

Honeywell

Honeywell International Inc.
P.O. Box 97001
Redmond, Washington 98073-9701
U.S.A.
CAGE: 97896
Telephone: (800) 601-3099 (U.S.A.)
Telephone: (602) 365-3099 (International)

Component Maintenance Manual with Illustrated Parts List

Aircraft Environment Surveillance Unit

Part Number

CAGE

965-1694-001

97896

This document contains technical data and is subject to U.S. export regulations. These commodities, technology, or software were exported from the United States in accordance with the export administration regulations. Diversion contrary to U.S. law is prohibited.

34-48-01

Page T-1
Initial 1 Dec 2006

Publication Number 012-0769-001, Revision 000

© Honeywell International Inc. Do not copy without express permission of Honeywell.

**COMPONENT MAINTENANCE MANUAL**

Part No. 965-1694-001

Honeywell Confidential

THIS COPYRIGHTED WORK AND ALL INFORMATION ARE THE PROPERTY OF HONEYWELL INTERNATIONAL INC., CONTAIN TRADE SECRETS AND MAY NOT, IN WHOLE OR IN PART, BE USED, DUPLICATED, OR DISCLOSED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN PERMISSION OF HONEYWELL INTERNATIONAL INC. ALL RIGHTS RESERVED.

Honeywell Materials License Agreement

The documents and information contained herein ("the Materials") are the proprietary data of Honeywell International Inc. and Honeywell Intellectual Properties Inc (collectively "Honeywell"). These Materials are provided for the exclusive use of Honeywell Service Centers; Honeywell-authorized repair facilities; operators of Honeywell aerospace products subject to an applicable product support agreement, their wholly owned-subsiidiaries or a formally designated third party service provider there under; and direct recipients of Materials from Honeywell's Aerospace Technical Publication Distribution. The terms and conditions of this License Agreement govern your use of these Materials, except to the extent that any terms and conditions of another applicable agreement with Honeywell regarding the operation, maintenance, or repair of Honeywell aerospace products conflict with the terms and conditions of this License Agreement, in which case the terms and conditions of the other agreement will govern. However, this License Agreement will govern in the event of a conflict between its terms and conditions and those of a purchase order or acknowledgement.

1. License Grant

If you are a party to an applicable product support agreement, a Honeywell Service Center agreement, or an authorized repair facility agreement, Honeywell hereby grants you a limited, non-exclusive license to use these Materials to operate, maintain, or repair Honeywell aerospace products only in accordance with that agreement.

If you are a direct recipient of these Materials from Honeywell's Aerospace Technical Publication Distribution and are not a party to an agreement related to the operation, maintenance or repair of Honeywell aerospace products, Honeywell hereby grants you a limited, non-exclusive license to use these Materials to maintain or repair the subject Honeywell aerospace products only at the facility to which these Materials have been shipped ("the Licensed Facility"). Transfer of the Materials to another facility owned by you is permitted only if the original Licensed Facility retains no copies of the Materials and you provide prior written notice to Honeywell.

2. Rights In Materials - Honeywell retains all rights in these Materials and in any copies thereof that are not expressly granted to you, including all rights in patents, copyrights, trademarks, and trade secrets. No license to use any Honeywell trademarks or patents is granted under this License Agreement.

3. Confidentiality - You acknowledge that these Materials contain information that is confidential and proprietary to Honeywell. You agree to take all reasonable efforts to maintain the confidentiality of these Materials.

4. Assignment And Transfer - This License Agreement may be assigned to a formally designated service designee to the extent allowed under an applicable product support agreement or transferred to a subsequent owner or operator of an aircraft containing the subject Honeywell aerospace products. However, the recipient of any such assignment or transfer must assume all of your obligations under this License Agreement. No assignment or transfer shall relieve any party of any obligation that such party then has hereunder.

5. Copies of Materials - Unless you have the express written permission of Honeywell, you may not make or permit making of copies of the Materials. Notwithstanding the foregoing, you may make copies of only portions of the Material for your internal use. You agree to return the Materials and any copies thereof to Honeywell upon the request of Honeywell.

34-48-01Page T-2
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

6. **Term** - This License Agreement is effective until terminated as set forth herein. This License Agreement will terminate immediately, without notice from Honeywell, if you fail to comply with any provision of this License Agreement or will terminate simultaneously with the termination or expiration of your applicable product support agreement, authorized repair facility agreement, or your formal designation as a third party service provider. Upon termination of this License Agreement, you will return these Materials to Honeywell without retaining any copies and will have one of your authorized officers certify that all Materials have been returned with no copies retained.

7. **Remedies** - Honeywell reserves the right to pursue all available remedies and damages resulting from a breach of this License Agreement.

