOOL AND EQUIPMENT MANUAL



A34008-28 BOARD ASSEMBLY

(A)

ILS Front Module Test Box
Figure 1 (Sheet 2 of 2)

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	MDM-37PL39F	CONNECTOR	V71468
2	R636-2	EDGE CONNECTOR	V82893
3	56PR1K	POTENTIOMETER	V05721



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: A34014-14

NAME: TEST BOX - POWER SUPPLY CONTROL PANEL

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

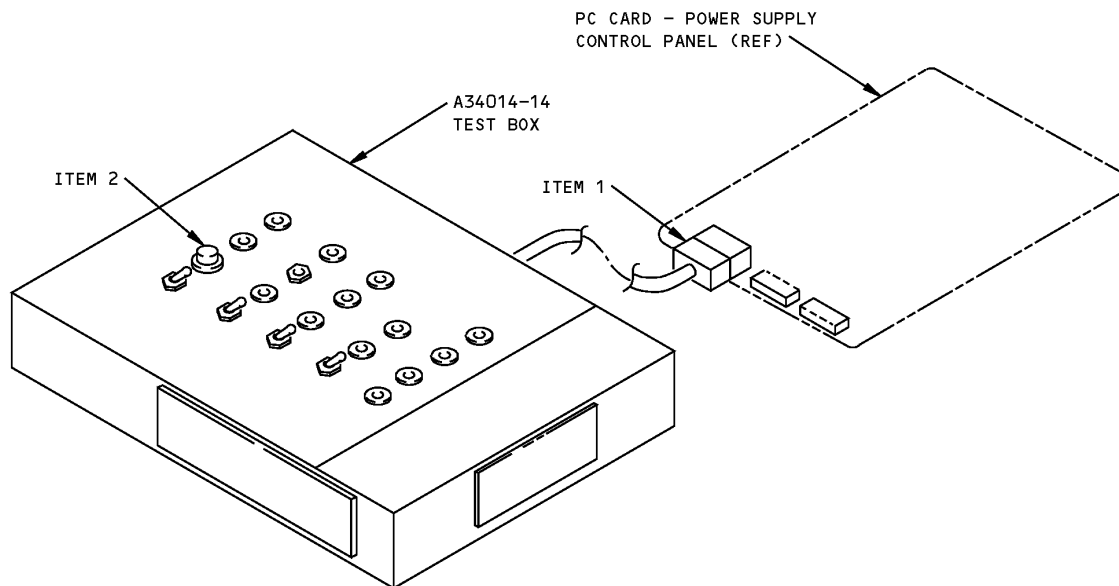
USAGE & DESCRIPTION: The A34014 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A34014 inclusion in the 767 ITEM is for information and historical purposes only.

The A34014 -14 test box is used on 767-200, -200ER, -300 and -300ER airplanes. The A34014 -14 test box is used to test control panel power assemblies 285T0552 or 285T0562. Refer to CMM 34-09-60 for complete usage instructions.

WEIGHT: 5 lbs (2.3 kg)

DIMENSIONS: 4 x 8 x 10 inches (102 x 203 x 305 mm)

NOTE: A34014-14 supersedes A34014-1.



Power Supply Control Pane Test Box
Figure 1



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	SMD20G5-11SL	CONNECTOR	V91637
2	507-5338-1531-610	LAMP	V96312



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: G34004-17

NAME: ADJUSTMENT EQUIPMENT - WEATHER RADAR ANTENNA MOUNT

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The G34004 adjustment equipment is used on all 767 airplanes. G34004 is used to adjust the pitch and roll alignment of the weather radar antenna mount relative to the airplane reference plane. Refer to Airplane Maintenance Manual 34-43-07 for complete usage instructions. G34004-17 consists of:

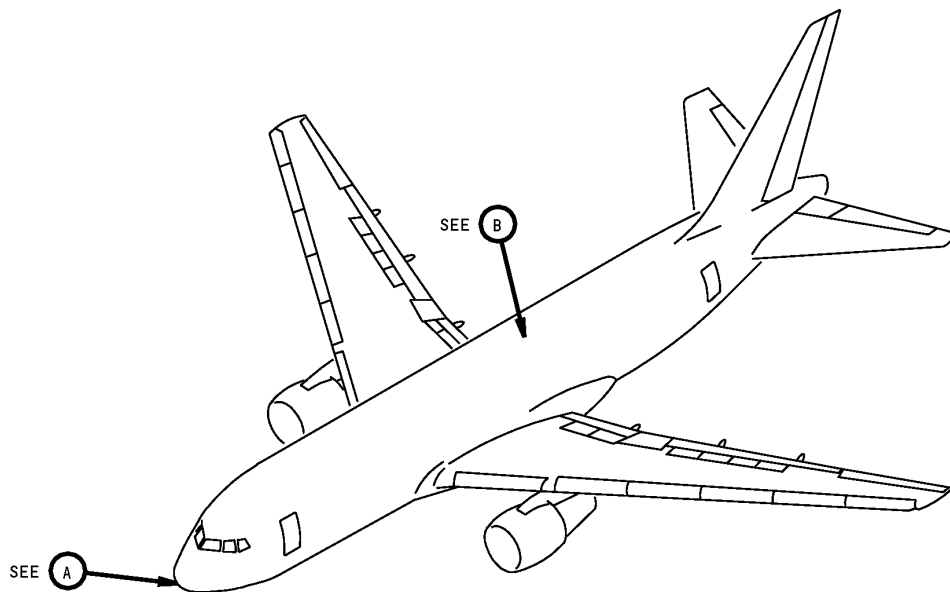
G34004-17		
QUANTITY	NOMENCLATURE	PART NUMBER
1	TRANSFER EQUIPMENT	G34004-12
1	REFERENCE EQUIPMENT	G34004-18
1	PROTRACTOR (MODEL DP-60)	02550-01
1	STORAGE BOX	

WEIGHT: 36 lbs (16 kg)

DIMENSIONS: 7 x 14 x 25 inches (178 x 356 x 635 mm)

