*TM 9-4931-586-12-1&P

TECHNICAL MANUAL

OPERATOR'S AND UNIT
MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST
(INCLUDING DEPOT MAINTENANCE REPAIR PARTS)

FOR

TEST SET, ELECTRONIC
AN/USM 615
(DSESTS-M1/FVS)

NSN 4931-01-120-0764 (EIC 4WQ)

OIU, GPIA, AND DSESTS COMMON RESOURCES
EQUIPMENT SUPPORT GROUP

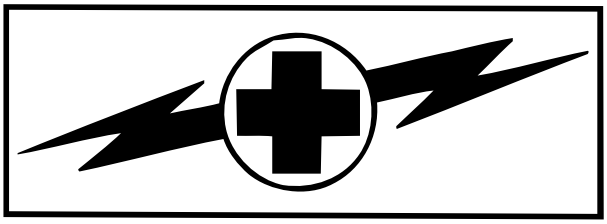
***SUPERSEDES TM 9-4931-586-12-1&P, 23 FEBRUARY 1989**

HEADQUARTERS, DEPARTMENT OF THE ARMY

April 1998

WARNING SUMMARY

WARNING



HIGH VOLTAGE is used in the operation of this equipment.
DEATH ON CONTACT may result if personnel fail to observe safety precautions.

Never work on electronic equipment unless there is at least one other person nearby who is familiar with the operation and hazards of that equipment. That person should also be competent in giving first aid. When operators help technicians, they must be warned about dangerous areas.

Whenever possible, shut off the power supply to equipment before beginning work. When working inside the equipment with power off, take special care to ground capacitors likely to hold a dangerous potential.

Be careful not to contact high voltage connections when installing or operating this equipment.

Whenever possible keep one hand away from the equipment to reduce the hazard of current flowing through vital organs of the body.

Do not be misled by the term “low voltage.” Voltages as low as 50 volts may cause death.

For artificial respiration, refer to FM 4-25.11.

WARNING

Adhesives and solvents burn easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in a well ventilated area.

WARNING

Use adhesives, cleaning solvents, and sealing compounds in well ventilated area away from open flame. Adhesives, cleaning solvents and sealing compounds are harmful to skin and clothing, can burn easily, and may give off harmful vapors. Use appropriate personal protective equipment (safety glasses, gloves, etc.) when using chemicals.

WARNING

Solvents, isopropyl alcohol, and methanol burn easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in well ventilated area. Use appropriate personal protective equipment (safety glasses, gloves, etc.) when using chemicals.

For first aid for soldiers, refer to FM 4-25.11.

WARNING

HEAVY PARTS

The OIU, GPIA, and memory module must be set up in a manufactured rack as illustrated above. Equipment can fall and injure operator if these instructions are not followed.

WARNING

ELECTRICAL SHOCK

To avoid shock hazard, make sure power supply is OFF before connecting ground cable W36.

WARNING

ELECTRICAL SHOCK

High voltage present, to avoid hazard always use caution when performing PMCS with power applied.

WARNING

ELECTRICAL SHOCK

High voltage present, death on contact can result if a body part comes in contact with chassis, bare wires, or electronic components with power applied.

CHANGE NO. 13

HEADQUARTERS DEPARTMENT OF THE ARMY WASHINGTON, D.C., 30 December 2009

TECHNICAL MANUAL

OPERATOR'S AND UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS) FOR

TEST SET, ELECTRONIC AN/USM 615 (DSESTS-M1/FVS) NSN 4931-01-120-0764 (EIC 4WQ) OIU, GPIA, AND DSESTS COMMON RESOURCES EQUIPMENT SUPPORT GROUP

DISTRIBUTION STATEMENT C - Distribution authorized to U.S. Government Agencies and their contractors. This publication is required for administrative and operational purposes, as determined on 22 October 1990. Other requests for this document must be referred to U.S. Army TACOM Life Cycle Management Command, ATTN: AMSTA-LCL-MPP, 1 Rock Island Arsenal, Rock Island, IL 61299-7630.

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TM 9-4931-586-12-1&P, 14 April 1998, is updated as follows:

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3. New or updated text is indicated by a vertical bar in the outer margin of the page.
4. Remove old pages and insert new pages as indicated below.

Remove Pages	Insert Pages
List of Effective Pages/Work Packages	List of Effective Pages/Work Packages
iii thru vi	iii thru vi
Index-1 thru 10	Index-1 thru 10
DA Form 2028s	DA Form 2028s
None	Pin

5. Replace the following work packages with their revised version.

Work Package Number						
WP 0001 00	WP 0022 00	WP 0041 00	WP 0122 00	WP 0132 00	WP 0136 00	WP 0157 00
WP 0002 00	WP 0027 00	WP 0108 00	WP 0125 00	WP 0133 00	WP 0138 00	WP 0158 00
WP 0003 00	WP 0030 00	WP 0108 01	WP 0126 00	WP 0134 01	WP 0140 00	WP 0159 00
WP 0006 00	WP 0035 01	WP 0110 00	WP 0127 00	WP 0134 02	WP 0143 00	WP 0160 00
WP 0007 00	WP 0036 01	WP 0112 00	WP 0128 00	WP 0134 04	WP 0150 00	WP 0164 00
WP 0008 00	WP 0037 00	WP 0121 00	WP 0131 00	WP 0135 00	WP 0156 00	

6. Add the following new work package.

Work Package Number
WP 0106 03
WP 0165 00

By Order of the Secretary of the Army:

GEORGE W. CASEY, JR.
General, United States Army
Chief of Staff

Official:

JOYCE E. MORROW
Administrative Assistant to the
Secretary of the Army

0927904

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HEADQUARTERS
CHANGE DEPARTMENT OF THE ARMY
NO. 12 WASHINGTON, D.C., 31 October 2008

TECHNICAL MANUAL

**OPERATOR'S AND UNIT MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST
(INCLUDING DEPOT MAINTENANCE REPAIR PARTS)
FOR**

**TEST SET,
ELECTRONIC AN/USM
615 (DSESTS-M1/FVS)
NSN 4931-01-120-0764 (EIC 4WQ)
OIU, GPIA, AND DSESTS COMMON
RESOURCES EQUIPMENT SUPPORT GROUP**

TM 9-4931-586-12-1&P, 14 April 1998, is updated as follows:

1. File this sheet in front of the manual for reference.
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3. New or updated text is indicated by a vertical bar in the outer margin of the page.
4. Remove old pages and insert new pages as indicated below.

Remove Pages	Insert Pages
List of Effective Pages/Work Packages	List of Effective Pages/Work Packages
iii and iv	iii and iv
Foldout figure 2 (WP 0003 00)	Foldout figure 2 (WP 0003 00)
Foldout figure 3 (WP 0008 00)	Foldout figure 3 (WP 0008 00)
Index-9 and 10	Index-9 and 10

5. Replace the following work packages with their revised version.

Work Package Number

WP 0002 00	WP 0098 00	WP 0118 00	WP 0131 00	WP 0135 00	WP 0156 00
WP 0006 00	WP 0101 00	WP 0121 00	WP 0132 00	WP 0136 00	WP 0157 00
WP 0009 00	WP 0110 00	WP 0122 00	WP 0134 01	WP 0138 00	WP 0158 00
WP 0022 00	WP 0111 00	WP 0123 00	WP 0134 02	WP 0140 00	WP 0159 00
WP 0039 01	WP 0112 00	WP 0125 00	WP 0134 04	WP 0147 00	

6. Add the following new work packages.

Work Package Number
WP 0028 00
WP 0033 03
WP 0033 04

By Order of the Secretary of the Army:

GEORGE W. CASEY, JR.
General, United States Army
Chief of Staff

Official:

Joyce E. Morrow
Administrative Assistant to the
Secretary of the Army

0829002

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CHANGE NO. 11

HEADQUARTERS, DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 30 October 2007

TECHNICAL MANUAL

OPERATOR'S AND UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS) FOR

TEST SET, ELECTRONIC AN/USM 615 (DSESTS-M1/FVS)

NSN 4931-01-120-0764 (EIC 4WQ)

OIU, GPIA, AND DSESTS COMMON RESOURCES
EQUIPMENT SUPPORT GROUP

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TM 9-4931-586-12-1&P, 14 April 1998, is updated as follows:

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4. Remove old pages and insert new pages as indicated below.

Remove Pages	Insert Pages
List of Effective Pages/Work Packages	List of Effective Pages/Work Packages
a and b	a and b
i thru vi	i thru vi
Foldout figure 3 (WP 0008 00)	Foldout figure 3 (WP 0008 00)
None	Foldout figure 5 (WP 0008 00)
Index-1 thru 4	Index-1 thru 4
Index-9 and 10	Index-9 and 10

5. Replace the following work packages with their revised version.

Work Package Number

WP 0001 00	WP 0022 00	WP 0106 00	WP 0121 00	WP 0132 00	WP 0140 00	WP 0151 00
WP 0002 00	WP 0023 00	WP 0108 00	WP 0122 00	WP 0133 00	WP 0142 00	WP 0153 00
WP 0003 00	WP 0024 00	WP 0108 01	WP 0124 00	WP 0134 00	WP 0143 00	WP 0154 00
WP 0005 00	WP 0027 00	WP 0110 00	WP 0125 00	WP 0134 01	WP 0144 00	WP 0155 00
WP 0006 00	WP 0038 00	WP 0111 00	WP 0126 00	WP 0134 02	WP 0145 00	WP 0156 00
WP 0007 00	WP 0041 00	WP 0114 00	WP 0127 00	WP 0134 04	WP 0146 00	WP 0157 00
WP 0008 00	WP 0043 00	WP 0116 00	WP 0128 00	WP 0134 05	WP 0147 00	WP 0158 00
WP 0009 00	WP 0055 00	WP 0118 00	WP 0129 00	WP 0135 00	WP 0148 00	WP 0159 00
WP 0020 00	WP 0088 00	WP 0119 00	WP 0130 00	WP 0136 00	WP 0149 00	WP 0163 00
WP 0021 00	WP 0098 00	WP 0120 00	WP 0131 00	WP 0138 00	WP 0150 00	WP 0164 00

6. Add the following new work packages.

Work Package Number
WP 0035 01
WP 0038 01
WP 0106 12

7. Remove the following work packages from your manual.

Work Package Number
WP 0028 00
WP 0106 02
WP 0106 03
WP 0141 00

By Order of the Secretary of the Army:

GEORGE W. CASEY, JR.
General, United States Army
Chief of Staff

Official:

Joyce E. Morrow
Administrative Assistant to the
Secretary of the Army

0726801

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CHANGE NO. 10

HEADQUARTERS, DEPARTMENT OF THE ARMY
WASHINGTON, D.C. 30 October 2006

TECHNICAL MANUAL

OPERATOR'S AND UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS) FOR

TEST SET, ELECTRONIC AN/USM 615 (DSESTS-M1/FVS)

NSN 4931-01-120-0764 (EIC 4WQ)
OIU, GPIA, AND DSESTS COMMON RESOURCES
EQUIPMENT SUPPORT GROUP

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4. Remove old pages and insert new pages as indicated below.

Remove Pages	Insert Pages
List of Effective Pages/Work Packages	List of Effective Pages/Work Packages
a and b	a and b
i and ii	i and ii
v and vi	v and vi
ix and x	ix and x

5. Replace the following work packages with their revised version.

Work Package Number

WP 0001 00	WP 0087 00	WP 0118 00	WP 0127 00	WP 0134 02	WP 0144 00	WP 0155 00
WP 0002 00	WP 0101 00	WP 0119 00	WP 0128 00	WP 0134 03	WP 0145 00	WP 0156 00
WP 0006 00	WP 0106 07	WP 0120 00	WP 0130 00	WP 0134 04	WP 0146 00	WP 0157 00
WP 0033 02	WP 0108 00	WP 0121 00	WP 0131 00	WP 0134 05	WP 0148 00	WP 0158 00
WP 0037 00	WP 0108 01	WP 0122 00	WP 0132 00	WP 0136 00	WP 0149 00	WP 0159 00
WP 0038 00	WP 0110 00	WP 0124 00	WP 0133 00	WP 0138 00	WP 0150 00	WP 0160 00
WP 0041 00	WP 0114 00	WP 0125 00	WP 0134 00	WP 0142 00	WP 0151 00	WP 0161 00
WP 0084 00	WP 0117 00	WP 0126 00	WP 0134 01	WP 0143 00	WP 0154 00	WP 0164 00

6. Add the following new work packages.

Work Package Number
NONE

By Order of the Secretary of the Army:

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

Official:

Joyce E. Morrow
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CHANGE NO. 9

HEADQUARTERS, DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 30 June 2006

TECHNICAL MANUAL

OPERATOR'S AND UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS) FOR

TEST SET, ELECTRONIC AN/USM 615 (DSESTS-M1/FVS)

NSN 4931-01-120-0764 (EIC 4WQ)
OIU, GPIA, AND DSESTS COMMON RESOURCES
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TM 9-4931-586-12-1&P, 14 April 1998, is updated as follows:

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3. New or updated text is indicated by a vertical bar in the outer margin of the page.
4. Remove old pages and insert new pages as indicated below.

Remove Pages	Insert Pages
a/b blank	a and b
List of Effective Pages/Work Packages	List of Effective Pages/Work Packages
iii and iv	iii and iv
Index 3 thru Index 8	Index 3 thru Index 8

5. Replace the following work packages with their revised version.

Work Package Number

WP 0006 00	WP 0123 00	WP 0132 00	WP 0137 00	WP 0148 00	WP 0157 00
WP 0036 01	WP 0124 00	WP 0133 00	WP 0138 00	WP 0149 00	WP 0158 00
WP 0037 00	WP 0125 00	WP 0134 00	WP 0139 00	WP 0150 00	WP 0159 00
WP 0110 00	WP 0126 00	WP 0134 01	WP 0141 00	WP 0151 00	WP 0161 00
WP 0116 00	WP 0127 00	WP 0134 02	WP 0142 00	WP 0152 00	
WP 0117 00	WP 0128 00	WP 0134 03	WP 0143 00	WP 0153 00	
WP 0118 00	WP 0129 00	WP 0134 04	WP 0144 00	WP 0154 00	
WP 0121 00	WP 0130 00	WP 0134 05	WP 0145 00	WP 0155 00	
WP 0122 00	WP 0131 00	WP 0136 00	WP 0146 00	WP 0156 00	

6. Add the following new work packages.

Work Pacage Number

WP 0070 01

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CHANGE NO. 8

HEADQUARTERS, DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 30 September 2005

TECHNICAL MANUAL

OPERATOR'S AND UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS) FOR

TEST SET, ELECTRONIC AN/USM 615 (DSESTS-M1/FVS) NSN 4931-01-120-0764 (EIC 4WQ) OIU, GPIA, AND DSESTS COMMON RESOURCES EQUIPMENT SUPPORT GROUP

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4. Remove old pages and insert new pages as indicated below.

Remove Pages	Insert Pages
List of Effective Pages/Work Packages v and vi	List of Effective Pages/Work Packages v and vi

5. Replace the following work packages with their revised version.

Work Package Number

WP 0001 00	WP 0108 01	WP 0123 00	WP 0134 01	WP 0138 00	WP 0148 00	WP 0157 00
WP 0002 00	WP 0111 00	WP 0125 00	WP 0134 02	WP 0139 00	WP 0149 00	WP 0158 00
WP 0003 00	WP 0116 00	WP 0126 00	WP 0134 03	WP 0142 00	WP 0150 00	WP 0159 00
WP 0006 00	WP 0118 00	WP 0129 00	WP 0134 04	WP 0143 00	WP 0151 00	WP 0160 00
WP 0036 01	WP 0119 00	WP 0130 00	WP 0134 05	WP 0144 00	WP 0153 00	WP 0164 00
WP 0038 00	WP 0120 00	WP 0133 00	WP 0135 00	WP 0145 00	WP 0154 00	
WP 0108 00	WP 0122 00	WP 0134 00	WP 0136 00	WP 0146 00	WP 0155 00	

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PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

Official:

Administrative Assistant to the Secretary of the Army

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CHANGE NO. 7

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WASHINGTON, D.C., 02 September 2005

TECHNICAL MANUAL

OPERATOR'S AND UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS) FOR

TEST SET, ELECTRONIC AN/USM 615 (DSESTS-M1/FVS)

NSN 4931-01-120-0764 (EIC 4WQ)
OIU, GPIA, AND DSESTS COMMON RESOURCES
EQUIPMENT SUPPORT GROUP

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3. New or updated text is indicated by a vertical bar in the outer margin of the page.
4. Remove old pages and insert new pages as indicated below.

Remove Pages	Insert Pages
List of Effective Pages/Work Packages	List of Effective Pages/Work Packages
Index 1 and 2	Index 1 and 2

5. Replace the following work packages with their revised version.

Work Package Number

WP 0001 00	WP 0037 00	WP 0108 01	WP 0121 00	WP 0131 00	WP 0134 02	WP 0158 00
WP 0014 00	WP 0041 00	WP 0110 00	WP 0122 00	WP 0132 00	WP 0134 04	WP 0159 00
WP 0036 01	WP 0108 00	WP 0114 00	WP 0124 00	WP 0134 01	WP 0140 00	

By Order of the Secretary of the Army:

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

Official:

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CHANGE NO. 6

HEADQUARTERS, DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 18 September 2003

TECHNICAL MANUAL

OPERATOR'S AND UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS) FOR

TEST SET, ELECTRONIC AN/USM 615 (DSESTS-M1/FVS)

NSN 4931-01-120-0764 (EIC 4WQ)
OIU, GPIA, AND DSESTS COMMON RESOURCES
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TM 9-4931-586-12-1&P, 14 April 1998, is updated as follows:

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2. This revision is the result of the DSESTS DSPS 30.0 update and miscellaneous changes.
3. New or updated text is indicated by a vertical bar in the outer margin of the page.
4. Remove old pages and insert new pages as indicated below.

Remove Pages	Insert Pages
List of Effective Pages/Work Packages	List of Effective Pages/Work Packages
iii thru vi	iii thru vi
None	Foldout Figure 4, WP 8
Foldout Figure 1 of 2, WP 3	Foldout Figure 1 of 2, WP 3
Index 1 thru 9/10 blank	Index 1 thru 10

5. Replace the following work packages with their revised version.

Work Package Number

WP 0001 00	WP 0009 00	WP 0091 00	WP 0098 00	WP 0120 00	WP 0130 00	WP 0147 00
WP 0002 00	WP 0030 00	WP 0092 00	WP 0106 01	WP 0121 00	WP 0131 00	WP 0154 00
WP 0003 00	WP 0035 00	WP 0093 00	WP 0108 00	WP 0122 00	WP 0132 00	WP 0155 00
WP 0005 00	WP 0037 00	WP 0094 00	WP 0108 01	WP 0124 00	WP 0134 00	WP 0158 00
WP 0006 00	WP 0038 00	WP 0095 00	WP 0110 00	WP 0125 00	WP 0138 00	WP 0159 00
WP 0008 00	WP 0041 00	WP 0097 00	WP 0119 00	WP 0126 00	WP 0140 00	WP 0160 00
					WP 0142 00	WP 0162 00

6. Add the following new work packages.

Work Package Number

WP 0033 02	WP 0106 04	WP 0106 07	WP 0106 10	WP 0134 01	WP 0134 03	WP 0134 05
WP 0036 01	WP 0106 05	WP 0106 08	WP 0106 11	WP 0134 02	WP 0134 04	WP 0164 00
WP 0039 01	WP 0106 06	WP 0106 09				

By Order of the Secretary of the Army:

ERIC K. SHINSEKI
General, United States Army
Chief of Staff

Official:

JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army

0306722

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CHANGE NO. 5

HEADQUARTERS, DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 15 MAY 2002

TECHNICAL MANUAL

OPERATOR'S AND UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS) FOR

TEST SET, ELECTRONIC AN/USM 615 (DSESTS-M1/FVS) NSN 4931-01-120-0764 (EIC 4WQ) OIU, GPIA, AND DSESTS COMMON RESOURCES EQUIPMENT SUPPORT GROUP

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3. New or updated text is indicated by a vertical bar in the outer margin of the page.
4. Remove old pages and insert new pages as indicated below.

Remove Pages	Insert Pages
Front Cover	Front Cover
List of Effective Pages/Work Packages i and ii, vii and viii	List of Effective Pages/Work Packages i and ii, and vii and viii
Foldout Figure 2 (sheet 1 and 2)	Foldout Figure 2 (sheet 1 and 2)

5. Replace the following work packages with their revised version.

Work Package Number

WP 0001 00	WP 0044 00	WP 0108 01	WP 0158 00
WP 0029 00	WP 0092 00	WP 0138 00	WP 0159 00
WP 0033 00	WP 0108 00	WP 0139 00	

6. Add the following new work packages.

Work Package Number

None

By Order of the Secretary of the Army:

ERIC K. SHINSEKI
General, United States Army
Chief of Staff

Official:

JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army

0204602

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CHANGE NO. 4

HEADQUARTERS, DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 01 OCTOBER 2001

TECHNICAL MANUAL

OPERATOR'S AND UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS) FOR

TEST SET, ELECTRONIC AN/USM 615 (DSESTS-M1/FVS) NSN 4931-01-120-0764 (EIC 4WQ) OIU, GPIA, AND DSESTS COMMON RESOURCES EQUIPMENT SUPPORT GROUP

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Remove Pages	Insert Pages
List of Effective Pages/Work Packages	List of Effective Pages/Work Packages
Index 1 thru 9/10 blank	Index 1 thru 9/10 blank

5. Replace the following work packages with their revised version.

Work Package Number
WP 0001 00
WP 0044 00

6. Add the following new work packages.

Work Package Number
None

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CHANGE NO. 3

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WASHINGTON, D.C., 03 JULY 2001

TECHNICAL MANUAL

OPERATOR'S AND UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS) FOR

TEST SET, ELECTRONIC AN/USM 615 (DSESTS-M1/FVS)

NSN 4931-01-120-0764 (EIC 4WQ)

OIU, GPIA, AND DSESTS COMMON RESOURCES
EQUIPMENT SUPPORT GROUP

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Remove Pages	Insert Pages
List of Effective Pages/Work Packages	List of Effective Pages/Work Packages
i-ii	i-ii
v-vi	v-vi
2028 forms	2028 forms
Front Cover	Front Cover

5. Replace the following work packages with their revised version.

Work Package Number

WP 0001 00	WP 0108 00	WP 0125 00	WP 0136 00	WP 0153 00
WP 0006 00	WP 0114 00	WP 0126 00	WP 0138 00	WP 0157 00
WP 0008 00	WP 0121 00	WP 0129 00	WP 0139 00	WP 0158 00
WP 0035 00	WP 0122 00	WP 0131 00	WP 0140 00	WP 0159 00
WP 0036 00	WP 0124 00	WP 0132 00	WP 0152 00	WP 0161 00

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Work Package Number
WP 0108 01

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TECHNICAL MANUAL

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TEST SET, ELECTRONIC AN/USM 615 (DSESTS-M1/FVS)

NSN 4931-01-120-0764 (EIC 4WQ)
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4. Remove old pages and insert new pages as indicated below.

Remove Pages	Insert Pages
None	List of Effective Pages/Work Packages
i-ii	i-ii
Index 1 thru 10	Index 1 thru 10
2028-2 sample page & backup	2028-2 sample page & backup

5. Replace the following work packages with their revised version.

Work Package Number

WP 0001 00	WP 0003 00	WP 0005 00	WP 0006 00	WP 0033 00	WP 0041 00
WP 0114 00	WP 0121 00	WP 0122 00	WP 0124 00	WP 0125 00	WP 0126 00
WP 0131 00	WP 0132 00	WP 0136 00	WP 0138 00	WP 0140 00	WP 0148 00
WP 0152 00	WP 0154 00	WP 0157 00	WP 0158 00	WP 0159 00	WP 0161 00
WP 0162 00					

6. Add the following new work packages.

Work Package Number
None

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TECHNICAL MANUAL

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4. Remove old pages and insert new pages as indicated below.

Remove Pages	Insert Pages
iii thru vi	iii thru vi
index 5 and index 6	index 5 and index 6
index 9/10 blank	index 9/10 blank

5. Replace the following work packages with their revised version.

Work Package Number

WP 0006 00	WP 0100 00	WP 0124 00	WP 0138 00	WP 0146 00	WP 0155 00
WP 0008 00	WP 0108 00	WP 0125 00	WP 0139 00	WP 0148 00	WP 0156 00
WP 0009 00	WP 0111 00	WP 0126 00	WP 0140 00	WP 0149 00	WP 0157 00
WP 0036 00	WP 0112 00	WP 0129 00	WP 0141 00	WP 0150 00	WP 0158 00
WP 0047 00	WP 0114 00	WP 0131 00	WP 0142 00	WP 0151 00	WP 0159 00
WP 0058 00	WP 0119 00	WP 0132 00	WP 0143 00	WP 0152 00	
WP 0059 00	WP 0121 00	WP 0136 00	WP 0144 00	WP 0153 00	
WP 0070 00	WP 0122 00	WP 0137 00	WP 0145 00	WP 0154 00	

6. Add the following new work packages.

Work Package Number
WP 0033 01

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Original 0	14 Apr 98	Change 3	03 Jul 01	Change 6	18 Sep 03	Change 10	30 Oct 06
Change 1	30 Dec 98	Change 4	01 Oct 01	Change 7	02 Sep 05	Change 11	30 Oct 07
Change 2	27 Jun 00	Change 5	15 May 02	Change 8	30 Sep 05	Change 12	31 Oct 08
				Change 9	30 Jun 06	Change 13	30 Dec 09

TOTAL NUMBER OF PAGES FOR FRONT AND REAR MATTER IS 42 AND TOTAL
NUMBER OF WORK PACKAGES IS 180, CONSISTING OF THE FOLLOWING:

Page/WP No.	*Change No.	Page/WP No.	*Change No.
Cover	5	WP 0023 00 (4 pgs)	11
Title	11	WP 0024 00 (2 pgs)	11
Warnings	11	WP 0025 00 (2 pgs)	0
i	11	WP 0026 00 (2 pgs)	0
ii	11	WP 0027 00 (4 pgs)	13
iii	12	WP 0028 00 (2 pgs) ADDED	12
iv	11	WP 0029 00 (4 pgs)	5
v	11	WP 0030 00 (2 pgs)	13
vi	13	WP 0031 00 (6 pgs)	0
vii-viii	5	WP 0032 00 (4 pgs)	0
ix	0	WP 0033 00 (4 pgs)	5
x	10	WP 0033 01 (4 pgs)	0
xi-xii	0	WP 0033 02 (4 pgs)	10
Chp 1 title page	0	WP 0033 03 (2 pgs) ADDED	12
WP 0001 00 (20 pgs)	13	WP 0033 04 (2 pgs) ADDED	12
WP 0002 00 (12 pgs)	13	WP 0034 00 (12 pgs)	0
WP 0003 00 (12 pgs)	13	WP 0035 00 (4 pgs)	6
WP 0004 00 (2 pgs)	0	WP 0035 01 (42 pgs)	13
Chp 2 title page	0	WP 0036 00 (32 pgs)	3
WP 0005 00 (6 pgs)	11	WP 0036 01 (36 pgs)	13
WP 0006 00 (38 pgs)	13	WP 0037 00 (18 pgs)	13
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Chp 3 title page	0	WP 0038 01 (10 pgs) ADDED	11
WP 0008 00 (2 pgs)	13	WP 0039 00 (10 pgs)	0
WP 0009 00 (2 pgs)	12	WP 0039 01 (18 pgs)	12
WP 0010 00 (2 pgs)	0	Chp 4 title page	0
WP 0011 00 (2 pgs)	0	WP 0040 00 (2 pgs)	0
WP 0012 00 (2 pgs)	0	WP 0041 00 (22 pgs)	13
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WP 0017 00 (4 pgs)	0	WP 0046 00 (2 pgs)	0
WP 0018 00 (2 pgs)	0	WP 0047 00 (2 pgs)	1
WP 0019 00 (4 pgs)	0	WP 0048 00 (2 pgs)	0
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WP 0021 00 (6 pgs)	11	WP 0050 00 (2 pgs)	0
WP 0022 00 (10 pgs)	13	WP 0051 00 (2 pgs)	0

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WP 0052 00 (2 pgs)	0	WP 0086 00 (2 pgs)	0
WP 0053 00 (2 pgs)	0	WP 0087 00 (2 pgs)	10
WP 0054 00 (2 pgs)	0	WP 0088 00 (2 pgs)	11
WP 0055 00 (2 pgs)	11	WP 0089 00 (2 pgs)	0
WP 0056 00 (2 pgs)	0	WP 0090 00 (2 pgs)	0
WP 0057 00 (2 pgs)	0	WP 0091 00 (2 pgs)	6
WP 0058 00 (2 pgs)	1	WP 0092 00 (2 pgs)	6
WP 0059 00 (2 pgs)	1	WP 0093 00 (2 pgs)	6
WP 0060 00 (2 pgs)	0	WP 0094 00 (2 pgs)	6
WP 0061 00 (2 pgs)	0	WP 0095 00 (2 pgs)	6
WP 0062 00 (2 pgs)	0	WP 0096 00 (2 pgs)	0
WP 0063 00 (2 pgs)	0	WP 0097 00 (2 pgs)	6
WP 0064 00 (2 pgs)	0	WP 0098 00 (2 pgs)	12
WP 0065 00 (2 pgs)	0	WP 0099 00 (2 pgs)	0
WP 0066 00 (4 pgs)	0	WP 0100 00 (2 pgs)	1
WP 0067 00 (2 pgs)	0	WP 0101 00 (2 pgs)	12
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WP 0075 00 (2 pgs)	0	WP 0106 05 (2 pgs) ADDED	6
WP 0076 00 (2 pgs)	0	WP 0106 06 (2 pgs) ADDED	6
WP 0077 00 (2 pgs)	0	WP 0106 07 (2 pgs)	10
WP 0078 00 (2 pgs)	0	WP 0106 08 (2 pgs) ADDED	6
WP 0079 00 (2 pgs)	0	WP 0106 09 (2 pgs) ADDED	6
WP 0080 00 (2 pgs)	0	WP 0106 10 (2 pgs) ADDED	6
WP 0081 00 (4 pgs)	0	WP 0106 11 (2 pgs) ADDED	6
WP 0083 00 (2 pgs)	0	WP 0106 12 (6 pgs) ADDED	11
WP 0083 00 (2 pgs)	0	Chp 5 title page	0
WP 0084 00 (2 pgs)	10	WP 0107 00 (2 pgs)	0
WP 0085 00 (2 pgs)	0	WP 0108 00 (26 pgs)	13
		WP 0108 01 (20 pgs)	13

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Page/WP No.	*Change No.	Page/WP No.	*Change No.
WP 0109 00 (6 pgs)	0	WP 0139 00 (2 pgs)	9
WP 0110 00 (2 pgs)	13	WP 0140 00 (2 pgs)	13
WP 0111 00 (4 pgs)	12	WP 0141 00 (4 pgs) DELETED	11
WP 0112 00 (4 pgs)	13	WP 0142 00 (2 pgs)	11
WP 0113 00 (4 pgs)	0	WP 0143 00 (2 pgs)	13
WP 0114 00 (4 pgs)	11	WP 0144 00 (2 pgs)	11
WP 0115 00 (4 pgs)	0	WP 0145 00 (2 pgs)	11
WP 0116 00 (2 pgs)	11	WP 0146 00 (2 pgs)	11
WP 0117 00 (2 pgs)	10	WP 0147 00 (2 pgs)	11
WP 0118 00 (2 pgs)	12	WP 0148 00 (4 pgs)	11
WP 0119 00 (2 pgs)	11	WP 0149 00 (4 pgs)	11
WP 0120 00 (2 pgs)	11	WP 0150 00 (2 pgs)	13
WP 0121 00 (4 pgs)	13	WP 0151 00 (2 pgs)	11
WP 0122 00 (4 pgs)	13	WP 0152 00 (4 pgs)	9
WP 0123 00 (4 pgs)	12	WP 0153 00 (2 pgs)	11
WP 0124 00 (4 pgs)	11	WP 0154 00 (2 pgs)	11
WP 0125 00 (8 pgs)	13	WP 0155 00 (2 pgs)	11
WP 0126 00 (4 pgs)	13	WP 0156 00 (2 pgs)	13
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WP 0129 00 (2 pgs)	11	WP 0159 00 (10 pgs)	13
WP 0130 00 (2 pgs)	11	WP 0160 00 (4 pgs)	13
WP 0131 00 (4 pgs)	13	WP 0161 00 (2 pgs)	10
WP 0132 00 (4 pgs)	13	WP 0162 00 (4 pgs)	6
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WP 0138 00 (6 pgs)	12	Index-9	13
		Index-10	12

*Zero in this column indicates an original page.

TECHNICAL MANUAL

OPERATOR'S AND UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS)

FOR

TEST SET, ELECTRONIC AN/USM 615 (DSESTS-M1/FVS)

NSN 4931-01-120-0764 (EIC 4WQ)

OIU, GPIA, AND DSESTS COMMON RESOURCES EQUIPMENT SUPPORT GROUP

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this publication. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Submit your DA Form 2028 (Recommended Changes to Equipment Technical Publications), through the Internet, on the Army Electronic Product Support (AEPS) website. The Internet address is: http://aeps.ria.army.mil. The DA Form 2028 is located under the Public Applications section in the AEPS Public Home Page. Fill out the form and click on SUBMIT. Using this form on the AEPS will enable us to respond quicker to your comments and better manage the DA Form 2028 program. You may also mail, fax or email your letter or DA Form 2028 directly to U.S. Army TACOM Life Cycle Management Command, ATTN: AMSTA-LC-LMPP/ TECH PUBS, 1 Rock Island Arsenal, Rock Island, IL 61299-7630. The e-mail address is: tacomlcmc.daform2028@us.army.mil. The fax number is is DSN 793-0726 or Commercial (309) 782-0726.

HEADQUARTERS, DEPARTMENT OF THE ARMY

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HOW TO USE THIS MANUAL

This manual tells you how to set up, operate, and perform unit maintenance procedures for the Direct Support Electrical System Test Set (DSESTS) OIU, GPIA and DSESTS Common Resources Equipment Support Group.

Before starting a task or procedure, read HOW TO USE THIS MANUAL and WP 0042 00, GENERAL MAINTENANCE INSTRUCTIONS.

WHAT'S IN THE MANUAL – FRONT TO BACK

FRONT COVER INDEX lists information you need most often.

WARNINGS in front of the manual are a summary of the warnings in this manual. The warnings cover hazards that could hurt or kill personnel. Shorter versions of the warnings may appear in the task.

TABLE OF CONTENTS tells you where each chapter and work package can be found.

This manual is divided into five chapters, and each chapter is divided into work packages.

CHAPTER 1 covers general information. It gives a brief description of the test equipment, and describes how it operates.

CHAPTER 2 covers operating instructions. It gives a brief description of the operator's controls and the operating procedures.

CHAPTER 3 covers troubleshooting procedures and supplementary troubleshooting data.

CHAPTER 4 covers preventive and corrective maintenance procedures.

CHAPTER 5 covers supporting information, including:

- References to publications used to operate and maintain equipment
- The complete DSESTS Maintenance Allocation Chart (MAC).
- Repair parts and special tools list (RPSTL).
- The components of end item (COEI) and basic issue items (BII) lists.
- Additional authorization list (AAL).
- Expendable supplies and materials list (ESML).

ALPHABETICAL INDEX lists test set information, parts, and procedures as well as the work package number where the information may be found.

FOLDOUTS provide wire diagrams, component locations, and other diagrams which serve as an aid in troubleshooting procedures.

DA FORM 2028 is used to report errors and to recommend improvements for any procedures in the manual.

METRIC CONVERSION CHART converts U.S. measurements to metric equivalents.

USING YOUR MANUAL ON THE JOB

The best way to learn about this manual is to practice using it. Knowing how to use this manual will save both time and energy.

Which type of task do you use?

There are three different types of tasks in this manual. They are operation tasks, troubleshooting tasks, and maintenance tasks. Decide which type of task you need to use.

OPERATION TASKS

Chapter 2 includes the operation task work packages which tell you how to set up equipment for operation and how to perform equipment self tests. Instructions for using the equipment to test weapon system LRUs are not included in this manual; those instructions are part of the weapon system manuals.

TROUBLESHOOTING TASKS

Troubleshooting tasks are tasks that help you locate faulty parts and direct you to the maintenance task for correcting faults. Chapter 3 troubleshooting work packages contain details on how to troubleshoot equipment. Read the troubleshooting introduction work package (WP 0008 00) before doing any troubleshooting tasks.

MAINTENANCE TASKS

How do you find the correct task?

Pick a key assembly from the test set that contains the part you want to repair or replace. Look in the ALPHABETICAL INDEX for this key assembly. Go to the indicated work package.

The ALPHABETICAL INDEX lists each assembly under one or more headings. For example, if you wanted to replace a circuit card assembly in the Common Functions Module (CFM), you could either look under "C" for "CFM" or under "M" for "maintenance procedures," as follows:

Under "C"
Common Functions Module (CFM)
Maintenance Procedures
Replace CCA A2, A3, A4, A6, A7, A8, or A10 WP 0098 00

Under "M"
Maintenance Procedures
Replace CFM CCA A2, A3, A4, A6, A7, A8, or A10 WP 0098 00

How do you read the maintenance tasks?

Be sure to read and follow all warnings, cautions, and notes. These are in all types of tasks. They help you avoid harm to yourself, other personnel, and equipment. They also tell you things you should know about the task.

Before starting, get all of the tools and supplies listed on the setup page needed to do the task. Be sure to read the task before performing the maintenance. If any other tasks are referenced, you must go to the setup page for each of those tasks to find out what tools, parts, and materials will be needed.

Start with step 1 and do each step in the order given. Numbered or primary steps tell you WHAT to do. Lettered substeps tell you HOW to do it.

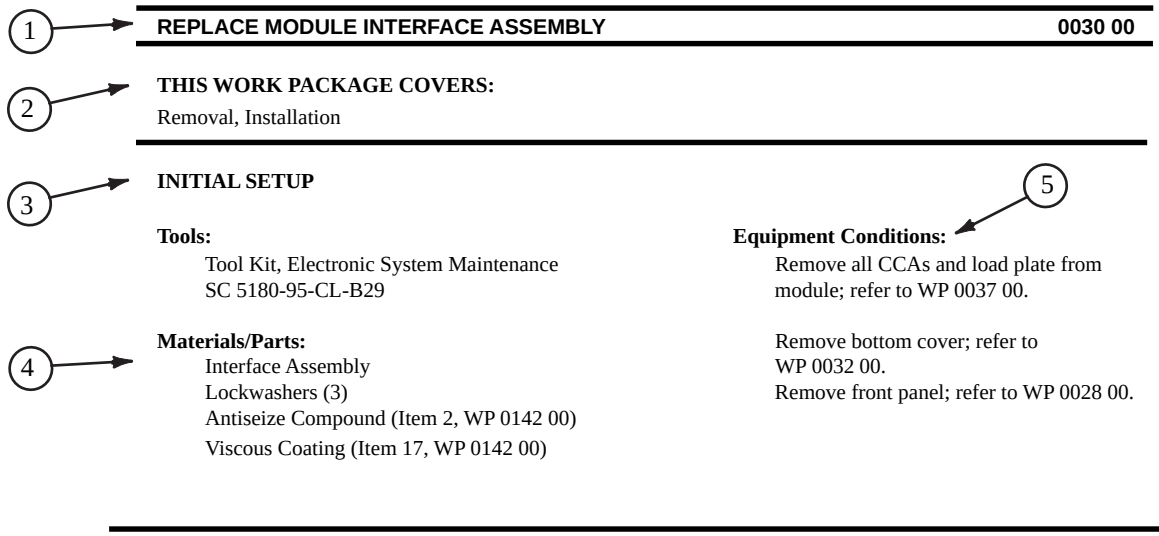
Look at the drawings. These show where equipment and parts are located in the test set. Drawings in this manual may show closeups of equipment, parts, and other helpful information.

The following samples show what to look for when reading a maintenance task.

Maintenance Tasks – Doing maintenance tasks will keep the test equipment in shape to operate. Maintenance tasks are used to present maintenance instructions. Each maintenance task details steps which you need to perform. If the test equipment or parts need maintenance that is not in any task in the manual, report this to your supervisor.

Maintenance tasks use a standard format. Look at the sample below.

Sample of Setup Items – The sample below shows the DESCRIPTION and INITIAL SETUP sections on the first page of a task. Items to watch for are listed in the legend. Match them with the sample.

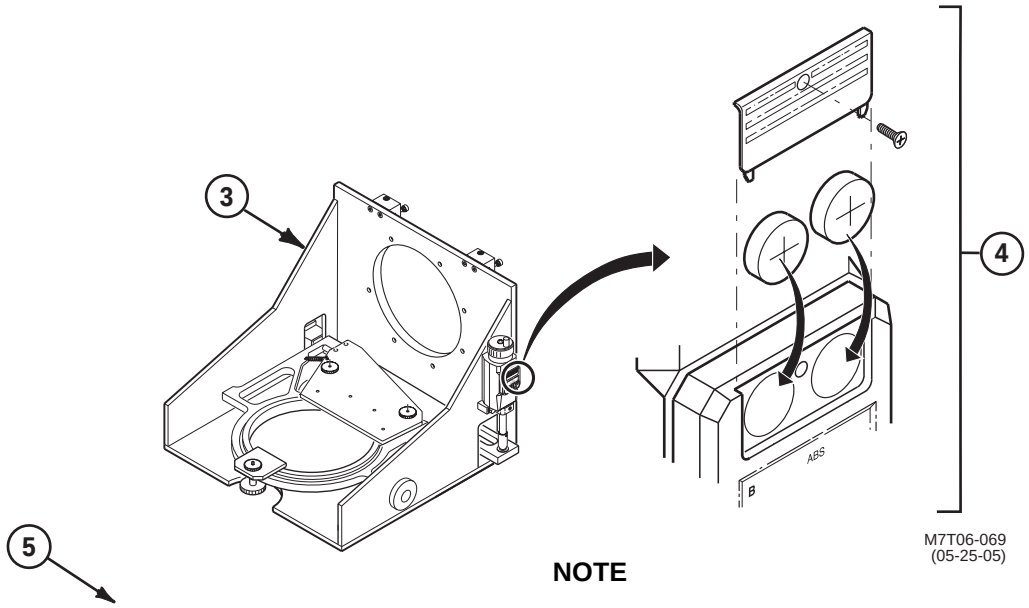


Legend to Sample Above –

1	**TITLE**	This is the name of the task.
2	**DESCRIPTION**	This describes the overall actions you will perform.
3	**TOOLS**	These are the tools and equipment you will need to do the task.
4	**MATERIALS/ PARTS**	These are the supplies and parts you will need to do the task. Use the Expendable Supplies and Materials List (ESML), or Repair Parts and Special Tools List (RPSTL) to order materials or parts you need for the task. If the material/part has an item number, use the ESML in Work Package 0142 00 to locate the National Stock Number (NSN) and requisition the item. If the material/part does not have an item number, use the RPSTL Work Package 0109 00 to locate the part number and requisition the item.
5	**EQUIPMENT CONDITIONS**	These are the conditions equipment must be in before you start the task. You will be referred to the task or technical publication needed to meet each equipment condition. This reference will be given after each equipment condition. After you have completed the maintenance task, reverse each equipment condition task listed. For example, if you remove the load plate assembly (WP 0037 00) as an equipment condition, after completing the task, again refer to WP 0037 00 to install the load plate assembly.