8. **Limitation of Liability** - Honeywell does not make any representation regarding the use, accuracy or sufficiency of the Materials. THERE ARE NO OTHER WARRANTIES, WHETHER WRITTEN OR ORAL, EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, (i) WARRANTIES ARISING FROM COURSE OF PERFORMANCE, DEALING, USAGE, OR TRADE, WHICH ARE HEREBY EXPRESSLY DISCLAIMED, OR (ii) WARRANTIES AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES, EVEN IF HONEYWELL HAS BEEN ADVISED OF ANY SUCH INFRINGEMENT. IN NO EVENT WILL HONEYWELL BE LIABLE FOR ANY INCIDENTAL DAMAGES, CONSEQUENTIAL DAMAGES, SPECIAL DAMAGES, INDIRECT DAMAGES, LOSS OF PROFITS, LOSS OF REVENUES, OR LOSS OF USE, EVEN IF INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THESE LIMITATIONS AND EXCLUSIONS WILL APPLY REGARDLESS OF WHETHER LIABILITY ARISES FROM BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING BUT NOT LIMITED TO NEGLIGENCE), BY OPERATION OF LAW, OR OTHERWISE.

9. **Controlling Law** - This License shall be governed and construed in accordance with the laws of the State of New York without regard to the conflicts of laws provisions thereof. This license sets forth the entire agreement between you and Honeywell and may only be modified by a writing duly executed by the duly authorized representatives of the parties.

Copyright - Notice

Copyright 2006 Honeywell International Inc. All rights reserved.

34-48-01

Page T-3
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

Blank Page



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

TRANSMITTAL INFORMATION

TO HOLDERS OF: COMPONENT MAINTENANCE MANUAL, PUB. NO. 012-0769-001, AESU
(PART NO. 965-1694-001)

REVISION NO. 000, DATED 1 DEC 2006

Revision History

Honeywell Publication No. 012-0769-001 has no revision(s) as shown in the Table of Revisions.

Table of Revisions

Revision Number	Revision Date
000	1 Dec 2006

EFFECTIVITY _____
ALL

34-48-01

Page TI-1
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

Blank Page

Part No. 965-1694-001

For each revision, put the changed pages in your manual and discard the replaced pages. Write the revision number, revision date, and the date put in the manual. Put your initials in the applicable columns on the Record of Revisions.

[illegible]

EFFECTIVITY_____

ALL

34-48-01

Page RR-1
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

Blank Page

**COMPONENT MAINTENANCE MANUAL**

Part No. 965-1694-001

TEMPORARY REVISION LIST

Instructions on each page of a temporary revision tell you where to put the pages in your manual.
Remove the temporary revision pages only when discard instructions are given.

Temp Rev No.	Status	Location
-----------------	--------	----------

EFFECTIVITY _____
ALL

34-48-01Page RTR-1
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

Blank Page



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

SERVICE BULLETIN LIST

Service Bulletin	Title	Mod No.	Issue Date
------------------	-------	---------	------------

EFFECTIVITY _____
ALL

34-48-01

Page SBL-1
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

Blank Page

**COMPONENT MAINTENANCE MANUAL**

Part No. 965-1694-001

LIST OF EFFECTIVE PAGES

Section and Page	Date	Section and Page	Date
Title		TC-8	1 Dec 2006
T-1	1 Dec 2006	Introduction	
T-2	1 Dec 2006	INTRO-1	1 Dec 2006
T-3	1 Dec 2006	INTRO-2	1 Dec 2006
T-4	1 Dec 2006	INTRO-3	1 Dec 2006
Transmittal Information		INTRO-4	1 Dec 2006
TI-1	1 Dec 2006	INTRO-5	1 Dec 2006
TI-2	1 Dec 2006	INTRO-6	1 Dec 2006
Record of Revisions		Description and Operation	
RR-1	1 Dec 2006	1	1 Dec 2006
RR-2	1 Dec 2006	2	1 Dec 2006
Temporary Revision List		F 3/4	1 Dec 2006
RTR-1	1 Dec 2006	5	1 Dec 2006
RTR-2	1 Dec 2006	6	1 Dec 2006
Service Bulletin List		7	1 Dec 2006
SBL-1	1 Dec 2006	8	1 Dec 2006
SBL-2	1 Dec 2006	9	1 Dec 2006
List of Effective Pages		10	1 Dec 2006
LEP-1	1 Dec 2006	11	1 Dec 2006
LEP-2	1 Dec 2006	12	1 Dec 2006
LEP-3	1 Dec 2006	Testing and Fault Isolation	
LEP-4	1 Dec 2006	1001	1 Dec 2006
LEP-5	1 Dec 2006	1002	1 Dec 2006
LEP-6	1 Dec 2006	1003	1 Dec 2006
Table of Contents		1004	1 Dec 2006
TC-1	1 Dec 2006	1005	1 Dec 2006
TC-2	1 Dec 2006	1006	1 Dec 2006
TC-3	1 Dec 2006	1007	1 Dec 2006
TC-4	1 Dec 2006	1008	1 Dec 2006
TC-5	1 Dec 2006	1009	1 Dec 2006
TC-6	1 Dec 2006	1010	1 Dec 2006
TC-7	1 Dec 2006	1011	1 Dec 2006
		1012	1 Dec 2006
		1013	1 Dec 2006

■ indicates changed or added data.

F indicates a right foldout page with a blank back.

LF indicates a left foldout page with a blank front.