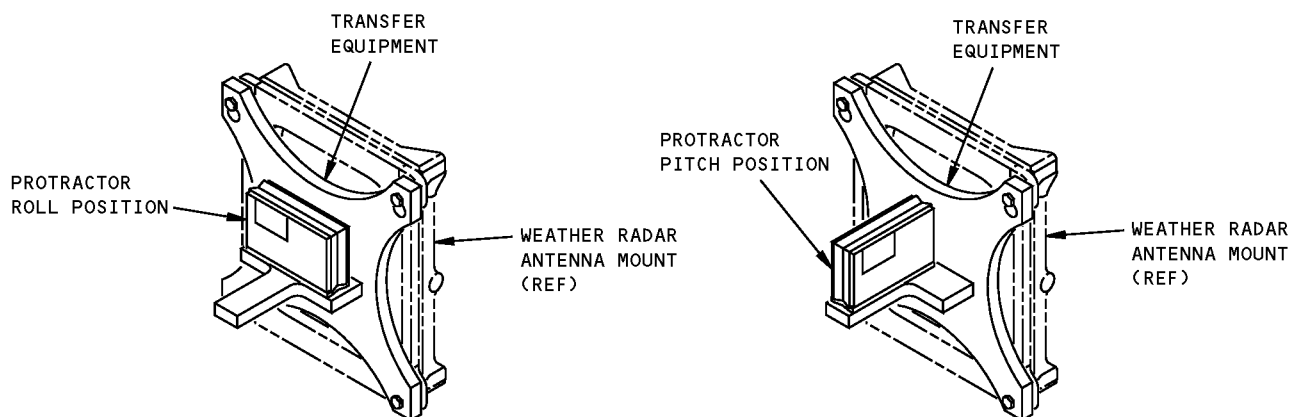
NOTE: G34004-17 supersedes G34004-11.

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ILLUSTRATED TOOL AND EQUIPMENT MANUAL



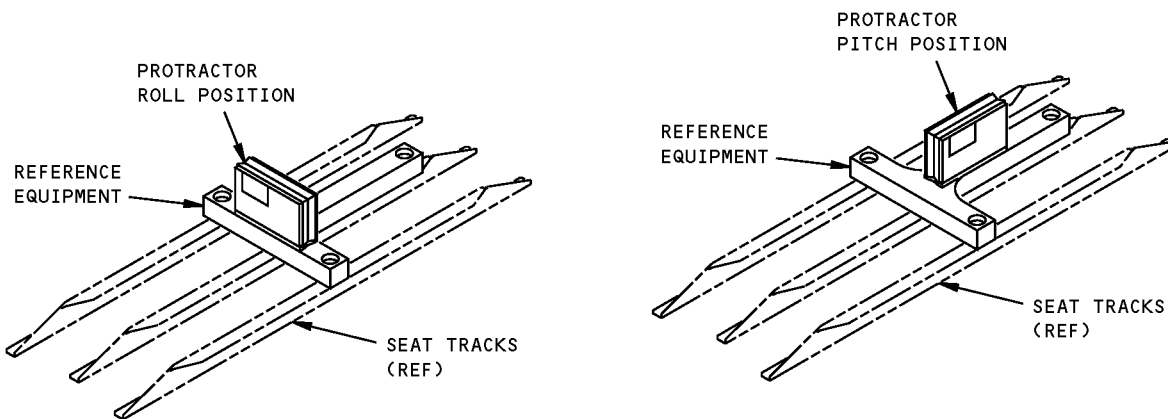
Weather Radar Antenna Mount Adjustment Equipment
Figure 1 (Sheet 1 of 2)

ILLUSTRATED TOOL AND EQUIPMENT MANUAL



ALIGNMENT OF ANTENNA MOUNT

A



REFERENCE TRANSFER LOCATION MEASUREMENT

B

**Weather Radar Antenna Mount Adjustment Equipment
Figure 1 (Sheet 2 of 2)**



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: A34001-1, -4

NAME: WARNING EQUIPMENT - AIR TRAFFIC CONTROL (ATC), DISTANCE MEASURING EQUIPMENT (DME), VERY HIGH FREQUENCY (VHF) ANTENNA AND DRAIN MAST

AIRPLANE MAINTENANCE: YES

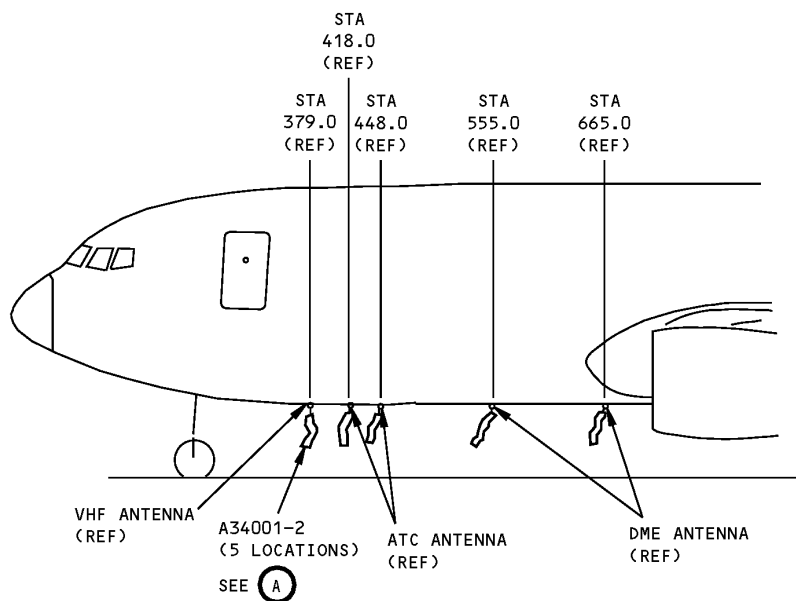
COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The A34001 warning equipment is used on all 767 airplanes. A34001 consists of warning streamers that note hazards and help to prevent injury to maintenance personnel, damage to antennas and drain masts. A34001 is secured next to antennas and drain masts by use of a suction cup. The A34001-1 consists of five A34001-2 warning streamers contained in a storage box. The A34001-4 consists of eight A34001-2 warning streamers contained in a storage box.

WEIGHT: 5 lbs (2.3 kg)

DIMENSIONS: 6 x 10 x 12 inches (152 x 254 x 305 mm)

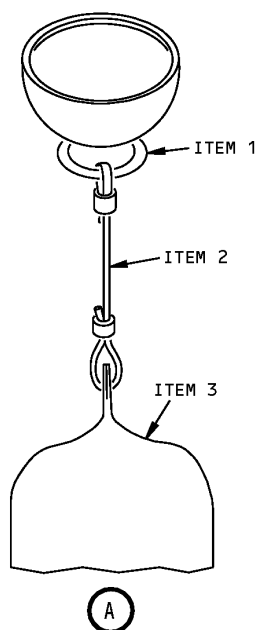
NOTE: A34001-4 replaces A34001-1 for future procurement.



