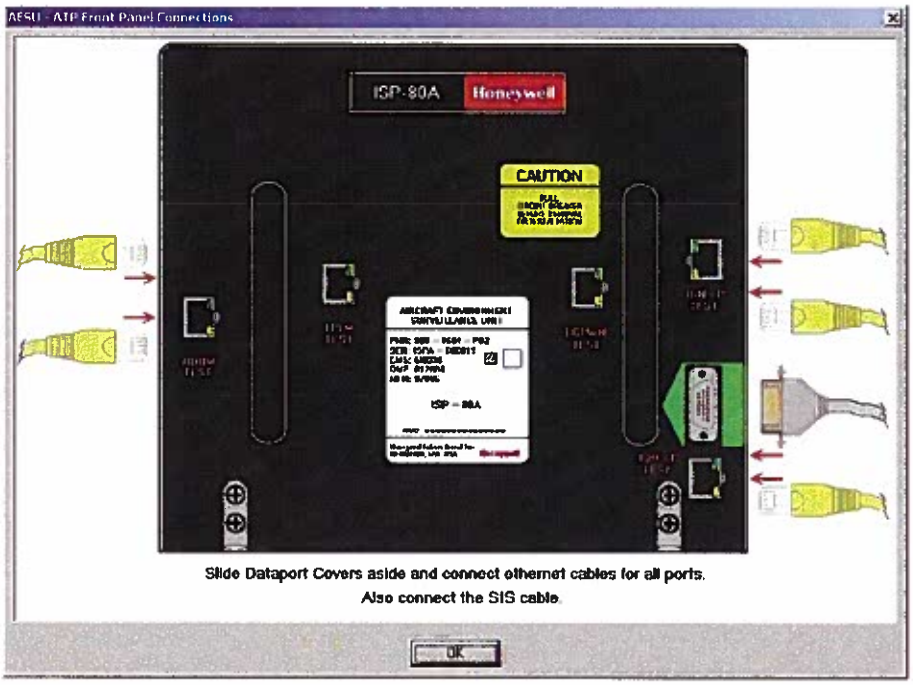
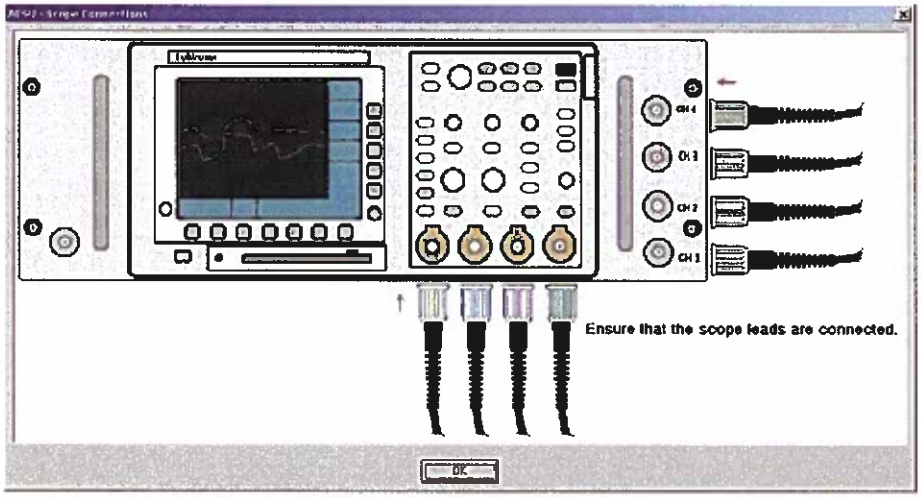
When all of the dialogs have been entered appropriately, hit the continue button and the test will begin execution. After approximately 30 seconds of execution the following on-screen dialogs will appear:



Ensure that the SIS cable and all Ethernet cables are attached as specified and then press the OK button. The following on-screen dialogs will appear:



Ensure that all scope leads are connected as specified and then press the OK button.

The rest of the test is fully automated so the user may return when the test is complete to review the results.

Figure 1004. (Sheet 8 of 14) Acceptance Test Procedure, 965-1694-701 (GRAPHIC 34-48-01-99B-808-A01)

8.2.3. Confidence Test Resolution

During the Confidence Test, the LRU may fail the test for a variety of reasons. A test equipment hardware failure, test software failure, or a LRU hardware defect may be the cause. If possible, let the AESU finish the entire Confidence Test.

First, determine why the test failed and resolve the problem. Then follow the guidelines below to determine if the entire TPL Alignment and / or Confidence Test needs to be run again.

1. If any of the TPL CCAs were removed from the AESU to resolve the problem (including the TPL Power Supply, TPL Tx, TPL Rx, TPL Digital, TPL Front Interconnect, and TPL Rear Interconnect) then the TPL Alignment must be run again.
2. If any of the TPL Boot Code, HBIT, or FPGA firmware was disturbed the TPL Alignment must be run again.
3. If any of the UUT CCAs were removed from the AESU during resolution of the problem, then the entire Confidence Test must be run again.
4. If none of the UUT CCAs were removed from the AESU during the resolution of the problem, then it is acceptable to only re-run the tests that failed during the initial Confidence Test.

To complete a shorten test, select Create New in the Sequence Selection dialog box. Name the sequence you are creating and select the appropriate tests.

Although the test report will say this an invalid sequence, this is acceptance for Confidence Test.

This practice is only acceptable for Confidence Test and not Final Acceptance Test.

Do not proceed to sections 8.2.4 and 8.2.5 until all Confidence Test failures have been resolved and the UUT has successfully completed Acceptance Test.

8.2.4. Flight Code Load

Upon successful completion of Acceptance Test (after ESS), perform AESU APPLICATION SW LOAD / TEST.

8.2.5. FAR-43 Testing

Once the AESU APPLICATION SW LOAD/TEST has been sucessfully completed the unit is ready for FAR-43 testing.

IMPORTANT: Do not begin FAR-43 testing until the LRU has been properly loaded with flight software. Refer to AESU APPLICATION SW LOAD/TEST.

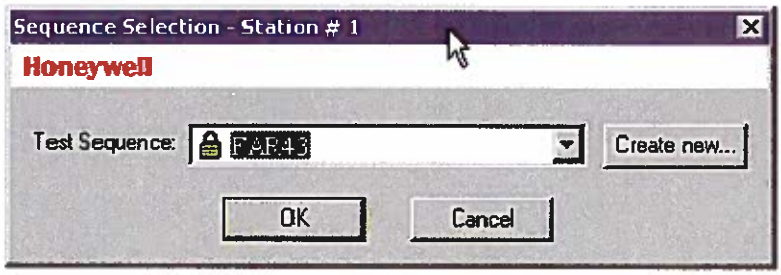
Close any exitisting test executives prior to selecting the FAR43 Sequence. Select the AESS FAR43 icon on the Windows Desktop in accordance with standard Windows operating instructions.

AESS FAR43

As with Confidence Test and Acceptance Test, select the AESU platform and click on Run to Start.

Figure 1004. (Sheet 9 of 14) Acceptance Test Procedure, 965-1694-701 (GRAPHIC 34-48-01-99B-808-A01)

From the drop-down list, select FAR43 and click OK



Follow the same procedure as in Confidence and Acceptance Tests for entering data and continuing the sequence.

NOTE: The AESU has to pass the Acceptance Test Sequence and the FAR43 sequence to have succesfully pass the Acceptance Test. Upon the completion of a successful Acceptance Test, fill in applicable label on the AESU per 965-1694-xxx.

8.3 Product Part Number and Mod Status Verification

8.3.1. Test Log Check

Upon completion of the test, examine the test log and verify that the correct part number and mod status has been recorded in the Product Part Number line item in each place where it appears.

8.3.2. LRU Label Check

Verify the part number and mod status on the label on the outside of the LRU matches the Product Part Number that is recorded in the test log.

Figure 1004. (Sheet 10 of 14) Acceptance Test Procedure, 965-1694-701
(GRAPHIC 34-48-01-99B-808-A01)

9.0 APPENDIX A Sample Test Log -AESU

This test log was captured using Verbose output mode and will not be kept up to date. Only the first several tests have been shown in order to limit the length of this document.

```
Product Name.....................: AESS AESU
Product Part Number..............: 965-1694-001 Mod 0
Serial Number....................: ISPA-000201
Start Time.......................: 09/08/2004 16:38:19
Operator Name....................: Kevin Larsson
Output File Name.................: 12020040908163819.txt

============================== Reference Data ==============================
Additional Information...........: Blue Label ATP
Acceptance Test Procedure........: TBD Revision NEW
Test Specification...............: 058-0212-000
Implementation Specification.....: 058-??~000
Signal Flow Diagram..............: 014-0812-001

======================== Software Module Verification ========================
AESS Software, Software Module Verification.........................: PASS

======================== Software Module Version Data ========================
RtsMuee Application..............: 996-0160-500
RtsPfa Module....................: 996-0165-501
RtsCmav Module...................: 996-0163-501
RtsTpr Module....................: 996-0162-501
RtsHpr Module....................: 996-0161-501
RtsUcv Module....................: 996-0164-501
Delta Framework..................: 996-0144-501

============================== Instrument IDs ==============================
AC Power Supply #1...............: Elgar, CW801P, 0404A01296, 3.11
AC Power Supply #2...............: Elgar, CW801P, 0404A01297, 3.11
Oscilloscope.....................: TEKTRONIX,TDS 3034B,0,CF:91.1CT FV:v3.27
TDS3GV:v1.00 TDS3FFT:v1.00 TDS3TRG:v1.00
RF Signal Generator..............: ANRITSU,MG3692A,033405,2.37
DMM..............................: PXI-4060, DB90F5h, NIDMM 1.600-1.0
Multi-function I/O...............: PXI-6025E, 10863FDh, NiDAQ 6.9.3
PXI Switch Card SPDT.............: 40-110-121,220599,1.00
PXI Switch Card DPST.............: 40-151-002,231094,1.00
PXI RF Matrix Card #1............: 40-725-511,231244,1.00
PXI RF Mux Card #1...............: 40-749-511,231098,1.00
PXI Scope Mux Card #1............: 40-630-022,231096,1.00
PXI DMM Mux Card.................: 40-670-022,231095,1.00
PXI ARINC 429 Card #1............: Aim ARINC 429 16 ch., SN 4019, DRV 769
PXI ARINC 429 Card #2............: Aim ARINC 429 16 ch., SN 4021, DRV 769
PXI AFDX Card #1.................: AIM ACI-FDX-2 2 ch., SN 4031, DRV 19189736

======================== Instrument Self Test/Status ========================
AC Power Supply #1...............: Pass
AC Power Supply #2...............: Pass
Oscilloscope.....................: Pass
RF Signal Generator..............: Pass
DMM..............................: Pass
PXI Switch Card SPDT.............: Pass
PXI Switch Card DPST.............: Pass
PXI RF Matrix Card #1............: Pass
PXI RF Mux Card #1...............: Pass
```