Some tasks will include all of the above items. Other tasks will include only some of the above items.

Sample of Task Steps – The sample below shows you some things to watch for when doing a task. Read all steps, substeps, warnings, cautions, and notes before starting the task. Some items to watch for are listed in the legend. Match them with the sample.



NOTE

If replacing a damaged micrometer head with a new micrometer head, discard the batteries which are packaged with the new micrometer head and install fresh batteries.

REMOVE

1. REMOVE BATTERY COVER (1) FROM MICROMETER HEAD (2).
   a. Remove the screw (3) securing battery cover (1) to battery compartment (4).
   b. Slide battery cover (1) off of battery compartment (4).
2. REMOVE TWO BATTERIES (5) FROM BATTERY COMPARTMENT (4).

Legend to Sample Above –

1	**STEP**	This tells you WHAT to do.
2	**SUBSTEP**	This tells you HOW to do it.
3	**LOCATOR**	This helps you locate equipment.
4	**CLOSEUP**	This shows you a closeup of the equipment.
5	**NOTE**	This contains information that helps you understand what to do.

Each task includes a series of illustrated instructions. The numbered steps in capital letters tell you WHAT to do. The lettered substeps tell HOW to do it. Each numbered part in the instructions matches the same number in the drawings of the task. When they are needed, warnings, cautions, and notes appear just above the task steps to which they apply.

Read all steps, substeps, warnings, cautions, and notes before starting to do the task. Do each step in the order given. The words END OF TASK will tell you when you have finished the task.

DEFINITION OF TASK TERMS

WARNINGS, CAUTIONS, AND NOTES

Be sure to read and follow all warnings and cautions in the task. Ignoring a warning could cause death or injury to yourself or other personnel. Ignoring a caution could cause damage to equipment. Notes contain facts to make the task easier. Warnings, cautions, and notes always appear just above the task steps to which they apply.

WARNINGS: Call attention to things that could kill or injure personnel. Warnings are also listed at the front of the manual.

WARNING

Adhesives and solvents burn easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in a well ventilated area.

CAUTIONS: Call attention to actions or materials that could damage equipment.

CAUTION

Use low wattage soldering iron when replacing wires, connectors, plugs, and receptacles. Connectors, plugs, or receptacles may be damaged if high wattage soldering iron is used.

NOTES: Contain information you should know.

NOTE

Use this task to replace any slotted type turnlock stud assembly in either stowage module assembly in the GPIA case cover. The FST adapter stowage module is shown.

MATERIALS/PARTS

For all tasks, the following comments apply:

Parts which are discarded or turned in will be referred to as "new" in the task step when installed.
Examples are:

- gaskets
- lockwashers
- circuit card assembly

Only these and other new parts are listed under Materials/Parts in the INITIAL SETUP.

EQUIPMENT CONDITIONS

Equipment conditions in a task tell you what must be done to the equipment before you can proceed to perform the task you want to perform.

If nothing needs to be done to the equipment before you begin a task, no equipment conditions will be identified.

If something must be removed from the equipment before you begin a task, you will be told what is to be removed and where to go to find the procedure or procedures to remove the item or items. Perform the referenced tasks in the order listed.

Samples of Equipment Conditions –

Equipment Conditions:
Remove CCAs from module; refer to WP 0037 00.
Remove bottom cover; refer to WP 0032 00.
Remove front panel; refer to WP 0028 00.

Each task will tell you what tools are required to perform that task. Some referenced tasks will be REMOVE/INSTALL tasks, and some referenced tasks will be REPLACE tasks. If you are sent to a REPLACE task, perform only those steps which remove the item. Do not discard the item when performing the task for access.

When a task is completed, you will find the words "END OF TASK." At this point, reverse each equipment condition listed in the INITIAL SETUP. For example, if you had performed the three equipment condition tasks listed in the sample above, you would now:

- Install the front panel (WP 0028 00).
- Install the bottom cover (WP 0032 00).
- Install CCAs in the module (WP 0037 00).

CHAPTER 1

INTRODUCTORY INFORMATION WITH THEORY OF OPERATION

GENERAL INFORMATION 0001 00

SCOPE

This manual contains operator's and unit level operating and maintenance instructions covering the Electronic Test Set, Direct Support Electrical System Test Set (DSESTS), Operator Interface Unit (OIU), General Purpose Interface Assembly (GPIA), DSESTS Common Resources Accessory Stowage Unit (DCR ASU) and Combined Support Functions Module (CSFM). The manual tells you how to set up, operate, troubleshoot, and repair these items so that they can be used with the other equipment support groups of the DSESTS. General information and general maintenance applicable to all equipment support groups is provided in this manual.

NOTE

This manual covers the OIU, GPIA, DCR ASU and CSFM. All units are equipped with the GPIA. However, only some units have been equipped with the DCR ASU, OIU and CSFM.

Purpose of Equipment

CSFM

Troubleshoot line replaceable units (LRUs) removed from the electrical systems of the M1 Full-Tracked Combat Tank (M1) and the M1A1 Full-Tracked Combat Tank (M1A1). M1/M1A1 DSESTS support equipment is provided for this function. The CSFM is used in conjunction with the laptop computer.

OIU

Troubleshoot line replaceable units (LRUs) removed from the electrical systems of the M1 Full-Tracked Combat Tank (M1); the M1A1 Full-Tracked Combat Tank (M1A1); and the M2 Infantry Fighting Vehicle and M3 Cavalry Fighting Vehicle Systems (FVS). FVS and M1/M1A1 DSESTS support equipment is provided for this function.

GPIA

Troubleshoot Thermal Imaging System (TIS) LRUs, digital FVS and M1A1 LRUs, TOW LRUs, and Bradley A3 LRUs. The GPIA is used with TIS, M1, FVS, M1A2SEP, TOW, or Bradley A3 support equipment for this function.

DSESTS Common Resources

Troubleshoot LRUs removed from the M1A2SEP and Bradley A3 tanks and TOW missile subsystem. Provides support equipment to be used with GPIA for this function.

Equipment Support Groups (Figure 1)

The OIU (or CSFM), GPIA, and DCR ASU are used with the following DSESTS equipment support groups:

M1/M1A1 Equipment Support Group

This equipment group consists of four case assemblies which contain the M1 memory module, the M1/M1A1 interface adapter, reticle simulator, GPS test fixture, and all test cables/adapters required for testing the M1/M1A1 LRUs. In addition, the DECU SRU Test System is included in the equipment group. Operation and unit maintenance instructions for the M1/M1A1 equipment support group are contained in TM 9-4931-586-12-2&P. The M1/M1A1 equipment group, when used in conjunction with the OIU (or CSFM) and GPIA, provides the DSESTS with the capability of testing the following M1/M1A1 LRUs:

Turret Networks Box (TNB)
Redesigned Turret Networks Box (RTNB)
Commander's Weapons Station Power Control Unit (CWS-PCU)
Gun/Turret Drive Electronics Unit (GTD-EU)
Computer Electronics Unit (CEU)

Computer Control Panel (CCP)
Line of Sight Electronics Unit (LOS-EU)
Laser Range Finder (LRF)
Hull Networks Box (HNB)
Redesigned Hull Networks Box (RHNB)
Hull Distribution Box (HDB)
Driver's Instrument Panel (DIP)
Driver's Master Panel (DMP)
Electronics Control Unit (ECU)
Tank Commander's Panel (TCP)
Temperature Control Unit (TCU)
Digital Electronic Control (DECU)
Gunner's Primary Sight Body Assembly (GPS)
External Auxiliary Power Unit Electronic Control Unit (EAPU-ECU)
Commander’s Alert Panel (CAP)

FVS Equipment Support Group

The M2 Infantry and M3 Cavalry LRU test equipment consists of the ECA Interface Assembly (EIA) and ECA Motor Assembly (EMA), both of which are required when testing the Electronic Control Assembly (ECA) and the DECA; the FVS memory module; the Gunner's Hand Station/Commander's Hand Station (GHS/CHS) test fixture; and all test cables required for testing M2/M3 LRUs. The M2/M3 test equipment, when used in conjunction with the OIU (or CSFM) and GPIA provides the DSESTS with the capability of testing the following M2/M3 LRUs:

Turret Distribution Box (TDB)
Gunner's Hand Station (GHS)
Commander's Hand Station (CHS)
Annunciator Panel (ANP)
Relay Assembly (RYA)
Relay Junction Box (RYJ)
TOW Control Box (TCB)
Fan Control Box (FCB)
Turret Position Indicator (TPI)
Weapon Control Box (WCB)
Vehicle Distribution Box (VDB)
Electronic Control Assembly (ECA)
Digital Electronic Control Assembly (DECA)

The DSESTS Shop Replaceable Unit Test Assembly (DSTA) and the DSTA Interface (DSTAI) consist of an electronics assembly and interfacing components for testing the VDB, TDB, and ECA Shop Replaceable Units (SRUs). This equipment, when used in conjunction with the OIU, provides the DSESTS with the capability of testing the following FVS SRUs:

NOTE

The DSTA and DSTAI can only be used with the OIU.

VDB

Warning signal circuit card (A1)
Consolidation circuit card (A4)

TDB

Weapon control circuit card (A1)
Weapon select circuit card (A2)
Ammunition feed select circuit card (A3)
Deck clearance circuit card (A4)
TOW system arming circuit card (A5)
TOW system select circuit card (A6)
Status light control circuit card (A7)

ECA

Buffer circuit card (A9)
Logic 1 circuit card (A10)
Logic 2 circuit card (A11)
Traverse servo circuit card (A12)
TOW servo circuit card (A13)
Gun servo circuit card (A14)
Power supply circuit card (A15)

Thermal Imaging System (TIS)/Common FLIR TIS (CFT) Equipment Support Group

This equipment group consists of the TIS display module, TIS signal module, programmable load module, HTI FLIR Module, LRU power supply, probe case assembly, thermal sight collimator, or general purpose electro-optic head (GPEOH), TRU holding fixture, and all test cables required for testing the TIS/CFT LRUs. Operation and unit maintenance instructions for the TIS/CFT equipment support group are contained in TM 9-4931-586-12-4&P. The TIS/CFT equipment group, when used in conjunction with the OIU (or CSFM), the GPIA, and the M1 memory module, provides the DSESTS with the capability of testing the following TIS/CFT LRUs:

Thermal Receiver Unit (TRU)
Electronics Unit (EU)
Power Control Unit (PCU)
Image Control Unit (ICU)
Commander's Independent Thermal Viewer (CITV) Second Generation Sight Assembly (SGSA)
CITV Servo Electronics Unit (SEU)
TIS Second Generation Thermal Receiver Unit (SGTRU)
TIS Biocular Image Control Unit (BICU)
CITV and TIS Second Generation Common Electronics Unit (SGCEU)

M1A2SEP Equipment Support Group

This equipment support group consists of four accessory stowage units which contain the test program CD, MMU MHA PCMCIA card, M1A2SEP functions module, GFM enhanced, MHA test fixture, RMC holding fixture, VME test fixture, Retical Simulator, and all the test cables/adapters required for testing specific M1A2SEP LRUs. The M1A2SEP equipment support group, when used in conjunction with the General Purpose Interface Assembly (GPIA), and the Common Functions Module (CFM) provides the DSESTS with the capability of testing the following M1A2SEP LRUs:

Analog Input Module (AIM)
Radio Interface Unit (RIU)
Position Navigation Unit (POS/NAV)
Driver’s Integrated Display (DID)
Gunner’s Control and Display Panel (GCDP)
Hull Power Distribution Unit (HPDU)
Hull Remote Switching Module (HRSM)
Turret Remote Switching Module (TRSM)
Fire Control Electronics Unit (FCEU)
Digital Electronic Control Unit (DECU)
Commander’s Control Handle Assembly (CCHA)
Gunner’s Control Handle Assembly (GCHA)
Dual-Axis Head Assembly - Gunner’s Primary Sight Body Assembly (DAHA-GPS)
Commander’s Electronic Unit (CEU)
Commander’s Display Unit (CDU)

Hull Mission Processor Unit (HMPU)
Turret Mission Processor Unit (TMPU)
Mass Memory Unit Mounting Housing Assembly (MMU MHA)
Mass Memory Unit Removable Memory Cartridge (MMU RMC)
Improved Commander's Display Unit (ICDU)
Improved Commander's Electronic Unit (ICEU)
Improved Driver's Integrated Display (IDID)
Improved Gunner's Control and Display Panel (IGCDP)
Improved Hull Mission Processor Unit (IHMPU)
Improved Turret Hull Mission Processor Unit (ITMPU)

TOW Equipment Support Group

This equipment support group consists of five accessory stowage units which contain the TOW electronics module (TEM), LRU Power Supply (LPS), two SRU test fixtures, the TVM/BSA test fixture, tilt stage adapter assembly, probe case assembly, test program CD, and required test cables and adapters. The group also includes two mounting adapters. The TOW equipment support group, when used in conjunction with the GPIA and DCR ASU, can test the following TOW subsystem LRUs and SRUs:

LRUs:
SRUs:
Integrated Sight Unit (ISU)
Error Detector CCA
AGC/BIT CCA
Superelevation CCA
Mirror Servo CCA
Power Amplifier CCA
TOW Missile Launcher (LHR or TML)
Armament Control Unit (ACU) CCA
Digital Command Guidance Electronics (DCGE)
Error Detector A1 CCA
Relay Squib A2 CCA
Programmer A3 CCA
Control Signal Generator A4 CCA
Power Converter/BITE A5 CCA
VTT Video Processor A7 CCA
Timing and Control A8 CCA
Guidance I/O A9 CCA
VTT I/O A10 CCA
Microprocessor A11/A13 CCA
VTT Program Memory A12 CCA
Guidance Program Memory A14 CCA
ISU Basic Sight Assembly (BSA)
ISU TOW Visual Module (TVM)
ISU Unity Cover (IUC)/ODS Transceiver

M2A3/M3A3 (FVS) Equipment Support Group

This equipment group consists of four accessory stowage units (ASUs), General Purpose Electro-Optic Head (GPEOH) support assembly, Sensor Assembly Unit (SAU) holding fixture, and Periscope Head (PHEAD) mounting plate assembly. This equipment group, when used with the DSESTS General Purpose Interface Assembly (GPIA, TM 9-4931-586-12-1&P); the DSESTS Common Resource Accessory Stowage Unit (DCR ASU, TM 9-4931-586-12-1&P); and the Fighting Vehicle System Accessory Stowage Unit No. 3 (FVS ASU No. 3, TM 9-4931-586-12-3&P), provides the capability for testing the M2A3/M3A3 (FVS) line replaceable units (LRUs) listed below. Testing of the Second Generation – Forward Looking Infrared (SG-FLIR) LRUs requires the use of Common FLIR TIS (CFT) Accessory Stowage Unit No. 3 and GPEOH Assembly (TM9-4931-586-12-4&P).

Armament Control Unit (ACU)
Bradley Eyesafe Laser Range Finder Power Supply Assembly (BELRF PSA)
Color Flat Panel Display (CFPD)
Commander's Hand Station (CHS)
Commanders Interface Unit (CIU)
Commanders Sight Control Panel (CSCP)
Gun Control Unit (GCU)
Gunners Hand Station (GHS)
Gunners Sight Control Panel (GSCP)
Hull Processor Unit (HPU)
Inertial Navigation Unit (INU)
Lower Target Acquisition System (LTAS)
Missile Control Set (MCS)
Periscope Head (PHEAD)
Position Interface Box (PIB)
Power Control Module (PCM)
Remote Biocular Display (RBD)
Sensor Assembly Unit (SAU)
Servo Electronics Unit (SEU)
System Control Box (SCB)
Target Acquisition Subsystem (TAS)
Turret Drive Control Unit (TDCU)
Turret Power Box (TPB)
Turret Processor Unit (TPU)

MAINTENANCE FORMS AND RECORDS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 750-8, The Army Maintenance Management System (TAMMS). The DA PAM is published in the Maintenance Management UPDATE. Units may subscribe to Maintenance Management UPDATE by submitting a completed DA Form 12 to: Commander, USA Publications Center, 2800 Eastern Boulevard, Baltimore, MD 21220-2896.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your test set needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you do not like about your test set. Let us know why you do not like the design or performance. Put the improvement on an SF 368 (Product Quality Deficiency Report). Mail the SF 368 to us at: USA TACOM, ATTN: AMSRD-TAR-E/PQDR, 6501 E. 11 Mile Road, Warren, MI 48397-5000 (email: tacomdrs@tacom.army.mil or FAX: DSN 786-6637, Commercial (586) 574-6637. We will send you a reply.

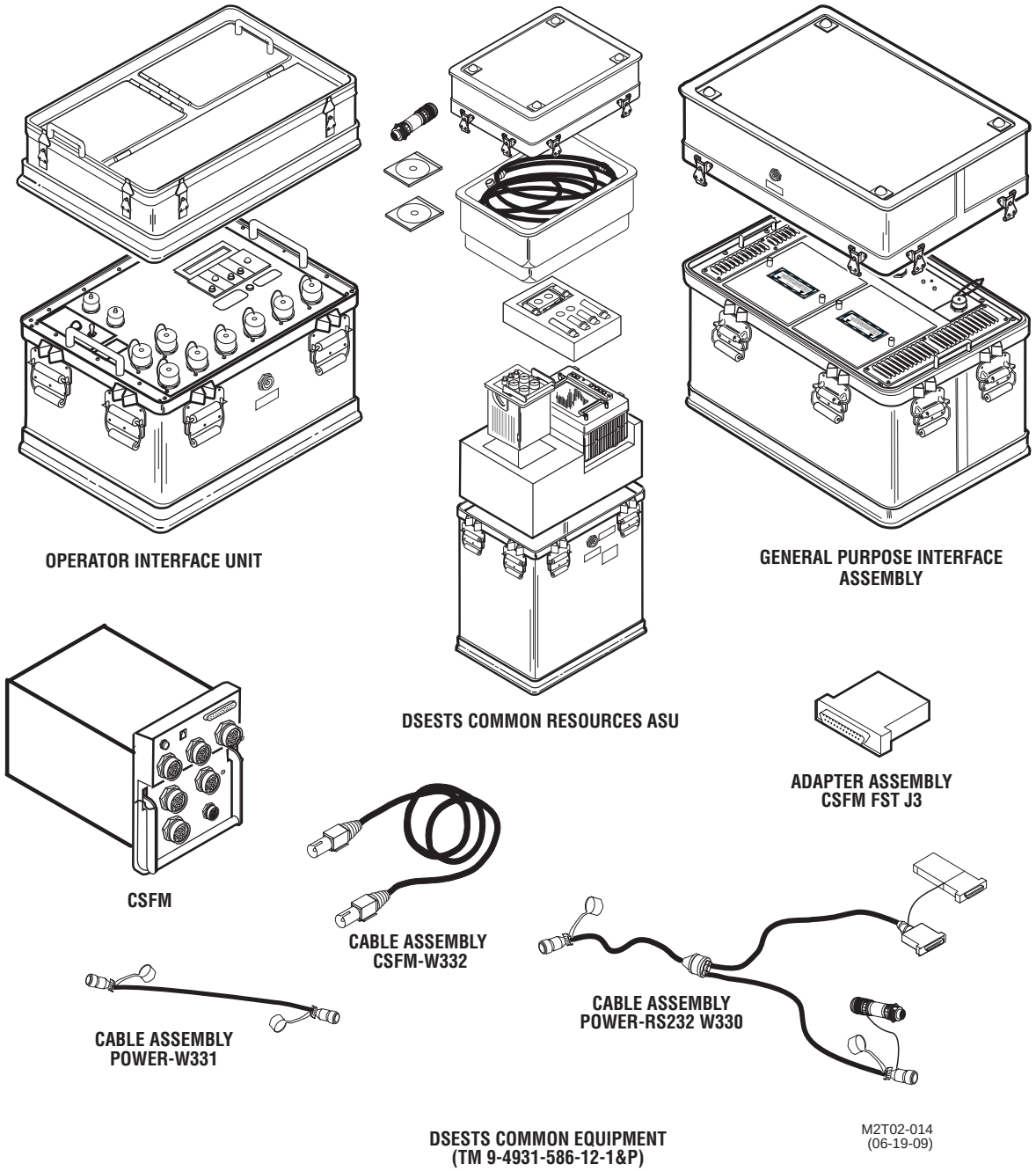


Figure 1. DSESTS Equipment Support Groups

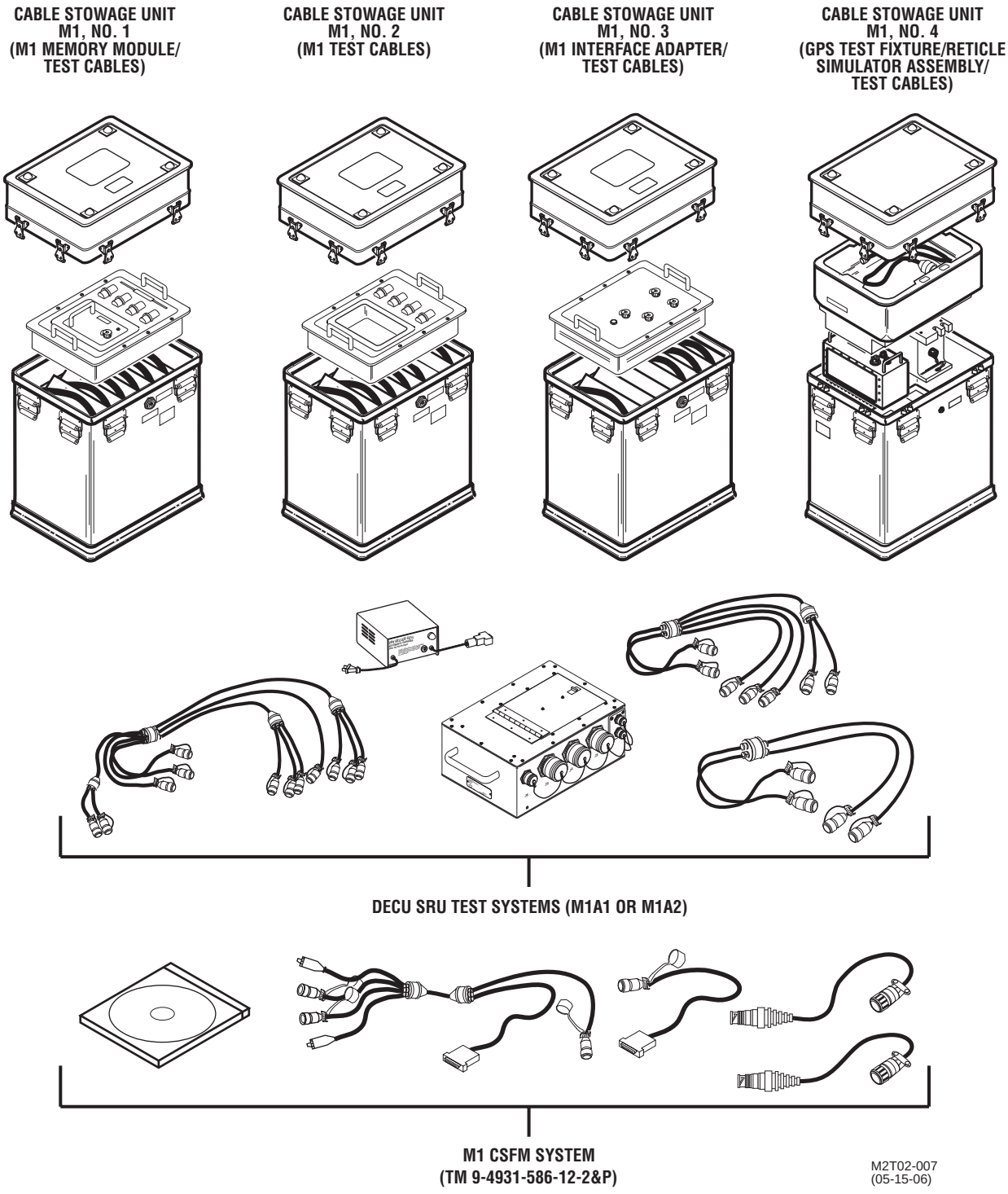


Figure 1. DSESTS Equipment Support Groups

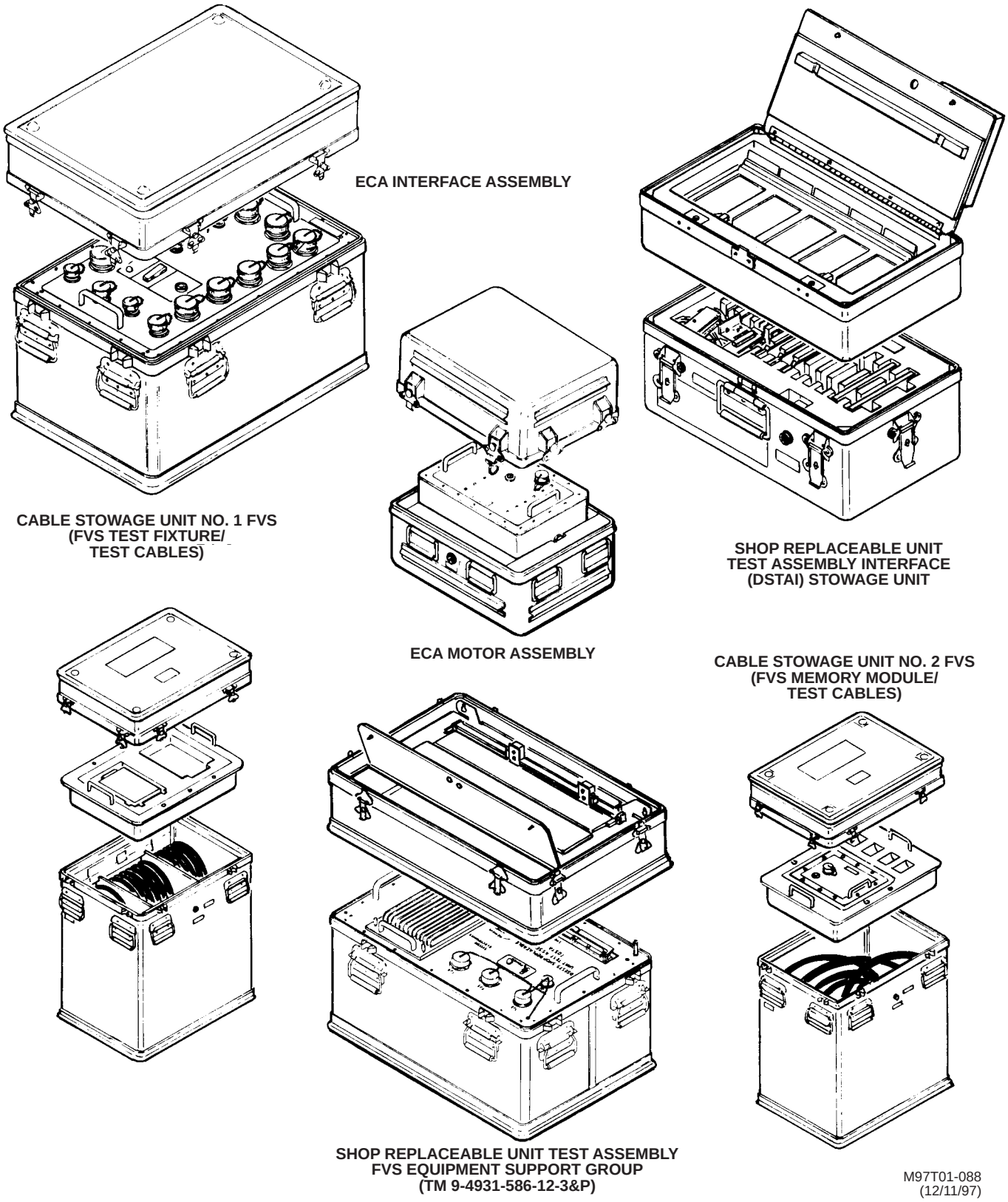


Figure 1. DSESTS Equipment Support Groups (Continued)

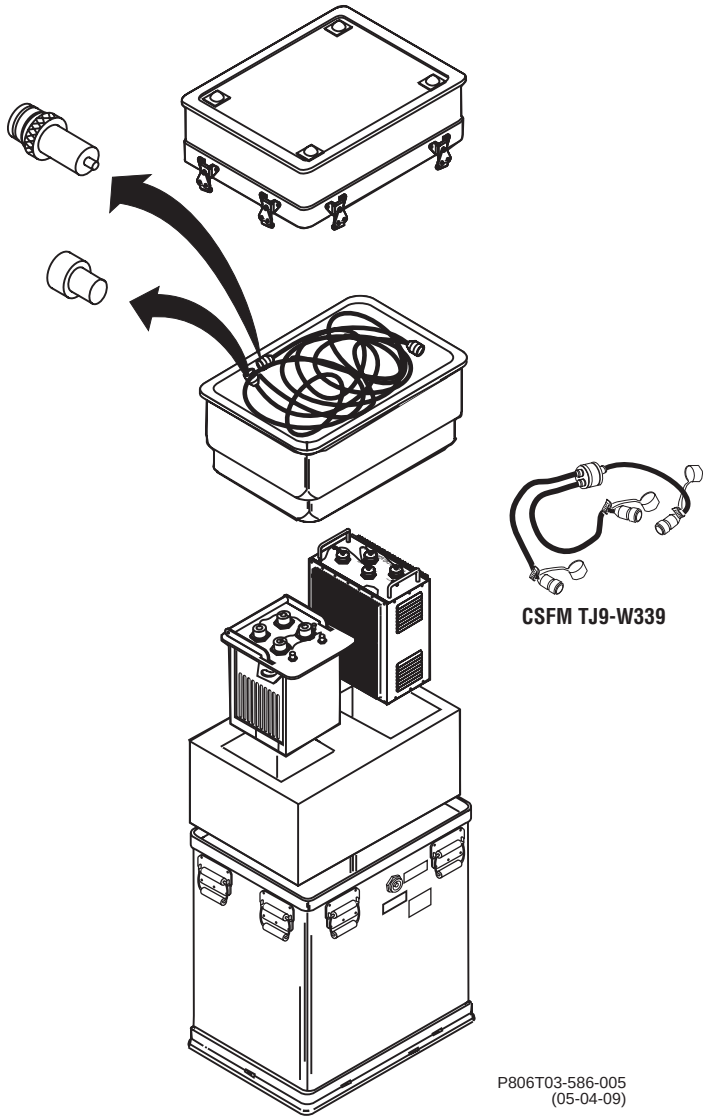


Figure 1. DSESTS Equipment Support Groups (Continued)

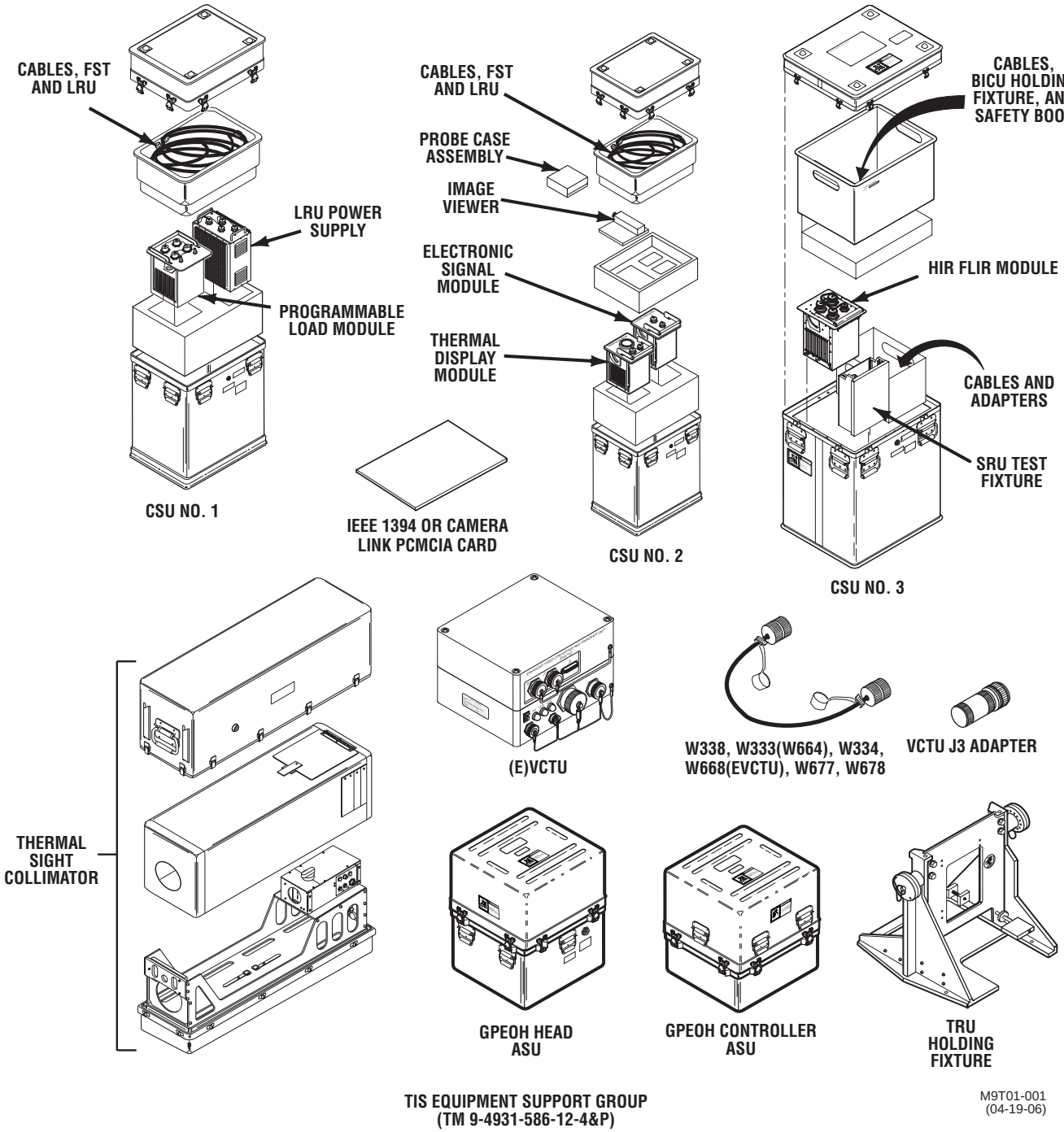


Figure 1. DSESTS Equipment Support Groups (Continued)

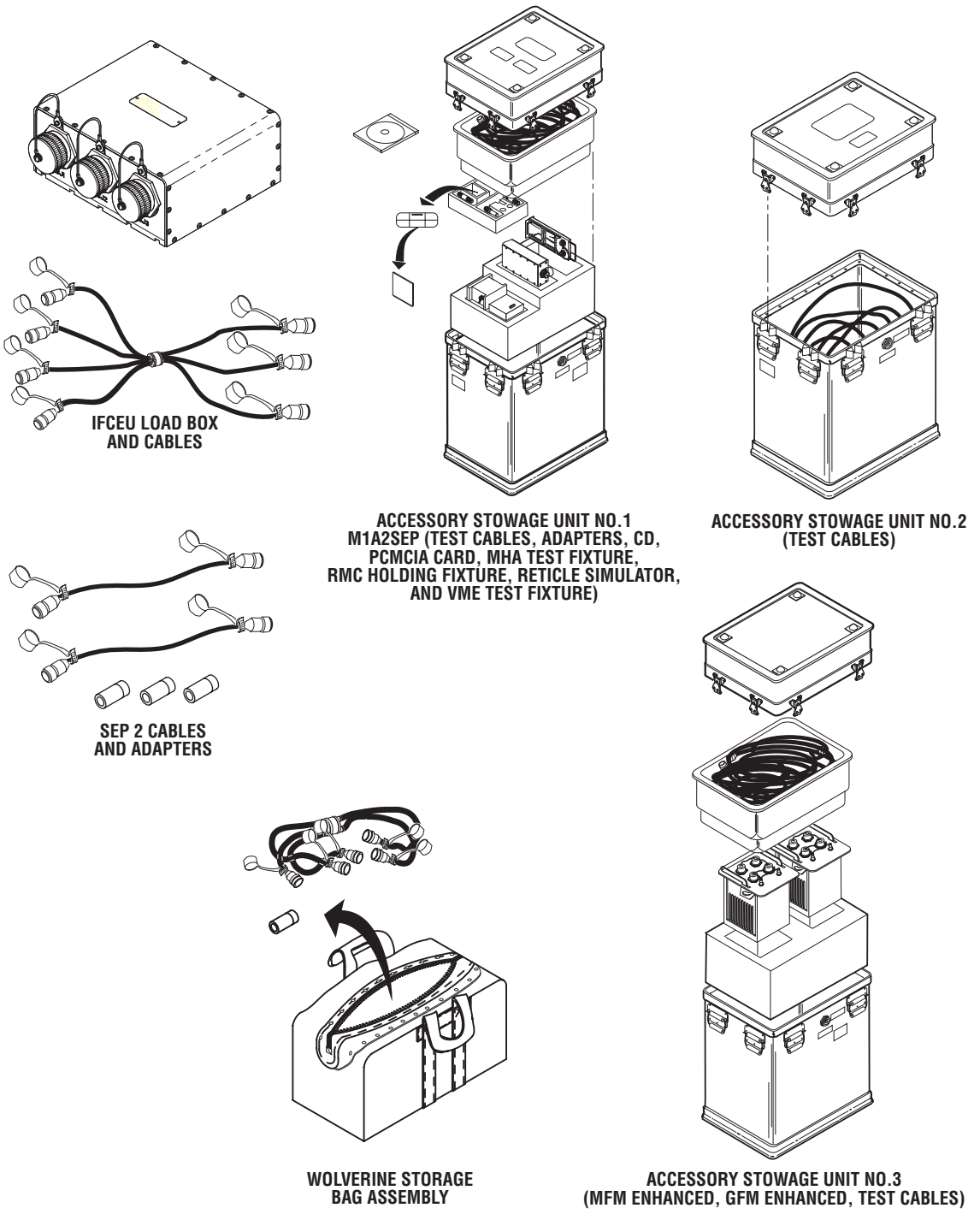


Figure 1. DSESTS Equipment Support Groups (Continued)

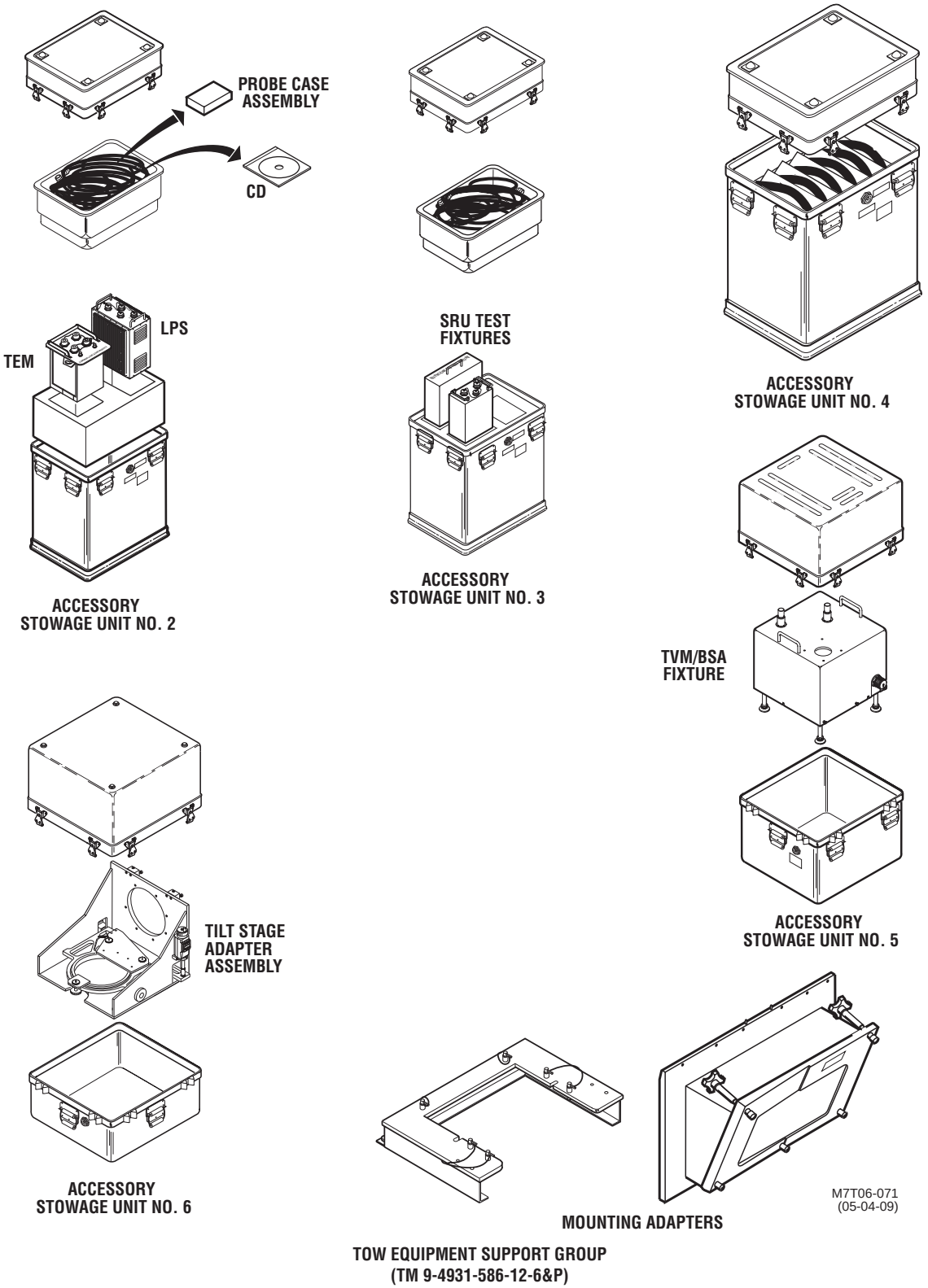
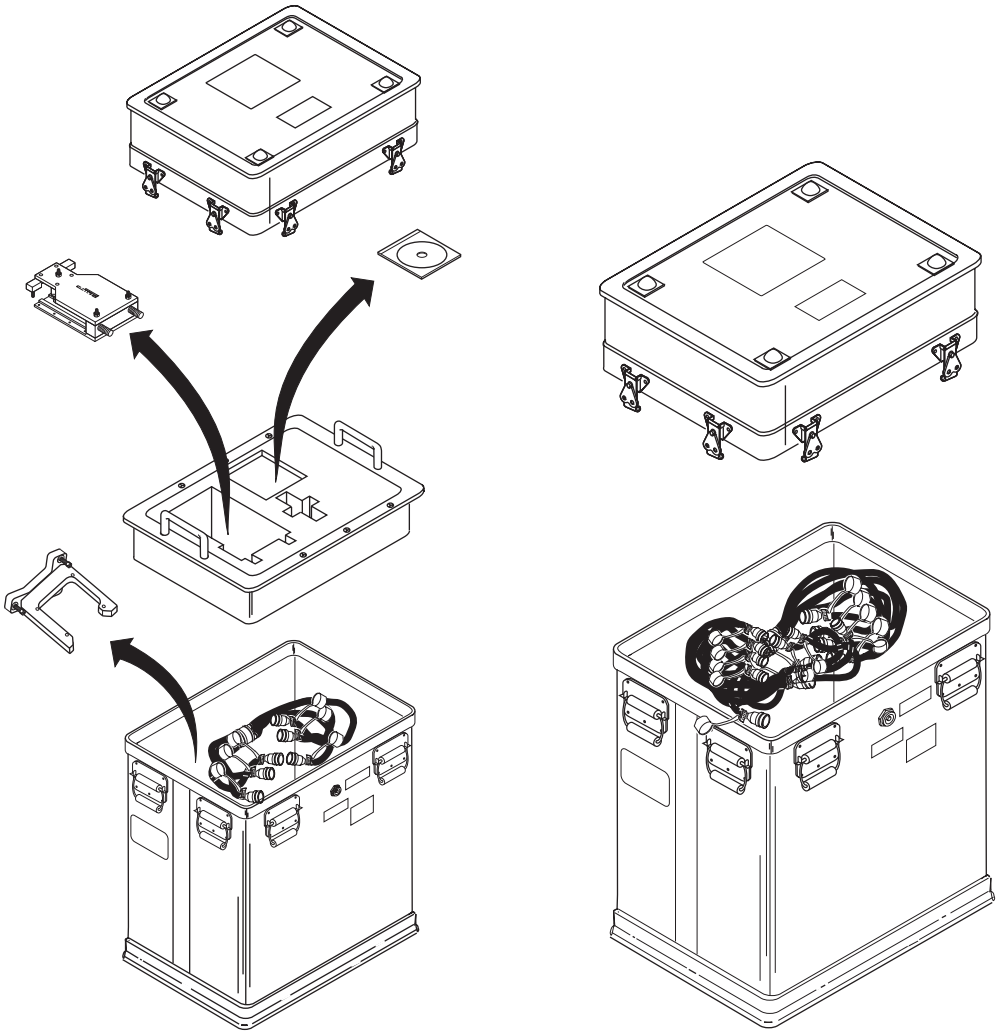