A34001-1 SHOWN

**ATC, DME and VHF Antenna And Drain Mast Warning Equipment
Figure 1 (Sheet 1 of 2)**

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ILLUSTRATED TOOL AND EQUIPMENT MANUAL



ATC, DME and VHF Antenna And Drain Mast Warning Equipment
Figure 1 (Sheet 2 of 2)

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	5157	SUCTION CUP	V70485
2	CL-21-KA-7-LR	LANYARD	V99862
3	NAS1756-36	WARNING STREAMER	



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: A34009-29

NAME: TEST BOX - REAR MODULE AND CONTROL PANEL, VERY HIGH FREQUENCY OMNI RANGE/DISTANCE MEASURING EQUIPMENT (VOR/DME)

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The A34009 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A34009 inclusion in the 767 ITEM is for information and historical purposes only.

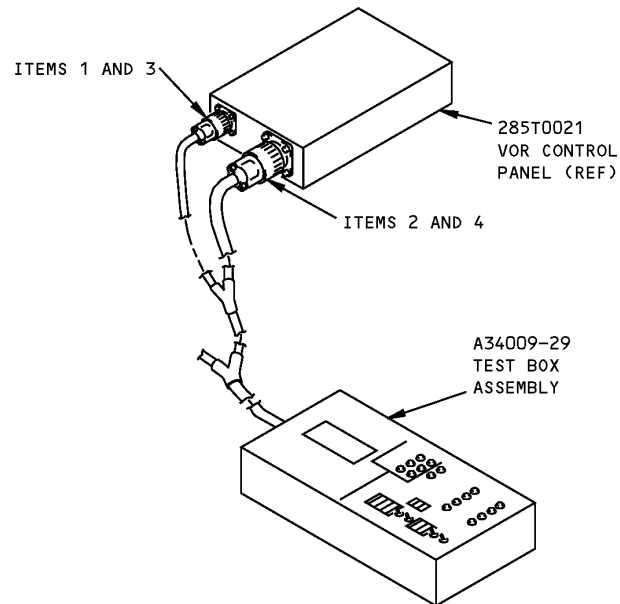
The A34009-29 test box is used during component maintenance for all 767 airplanes. A34009 is used to test and troubleshoot the circuitry and electrical components of both the VOR/DME rear module assembly and the VOR/DME control panel. Refer to CMM 34-51-51 and CMM 34-51-61 for complete usage instructions.

WEIGHT: 10 lbs (4.5 kg)

DIMENSIONS: 5 x 12 x 25 inches (127 x 305 x 635 mm)

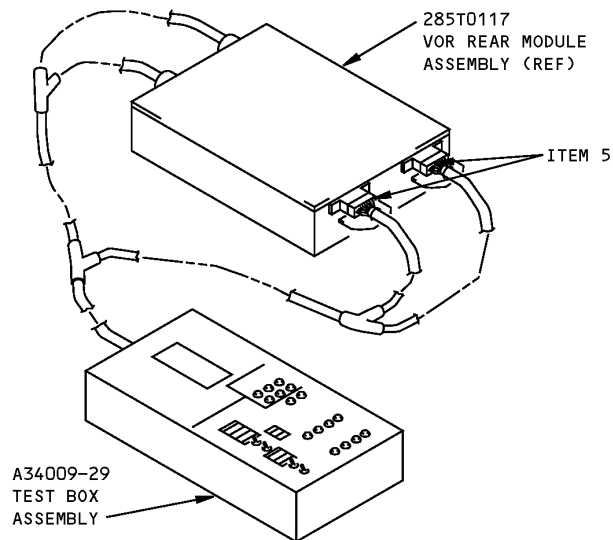
NOTE: A34009-29 supersedes A34009-26.

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ILLUSTRATED TOOL AND EQUIPMENT MANUAL



VOR CONTROL PANEL USAGE

VOR/DME Rear Module And Control Panel Test Box
Figure 1 (Sheet 1 of 2)



VOR REAR MODULE USAGE

VOR/DME Rear Module And Control Panel Test Box
Figure 1 (Sheet 2 of 2)



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	MS24266R12B12SN	CONNECTOR	
2	MS24266R18B31SN	CONNECTOR	
3	MS27293-2	CONNECTOR CAP	
4	MS27293-5	CONNECTOR CAP	
5	MDM37SL39F	CONNECTOR	V71468

ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: A34010-21

NAME: TEST BOX - FRONT MODULE, VERY HIGH FREQUENCY OMNI RANGE/
DISTANCE MEASURING EQUIPMENT (VOR/DME)

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

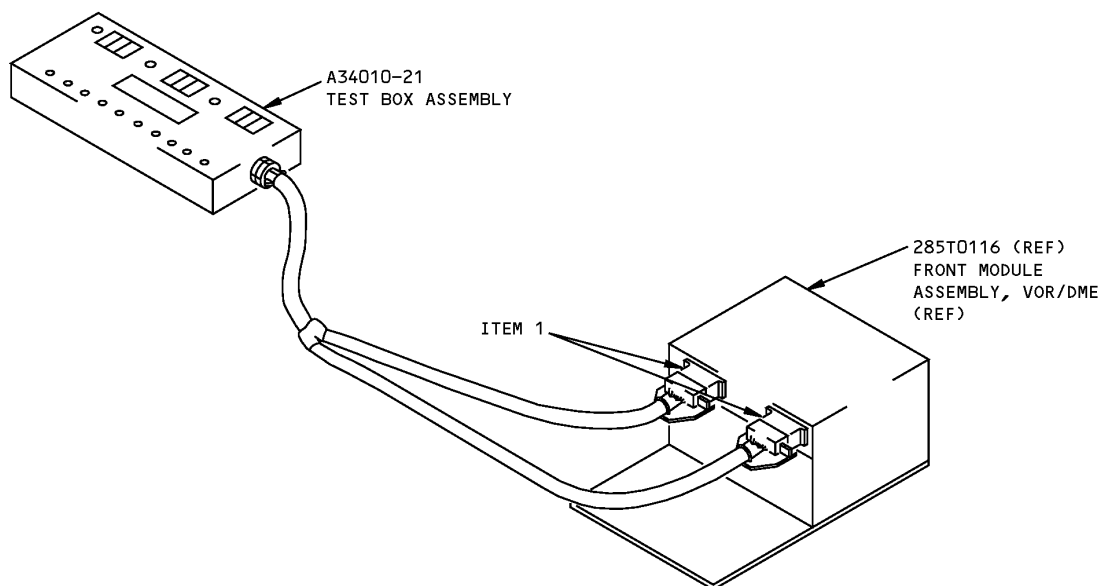
USAGE & DESCRIPTION: The A34010 drawing has been transferred to BAE systems and will no longer be revised by Boeing. The A34010 inclusion in the 767 ITEM is for information and historical purposes only.