EFFECTIVITY

ALL

34-48-01Page LEP-1
1 Dec 2006

**COMPONENT MAINTENANCE MANUAL**

Part No. 965-1694-001

LIST OF EFFECTIVE PAGES (cont)

Section and Page	Date	Section and Page	Date
1014	1 Dec 2006	1048	1 Dec 2006
1015	1 Dec 2006	1049	1 Dec 2006
1016	1 Dec 2006	1050	1 Dec 2006
1017	1 Dec 2006	1051	1 Dec 2006
1018	1 Dec 2006	1052	1 Dec 2006
1019	1 Dec 2006	1053	1 Dec 2006
1020	1 Dec 2006	1054	1 Dec 2006
1021	1 Dec 2006	1055	1 Dec 2006
1022	1 Dec 2006	1056	1 Dec 2006
1023	1 Dec 2006	1057	1 Dec 2006
1024	1 Dec 2006	1058	1 Dec 2006
1025	1 Dec 2006	1059	1 Dec 2006
1026	1 Dec 2006	1060	1 Dec 2006
1027	1 Dec 2006	1061	1 Dec 2006
1028	1 Dec 2006	1062	1 Dec 2006
1029	1 Dec 2006	1063	1 Dec 2006
1030	1 Dec 2006	1064	1 Dec 2006
1031	1 Dec 2006	1065	1 Dec 2006
1032	1 Dec 2006	1066	1 Dec 2006
1033	1 Dec 2006	1067	1 Dec 2006
1034	1 Dec 2006	1068	1 Dec 2006
1035	1 Dec 2006	1069	1 Dec 2006
1036	1 Dec 2006	1070	1 Dec 2006
1037	1 Dec 2006	1071	1 Dec 2006
1038	1 Dec 2006	1072	1 Dec 2006
1039	1 Dec 2006	1073	1 Dec 2006
1040	1 Dec 2006	1074	1 Dec 2006
1041	1 Dec 2006	1075	1 Dec 2006
1042	1 Dec 2006	1076	1 Dec 2006
1043	1 Dec 2006	1077	1 Dec 2006
1044	1 Dec 2006	1078	1 Dec 2006
1045	1 Dec 2006	1079	1 Dec 2006
1046	1 Dec 2006	1080	1 Dec 2006
1047	1 Dec 2006	1081	1 Dec 2006

- indicates changed or added data.
- F indicates a right foldout page with a blank back.
- LF indicates a left foldout page with a blank front.

EFFECTIVITY

ALL

34-48-01Page LEP-2
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

LIST OF EFFECTIVE PAGES (cont)

Section and Page	Date	Section and Page	Date
1082	1 Dec 2006	1116	1 Dec 2006
1083	1 Dec 2006	1117	1 Dec 2006
1084	1 Dec 2006	1118	1 Dec 2006
1085	1 Dec 2006	1119	1 Dec 2006
1086	1 Dec 2006	1120	1 Dec 2006
1087	1 Dec 2006	1121	1 Dec 2006
1088	1 Dec 2006	1122	1 Dec 2006
1089	1 Dec 2006	1123	1 Dec 2006
1090	1 Dec 2006	1124	1 Dec 2006
1091	1 Dec 2006	1125	1 Dec 2006
1092	1 Dec 2006	1126	1 Dec 2006
1093	1 Dec 2006	1127	1 Dec 2006
1094	1 Dec 2006	1128	1 Dec 2006
1095	1 Dec 2006	1129	1 Dec 2006
1096	1 Dec 2006	1130	1 Dec 2006
1097	1 Dec 2006	1131	1 Dec 2006
1098	1 Dec 2006	1132	1 Dec 2006
1099	1 Dec 2006	1133	1 Dec 2006
1100	1 Dec 2006	1134	1 Dec 2006
1101	1 Dec 2006	1135	1 Dec 2006
1102	1 Dec 2006	1136	1 Dec 2006
1103	1 Dec 2006	1137	1 Dec 2006
1104	1 Dec 2006	1138	1 Dec 2006
1105	1 Dec 2006	1139	1 Dec 2006
1106	1 Dec 2006	1140	1 Dec 2006
1107	1 Dec 2006	1141	1 Dec 2006
1108	1 Dec 2006	1142	1 Dec 2006
1109	1 Dec 2006	1143	1 Dec 2006
1110	1 Dec 2006	1144	1 Dec 2006
1111	1 Dec 2006	1145	1 Dec 2006
1112	1 Dec 2006	1146	1 Dec 2006
1113	1 Dec 2006	1147	1 Dec 2006
1114	1 Dec 2006	1148	1 Dec 2006
1115	1 Dec 2006	1149	1 Dec 2006

■ indicates changed or added data.

F indicates a right foldout page with a blank back.

LF indicates a left foldout page with a blank front.