Figure 1. DSESTS Equipment Support Groups (Continued)



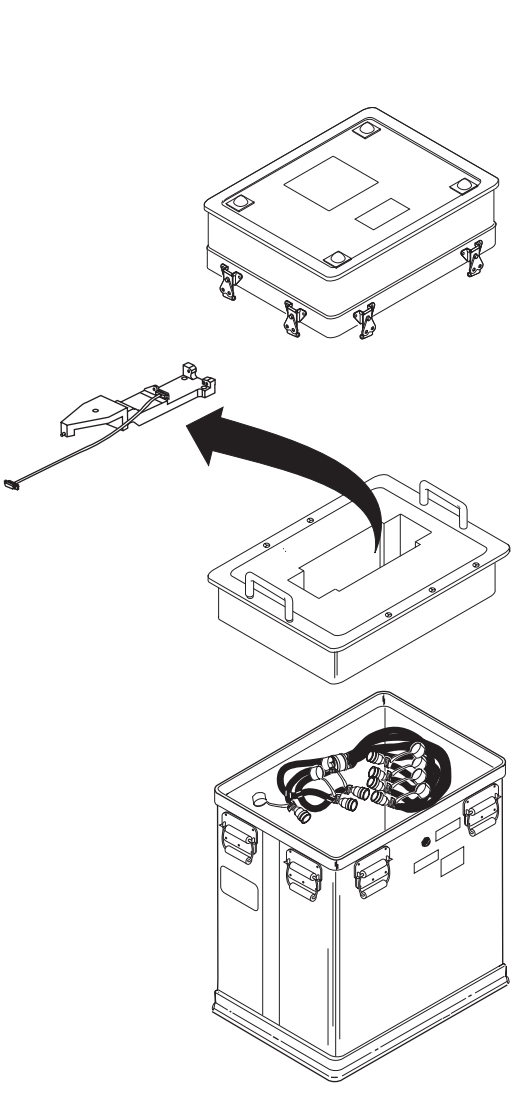
ACCESSORY STORAGE UNIT NO.1
(HANDSET TEST FIXTURE ASSEMBLY,
TEST CABLES,TAS RBD TEST FIXTURE
ASSEMBLY, AND TEST PROGRAM CD)

ACCESSORY STORAGE UNIT NO.2
(TEST CABLES, AND ADAPTER TDCU J1)

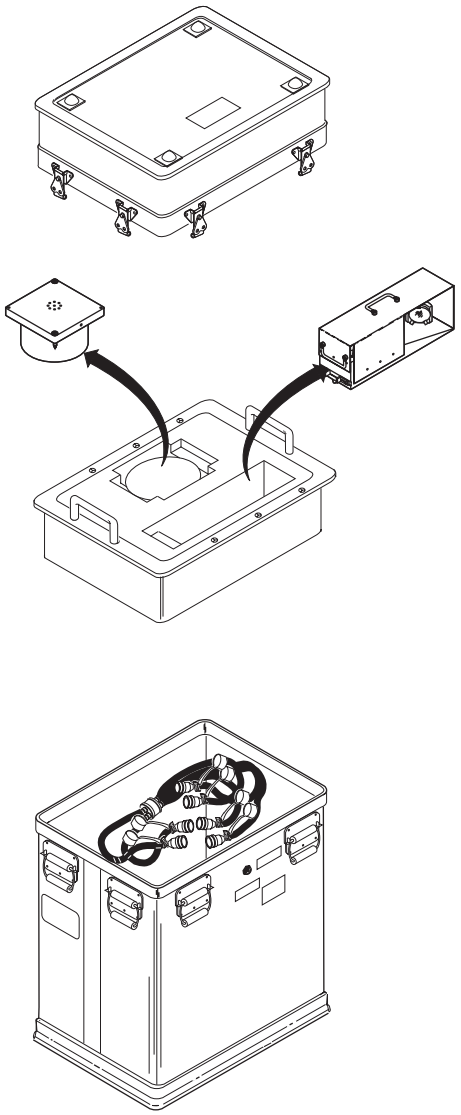
M0T01-002
(06-19-09)

M2A3/M3A3 (FVS) EQUIPMENT SUPPORT GROUP
(TM 9-4931-586-12-7&P)

Figure 1. DSESTS Equipment Support Groups (Continued)



ACCESSORY STORAGE UNIT NO.3
(BORESIGHT COLLIMATOR ALIGNMENT FIXTURE AND TEST CABLES)

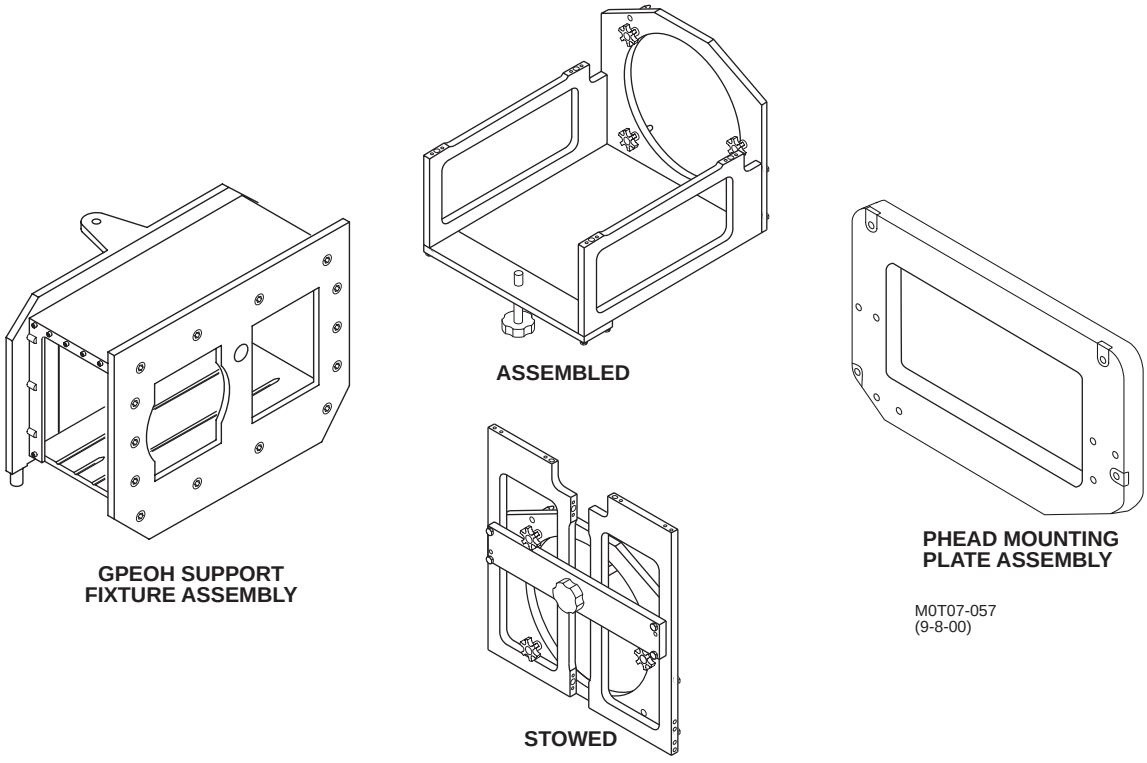


ACCESSORY STORAGE UNIT NO.4
(PERISCOPE ASSEMBLY, CORNER CUBE ASSEMBLY, AND TEST CABLES)

M0T01-003
8-05-02

M2A3/M3A3 (FVS) EQUIPMENT SUPPORT GROUP (CONTINUED)
(TM 9-4931-586-12-7&P)

Figure 1. DSESTS Equipment Support Groups (Continued)



ANCILLARY EQUIPMENT

M2A3/M3A3 (FVS) EQUIPMENT SUPPORT GROUP (CONTINUED)
(TM 9-4931-586-12-7&P)

Figure 1. DSESTS Equipment Support Groups (Continued)

CORROSION PREVENTION AND CONTROL

Corrosion prevention and control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problem with this item be reported so that the problem can be corrected and improvements can be made to prevent problems in the future.

While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

If a corrosion problem is identified, it can be reported using SF 368, Quality Deficiency Report. Use of key words such as corrosion, rust, deterioration, or cracking will assure that the information is identified as a CPC problem. The form should be submitted to: USA TACOM, ATTN: AMSRD-TAR-E/PQDR, 6501 E. 11 Mile Road, Warren, MI 48397-5000 (email: tacomdrs@tacom.army.mil or FAX: DSN 786-6637, Commercial (586) 574-6637.

DESTRUCTION OF EQUIPMENT TO PREVENT ENEMY USE

Procedures for destruction to prevent enemy use are given in TM 750-244-2, Procedures for Destruction of Electronics Materiel to Prevent Enemy Use. The test set does not contain self destruct devices. Mechanical destruction and destruction by the use of weapons fire, followed by burning, are recommended as the easiest and quickest methods.

PREPARATION FOR STORAGE OR SHIPMENT

To prepare OIU, GPIA, or DCR ASU test equipment for storage or shipment, place each equipment item in the proper case assembly and secure case assembly covers. Refer to WP 0002 00.

WARRANTY INFORMATION

For information on warranties in TACOM-RI contracts, see the section on the TACOM-RI Warranty Program in the latest issue of the Equipment Improvement Report and Maintenance Digest, which is published quarterly.

NOMENCLATURE CROSS-REFERENCE LIST

The following is a cross-reference between common names used in this manual and official (RPSTL) nomenclature.

Common Name	Official Nomenclature
PS3 (part of GPIA UUT PS)	Power Supply
Cavity Cover (GPIA module blank cover)	Access Cover or Cover
Cable Stowage Unit	Accessory Stowage Unit

LIST OF ABBREVIATIONS

This section provides a list of abbreviations which are used in this technical manual.

ACU	Armament Control Unit
A/D	Analog to Digital
AIM	Analog Input Module
ANP	Annunciator Panel
APP	Appendix
ASU	Accessory Stowage Unit
AWG	American Wire Gauge
BCE	Bradley Control Electronics
BELRF	Bradley Eyesafe Laser Range Finder
BII	Basic Issue Items
BOI	Basis of Issue

BRM	Bradley Resource Module
C	Celsius
CAN	Controller area network
CAP	Commander's Alert Panel
CCA	Circuit Card Assembly
CCHA	Commander's Control Handle Assembly
CCP	Computer Control Panel
CD	Compact Disc
CEU	Computer Electronics Unit
CFM	Common Functions Module
CFPD	Color Flat Panel Display
CFT	Common FLIR TIS
CHS	Commander's Hand Station
CIU	Commander's Interface Unit
cm	Centimeter
CPC	Corrosion Prevention and Control
CRU	Communication Register Unit
CSCP	Commander's Sight Control Panel
CSFM	Combined Support Functions Module
CWS-PCU	Commander's Weapon Station Power Control Unit
DC	Direct Current
DCR	DSESTS Common Resources
DECA	Digital Electronic Control Assembly
DECU	Digital Electronic Control Unit
DID	Driver's Integrated Display
DIP	Driver's Instrument Panel
DMP	Driver's Master Panel
DPY	Display
DS	Direct Support
DSESTS	Direct Support Electrical System Test Set
DSP	Digital Signal Processing
DSTA	DSESTS Shop Replaceable Unit Test Assembly
DSTAI	DSTA Interface
ea	Each
EAPU-ECU	External Auxiliary Power Unit Electronic Control Unit
ECA	Electronic Control Assembly
ECU	Electronics Control Unit
EIA	ECA Interface Assembly
EIR	Equipment Improvement Recommendation
EMA	ECA Motor Assembly
EU	Electronics Unit
EVCTU	Enhanced Video Converter and Transfer Unit
F	Farenheit
FCB	Fan Control Box
FCEU	Fire Control Electronics Unit
FLIR	Forward Looking Infrared
FST	Functional Self Test
FVS	Fighting Vehicle System
GCDP	Gunner's Control and Display Panel
GCHA	Gunner's Control Handle Assembly
GCU	Gun Control Unit
GFM/E	GPS Functions Module Enhanced

GHS	Gunner's Hand Station
GPEOH	General Purpose Electro-Optic Head
GPIA	General Purpose Interface Assembly
GPS	Gunner's Primary Sight Body Assembly
GS	General Support
GSCP	Gunner's Sight Control Panel
GTD-EU	Gun/Turret Drive Electronics Unit
HDB	Hull Distribution Box
HNB	Hull Networks Box
HPB	Hull Power Box
HPDU	Hull Power Distribution Unit
HPU	Hull Processor Unit
HRSM	Hull Remote Switching Module
ICEU	Improved Commander's Electronic Unit
ICDU	Improved Commander's Display Unit
ICU	Image Control Unit
ID	Identification
IDID	Improved Driver's Integrated Display
IGCDP	Improved Gunner's Control and Display Panel
IHMPU	Improved Hull Mission Processor Unit
ITMPU	Improved Turret Mission Processor Unit
kg	Kilogram
lb	Pound
LCD	Liquid Crystal Display
LOS-EU	Line of Sight Electronics Unit
LRF	Laser Range Finder
LRU	Line Replaceable Unit
LTAS	Lower Target Acquisition System
MAC	Maintenance Allocation Chart
MCS	Missile Control Set
MFM	M1A2 Functions Module
MFM/E	M1A2 Functions Module Enhanced
MM	Memory Module
MSD	Maintenance Support Device
MTOE	Modified Table of Organization and Equipment
M1	M1 Full-Tracked Combat Tank
M1A1	M1A1 Full-Tracked Combat Tank
M1A2	M1A2 Full-Tracked Combat Tank
M1A2SEP	M1A2SEP Full-Tracked Combat Tank System Enhancement Package
NATO	North Atlantic Treaty Organization
ODS	Operation Desert Storm
OIU	Operator Interface Unit
OPTS	Off Platform Test System
PCM	Power Control Module
PCMCIA	Personal Computer Memory Card International Association
PCU	Power Control Unit
PHEAD	Periscope Head
PIB	Position Interface Box
PMCS	Preventive Maintenance Checks and Services
P/N	Part Number
POS/NAV	Position Navigation Unit
PROM	Programmable Read Only Memory

PS	Power Supply
RAM	Random Access Memory
RBD	Remote Biocular Display
RHNB	Redesigned Hull Network Box
RIU	Radio Interface Unit
ROD	Report of Discrepancy
ROM	Read Only Memory
RPSTL	Repair Parts and Special Tools List
RTNB	Redesigned Turret Network Box
RYA	Relay Assembly
RYJ	Relay Junction Box
SAU	Sensor Assembly Unit
SEP	System Enhancement Package
SEU	Servo Electronics Unit
SG-FLIR	Second Generation-FLIR
SMR	Source, Maintenance, and Recoverability
SRA	Specialized Repair Activity
SRU	Shop Replaceable Unit
SSI/CEU	Small Computer System Interface/Commander's Electronics Unit
ST	Self Test
TAMMS	The Army Maintenance Management System
TAS	Target Acquisition Subsystem
TCB	Turret Control Box
TCP	Tank Commander's Panel
TCU	Temperature Control Unit
TDB	Turret Distribution Box
TDCU	Turret Drive Control Unit
TEM	TOW Electronics Module
TIS	Thermal Imaging System
TMDE	Test, Measurement, and Diagnostic Equipment
TNB	Turret Network Box
TOE	Table of Organiation and Equipment
TOW	Tube-launched Optically-tracked Wire-guided (missile)
TM	Technical Manual
TPB	Turret Power Box
TPI	Turret Position Indicator
TPS	Test Program Set
TPU	Turret Processor Unit
TRSM	Turret Remote Switching Module
TRU	Thermal Receiver Unit
TSA	Transfer Standards Adapter
TTL	Transistor to Transistor Logic
TWB	TOW Control Box
UUT	Unit Under Test
VCTU	Video Converter and Transfer Unit
VDB	Vehicle Distribution Box
VDC (vdc)	Volts Direct Current
WCB	Weapon Control Box
WP	Work Package

SAFETY CARE AND HANDLING

Always power down test equipment before connecting or disconnecting power cables, or removing or installing circuit cards. When connecting power cables, observe correct polarity, black to negative side, white to positive side and green to chassis ground. Do not power up the test equipment with any test cables connected to the test equipment.

CALIBRATION

WARNING

ELECTRICAL SHOCK

High voltage present, death on contact can result if a body part comes in contact with chassis, bare wires, or electronic components.

NOTE

The transfer standards adapter (TSA) is a special tool used to check calibration of GPIA and CFM test resources.

Use the TSA to check the calibration of the GPIA and CFM every 120 days. Refer to TB 43-180 to determine the calibration interval for the TSA .

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

This section provides equipment description and data for the OIU, GPIA, and DCR ASU.

CSFM

The CSFM is used with the M1/M1A1 support equipment. It provides connector sites for power input and the LRU under test. The CSFM is used with the laptop computer.

OIU

The OIU is used with the M1/M1A1 support equipment. It provides connector sites for the power source, memory module, and the LRU under test. It also provides a display window for operator and test messages.

GPIA

When used with the OIU, the GPIA, operating under the control of the OIU, provides the required resources for testing certain FVS, TIS, and M1/M1A1 LRUs. When used without the OIU, the GPIA (stand alone) tests TOW LRUs using the laptop computer for operator interface. In both modes, the GPIA is used with plug-in modules which provide the specific resources required for testing the various LRUs. Proper operation of the GPIA is verified by functional self test.

M1/M1A1, FVS, TIS, and TOW Equipment Support Groups

See the following manuals for description and data for the M1/M1A1, FVS, TIS, and TOW equipment support groups:

M1/M1A1 Equipment Support Group – TM 9-4931-586-12-2&P
FVS Equipment Support Group – TM 9-4931-586-12-3&P
TIS Equipment Support Group – TM 9-4931-586-12-4&P
TOW Equipment Support Group – TM 9-4931-586-12-6&P
FVS A3 Equipment Support Group – TM 9-4931-586-12-7&P

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

OIU (Figure 1)

The OIU consists of the following:

Case assembly (1) – Contains electronics assemblies (2) and lid

Electronics assembly (2) – Provides connector sites for power source, three OIU cables, support equipment cables, and LRUs to be tested

Storage Module (3) – Stowage site for extender card (4)

Extender card (4) – Used for troubleshooting the OIU

Storage Module (5) – Stowage site for 10 FST adapters (6)

FST adapters (6) – Used to perform FST on OIU

Cable compartment (7) – Stowage site for FST cables (8), memory cable (9), power cable (10), and test probe (11)

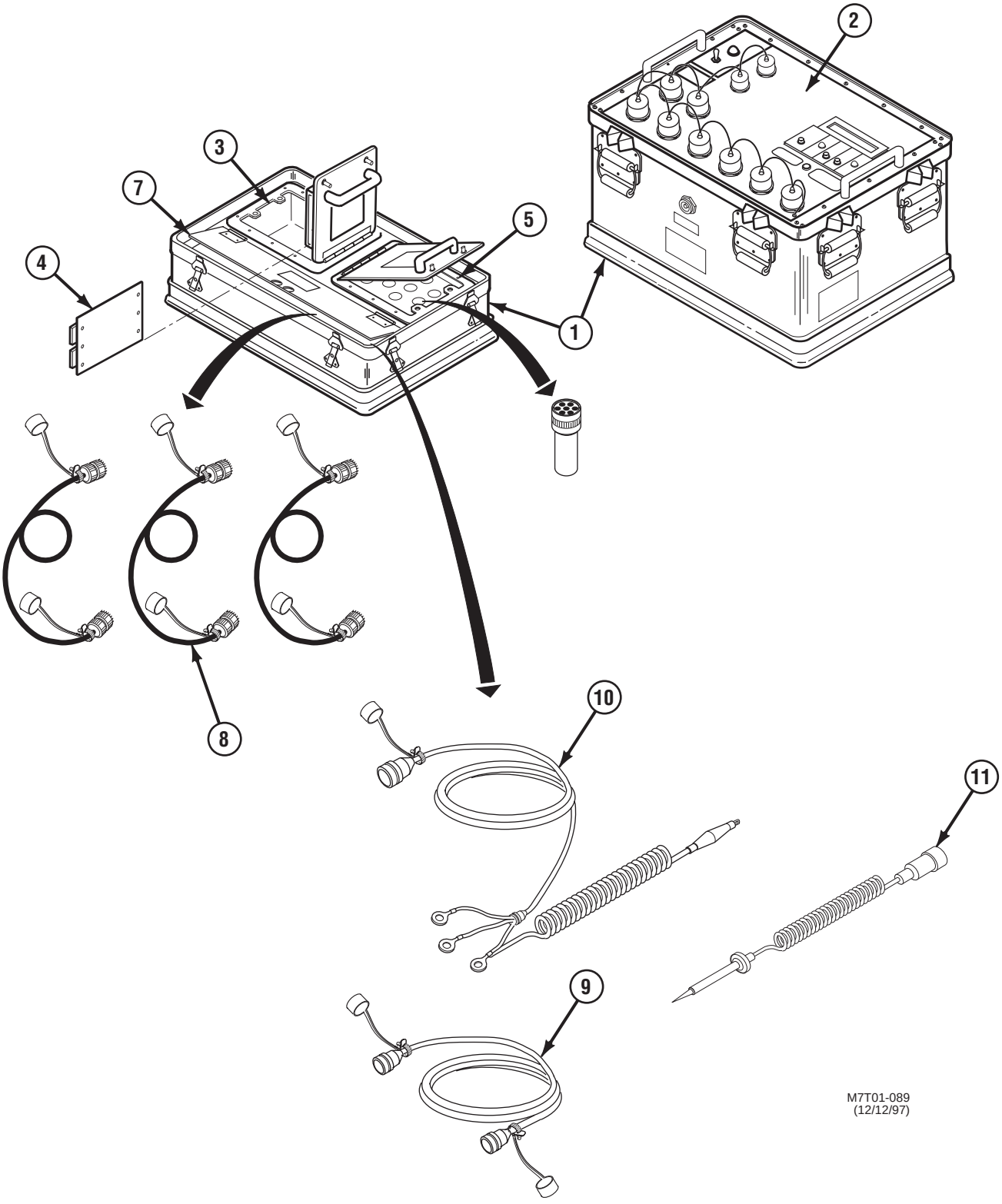


Figure 1. Operator Interface Unit

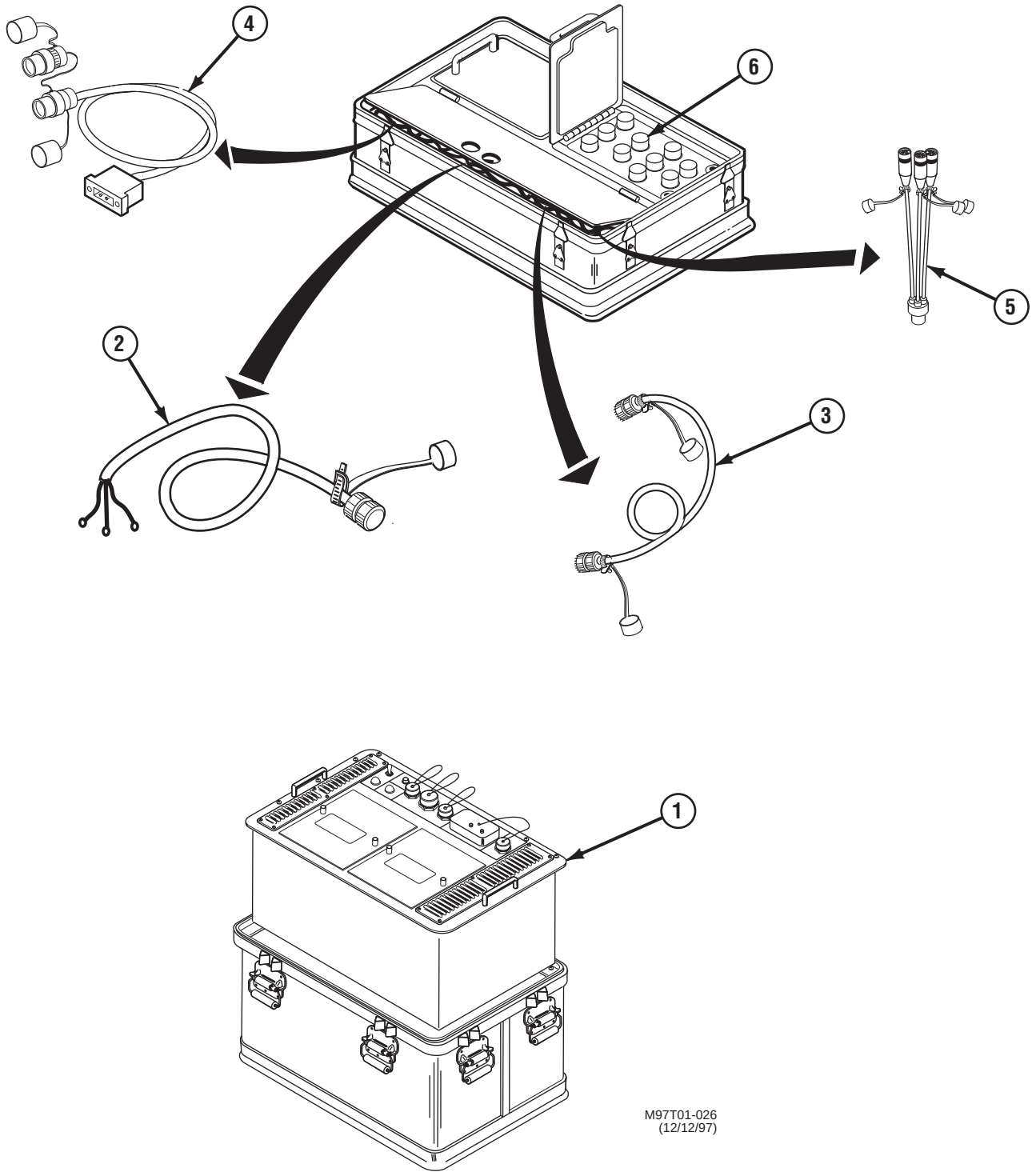


Figure 2. General Purpose Interface Assembly

GPIA (Figure 2)

The GPIA case assembly contains the following:

Electronics Assembly (1) – Provides connector sites for cables to the OIU, LRU Power Supply, and LRU's.

Operating Cables:

GPIA-W21 (2) – Connects GPIA to power supply

GPIA-W23 (3) – Connects GPIA to OIU

DLRU-W93 (4) – Connects GPIA to the digital LRU under test

FST Cable (5) – GPIA-W34

FST Plugs (6) – FST-UJ2, FST-UJ5-1, FST-UJ5-2, FST-UJ6-1, FST-UJ6-2, FST-UJ6-3, FST-UJ6-4, and FST-UJ6-5

DCR ASU (Figure 3)

NOTE

There are two versions of the DCR ASU. P/N 12998198 does not include the display (6) or the video adapter (7). P/N 12981915 does not include power/RS232 cable assembly W330 (9), DSESTS System Software CD (10) and DSESTS FST CD (11).

The DCR ASU case assembly contains the following:

Case assembly (1) – Contains storage area and lid

Adapter tray (2) – Provides storage for FST adapters

Functional self test and LRU cables (3):

CFM/MFM FST cable W200 – connects CFM connector TJ3 to CFM connector TJ4 during CFM FST

CFM/MFM FST cable W201 – connects CFM connector TJ1, CFM connector TJ2, and CFM connector TJ4 during CFM FST

CFM FST cable W385 – connects to CFM connectors TJ1 and TJ3 during CFM FST

EL/DPY signal and power cable W228 – connects portable color display to GPIA for power and display signals

Ground cable (test clip) W36 – connects power supply return to test set or LRU chassis during certain FST and LRU tests (only when specified by the test set program instructions)

FST adapters (4):

CFM/MFM FST test adapter TJ1 – connects to CFM connector TJ1 during CFM FST

CFM/MFM FST test adapter TJ2-1 – connects to CFM connector TJ2 during CFM FST

CFM/MFM FST test adapter TJ2-2 – connects to CFM connector TJ2 during CFM FST

Display FST test adapter – connects color display to remote DC power supply for power during self test (ST)

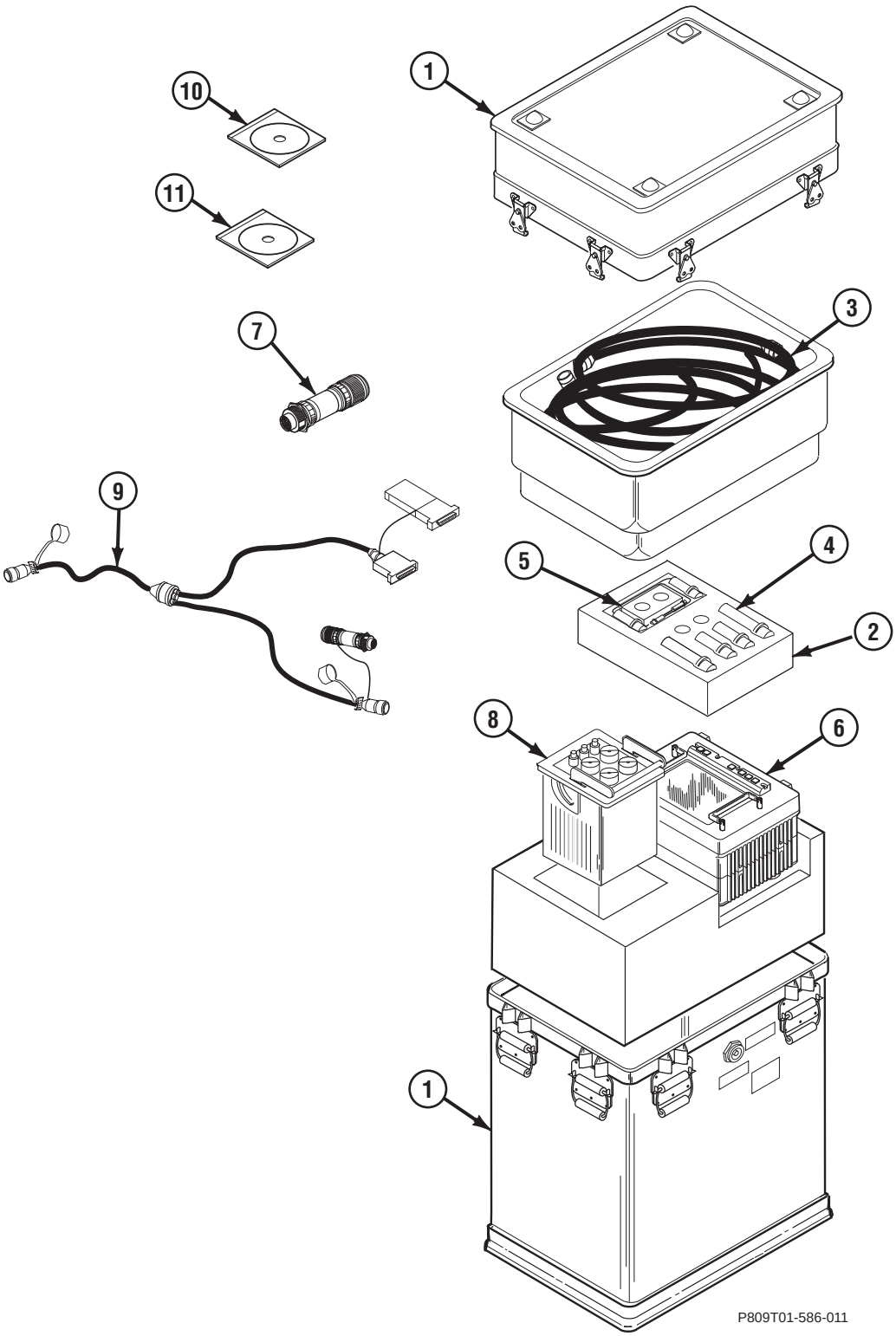


Figure 3. DCR ASU

Communication cables (5) – cables 1553A-W203 and 1553B-W203 connect GPIA to CFM during CFM FST.

Color display (6) – display is connected to GPIA to provide a display of test information and contains programmable function controls for initiating and controlling the FST and LRU test programs.

Video Adapter Assembly (7) – connects color display to video signal source.

Common Functions Module (8) – CFM is plugged into the GPIA and contains the test resources common to all M1A2 LRUs and functional self tests.

Power/RS232 cable assembly W330 (9) – provides GPIA power to the Video Converter and Transfer Unit (VCTU), Enhanced Video Converter and Transfer Unit (EVCTU) and enables RS232 serial communication between the GPIA, VCTU/EVCTU, and laptop computer.

CD ROM (10) - contains DSESTS System Software for installation on laptop computer.

CD ROM (11) - contains Abrams and Bradley DSESTS FST programs for installation on laptop computer.

CSFM And Related Items (Figure 4)

CSFM (1) – under control of the laptop computer, the CSFM provides the resources to test M1A1 and FVS LRUs.

Power/RS232 cable assembly W330 (2) – provides GPIA power to the Video Converter and Transfer Unit (VCTU), Enhanced Video Converter and Transfer Unit (EVCTU) and enables RS232 serial communication between the GPIA, VCTU/EVCTU, and laptop computer.

Power cable W331 (3) – provides GPIA power to the CSFM.

CSFM-W332 cable assembly (4) – provides an ethernet link between the CSFM and the laptop computer.

CSFM FST J3 adapter assembly (5) – used for functional self test of the CSFM.

CD ROM (6) – Not used.

Differences Between Models

Early production CFMs are equipped with CCAs A7, A8, and A10 while later models have an A9 CCA instead of the A7, A8, and A10 CCAs. For details, refer to the CFM CCA replacement instructions in WP 0098 00.

EQUIPMENT DATA

OIU and GPIA Operating Characteristics

Power Input	Variable, 0 to 40 vdc regulated, 50 amperes
OIU Display	3 lines, 20 characters per line

OIU and GPIA Environmental Characteristics

Operating Temperature Range	14 to 140°F (–10 to 60°C)
Storage Temperature Range	–80 to 185°F (–62 to 85°C)

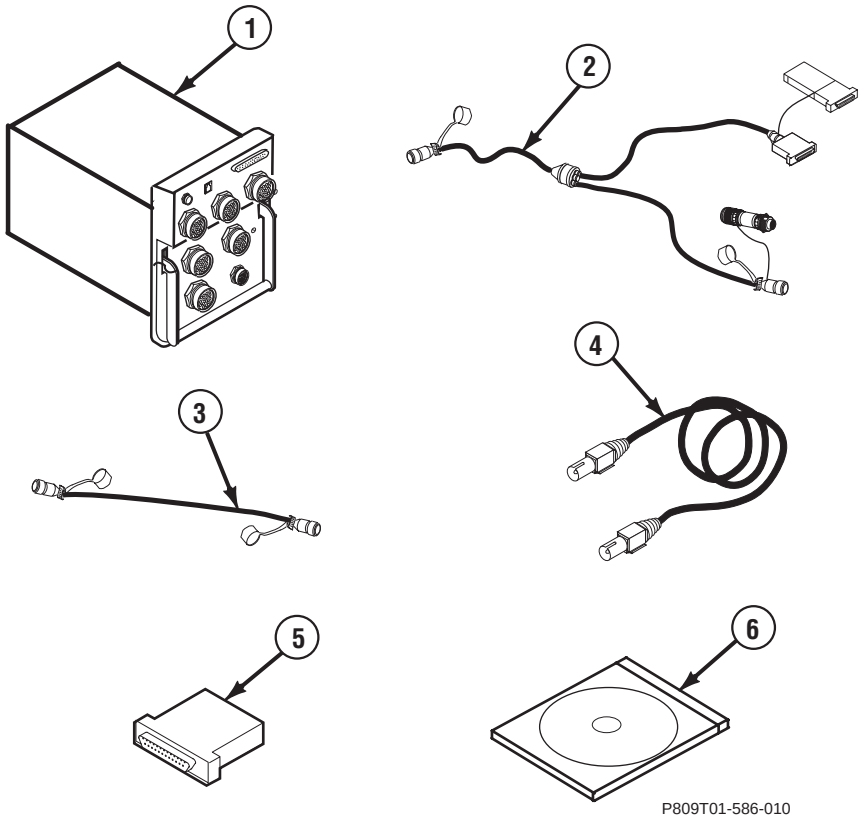


Figure 4. CSFM and Related Items

Physical Data for OIU

OIU

Length	26.50 inches (67.31 cm)
Width	18 inches (45.72 cm)
Height	20.50 inches (52.07 cm)
Weight	145 pounds (65.77 kg)

OIU Power Cable, Memory Cable and Test Probe

M1/FVS Power Cable PWR-W1	Length: 86 inches Test set connector: DSESTS UJ1, 4 contacts Power supply connections: 1. White wire with terminal lug, positive 2. Black wire with terminal lug, negative 3. Green wire with terminal lug, ground Unit under test connection: Ground wire crocodile clip.
MEM Test Cable MEM-W60	Length: 73 inches Test connectors: 1. OIU UJ3, 26 contacts 2. Memory Module J1, 26 contacts
Test Probe TPC-W50	Length: 63 inches Test set connector: OIU UJ2, 37 contacts

OIU FST Test Cables and Test Plugs

OIU FST Test Plug FST-TJ10	Connector and backshell, 61 contacts
OIU FST Test Plug FST-TJ4	Connector and backshell, 61 contacts
OIU FST Test Plug FST-TJ5-1	Connector and backshell, 128 contacts
OIU FST Test Plug FST-TJ5-2	Connector and backshell, 128 contacts
OIU FST Test Plug FST-TJ6	Connector and backshell, 128 contacts
OIU FST Test Plug FST-TJ7-1	Connector and backshell, 128 contacts
OIU FST Test Plug FST-TJ7-2	Connector and backshell, 128 contacts
OIU FST Test Plug FST-TJ8	Connector and backshell, 128 contacts
OIU FST Test Plug FST-TJ9-1	Connector and backshell, 100 contacts
OIU FST Test Plug FST-TJ9-2	Connector and backshell, 100 contacts
OIU FST Test Cable FST-W86	Length: 60 inches Connector J1, 26 contacts Connector UJ2, 37 contacts
OIU FST Test Cable FST-W87	Length: 18 inches Connector TJ4, 61 contacts Connector TJ6, 128 contacts

OIU FST Test Cable FST-W88	Length: 24 inches Connector TJ8, 128 contacts Connector TJ10, 61 contacts

Physical Data for GPIA

GPIA

Length	26.50 inches (67.31 cm)
Width	18 inches (45.72 cm)
Height	20.50 inches (52.07 cm)
Weight	120 pounds (54.5 kg)

Operating and FST cables

GPIA-W21	Length: 96.0 inches Test set connectors: GPIA UJ7, 6 contacts Power supply connections: 1. Two white wires/ terminal lug, positive 2. Two black wires/terminal lug, negative 3. Two green wires/terminal lug, ground
GPIA-W23	Length: 25.0 inches Test set connectors: 1. OIU, UJ2, 37 contacts 2. GPIA, UJ1, 37 contacts
GPIA-W34	Length: 13.75 inches Test set connectors: 1. GPIA, UJ6, 61 contacts 2. GPIA, UJ5, 37 contacts 3. GPIA, J13-J14, 25 contacts
Digital LRU Test Cable DLRU-W93	Length: 60 inches Test set connectors: GPIA UJ2, 25 contacts ECA connectors: 1. ECA J10, 10 contacts 2. ECA J11, 19 contacts (adapter) DECU connector: DECU adapter, 10 contacts

FST Adapters

FST-UJ2	Connector and backshell, 25 contacts
FST-UJ5-1	Connector and backshell, 37 contacts
FST-UJ5-2	Connector and backshell, 37 contacts
FST-UJ6-1	Connector and backshell, 61 contacts
FST-UJ6-2	Connector and backshell, 61 contacts
FST-UJ6-3	Connector and backshell, 61 contacts
FST-UJ6-4	Connector and backshell, 61 contacts
FST-UJ6-5	Connector and backshell, 61 contacts

Physical Data for DCR ASU

DCR ASU

Length	24 inches (60.96 cm)
Width	18 inches (45.72 cm)
Height	28 inches (71.12 cm)
Weight	Approximately 143 pounds (64.92 kg)

CFM FST Test Cables and Adapters

CFM FST Cable W200	Length: 21.50 inches No. of legs: 2 CFM connectors: 1. P1 to CFM TJ3, 128 contacts 2. P2 to CFM TJ4, 128 contacts
CFM FST Cable W201	Length: 10.75 inches No. of legs: 3 CFM connectors: GPIA connector: P2 to GPIA UJ4, BNC contacts 1. P1 to CFM TJ1, 128 contacts 2. P2 to CFM TJ3, 128 contacts 3. P3 to CFM TJ4, 128 contacts
CFM/GPIA FST Cable 1553A-W203	Length: 36 inches No. of legs: 2 CFM connector: P1 to CFM J1, 3 contacts GPIA connector: P2 to GPIA UJ4, BNC contacts
CFM/GPIA FST Cable 1553B-W203	Length: 36 inches No. of legs: 2 CFM connector: P1 to CFM J1, 3 contacts GPIA connector: P2 to GPIA UJ4, BNC contacts
CFM FST Cable W385	Length: 33.5 inches No. of legs: 2 CFM connectors: 1. P1 to CFM TJ1, 128 contacts 2. P2 to CFM TJ3, 128 contacts
CFM FST adapter TJ1	Connector and backshell - 70 contacts
CFM FST adapter TJ2-1	Connector and backshell - 62 contacts
CFM FST adapter TJ2-2	Connector and backshell - 77 contacts

CSFM Test Cables and Adapters

Cable Assembly Power-RS232 W330	Length: 62 inches No. of legs: 3 GPIA connector: P1 to GPIA-UJ1, 37 contacts Computer port: P2 to PC-Serial, 9 contacts VCTU connector: P3 to VCTU-J1, 10 contacts

Cable Assembly Power Cable W331	Length: 19.88 inches No. of legs: 2 CSFM connectors: 1. P1 to CSFM UJ8 2. P2 to GPIA UJ6
Cable Assembly CSFM-W332	Length: 84 inches No. of legs: 2 CSFM connector: TJ2 Laptop connector: Ethernet Port
Adapter Assembly CSFM FST J3	Connector and backshell-104 contacts

Display Cables and Adapters

EL/DPY Cable W228	Length: 60 inches No. of legs: 2 GPIA connector: P1 to GPIA UJ1, 37 contacts EL display connector: P2 to EL display J3, 55 contacts
EL display adapter	Two connectors and backshells: Cable W21 connector: P1 to W21 P1, 2 contacts EL display connector: P2 to EL display P3, 2 contacts
Video adapter	Two connectors and backshells: Cable W229 connector: P1 to W229 P2, 37 contacts Color display connector: P2 to display J2, 56 contacts

FUNCTIONAL DESCRIPTION OF EQUIPMENT

OIU

The OIU is a computer controlled test device. Its purpose is to find faulty modules or parts within the M1/M1A1 and M1A2SEP tanks and FVS electrical system assemblies that have been removed from the vehicles. The OIU measures actual voltage and frequency outputs from the assemblies being tested. It then compares these measurements with values stored in the computer memory. If the measured value agrees with the stored value, the next test may be performed. Sometimes the OIU will automatically do the next test. At other times, you must perform some action before the next test starts. Short messages are provided to you in the form of information, commands, or questions. These messages appear on the display. Questions are answered by pressing the YES or NO pushbuttons on the control panel. Most commands are carried out by operating switches and controls on the panel. However, some commands require that you operate other controls on the equipment being tested, and some commands tell you to use the test probe to measure test points inside the equipment being tested. If a measured value disagrees with a stored value in the OIU computer, the display will tell you to replace a faulty module or part. A functional block diagram of the OIU is shown in Figure 1 (in back of manual).