The A34010-21 test box is used during component maintenance, typically, on 767-200 airplanes line number 1 through 105 only. A34010 is used in conjunction with 285T0021-16,-17,-19 and -20 to functionally test the VOR/DME front module assembly 285T0116. Refer to CMM 34-51-51 for complete usage instructions.

WEIGHT: 5 lbs (2.3 kg)

DIMENSIONS: 6 x 10 x 15 inches (152 x 254 x 381 mm)

NOTE: A34010-21 supersedes A34010-1.



**VOR/DME Front Module Test Box
Figure 1**



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	MDM-37PL39F	CONNECTOR	V71468



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: A34005-1

NAME: TEST BOX - AUTOMATIC DIRECTION FINDER (ADF) FRONT MODULE ASSEMBLY

AIRPLANE MAINTENANCE: NO

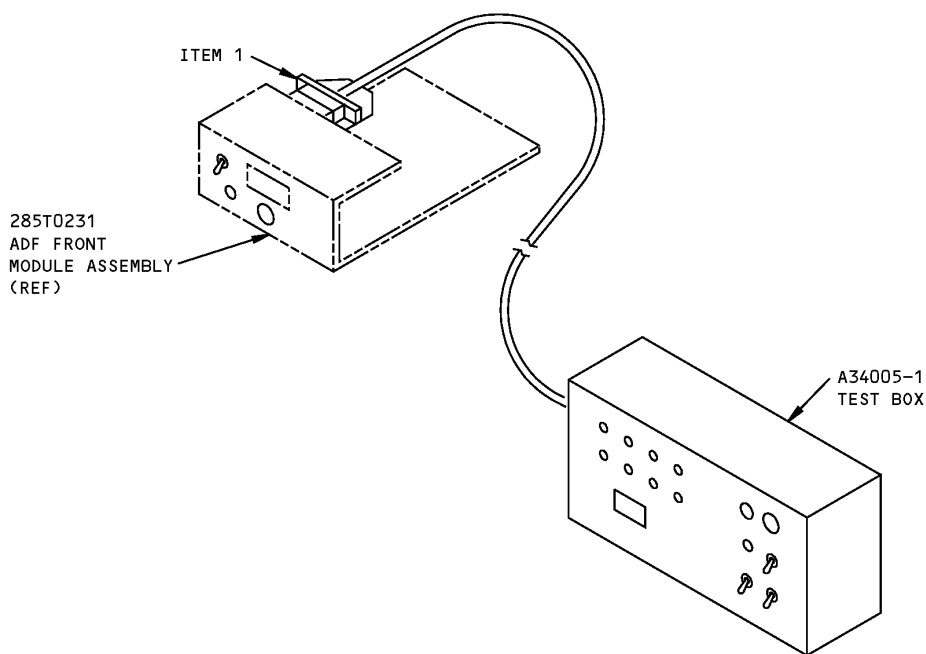
COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The A34005 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A34005 inclusion in the 767 ITEM is for information and historical purposes only.

The A34005-1 test box is a component maintenance tool that is typically used on 767-200 airplanes line number 1 through 104. A34005 is used in conjunction with 285T0027-14 to perform continuity and frequency testing on the ADF front module assembly. Refer to CMM 34-57-51 for complete usage instructions.

WEIGHT: 1 lb (0.5 kg)

DIMENSIONS: 3 x 5 x 10 inches (76 x 127 x 254 kg)



**ADF Front Module Assembly Test Box
Figure 1**



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	MDM-37PBS	CONNECTOR	V71468

ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: A34006-1, -21

NAME: TEST BOX - AUTOMATIC DIRECTION FINDING (ADF) CONTROL PANEL AND REAR MODULE

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

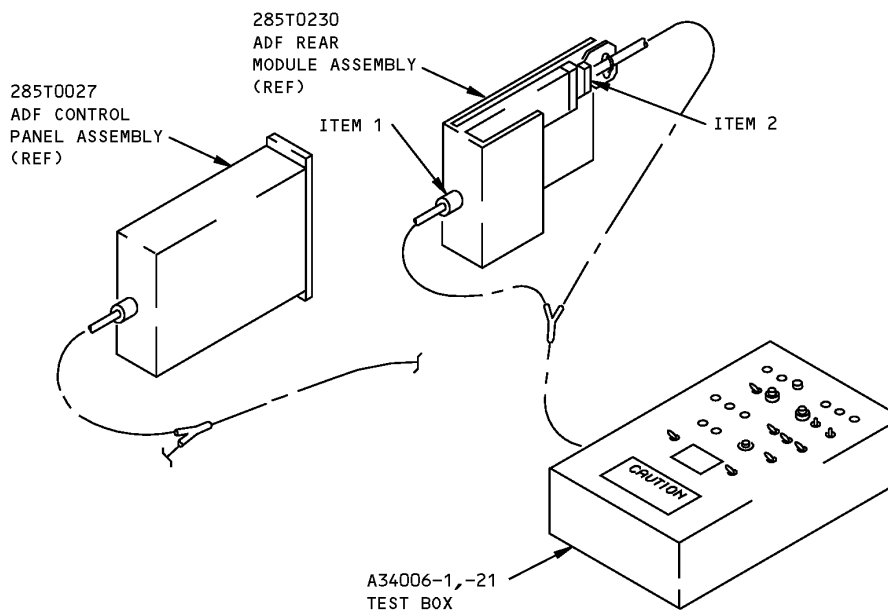
USAGE & DESCRIPTION: The A34006 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A34006 inclusion in the 767 ITEM is for information and historical purposes only.