EFFECTIVITY

ALL

34-48-01

Page LEP-3
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

LIST OF EFFECTIVE PAGES (cont)

Section and Page	Date	Section and Page	Date
1150	1 Dec 2006	1184	1 Dec 2006
1151	1 Dec 2006	1185	1 Dec 2006
1152	1 Dec 2006	1186	1 Dec 2006
1153	1 Dec 2006	1187	1 Dec 2006
1154	1 Dec 2006	1188	1 Dec 2006
1155	1 Dec 2006	1189	1 Dec 2006
1156	1 Dec 2006	1190	1 Dec 2006
1157	1 Dec 2006	1191	1 Dec 2006
1158	1 Dec 2006	1192	1 Dec 2006
1159	1 Dec 2006	1193	1 Dec 2006
1160	1 Dec 2006	1194	1 Dec 2006
1161	1 Dec 2006	1195	1 Dec 2006
1162	1 Dec 2006	1196	1 Dec 2006
1163	1 Dec 2006	1197	1 Dec 2006
1164	1 Dec 2006	1198	1 Dec 2006
1165	1 Dec 2006	1199	1 Dec 2006
1166	1 Dec 2006	1200	1 Dec 2006
1167	1 Dec 2006	1201	1 Dec 2006
1168	1 Dec 2006	1202	1 Dec 2006
1169	1 Dec 2006	1203	1 Dec 2006
1170	1 Dec 2006	1204	1 Dec 2006
1171	1 Dec 2006	1205	1 Dec 2006
1172	1 Dec 2006	1206	1 Dec 2006
1173	1 Dec 2006	Schematic and Wiring Diagrams	
1174	1 Dec 2006	2001	1 Dec 2006
1175	1 Dec 2006	2002	1 Dec 2006
1176	1 Dec 2006	F 2003/2004	1 Dec 2006
1177	1 Dec 2006	F 2005/2006	1 Dec 2006
1178	1 Dec 2006	F 2007/2008	1 Dec 2006
1179	1 Dec 2006	F 2009/2010	1 Dec 2006
1180	1 Dec 2006	Disassembly	
1181	1 Dec 2006	3001	1 Dec 2006
1182	1 Dec 2006	3002	1 Dec 2006
1183	1 Dec 2006		

■ indicates changed or added data.

F indicates a right foldout page with a blank back.

LF indicates a left foldout page with a blank front.

EFFECTIVITY

ALL

34-48-01

Page LEP-4
1 Dec 2006

**COMPONENT MAINTENANCE MANUAL**

Part No. 965-1694-001

LIST OF EFFECTIVE PAGES (cont)

Section and Page	Date	Section and Page	Date
3003	1 Dec 2006	Installation	
3004	1 Dec 2006	13001	1 Dec 2006
Cleaning		13002	1 Dec 2006
4001	1 Dec 2006	Servicing	
4002	1 Dec 2006	14001	1 Dec 2006
Check		14002	1 Dec 2006
5001	1 Dec 2006	Storage (Including Transportation)	
5002	1 Dec 2006	15001	1 Dec 2006
Repair		15002	1 Dec 2006
6001	1 Dec 2006	Rework	
6002	1 Dec 2006	16001	1 Dec 2006
Assembly		16002	1 Dec 2006
7001	1 Dec 2006	Illustrated Parts List	
7002	1 Dec 2006	10001	1 Dec 2006
7003	1 Dec 2006	10002	1 Dec 2006
7004	1 Dec 2006	10003	1 Dec 2006
Fits and Clearances		10004	1 Dec 2006
8001	1 Dec 2006	10005	1 Dec 2006
8002	1 Dec 2006	10006	1 Dec 2006
Special Tools, Fixtures, Equipment, and		10007	1 Dec 2006
Consumables		10008	1 Dec 2006
9001	1 Dec 2006	10009	1 Dec 2006
9002	1 Dec 2006	10010	1 Dec 2006
Special Procedures		10011	1 Dec 2006
11001	1 Dec 2006	10012	1 Dec 2006
11002	1 Dec 2006	LF 10013/10014	1 Dec 2006
Removal		10015	1 Dec 2006
12001	1 Dec 2006	10016	1 Dec 2006
12002	1 Dec 2006	10017	1 Dec 2006
		10018	1 Dec 2006

■ indicates changed or added data.

F indicates a right foldout page with a blank back.

LF indicates a left foldout page with a blank front.

EFFECTIVITY

ALL

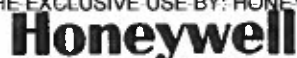
34-48-01Page LEP-5
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

Blank Page

**COMPONENT MAINTENANCE MANUAL**

Part No. 965-1694-001

TABLE OF CONTENTS**LIST OF SECTIONS**

Title	Page
INTRODUCTION	INTRO-1
1. How to Use This Manual (TASK 34-48-01-99F-801-A01)	INTRO-1
A. General	INTRO-1
B. Symbols	INTRO-1
C. Weights and Measurements	INTRO-1
2. Customer Support (TASK 34-48-01-99F-802-A01)	INTRO-1
A. Honeywell Aerospace Online Technical Publications Web Site	INTRO-1
B. Customer Response Center	INTRO-2
3. Data Verification (TASK 34-48-01-99F-803-A01)	INTRO-2
A. General	INTRO-2
4. References (TASK 34-48-01-99F-804-A01)	INTRO-2
A. Honeywell Publications	INTRO-2
B. Other Publications	INTRO-3
5. Acronyms and Abbreviations (TASK 34-48-01-99F-805-A01)	INTRO-3
A. General	INTRO-3
DESCRIPTION AND OPERATION	1
1. Description (TASK 34-48-01-870-801-A01)	1
A. General	1
B. Chassis	2
2. Operation (TASK 34-48-01-870-802-A01)	5
A. General	5
B. AESU Module Assemblies	6
C. Radar DSP/IF Module Assembly (Slot 1)	8
D. RP-1 Power Supply Module Assembly (Slot 2)	8
E. TCAS/XPDR-DIG Module Assembly (Slot 3)	9
F. RF Module Assembly (Slots 4 and 5)	10
G. Power Supply Module Assembly (Slot 6)	11
H. EGPWS Module Assembly (Slot 7)	11
I. IOM Module Assembly (Slot 9)	12