Figure 1004. (Sheet 11 of 14) Acceptance Test Procedure, 965-1694-701
(GRAPHIC 34-48-01-99B-808-A01)

```
PXI Scope Mux Card #1.............: Pass
PXI DMM Mux Card..................: Pass
PXI ARINC 429 Card #1.............: PASS
PXI ARINC 429 Card #2.............: PASS
============================== Test Platform Data ==============================
Station/Slot ID...................: AESU
Part Number.......................: 951-0404-001 Mod 0
Serial Number.....................: 208
Location..........................: Manufacturing
Manufacturer......................: Honeywell
Project ID........................: 100
UUT Cable ID......................: 4
Front Panel ID....................: 0
System ID Validity................: 0
********************************************************************************
***                      Valid 'Acceptance Test' Sequence                      ***
********************************************************************************
#   Test ID, Test Name
--- ---------------------------------- ------------------------------- ------
001 2.001, AC Power Variation A - Low Li Unit   Lower    Result   Upper   Status
        ------------------------------ ----- -------- -------- -------- ------
        UUT Current Draw               Arms  0.800000 0.949999 1.200000  PASS
        IOM Core ADC +5.0V             Vdc   4.900000 5.179752 5.300000  PASS
        IOM Core ADC +12.0V            Vdc   11.64000 12.06776 12.36000  PASS
        IOM Core ADC -12.0V            Vdc   -12.3600 -11.8577 -11.6400  PASS
        IOM Core ADC +1.25V            Vdc   1.212500 1.255188 1.287500  PASS
        IOM Core ADC +1.25V            Vdc   1.212500 1.254578 1.287500  PASS
        IOM Core ADC +5.0V             Vdc   4.900000 5.158730 5.300000  PASS
        IOM Core ADC +3.3V             Vdc   3.201000 3.354396 3.399000  PASS
        IOM Core ADC +2.5V             Vdc   2.425000 2.508394 2.575000  PASS
        IOM Core ADC +2.0V             Vdc   1.940000 1.996337 2.060000  PASS
        IOM Core ADC Temperature       Vdc   10.00000 34.58258 50.00000  PASS
        IOM Core ADC +40V              Vdc   38.80000 39.70952 41.20000  PASS
        IOM Core ADC +28V              Vdc   27.16000 28.75189 28.84000  PASS
        IOM Core ADC +12V              Vdc   11.64000 12.02197 12.36000  PASS
        IOM Core ADC +7V               Vdc   6.790000 7.120154 7.210000  PASS
        IOM Core ADC +5V               Vdc   4.900000 4.961061 5.300000  PASS
        IOM Core ADC +5V               Vdc   4.900000 5.413735 5.300000  FAIL
        IOM Core ADC Temperature       C     10.00000 25.78999 50.00000  PASS
        IOM Core ADC -12V              Vdc   -12.3600 -12.2419 -11.6400  PASS
        IOM Comm ADC +1.25V            Vdc   1.212500 1.242369 1.287500  PASS
        IOM Comm ADC +1.25V            Vdc   1.212500 1.245421 1.287500  PASS
        IOM Comm ADC +5V               Vdc   4.900000 5.152225 5.300000  PASS
        IOM Comm ADC +3.3V             Vdc   3.201000 3.314102 3.399000  PASS
        IOM Comm ADC +2.5V             Vdc   2.425000 2.476342 2.575000  PASS
        IOM Comm ADC +2.0V             Vdc   1.940000 1.981685 2.060000  PASS
        IOM Comm ADC Temperature       Vdc   10.00000 25.47688 50.00000  PASS
        IOM Comm ADC +1.8V             Vdc   1.746000 1.787546 1.854000  PASS
        IOM Comm ADC +40V              Vdc   38.80000 0.000000 41.20000  FAIL
        IOM Comm ADC +28V              Vdc   27.16000 0.000000 28.84000  FAIL
        IOM Comm ADC +12V              Vdc   11.64000 0.000000 12.36000  FAIL
        IOM Comm ADC +7V               Vdc   6.790000 0.000000 7.210000  FAIL
        IOM Comm ADC +5V               Vdc   4.900000 0.000000 5.300000  FAIL
        IOM Comm ADC +5V               Vdc   4.900000 0.000000 5.300000  FAIL
        IOM Comm ADC Temperature       C     10.00000 154.0676 50.00000  FAIL
        IOM Comm ADC -12V              Vdc   -12.3600 0.000000 -11.6400  FAIL
        EGPWM ADC +5.0V                Vdc   4.900000 4.978199 5.300000  PASS
        EGPWM ADC +12.0V               Vdc   11.75000 11.89664 12.25000  PASS
        EGPWM ADC +1.8V                Vdc   1.900000 1.936645 2.100000  PASS
```

Figure 1004. (Sheet 12 of 14) Acceptance Test Procedure, 965-1694-701
(GRAPHIC 34-48-01-99B-808-A01)

EGPWM ADC Ground	Vdc	0.000000	0.000000	0.030000	PASS
EGPWM ADC Ground	Vdc	0.000000	0.000610	0.030000	PASS
EGPWM ADC +1.25V	Vdc	1.220000	1.245728	1.280000	PASS
EGPWM ADC +1.25V	Vdc	1.220000	1.243896	1.280000	PASS
EGPWM ADC +5V	Vdc	4.900000	4.981256	5.300000	PASS
EGPWM ADC +3.3V	Vdc	3.140000	3.312285	3.470000	PASS
EGPWM ADC +2.5V	Vdc	2.410000	2.485656	2.600000	PASS
EGPWM ADC +2.0V	Vdc	1.920000	1.973266	2.080000	PASS
EGPWM ADC Ground	Vdc	0.000000	0.004883	0.030000	PASS
TPL PROC ADC +5.0V	Vdc	4.808487	4.815779	5.410886	PASS
TPL PROC ADC +12.0V	Vdc	11.18372	11.84103	12.77774	PASS
TPL PROC ADC -12.0V	Vdc	-12.7777	-11.8321	-11.1837	PASS
TPL PROC ADC Ground	Vdc	0.000000	0.000611	0.029907	PASS
TPL PROC ADC +1.25V	Vdc	1.215210	1.250305	1.284790	PASS
TPL PROC ADC +1.25V	Vdc	1.215210	1.250916	1.284790	PASS
TPL PROC ADC +5.0V	Vdc	4.808487	4.860127	5.410886	PASS
TPL PROC ADC +3.3V	Vdc	3.135040	3.326189	3.465363	PASS
TPL PROC ADC +2.5V	Vdc	2.410126	2.495186	2.598572	PASS
TPL PROC ADC +2.0V	Vdc	1.915283	1.863857	2.084961	FAIL
TPL PROC ADC Ground	Vdc	0.000000	0.004884	0.029907	PASS
TPL PROC ADC Temperature	C	20.00000	32.29830	100.0000	PASS
TPL DSP ADC +12.0V	Vdc	11.40000	12.06549	12.60000	PASS
TPL DSP ADC -12.0V	Vdc	-12.6000	-11.9798	-11.4000	PASS
TPL DSP ADC +5.0V	Vdc	4.750000	4.885225	5.250000	PASS
TPL DSP ADC +3.3V	Vdc	2.970000	3.390719	3.630000	PASS
TPL DSP ADC +1.5V	Vdc	1.275000	1.496948	1.725000	PASS
TPL DSP ADC +2.5V	Vdc	2.250000	2.510379	2.750000	PASS
TPL DSP ADC +28V	Vdc	25.20000	26.78205	30.80000	PASS
TPL DSP ADC Temp	C	20.00000	28.96955	100.0000	PASS
TPL DSP ADC +2.5V	Vdc	2.250000	2.501832	2.750000	PASS
TPL DSP ADC Ground	Vdc	0.000000	0.001221	0.029907	PASS
TPL TX ADC Temperature	C	20.00000	26.67677	100.0000	PASS
TPL TX ADC Temperature	C	20.00000	27.71937	100.0000	PASS
TPL TX ADC -8.0V	Vdc	-9.28000	-7.72858	-6.80000	PASS
TPL TX ADC +2.74V	Vdc	2.466000	2.739438	3.014000	PASS
TPL TX ADC +6.0V	Vdc	5.400000	6.107039	6.600000	PASS
TPL TX ADC +30.0V	Vdc	27.00000	30.01514	33.00000	PASS
TPL TX ADC +32.0V	Vdc	26.88000	31.87616	37.12000	PASS
TPL TX ADC +32.0V	Vdc	26.88000	31.78847	37.12000	PASS
TPL TX ADC +32.0V	Vdc	26.88000	31.79822	37.12000	PASS
TPL TX ADC +32.0V	Vdc	26.88000	31.74950	37.12000	PASS
TPL TX ADC +2.5V	Vdc	2.200000	2.490963	2.800000	PASS
TPL TX ADC +6.0V	Vdc	5.040000	6.033829	6.960000	PASS
TPL TX ADC +3.3V	Vdc	2.904000	3.314285	3.696000	PASS
TPL TX ADC Ground	Vdc	0.000000	0.004884	0.029907	PASS
TPL RX ADC +7.0V	Vdc	6.580000	6.960257	7.420000	PASS
TPL RX ADC -40.0V	Vdc	-42.4000	-39.6730	-37.6000	PASS
TPL RX ADC -5.0V	Vdc	-5.30000	-4.90000	-4.70000	PASS
TPL RX ADC +3.3V	Vdc	3.102000	3.321960	3.498000	PASS
TPL RX ADC +5.0V	Vdc	4.700000	4.993660	5.300000	PASS
TPL RX ADC +6.2V	Vdc	5.828000	6.264589	6.572000	PASS
TPL RX ADC Ground	Vdc	0.000000	0.068376	0.100000	PASS
TPL Synthesizer ADC +6.1V	Vdc	5.734000	6.109457	6.466000	PASS
TPL Synthesizer ADC +5.0V	Vdc	4.700000	5.075329	5.300000	PASS
TPL Synthesizer ADC +5.0V	Vdc	4.700000	5.080094	5.300000	PASS
TPL Synthesizer ADC +5.0V	Vdc	4.700000	5.081684	5.300000	PASS
TPL Synthesizer ADC +6.1V	Vdc	5.734000	6.120577	6.466000	PASS
TPL Synthesizer ADC +5.0V	Vdc	4.700000	5.068974	5.300000	PASS
TPL Synthesizer ADC +5.0V	Vdc	4.700000	5.045147	5.300000	PASS
TPL Synthesizer ADC +5.0V	Vdc	4.700000	5.084860	5.300000	PASS
TPL Synthesizer ADC +6.0V	Vdc	5.640000	5.996673	6.360000	PASS
TPL Synthesizer ADC +6.0V	Vdc	5.640000	5.961725	6.360000	PASS