The A34006-1 or -21 test box is a component maintenance tool typical applicable to 767-200 airplanes line number 1 through 104. A34006 is used in conjunction with 285T0027-14 to functionally test the ADF control panel and rear module. Refer to CMM 34-57-51 for complete usage instructions.

WEIGHT: 8 lbs (3.6 kg)

DIMENSIONS: 4 x 10 x 15 inches (102 x 254 x 381 mm)

NOTE: A34006-21 replaces A34006-1 for future procurement.



ADF Control Panel and Rear Module Test Box
Figure 1



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	MS24266R16B24S6	CONNECTOR	
2	MDM-37SL39	CONNECTOR	V71468



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: A34007-33, -36

NAME: TEST BOX - REAR MODULE AND CONTROL PANEL, INSTRUMENT LANDING SYSTEM (ILS)

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The A34007 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A34007 inclusion in the 767 ITEM is for information and historical purposes only.

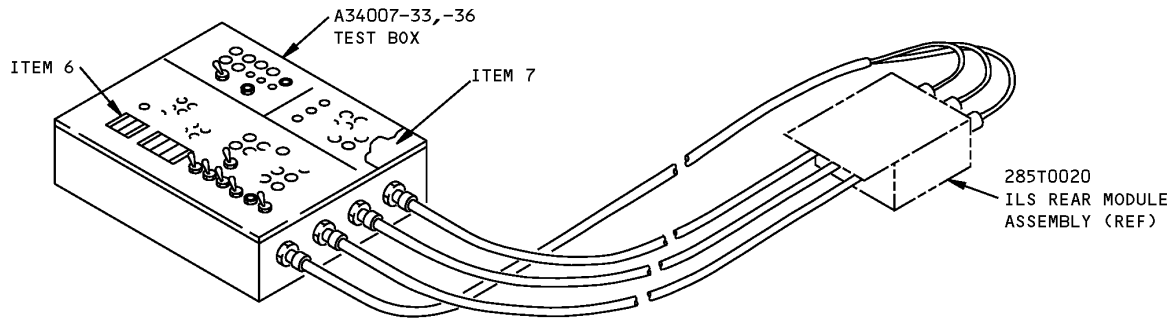
The A34007-33 or -36 text box is a component maintenance tool, typically applicable to 767-200 airplanes line number 1 through 37. A34007 is used in conjunction with 285T0020-8,-9 and -10. A34007 is used to functionally test the Instrument Landing System (ILS) control panel assembly 285T0020 and (ILS) rear module assembly 285T0081. Refer to CMM 34-31-51 for complete usage instructions.

WEIGHT: 10 lbs (4.5 kg)

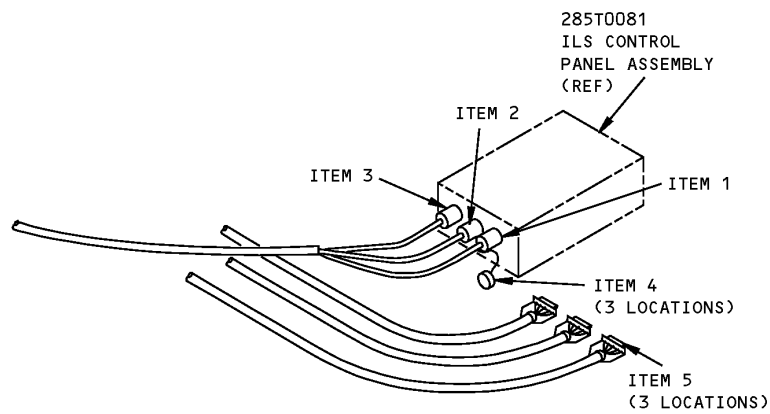
DIMENSIONS: 5 x 12 x 15 inches (127 x 305 x 381 mm)

NOTE: A34007-36 replaces A34007-33 for future procurement.

ILLUSTRATED TOOL AND EQUIPMENT MANUAL



Rear Module and Control Panel ILS Test Box
Figure 1 (Sheet 1 of 2)



Rear Module and Control Panel ILS Test Box
Figure 1 (Sheet 2 of 2)



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	MS24266R14B15S6	CONNECTOR	
2	MS24266R14B15S7	CONNECTOR	
3	MS24266R14B15S8	CONNECTOR	
4	MS27293-3	CONNECTOR	
5	MDM37SL39F	CONNECTOR	V71468
6	56PR1K	POTENTIOMETER	V05721
7	R636-2	CONNECTOR	V82893



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: A34003-1, -43, -46

NAME: TEST BOX - REAR MODULE AND CONTROL PANEL, AIR TRAFFIC CONTROL (ATC)

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The A34003 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A34003 inclusion in the 767 ITEM is for information and historical purposes only.

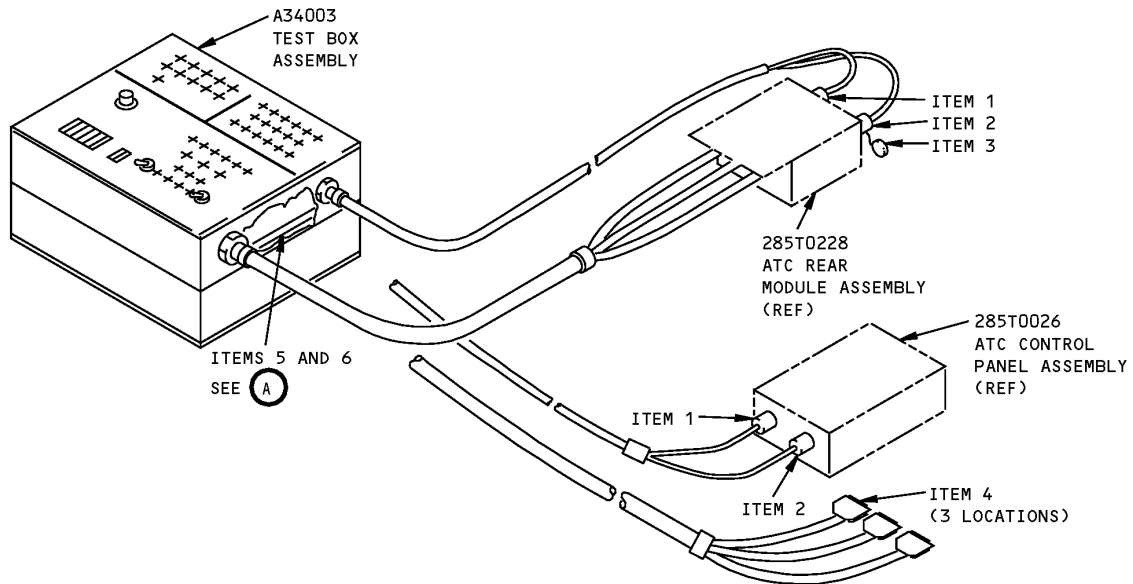
The A34003-1, -43 or -46 test box is used during component maintenance on 767-200 airplanes equipped with the 285T0026-10 Air Traffic Control (ATC) panel. Typically, this includes line number 1 through 105. A34003 is used to test the ATC control panel and ATC rear module assembly. The A34003-46 is used in conjunction with the 285T0026-10, -11, -13 and -14. Refer to CMM 34-53-51 for complete usage instructions.