EFFECTIVITY

ALL

34-48-01Page TC-1
1 Dec 2006

**COMPONENT MAINTENANCE MANUAL**

Part No. 965-1694-001

TABLE OF CONTENTS (cont)**LIST OF SECTIONS (cont)**

Title	Page
TESTING AND FAULT ISOLATION	1001
1. Planning Data (TASK 34-48-01-99C-801-A01)	1001
A. Reason for the Job (Subtask 34-48-01-99C-001-A01)	1001
B. Job Setup Data (Subtask 34-48-01-99C-002-A01)	1001
2. Procedure (TASK 34-48-01-700-801-A01)	1002
A. Job Setup (Subtask 34-48-01-700-001-A01)	1002
B. Testing of the AESU (Subtask 34-48-01-700-002-A01)	1002
C. Fault Isolation of the AESU (Subtask 34-48-01-810-001-A01)	1002
D. IOM Procedure (Subtask 34-48-01-700-003-A01)	1078
E. Job Close-up (Subtask 34-48-01-700-004-A01)	1192
SCHEMATIC AND WIRING DIAGRAMS	2001
1. Planning Data (TASK 34-48-01-99C-802-A01)	2001
A. Reason for the Job (Subtask 34-48-01-99C-003-A01)	2001
B. Job Setup Data (Subtask 34-48-01-99C-004-A01)	2001
2. Schematic and Wiring Diagrams (TASK 34-48-01-99B-809-A01)	2001
A. General (Subtask 34-48-01-99B-001-A01)	2001
B. Detail Drawings (Subtask 34-48-01-99B-002-A01)	2002
DISASSEMBLY	3001
1. Planning Data (TASK 34-48-01-000-801-A01)	3001
A. Reason for the Job (Subtask 34-48-01-000-001-A01)	3001
B. Job Setup Data (Subtask 34-48-01-000-002-A01)	3001
2. Procedure (TASK 34-48-01-000-802-A01)	3002
A. Job Setup (Subtask 34-48-01-000-003-A01)	3002
B. Removal of the Front Panel Assembly (Subtask 34-48-01-020-001-A01)	3002
C. Removal of the Front Interconnect CCA (Subtask 34-48-01-020-002-A01)	3002
D. Removal of the Module Assemblies (Subtask 34-48-01-020-003-A01)	3002
E. Job Close-up (Subtask 34-48-01-000-004-A01)	3003

EFFECTIVITY

ALL

34-48-01Page TC-2
1 Dec 2006

**COMPONENT MAINTENANCE MANUAL**

Part No. 965-1694-001

TABLE OF CONTENTS (cont)**LIST OF SECTIONS (cont)**

Title	Page
CLEANING	4001
1. Planning Data (TASK 34-48-01-100-801-A01)	4001
A. Reason for the Job (Subtask 34-48-01-100-001-A01)	4001
B. Job Setup Data (Subtask 34-48-01-100-002-A01)	4001
2. Procedure (TASK 34-48-01-100-802-A01)	4002
A. Job Setup (Subtask 34-48-01-100-003-A01)	4002
B. External Parts (Subtask 34-48-01-100-004-A01)	4002
C. Electrical Parts (Subtask 34-48-01-100-005-A01)	4002
D. Metal Mechanical Parts (Subtask 34-48-01-100-006-A01)	4002
E. Job Close-up (Subtask 34-48-01-100-007-A01)	4002
CHECK	5001
1. Planning Data (TASK 34-48-01-210-801-A01)	5001
A. Reason for the Job (Subtask 34-48-01-210-001-A01)	5001
B. Job Setup Data (Subtask 34-48-01-210-002-A01)	5001
2. Procedure (TASK 34-48-01-210-802-A01)	5002
A. Job Setup (Subtask 34-48-01-210-003-A01)	5002
B. Check of the AESU (Subtask 34-48-01-210-004-A01)	5002
C. Job Close-up (Subtask 34-48-01-210-005-A01)	5002
REPAIR	6001
1. Planning Data (TASK 34-48-01-300-801-A01)	6001
A. Reason for the Job (Subtask 34-48-01-300-001-A01)	6001
B. Job Setup Data (Subtask 34-48-01-300-002-A01)	6001
2. Procedure (TASK 34-48-01-300-802-A01)	6002
A. Job Setup (Subtask 34-48-01-300-003-A01)	6002
B. References for Repair (Subtask 34-48-01-300-004-A01)	6002
C. Special Repair of the AESU (Subtask 34-48-01-300-005-A01)	6002
D. Job Close-up (Subtask 34-48-01-300-006-A01)	6002
ASSEMBLY	7001
1. Planning Data (TASK 34-48-01-400-801-A01)	7001