Figure 1004. (Sheet 13 of 14) Acceptance Test Procedure, 965-1694-701
(GRAPHIC 34-48-01-99B-808-A01)

```
        TPL Synthesizer ADC +5.0V        Vdc   4.700000 5.062622 5.300000  PASS
        TPL Synthesizer ADC +5.0V        Vdc   4.700000 5.095981 5.300000  PASS
        TPL Synthesizer ADC +5.0V        Vdc   4.700000 5.041971 5.300000  PASS
        TPL Synthesizer ADC -5.0V        Vdc   -5.30000 -4.86080 -4.70000  PASS
        Control Panel 28 Vdc Output      Vdc   27.50000 28.78481 30.00000  PASS
        Transmitter/Receiver 200 Vdc Out Vdc   198.0000 198.4542 202.0000  PASS
    TPL Power Supply Module
    F-9 (H), F-7 (L) (FPI:P1-cc1, P1-bb1)



#   Test ID, Test Name                      Expected         Result      Status
--- ----------------------------------- --------------  -------------- ------
015 3.101, Processor                    Pass            Pass            PASS

#   Test ID, Test Name                      Expected         Result      Status
--- ----------------------------------- --------------  -------------- ------
016 3.102, Audio FPGA                   Pass            Pass            PASS

#   Test ID, Test Name                      Expected         Result      Status
--- ----------------------------------- --------------  -------------- ------
017 3.103, Audio FLASH                  Pass            Pass            PASS


*******************************************************************************
***                        'Acceptance Test' failed                         ***
*******************************************************************************


------------------------------ Failure summary --------------------------------
001 TestId: 2.001, AC Power Variation A - Low Line (90 VAC, 360 Hz)        FAIL
002 TestId: 2.002, AC Power Variation A - High Line (134 VAC, 440 Hz)      FAIL
003 TestId: 2.003, AC Power Variation A - Narrow (115 VAC, 650 Hz)         FAIL
004 TestId: 2.004, AC Power Variation A - Wide (115 VAC, 800 Hz)           FAIL
005 TestId: 2.005, AC Power Variation A - Nominal (115 VAC, 400 Hz)        FAIL
006 TestId: 2.011, AC Power Variation B - Low Line (90 VAC, 360 Hz)        FAIL
007 TestId: 2.012, AC Power Variation B - High Line (134 VAC, 440 Hz)      FAIL
008 TestId: 2.013, AC Power Variation B - Narrow (115 VAC, 650 Hz)         FAIL
009 TestId: 2.014, AC Power Variation B - Wide (115 VAC, 800 Hz)           FAIL
010 TestId: 2.015, AC Power Variation B - Nominal (115 VAC, 400 Hz)        FAIL
-------------------------------------------------------------------------------

Product Name.........................: AESS AESU
Product Part Number..................: 965-1694-001 Mod 0
Serial Number........................: ISPA-000201
Start Time...........................: 09/08/2004 16:38:19
Stop Time............................: 09/08/2004 16:49:26
Execution Time.......................: 00:11:07 hours
Operator Name........................: Kevin Larsson



Signature/QA Approval................: _____
```

Figure 1004. (Sheet 14 of 14) Acceptance Test Procedure, 965-1694-701
(GRAPHIC 34-48-01-99B-808-A01)

SCHEMATIC AND WIRING DIAGRAMS

1. Planning Data (TASK 34-48-01-99C-802-A01)

A. Reason for the Job (Subtask 34-48-01-99C-003-A01)

(1) This section gives detail drawings for the AESU.

(2) Use these diagrams as an aid to fault isolate the AESU.

B. Job Setup Data (Subtask 34-48-01-99C-004-A01)

(1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials. The user must find equivalent alternatives.

(2) Refer to Table 2001 for special tools, fixtures, and equipment.

Table 2001. Special Tools, Fixtures, and Equipment

Number	Name
Not applicable	Not applicable

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS' MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO MATERIALS SPECIFIED BY HONEYWELL. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(3) Refer to Table 2002 for consumable materials.

Table 2002. Consumable Materials

Number	Name
530-0145-001	adhesive, Loctite — No. 242 (CAGE 05972)

(4) Refer to Table 2003 for reference data.

Table 2003. Reference Data

Reference	Name
Not applicable	Not applicable

2. Schematic and Wiring Diagrams (TASK 34-48-01-99B-809-A01)

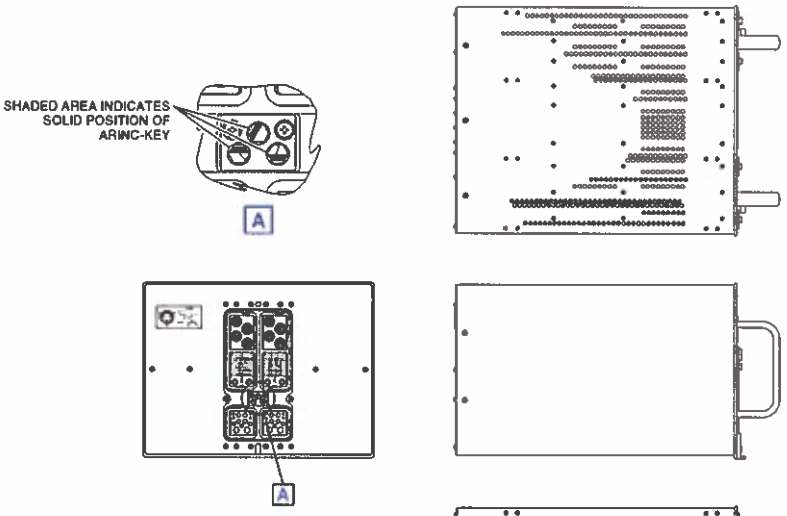
A. General (Subtask 34-48-01-99B-001-A01)

CAUTION: THE AIRCRAFT ENVIRONMENT SURVEILLANCE UNIT CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE ITEMS. USE INDUSTRY APPROVED PRECAUTIONS.

(1) Obey the precautions.

B. Detail Drawings (Subtask 34-48-01-99B-002-A01)

(1) Figure 2001 (GRAPHIC 34-48-01-99B-810-A01) and Figure 2002 (GRAPHIC 34-48-01-99B-811-A01) are the detail drawings for the AESU.



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NOTES:
Unless otherwise specified
1. Deleted.
2. Deleted.
3. Deleted.
4. Deleted.
5. Deleted.
6. Perform acceptance test as described in Figure 1004.

IO-175144 E965-1694-001-1

Figure 2001. (Sheet 1 of 1) AESU Detail Drawing (GRAPHIC 34-48-01-99B-810-A01)

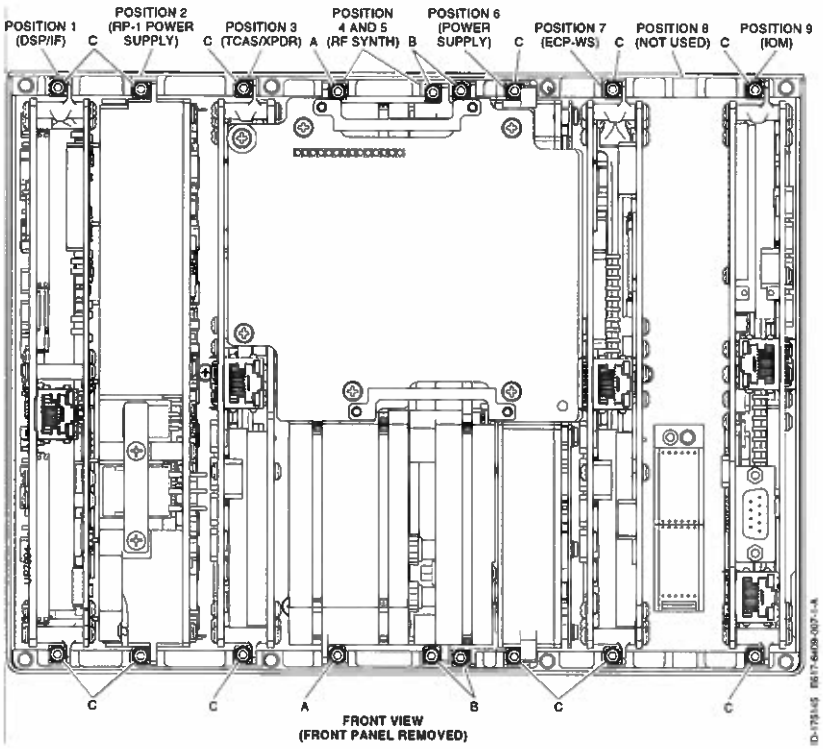

Figure 2002. (Sheet 1 of 3) AESU Configuration Assembly Detail Drawing
(GRAPHIC 34-48-01-99B-811-A01)

(3)

TORQUE SPECIFICATION TABLE			
THREAD SIZE	TORQUE (in-lb) MIN	MAX	ITEM NO.
4 - 40	4	6	15, AND 18 - 21
4 - 40	6	7	17
6 - 32	9	12	14

NOTES:
1. The assembly depictions are shown as approximate for orientation. Some items are not shown for clarity.
2. Deleted.
(3) The hardware is installed as listed in the Torque Specification Table.
(4) Apply adhesive-loctite (PN 530-0145-001) to screws (items 15, 18, and 19).
5. Deleted.
6. Install the modules and torque the wedge lock fasteners in the following order:
   6.1 Assemble the modules and fully seat the module connectors into the back plane. Make sure the IOM module assembly (item 13) is oriented correctly in the AESU. (see front view).
   6.2 After the modules are assembled, torque the fasteners identified as "A" on the front view from 5.0 to 7.0 in-lb.
   6.3 Initially torque the fasteners identified as "B" on the front view from 2.0 to 3.0 in-lb.
   6.4 Retorque the fasteners identified as "B" on the front view from 5.0 to 7.0 in-lb.
   6.5 Torque the fasteners identified as "C" on the front view from 5.0 to 7.0 in-lb.
7. Make sure HBIT software has been loaded into the Radar DSP/IF module assembly (item 7), TCAS/XPDR-DIG module assembly (item 9), EGPWS module assembly (item 12) and IOM module assembly (item 13).
8. Deleted.
9. Deleted.