WEIGHT: 10 lbs (4.5 kg)

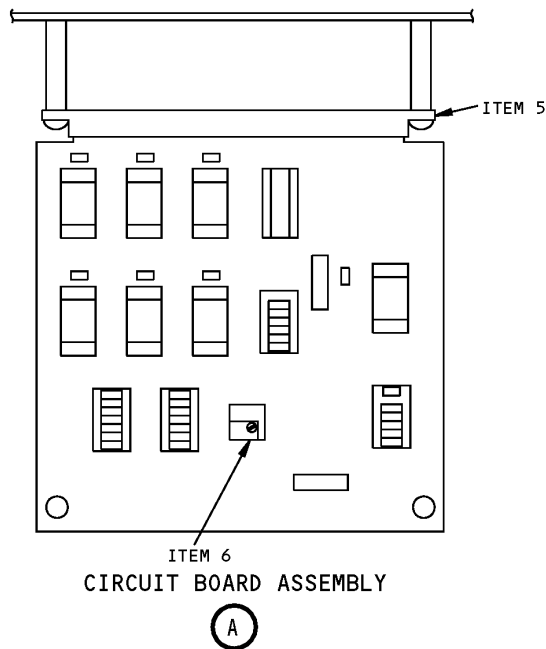
DIMENSIONS: 8 x 12 x 15 inches (203 x 305 x 381 mm)

NOTE: A34003-43 replaces A34003-1 for future procurement.
A34003-46 replaces A34003-43 for future procurement.

ILLUSTRATED TOOL AND EQUIPMENT MANUAL



**ATC Rear Module and Control Panel Test Box
Figure 1 (Sheet 1 of 2)**



**ATC Rear Module and Control Panel Test Box
Figure 1 (Sheet 2 of 2)**



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	MS24266R16B24S7	CONNECTOR	
1	M83723/75R16247 (OPTION)	CONNECTOR	
2	MS2A266R16B24S8	CONNECTOR	
2	M83723/75R16248 (OPTION)	CONNECTOR	
3	MS27293-4	CONNECTOR CAP	
3	M83723/59-216RC (OPTION)	CONNECTOR CAP	
4	MDM37SL39F	CONNECTOR	V71468
5	R636-2	RECEPTACLE	V82893
6	68WR10K	POTENTIOMETER	V80740

ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: A34004-27, -30

NAME: TEST BOX - FRONT MODULE, AIR TRAFFIC CONTROL (ATC)

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

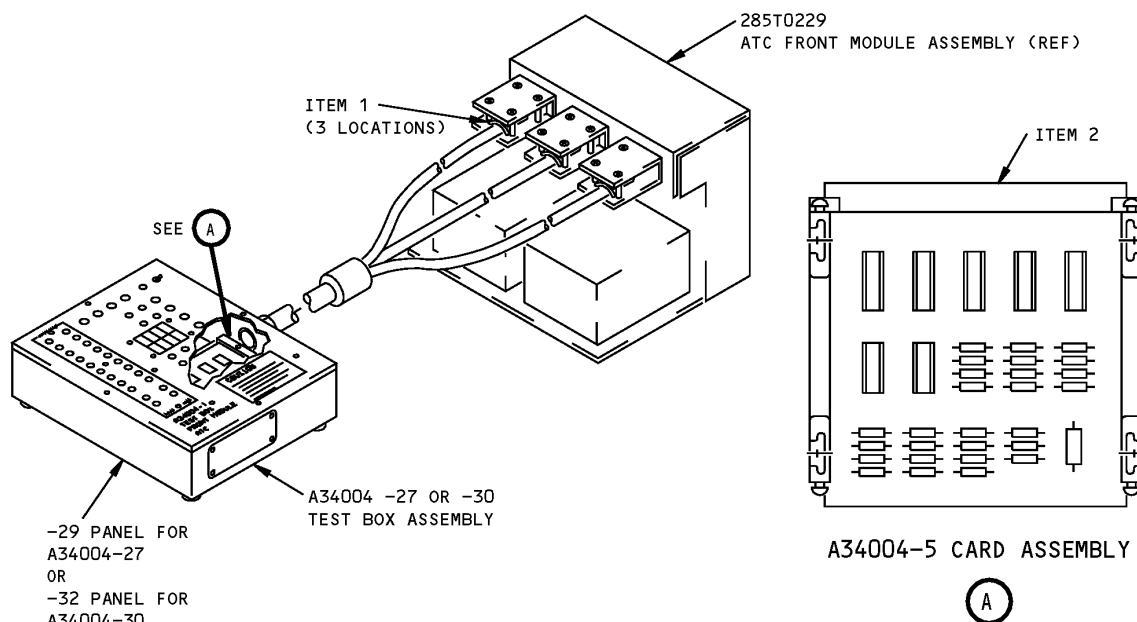
USAGE & DESCRIPTION: The A34004 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The A34004 inclusion in the 767 ITEM is for information and historical purposes only.

The A34004-27 or -30 test box is a component maintenance tool, typically applicable to 767-200 airplanes line number 1 through 105. A34004 is used in conjunction with 285T0026-10,-11,-13, -14. A34004 is used to functionally test the ATC front module assembly 285T0229. Refer to CMM 34-53-51 for complete usage instructions.