EFFECTIVITY

ALL

34-48-01Page TC-3
1 Dec 2006

**COMPONENT MAINTENANCE MANUAL**

Part No. 965-1694-001

TABLE OF CONTENTS (cont)**LIST OF SECTIONS (cont)**

Title	Page
A. Reason for the Job (Subtask 34-48-01-400-001-A01)	7001
B. Job Setup Data (Subtask 34-48-01-400-002-A01)	7001
2. Procedure (TASK 34-48-01-400-802-A01)	7002
A. Job Setup (Subtask 34-48-01-400-003-A01)	7002
B. Installation of the Module Assemblies (Subtask 34-48-01-400-004-A01)	7002
C. Installation of the Front Interconnect CCA (Subtask 34-48-01-400-005-A01)	7003
D. Installation of the Front Panel Assembly (Subtask 34-48-01-400-006-A01)	7003
E. Job Close-up (Subtask 34-48-01-400-007-A01)	7003
FITS AND CLEARANCES	8001
1. Planning Data (TASK 34-48-01-820-801-A01)	8001
A. Reason for the Job (Subtask 34-48-01-820-001-A01)	8001
B. Job Setup Data (Subtask 34-48-01-820-002-A01)	8001
2. Fits and Clearances (TASK 34-48-01-820-802-A01)	8001
A. Job Setup (Subtask 34-48-01-820-003-A01)	8001
B. Fits and Clearances of the AESU (Subtask 34-48-01-820-004-A01)	8001
SPECIAL TOOLS, FIXTURES, EQUIPMENT, AND CONSUMABLES	9001
1. Planning Data (TASK 34-48-01-940-801-A01)	9001
A. Reason for the Job (Subtask 34-48-01-940-001-A01)	9001
B. Job Setup Data (Subtask 34-48-01-940-002-A01)	9001
SPECIAL PROCEDURES	11001
REMOVAL	12001
INSTALLATION	13001
SERVICING	14001
STORAGE (INCLUDING TRANSPORTATION)	15001
1. Planning Data (TASK 34-48-01-500-801-A01)	15001
A. Reason for the Job (Subtask 34-48-01-500-001-A01)	15001

EFFECTIVITY

ALL

34-48-01Page TC-4
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

TABLE OF CONTENTS (cont)

LIST OF SECTIONS (cont)

Title	Page
B. Job Setup Data (Subtask 34-48-01-500-002-A01)	15001
2. Procedure (TASK 34-48-01-500-802-A01)	15001
A. Job Setup (Subtask 34-48-01-500-003-A01)	15001
B. Packing (Subtask 34-48-01-530-001-A01)	15002
C. Storage (Subtask 34-48-01-550-001-A01)	15002
D. Transportation (Subtask 34-48-01-510-001-A01)	15002
E. Job Close-up (Subtask 34-48-01-500-004-A01)	15002
REWORK	16001
ILLUSTRATED PARTS LIST	10001
1. Overview (TASK 34-48-01-99C-803-A01)	10001
A. Introduction	10001
B. How to Find a Part	10001
2. Contents of the IPL (TASK 34-48-01-99C-804-A01)	10001
A. Vendor List	10001
B. Equipment Designator Index	10001
C. Numerical Index	10001
D. Detailed Parts List	10002
3. Vendor List	10005
4. Detailed Parts List	10007

EFFECTIVITY

ALL

34-48-01

Page TC-5
1 Dec 2006

**COMPONENT MAINTENANCE MANUAL**

Part No. 965-1694-001

TABLE OF CONTENTS (cont)**LIST OF FIGURES**

Figure	Description	Page
INTRO-1	Symbols (GRAPHIC 34-48-01-99B-801-A01)	INTRO-1
1	AESU (GRAPHIC 34-48-01-99B-802-A01)	1
2	AESU Subassembly Locations (GRAPHIC 34-48-01-99B-803-A01)	3
3	AESU Functional Block Diagram (GRAPHIC 34-48-01-99B-804-A01)	7
1001	Sample Host File (GRAPHIC 34-48-01-99B-805-A01)	1079
1002	Parser Tool Display (GRAPHIC 34-48-01-99B-806-A01)	1080
1003	Display Results (GRAPHIC 34-48-01-99B-807-A01)	1081
1004	Acceptance Test Procedure, 965-1694-701 (GRAPHIC 34-48-01-99B-808-A01)	1193
2001	AESU Detail Drawing (GRAPHIC 34-48-01-99B-810-A01)	2003
2002	AESU Configuration Assembly Detail Drawing (GRAPHIC 34-48-01-99B-811-A01)	2005
IPL Figure		
1	Aircraft Environment Surveillance Unit (GRAPHIC 34-48-01-99B-812-A01) .	10010
2	AESU Configuration Assembly (GRAPHIC 34-48-01-99B-813-A01)	10013

EFFECTIVITY

ALL

34-48-01Page TC-6
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

TABLE OF CONTENTS (cont)