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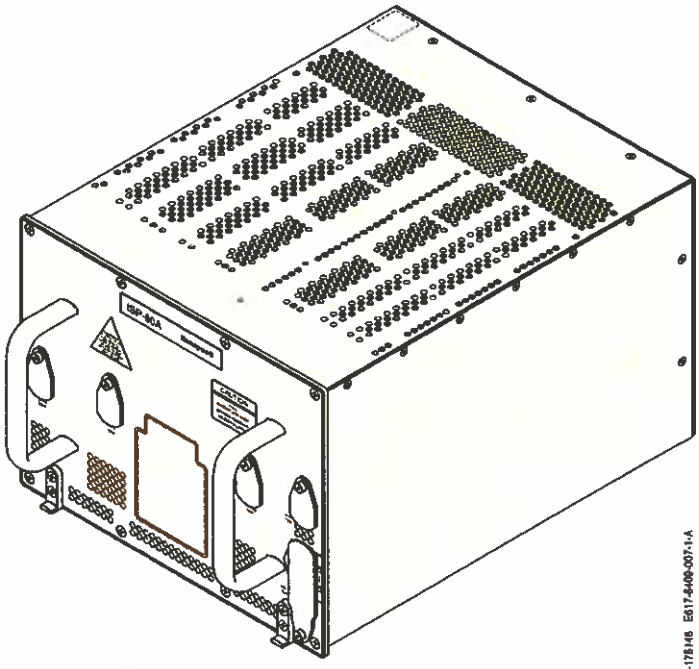

ASSEMBLED VIEW

ID-178146 E617-8400-007-1-A

Figure 2002. (Sheet 2 of 3) AESU Configuration Assembly Detail Drawing
(GRAPHIC 34-48-01-99B-811-A01)

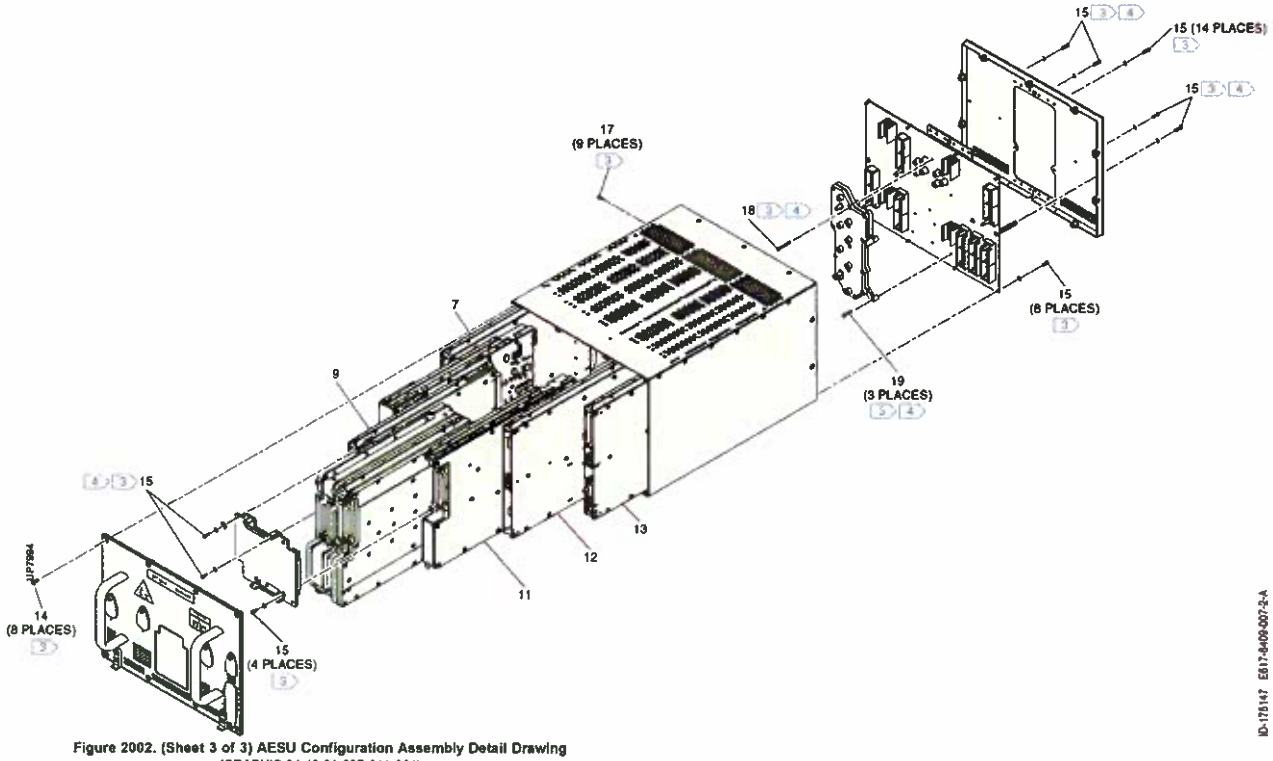

Figure 2002. (Sheet 3 of 3) AESU Configuration Assembly Detail Drawing
(GRAPHIC 34-48-01-998-811-A01)

DISASSEMBLY

1. Planning Data (TASK 34-48-01-000-801-A01)

A. Reason for the Job (Subtask 34-48-01-000-001-A01)

(1) Use these procedures to remove parts from the AESU to do the cleaning, checks, repair, and replacement of parts as necessary. The figure and item numbers given in the disassembly procedure show where to find the parts in the ILLUSTRATED PARTS LIST (IPL 34-48-01-16000). The applicable figure number in the ILLUSTRATED PARTS LIST (IPL 34-48-01-16000) that is given in the procedure does not change until specified differently.

(2) Before disassembly, use TESTING AND FAULT ISOLATION (PGBLK 34-48-01-1000) to examine the condition of the AESU or to find the most possible cause of malfunctions. Do this to prevent disassembly that is not necessary. Do only those procedures of disassembly that are necessary to remove defective parts and to correct malfunctions.

(3) As an aid for assembly, tag the items that are disconnected to show where the connections were made. Include data for special conditions of a connection, such as the polarity and the position of the items. Identify the tie points for the motherboard wire assembly to prevent damage to the wire insulation during assembly.

B. Job Setup Data (Subtask 34-48-01-000-002-A01)

(1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials. The user must find equivalent alternatives.

(2) Refer to Table 3001 for special tools, fixtures, and equipment.

Table 3001. Special Tools, Fixtures, and Equipment

Number	Name
Not applicable	Not applicable

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS' MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO MATERIALS SPECIFIED BY HONEYWELL. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(3) Refer to Table 3002 for consumable materials.

Table 3002. Consumable Materials

Number	Name
Not applicable	Not applicable

(4) Refer to Table 3003 for reference data.

Table 3003. Reference Data

Reference	Name
Not Applicable	Not Applicable

2. Procedure (TASK 34-48-01-000-802-A01)

A. Job Setup (Subtask 34-48-01-000-003-A01)

CAUTION: THE AIRCRAFT ENVIRONMENT SURVEILLANCE UNIT CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE ITEMS. USE INDUSTRY APPROVED PRECAUTIONS.

(1) Obey the precautions.

B. Removal of the Front Panel Assembly (Subtask 34-48-01-020-001-A01)

(1) Remove eight screws (item 10, IPL Figure 2) which hold the front panel assembly (item 5) to the chassis (item 130).

(2) Remove the front panel assembly.

C. Removal of the Front Interconnect CCA (Subtask 34-48-01-020-002-A01)

(1) Remove one screw (item 30, IPL Figure 2), one flat washer (item 35) and one nylon washer (item 40) which hold the front interconnect CCA (item 15) to the module assemblies.

(2) Remove five screws (item 20) and five flat washers (item 25) which hold the front interconnect CCA to the module assemblies.

(3) Remove the front interconnect CCA.

D. Removal of the Module Assemblies (Subtask 34-48-01-020-003-A01)

CAUTION: THE CONNECTORS ON THE MODULE ASSEMBLIES ARE EASILY DAMAGED. USE CARE WHEN YOU DISENGAGE THE MODULE ASSEMBLIES FROM THE REAR INTERCONNECT CCA AND THE RF INTERCONNECT MODULE ASSEMBLY.

NOTE: The module assemblies are contained in specified slots in the chassis. See Figure 2002 (GRAPHIC 34-48-01-99B-811-A01) for the slot locations.

(1) Remove the module assemblies shown in Table 3004 from the chassis (item 130, IPL Figure 2). Disengage the module assemblies from the rear interconnect CCA (item 100) and the RF interconnect module assembly (item 115).

Table 3004. Module Assemblies

Module Assembly	IPL Figure 2 Item	Slot
IOM module assembly	45	9
EGPWS module assembly	50	7
Power supply module assembly	55	6
RF module assembly	60	4, 5
TCAS/XPDR-DIG module assembly	65	3
RP-1 power supply module assembly	70	2
Radar DSP/IF module assembly	75	1

(2) Remove nine screws (item 85).

(3) Pull the rear plate assembly (item 80) with the rear interconnect CCA and the RF interconnect module assembly from the back of the chassis.

(4) Remove 18 screws (item 90) and 18 flat washers (item 95) which hold the rear interconnect CCA to the rear plate assembly.

(5) Separate the rear interconnect CCA with the RF interconnect module assembly attached from the rear plate assembly.

(6) Remove three screws (item 120) and one screw (item 125) which hold the RF interconnect module assembly to the rear interconnect CCA.

(7) Separate the RF interconnect module assembly from the rear interconnect CCA.

E. Job Close-up (Subtask 34-48-01-000-004-A01)

(1) Not applicable.