WEIGHT: 8 lbs (3.4 kg)

DIMENSIONS: 3 x 10 x 12 inches (76 x 254 x 305 mm)

NOTE: A34004-30 replaces A34004-27 for future procurement.
A34004-27 Supersedes A34004-24.



**ATC Front Module Test Box
Figure 1**



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	MDM-37PL39F	CONNECTOR	V71468
2	R636-2	CONNECTOR	V82893



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: A34015-26, -27, -35

NAME: TEST BOX - POWER INTERRUPT/PULSE

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The A34015-26 test box is used in conjunction with A33003-2 breakout box and A33003-19, -20 and -21 cable during test of the ILS control panel on 285T0553, as shown in CMM 34-31-61. The A34015-26 test box is also used with A33003-2 breakout box and A33003-9 and A33003-36 test cables during test of the VOR control panel on 285T0554, as shown in CMM 34-51-61. The A34015-26 test box is also used with A34009-29 test box during test of the VOR control panel on 285T0021, as shown in CMM 34-51-51. The A34015-26 test box is used for alternating current (primarily 115 VAC, 400 HZ) power interrupt applications only. The A34015-26 also includes test applications for the 767 airplane.

The A34015-27 test box does the same applications as the A34015-26 test box. In addition, the A34015-27 test box is also used for 28VDC general power interrupt applications up to 0.5 Amp interrupt capability. The A34015-27 test box is also used in conjunction with the A33003-2 breakout box and A33003-47 cable during tests of the radio communications panel on part number 285U0037, per CMM 23-11-20. The A34015-27 also includes test applications for the 737,747-400/-400F and 767 airplanes.

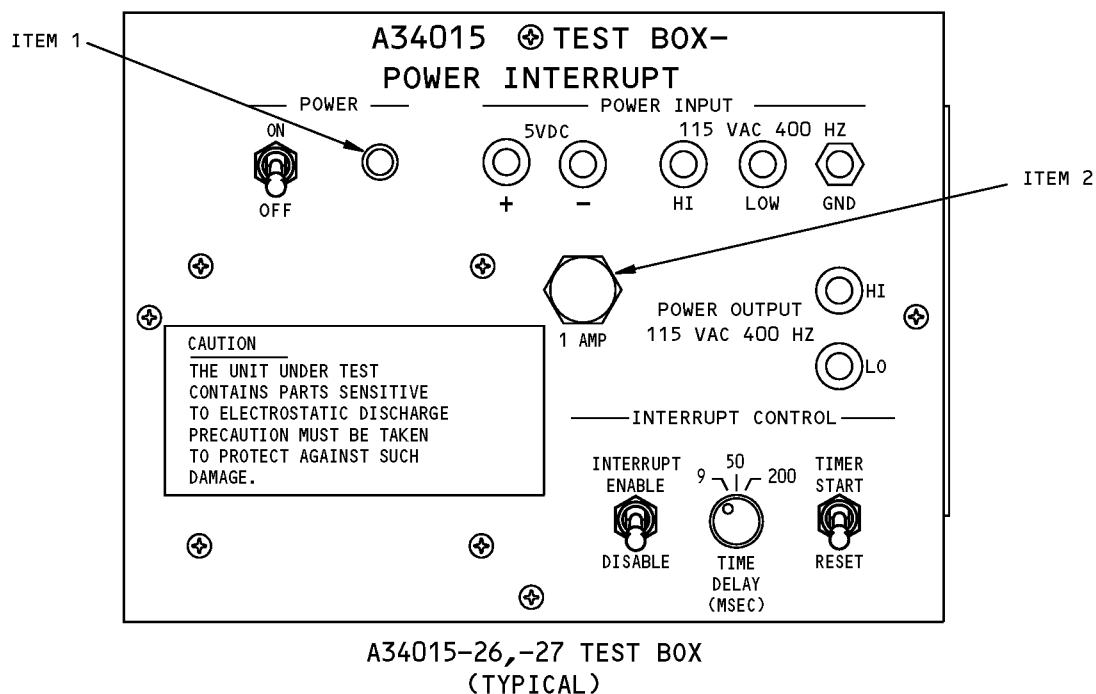
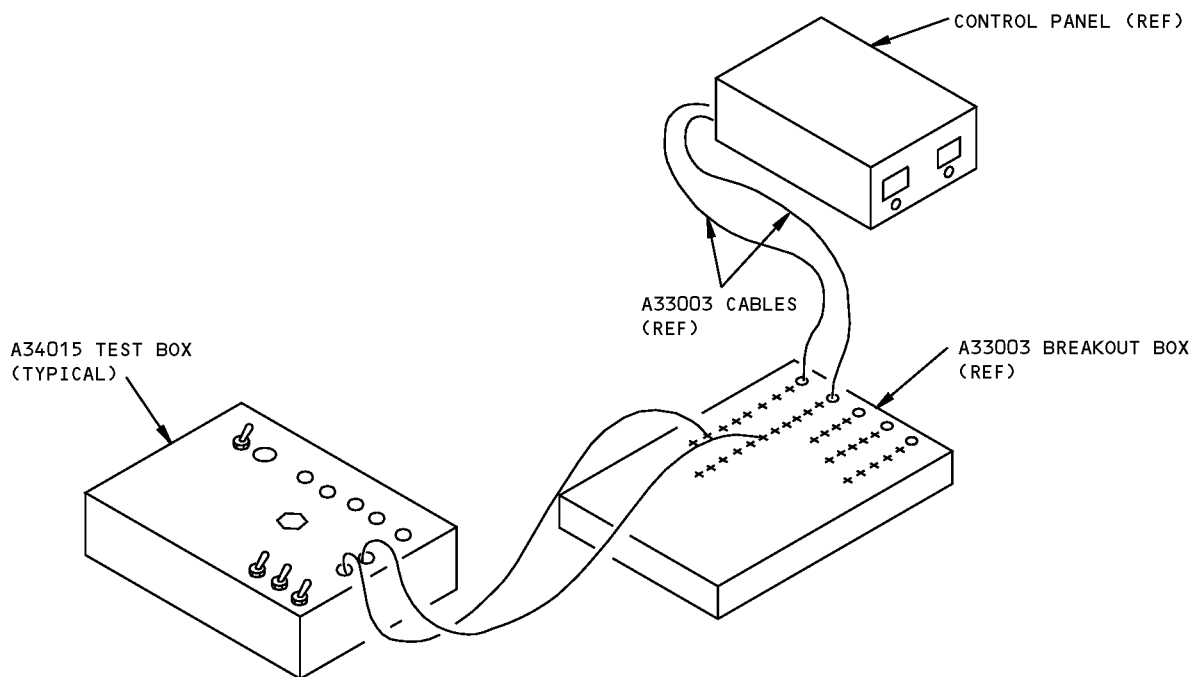
The A34015-35 test box includes all the same applications as the A34015-26 and -27 test boxes. The A34015-35 is used for general power interrupt, pulse and resistance applications involving alternating and direct current (typically) 115VAC and 28VDC up to 0.5 Amp between 1 and 50 milliseconds and up to 5 Amps at or above 100 milliseconds. The A34015-35 also includes test applications for the 737,747-400/-400F/-400ER and 767 airplanes.