CSFM

The CSFM is a computer controlled test device. Its purpose is to find faulty modules or parts within the M1A1 tank electrical system assemblies that have been removed from the vehicles. The CSFM measures actual voltage and frequency outputs from the assemblies being tested. It then compares these measurements with values stored in the computer memory. If the measured value agrees with the stored value, the next test may be performed. Sometimes the CSFM will automatically do the next test. At other times, you must perform some action before the next test starts. Short messages are provided to you in the form of information, commands, or questions. These messages appear on the laptop display. Questions are answered by selecting the YES, CONT, or the NO icon with the laptop mouse. An alternate method is to use keyboard F10 for YES or CONT and the keyboard F11 for NO, and follow displayed instructions. The STOP icon or keyboard F12 may be used to quit the program. Most commands are carried out by operating controls on the display. However, some commands require that you operate other controls on the equipment being tested, and some commands tell you to use the test probe to measure test points inside the equipment being tested. If a measured value disagrees with a stored value in the computer, the laptop display will tell you to replace a faulty module or part.

OIU Test Probe

The test probe provides you with a greater fault isolation capability on certain LRUs. This function allows you to measure test points inside the LRU that are not available at the LRU interface connectors. The OIU display will tell you when to use the probe and the test points to probe.

External Power Supply

A variable 0 to 40 volt direct current, 50 ampere, regulated power supply is required to operate the OIU and GPIA.

GPIA

When used with the OIU, the GPIA, operating under the control of the OIU, provides the required resources for testing certain FVS and M1/M1A1 LRUs. When used without the OIU (standalone mode), the GPIA tests M1A2SEP and TOW LRUs, using the laptop computer for operator interface. In both modes, the GPIA is used with plug-in modules which provide the specific resources required for testing the various LRUs. A functional block diagram of the GPIA is shown in Figure 2 (in back of manual).

Common Functions Module

The common functions module is plugged into GPIA module cavity A to provide the common test resources which are used to test M1A2SEP, and TOW system LRUs and SRUs. Resources provided include: analog and digital stimulus sources, analog and digital input channels, analog signal processing, and a variety of switched load terminations. The CFM contains eight

circuit card assemblies, a load plate assembly, and an interconnection wiring/backplace assembly. A functional block diagram of the CFM is shown in Figure 3 (in back of manual).

OIU INTERNAL FUNCTIONS

Power Supply Function (OIU PS1)

The internal power supply (PS1) of the OIU converts the external input power to other regulated voltages required by the OIU modules. When the POWER ON/OFF circuit breaker on the control panel is set to ON, the external power is applied to power supply PS1. The POWER indicator lamp is lit by the –15 volt output of PS1 to the panel indicator. Other outputs of PS1 are +15 volts to the display function, –15 and +5 volts to the microcomputer control and input functions, and ±15 volts to the input functions. The external input power is also made available at the output connectors to supply operating power to the LRU.

Microcomputer Function

The microcomputer is composed of the processor and its permanent and temporary memory storage. This function is contained on the following circuit boards.

Processor (A6)

The processor directs the performance of all the tests that the OIU is capable of performing. It performs the test sequences that are stored in memory and causes the various commands and questions to be displayed. It also reads values from the LRU test interface connectors and compares them with values stored in memory. Based on these comparisons, the processor makes decisions as to whether a given module is good or bad.

RAM/PROM (A5)

Random access memory (RAM) temporarily stores all test instructions, test results, and calibration data used by the processor. Programmable read only memory (PROM) permanently stores instructions which enable the processor to interpret test programs stored in remote memory. PROM also stores instructions required for OIU functional self test.

CRU Control Function (A7)

The communication register unit (CRU) control converts coded instructional data into a form usable by the other functions. This card sends the operator actions (YES, NO, STOP) and the test connector signals to the microcomputer for processing. It also lights the control panel indicators (ANSWER REQUIRED and SELF TEST FAIL) on command from the microcomputer.

CRU Buffer Function (A19)

This card transfers measurement data to and control data from the microcomputer.

Display Assembly Function

The display assembly receives coded messages from the CRU. The messages (up to 60 characters) are then decoded and sent to the control panel message display.

Input Functions

The following cards accept various types of input signals from the test connectors and send the measurements to the microcomputer.

A/D Converter (A8)

The analog-to-digital (A/D) converter changes analog signals from the test connectors to digital signals and sends them to the microcomputer.

Analog Preprocessor (A9)

The analog preprocessor receives time varying voltages from the test connectors and processes them for acceptance by the A/D converter.

Logic Input (A10)

This card receives digital input signals from the test connectors and sends them to the microcomputer.

High-Level Multiplexer (A25, A26, A27, A28, A29, and A30)

These six cards transfer general analog signals from the test connectors to the A/D converter for measurement.

Relay Multiplexer (A15)

This card selects the proper signal return for measurements from the test connectors.

Signal Conditioner (A22, A23, A24, A31, A32, A33, A38)

These signal conditioners provide special analog signals and signal switching for the LRUs.

Active Terminator (A20, A21, A35, and A36)

These circuit cards supply the proper load to the LRU for signal measurement.

Serial Digital Input/Output (A17)

This card transfers serial digital signals to and from the M1 tank computer electronics unit and the test set microcomputer.

Output Functions

The following circuit cards generate various types of output signals required by the LRU.

Linear Output (A18)

The linear output card sends dc test signals to the LRU.

Relay Driver (A12, A13, and A14)

These circuit cards send control voltages to M1 and FVS LRUs for operating relays.

Digital Driver (A16)

The digital driver card sends digital test signals to the LRU.

Panel Controls and Indicators

Panel Indicator Lamps

The indicator lamps include a POWER lamp, an ANSWER REQUIRED lamp, and a SELF TEST FAIL lamp. The POWER lamp lights when power is applied to the OIU. The ANSWER REQUIRED lamp lights when a "yes" or "no" answer is required of the operator. The SELF TEST FAIL lamp lights if the OIU fails the built-in self test.

Panel Switches

Panel switches include YES and NO pushbutton switches, a STOP pushbutton switch, and a test set power circuit breaker switch. The YES and NO switches send "yes" and "no" answers to the microcomputer in response to an ANSWER REQUIRED lamp indication. The STOP switch is pressed to stop a test in process and return to the start of the test. The power circuit breaker controls power to the OIU. The NO switch is also used to repeat a test after a failure message is displayed.

Message Display

The message display can display 60 alphanumeric characters. The message is displayed on 3 lines, with 20 characters per line.

GPIA INTERNAL FUNCTIONS

Interface Circuit Card Assembly A1

When the GPIA is operated with the OIU, the A1 card provides the interface between the GPIA and the OIU. The card provides communications register unit (CRU) bus buffering and 64 words of RAM data storage. When the GPIA is operating in standalone mode, the A1 card completes the communication circuit between the GPIA microprocessor and the display.

Communications Circuit Card Assembly A2

The Communications card provides data conversion and outputs for the MIL-STD-1553B, IEEE-488-1975, and RS-232C data busses (two ports for RS-232C).

System Measurement/Calibration Circuit Card Assembly A3

The System Measurement/Calibration card provides a system voltage reference, a resistance standard, a 16-bit Analog-to-Digital (A/D) converter, a 16-bit Digital-to Analog (D/A) converter, two-eight bit D/A converters, the case temperature sensor, the SELF TEST FAIL lamp control circuit, and the Unit Under Test (UUT) power supply interface.

Memory Circuit Card Assembly A4

The Memory card contains 128k bytes of RAM and 128k bytes of Electrically Erasable Programmable Read-Only Memory (EEPROM).

Central Processing Unit (CPU) Circuit Card Assembly A5

The CPU card contains a Motorola 68000 microprocessor which operates at 8 megahertz (MHz). The card also provides a system frequency standard, seven interrupt lines, the system reset circuitry, and a watchdog timer circuit. The CPU also includes 32k bytes of RAM and 32k bytes of Ultraviolet Erasable Programmable Read-Only Memory (UVEPROM). UVEPROM serves as bootloader memory.

Buffer Interface Circuit Card Assembly A6

The Buffer Interface card contains 32k bytes of RAM, three programmable 16-bit timers, an arithmetic logic unit, and a buffered bus to the plug-in modules.

Power Supplies PS1 and PS2

PS1 and PS2 are internal power supplies which provide ±5 volts direct current (vdc) and ±15 vdc for use by the GPIA, CFM, and TTM.

UUT Power Supply Assembly

Under test program control, the UUT power supply assembly switches +5 vdc and ±15 vdc to the LRU under test through front panel connector UJ6.

Load Controller Circuit Card Assembly

Under test program control, the load controller card switches 18 to 32 vdc to the LRU under test through front panel connector UJ6 and continuously monitors LRU current draw. If the load controller card senses an overcurrent condition, power is immediately removed from the LRU and test program execution is halted.

CFM INTERNAL FUNCTIONS

Buffer/Communication Circuit Card Assembly A1

The Buffer/Communication card provides data and address buffers for module use, cable and module identification capability, and MIL-STD-1553B/RS-232/RS-485 communication capability. The card also contains EEPROM for displaying DSESTS help contact information and RAM for temporary storage of LRU test program data.

Resolver Functions Circuit Card Assembly A2

The Resolver Functions card converts LRU resolver signals to digital data used for test program evaluation. It also converts test program digital data to resolver signals for use as LRU stimulus. The card also contains a 26 volts alternating current (vac) reference.

Analog Preprocessor Circuit Card Assembly A3

The Analog Preprocessor card provides signal conditioning for analog signals received from LRUs. Other card circuitry performs signal modulation/demodulation and conditions signals for time measurements between two signal occurrences.

Analog Function Generator Circuit Card Assembly A4

The Analog Function Generator card provides three separate analog waveform outputs used as stimuli during LRU testing. These outputs have a frequency range from 0 to 500 kHz, 10 volts peak amplitude, and 50 milliampere (mA) maximum current. All output parameters are based on the programmed value established by the test instructions.

Analog Input/Output (I/O) Circuit Card Assembly A6

The Analog I/O card provides eight output channels of DC stimuli ranging from -10 vdc to +10 vdc for LRU testing. The card is also capable of accepting up to 64 analog signals from the LRU. Signals received can range from -100 to +100 vdc and can be multiplexed with other signals before being routed to the analog bus for evaluation or other applications. Voltage offsets can also be summed with the signals.

Digital I/O Circuit Card Assembly A7

The Digital I/O card provides both serial and parallel data transfers to and from a LRU under test program control. Up to 32 data lines are available for parallel transfers. Data received from a LRU is routed to the processor for evaluation.

Switching Terminator Circuit Card Assembly A8

The Switching Terminator card provides routing of up to 39 signal lines from a LRU to the 5 vdc or 24 vdc terminations and routing of up to eight lines from a LRU to the 5 vdc return or 24 vdc return terminations located on the CFM Load Plate assembly. The card also provides the control signals required by the Load Plate assembly.

Load/Driver Terminator Circuit Card Assembly A10

The Load/Driver Terminator card provides the capability to terminate up to 16 signals from a LRU to 24 vdc. The card also provides terminations for up to eight signals to 24 vdc return. Each signal termination line is current limited to 1.25 amps.

CSFM INTERNAL FUNCTIONS

Active Terminator Circuit Card Assembly A2

The active terminator card provides 69 pull-up terminations to 24 vdc through 3.3 k-ohm resistors, 20 pull-down terminations to 24 vdc return, two pull-down terminations to 24 vdc return through 1 k-ohm resistors, and seven pull-down terminations to 24 vdc return through 3.3 k-ohm resistors. The card also includes 50 pull-up relay drivers to 24 vdc and 24 pull-down relay drivers to 24 vdc return. A microcontroller with Controller Area Network (CAN) bus interface controls all functions.

High Level Measurement Circuit Card Assembly A4 and A7

The high level measurement card can receive a maximum of 165 differential inputs for measurement with selectable signal attenuation and gain. The card also includes four high speed inputs for signals up to 100 kHz. 15 of the 165 inputs can be routed to 24 vdc return. A microcontroller with CAN bus interface controls all functions.

Signal Conditioner Circuit Card Assembly A5

The signal conditioner card provides various outputs and loads required for LRU testing including: resistive/inductive loads, sine/cosine generator, relay signal switching, thermocouple reference voltage, variable attenuators, linear/waveform outputs and FET drivers. A microcontroller with CAN bus interface controls all functions.

Digital I/O Circuit Card Assembly A8

The digital input/output card provides 32 individual TTL outputs and inputs, 15 resistor pull-ups to 5 vdc and a resistive network for thermocouple simulation. The card also includes a Digital Signal Processor (DSP) bus for routing complex signals to and from the DSP (located on module buffer CCA). A microcontroller with CAN bus interface controls all functions.

Module Buffer Circuit Card Assembly A10

The module buffer circuit card assembly includes an embedded processor, memory, fast ethernet interface for communication with the laptop computer, and a DSP mezzanine circuit card assembly.

Load Plate Circuit Card Assembly

The load plate circuit card assembly provides 41 resistive loads for LRU testing, four switched power output sources (±5, ±10, ±12, and +9 Vdc), and switching for GPIA UUT power outputs (±15 and +5 Vdc).

SELF TESTS (ST)

OIU

The OIU has a built-in ST function. This function tests all circuit card assemblies, modules, and all panel controls in the OIU when the YES pushbutton is pressed in response to a display message "SELF TEST?" If the ST is passed, this tells you that the OIU is working properly and the functional self test (FST) can be performed. If the ST is failed, the OIU cannot be used until repaired.

GPIA and Display STs

The GPIA and display each have a built-in ST function upon powerup which tests all circuits to verify proper operation. If the STs are passed, the test operator has the option of performing the GPIA FST or proceeding to LRU testing. If the GPIA or display fails ST, the failed unit must be repaired before further use.

OIU FST

If the OIU passes the ST, the operator has the option to perform the FST. This function further checks the OIU by testing the input/output functions at the test connectors. If the FST is passed, testing of the electrical system assemblies can begin. If the FST is failed, the OIU cannot be used until repaired. The OIU FST connection diagram is shown in Figure 4.

GPIA FST

The test operator has the option of performing the GPIA FST only after the GPIA has passed the ST. The GPIA FST connection diagram is shown in Figure 5. The FST further checks the GPIA by testing the input/output functions at the test connectors. The display is also functionally tested during the GPIA FST. If the GPIA FST passes, further FST testing of the GPIA/plug-in modules can begin. If the FST is failed, the GPIA or the display must be repaired before further use.

CFM FST

Prior to testing M1A2, M1A2SEP, or TOW LRUs, the configuration of GPIA/CFM must pass FST. The FST connection diagram is shown in Figure 6. This FST checks the test configuration by testing the input/output functions at the test connectors. If the FST passes, the test configuration can be used to test applicable M1A2, M1A2SEP, or TOW LRUs. If the FST fails, the test equipment must be repaired before further use.

CSFM FST

The CSFM FST connection diagram is shown in Figure 7. If the FST passes, the test configuration can be used to test applicable M1A1 tank electrical system assemblies that have been removed from the vehicle.

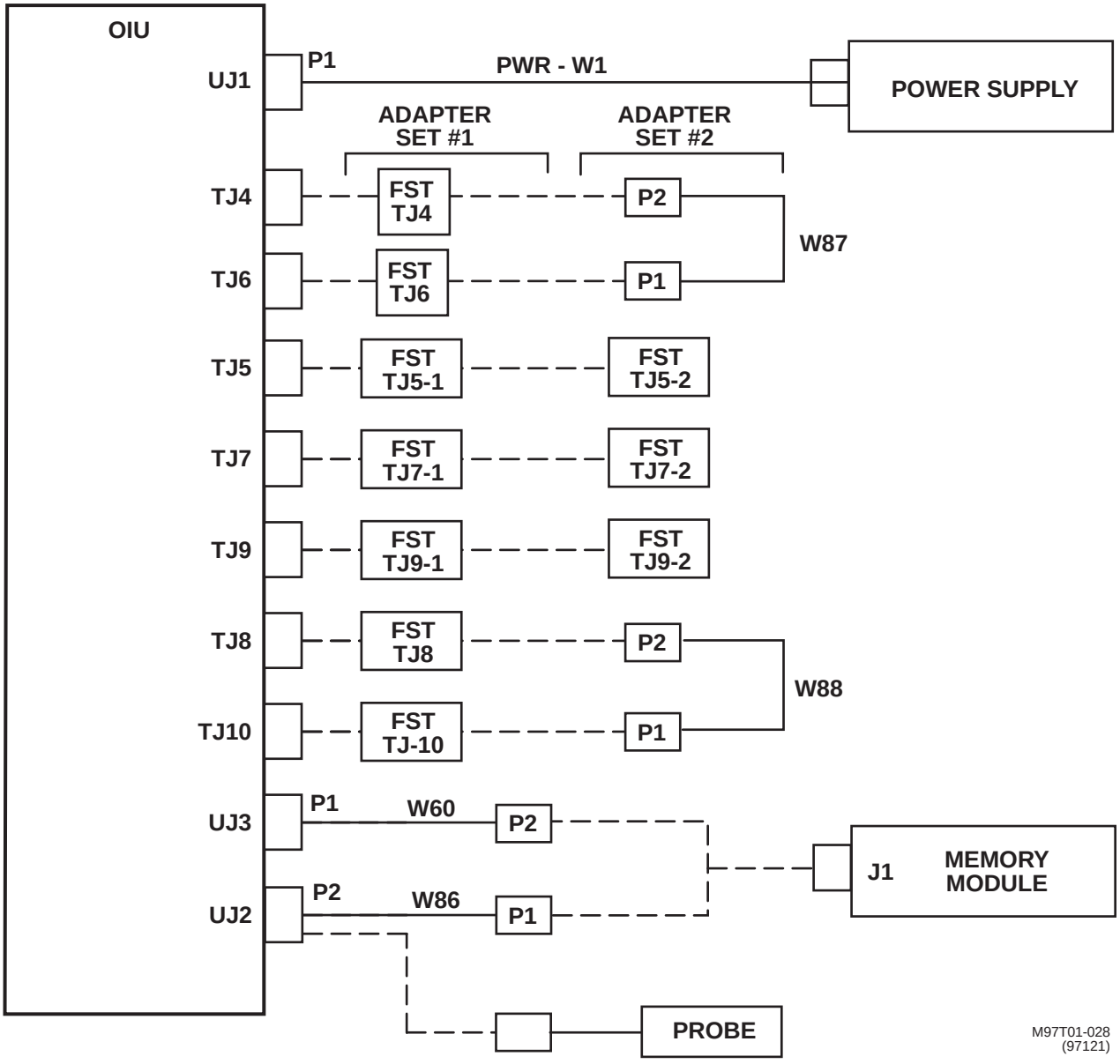


Figure 4. OIU FST Hookup Diagram

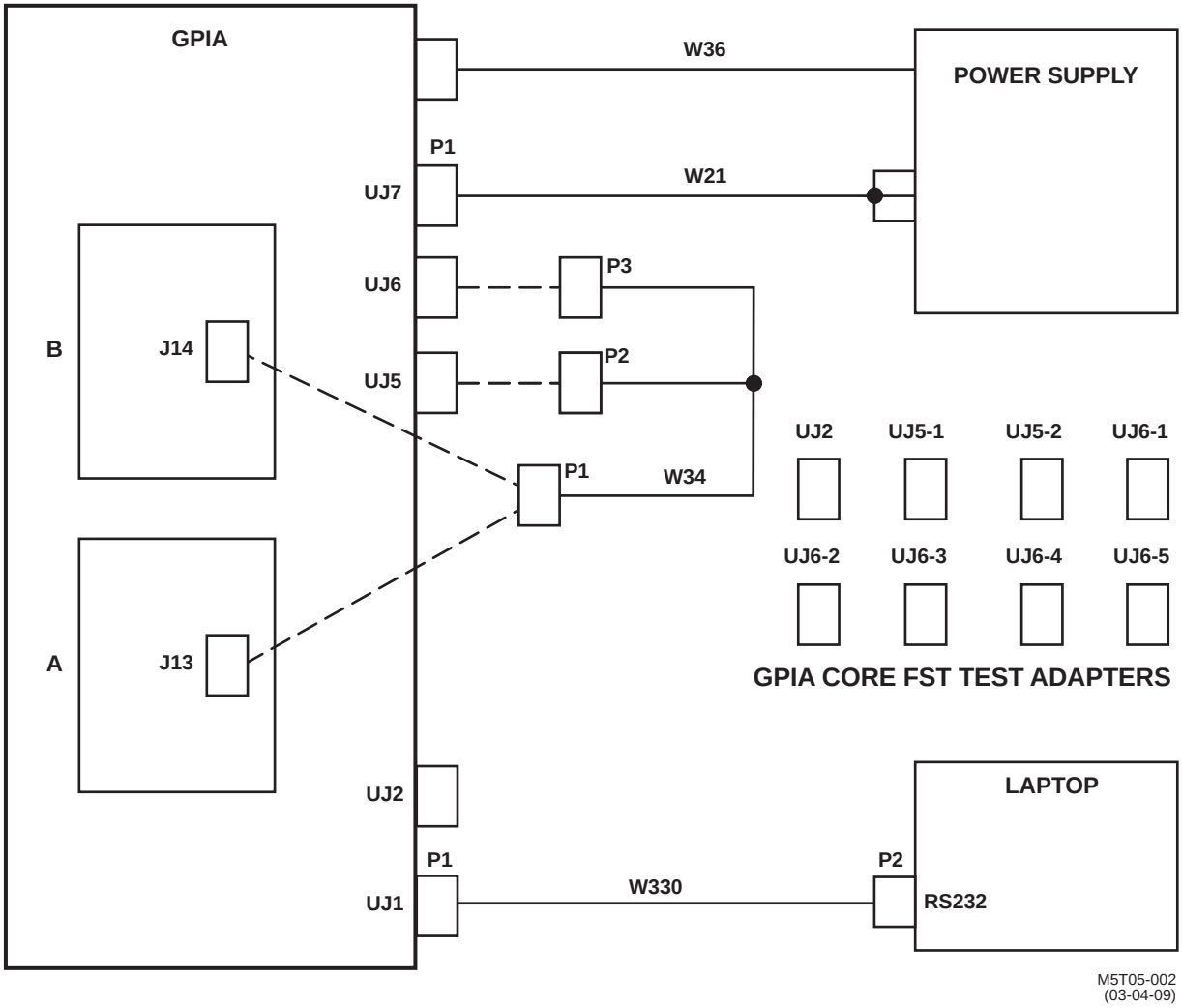


Figure 5. GPIA FST Cabling Diagram

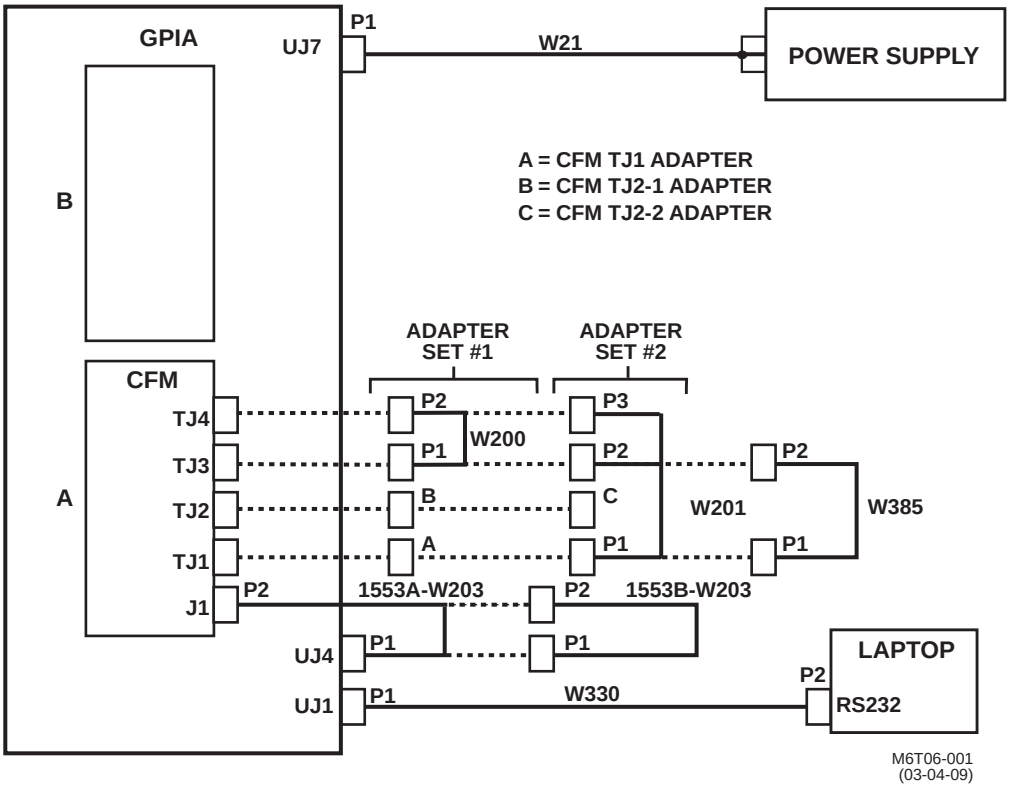


Figure 6. CFM FST Cabling Diagram

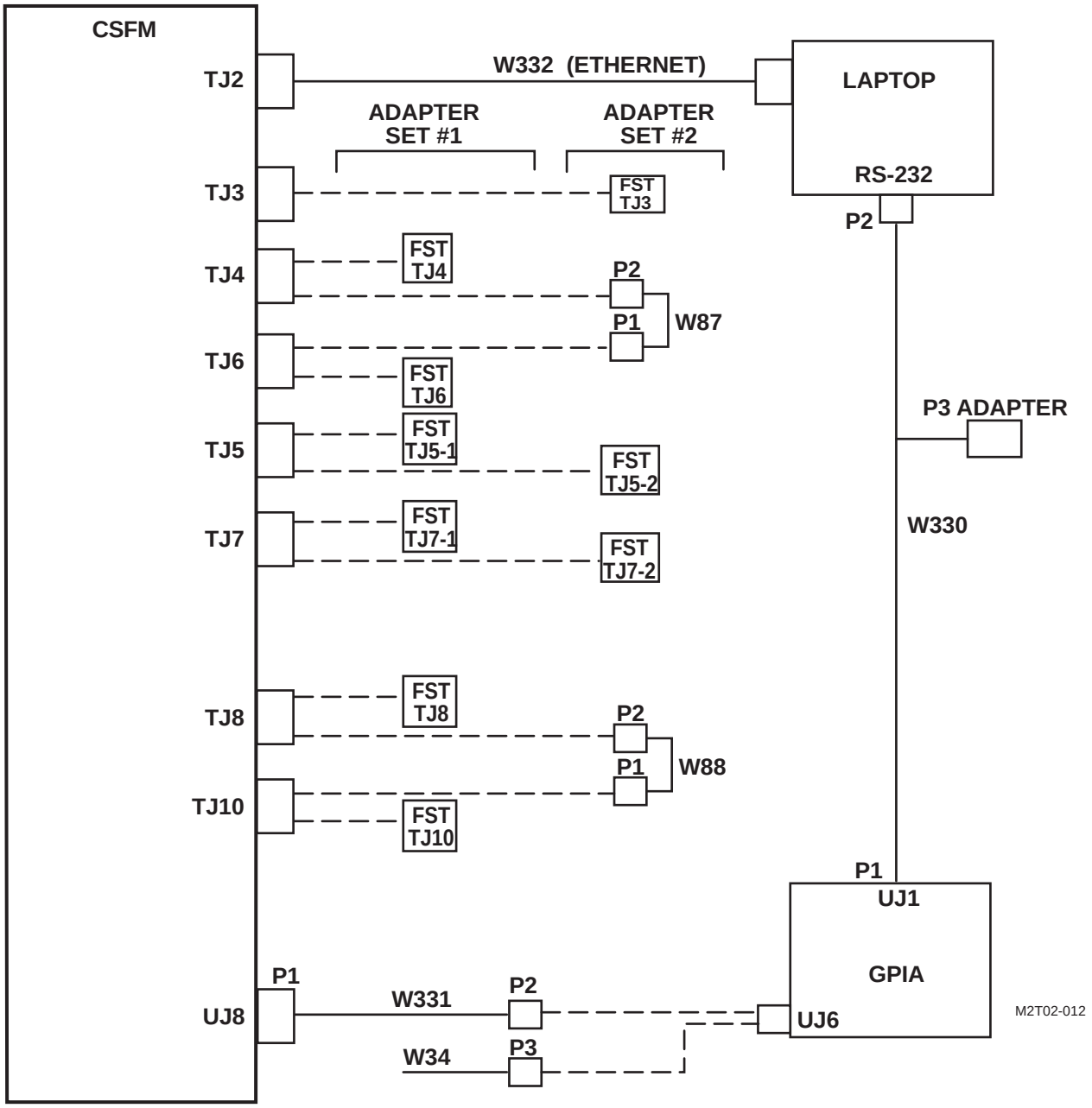


Figure 7. CSFM FST Cabling Diagram

SUPPORTING DATA 0004 00

COMMON TOOLS AND EQUIPMENT

For authorized common tools and equipment, refer to the Modified Table of Organization and Equipment (MTOE) CTA 50-970, Expendable/Durable Items (Except: Medical, Class V, Repair Parts, and Heraldic Items), or CTA 8-100, Army Medical Department Expendable/Durable Items, as applicable to your unit.

SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

Special tools are listed in the Repair Parts and Special Tools List (RPSTL) in WP 0157 00. TMDE and support equipment are listed in the Maintenance Allocation Chart (MAC) in WP 0108 00. Items authorized to be manufactured at unit maintenance are listed in the Illustrated List of Manufactured Items in WP 0163 00.

REPAIR PARTS

Repair parts are listed and illustrated in the RPSTL in WP 0110 00 thru WP 0156 00 of this manual.

CHAPTER 2

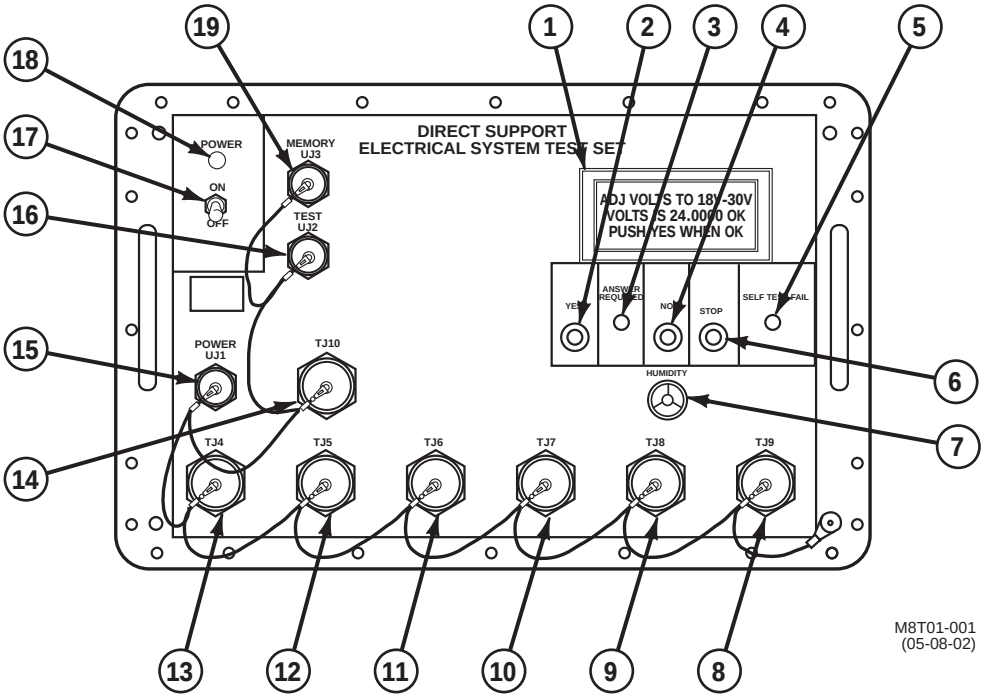
OPERATOR INSTRUCTIONS

DESCRIPTION AND USE OF OPERATOR'S CONTROLS, INDICATORS, AND CONNECTORS

0005 00

THIS WORK PACKAGE COVERS:

Controls, indicators, and connectors for the OIU, GPIA, CFM, and color display.



OIU CONTROLS, INDICATORS, AND CONNECTORS

(1) Display. Provides visual display of test status, required operator information, and action messages.

(2) YES switch. Pushbutton switch for operator answer YES.

(3) ANSWER REQUIRED lamp. Glows white when operator answer is required.

(4) NO switch. Pushbutton switch for operator answer NO and to repeat a test that failed.

(5) SELF TEST FAIL lamp. Glows red when test set fails self test.

(6) STOP switch. Pushbutton switch to interrupt test procedure and return to start of test.

(7) HUMIDITY indicator. Monitors the relative humidity inside the OIU.

(8) TJ9 connector. Connects OIU to VDB, TDB, or ECA for testing.

(9) TJ8 connector. Connects OIU to HNB, DMP, TNB, CEU, LOS-EU, ECU, VDB, TDB, ECA, or IA for testing.

(10) TJ7 connector. Connects OIU to CEU, CCP, LRF, VDB, or TDB for testing.

(11) TJ6 connector. Connects OIU to CWS-PCU, CEU, HDB, DMP, GTD-EU, DIP, ECU, TCU, TCP, VDB, WCB, TDB, or ECA for testing.

(12) TJ5 connector. Connects OIU to TNB, LOS-EU, HNB, DIP, VDB, TCP, HCB, WCB, TPI, FCB, TDB, TCB, TWB, RYA, ANP, or IA for testing.

(13) TJ4 connector. Connects OIU to TNB, CWS-PCU, GTD-EU, or TDB for testing.

(14) TJ10 connector. Connects OIU to TDB, ECU, CHS, or GHS for testing.

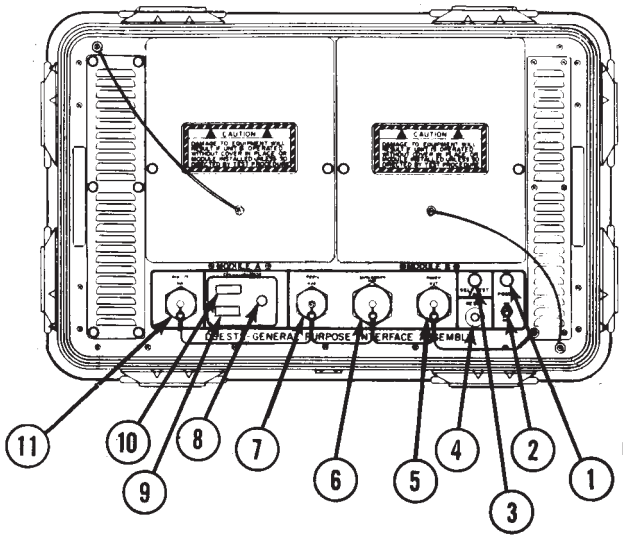
(15) POWER UJ1 connector. Connects OIU to external 18 to 30 vdc power supply.

(16) TEST UJ2 connector. Provides test points for calibration check of voltage and frequency reference. Also connects test probe to OIU.

(17) POWER ON/OFF circuit breaker. Set to ON provides power to OIU.

(18) POWER lamp. Glows green when POWER ON/OFF circuit breaker is ON.

(19) MEMORY UJ3 connector. Connects M1 or FVS memory modules to OIU.



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GPIA CONTROLS, INDICATORS, AND CONNECTORS

(1) Power lamp. Glows green when power is applied to GPIA.

(2) Power ON/OFF circuit breaker. Set to ON, provides power to GPIA.

(3) SELF TEST FAIL lamp. Glows red when GPIA self test fails.

(4) RESET switch. Pushbutton switch used to restart GPIA software/hardware.

(5) UJ7 connector. Connects GPIA to 24 vdc power supply.

(6) UJ6 connector. Provides power to UUT.

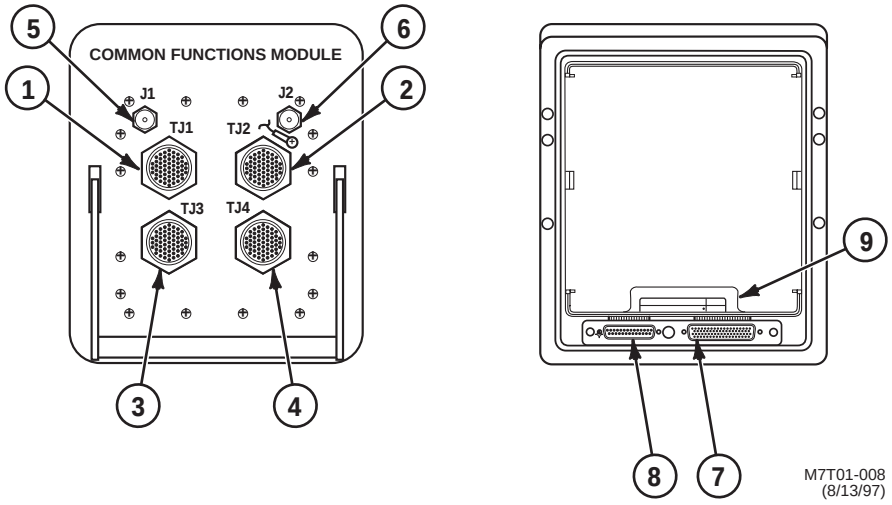
(7) UJ5 connector. Provides test points for voltage and frequency measurements.

(8) UJ4 connector. Provides connector for MIL-STD-1553 bus.

(9) UJ3 connector. Provides connector IEEE 488 port.

(10) UJ2 connector. Provides connector for RS-232 port.

(11) UJ1 connector. Connects GPIA to OIU. Connects GPIA to display during standalone operation.



CFM CONNECTORS

(1) TJ1 connector. Connects CFM to M1A2SEP and TOW LRU's under test.

(2) TJ2 connector. Connects CFM to M1A2SEP and TOW LRU's under test.

(3) TJ3 connector. Connects CFM to M1A2SEP and TOW LRU's under test.

(4) TJ4 connector. Connects CFM to M1A2SEP and TOW LRU's under test.

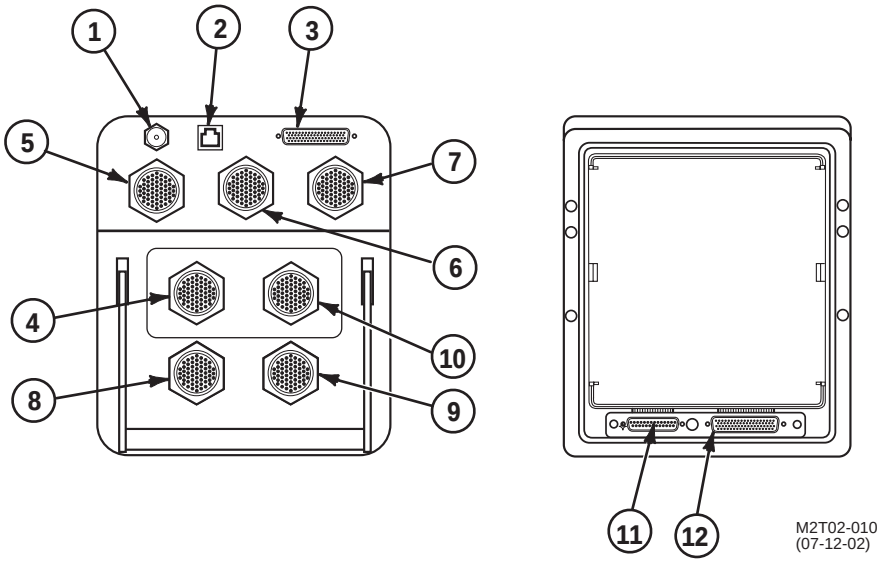
(5) J1 connector. Connects CFM MIL-STD-1553 bus to M1A2SEP and TOW LRU's under test.

(6) J2 connector. Connects CFM RS-232/485 bus to M1A2SEP and TOW LRU's under test.

(7) J19 signal cable connector P1. Connects CFM to GPIA for signal control.

(8) J20 power cable connector P1. Connects CFM to GPIA for power control.

(9) PCMCIA receptacle. Either of the two receptacle slots accepts one PCMCIA flash memory device.



CSFM CONNECTORS

(1) TJ1 connector. Provides probe input for LRU testing.

(2) TJ2 connector. Connects CSFM to laptop computer (ethernet).

(3) TJ3 connector. Connects CSFM to M1A1 LRU's under test (serial communications).

(4) TJ4 connector. Connects CSFM to M1A1 LRU's under test.

(5) TJ5 connector. Connects CSFM to M1A1 LRU's under test.

(6) TJ6 connector. Connects CSFM to M1A1 LRU's under test.

(7) TJ7 connector. Connects CSFM to M1A1 LRU's under test.