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CLEANING

1. Planning Data (TASK 34-48-01-100-801-A01)

A. Reason for the Job (Subtask 34-48-01-100-001-A01)

(1) Use these procedures to remove dust, dirt, and unwanted oil and grease. Be careful not to cause damage to the parts when you do these procedures.

(2) Do the procedures in a clean location. When you use pressurized air to clean assemblies and parts, do not use more air pressure than is necessary.

(3) After you clean the assemblies and parts, supply protection from moisture, dust, and other contamination until you do a visual check and assemble the component.

B. Job Setup Data (Subtask 34-48-01-100-002-A01)

(1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials. The user must find equivalent alternatives.

(2) Refer to Table 4001 for special tools, fixtures, and equipment.

Table 4001. Special Tools, Fixtures, and Equipment

Number	Name
air supply	air ionizing nozzle or gun attachment for compressed air (20 psi) (optional source)

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS' MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO MATERIALS SPECIFIED BY HONEYWELL. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(3) Refer to Table 4002 for consumable materials.

Table 4002. Consumable Materials

Number	Name
solvent	isopropanol, technical, per MIL TT-I-735, Grade B (Optional source)

(4) Refer to Table 4003 for reference data.

Table 4003. Reference Data

Reference	Name
Not applicable	Not applicable

2. Procedure (TASK 34-48-01-100-802-A01)

A. Job Setup (Subtask 34-48-01-100-003-A01)

CAUTION: THE AIRCRAFT ENVIRONMENT SURVEILLANCE UNIT CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE ITEMS. USE INDUSTRY APPROVED PRECAUTIONS.

CAUTION: IF YOU CLEAN ELECTROSTATIC DISCHARGE SENSITIVE PARTS WITH PRESSURIZED AIR, USE IONIZED AIR. AN ELECTROSTATIC CHARGE CAN CAUSE DAMAGE TO THE PARTS IF YOU DO NOT USE IONIZED AIR.

CAUTION: BEFORE YOU USE ISOPROPANOL, DO A TEST TO MAKE SURE THAT IT DOES NOT CAUSE DAMAGE TO THE PAINTED SURFACES.

CAUTION: DO NOT LET THE ISOPROPANOL TOUCH THE CONNECTOR BODY. IT CAN CAUSE DAMAGE TO THE PARTS. USE ISOPROPANOL CAREFULLY WHEN YOU CLEAN FLUX FROM THE SOLDER CONNECTIONS.

(1) Obey the precautions.

B. External Parts (Subtask 34-48-01-100-004-A01)

(1) Remove dirt and dust with pressurized air (air supply air ionizing nozzle or gun attachment for compressed air (20 psi) (optional source)) or a soft, natural-bristle brush.

(2) Remove oil and grease that has collected on the AESU. Use a clean cloth or cotton swab that is moist withsolvent isopropanol, technical, per MIL TT-I-735, Grade B (Optional source).

(3) Remove unwanted material on painted surfaces that show index marks, numerals, or letters. Use a clean cloth that is moist with a weak detergent. To clean an area in a recess, use a stiff-bristle brush that is moist with a weak detergent.

C. Electrical Parts (Subtask 34-48-01-100-005-A01)

(1) Remove dirt and dust around the connector pins with pressurized air.

(2) Remove dirt and dust on the electrical parts with a soft, natural-bristle brush or cotton swab that is moist with isopropanol.

D. Metal Mechanical Parts (Subtask 34-48-01-100-006-A01)

CAUTION: WHEN YOU REMOVE CORROSION, MOVE THE CROCUS CLOTH PARALLEL TO THE AXIS OF THE PART. IF YOU MOVE THE CROCUS CLOTH ACROSS THE AXIS, YOU CAN CAUSE DAMAGE TO THE FINISH.

(1) Remove corrosion from the metal parts with a 4/0 crocus cloth.

(2) Use isopropanol to clean the metal parts.

(3) Dry the part with pressurized air.

E. Job Close-up (Subtask 34-48-01-100-007-A01)

(1) Not applicable.

CHECK

1. Planning Data (TASK 34-48-01-210-801-A01)

A. Reason for the Job (Subtask 34-48-01-210-001-A01)

(1) Use these procedures to find damaged or worn parts and parts that show signs of near failure. Do these checks during TESTING AND FAULT ISOLATION (PGBLK 34-48-01-1000), DISASSEMBLY (PGBLK 34-48-01-3000), and ASSEMBLY (PGBLK 34-48-01-7000).

(2) Replace all damaged or worn parts. This prevents possible failures of the equipment.

B. Job Setup Data (Subtask 34-48-01-210-002-A01)

(1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials. The user must find equivalent alternatives.

(2) Refer to Table 5001 for special tools, fixtures, and equipment.

Table 5001. Special Tools, Fixtures, and Equipment

Number	Name
Not applicable	Not applicable

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS' MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO MATERIALS SPECIFIED BY HONEYWELL. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(3) Refer to Table 5002 for consumable materials.

Table 5002. Consumable Materials

Number	Name
Not applicable	Not applicable

(4) Refer to Table 5003 for reference data.

Table 5003. Reference Data

Reference	Name
Not applicable	Not applicable

2. Procedure (TASK 34-48-01-210-802-A01)

A. Job Setup (Subtask 34-48-01-210-003-A01)

CAUTION: THE AIRCRAFT ENVIRONMENT SURVEILLANCE UNIT CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE ITEMS. USE INDUSTRY APPROVED PRECAUTIONS.

(1) Obey the precautions.

B. Check of the AESU (Subtask 34-48-01-210-004-A01)

(1) Examine all surfaces (covers included) for twisted, bent, or dented areas. The pieces must fit together correctly. The covers must not compress the wires or cause a blockage in the movement of a part.

(2) Examine the exterior and interior of the AESU. The AESU must be clean and have no dirt, loose particles, solder splashes, and other unwanted materials. Painted surfaces must not be worn or have scratches.

(3) Examine the solder connections. Make sure the solder is applied correctly and the connections are correctly attached. Make sure the solder joints are tight and do not have scratches, rough surfaces, sharp edges, dullness, bridging, or blistering. Solder joints must show signs of wetting (molten solder that bonds and flows on a metal surface to a smooth layer) and bonding (the solder bonds to the soldered surface at a small contact angle).

(4) Examine the electrical components. Components that have cracks, have changed in color, or show signs they became too hot can be defective. Replace these components, or do electrical checks to make sure their condition is correct.

(5) Examine the electrical insulation. The insulation must be flexible, not rigid or broken, and have no surfaces that are burned. Make sure the wires do not touch sharp edges and surfaces that could cause damage to the insulation.

CAUTION: DO NOT TOUCH THE CONNECTOR OR COMPONENT PINS UNLESS YOU ARE GROUNDED. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE CONNECTOR AND COMPONENT PINS.

(6) Examine the connector pins. The pins must not be bent or damaged. Make sure that the connectors are tightly engaged.

(7) Examine the installed parts. Make sure all parts are installed correctly, and the attached hardware is in position and is tight. Make sure the position and polarity are correct.

(8) Examine the metal parts. Make sure that there is no corrosion, rust, or other structural damage.

(9) Examine the threaded parts. There must be no cross-threads or burrs.

(10) Examine the identification plate. Make sure the identification plate is tightly attached and you can read it.

C. Job Close-up (Subtask 34-48-01-210-005-A01)

(1) Not applicable.

REPAIR

1. Planning Data (TASK 34-48-01-300-801-A01)

A. Reason for the Job (Subtask 34-48-01-300-001-A01)

(1) Use these procedures for the AESU to replace defective parts and replace or repair defective subassemblies.

(2) Do only those procedures of DISASSEMBLY (PGBLK 34-48-01-3000) that are necessary to make repairs. When new parts are necessary, refer to the ILLUSTRATED PARTS LIST (IPL 34-48-01-16000) for the correct part numbers and quantities.

B. Job Setup Data (Subtask 34-48-01-300-002-A01)

(1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials. The user must find equivalent alternatives.

(2) Refer to Table 6001 for special tools, fixtures, and equipment.

Table 6001. Special Tools, Fixtures, and Equipment

Number	Name
Not applicable	Not applicable

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS' MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO MATERIALS SPECIFIED BY HONEYWELL. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(3) Refer to Table 6002 for consumable materials.

Table 6002. Consumable Materials

Number	Name
Not applicable	Not applicable

(4) Refer to Table 6003 for reference data.

Table 6003. Reference Data

Reference	Name
Not Applicable	Not Applicable

2. Procedure (TASK 34-48-01-300-802-A01)

A. Job Setup (Subtask 34-48-01-300-003-A01)

CAUTION: THE AIRCRAFT ENVIRONMENT SURVEILLANCE UNIT CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE ITEMS. USE INDUSTRY APPROVED PRECAUTIONS.

(1) Obey the precautions.

B. References for Repair (Subtask 34-48-01-300-004-A01)

(1) These references show where to find repair data that is located in other sections of this manual and in other manuals. The data in other sections of this manual is necessary for repair of the AESU and its primary subassemblies. The data in other manuals gives procedures that are not included in this manual.

(2) Refer to SCHEMATIC AND WIRING DIAGRAMS (PGBLK 34-48-01-2000) for reference drawings for the AESU and its primary subassemblies. The drawings give data about:

- Component layout
- Component termination.

(3) Refer to FITS AND CLEARANCES (PGBLK 34-48-01-8000) for:

- Torque limits.

(4) Refer to the ILLUSTRATED PARTS LIST (IPL 34-48-01-16000) for:

- Figure and item numbers
- Subassembly and component locations
- Correct part numbers
- Correct quantities.

C. Special Repair of the AESU (Subtask 34-48-01-300-005-A01)

(1) Not applicable

D. Job Close-up (Subtask 34-48-01-300-006-A01)

(1) Not applicable.

ASSEMBLY

1. Planning Data (TASK 34-48-01-400-801-A01)

A. Reason for the Job (Subtask 34-48-01-400-001-A01)

(1) Use these procedures to assemble the AESU. Do only those procedures that are applicable to the disassembly done. Refer to the data written during disassembly for the location of tie points and where to connect the components and wires.

(2) The figure and item numbers given in the assembly procedure show where to find the parts in the ILLUSTRATED PARTS LIST (IPL 34-48-01-16000). The applicable figure number in the ILLUSTRATED PARTS LIST (IPL 34-48-01-16000) that is given in the procedure does not change until specified differently.

B. Job Setup Data (Subtask 34-48-01-400-002-A01)

(1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials. The user must find equivalent alternatives.