LIST OF TABLES

Table	Description	Page
INTRO-1	Data Verification	INTRO-2
1	Leading Particulars	1
2	Subassemblies	5
3	AESU Interfaced Systems	5
1001	Special Tools, Fixtures, and Equipment	1001
1002	Consumable Materials	1001
1003	Reference Data	1002
1004	Test Procedures	1002
1005	Fault Data Code List	1003
1006	Fault List Summary	1082
2001	Special Tools, Fixtures, and Equipment	2001
2002	Consumable Materials	2001
2003	Reference Data	2001
3001	Special Tools, Fixtures, and Equipment	3001
3002	Consumable Materials	3002
3003	Reference Data	3002
3004	Module Assemblies	3003
4001	Special Tools, Fixtures, and Equipment	4001
4002	Consumable Materials	4001
4003	Reference Data	4001
5001	Special Tools, Fixtures, and Equipment	5001
5002	Consumable Materials	5001
5003	Reference Data	5001
6001	Special Tools, Fixtures, and Equipment	6001
6002	Consumable Materials	6001
6003	Reference Data	6001
7001	Special Tools, Fixtures, and Equipment	7001
7002	Consumable Materials	7001
7003	Reference Data	7001

EFFECTIVITY

ALL

34-48-01

Page TC-7
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

TABLE OF CONTENTS (cont)

LIST OF TABLES (cont)

Table	Description	Page
7004	Module Assemblies	7002
8001	Fits and Clearances	8001
9001	Special Tools, Fixtures, and Equipment	9001
9002	Consumable Materials	9002
15001	Special Tools, Fixtures, and Equipment	15001
15002	Consumable Materials	15001
15003	Reference Data	15001

EFFECTIVITY _____
ALL

34-48-01

Page TC-8
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

INTRODUCTION

1. **How to Use This Manual** (TASK 34-48-01-99F-801-A01)A. **General**

- (1) The instructions in this manual give the data necessary to do all recommended maintenance functions to put the AESU in serviceable condition. The instructions in this manual do not give the standard maintenance procedures that technicians must know.
- (2) Honeywell recommends that you do the tests in TESTING AND FAULT ISOLATION (PGBLK 34-48-01-1000) before you disassemble the unit. These tests can show the condition of the AESU or most possible cause of a malfunction. If a malfunction occurs, repair as necessary.
- (3) Warnings, cautions, and notes in this manual give the data that follows:
 - A WARNING is an operation or maintenance procedure or condition that, if not obeyed, can cause injury or death.
 - A CAUTION is an operation or maintenance procedure or condition that, if not obeyed, can cause damage to the equipment.
 - A NOTE gives data to make the work easier or gives directions to go to a procedure.
- (4) Warnings and cautions go before the applicable paragraph or step. Notes follow the applicable paragraph or step.
- (5) All personnel who operate equipment and do maintenance specified in this manual must know and obey the safety precautions.

B. **Symbols**

- (1) The symbols in Figure INTRO-1, Sheet 1, (GRAPHIC 34-48-01-99B-801-A01) identify ESDS and moisture sensitive devices in this manual, if applicable.



MOISTURE SENSITIVE

Figure INTRO-1. (Sheet 1 of 1) Symbols (GRAPHIC 34-48-01-99B-801-A01)

C. **Weights and Measurements**

- (1) All weights and measurements are in U.S. and SI (metric) values.

2. **Customer Support** (TASK 34-48-01-99F-802-A01)A. **Honeywell Aerospace Online Technical Publications Web Site**

- (1) Go to the Honeywell Online Technical Publications web site at <https://pubs.cas.honeywell.com/> to:
 - Download or see publications online
 - Make an order for a publication
 - Tell Honeywell of a possible data error in a publication.

EFFECTIVITY _____

ALL

34-48-01

Page INTRO-1
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

B. Customer Response Center

- (1) If you do not have access to the Honeywell Online Technical Publications web site, send an e-mail message or a fax, or speak to a person at the Customer Response Center:
 - E-mail: cas-publications-distribution@honeywell.com
 - Fax: 1-602-822-7272
 - Phone: 800-601-3099 (USA)
 - Phone: 1-602-365-3099 (International)
- (2) Also, the Customer Response Center is available if you need to:
 - Identify a change of address, telephone number, or e-mail address
 - Make sure that you get the next revision of this manual.

3. Data Verification (TASK 34-48-01-99F-803-A01)

A. General

- (1) Verification of these technical instructions is done by performance or by simulation of the necessary procedures. Checks of the manual by the engineering staff make sure that the instructions and description data agree with the applicable engineering specifications and drawings and are accurate and sufficient. The dates of verification for this manual are shown in Table INTRO-1.

Table INTRO-1. Data Verification

Subheading	Date of Verification
Testing and Fault Isolation	By performance, 8 Dec 2004
Disassembly	By simulation, 1 Dec 2006
Assembly	By simulation, 1 Dec 2006

- (2) Honeywell will make changes to this manual as necessary. The sources for data supplied in this manual include engineering drawings and change orders released as of 3 May 2004.