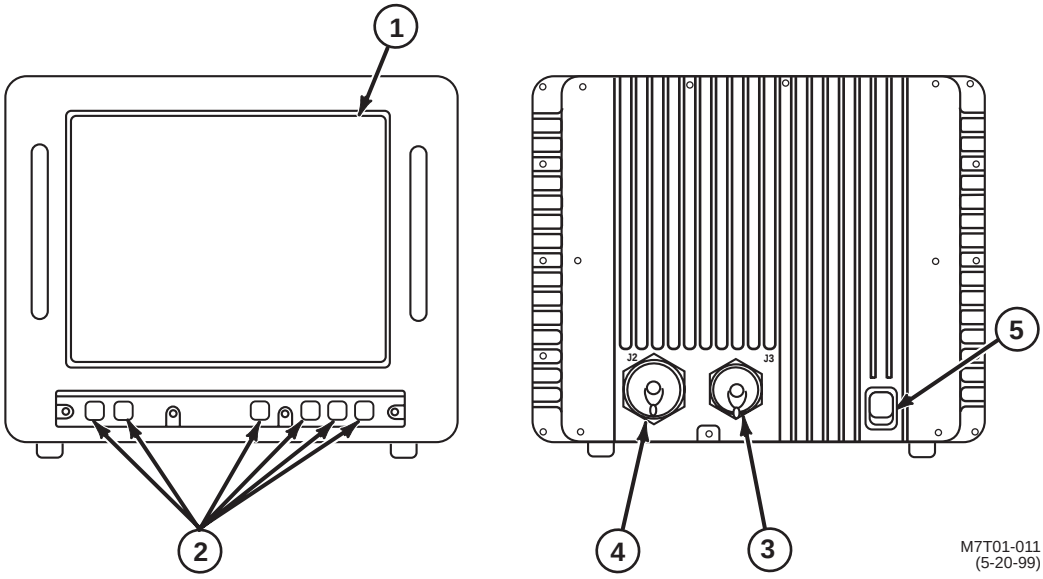
(8) TJ8 connector. Connects CSFM to M1A1 LRU's under test.

(9) UJ8 connector. Connects CSFM to GPIA for power.

(10) TJ10 connector. Connects CSFM to M1A1 LRU's under test.

(11) Flexible circuit connector P1. Connects CSFM to GPIA for power.

(12) Flexible circuit connector P2. Connects CSFM to GPIA for signal control.



COLOR DISPLAY CONTROLS, INDICATORS, AND CONNECTORS

(1) Display Screen. Color LCD display screen provides visual display of test menus, test status, and operator instruction/action message indicator such as: answer required, self test failure, fault messages, test procedure menu functions for the six front panel function switches, etc.

(2) Front Panel Function Switches. Six pushbutton switches for operator actions/instructions as defined on the screen by the test program; the following are examples of some of the functions:

a. BRIGHTNESS DOWN. Pushbutton function switch for decreasing brightness of message indicators on screen.

b. BRIGHTNESS UP. Pushbutton function switch for increasing brightness of message indicators on screen.

c. STOP. Pushbutton switch for test program termination.

d. YES. Pushbutton switch for operator answer YES.

e. NO. Pushbutton switch for operator answer NO.

f. CONT. Pushbutton switch for operator to continue testing.

g. PREV MENU. Pushbutton switch to return display to main menu.

h. ENTER. Pushbutton switch to select item from menu.

i. NEXT. Pushbutton switch to move cursor to next item on menu.

j. OK. Pushbutton switch used when an adjusted voltage is within the target range.

(3) Connector J3. Connects display to GPIA UJ1 for control and display of test program status, required operator information, and action messages.

(4) Connector J2. Connects display to test module video output for control and display of test program video information.

(5) ON/OFF switch. Set to ON, provides power to the color display.

OPERATION UNDER USUAL CONDITIONS 0006 00

THIS WORK PACKAGE COVERS:

- External Power Supply Configurations
- Set up OIU for operation
- OIU self test
- OIU functional self test
- Set up GPIA for operation with OIU
- Set up GPIA for standalone operation
- GPIA standalone FST
- Set up CFM for operation
- CFM FST
- Set up GPIA with laptop computer
- Set up CSFM for operation
- CSFM FST
- GPIA/OIU shutdown procedure
- Shut down GPIA after standalone operation
- Shut down DCR ASU

GENERAL

This work package provides step-by-step instructions for preparing the OIU, GPIA, display, CFM, and CSFM for operation. Once this equipment has been set up and tested, you are directed to the equipment support group manual which supports the LRUs to be tested. Procedures in this section show the messages which are displayed when nothing is wrong with equipment. If equipment fails ST or FST, a fault message will be displayed. When this happens, refer to the troubleshooting procedures in Chapter 3 to locate the failed component. During LRU testing, if the LRU continues to fail with the same failure identification number after all faulty LRU components have been replaced, perform functional self test(s) for all DSESTS equipment which is in use at the time.

NOTE

The GPIA operates in three modes:

- Set up with the OIU for testing M1/M1A1 and FVS A1/A2/ODS LRUs.
- Set up without the OIU (standalone operation) for testing M1A2SEP, TOW, and FVS A3 LRUs.
- Set up with the laptop computer and CSFM (instead of the OIU) for testing M1A1 and FVS ODS LRUs.

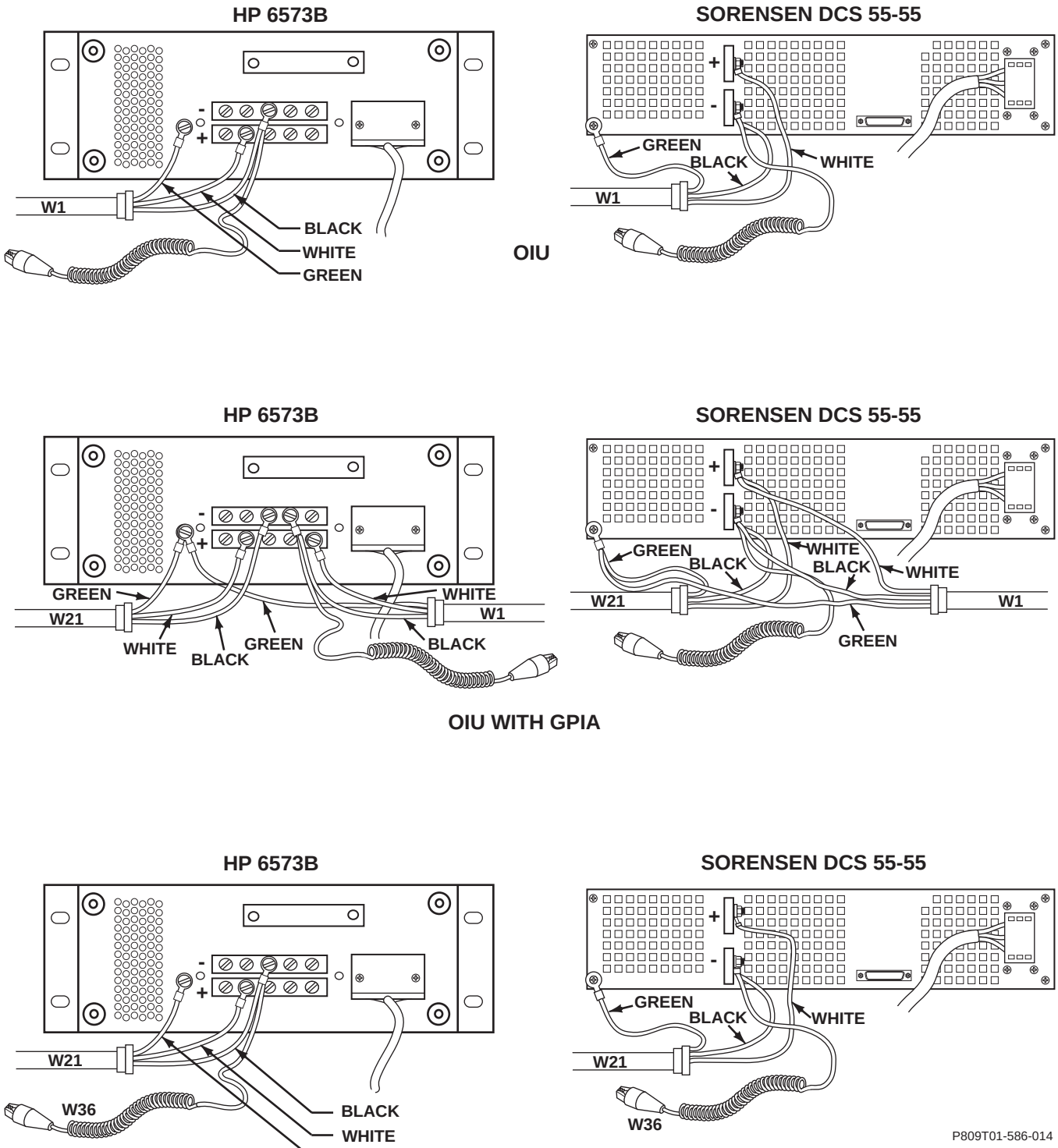
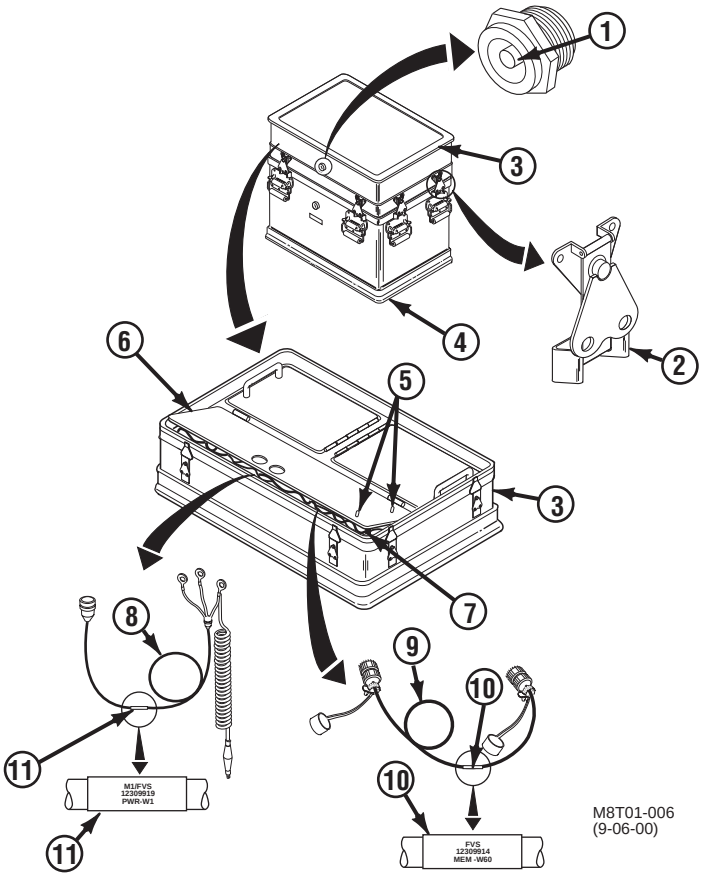


Figure 1. External Power Supply Configurations



SET UP OIU FOR OPERATION

a. Remove OIU case cover.

1) Press in pressure relief valve button (1) to relieve air pressure.
2) Turn each of eight latch handles (2) one-half turn counterclockwise.
3) Lift and take off case cover (3) from case (4).

b. Take out power cable and memory cable.

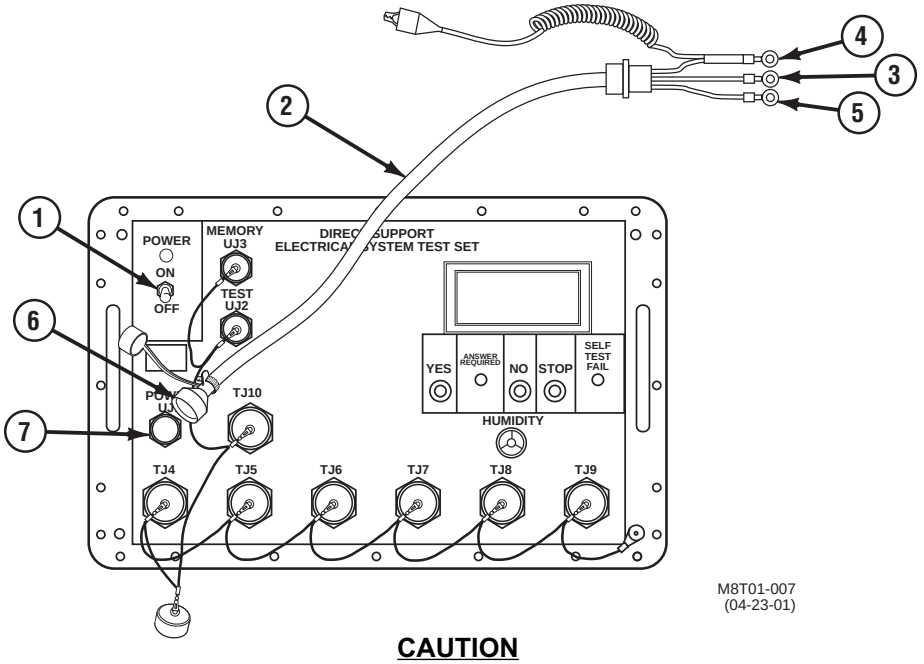
1) Press in two release buttons (5) on cable stowage compartment lid (6) and open cable compartment (7).
2) Take out M1/FVS power cable PWR-W1 (8) and memory cable MEM-W60 (9) from cable stowage compartment (7).
3) Make sure cable identification band (10) reads MEM-W60 and cable identification band (11) reads PWR-W1.

CAUTION

To prevent damage to the OIU, carefully follow procedures in the power supply service manual to set up and adjust the external, regulated power supply. Make sure that: overvoltage trip point is 32 vdc, and current setting is maximum.

c. Adjust external power supply. Refer to Power Supply Service Manual.

1) Check overvoltage trip point setting. If power supply does not trip at 32 vdc, adjust trip point to 32 vdc.
2) Set output voltage to 24 vdc.
3) Set current to maximum.



CAUTION

The "ground clip" of cable PWR-W1 is not a ground source. This clip provides a means of connecting the external power supply 24-volt return to ground. Never connect the clip to test set chassis or any other ground point unless instructed to do so by the test program. Incorrectly connecting the clip can cause the test set to display false failure messages.

NOTE

If necessary to fabricate AC power supply cable for external power supply refer to instructions in WP 0163 00.

d. Connect power cable (see Figure 1).

1) Set OIU ON/OFF circuit breaker (1) to OFF.
2) Set external power supply ON/OFF switch to OFF.
3) Connect cable PWR-W1 (2) leads to power supply output terminals as follows:

a) White lead (3) to positive terminal on power supply.
b) Black lead (4) to negative terminal on power supply.
c) Green lead (5) to ground terminal (power supply chassis).

4) Plug in power cable PWR-W1 (2) connector W1-P1 (6) to OIU connector UJ1 (7).
5) Set external power supply ON/OFF switch to ON.
6) Set OIU ON/OFF circuit breaker (1) to ON.

NOTE

LRU failures can be caused by a defective or inadequate external power supply. This power supply must be 0 to 40 vdc, regulated, 50 amps.

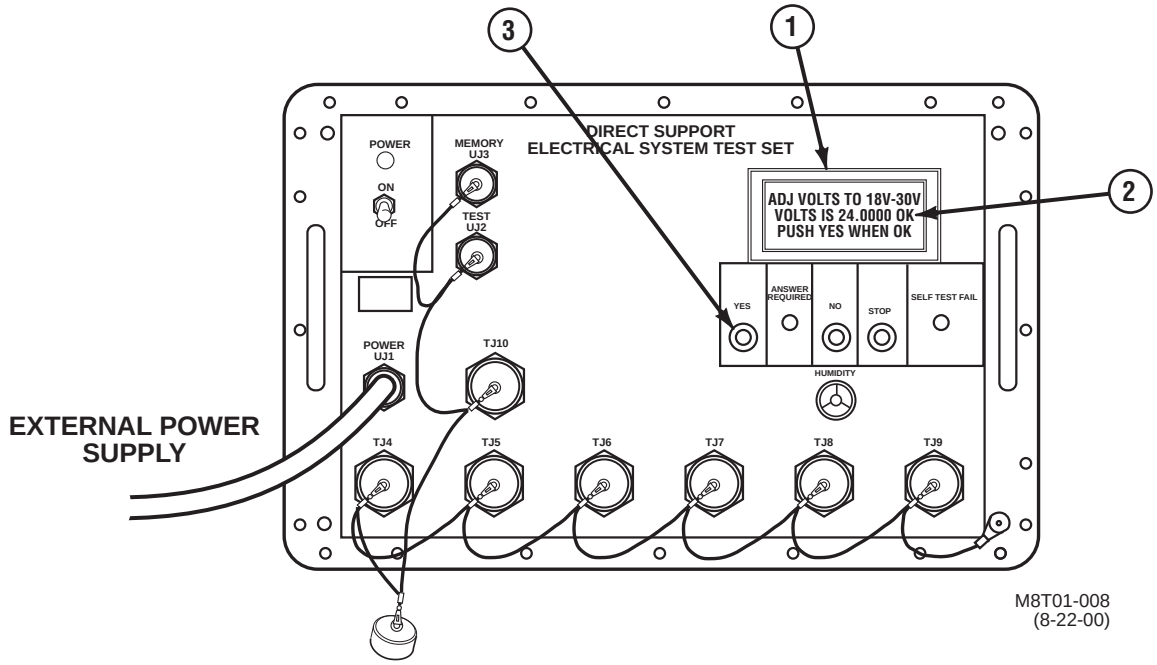
Perform OIU Checkout Procedures if an LRU fails after repairing a fault found by troubleshooting.

Check the external power supply for proper voltage and current capabilities if the OIU Checkout Procedures do not find a problem. Refer to proper power supply manual.

e. Check OIU input voltage.

NOTE

The OIU automatically checks the input voltage, when power is applied, to make sure the OIU is within operating voltage. If the input voltage is less than 18 vdc or greater than 30 vdc, a display message to adjust the external power supply will be shown. If the input voltage is within limits when power is applied, the adjust power supply message will not be displayed.



1) Display reads:

   "OIU RAM
   TEST
   IN PROGRESS"

   and then changes to:

   "OIU EEPROM
   HEALTH CHECK
   IN PROGRESS"

2) If display reads:

   "OIU DSPS XX.X
   SELF TEST
   IN PROGRESS"

   for 20 seconds, go to step f.
   If display changes to:

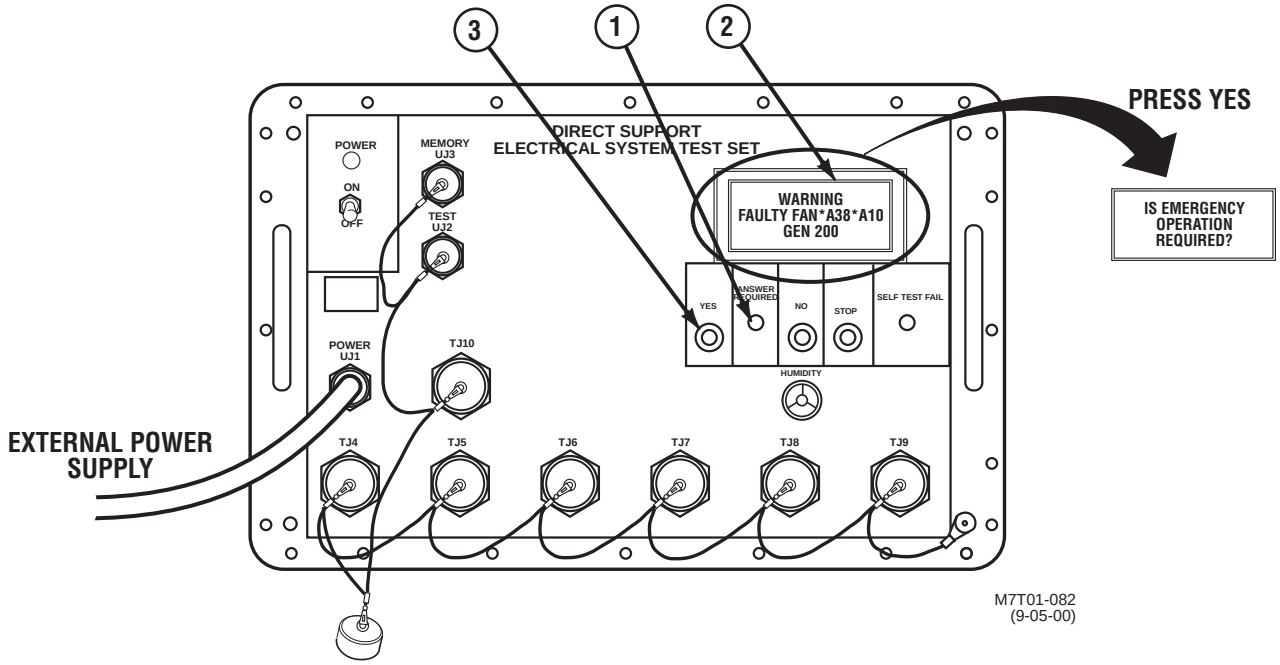
   "ADJUST VOLTS TO 18V-30V
   VOLTS IS XX.XXXX
   PUSH YES WHEN OK"

   go to step 3.

NOTE

The flash rate of the display message increases as the power supply voltage is adjusted to within required limits. When the required voltage is reached, "OK" will flash to the right of the voltage reading.

3) Adjust power supply until the second line (2) on display (1) reads "VOLTS IS 24.0000 OK."
4) When "OK" flashes to the right of the voltage value, push the YES pushbutton (3) and hold it in until the display (1) stops flashing.
5) The OIU display (1) reads "OIU DSPS XX.X SELF TEST IN PROGRESS" for 20 seconds.



f. Check OIU cooling fan.

NOTE

The OIU cooling fan circuitry is automatically checked during the OIU power up self test. If the fan circuitry is bad, a fault message will appear on the OIU display. If the fan is operating properly, the message "OIU SELF TEST?" will be displayed.

Operation of the OIU with a faulty cooling fan is not recommended. Continued operation could cause the test set to overheat, resulting in false test results.

1) If ANSWER REQUIRED lamp (1) is ON and display (2) reads:

"WARNING
FAULTY FAN*A38*A10
GEN 200"

press YES pushbutton (3). Display (2) changes to:

"IS EMERGENCY
OPERATION REQUIRED?"

2) If emergency operation is not required, shut down the OIU and stow cables. Turn in OIU and FST cables and adapters.
3) If emergency operation is required, press YES pushbutton (3).
4) If the OIU cooling fan is operating properly or emergency operation is required, the display (2) reads:

"OIU SELF TEST?".

Perform self test.

OIU SELF TEST

Perform the following steps to do the OIU self test and functional self test.

NOTE

The OIU self test and functional self test should be performed daily, when the OIU is placed in operation, or anytime the operator suspects trouble in the OIU. The self test routines should also be performed after transporting the OIU.

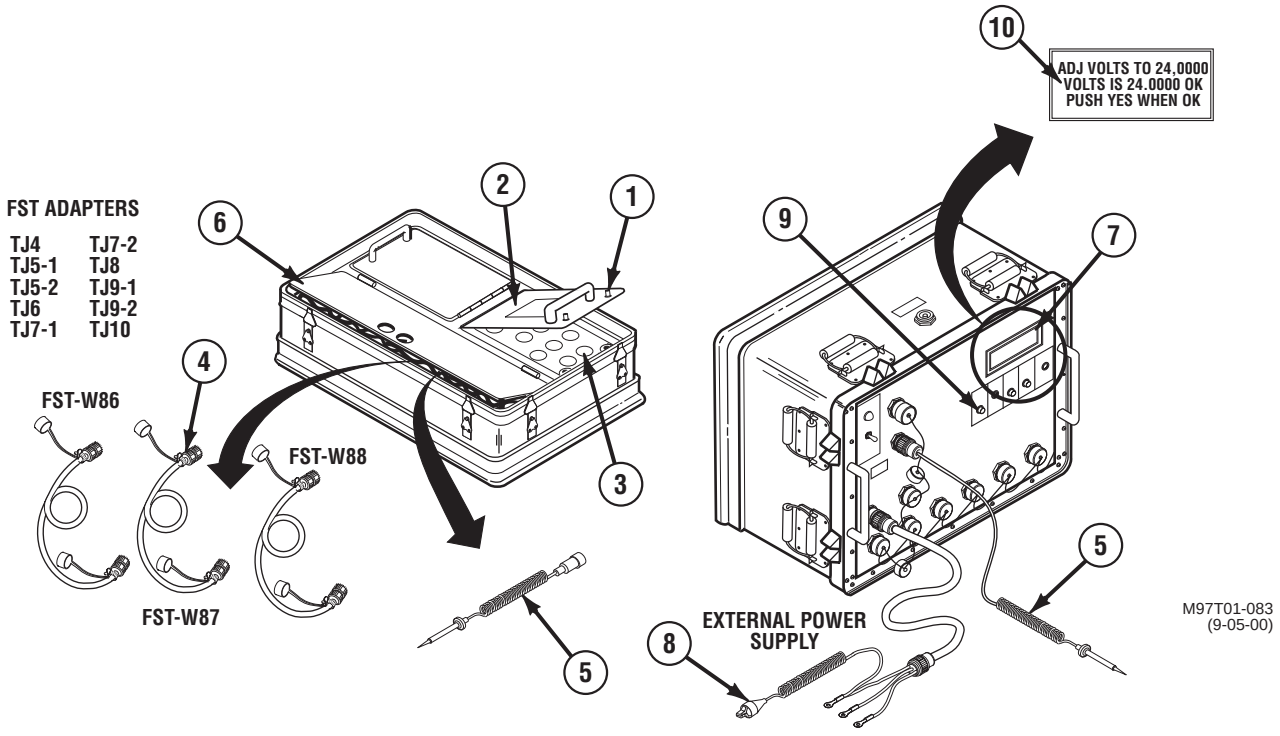
Step	Display Message	Panel Lamps On	Operator Action/Remarks
1.	OIU SELF TEST?	POWER, ANSWER REQUIRED	• Press YES pushbutton. NOTE If you do not want to do SELF TEST, press NO pushbutton and go to step 18.
2.	SELF TEST IN PROGRESS	POWER	• ANSWER REQUIRED lamp goes off and display reads "SELF TEST IN PROGRESS" for 13 seconds. • After 13 seconds display changes to "DISCONNECT ALL TEST CABLES."
3.	DISCONNECT ALL TEST CABLES	POWER, ANSWER REQUIRED	• Press YES pushbutton after all test cables are disconnected. NOTE Message will flash after YES pushbutton is pressed if any test cable is still connected.
4.	SELF TEST IN PROGRESS	POWER, SELF TEST FAIL	• SELF TEST FAIL lamp goes off after 4.0 seconds. • Display flashes "SELF TEST IN PROGRESS" for 20 seconds.
5.	PRESS YES AND HOLD	POWER	• Press and hold YES pushbutton.
6.	RELEASE BUTTON	POWER	• Release YES pushbutton.
7.	PRESS NO AND HOLD	POWER	• Press and hold NO pushbutton.
8.	RELEASE BUTTON	POWER	• Release NO pushbutton.
9.	PRESS STOP AND HOLD	POWER	• Press and hold STOP pushbutton.
10.	RELEASE BUTTON	POWER	• Release STOP pushbutton.
11.	ARE ALL LAMPS ON?	POWER, ANSWER REQUIRED, SELF TEST FAIL	• Press YES pushbutton if all lamps are on.
12.	********** ALL SEGMENTS ON IN LINE 1?	POWER, ANSWER REQUIRED	• Press YES pushbutton if all segments are on in line 1.

OIU SELF TEST– Continued

Step	Display Message	Panel Lamps On	Operator Action/Remarks
13.	ALL SEGMENTS ********** ON IN LINE 2?	POWER, ANSWER REQUIRED	• Press YES pushbutton if all segments are on in line 2.
14.	ALL SEGMENTS ON IN LINE 3? **********	POWER, ANSWER REQUIRED	• Press YES pushbutton if all segments are on in line 3.
15.	SELF TEST IN PROGRESS	POWER	• Display flashes "SELF TEST IN PROGRESS" for 7.0 seconds and then reads "SELF TEST IN PROGRESS" steadily for 10 seconds.
16.	TEST SET OK	POWER, ANSWER REQUIRED	• Press YES pushbutton.
17.	OIU FUNCTIONAL SELF TEST DSPS XX.X	POWER ANSWER REQUIRED	• Press YES pushbutton if you want to do FST and go to OIU functional self test procedure in this work package. • Press NO pushbutton if you do not want to do FST and go to step 18.
18.	INTERNAL TEMP IS XXX.X DEGS F	POWER, ANSWER REQUIRED	• Press YES pushbutton.
19.	DISCONNECT ALL TEST CABLES	POWER, ANSWER REQUIRED	• Press YES pushbutton after all test cables are disconnected.
END OF OIU SELF TEST			

NOTE

OIU is now ready for LRU testing. Go to the equipment support group manual supporting the SRU or LRU under test. If no further testing is required, perform OIU shutdown procedures.



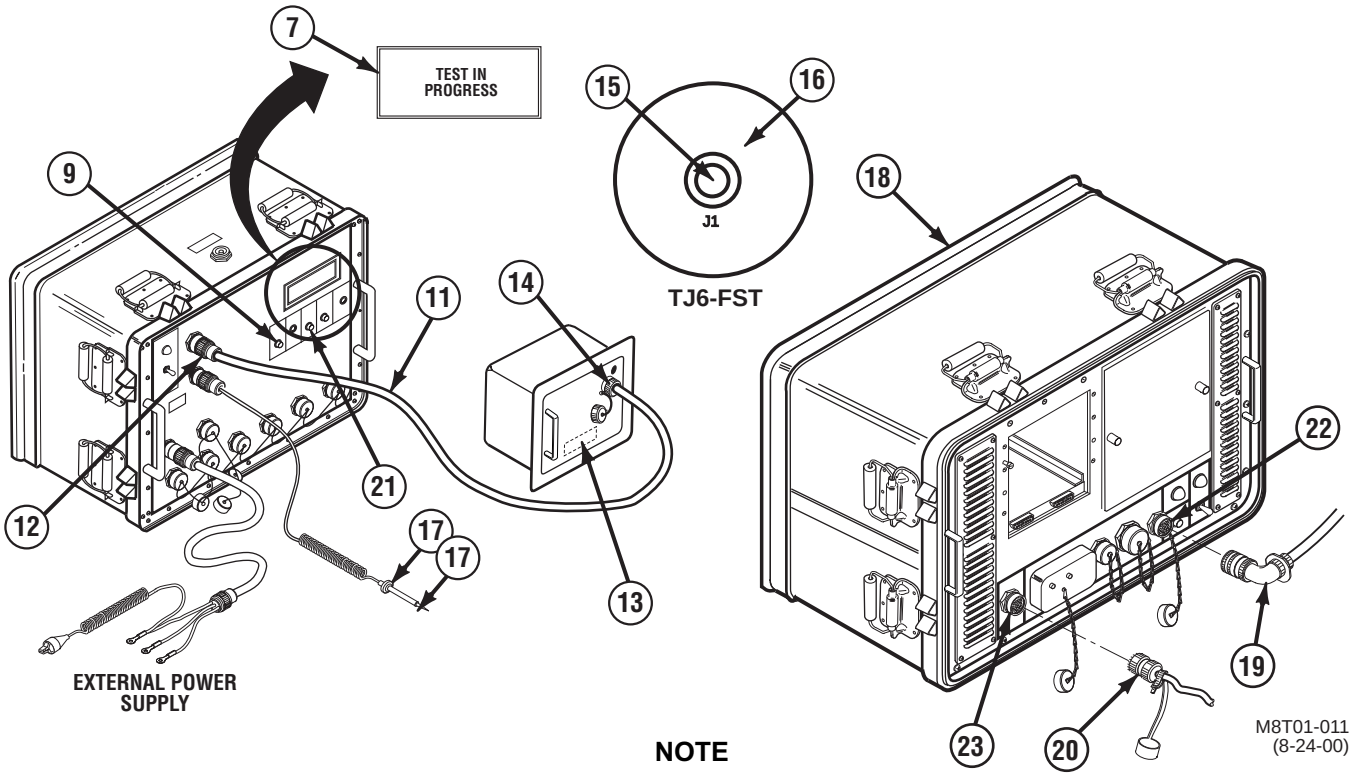
OIU FUNCTIONAL SELF TEST

a. Remove FST cables, FST adapters, and test probe from OIU case cover:

1) Press in two release buttons (1) on stowage module assembly lid (2) and open lid (2).
2) Take out FST adapters (3).
3) Take out FST cables FST-W86, FST-W87, FST-W88 (4), and test probe (5) from cable stowage compartment (6).

b. Perform OIU functional self test:

1) Display (7) reads:
"ISOLATE
GROUND CLIP"
2) Make sure ground clip (8) of cable PWR-W1 is isolated on workbench.
3) Press YES pushbutton (9). Display (7) reads:
"DID YOU
ISOLATE
GROUND CLIP?"
4) Press YES pushbutton (9). Display (7) flashes:
"ADJ VOLTS TO 24.0000
VOLTS IS (XX.XXXX)
PUSH YES WHEN OK".
5) Adjust external power supply until the second line (10) on display (7) reads:
"VOLTS IS 24.0000 OK".
6) When OK flashes to the right of voltage value, push YES pushbutton (9) and hold in until display (7) stops flashing.
7) Follow the instructions shown on display (7) until the display reads:
"MEMORY
DEVICE
AVAILABLE?"



NOTE

If you want to use the M1 memory module, refer to TM 9-4931-586-12-2&P.
If you want to use the FVS memory module, refer to TM 9-4931-586-12-3&P.

8) Press YES pushbutton (9). Display (7) changes to :
"CONNECT CABLE
MEM-W60
TO UJ3"
9) Plug in memory cable MEM-W60 (11) to OIU connector MEMORY UJ3 (12) and to the M1 or FVS memory module (13) connector J1 OIU (14).
10) Press YES pushbutton (9) after cable (11) is connected.
11) Display (7) reads "TEST IN PROGRESS".
12) When display reads "PROBE TJ6-J1", probe jack J1 (15) of TJ6 adapter (16) with probe tip (17).

NOTE

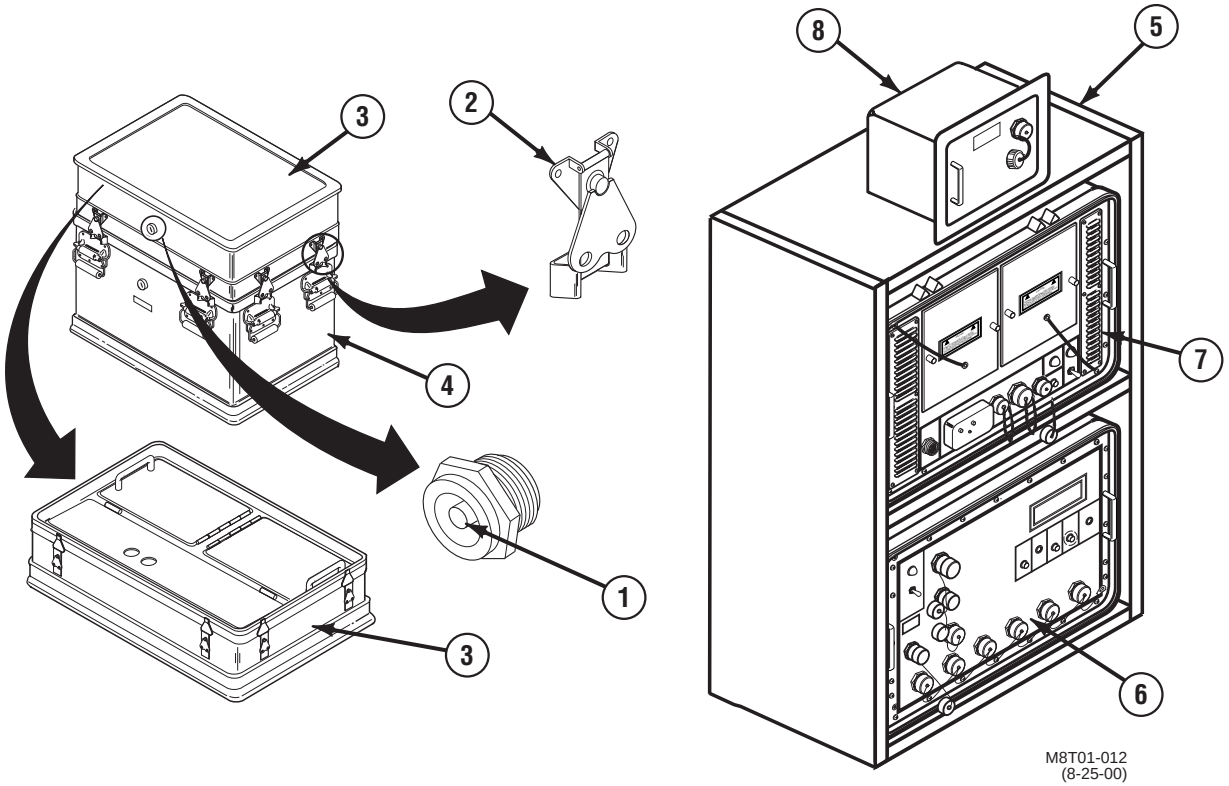
The display (7) may read, "IS GPIA W21 OR W23 CONNECTED TO GPIA?"

- If this message appears, go to step 13. If this message does not appear, go to step (15).

13) Check the GPIA (18) to see if cables W21 (19) or W23 (20) are connected. If cables W21 or W23 are connected, push the YES pushbutton (9) and go to step 14. If cables W21 or W23 are not connected, push the NO pushbutton (21) and follow display instructions.
14) When the display (7) reads, "DISCONNECT GPIA W21 AND W23 FROM GPIA" disconnect W21 (19) from GPIA UJ7 (22) and disconnect W23 (20) from GPIA UJ1 (23), then push the YES pushbutton (9).
15) Follow the instructions shown on display (7) until the display reads "DSESTS OK".

NOTE

If you want to perform LRU testing, refer to the applicable equipment support group TM.



SET UP GPIA FOR OPERATION WITH OIU

a. Set up OIU for operation. Refer to procedure in this work package.

b. Remove memory module from case. Refer to TM 9-4931-586-12-2&P (M1 memory module) or TM 9-4931-586-12-3&P (FVS memory module).

c. Remove GPIA cover from case.

1) Press pressure relief valve button (1) to relieve air pressure.
2) Turn each of eight latch handles (2) one-half turn counterclockwise.
3) Remove case cover (3) from case (4).
4) Remove cables W21 and W23 from case cover (3).

WARNING

HEAVY PARTS

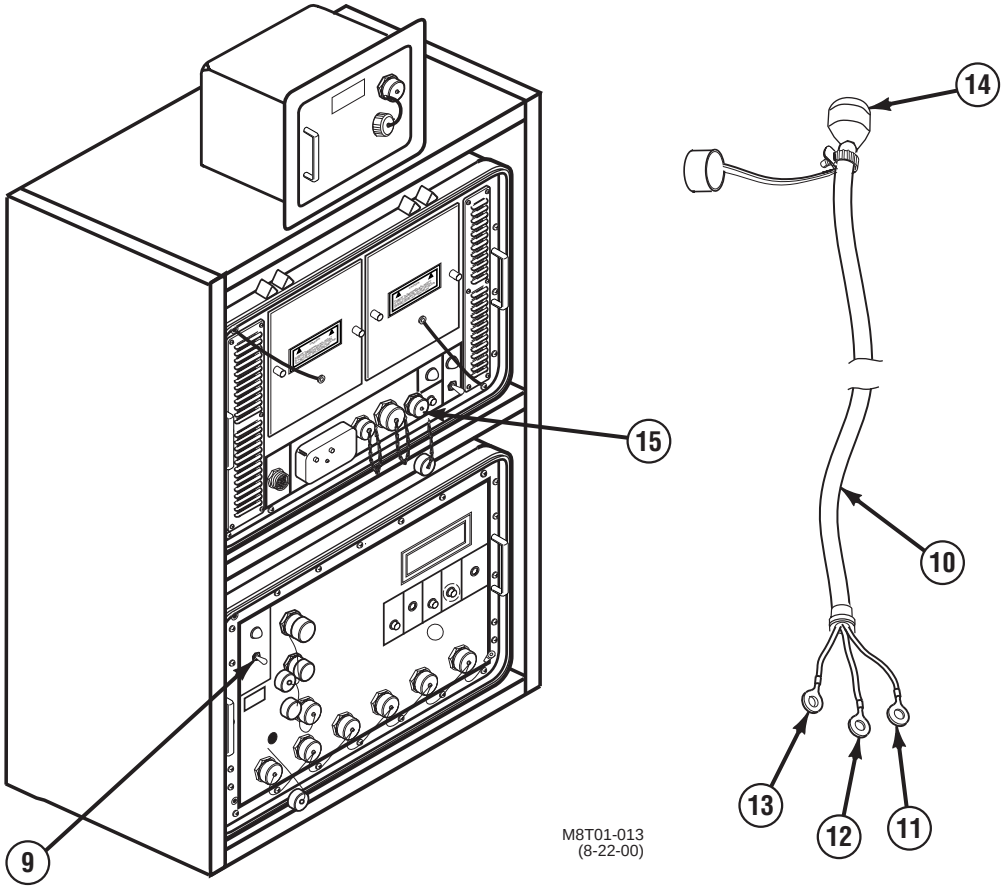
The OIU, GPIA, and memory module must be set up in a manufactured rack as illustrated above. Equipment can fall and injure operator if these instructions are not followed.

d. Place GPIA in rack.

1) Manufacture rack (5). Refer to WP 0163 00 for instructions to manufacture rack.
2) Place OIU (6) on bottom shelf of rack (5).
3) Place GPIA (7) on middle shelf of rack (5).
4) Place memory module (8) on top of rack (5).

e. Perform OIU Self Test. Refer to procedure in this work package.

f. Set up GPIA for operation.