(2) Refer to Table 7001 for special tools, fixtures, and equipment.

Table 7001. Special Tools, Fixtures, and Equipment

Number	Name
Not applicable	Not applicable

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS' MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO MATERIALS SPECIFIED BY HONEYWELL. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(3) Refer to Table 7002 for consumable materials.

Table 7002. Consumable Materials

Number	Name
530-0145-001	adhesive, Loctite — No. 242 (CAGE 05972)

(4) Refer to Table 7003 for reference data.

Table 7003. Reference Data

Reference	Name
Not applicable	Not applicable

2. Procedure (TASK 34-48-01-400-802-A01)

A. Job Setup (Subtask 34-48-01-400-003-A01)

CAUTION: THE AIRCRAFT ENVIRONMENT SURVEILLANCE UNIT CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE ITEMS. USE INDUSTRY APPROVED PRECAUTIONS.

(1) Obey the precautions.

B. Installation of the Module Assemblies (Subtask 34-48-01-400-004-A01)

CAUTION: THE CONNECTORS ON THE MODULE ASSEMBLIES ARE EASILY DAMAGED. USE CARE WHEN YOU ENGAGE THE MODULE ASSEMBLIES TO THE REAR INTERCONNECT CCA AND THE RF INTERCONNECT MODULE ASSEMBLY.

NOTE: The module assemblies are contained in specified slots in the chassis. See Figure 2002 (GRAPHIC 34-48-01-99B-811-A01) for the slot locations.

(1) Attach the RF interconnect module assembly (item 115, IPL Figure 2) to the rear interconnect CCA (item 100) with three screws (item 120) and one screw (item 125). Apply adhesive (530-0145-001 adhesive, Loctite — No. 242 (CAGE 05972)) to the threads of screws. Torque screws from 4 to 6 in.-lb (452 to 678 mN•m).

(2) Attach the rear interconnect CCA to the rear plate assembly (item 80) with 18 screws (item 90) and 18 flat washers (item 95). Apply adhesive to the threads of screws (item 90). Torque screws from 4 to 6 in.-lb (452 to 678 mN•m).

(3) Attach the rear plate assembly (item 80) with the rear interconnect CCA (item 100) and the RF interconnect module assembly (item 115) to the back of the chassis (item 130) with nine screws (item 85). Torque the screws (item 85) from 6 to 7 in.-lb (678 to 791 mN•m).

(4) Install the module assemblies shown in Table 7004 into the chassis. Engage the module assemblies into the rear interconnect CCA and the RF interconnect module assembly.

Table 7004. Module Assemblies

Module Assembly	IPL Figure 2 Item	Slot
IOM module assembly	45	9
EGPWS module assembly	50	7
Power supply module assembly	55	6
RF module assembly	60	4, 5
TCAS/XPDR-DIG module assembly	65	3
RP-1 Power supply module assembly	70	2
Radar DSP/IF module assembly	75	1

C. Installation of the Front Interconnect CCA (Subtask 34-48-01-400-005-A01)

(1) Put the front interconnect CCA (item 15, IPL Figure 2) in the correct location on the module assemblies.

(2) Apply adhesive 530-0145-001 adhesive, Loctite — No. 242 (CAGE 05972) to the threads of one screw (item 30) and five screws (item 20).

(3) Attach the front interconnect CCA to the module assemblies with the one screw, one flat washer (item 35), one nylon washer (item 40), five screws, and five flat washers (item 25). Torque the screws from 6 to 7 in.-lb (678 to 791 mN•m).

D. Installation of the Front Panel Assembly (Subtask 34-48-01-400-006-A01)

(1) Place the front panel assembly (item 5, IPL Figure 2) on the front of the chassis (item 130).

(2) Attach the front panel assembly to the chassis with eight screws (item 10). Torque the screws from 9 to 12 in.-lb (1,017 to 1,356 mN•m).

E. Job Close-up (Subtask 34-48-01-400-007-A01)

(1) Not applicable.

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FITS AND CLEARANCES

1. Planning Data (TASK 34-48-01-820-801-A01)

A. Reason for the Job (Subtask 34-48-01-820-001-A01)

(1) This section gives the fits and clearances used when the AESU was made.

B. Job Setup Data (Subtask 34-48-01-820-002-A01)

(1) Not applicable.

2. Fits and Clearances (TASK 34-48-01-820-802-A01)

A. Job Setup (Subtask 34-48-01-820-003-A01)

CAUTION: THE AIRCRAFT ENVIRONMENT SURVEILLANCE UNIT CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE ITEMS. USE INDUSTRY APPROVED PRECAUTIONS.

(1) Obey the precautions.

B. Fits and Clearances of the AESU (Subtask 34-48-01-820-004-A01)

(1) Refer to Table 8001 when you do the procedures in REPAIR (PGBLK 34-48-01-6000).

Table 8001. Fits and Clearances

Figure - Item	Condition to Measure	Limits
Figure 2002 (GRAPHIC 34-48-01-99B-811-A01), item 14, screw	Torque	9 to 12 in.-lb (1,017 to 1,356 mN•m)
Figure 2002 (GRAPHIC 34-48-01-99B-811-A01), items 15, 18, 19, 20, 21, screws	Torque	4 to 6 in.-lb (452 to 678 mN•m)
Figure 2002 (GRAPHIC 34-48-01-99B-811-A01), item 17, screw	Torque	6 to 7 in.-lb (678 to 791 mN•m)

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SPECIAL TOOLS, FIXTURES, EQUIPMENT, AND CONSUMABLES

1. Planning Data (TASK 34-48-01-940-801-A01)

A. Reason for the Job (Subtask 34-48-01-940-001-A01)

(1) This section gives the special tools, fixtures, equipment, and consumables that are necessary for AESU maintenance.

B. Job Setup Data (Subtask 34-48-01-940-002-A01)

(1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials. The user must find equivalent alternatives.

(2) Refer to Table 9001 for special tools, fixtures, and equipment.

Table 9001. Special Tools, Fixtures, and Equipment

Number	Name
755-0714-001	AESU test fixture, with forced air cooling (CAGE 97896)
951-040-001	AESS test platform (CAGE 97896)
998-3565-5XX	AESS ATP system software (CAGE 97896)
	Ethernet cross cable — Connects the IOM core Ethernet port and a personal computer (CAGE 97896)
	Microsoft Windows 2000 or above - AESS ATP test platform PC operating system
	Software — AESS IOM fault history parser tool diagnostic (CAGE 97896)
air supply	air ionizing nozzle or gun attachment for compressed air (20 psi) (optional source)

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS' MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO MATERIALS SPECIFIED BY HONEYWELL. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(3) Refer to Table 9002 for consumable materials.

Table 9002. Consumable Materials

Number	Name
530-0145-001	adhesive, Loctite — No. 242 (CAGE 05972)
solvent	isopropanol, technical, per MIL TT-I-735, Grade B (Optional source)

SPECIAL PROCEDURES

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REMOVAL

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INSTALLATION

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SERVICING

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STORAGE (INCLUDING TRANSPORTATION)

1. Planning Data (TASK 34-48-01-500-801-A01)

A. Reason for the Job (Subtask 34-48-01-500-001-A01)

(1) Use these procedures to prepare the AESU for storage or transportation. The function of these procedures is to make sure that the AESU has protection from dust, moisture, and other contamination.

B. Job Setup Data (Subtask 34-48-01-500-002-A01)

(1) You can use equivalent alternatives for the special tools, fixtures, equipment, and consumable materials. The user must find equivalent alternatives.

(2) Refer to Table 15001 for special tools, fixtures, and equipment.

Table 15001. Special Tools, Fixtures, and Equipment

Number	Name
Not applicable	Not applicable

WARNING: BEFORE YOU USE A MATERIAL, REFER TO THE MANUFACTURERS' MATERIAL SAFETY DATA SHEETS. SOME MATERIALS CAN BE DANGEROUS.

CAUTION: DO NOT USE MATERIALS THAT ARE NOT EQUIVALENT TO MATERIALS SPECIFIED BY HONEYWELL. MATERIALS THAT ARE NOT EQUIVALENT CAN CAUSE DAMAGE TO THE EQUIPMENT AND CAN MAKE THE WARRANTY NOT APPLICABLE.

(3) Refer to Table 15002 for consumable materials.

Table 15002. Consumable Materials

Number	Name
Not applicable	Not applicable

(4) Refer to Table 15003 for reference data.

Table 15003. Reference Data

Reference	Name
Not Applicable	Not Applicable

2. Procedure (TASK 34-48-01-500-802-A01)

A. Job Setup (Subtask 34-48-01-500-003-A01)

CAUTION: THE AIRCRAFT ENVIRONMENT SURVEILLANCE UNIT CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE ITEMS. USE INDUSTRY APPROVED PRECAUTIONS.

(1) Obey the precautions.

B. Packing (Subtask 34-48-01-530-001-A01)

(1) Use the approved ATA container, or equivalent.

C. Storage (Subtask 34-48-01-550-001-A01)

(1) If the AESU must be in storage for a long time, keep it in a location with a temperature range of -20 to +131 °F (-30 to +55 °C).

D. Transportation (Subtask 34-48-01-510-001-A01)

(1) When equipment is sent to Honeywell for warranty repair, use the approved ATA container, or equivalent.

E. Job Close-up (Subtask 34-48-01-500-004-A01)

(1) Not applicable.

REWORK

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Honeywell

COMPONENT MAINTENANCE MANUAL
Part No. 965-1694-001

ILLUSTRATED PARTS LIST

1. Overview (TASK 34-48-01-99C-803-A01)

A. Introduction

(1) This section gives the parts that are used to make the AESU. It also supplies the necessary data to get replacement parts for REPAIR (PGBLK 34-48-01-6000) and TESTING AND FAULT ISOLATION (PGBLK 34-48-01-1000).

(2) The list of parts is given in general disassembly sequence. The illustrations show where you can find each part and are an important aid in DISASSEMBLY (PGBLK 34-48-01-3000) and ASSEMBLY (PGBLK 34-48-01-7000).

B. How to Find a Part

(1) If the Part Number is known, refer to the Numerical Index to find the figure and item numbers in the Detailed Parts List.

(2) If the equipment designator is known, refer to the Equipment Designator Index to find the figure and item numbers in the Detailed Parts List.

(3) After you get the figure and item number, refer to the Detailed Parts List for more identification data.