WEIGHT: A34015-26 and -27 - 3 lbs (1.4 kg)
A34015-35 - 5 lbs (2.3 kg)

DIMENSIONS: A34015-26 and -27 - 3 x 7 x 9 inches (76 x 178 x 229 mm)
A34015-35 - 5 x 10 x 12 inches (127 x 254 x 305 mm)

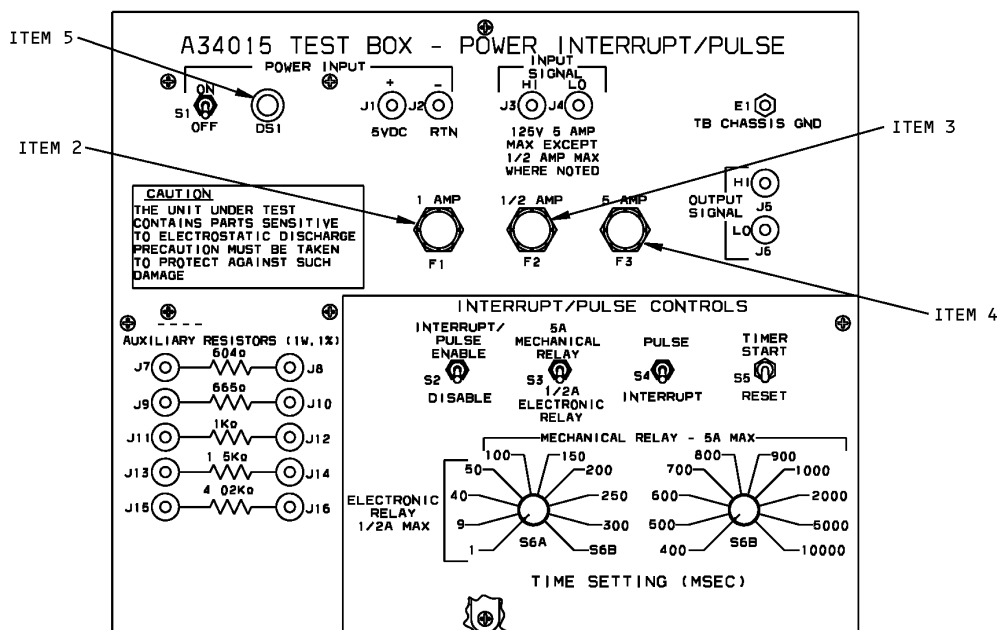
NOTE: A34015-35 replaces -26 and -27 for future procurement.
A34015-27 supersedes -23.
A34015-26 supersedes -1,-10,-13,-16,-20.

767 ILLUSTRATED TOOL AND EQUIPMENT MANUAL



**Power Interrupt/Pulse Test Box
Figure 1 (Sheet 1 of 2)**

ILLUSTRATED TOOL AND EQUIPMENT MANUAL



A34015-35 TEST BOX

Power Interrupt/Pulse Test Box

Figure 1 (Sheet 2 of 2)

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	507-4538-0931-610	LAMP	V96312
2	312001	FUSE	V75915
3	312.500	FUSE	V75915
4	312005	FUSE	V75915
5	507-4757-3331-500	LED	V96312



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: B34001-1

NAME: TEST FIXTURE - POWER SUPPLY CARDS/CONTROL PANEL ASSEMBLY

AIRPLANE MAINTENANCE: NO

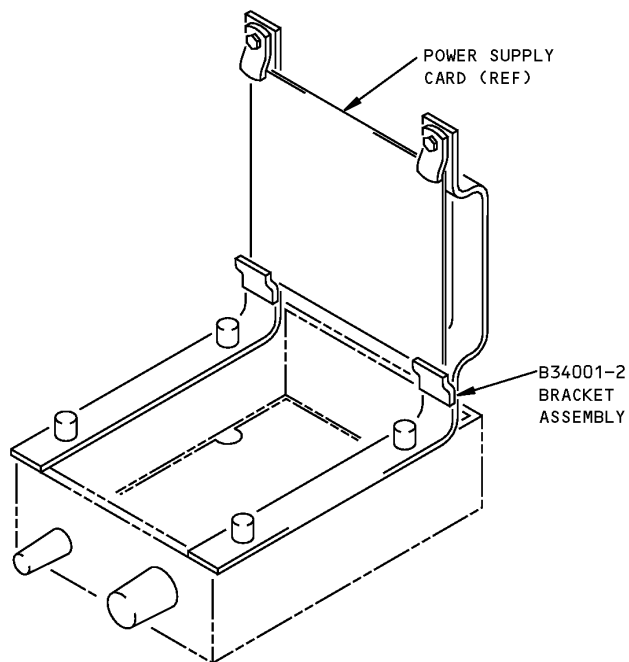
COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B34001 drawing has been transferred to BAE Systems and will no longer be revised by Boeing. The B34001 inclusion in the 767 ITEM is for information and historical purposes only.

The B34001-1 test fixture is used during component maintenance on all 767 airplanes. B34001 is used to support the ILS, VOR, ATC, ADF and dual ADF power supply cards while trouble shooting per component maintenance manual procedures. refer to CMM 34-09-60 for complete usage instructions.

WEIGHT: 2 lbs (0.9 kg)

DIMENSIONS: 1 x 6 x 7 inches (25 x 152 x 178 mm)



Power Supply Cards/Control Panel Assembly Test Fixture
Figure 1