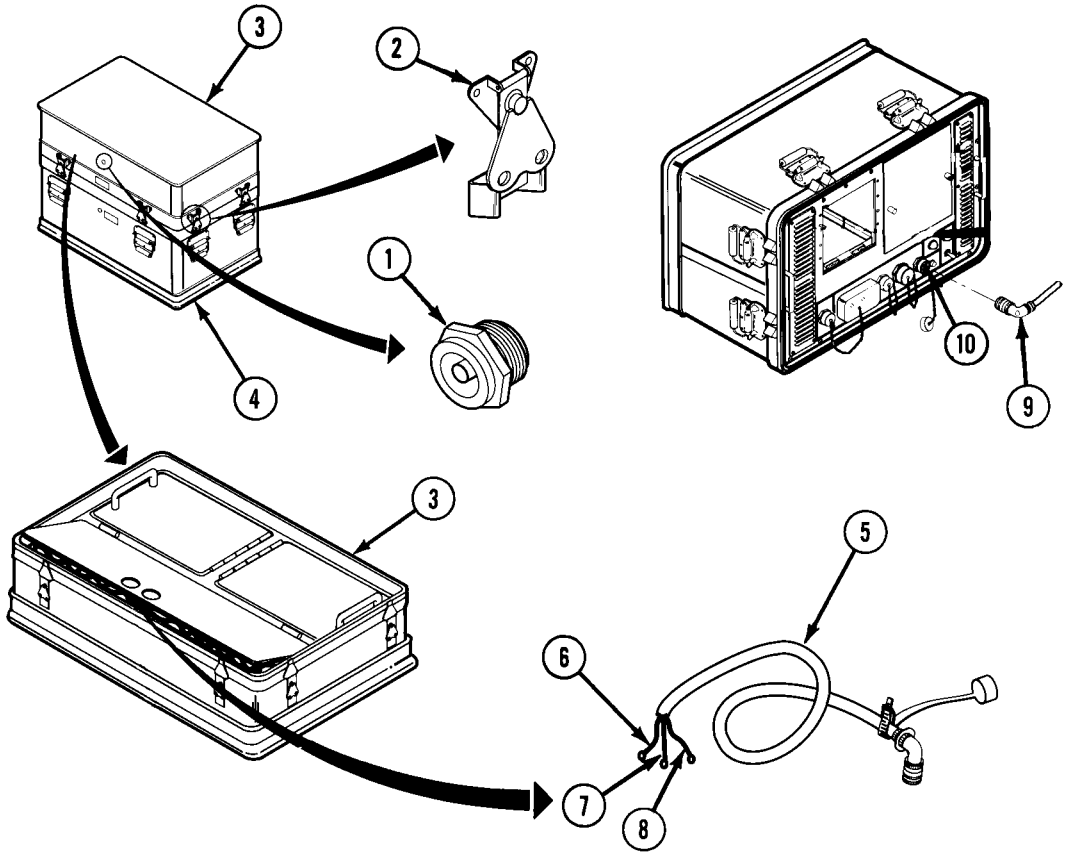


NOTE

The GPIA connects to the same power supply and terminals as the OIU. Do not turn on GPIA power until instructed by display.

1) Set OIU ON/OFF circuit breaker (9) to OFF.
2) Set external power supply ON/OFF switch to OFF.
3) Connect power cable GPIA W21 (10) leads to power supply output terminals (see Figure 1) as follows:
   (a) White lead (11) to positive terminal on power supply.
   (b) Black lead (12) to negative terminal power supply.
   (c) Green lead (13) to ground terminal (power supply chassis).
4) Plug in power cable GPIA W21 (10) connector W21-P1 (14) to GPIA connector UJ7 (15).
5) Set external power supply ON/OFF switch to ON.
6) Set OIU ON/OFF circuit breaker (9) to ON and follow display messages until memory module is connected to OIU.

g. Perform GPIA Functional Self Test. Refer to TM 9-4931-586-12-2&P (M1 LRUs), TM 9-4931-586-12-3&P (FVS LRUs), or TM 9-4931-586-12-4&P (TIS LRUs).



SET UP GPIA FOR STANDALONE OPERATION

a. Remove GPIA cover from case.

1) Press pressure relief valve button (1) to relieve air pressure.
2) Turn each of eight handles (2) one-half turn counterclockwise.
3) Remove case cover (3) from case (4).
4) Remove cable W21 (5) from case cover (3).

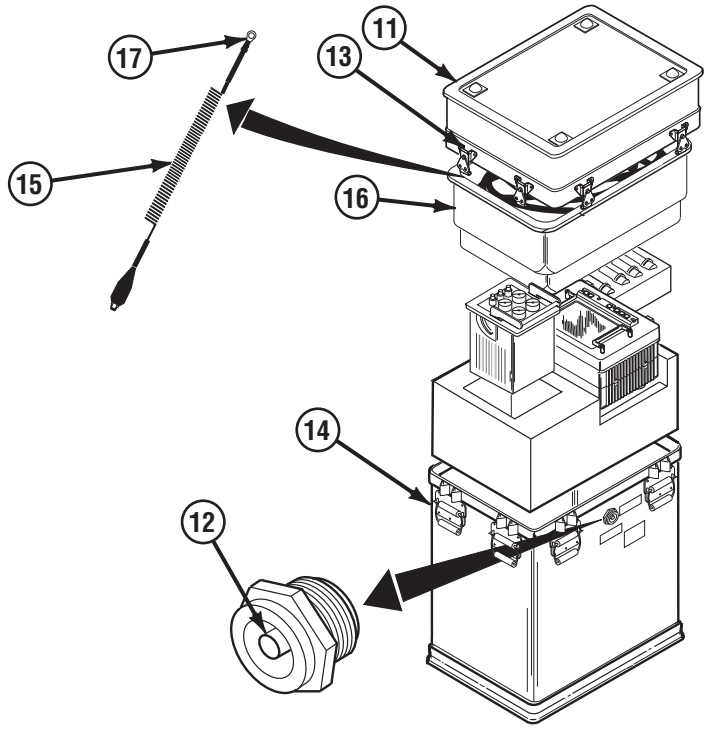
b. Adjust external power supply. Refer to Power Supply Service Manual.

1) Check overvoltage trip point setting. If power supply does not trip at 32 vdc, adjust trip point to 32 vdc.
2) Set output voltage to 24 vdc.
3) Set current to maximum.

c. Connect power cable W21 (see Figure 1).

1) Make sure GPIA ON/OFF circuit breaker is OFF.
2) Set external power supply ON/OFF switch to OFF.
3) Connect cable W21 (5) leads to power supply output terminals as follows:
   a) White lead (6) to positive terminal on power supply.
   b) Black lead (7) to negative terminal on power supply.
   c) Green lead (8) to ground terminal.
4) Connect cable W21 connector P1 (9) to GPIA connector UJ7 (10).

d. Install ground cable W36.



1) Make sure GPIA ON/OFF circuit breaker is OFF.
2) Set external power supply ON/OFF switch to OFF.
3) Remove DCR ASU case lid (11).
   a) Press in pressure relief valve button (12) to relieve any air pressure.
   b) Turn each of eight latch handles (13) one-half turn counterclockwise.
   c) Remove case lid (11) from DCR ASU case (14).

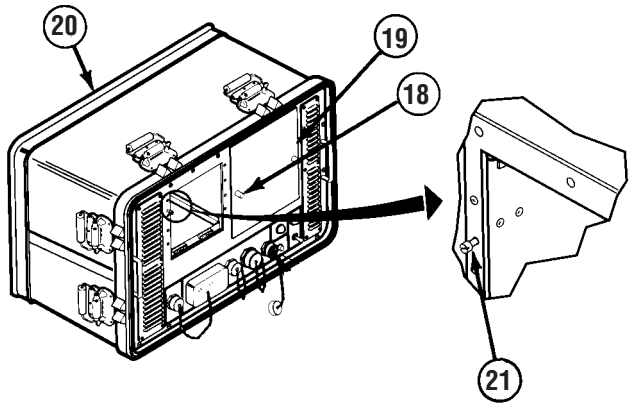
WARNING

ELECTRICAL SHOCK

To avoid shock hazard, make sure power supply is OFF before connecting ground cable W36.

4) Remove ground cable W36 (15) from top cable tray (16).
5) Attach ring terminal (17) of ground cable W36 (15) to external power supply return (–) bus (see Figure 1).

e. Set up GPIA



MOT01-007
8-14-00

CAUTION

GPIA FST is performed with both module cavities empty and the cavity covers removed. At all other times, to permit proper cooling, the GPIA should be operated with either a module or cover installed in each cavity.

1) Loosen four thumbscrews (18) and remove the two GPIA module cavity covers (19) from GPIA (20).

NOTE

For the GPIA to operate with the module cavities empty and uncovered, the two module interlock switches must be pulled out.

2) Pull out each of two GPIA module interlock switches (21).

f. If not already done, prepare laptop computer for DSESTS operation. Refer to the procedure in this work package.

PERFORM GPIA STANDALONE FST

a. With DSESTS Test Program Menu displayed, from lower program menu pane select "GPIA FST OPTS X.X".
b. Select "Run Test Program" button.
c. Perform GPIA FST steps.

Step	Display Message	Operator Action/Remarks
1.	GPIA FST OPTS XX.X	• The Off Platform Test System (OPTS) number identifies the test program baseline and change level.
2.	ARE THERE ANY MODULES OR COVER PLATES INSTALLED IN THE GPIA MODULE-A OR MODULE-B SLOTS?	• Press YES pushbutton if modules or cover plates are installed in GPIA module slots, then follow display instructions. • Press NO pushbutton if no modules or cover plates are installed in the GPIA module slots.
3.	IS THE GPIA ELECT ASSY P/N 12933993? NOTE: P/N IS IN MODULE SLOT B	• Press YES pushbutton if the GPIA has the part number shown on the display. • Press NO pushbutton if the GPIA has a different part number.
4.	POWER SUPPLY ADJUSTMENT PROCEDURE	• Adjust power supply for a reading of +24 ±0.20 Vdc. • Press OK pushbutton after power supply is adjusted.
5.	CONNECT GND CLIP TO GPIA CHASSIS	• Connect ground clip to GPIA chassis. • Press CONT pushbutton after clip is connected.
6.	VERIFY GPIA FAN OPERATION	• Listen for fan operation and check air flow at right panel louvers. • Press YES pushbutton after fan operation is verified.
7.	DISCONNECT ALL TEST CABLES AND FST ADAPTERS	• If connected, disconnect all test cables and FST adapters. • Press CONT pushbutton after all test cables and FST adapters are disconnected.
8.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 4.0 seconds.
9.	SELF TEST FAIL LAMP ON?	• Press YES pushbutton if GPIA SELF TEST FAIL lamp is on.
10.	CONNECT FST ADAPTERS UJ6-1, UJ5-1	• Connect adapter FST UJ6-1 to GPIA UJ6 and adapter FST UJ5-1 to GPIA UJ5. • Press CONT pushbutton after adapters are connected.
11.	DISCONNECT FST ADAPTERS UJ6-1, UJ5-1	• Disconnect adapter FST UJ6-1 from GPIA UJ6 and adapter FST UJ5-1 from GPIA UJ5. • Press CONT pushbutton after adapters are connected.
12.	CONNECT FST ADAPTERS UJ6-2, UJ5-2	• Connect adapter FST UJ6-2 to GPIA UJ6 and adapter FST UJ5-2 TO GPIA UJ5. • Press CONT pushbutton after adapters are connected.

PERFORM GPIA STANDALONE FST – Continued

Step	Display Message	Operator Action/Remarks
13.	DISCONNECT FST ADAPTERS UJ6-2, UJ5-2	• Disconnect adapter FST UJ6-2 from GPIA UJ6 and adapter FST UJ5-2 from GPIA UJ5. • Press CONT pushbutton after adapters are disconnected.
14.	CONNECT FST ADAPTER UJ6-3	• Connect adapter FST UJ6-3 to GPIA UJ6. • Press CONT pushbutton after adapter is connected.
15.	DISCONNECT FST ADAPTER UJ6-3	• Disconnect adapter FST UJ6-3 from GPIA UJ6. • Press CONT pushbutton after adapter is disconnected.
16.	CONNECT FST ADAPTER UJ6-4	• Connect adapter FST UJ6-4 to GPIA UJ6. • Press CONT pushbutton after adapter is connected.
17.	DISCONNECT FST ADAPTER UJ6-4	• Disconnect adapter FST UJ6-4 to GPIA UJ6. • Press CONT pushbutton after adapter is disconnected.
18.	CONNECT FST ADAPTER UJ6-5	• Connect adapter FST UJ6-5 to GPIA UJ6. • Press CONT pushbutton after adapter is connected.
19.	DISCONNECT FST ADAPTER UJ6-5	• Disconnect adapter FST UJ6-5 from GPIA UJ6. • Press CONT pushbutton after adapter is disconnected.
20.	CONNECT FST ADAPTER UJ2	• Connect adapter FST UJ2 to GPIA UJ2. • Press CONT pushbutton after adapter is connected.
21.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 8.0 seconds.
22.	DISCONNECT FST ADAPTER UJ2	• Disconnect adapter FST UJ2 from GPIA UJ2. • Press CONT pushbutton after adapter is disconnected.
23.	CONNECT CABLE FST-W34 P3 TO GPIA UJ6 P2 TO GPIA UJ5 P1 TO GPIA MODULE-A SLOT CONNECTOR J13	• Connect cable FST-W34 connectors as shown. • Press CONT pushbutton after cable is connected.
24.	DISCONNECT GND CLIP FROM GPIA CHASSIS	• Disconnect clip from GPIA chassis. • Press CONT pushbutton after clip is disconnected.
25.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 6.0 seconds.

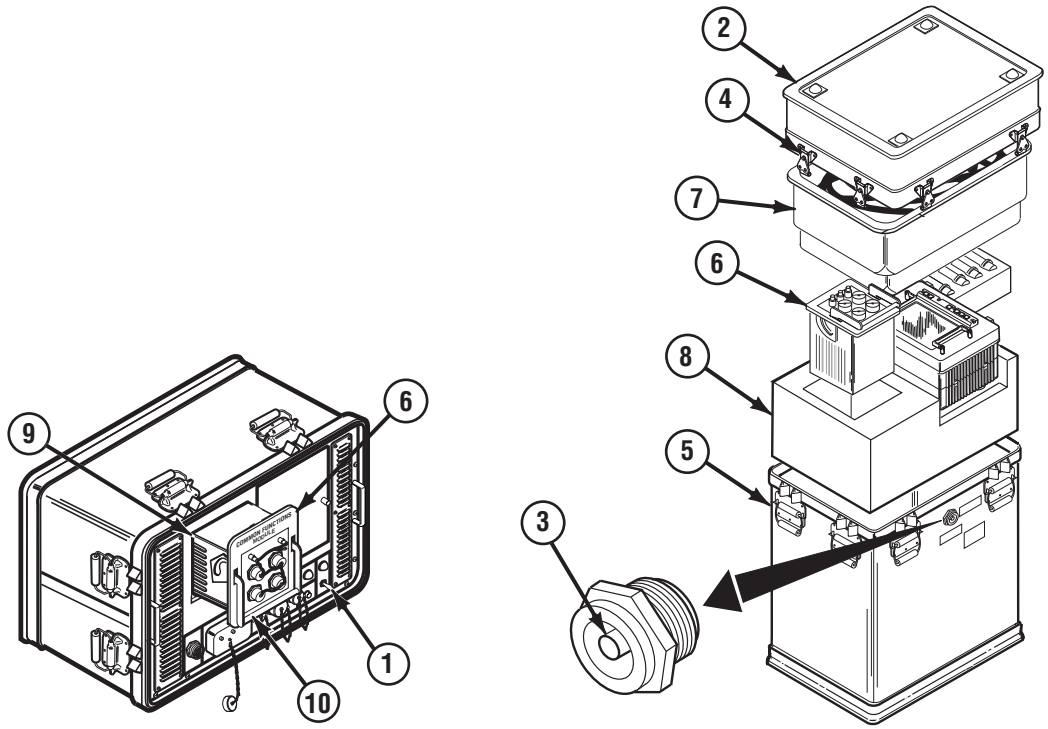
PERFORM GPIA STANDALONE FST – Continued

Step	Display Message	Operator Action/Remarks
26.	CONNECT GND CLIP TO GPIA CHASSIS	• Connect clip to GPIA chassis. • Press CONT pushbutton after clip is connected.
27.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 2.0 seconds.
28.	CONNECT CABLE FST-W34-P1 TO GPIA MODULE-B SLOT CONNECTOR J14	• Disconnect FST-W34 connector from J13 and connect to J14. • Press CONT pushbutton after cable is connected.
29.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 2.0 seconds.
30.	DISCONNECT CABLE FST-W34	• Disconnect cable W34 from GPIA UJ6, UJ5, and J14. • Press CONT pushbutton after cable is disconnected.
31.	GPIA OK	• Test complete. • Push CONT pushbutton.
32.	DISCONNECT ALL TEST CABLES	• Press CONT pushbutton after all test cables are disconnected.

END OF FUNCTIONAL SELF TEST

NOTE

If no further testing is required, refer to GPIA shutdown procedure in this work package.



SET UP CFM FOR OPERATION

a. Verify that GPIA POWER circuit breaker (1) and external power supply ON/OFF switch are set to OFF.

b. Remove DCR ASU case lid (2).

1) Press in pressure relief valve button (3) to relieve any air pressure.
2) Turn each of eight latch handles (4) one-half turn counterclockwise.
3) Remove case lid (2) from DCR ASU case (5).

c. Remove CFM (6) from DCR ASU (5).

1) Remove top cable tray (7) from DCR ASU (5).
2) Remove CFM (6) from module tray (8).

d. Install CFM (6) in GPIA module cavity.

1) Place CFM (6) in GPIA module cavity A (9) and verify that the power and signal connectors are aligned.
2) Using latch handle (10) on CFM (6), lock CFM in place in GPIA module cavity.

e. Set external power supply ON/OFF switch and GPIA POWER circuit breaker (1) to ON.

PERFORM CFM FST

a. With DSESTS Test Program Menu displayed, expand "DSESTS FST GROUP 2" in lower program menu pane.
b. Select "CFM FST OPTS X.X".
b. Select "Run Test Program" button.
c. Perform CFM FST steps.

Step	Display Message	Operator Action/Remarks
1.	CFM FST OPTS XX.X	• The Off Platform Test System (OPTS) number identifies the test program baseline and change level.
2.	POWER SUPPLY ADJUSTMENT PROCEDURE	• Adjust power supply for a reading of +24 ± 0.20 vdc. • Press OK pushbutton after power supply is adjusted.
3.	CONNECT CABLE FST-W34 P3 TO GPIA UJ6	• Press CONT pushbutton after cable W34 is connected.
4.	DISCONNECT CABLE FST-W34 P3 FROM GPIA UJ6	• Press CONT pushbutton after cable W34 is disconnected.
5.	CONNECT W36 TEST CLIP TO CFM CHASSIS	• Press CONT pushbutton after clip is connected.
6.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 4.0 minutes and 50 seconds.
7.	CONNECT ADAPTER CFM FST TJ1 TO CFM TJ1 AND ADAPTER CFM FST TJ2-1 TO CFM TJ2 DO NOT CONNECT ANYTHING TO CFM TJ3 AND TJ4	• Connect adapter CFM FST TJ1 to CFM TJ1 and adapter CFM FST TJ2-1 to CFM TJ2. • Press CONT pushbutton after FST adapters TJ1 and TJ2-1 are connected.
8.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 5.0 seconds.
9.	CONNECT CABLE W200	• Connect cable W200 P1 to CFM TJ3 and W200 P2 to CFM TJ4. • Press CONT pushbutton after cable W200 is connected.
10.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 45 seconds.
11.	DISCONNECT ADAPTERS CFM FST TJ1 AND TJ2-1 LEAVE CABLE W200 CONNECTED	• Disconnect adapter CFM FST TJ1 from CFM TJ1 and adapter CFM FST TJ2-1 from CFM TJ2. • Press CONT pushbutton after adapters are disconnected.
12.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 3.0 seconds.
13.	DISCONNECT CABLE W200	• Disconnect cable W200 P1 from CFM TJ3 and W200 P2 from CFM TJ4. • Press CONT pushbutton after cable is disconnected.
14.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 2.0 seconds.

PERFORM CFM FST – Continued

Step	Display Message	Operator Action/Remarks
15.	CONNECT ADAPTER CFM FST TJ2-2 TO CFM TJ2 AND ONLY CONNECT CABLE W201 P1 TO CFM TJ1 DO NOT CONNECT ANYTHING TO CFM TJ3 AND TJ4	• Connect adapter CFM FST TJ2-2 to CFM TJ2 and cable W201 P1 to CFM TJ1. (Do not connect cable W201 P2 and P3 at this time.) • Press CONT pushbutton after adapter and cable are connected.
16.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 3.0 seconds.
17.	CONNECT CABLE W201 P2 TO CFM TJ3 AND W201 P3 TO CFM TJ4	• Connect cable W201 P2 to CFM TJ3 and W201 P3 to CFM TJ4. • Press CONT pushbutton after cable is connected.
18.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 40 seconds.
19.	DISCONNECT ADAPTER TJ2-2 AND W201 P1 LEAVE W201 P2 AND P3 CONNECTED	• Disconnect adapter CFM FST TJ2-2 from CFM TJ2 and cable W201 P1 from CFM TJ1. • Press CONT pushbutton after adatper and cable W201 P1 are disconnected.
20.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 5.0 seconds.
21.	DISCONNECT CABLE W201	• Disconnect cable W201 P2 from CFM TJ3 and W201 P3 from CFM TJ4. • Press CONT pushbutton after cable is disconnected.
22.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 3.0 seconds.
23.	IS CFM FST CABLE W385 AVAILABLE?	• Press YES pushbutton.
24.	CONNECT CABLE W385	• Connect cable W385 P1 to CFM TJ1 and W385 P2 to CFM TJ3. • Press CONT pushbutton after cable W385 is connected.
25.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 5.0 seconds.
26.	DISCONNECT CABLE W385	• Disconnect cable W385 P1 from CFM TJ1 and W385 P2 from CFM TJ3. • Press CONT pushbutton after cable W385 is disconnected.
27.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 1.0 second.
28.	CONNECT CABLE 1553A-W203 TO CFM J1 AND GPIA CORE UJ4	• Connect cable 1553A-W203 P1 to CFM J1 and 1553A-W203 P2 to GPIA UJ4. • Press CONT pushbutton after cable is connected.
29.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 8.0 seconds.
30.	DISCONNECT CABLE 1553A-W203	• Disconnect cable 1553A-W203 P1 from CFM J1 and 1553A-W203 P2 from GPIA UJ4. • Press CONT pushbutton after cable 1553A-W203 is disconnected.

PERFORM CFM FST – Continued

Step	Display Message	Operator Action/Remarks
31.	CONNECT CABLE 1553B-W203 TO CFM J1 AND GPIA CORE UJ4	• Connect cable 1553B-W203 P1 to CFM J1 and 1553B-W203 P2 to GPIA UJ4. • Press CONT pushbutton after cable is connected.
32.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 8.0 seconds.
33.	DISCONNECT CABLE 1553B-W203	• Disconnect cable 1553B-W203 P1 from CFM J1 and 1553B-W203 P2 from GPIA UJ4. • Press CONT pushbutton after cable 1553B-W203 is disconnected.
34.	CFM OK	• Test complete. • Press CONT pushbutton.
35.	DISCONNECT ALL TEST CABLES	• Press CONT pushbutton after all test cables have been disconnected.

END OF TASK

PREPARE LAPTOP COMPUTER FOR DSESTS OPERATION

NOTE

Perform the following steps if DSESTS system software has not yet been installed on the laptop computer or if reinstallation is necessary. Perform step a if using the Maintenance Support Device (MSD) as the controlling computer.

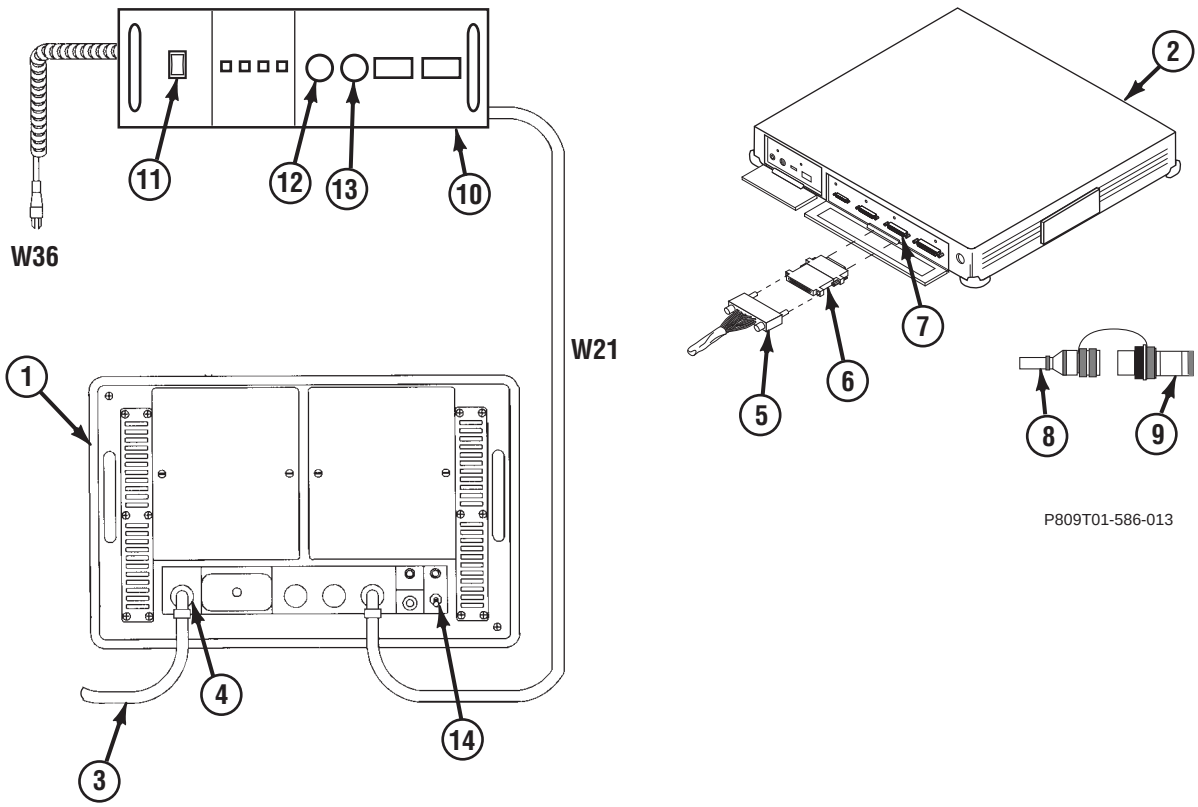
a. Install the IEEE1394 PCMCIA card, P/N 13001390, or camera link card, P/N 13011978, in the MSD in accordance with the manufacturer's instructions. Camera link card installation instructions are also included in WP 0164 00 of this manual.

NOTE

Detailed instructions for installing software are printed on the inside cover of the CD ROM case.

b. Install the DSESTS system software CD ROM, P/N 13002171, in the laptop computer's CD ROM drive.

c. Follow the instructions printed on the inside cover of each CD ROM to install test program software on the laptop computer.



SET UP GPIA WITH LAPTOP COMPUTER

a. Set up GPIA for operation as described in this work package.

b. Connect GPIA (1) to laptop computer (2).

NOTE

Various computers may be used. The actual location of the RS-232 port may be different than the illustration.

1) Connect cable W330-P1 (3) to GPIA UJ1 (4).
2) Connect cable W330-P2 (5) to opto-isolator (6).
3) Connect opto-isolator (6) to laptop RS-232 connector COM1 (7).
4) Connect cable W330-P3 (8) to W330-P3 adapter (9).

c. Set power supply output.

1) Set external power supply (10) ON/OFF switch (11) to ON.
2) Set voltage to +24 VDC with voltage knob (12).
3) Verify that current coarse knob (13) is set fully clockwise.

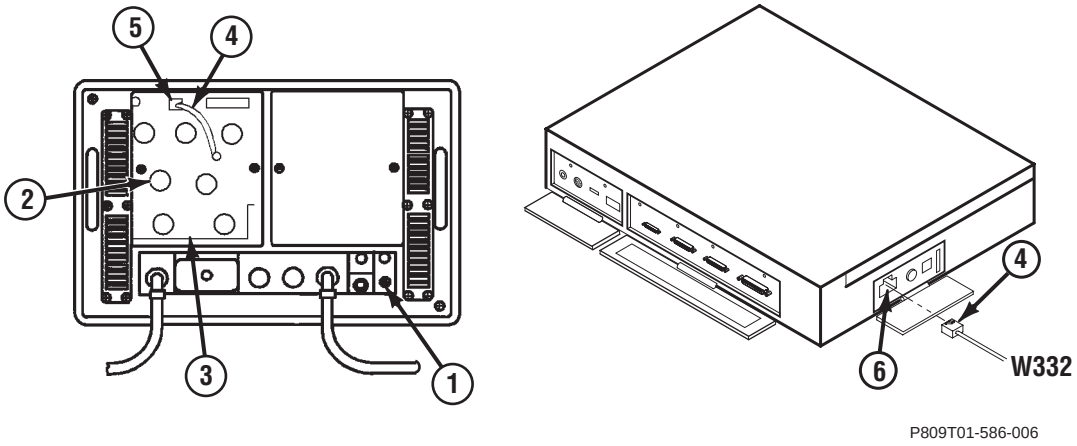
SET UP GPIA WITH LAPTOP COMPUTER (CONTINUED)

d. Set GPIA ON/OFF circuit breaker (14) to ON position.

e. Prepare laptop computer for operation in accordance with user's manual.

f. Select "DSESTS SYSTEM SOFTWARE" icon from the laptop computer's desktop window.

g. Perform GPIA functional self test as described in this work package.



P809T01-586-006

SET UP CSFM FOR OPERATION

a. Set up GPIA with laptop computer as shown in this work package.

b. Set GPIA ON/OFF circuit breaker (1) to OFF.

c. If laptop computer is on, turn off computer.

d. Install CSFM (2) in either GPIA module cavity.
   1) Place CSFM (2) in either GPIA module cavity A (left side) or B (right side), and verify that the power and signal connectors are aligned.
   2) Using latch handle (3) on CSFM (2), lock CSFM in place in GPIA module cavity.

NOTE

The CSFM can be used with various computers. The actual location of the ethernet port for your computer may be different than the illustration.

e. Connect ethernet cable (W332) (4) to CSFM TJ2 (5) and laptop ethernet connector (6).

f. Set GPIA ON/OFF circuit breaker (1) to ON position.

g. Turn on laptop computer and allow computer to complete boot up sequence.

NOTE

Perform step h to check laptop computer TCP/IP setting and change setting, if required.

h. Check/change setting:
   1) From Windows Start Menu, select Settings...Control Panel...Network and Dial-Up Connections...Local Area Connection.
   2) Select Internet Protocol (TCP/IP) and then select Properties.
   3) If required, enter the following IP address and type.
      IP address: 192.168.100.254
      Subnet mask: 255.255.255.0
   4) Select OK.
   5) Select OK and close all windows.

i. Select "DSESTS SYSTEM SOFTWARE" icon from the computer's desktop window.

j. Press GPIA RESET switch.

k. Wait for GPIA power up self test to complete and then perform CSFM functional self test as described in this work package.

PERFORM CSFM FST

a. With DSESTS Test Program Menu displayed, expand "DSESTS FST GROUP 1" in lower program menu pane.
b. Select "Combine Support Functions Module (CSFM) FST OPTS X.X".
b. Select "Run Test Program" button.
c. Perform CFM FST steps.

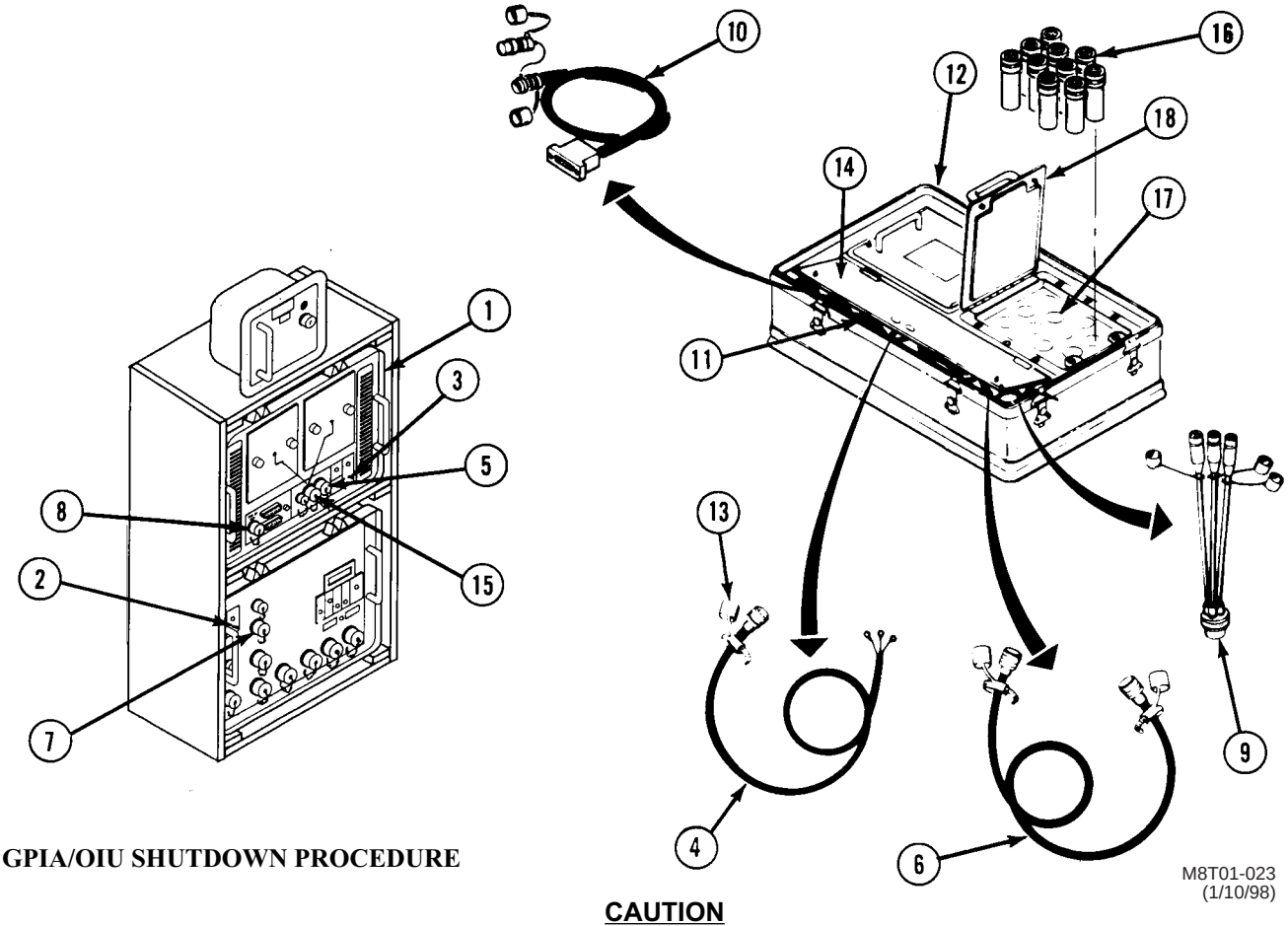
Step	Display Message	Operator Action/Remarks
1.	ISOLATE GND CLIP	• Verify that ground clip is unconnected and isolated on bench. • Select CONT icon (or press F10).
2.	DISCONNECT ALL TEST CABLES AND ADAPTERS	• Verify that no test cables or adapters are connected to CSFM. • Select CONT icon (or press F10).
3.	POWER SUPPLY ADJUSTMENT PROCEDURE	• Follow display to adjust power supply output to 24.0 VDC ± 0.20V.
4.	DISCONNECT CABLE W333-P2 FROM VCTU J2 OR DISCONNECT CABLE W664-P2 FROM EVCTU J5	• If cable W333 or W664 is connected to the (E)VCTU, disconnect cable. • Select CONT icon (or press F10).
5.	CONNECT CABLE FST-W34 P3 TO GPIA UJ6	• Connect P3 of the W34 cable to GPIA connector UJ6. • Select CONT icon (or press F10).
6.	TEST IN PROGRESS	• No action required.
7.	DISCONNECT CABLE FST-W34 P3 FROM GPIA UJ6	• Disconnect cable W34. • Select CONT icon (or press F10).
8.	CONNECT CABLE W333-P2 TO VCTU J2 OR CONNECT CABLE W664-P2 TO EVCTU J5	• If cable W333 or W664 was disconnected, connect cable. • Select CONT icon (or press F10).
9.	CONNECT CABLE POWER CABLE-W331	• Connect cable W331 P1 to CSFM UJ8, P2 to GPIA UJ6. • Select CONT icon (or press F10).
10.	TEST IN PROGRESS BOARD LEVEL CONFIGURATION TEST IN PROGRESS SAFE TO TURN ON TEST IN PROGRESS	• A sequence of messages is displayed. No action required.
11.	CONNECT ADAPTERS FST TJ4 P/N 12309035-1 FST TJ5-1 P/N 12309036-6 FST TJ6 P/N 12309037-4 FST TJ7-1 P/N 12309038-4 FST TJ8 P/N 12309039 FST TJ10 P/N 12309041-3	• Connect adapter set #1 to CSFM connectors TJ4, TJ5, TJ6, TJ7, TJ8 and TJ10. • Select CONT icon (or press F10).
12.	TEST IN PROGRESS UUT 24.0 VDC PWR TEST IN PROGRESS	• A sequence of messages is displayed. No action required.

PERFORM CSFM FST - Continued

Step	Display Message	Operator Action/Remarks
12. cont.	24.0VRTN TEST IN PROGRESS +15.0VDC AND -15.0VDC TEST IN PROGRESS RELAY MUXES TEST IN PROGRESS SIGNAL CONDITIONER RELAYS TEST IN PROGRESS RESISTIVE LOADS TEST IN PROGRESS DIGITAL DRIVERS TEST IN PROGRESS DIGITAL INPUTS TEST IN PROGRESS TEST IN PROGRESS RS485 COMMUNICATION PORTS TEST IN PROGRESS TEST IN PROGRESS SIGNAL CONDITIONER TEST IN PROGRESS	• Miscellaneous 1 test.
13.	DISCONNECT ADAPTERS FST TJ4, TJ5-1, TJ6 TJ7-1, TJ8, TJ10	• Disconnect all adapters from CSFM. • Select CONT icon (or press F10).
14.	CONNECT CABLES FST-W87 P/N 12309043-1 FST-W88 P/N 12309044-1	• Connect cable W87 P1 to CSFM TJ6, P2 to CSFM TJ4. • Connect cable W88 P1 to CSFM TJ10, P2 to CSFM TJ8 • Select CONT icon (or press F10).
15.	CONNECT ADAPTERS FST TJ5-2 P/N 12309036-3 FST TJ7-2 P/N 12309038-5 FST TJ3 P/N 12997688	• Connect adapter set #2 to CSFM connectors TJ5, TJ7, and TJ3. • Select CONT icon (or press F10).
16.	TEST IN PROGRESS LINEAR/WAVEFORM OUTPUTS TEST IN PROGRESS LINEAR OUTPUT RETURN TEST IN PROGRESS LOAD PLATE VOLTAGE TEST IN PROGRESS THERMOCOUPLE EMULATOR TEST IN PROGRESS ECU 24VDC/24VRTN TEST IN PROGRESS	• A sequence of messages is displayed. No action required.

PERFORM CSFM FST - Continued

Step	Display Message	Operator Action/Remarks
16. cont.	LOAD PLATE TEST IN PROGRESS THERMOCOUPLE OUTPUT TEST IN PROGRESS TEST IN PROGRESS COMMUNICATION PORTS TEST IN PROGRESS TJ3 GROUNDS TEST IN PROGRESS	• Miscellaneous 2 test.
17.	DISCONNECT ADAPTERS FST TJ5-2 FST TJ7-2 FST TJ3	• Disconnect adapters from the CSFM. • Select CONT icon (or press F10).
18.	DISCONNECT CABLES FST-W87 FST-W88	• Disconnect cables from the CSFM. • Select CONT icon (or press F10).
19.	CONNECT ADAPTER FST-TJ6	• Connect adapter to CSFM TJ6. • Select CONT icon (or press F10). NOTE Probe is located in TIS/CFT ASU No. 2, or TOW ASU No. 2.
20.	CONNECT PROBE TO CSFM TJ1	• Connect probe to CSFM TJ1. • Select CONT icon (or press F10).
21.	MOVE ATTENUATION SWITCH TO 10X	• If probe is equipped with an attenuation switch, set attenuation to 10X. • Select CONT icon (or press F10).
22.	CONNECT PROBE COMMON TO GROUND CABLE W36	• Connect probe common lead to clip of cable W36 (ground clip). • Select CONT icon (or press F10).
23.	PROBE CSFM ADAPTER TJ6	• Probe adapter TJ6 J1 with probe tip. • Select CONT icon (or press F10).
24.	DISCONNECT ADAPTER	• Disconnect adapter from CSFM TJ6. • Select CONT icon (or press F10).
25.	DISCONNECT PROBE FROM CSFM TJ1	• Disconnect probe from CSFM TJ1. • Select CONT icon (or press F10).
26.	CSFM FST OK	• Test complete. • Press CONT pushbutton.
27.	DISCONNECT ALL TEST CABLES AND ADAPTERS	• Disconnect all test cables and adapters from CSFM. • Select CONT icon (or press F10).



GPIA/OIU SHUTDOWN PROCEDURE

CAUTION

To avoid possible damage to equipment, make sure OIU message display reads "DISCONNECT ALL TEST CABLES" before starting GPIA/OIU shutdown procedure.

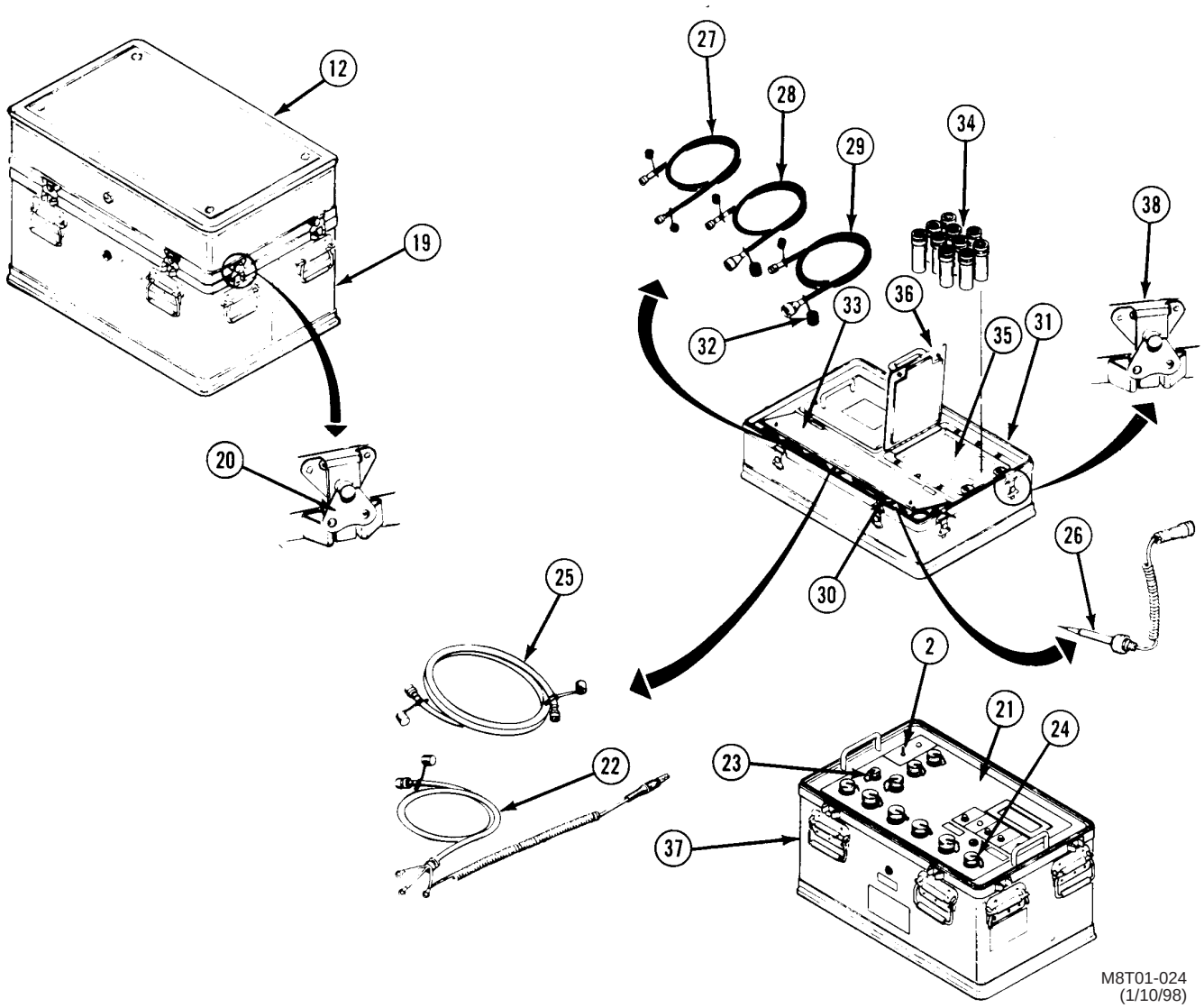
NOTE

If GPIA is in use, perform steps a and b. If GPIA is not in use, perform step b only.

a. Shutdown GPIA (1).