2. Contents of the IPL (TASK 34-48-01-99C-804-A01)

A. Vendor List

(1) The names and addresses of companies that supply the items included in the Detailed Parts List are shown in the Vendor List.

(2) The vendor CAGE code is given in the Nomenclature column of the Detailed Parts List to identify the vendor.

B. Equipment Designator Index

(1) The Equipment Designator Index is an alphanumeric list of the equipment designators given to the subassemblies and electrical/electronic parts. The designators are an aid to identify parts in SCHEMATIC AND WIRING DIAGRAMS (PGBLK 34-48-01-2000).

(2) Each entry in the Equipment Designator Index identifies the figure and item numbers where the part is found in the Detailed Parts List. The Equipment Designator Index can also identify a geographical location of the equipment designator found on the graphic illustration. A hyphen between two designators shows a continuous sequence of designators (example: A1-A5 is the same as A1 thru A5).

C. Numerical Index

(1) The Numerical Index is an alphanumeric list of all the Part Numbers shown in the Part Number column of the Detailed Parts List.

(2) Also included in the index are the Honeywell Part Numbers that are equivalent to the manufacturer Part Number. Optional manufacturer Part Numbers are not included in the index.

(3) The Fig. Item column gives all of the locations of a part. If a Part Number is in more than one Fig. Item location, the Part Number is shown only one time in the Part Number column.

(4) The TTL Req column shows the total number of parts that are used at each Fig. Item location.

(5) The Airline Part No. column has space for customers to use.

D. Detailed Parts List

(1) An item number is given to each part in the Detailed Parts List and on the related illustration. The item numbers show the general disassembly sequence.

(2) Some of the parts are not shown on an illustration, such as a fully assembled item, an unprogrammed microcircuit, and a selection of resistors. Items that are not shown have a dash before the item number in the Detailed Parts List.

(3) An item number with a letter suffix (A thru Z except I and O) shows that one of these conditions has occurred:

- A modification (by a service bulletin)
- A change in configuration from the initial item
- A change to a better part (no service bulletin)
- An adjustment was made for a disassembly sequence.

(4) The Part Number column shows the part number for Honeywell, a commercial vendor, or a U.S. standard part. When this column shows the part number of a commercial vendor or a U.S. standard part, the Nomenclature column can also show the Honeywell part number. When this column shows the Honeywell part number for commercial hardware, the Nomenclature column gives a description of the part.

(5) The Airline Stock No. column has space for customers to use.

(6) The Nomenclature column gives the applicable name for each assembly, subassembly, and part. The indention of the nomenclature data is used to show the relation of an item to the other items in the Detailed Parts List. This column can also show the data that follows:

- Shows optional manufacturer Part Numbers (OPT MFG PN) with their vendor code when there is more than one vendor of a part. At the first location of a part with more than one source of supply, the applicable OPT MFG PN data is shown. All subsequent locations of the same part refer to the first location for the OPT MFG PN.
- Identifies parts that are electrostatic discharge sensitive with the identification (ESDS).
- Identifies parts that can have dangerous effects with the warning *HAZARDOUS MATERIAL*.
- Identifies parts for selection with the words "SEL FR PN .... MADE BY ...." These parts are commercially supplied, but Honeywell examines the parts and then makes a selection of those that have the necessary quality. Parts for replacement must come from Honeywell.

- Identifies parts that are airworthiness critical with the identification (AIRWORTHINESS CRITICAL ITEM).
- Identifies parts that are moisture sensitive with the identification *MOISTURE SENSITIVE*.
- Identifies parts that can be used when the recommended part is not available.
- The Nomenclature column of the Detailed Parts List shows a vendor code with the letter V before it. This code (from Cataloging Handbook H4/H8, CAGE, Sections A and B) identifies where to get the specified item.
- No vendor code is shown in the Nomenclature column of the Detailed Parts List if the item is a U.S. standard part or Honeywell is the vendor.

(7) The parts replacement words, in the Nomenclature column, show if one part replaces a different part as follows:

- OPTIONAL shows that a part is an optional alternative to other parts in the same item number variant group.
- SUPSD BY shows that the part in the Part Number column is replaced by and is not interchangeable with the item number shown in the note.
- SUPSD shows that the part in the Part Number column replaces and is not interchangeable with the item number shown in the note.
- REPL BY shows that the part in the Part Number column is replaced by and is interchangeable with the item number shown in the note.
- REPL shows that the part in the Part Number column replaces and is interchangeable with the item number shown in the note.
- MAY BE SUBST shows that the part in the Nomenclature column with its vendor code is an equivalent alternative for the part in the Part Number column.
- PRE SB XXXX shows that the part is used if Service Bulletin XXXX was not done.
- POST SB XXXX shows that the part is used if Service Bulletin XXXX was done.
- NON-REPAIRABLE shows that the part cannot be repaired.
- NON-PROCURABLE shows that the part cannot be purchased.

(8) The Eff Code column identifies differences in specified configurations of the top assembly in each IPL figure:

- If this column is empty, the part is used in all configurations of the top assembly for that IPL figure.
- If this column has a letter code in it, the part is only used in the configuration of the top assembly that has the same letter code.
- If this column has more than one letter code, the part is used in each top assembly with the same letter codes.

(9) The Units Per Assy column shows the quantity of each part that is used in the next higher assembly. The letters AR are an indication that the quantity changes as necessary. The letters RF identify a reference item.

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3. Vendor List

Code	Vendor
86928	SEASTROM MANUFACTURING COMPANY, 456 SEASTROM STREET, TWIN FALLS, ID 83301-8526
88044	AERONAUTICAL STANDARDS GROUP, DEPT OF NAVY AND AIR FORCE
96906	MILITARY STANDARDS, PROMULGATED BY MILITARY, DEPARTEMENTS, UNDER AUTHORITY OF DEFENSE, STANDARDIZATION MANUAL 4120 3-M
97896	HONEYWELL INTERNATIONAL INC, DBA HONEYWELL AEROSPACE, 15001 NE 36 ST, REDMOND, WA 98052-5317

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4. Detailed Parts List

Equipment Designator Index

EQUIPMENT DESIGNATOR	FIG. ITEM	GEOGRAPHIC LOCATION	EQUIPMENT DESIGNATOR	FIG. ITEM	GEOGRAPHIC LOCATION
NOT APPLICABLE					

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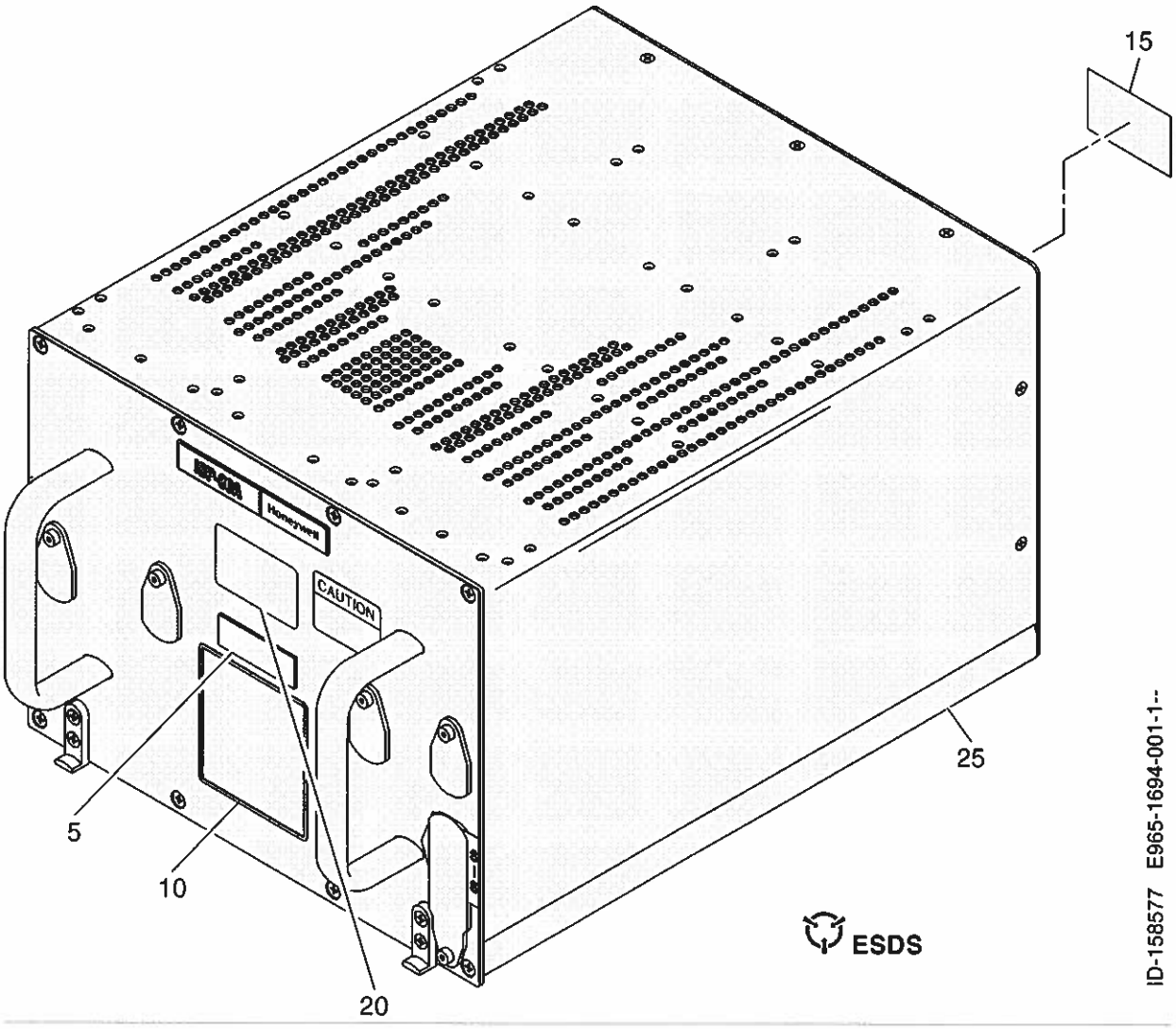
Numerical Index