4. References (TASK 34-48-01-99F-804-A01)

A. Honeywell Publications

- (1) Related Honeywell publications that are referred to in this manual are identified in the list that follows:
 - ATA No. 34-48-02 (Pub. No. 012-0770-001), CMM, EGPWS Module Assembly
 - ATA No. 34-48-03 (Pub. No. 012-0771-001), CMM, RADAR DSP/IF Module Assembly
 - ATA No. 34-48-04 (Pub. No. 012-0772-001), CMM, RP-1 Power Supply Module Assembly
 - ATA No. 34-48-05 (Pub. No. 012-0773-001), CMM, TCAS/XPDR-DIG Module Assembly

EFFECTIVITY _____
ALL

34-48-01

Page INTRO-2
1 Dec 2006



COMPONENT MAINTENANCE MANUAL

Part No. 965-1694-001

- ATA No. 34-48-06 (Pub. No. 012-0774-001), CMM, RF Module Assembly
- ATA No. 34-48-08 (Pub. No. 012-0776-001), CMM, Power Supply Module Assembly
- ATA No. 34-48-09 (Pub. No. 012-0777-001), CMM, IOM Module Assembly

B. Other Publications

(1) These publications are standard references:

- The United States GPO Style Manual 2000 (available at <http://www.gpoaccess.gov/stylemanual/browse.html>)
- ANSI/IEEE Std 260 (1978), Letter Symbols for Units of Measurement (available from the American National Standards Institute, New York, NY)
- ASME Y14.38-1999 (Formerly ASME Y1.1-1989), Abbreviations for Use on Drawings and in Text (available from the American National Standards Institute, New York, NY)
- ANSI/IEEE Std 315-1975 (Replaces ANSI Y32.2-1975), Graphic Symbols for Electrical and Electronics Diagrams (available from the American National Standards Institute, New York, NY)
- ANSI/IEEE Std 91 (1984), Graphic Symbols for Logic Functions (available from the American National Standards Institute, New York, NY).

5. Acronyms and Abbreviations (TASK 34-48-01-99F-805-A01)

A. General

(1) Refer to the list that follows for acronyms and abbreviations in this manual.

List of Acronyms and Abbreviations

Term	Full Term
ACR	avionics communication router
ADIRS	Air Data and Inertial Reference System
AESS	Aircraft Environment Surveillance System
AESU	Aircraft Environment Surveillance Unit
AFDX	avionics full-duplex
AGC	automatic gain control
AHRS	attitude and heading reference system
ANSI	American National Standards Institute
ARINC	Aeronautical Radio, Incorporated
ASME	American Society of Mechanical Engineers
ATA	Air Transport Association
ATC	air traffic control
ATE	automatic test equipment
ATN	aeronautical telecommunication network

EFFECTIVITY

ALL

34-48-01

Page INTRO-3
1 Dec 2006

**COMPONENT MAINTENANCE MANUAL**

Part No. 965-1694-001

List of Acronyms and Abbreviations (cont)

Term	Full Term
ATP	automatic test procedure
BIT	built-in-test
C	Celsius
CAGE	Commercial and Government Entity
CCA	circuit card assembly
CDS	Cockpit Display System
CMF	central maintenance function
CMM	component maintenance manual
CPU	central processing unit
DEOS	digital engine operating system
DFDR	digital flight data recorder
DIG	digital image generator
DSP	digital signal processor
ECC	error code correction
EEC	electronic engine control
EFIS	Electronic Flight Instrument System
EGPWM	Enhanced Ground Proximity Warning Module
EGPWS	Enhanced Ground Proximity Warning System
ESDS	electrostatic discharge sensitive
F	Fahrenheit
FCGC	flight control and guidance computer
FDIU	flight data interface unit
FMS	Flight Management System
FPGA	filter field programmable gate array
FWS	Flight Warning System
G/S	glideslope
GPIR	global positioning/inertial reference
GPO	Government Printing Office
GPS	global positioning system
Hz	hertz
IEEE	Institute of Electrical and Electronic Engineers
IF	intermediate frequency

**COMPONENT MAINTENANCE MANUAL**

Part No. 965-1694-001

List of Acronyms and Abbreviations (cont)

Term	Full Term
IOM	input/output module
IPL	Illustrated Parts List
LGCIU	landing gear control and interface unit
LIDAR	light detection and ranging
LRU	line replaceable unit
MCU	modular concept unit
MMR	multi-mode receiver
No.	number
OMS	On-board maintenance system
PC	personal computer
PCI	peripheral component interface
PLD	programmable logic devices
Pub.	publication
R/T	receiver/transmitter
RA	radio altimeter
RF	radio frequency
RTU	Radar Transceiver Unit
Radar	radio detection and ranging
SFCC	slat flap control computer
SI	International System of Units
SIS	standalone identification system
Std	standard
TCAS	Traffic Alert and Collision Avoidance System
TPL	TCAS Processor-L Band
TPSM	TPL Power Supply Module
TX	transmitter
USA	United States of America
V	volt
WADU	Weather Antenna Drive Unit
WX	weather
WXR	weather transmitter receiver
XPDR	transponder

EFFECTIVITY

ALL

34-48-01Page INTRO-5
1 Dec 2006

**COMPONENT MAINTENANCE MANUAL**

Part No. 965-1694-001

List of Acronyms and Abbreviations (cont)

Term	Full Term
ac	alternating current
cm	centimeter
hr	hour
in.-lb	inch-pound
in.	inch
kg	kilogram
lb	pound
mN·m	millinewton-meter