1) Set OIU ON/OFF circuit breaker (2) to OFF.
2) Set GPIA POWER switch (3) to OFF.
3) Set external power supply ON/OFF switch to OFF.
4) Disconnect cable GPIA-W21 (4) from external power supply and GPIA connector UJ7 (5).
5) Disconnect cable GPIA-W23 (6) from OIU connector UJ2 (7) and GPIA connector UJ1 (8).
6) If cable FST-W34 (9) or DLRU-W93 (10) is connected, disconnect cable from GPIA (1).
7) Place cables GPIA-W21 (4), GPIA-W23 (6), DLRU-W93 (10), and FST-W34 (9) in cable stowage compartment (11) of case cover (12). Make sure covers (13) are installed on cable connectors.
8) Close cable stowage compartment lid (14) and tighten two fasteners.
9) Install connector covers (15) on all GPIA connectors.
10) Place FST adapters (16) in stowage compartment (17) of case cover (12).
11) Close stowage compartment lid (18) and tighten two fasteners.
12) Place case cover (12) on GPIA case (19) and turn each of eight latch handles (20) one-half turn clockwise.

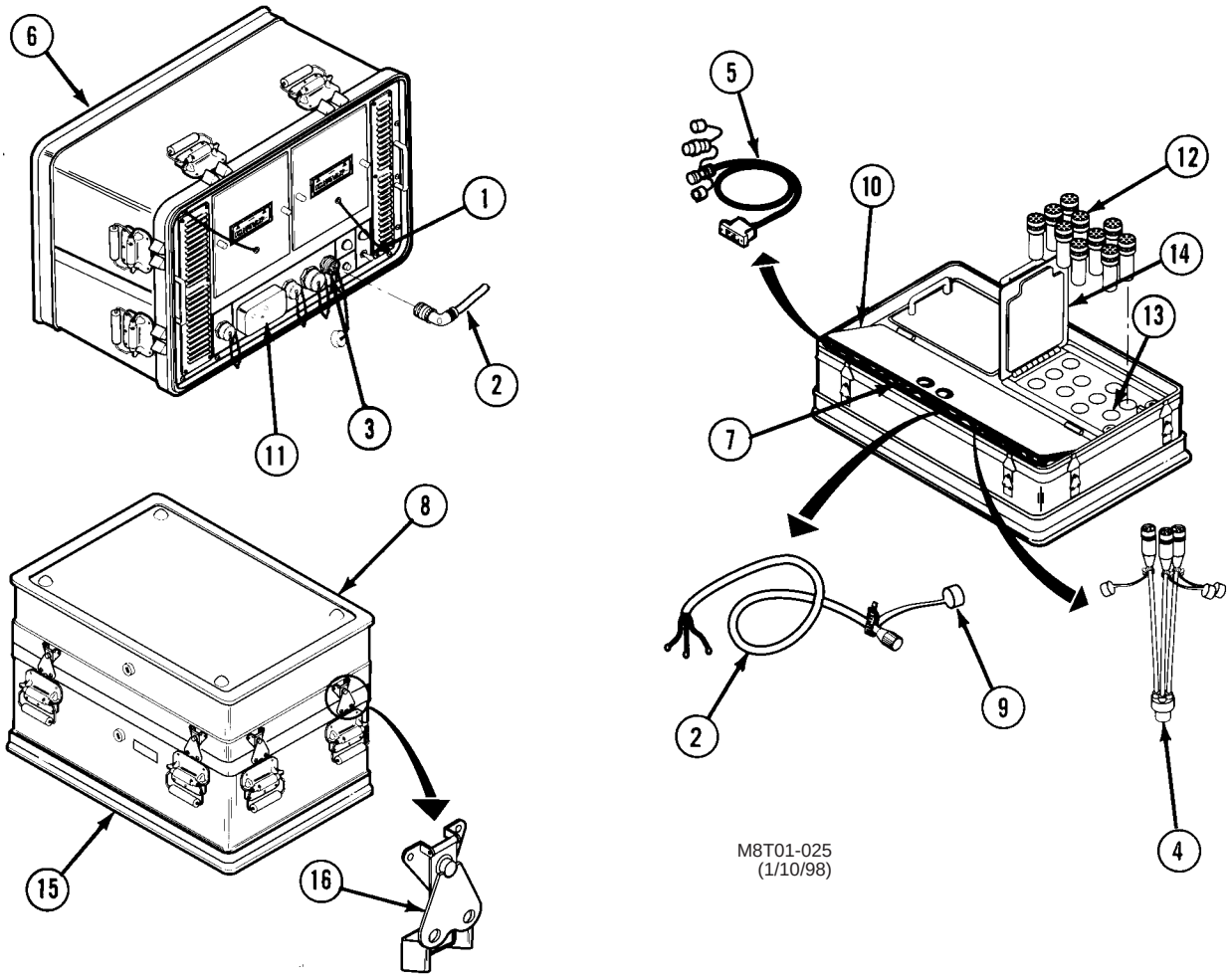
b. Shut down OIU (21).



NOTE

If memory module is connected to OIU, shutdown memory module before proceeding. Refer to TM 9-4931-586-12-2&P if M1 module is attached; refer to TM 9-4931-586-12-3&P if FVS module is in use.

1) If OIU ON/OFF circuit breaker (2) is ON, set circuit breaker to OFF.
2) If external power supply ON/OFF switch is ON, set switch to OFF.
3) Disconnect cable PWR-W1 (22) from OIU connector UJ1 (23) and external power supply.
4) Screw connector covers (24) on all OIU connectors.
5) Place cables PWR-W1 (22), MEM-W60 (25), TPC-W50 (26), FST-W86 (27), FST-W87 (28), and FST-W88 (29) in cable stowage compartment (30) of case cover (31). Make sure covers (32) are installed on all cable connectors.
6) Close cable stowage compartment lid (33) and tighten two fasteners.
7) Place FST adapters (34) in stowage compartment (35) of case cover (31).
8) Close stowage compartment lid (36) and tighten two fasteners.
9) Place case cover (31) on OIU case (37) and turn each of eight latch handles (38) one-half turn clockwise.



SHUT DOWN GPIA AFTER STANDALONE OPERATION

a. Remove power from GPIA.

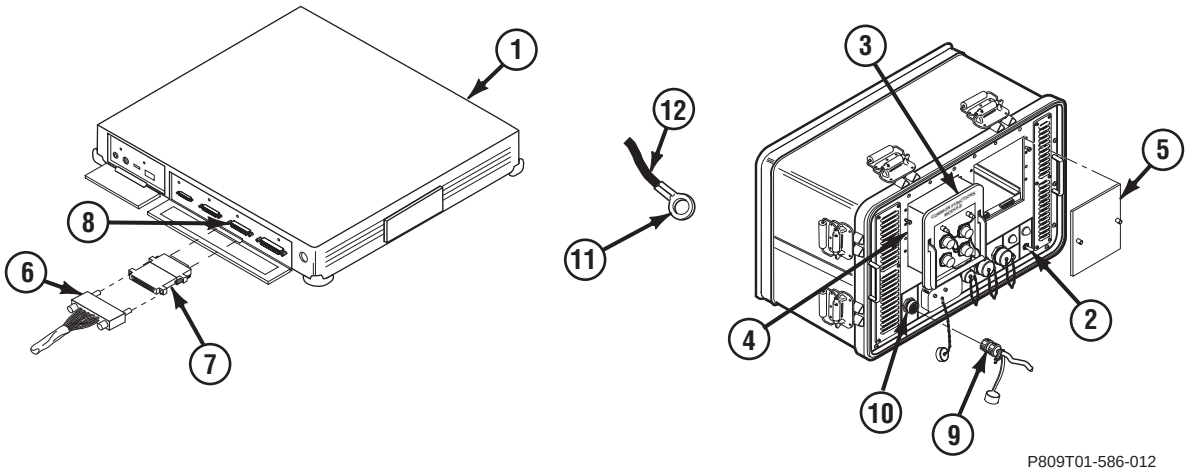
1) Set GPIA ON/OFF circuit breaker (1) to OFF.
2) Set external power supply ON/OFF switch to OFF.

b. Prepare GPIA for storage.

1) Disconnect cable W21 (2) from external power supply and GPIA connector UJ7 (3).
2) If cables FST-W34 (4) or DLRU-W93 (5) are connected, disconnect cable(s) from GPIA (6).
3) Place cables W21 (2), FST-W34 (4), and DLRU-W93 (5) in cable stowage compartment (7) of case cover (8). Make sure covers (9) are installed on cable connectors.
4) Close cable stowage compartment lid (10) and tighten two fasteners.
5) Install connector covers (11) on all GPIA connectors.
6) Place FST adapters (12) in stowage compartment (13) of case cover (8).
7) Close stowage compartment lid (14) and tighten two fasteners.

c. Install GPIA cover on case.

1) Place case cover (8) on GPIA case (15).
2) Turn each of eight latch handles (16) one-half turn clockwise.



DCR ASU SHUTDOWN PROCEDURE

CAUTION

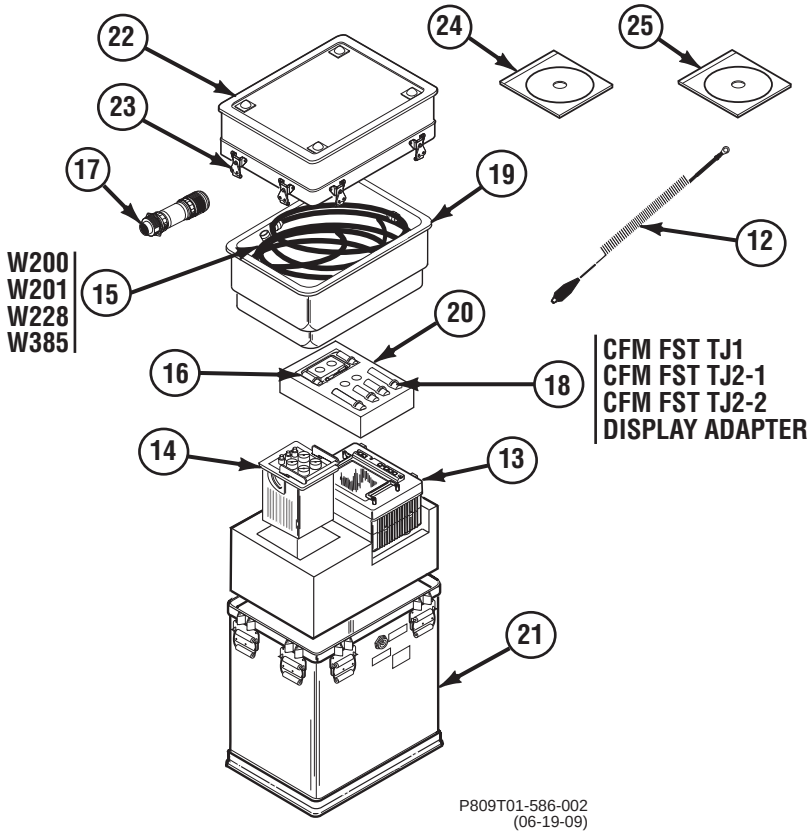
To avoid causing LRU failures during LRU testing, never power down the GPIA with the LRU test cables connected unless instructed to do so by the test program; always follow the test program instructions.

a. Remove power.

1) Power down laptop computer (1) in accordance with user's manual.
2) Set GPIA POWER circuit breaker (2) to OFF.
3) Set external power supply ON/OFF switch to OFF.
4) If CFM (3) is installed in GPIA cavity A (4), remove the module.
5) Install GPIA module cavity covers (5).

b. Disconnect cables.

1) Disconnect W330 P2 (6) with opto-isolator (7) from laptop computer RS232 port (8).
2) Disconnect W330 P1 (9) from GPIA UJ1 (10).
3) Disconnect terminal lead (11) of W36 (12) from negative "–" on external power supply.



c. Store cable W36 (12), display (13), CFM (14), test cables (15), communication cables (16), color display video adapter (17), adapters (18) and CD ROMs (24, 25), as required.

1) Remove cable tray (19) and adapter tray (20) from stowage compartment of DCR ASU (21).
2) Place display (13) in DCR ASU (21) stowage compartment.
3) Place CFM (14) in DCR ASU (21) stowage compartment.
4) Place communication cables (16) and adapters (18) in adapter tray (20).
5) Place color display video adapter (17) in cable tray (19).
6) Place adapter tray (20) in DCR ASU (21) stowage compartment.
7) Place cable W36 (12) and test cables (15) in cable tray (19).
8) If used, place CDs (24, 25) in cable tray (19).
9) Place cable tray (19) into DCR ASU (21).

d. Install DCR ASU case lid (22):

1) Position case lid (22) on DCR ASU case (21).
2) Turn each of eight latch handles (23) one-half turn clockwise to lock case lid (22) in place.

OPERATION OF AUXILIARY EQUIPMENT 0007 00

THIS WORK PACKAGE COVERS:

- Set up TSA for operation/TSA FST/GPIA and CFM Calibration Test
- Shut down procedure

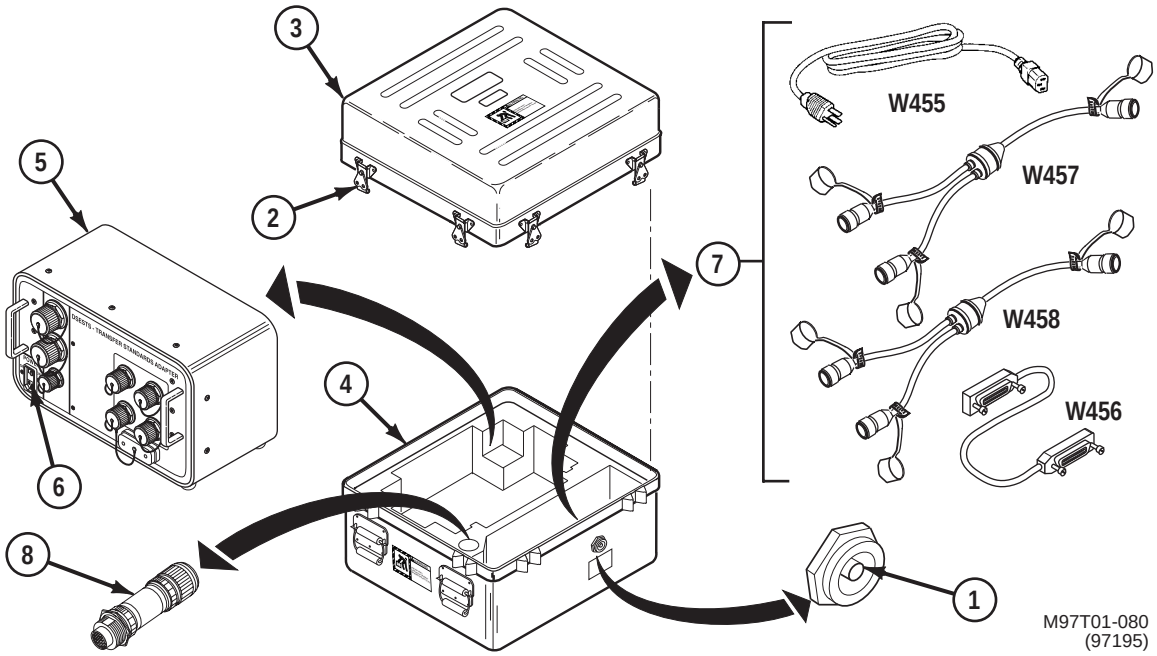
INITIAL SETUP

Equipment Conditions:

GPIA and CFM each passed functional self test; refer to WP 0006 00.

GENERAL

The transfer standards adapter (TSA) is a special tool used to check the calibration of the GPIA and CFM.



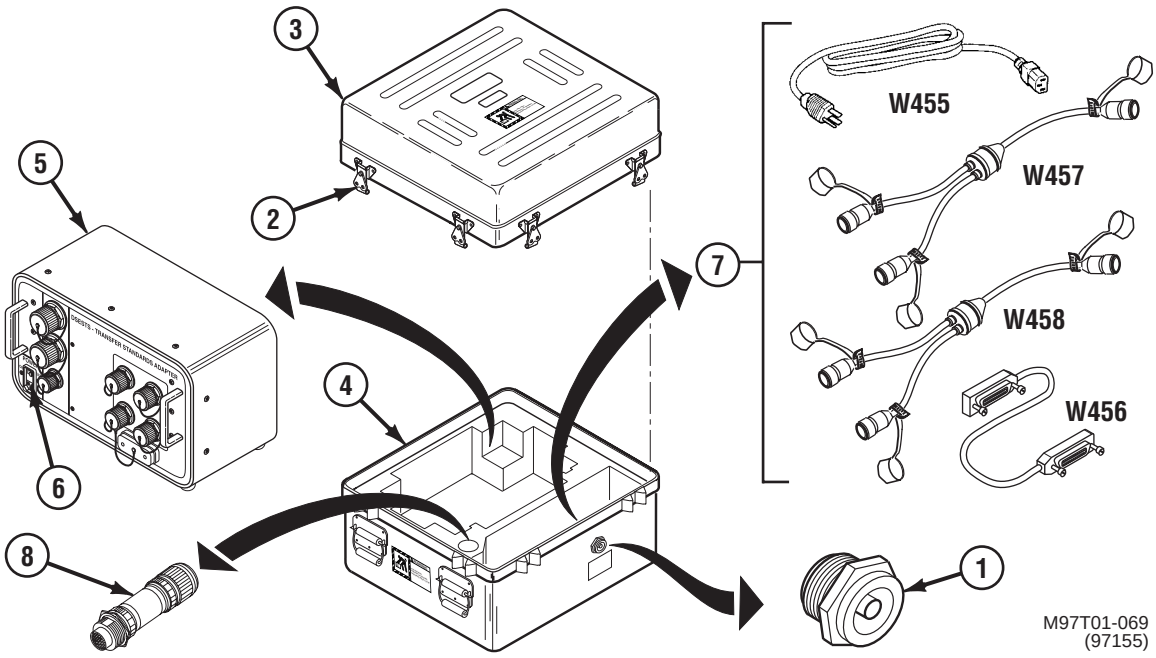
SET UP TSA FOR OPERATION/TSA FST/GPIA AND CFM CALIBRATION TEST

NOTE

A GPIA with CFM and laptop computer connected to 24-volt power supply are required to set up TSA for operation/functional self test and GPIA and CFM calibration test.

a. Remove TSA accessory stowage unit cover.
   1) Press in pressure relief valve button (1) to relieve pressure.
   2) Turn each of eight latch handles (2) one-half turn counterclockwise.
   3) Lift up and take off accessory stowage unit cover (3) from case (4).

b. Remove TSA from case.
   1) Lift up and take out TSA (5) from case (4).
   2) Verify that TSA power module switch (6) is in OFF position.



c. Take out test cables and TSA adapter from case.

1) Take out TSA test cables TSA-W455, TSA-W456, TSA-W457, and TSA-W458 (7) from case (4).
2) Take out TSA adapter UJ6/W457 (8) from case (4).

d. Refer to the hookup diagram in this work package to aid in making test connections to perform the TSA FST.

PERFORM TSA FST

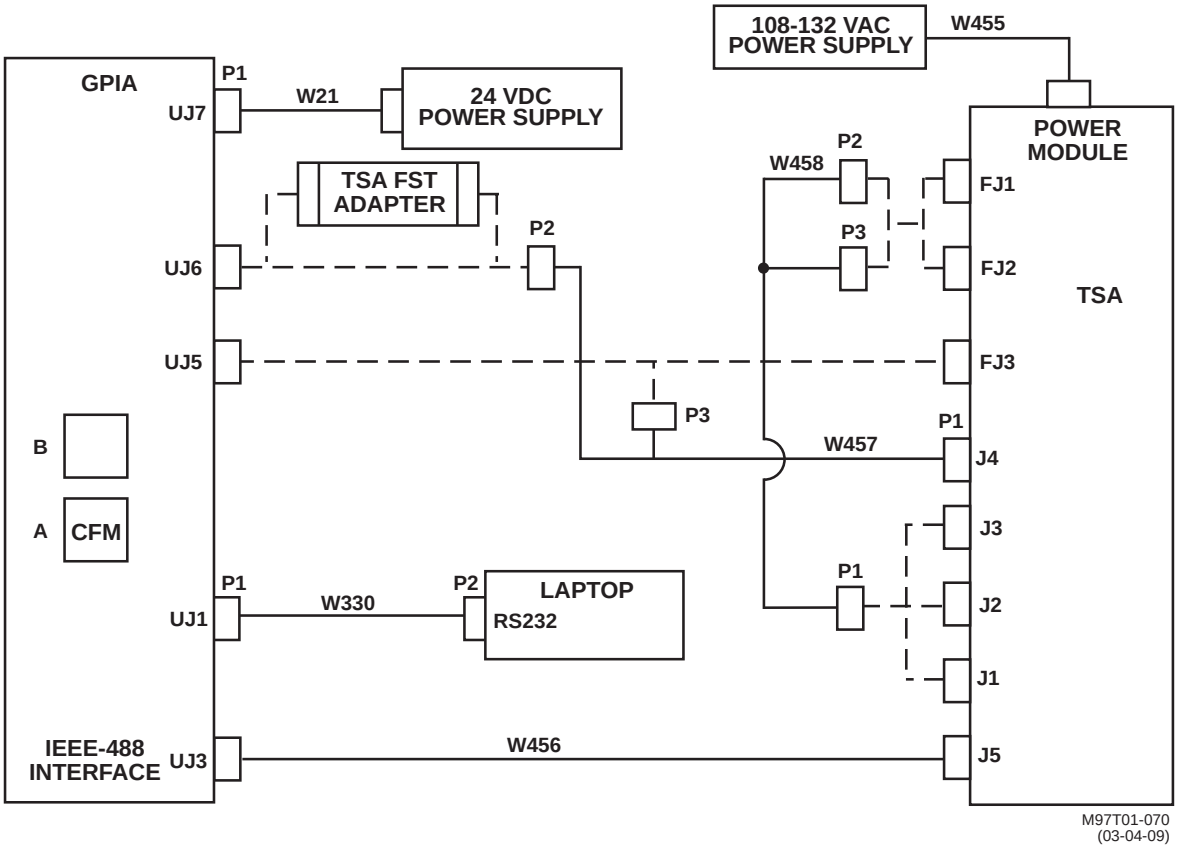
Step	Display Message	Operator Action/Remarks
1.	TSA FUNCTIONAL SELF TEST OPTS XX.X	• Press ENTER pushbutton.
2.	POWER SUPPLY ADJUSTMENT PROCEDURE	• Adjust power supply until second line on display reads "VOLTS IS 24,000 OK". • Press YES pushbutton after voltage reads OK on second line.
3.	CONNECT CABLE W455 TO TSA AC POWER AND W456 TO GPIA IEEE-488 AND TSA IEEE-488 CONNECTORS	• Connect cable W455 to AC power source. • Connect cable W456 from GPIA IEEE-488 to TSA IEEE-488 connectors. • Press CONT pushbutton after cables are connected.
4.	TURN ON TSA AC POWER	• Turn TSA power switch ON. • Press CONT pushbutton.
5.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 40 seconds.
6.	CONNECT TSA FST ADAPTER TO GPIA UJ6	• Connect TSA FST adapter to GPIA UJ6. • Press CONT pushbutton after adapter is connected.
7.	CONNECT CABLE W457 P2 TO TSA FST ADAPTER, P1 TO TSA J4 AND P3 TO TSA FJ3	• Connect cable W457 P2 to TSA FST adapter, P1 to TSA J4, and P3 to TSA FJ3. • Press CONT pushbutton after cable W457 is connected.
8.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 90 seconds.
9.	SWITCHING THE RELAYS ON AND OFF APPROX 6 MINUTES	• Testing relays switch on and off.
10.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 6 minutes
11.	DISCONNECT TSA FST ADAPTER FROM GPIA UJ6 AND W457 P3 FROM TSA FJ3	• Disconnect TSA FST adapter from GPIA UJ6 and W457 P3 from TSA FJ3. • Press CONT pushbutton after TSA FST adapter and W457 P3 are disconnected.
12.	DISCONNECT CABLE W457 P2 FROM TSA FST ADAPTER, AND CONNECT IT TO GPIA UJ6	• Connect cable W457 P2 to GPIA UJ6.
	CONNECT W457 P3 TO GPIA UJ5 W457 SHOULD NOW BE DIRECTLY CONNECTED TO GPIA UJ6 AND UJ5	• Connect W457 P3 to GPIA UJ5. • Press CONT pushbutton after W457 is connected to GPIA UJ6 and UJ5.
13.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 40 seconds.

PERFORM TSA FST – Continued

Step	Display Message	Operator Action/Remarks
14.	CONNECT CABLE W458 P1 TO TSA J1 AND P2 TO TSA FJ1	• Connect W458 P1 to TSA J1 and P2 to TSA FJ1. • Press CONT pushbutton after cable W458 is connected.
15.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 90 seconds.
16.	DISCONNECT CABLE W458 P2 FROM TSA FJ1 AND CONNECT IT TO TSA FJ2 P1 SHOULD REMAIN CONNECTED TO TSA J1	• Connect W458 P2 to TSA FJ2. • Press CONT pushbutton after W458 P2 is connected to TSA FJ2.
17.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 15 seconds.
18.	DISCONNECT CABLE W458 P1 FROM TSA J1 AND CONNECT IT TO TSA J2 P2 SHOULD REMAIN CONNECTED TO TSA FJ2	• Connect W458 P1 to TSA J2. • Press CONT pushbutton after W458 P1 is connected to TSA J2.
19.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 75 seconds.
20.	DISCONNECT CABLE W458 P2 FROM TSA FJ2 AND CONNECT IT TO TSA FJ1. P1 SHOULD REMAIN CONNECTED TO TSA J2	• Connect W458 P2 to TSA FJ1. • Press CONT pushbutton after W458 P2 is connected to TSA FJ1.
21.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 50 seconds.
22.	DISCONNECT CABLE W458 P1 FROM TSA J2 AND CONNECT IT TO TSA J3 P2 SHOULD REMAIN CONNECTED TO TSA FJ1	• Connect W458 P1 to TSA J3. • Press CONT pushbutton after W458 P1 is connected to TSA J3.
23.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 90 seconds.
24.	DISCONNECT CABLE W458 P2 FROM TSA FJ1 AND CONNECT IT TO TSA FJ2 P1 SHOULD REMAIN CONNECTED TO TSA J3	• Connect W458 P2 to TSA FJ2. • Press CONT pushbutton after W458 P2 is connected to TSA FJ2.
25.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 30 seconds.

PERFORM TSA FST – Continued

Step	Display Message	Operator Action/Remarks
26,	DISCONNECT CABLE W458 P2 FROM TSA FJ2 AND CONNECT W458 P3 TO TSA FJ2 P1 SHOULD REMAIN CONNECTED TO TSA J3	• Connect W458 P3 to TSA FJ2. • Press CONT pushbutton after W458 P3 is connected.
27.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 30 seconds.
28.	DISCONNECT CABLE W458 P3 FROM TSA FJ2 AND CONNECT IT TO TSA FJ1 P1 SHOULD REMAIN CONNECTED TO TSA J3 AND P2 SHOULD REMAIN DISCONNECTED	• Connect W458 P3 to TSA FJ1. • Press CONT pushbutton after W458 P3 is connected to TSA FJ1.
29.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 50 seconds.
30.	DISCONNECT CABLE W458	• Disconnect W458. • Press CONT pushbutton after cable is disconnected.
31.	TSA FST COMPLETE	• Press CONT pushbutton to continue.
32.	DISCONNECT ALL TEST CABLES	• Disconnect all test cables and adapters.



e. Perform the following steps to do the GPIA and CFM calibration test procedure. Refer to the hookup diagram in this work package to aid in making test connections.

PERFORM GPIA AND CFM CALIBRATION

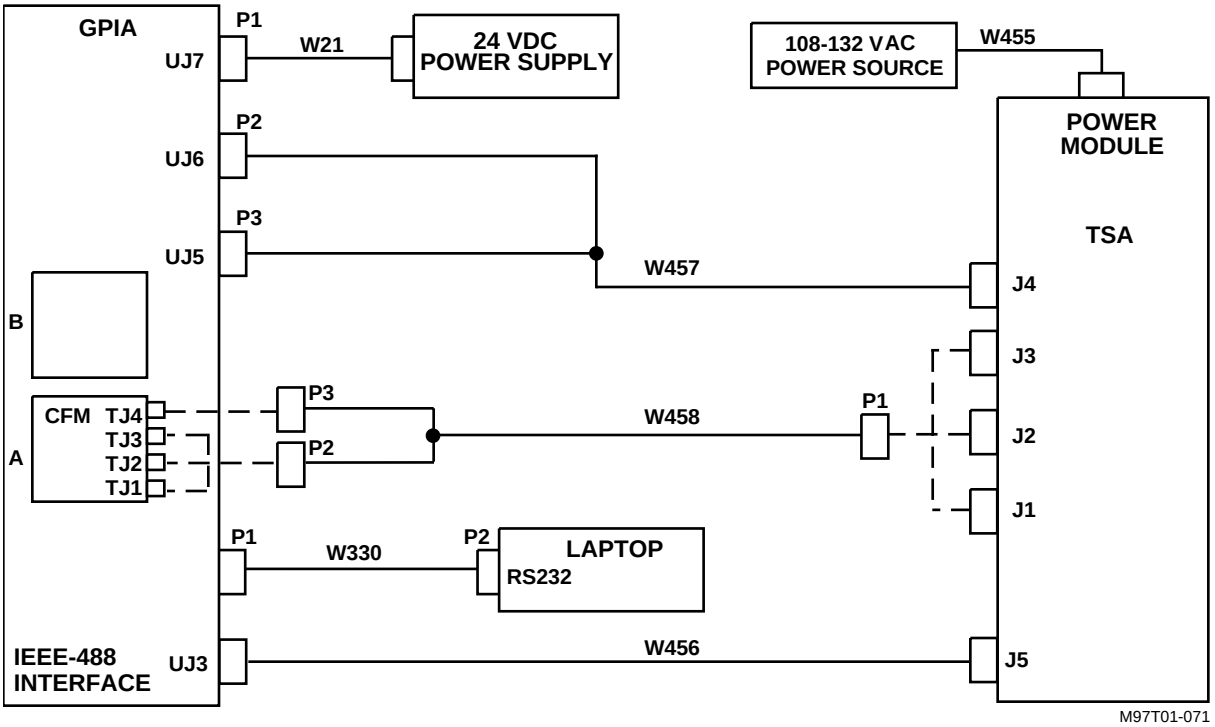
NOTE

The GPIA, CFM, and TSA must each pass functional self test before calibration test is performed.

Step	Display Message	Operator Action/Remarks
1.	POWER SUPPLY ADJUSTMENT PROCEDURE	• Adjust power supply for a reading of 24 vdc. • Press OK pushbutton after power supply is adjusted.
2.	CONNECT CABLE W455 TO TSA AC POWER AND W456 TO GPIA IEEE-488 AND TSA IEEE-488 CONNECTORS	• Connect cable W455 to input power connector on TSA front panel and 115-volt vac outlet. • Connect cable W456 to GPIA UJ3 and TSA J5. • Press CONT pushbutton.
3.	TURN ON TSA AC POWER	• Set TSA POWER ON/OFF switch to ON. • Press CONT pushbutton.
4.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 40 seconds.
5.	CONNECT CABLE W457	• Connect cable W457 P1 to TSA J4, P2 to GPIA UJ6, and P3 to GPIA UJ5 • Press CONT pushbutton when W457 is connected.
6.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 1 minute, 50 seconds.
7.	CONNECT CABLE W458 P1 TO TSA J1, AND P2 TO CFM TJ1	• Connect cable W458 P1 to TSA J1 and P2 to CFM TJ1. • Press CONT pushbutton when W458 P1 and P2 are connected.
8.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 2 minutes, 15 seconds.
9.	CONNECT CABLE W458 P1 TO TSA J2, AND P2 TO CFM TJ2	• Disconnect cable W458 P1 from TSA J1 and P2 from CFM TJ1. • Connect cable W458 P1 to TSA J2 and P2 to CFM TJ2. • Press CONT pushbutton when W458 P1 and P2 are connected to TSA J2 and CFM TJ2.
10.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 2 minutes, 15 seconds.
11.	CONNECT CABLE W458 P3 TO CFM TJ4 LEAVE W458 P1 ON TSA J2, AND P2 ON CFM TJ2	• Connect cable W458 P3 to CFM TJ4. Leave W458 connector P1 connected to TSA J2, and P2 connected to CFM TJ2. • Push CONT pushbutton when W458 P3 is connected.
12.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 1 minute, 10 seconds.

PERFORM GPIA AND CFM CALIBRATION – Continued

Step	Display Message	Operator Action/Remarks
13.	CONNECT CABLE W458 P1 TO TSA J3, AND P2 TO CFM TJ3 LEAVE P3 ON CFM TJ4	• Disconnect cable W458 P1 from TSA J2 and P2 from CFM TJ2. • Connect cable W458 P1 to TSA J3 and P2 to to CFM TJ3. Leave W458 connector P3 connected to CFM TJ4. • Press CONT pushbutton when W458 P1 and P2 are connected to TSA J3 and CFM TJ3.
14.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 4 minutes, 15 seconds.
15.	DISCONNECT CABLE W458 P2 FROM CFM TJ3 LEAVE W458 P1 ON TSA J3, AND P3 ON CFM TJ4.	• Disconnect cable W458 P2 from CFM TJ3. Leave W458 connectors P1 and P3 connected. • Press CONT pushbutton when W458 P2 is disconnected.
16.	TEST IN PROGRESS	• Display reads "TEST IN PROGRESS" for approximately 45 seconds.
17.	GPIA CFM CALIBRATION COMPLETE	• Press CONT pushbutton to continue.
18.	DISCONNECT ALL TEST CABLES	• Disconnect all test cables. • Press CONT pushbutton after all cables are disconnected.



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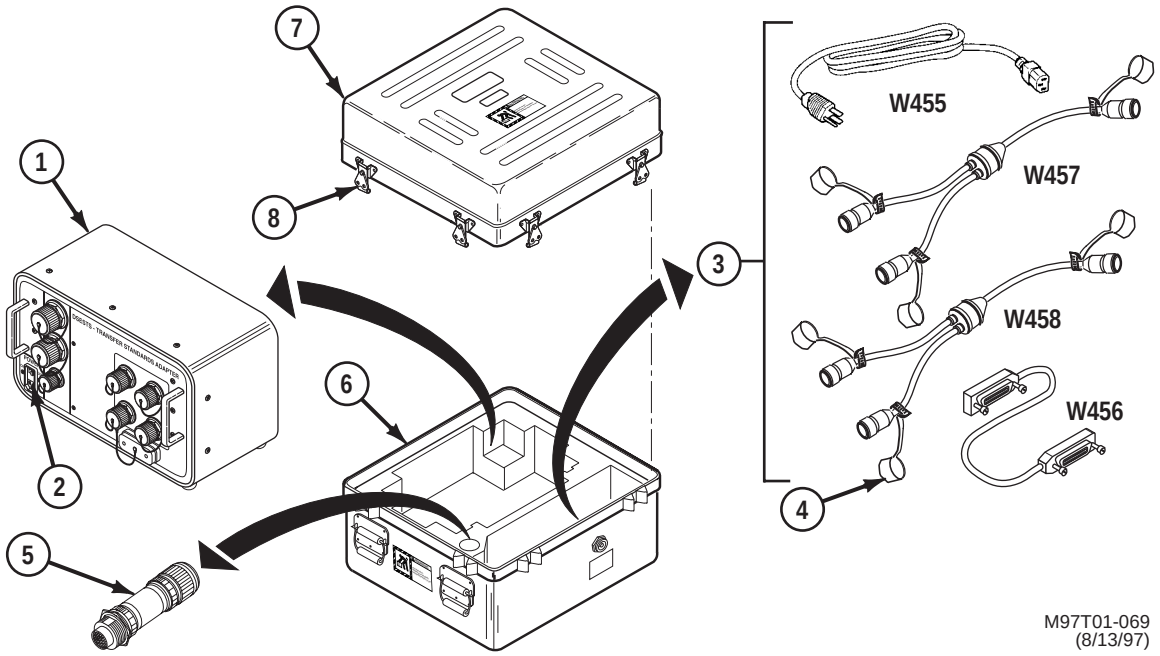
END OF TASK



TSA SHUT DOWN PROCEDURE

a. Remove power to TSA (1).

1) Set TSA power module switch (2) to OFF.
2) Disconnect cable TSA-W455 (3) from TSA and external power source.
3) Screw connector covers on TSA front panel connectors. Make sure cable connector covers (4) are installed on cable connectors.

b. Stow TSA, cables, and adapter.

1) Place cables TSA-W455, TSA-W456, TSA-W457, TSA-W458 (3), and TSA adapter UJ6/W457 (5) in case (6).
2) Place TSA (1) in case (6).
3) Place TSA accessory stowage unit cover (7) on case (6) and turn each of eight latch handles (8) one-half turn clockwise.

END OF TASK

CHAPTER 3

TROUBLESHOOTING PROCEDURES

TROUBLESHOOTING INTRODUCTION 0008 00

SCOPE

This work package contains troubleshooting information that will help you find out why the OIU, GPIA, display, CFM or CSFM is not working properly. Problems may be found during PMCS or by the operator during test set operation. The troubleshooting procedures contained in the work package are authorized for unit level maintenance.

TROUBLESHOOTING APPROACH

When a fault occurs in the OIU during PMCS or normal test equipment operation, perform the checkout procedure located in this section. The checkout procedure will identify most faults and will refer you to the fault symptom index for follow-on troubleshooting authorized at the unit level. If the follow-on troubleshooting is beyond the authorized unit level maintenance, the checkout procedure will tell you what to submit to intermediate direct support to complete the troubleshooting. When a fault occurs in the GPIA or CFM, either during PMCS or normal operation, perform the functional self test. The function self test will identify most faults and refer you to the fault symptom index for follow-on troubleshooting.

FAULT SYMPTOM INDEX

This index lists the fault symptoms that can usually be seen when equipment fails the checkout procedure or functional self test. For each symptom listed in the index, a follow-on troubleshooting procedure is given to locate the faulty part. Some faults that are found during operation, such as faulty test cables and test adapters, may not be identified during the checkout procedure or functional self test. These fault symptoms are also listed in the fault symptom index with reference to their follow-on troubleshooting procedures.

GENERAL INFORMATION

During troubleshooting, check electrical cables and adapters for loose or broken connectors and for bent, pushed-in, or missing connector contacts before replacing any component or turning in equipment.

This manual cannot list all faults that could occur. If a fault is not listed, or is not corrected by the troubleshooting procedure given, notify your supervisor.

NOTE

Two versions of the GPIA functional self test are performed:

One version is performed with the GPIA set up with the OIU and memory module. Instructions for performing this version of the test are included in TM 9-4931-586-12-2&P, TM 9-4931-586-12-3&P, and TM 9-4931-586-12-4&P. The second version is performed with the GPIA set up with the laptop computer. Instructions for performing this version are included in WP 0006 00.

Separate troubleshooting procedures for each version of the functional self tests are referenced in the Fault Symptom Index (WP 0009 00).

TROUBLESHOOTING PROCEDURES

The detailed troubleshooting procedures consisting of illustrated flow charts are used to help you trace problems in the faulty equipment to the bad part that is causing the problem. There is a troubleshooting procedure for every fault symptom listed in the fault symptom index (WP 0009 00). The fault symptom titles are listed in the fault symptom index together with the corresponding troubleshooting procedures. Each troubleshooting procedure also refers to a maintenance procedure that gives instructions on how to replace the bad part.

FOLDOUTS

To aid in troubleshooting, reference the following illustrations located in the back of this manual:

- GPIA Component Locations (Figure 1).
- GPIA Power Input Wiring Diagram (Figure 2).
- CFM P/N 12971974 Component Locations (Figure 3).
- CSFM Component Locations (Figure 4).
- CFM P/N 13014865 Component Locations (Figure 5).

FAULT SYMPTOM INDEX (UNIT) 0009 00

Symptom	TS Procedures Work Package No.
1. No power to OIU with ON/OFF circuit breaker ON. (All lamps off, display dark or scrambled, display unreadable).	WP 0010 00
2. Power lamp off with OIU ON/OFF circuit breaker ON. Display lit.	WP 0011 00
3. Suspected bad test cable.	WP 0012 00
4. OIU fails Functional Self Test, FST adapters and FST cables connected to OIU.	WP 0013 00
5. GPIA fails Functional Self Test performed with OIU and memory module.	WP 0014 00
6. GPIA fails Functional Self Test and display reads – TEST SYSTEM ERROR CODE 0020.	WP 0015 00
7. GPIA ON/OFF circuit breaker trips when power is applied and ON/OFF circuit breaker is set to ON.	WP 0016 00
8. GPIA fails Functional Self Test. Display reads – REPLACE A1 GPIA CORE.	WP 0017 00
9. GPIA fails automatic self test (standalone operation). Display reads – REPLACE AX*GPIA CORE ERROR CODE = XXXX.	WP 0018 00
10. Display completes self test then becomes blank. GPIA self test fail lamp is illuminated (standalone operation).	WP 0019 00
11. Display completes self test then becomes blank. GPIA self test fail lamp is not illuminated (standalone operation).	WP 0020 00
12. GPIA fails Functional Self Test performed with display (standalone operation).	WP 0021 00
13. GPIA fails Functional Self Test. Display reads – FAULTY GPIA POWER HARNESS.	WP 0022 00
14. Self test fail lamp is illuminated. Display reads – REPLACE LOAD CONTROLLER GPIA CORE FAILURE ERROR CODE = 0321.	WP 0023 00
15. Self test fail lamp is illuminated. Display reads – REPLACE A3 (UJ6-PP) GPIA CORE FAILURE ERROR CODE = 0320	WP 0024 00
16. During LRU testing OIU display reads – TEST SYSTEM ERROR CODE XXXXXX.	WP 0025 00

Symptom	TS Procedure Work Package No.
17. GPIA fails functional self test and display reads – TEST SYSTEM ERROR CODE 0082 OR 0085.	WP 0026 00
18. CFM fails functional self test.	WP 0027 00
19. Display reads – FAULTY CFM POWER HARNESS during CFM FST.	WP 0029 00
20. LRU test programs not displayed in test program menu or display shows – TEST SYSTEM ERROR CODE OOBO AT LOCATION XXXX XXXX.	WP 0030 00
21. TSA fails functional self test	WP 0031 00
22. CFM/GPIA fails calibration test.	WP 0032 00
23. GPIA fails power up self test performed when CFM is installed.	WP 0033 00
24. Self test fail lamp is illuminated. Display reads – R16 TEST SYSTEM ERROR CODE	WP 0033 01
25. CSFM fails functional self test.	WP 0033 02
26. No communication between laptop computer and GPIA.	WP 0033 03
27. With CSFM in use, module not detected in other GPIA slot. Display reads - REPLACE A1 MODULE B ERROR CODE = 2100.	WP 0028 00
28. Laptop computer does not respond to inputs during LRU test or FST.	WP 0033 04

TROUBLESHOOTING PROCEDURE 0010 00

SYMPTOM

NO POWER TO OIU WITH ON/OFF CIRCUIT BREAKER ON (ALL LAMPS OFF, DISPLAY DARK OR SCRAMBLED, DISPLAY UNREADABLE).