PART NUMBER	AIRLINE PART NO.	FIG. ITEM	TTL REQ
AN507C440R6		2 85	9
MS15795-803		2 110	8
		25	5
		35	1
		95	18
MS51957-14		2 105	8
		20	5
		30	1
		90	18
057-05724-0000		1 20	1
431-0025-506		2 85	9
431-0206-014		2 105	8
		20	5
		30	1
		90	18
434-0030-003		2 110	8
		25	5
		35	1
		95	18
434-0039-033		2 40	1
5610-12-10		2 40	1
617-6409-007		1 25	1
		2 -1	RF
617-6413-002		2 -130A	1
617-6413-003		2 -130A	1
		130	1
620-1967-014		1 10	1
620-1967-016		1 5	1
634-2287-002		2 -80A	1
634-2287-003		2 -80A	1
		80	1
6732-0410		2 120	3
6732-0415		2 125	1
6732-0606		2 10	8
700-1750-010		2 65	1
700-1751-008		2 45	1
700-1752-009		2 50	1
700-1806-007		2 75	1
720-0251-004		2 70	1
720-0255-005		2 55	1
722-4484-009		2 100	1
722-4488-006		2 15	1
727-0012-001		2 -115A	1
727-0012-002		2 -115A	1
		115	1
727-0028-004		2 60	1
747-0475-001		2 5	1
8051399-0001		1 15	1
965-1694-001		1 -1	RF



IPL Figure 1. (Sheet 1 of 1) Aircraft Environment Surveillance Unit

FIG. ITEM	PART NUMBER	AIRLINE STOCK NO. 1234567	NOMENCLATURE	EFF. CODE	UNITS PER ASSY
1					
- 1	965-1694-001		AIRCRAFT ENVIRONMENT SURVEILLANCE UNIT ..... (ESDS) (V97896)		RF
5	620-1967-016		.LABEL ..... AESU, PART NO. (V97896)		1
10	620-1967-014		.LABEL ..... ISP-80A (V97896) (NON-PROCURABLE)		1
15	8051399-0001		.DECAL ..... CAUTION ESD (V97896)		1
20	057-05724-0000		.TAG ..... (V97896) (NON-PROCURABLE)		1
25	617-6409-007		.CONFIGURATION ASSEMBLY ..... AESU (ESDS) (V97896) (SEE 2 FOR DETAILS)		1

- ITEM NOT ILLUSTRATED

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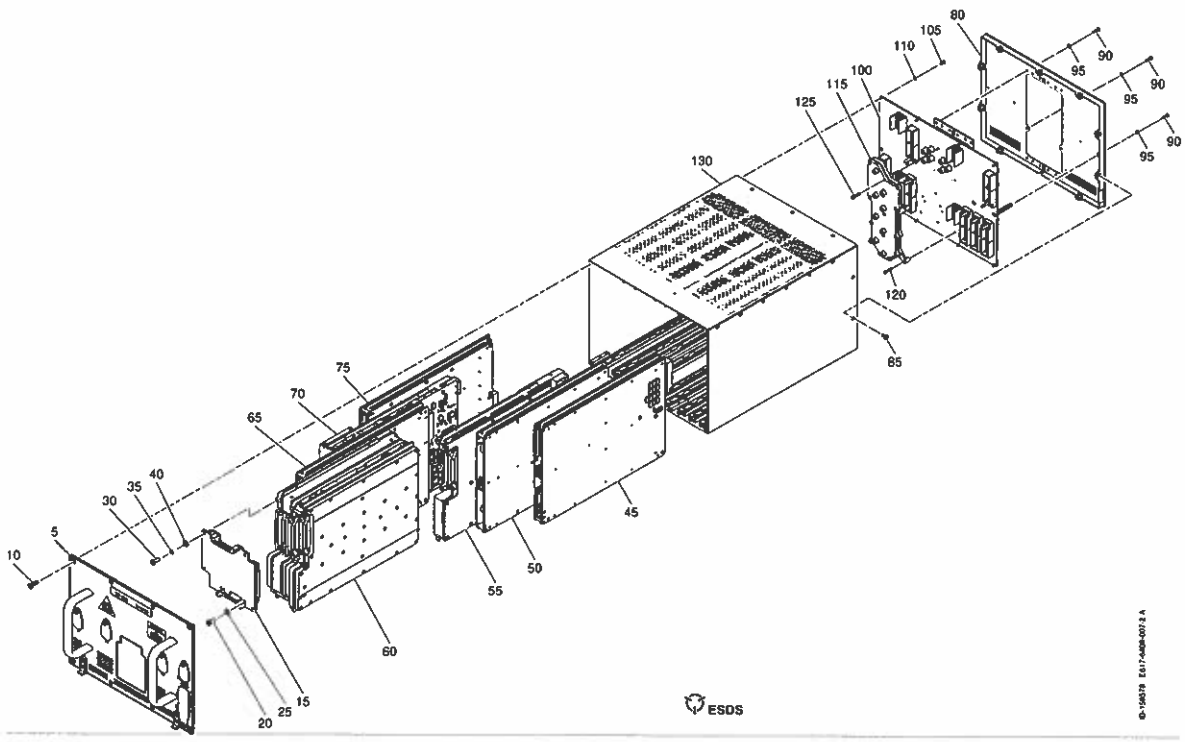

IPL Figure 2. (Sheet 1 of 1) AESU Configuration Assembly

FIG. ITEM	PART NUMBER	AIRLINE STOCK NO. 1234567	NOMENCLATURE	EFF. CODE	UNITS PER ASSY
2					
- 1	617-6409-007		CONFIGURATION ASSEMBLY AESU (ESDS) (V97896) (SEE 1 FOR DETAILS)		RF
5	747-0475-001		.PANEL ASSEMBLY FRONT (V97896)		1
			(ATTACHING PARTS)		
10	6732-0606		.SCREW PHP, FLAT HD 100, SS 6-32 X 3/8 (V97896)		8
			---*---		
15	722-4488-006		.CCA FRONT INTERCONNECT (ESDS) (V97896)		1
			(ATTACHING PARTS)		
20	MS51957-14		.SCREW PNH .112-40 UNC-2A X .312 (V96906) (OPT MFR: 431-0206-014 V97896)		5
25	MS15795-803		.WASHER FLAT (V96906) (OPT MFR: 434-0030-003 V97896)		5
30	MS51957-14		.SCREW PNH .112-40 UNC-2A X .312 (V96906) (OPT MFR: 431-0206-014 V97896)		1
35	MS15795-803		.WASHER FLAT (V96906) (OPT MFR: 434-0030-003 V97896)		1

- ITEM NOT ILLUSTRATED

FIG. ITEM	PART NUMBER	AIRLINE STOCK NO. 1234567	NOMENCLATURE	EFF. CODE	UNITS PER ASSY
2					
40	5610-12-10		.WASHER NYLON .136 X .375 X .010 THK *(V86928)* *(OPT MFR:* 434-0039-033 V97896*)*		1
			---*---		
45	700-1751-008		.MODULE ASSEMBLY IOM *(*ESDS*)* *(V97896)* *(*SEE 34-48-09 FOR BKDN*)*		1
50	700-1752-009		.MODULE ASSEMBLY EGPWS *(*ESDS*)* *(V97896)* *(*SEE 34-48-02 FOR BKDN*)*		1
55	720-0255-005		.MODULE ASSEMBLY POWER SUPPLY *(*ESDS*)* *(V97896)* *(*SEE 34-48-08 FOR BKDN*)*		1
60	727-0028-004		.MODULE ASSEMBLY RF *(*ESDS*)* *(V97896)* *(*SEE 34-48-06 FOR BKDN*)*		1
65	700-1750-010		.MODULE ASSEMBLY TCAS/XPDR-DIG *(*ESDS*)* *(V97896)* *(*SEE 34-48-05 FOR BKDN*)*		1
70	720-0251-004		.MODULE ASSEMBLY POWER SUPPLY, RP-1 *(*ESDS*)* *(V97896)* *(*RP-1 ESDS*)* *(*SEE 34-48-04 FOR BKDN*)*		1
75	700-1806-007		.MODULE ASSEMBLY RADAR DSP/IF *(*ESDS*)* *(V97896)* *(*SEE 34-48-03 FOR BKDN*)*		1

- ITEM NOT ILLUSTRATED

FIG. ITEM	PART NUMBER	AIRLINE STOCK NO. 1234567	NOMENCLATURE	EFF. CODE	UNITS PER ASSY
2					
80	634-2287-003		.PLATE ASSEMBLY REAR *(V97896)*		1
- 80A	634-2287-002		.PLATE ASSEMBLY REAR *(V97896)* *(OPT MFR:* 634-2287-003 V97896*)*		1
			(ATTACHING PARTS)		
85	AN507C440R6		.SCREW FLAT HEAD *(V88044)* *(OPT MFR:* 431-0025-506 V97896*)*		9
90	MS51957-14		.SCREW PNH .112-40 UNC-2A X .312 *(V96906)* *(OPT MFR:* 431-0206-014 V97896*)*		18
95	MS15795-803		.WASHER FLAT *(V96906)* *(OPT MFR:* 434-0030-003 V97896*)*		18
			---*---		
100	722-4484-009		.CCA REAR INTERCONNECT *(ESDS)* *(V97896)*		1
			(ATTACHING PARTS)		
105	MS51957-14		.SCREW PNH .112-40 UNC-2A X .312 *(V96906)* *(OPT MFR:* 431-0206-014 V97896*)*		8
110	MS15795-803		.WASHER FLAT *(V96906)* *(OPT MFR:* 434-0030-003 V97896*)*		8
			---*---		
115	727-0012-002		.MODULE ASSEMBLY RF INTERCONNECT *(ESDS)* *(V97896)*		1

- ITEM NOT ILLUSTRATED

FIG. ITEM	PART NUMBER	AIRLINE STOCK NO. 1234567	NOMENCLATURE	EFF. CODE	UNITS PER ASSY
2					
- 115A	727-0012-001		.MODULE ASSEMBLY		1
			RF INTERCONNECT		
			(ESDS)		
			(V97896)		
			(OPT MFR: 727-0012-002 V97896*)*		
			(ATTACHING PARTS)		
120	6732-0410		.SCREW		3
			PHP, FLAT HD, SS		
			4-40 X 5/8		
			(V97896)		
125	6732-0415		.SCREW		1
			PHP, FLAT HD, SS		
			4-40 X 15/16		
			(V97896)		
			---*---		
130	617-6413-003		.CHASSIS		1
			(V97896)		
- 130A	617-6413-002		.CHASSIS		1
			(V97896)		
			(OPT MFR: 617-6413-003 V97896*)*		

- ITEM NOT ILLUSTRATED