Test Equipment/Special Tools:

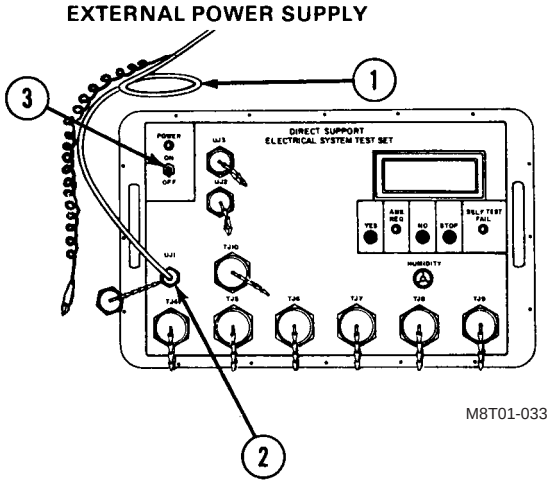
- Multimeter

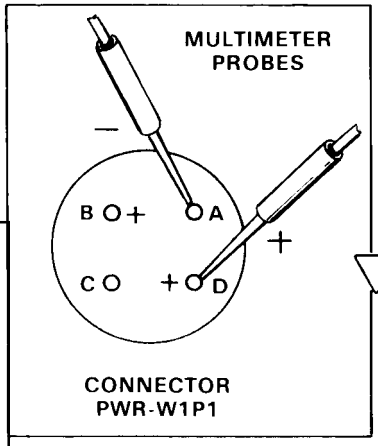
Equipment Conditions:

- OIU resting on clean workbench.
- Power supply connected to OIU.
- Power supply adjusted to 24 vdc.

1

- Preliminary checks:
  - Check that power cable PWR-W1 (1) connector P1 is plugged into OIU connector UJ1 (2). Make sure connector is tight.
  - Check that power cable lugs are tight on power supply terminals.
  - Check that power supply ON/OFF switch is ON.
  - Check that OIU ON/OFF circuit breaker (3) is set to ON.





M8T01-034

2 • Check voltgage input to OIU:
  - Set OIU ON/OFF circuit breaker (3) to OFF.
  - Set power supply ON/OFF switch to OFF.
  - Unplug cable PWR-W1 (1) plug P1 from OIU connector UJ1 (2).
  - Set power supply ON/OFF switch to ON.
  - Using multimeter, check for 24 vdc between the connector PWR-W1P1 pins listed in Table 1.

Is voltage 24 vdc between the pins listed in Table 1?

Table 1.

From (+)	To (–)
B	A
D	A
B	C
D	C

See WP 0035 00 (Figure 1) for power cable PWR-W1 wiring.

YES

3 • Set power supply ON/OFF switch to OFF.
- Shut down OIU and stow cables.
  - Refer to WP 0006 00.
- Turn in OIU and FST cables and adapters.

NO

4 • Using multimeter, check for 24 vdc at power supply + and – terminals.

Is voltage at power supply terminals 24 vdc?

NO

5 • Adjust external power supply for 24 vdc output.
  - Refer to manufacturer's service manual.

YES

6 • Set power supply ON/OFF switch to OFF.
- Disconnect power cable PWR-W1 leads from power supply terminals.
- Troubleshoot power cable PWR-W1.
  - Refer to WP 0012 00.

TROUBLESHOOTING PROCEDURE 0011 00

SYMPTOM

POWER LAMP OFF WITH OIU ON/OFF CIRCUIT BREAKER ON. DISPLAY LIT.

Test Equipment/Special Tools:

- Multimeter

Equipment Conditions:

- OIU resting on clean workbench.
- Power supply connected to OIU.
- Power supply adjusted to 24 vdc.

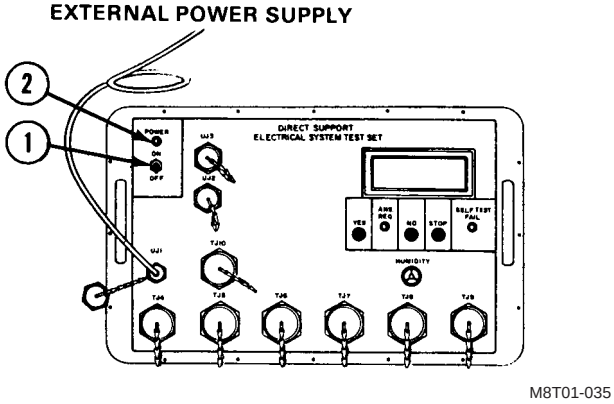
1

- Set OIU ON/OFF circuit breaker (1) to OFF.
- Remove POWER lens and lamp (2).
  - Refer to WP 0046 00.
- Replace lamp with new lamp.

2

- Install POWER lamp and lens (2).
  - Refer to WP 0046 00.
- Set OIU ON/OFF circuit breaker (1) to ON.

Does "POWER" lamp light?



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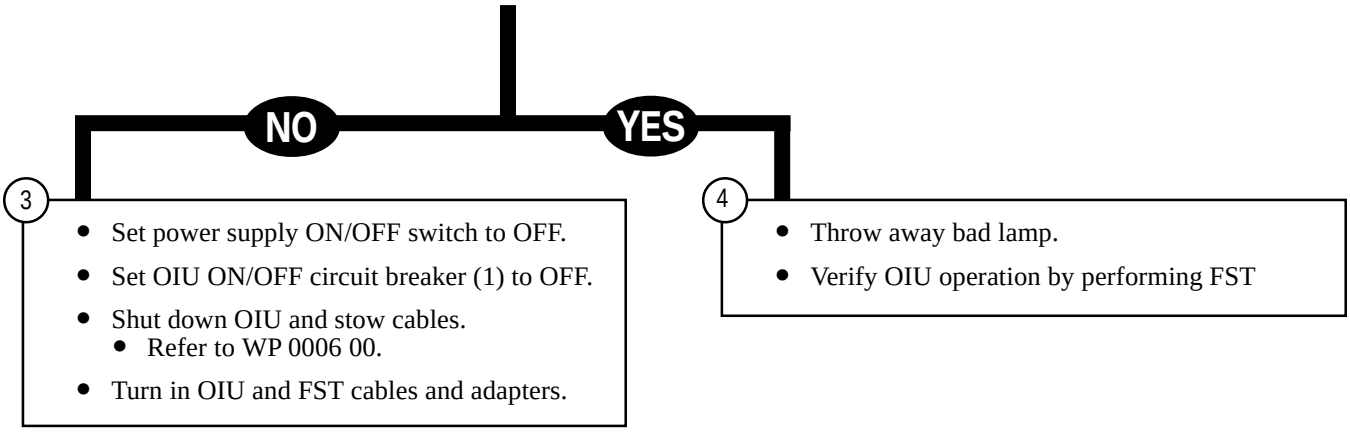
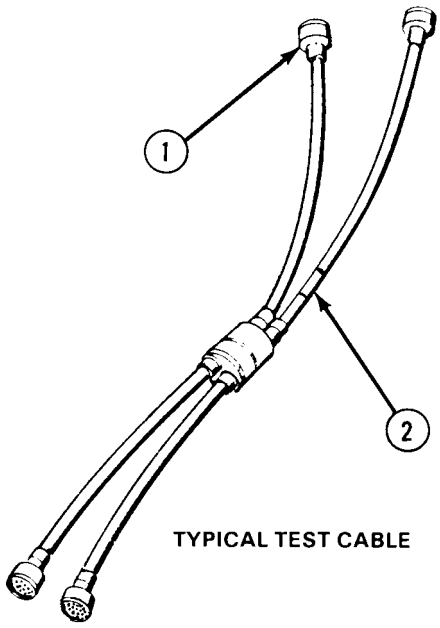

NO
YES
3
Set power supply ON/OFF switch to OFF.
Set OIU ON/OFF circuit breaker (1) to OFF.
Shut down OIU and stow cables.
Refer to WP 0006 00.
Turn in OIU and FST cables and adapters.
4
Throw away bad lamp.
Verify OIU operation by performing FST

SYMPTOM

SUSPECTED BAD TEST CABLE

Test Equipment/Special Tools:
- Multimeter

Equipment Conditions:
- Test cable removed from test set and resting on clean workbench.



TYPICAL TEST CABLE

M8T01-036

1
- Preliminary checks:
  - Inspect cable connectors (1) for broken or cracked inserts.
  - Inspect cable connectors (1) for bent, broken, pushed-in, or corroded contacts.

Any broken parts, bent, corroded, or missing contacts?

NO

2
- Check continuity of test cable wires:
  - Inspect cable identification band (2) to identify cable.
  - Go to WP 0037 00 or WP 0038 00 and find the wiring list for the identified cable.
  - Using multimeter, check continuity of all wires listed in wiring list.

See WP 0035 00 for connector pin arrangement.

Are all continuity checks OK?

NO

4
- Replace any broken or missing connector contacts.
  - Refer to WP 0047 00.
- Go to block 1 and continue procedure.

YES

5
- Cable not faulty.
- Verify test cable by repeating procedure that led to fault symptom.

YES

3
- Repair connector.
  - Refer to WP 0047 00.
- Go back to block 1 and repeat procedure

TROUBLESHOOTING PROCEDURE 0013 00

SYMPTOM

OIU FAILS FUNCTIONAL SELF TEST, FST ADAPTERS AND FST CABLES CONNECTED TO OIU.

Test Equipment/Special Tools:

- Multimeter

Equipment Conditions:

- OIU resting on clean workbench.
- Power supply connected to OIU.
- Functional self test in progress.

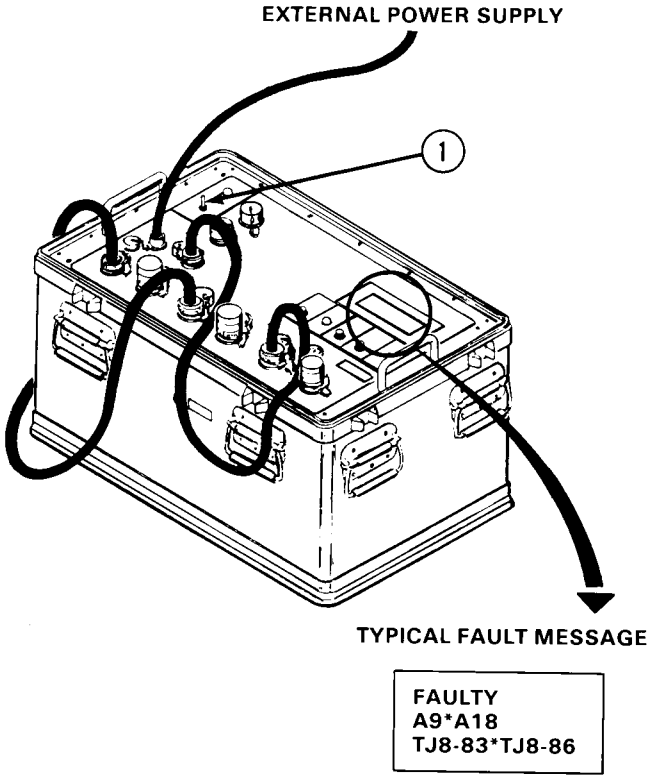
NOTE

When the OIU fails FST with FST adapters and FST cables connected to the OIU, the problem could be a faulty adapter or cable. Perform the following steps before turning in the OIU.

When the OIU display reads a fault message, record the message before powering down the OIU.

1

- Power down OIU:
  - Set OIU ON/OFF circuit breaker (1) to OFF.
  - Set power supply ON/OFF switch to OFF.



2

- Unplug the adapter or cable from the connector called out on bottom line of display.
- Go to wiring list for the adapter or cable.
  - Refer to WP 0037 00 and WP 0038 00.
- Using multimeter, check continuity of all wires listed in the wiring list.

See WP 0035 00 for connector pin arrangement.

Are all continuity checks OK?

NO

3

- Replace any faulty FST adapter.
- Replace any broken or missing cable connector contacts.
  - Refer to WP 0047 00.
- Verify OIU operation by performing OIU FST.
  - Refer to WP 0006 00.

YES

4

- OIU faulty, shut down OIU and stow cables and adapters.
  - Refer to WP 0006 00.
- Turn in OIU.

SYMPTOM

GPIA FAILS FUNCTIONAL SELF TEST PERFORMED WITH OIU AND MEMORY MODULE.

Test Equipment/Special Tools:

- Analog Multimeter

Equipment Conditions:

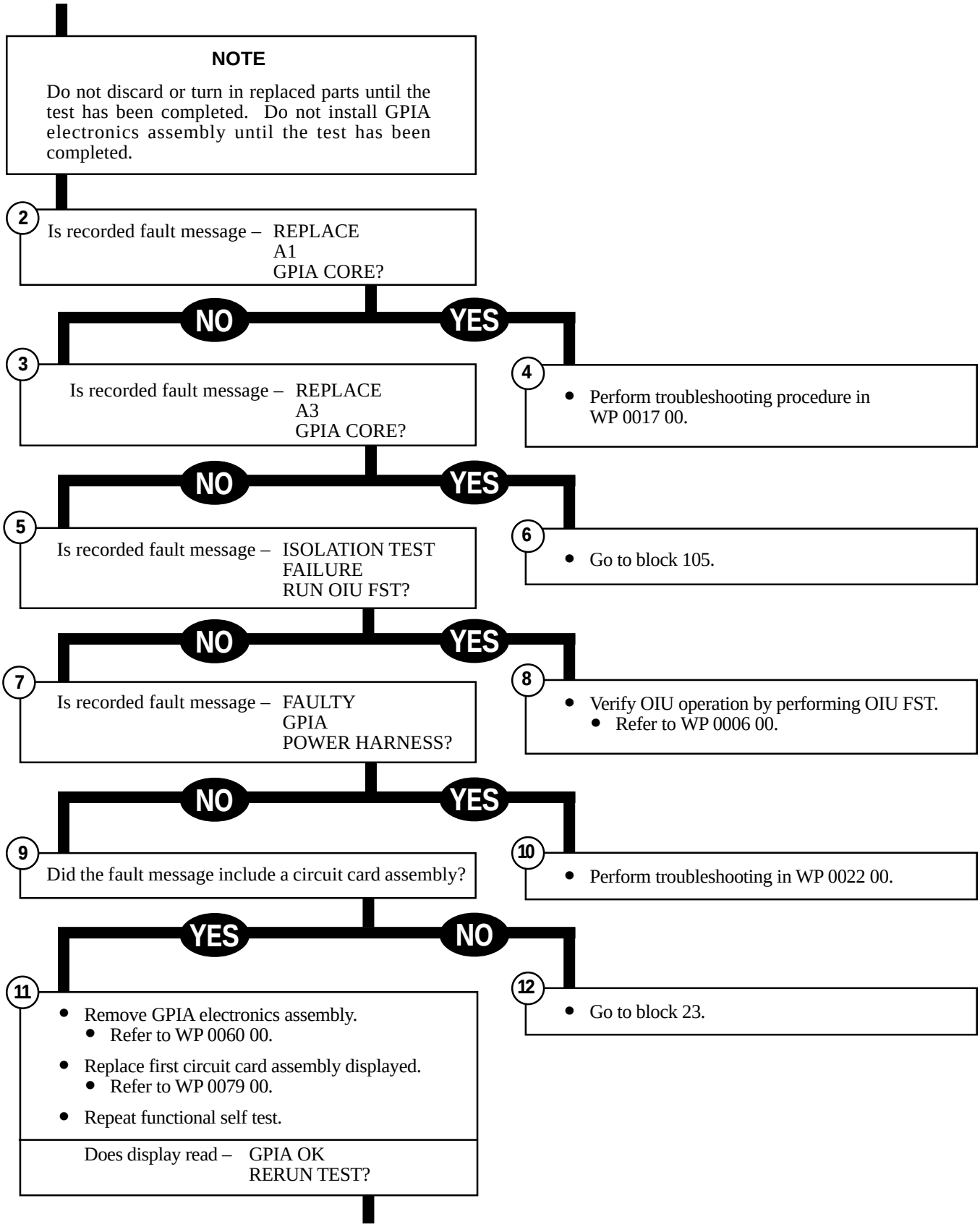
- OIU and GPIA resting on clean workbench.
- Power supply connected to OIU and GPIA.
- Functional self test in progress.

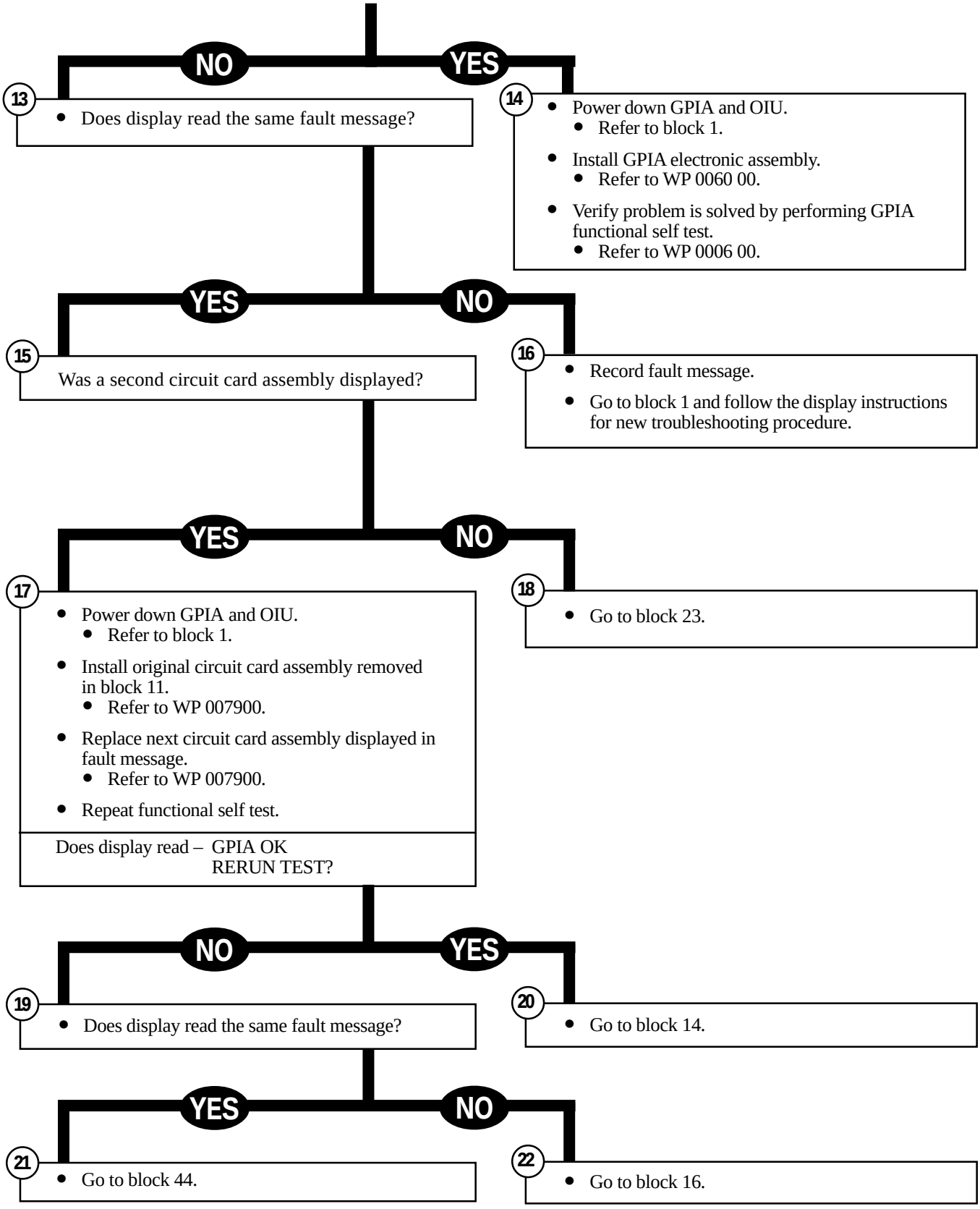
NOTE

When the OIU display shows a fault message, record the message before pushing the YES pushbutton.

1

- When a fault occurs, press the YES pushbutton and follow the display instructions until the GPIA is disconnected from the OIU.
- Set GPIA ON/OFF circuit breaker to OFF.
- Remove cable W21 from GPIA UJ7.
- Remove cable W23 from GPIA UJ1.


NOTE
Do not discard or turn in replaced parts until the test has been completed. Do not install GPIA electronics assembly until the test has been completed.
2
Is recorded fault message – REPLACE A1 GPIA CORE?
NO
YES
3
Is recorded fault message – REPLACE A3 GPIA CORE?
4
• Perform troubleshooting procedure in WP 0017 00.
NO
YES
5
Is recorded fault message – ISOLATION TEST FAILURE RUN OIU FST?
6
• Go to block 105.
NO
YES
7
Is recorded fault message – FAULTY GPIA POWER HARNESS?
8
• Verify OIU operation by performing OIU FST.
• Refer to WP 0006 00.
NO
YES
9
Did the fault message include a circuit card assembly?
10
• Perform troubleshooting in WP 0022 00.
YES
NO
11
• Remove GPIA electronics assembly.
• Refer to WP 0060 00.
• Replace first circuit card assembly displayed.
• Refer to WP 0079 00.
• Repeat functional self test.
Does display read – GPIA OK RERUN TEST?
12
• Go to block 23.


NO
YES
13
Does display read the same fault message?
14
Power down GPIA and OIU.
Refer to block 1.
Install GPIA electronic assembly.
Refer to WP 0060 00.
Verify problem is solved by performing GPIA functional self test.
Refer to WP 0006 00.
YES
NO
15
Was a second circuit card assembly displayed?
16
Record fault message.
Go to block 1 and follow the display instructions for new troubleshooting procedure.
YES
NO
17
Power down GPIA and OIU.
Refer to block 1.
Install original circuit card assembly removed in block 11.
Refer to WP 007900.
Replace next circuit card assembly displayed in fault message.
Refer to WP 007900.
Repeat functional self test.
Does display read – GPIA OK
RERUN TEST?
18
Go to block 23.
NO
YES
19
Does display read the same fault message?
20
Go to block 14.
YES
NO
21
Go to block 44.
22
Go to block 16.

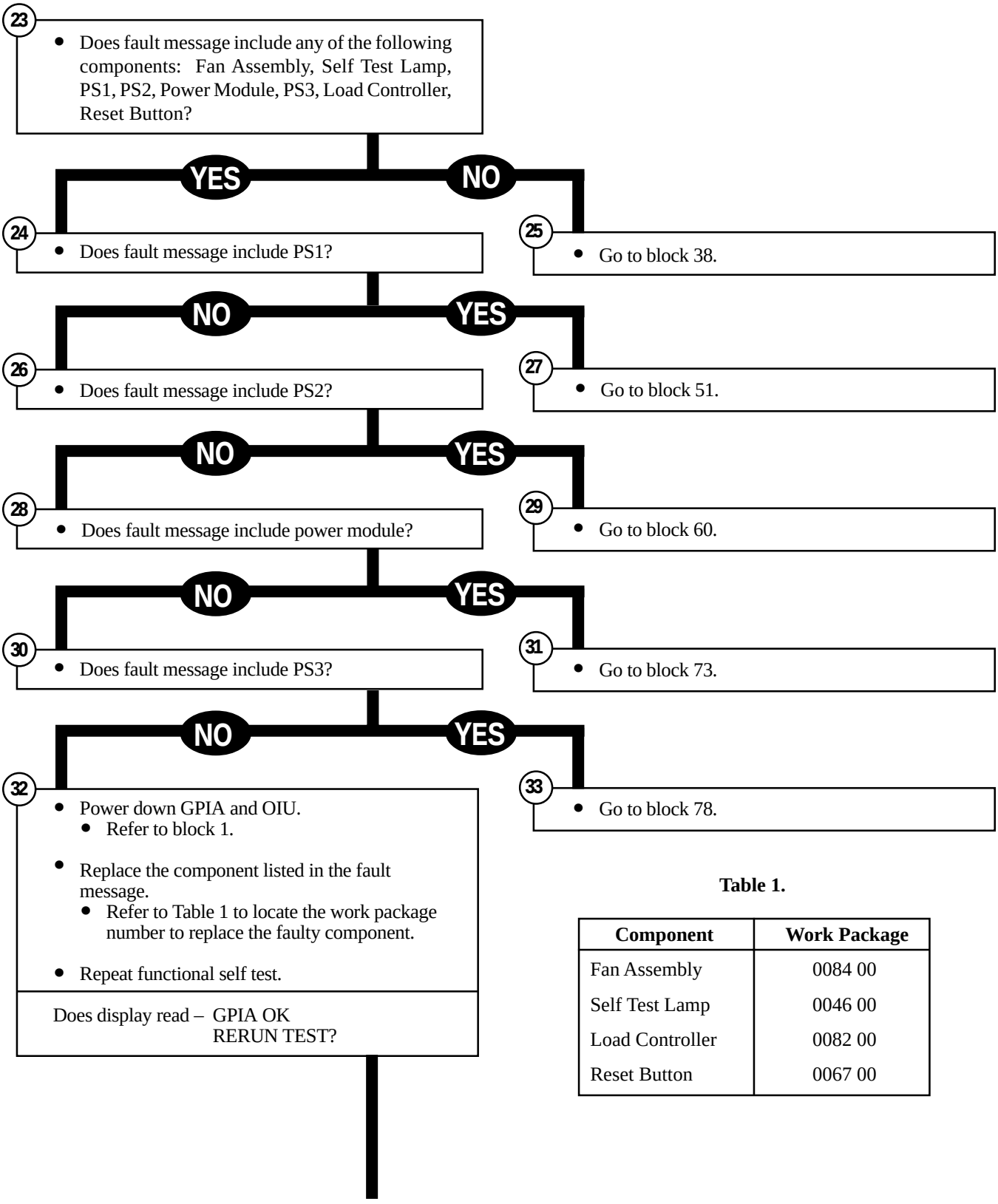
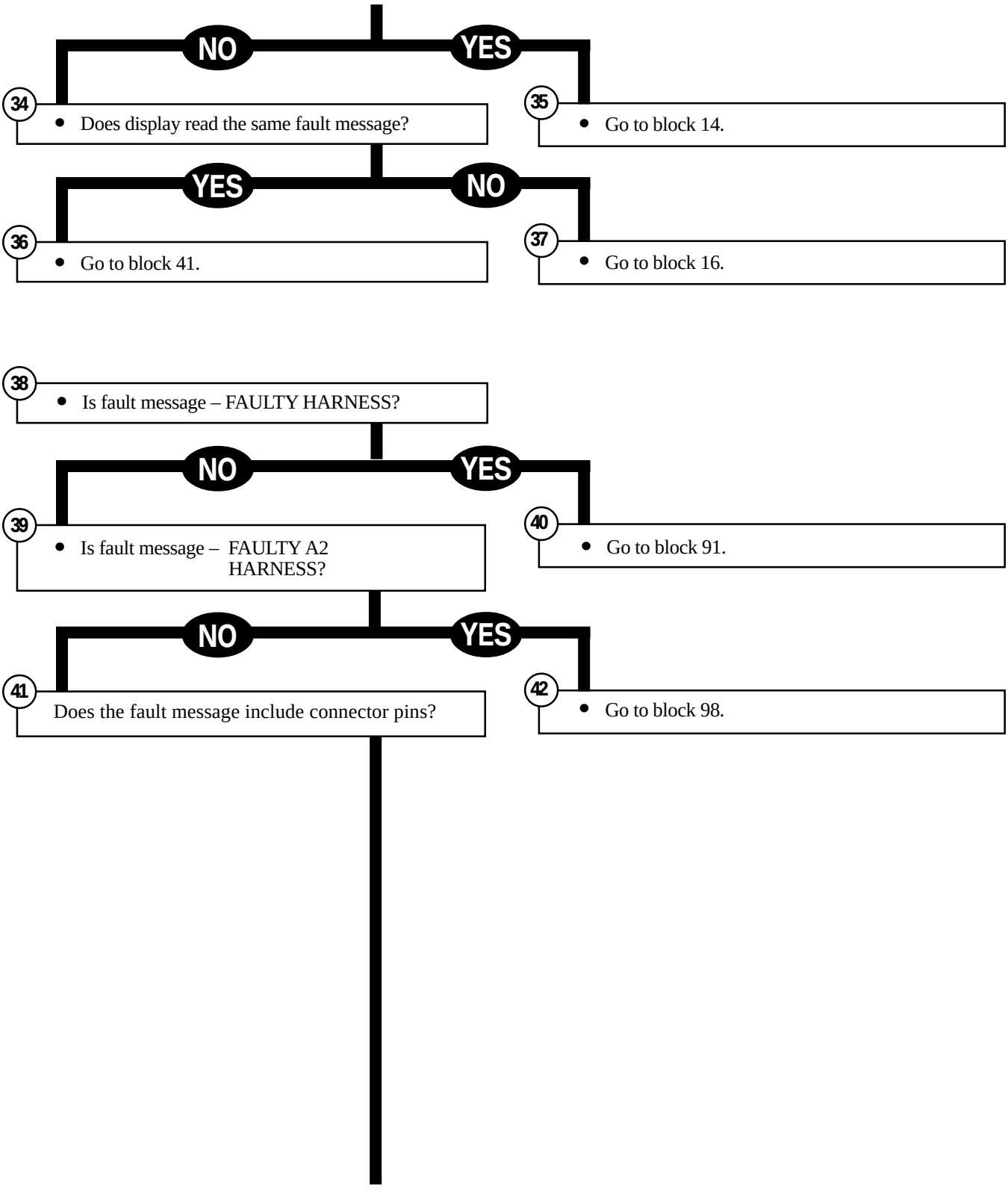
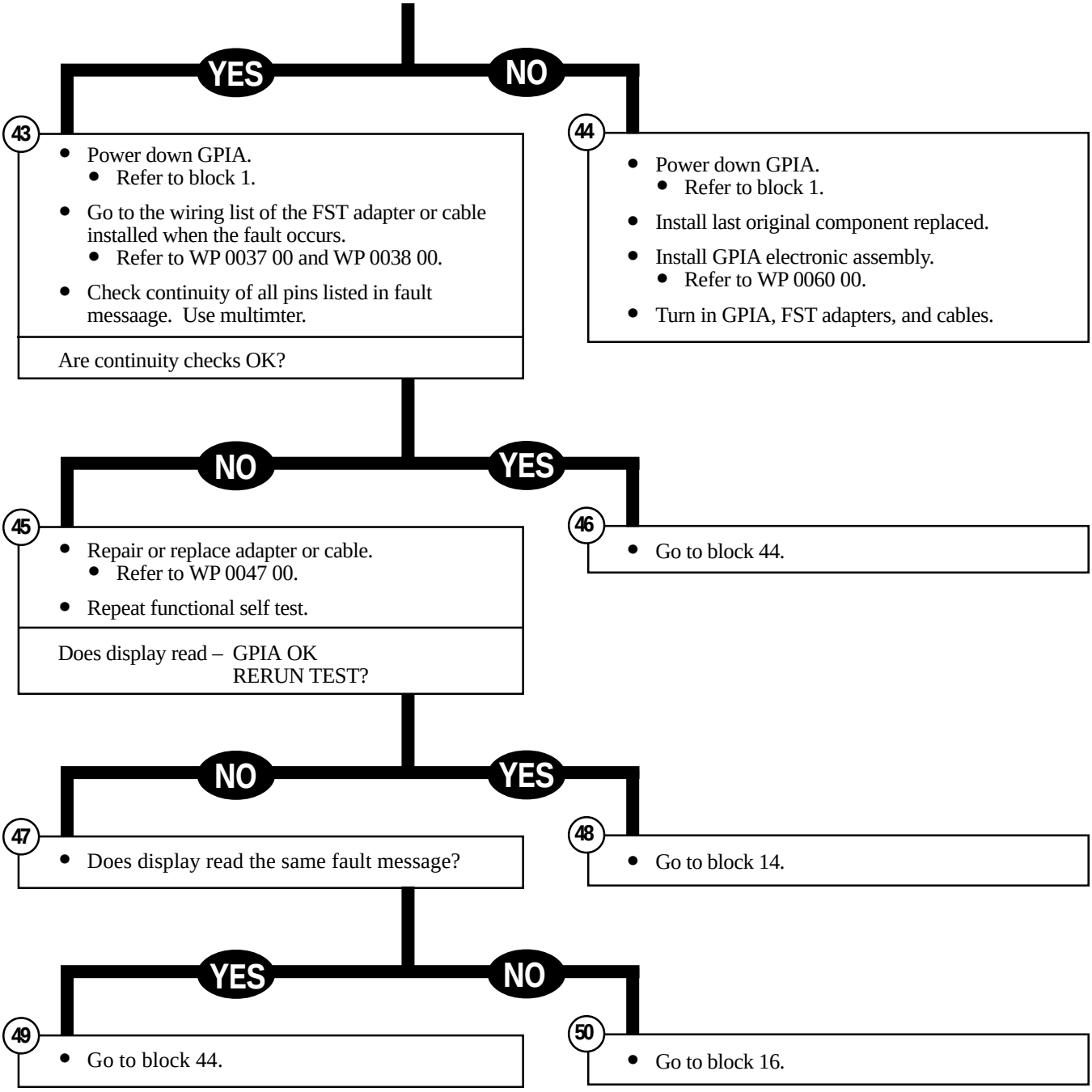
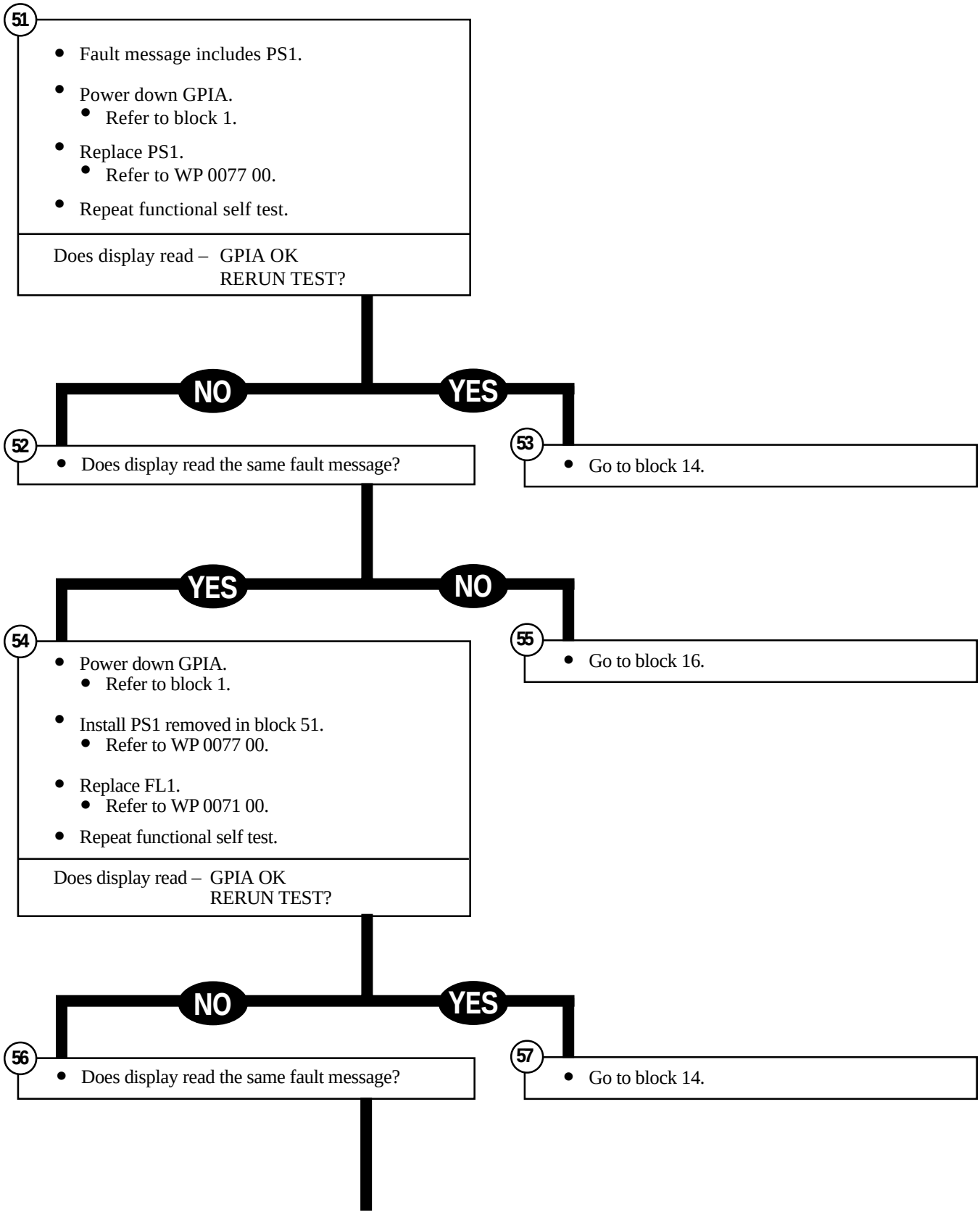


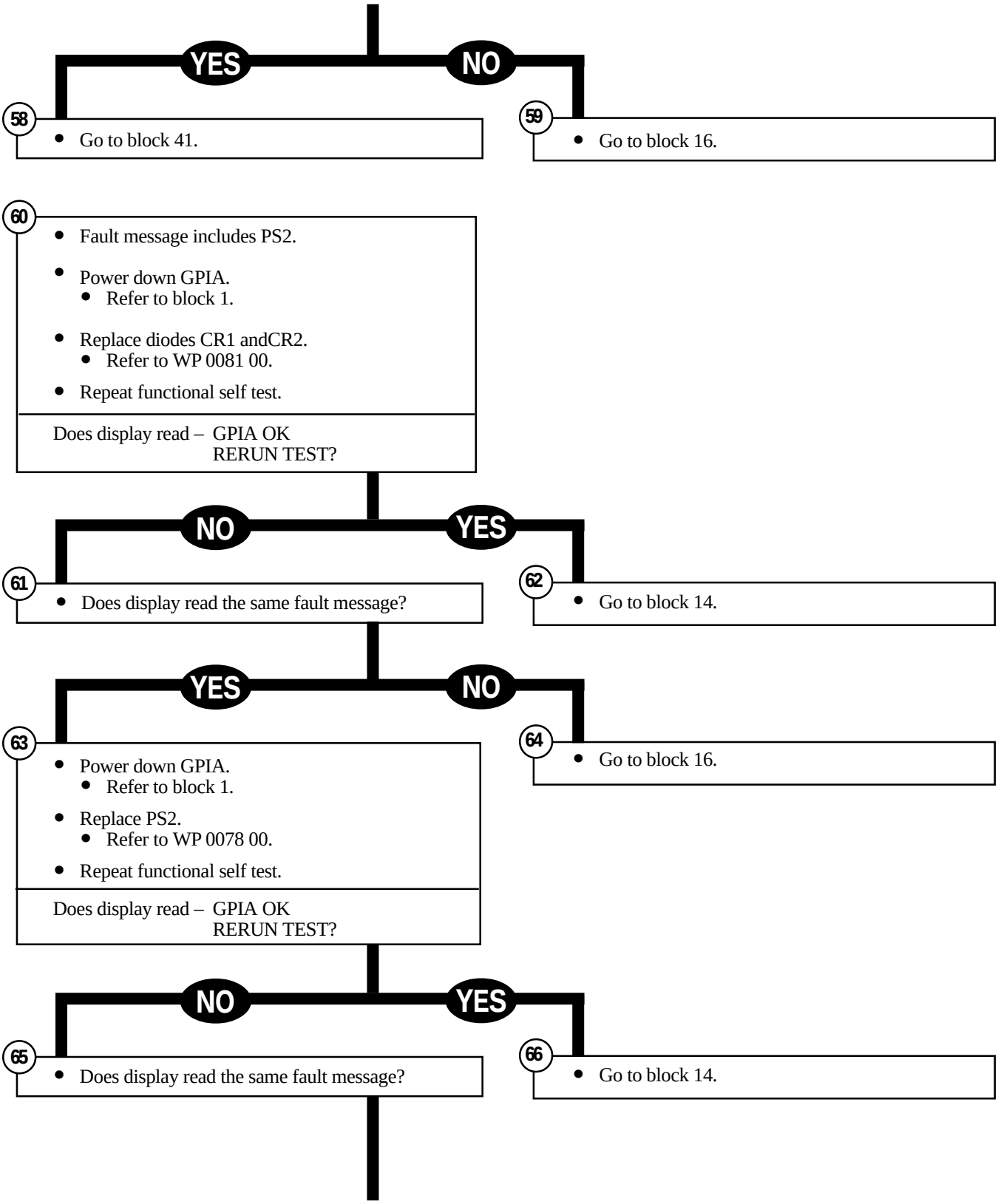
Table 1.

Component	Work Package
Fan Assembly	0084 00
Self Test Lamp	0046 00
Load Controller	0082 00
Reset Button	0067 00


NO
YES
34
• Does display read the same fault message?
35
• Go to block 14.
YES
NO
36
• Go to block 41.
37
• Go to block 16.
38
• Is fault message – FAULTY HARNESS?
NO
YES
39
• Is fault message – FAULTY A2 HARNESS?
40
• Go to block 91.
NO
YES
41
Does the fault message include connector pins?
42
• Go to block 98.


YES
NO
43
Power down GPIA.
Refer to block 1.
Go to the wiring list of the FST adapter or cable installed when the fault occurs.
Refer to WP 0037 00 and WP 0038 00.
Check continuity of all pins listed in fault messaage. Use multimter.
Are continuity checks OK?
44
Power down GPIA.
Refer to block 1.
Install last original component replaced.
Install GPIA electronic assembly.
Refer to WP 0060 00.
Turn in GPIA, FST adapters, and cables.
NO
YES
45
Repair or replace adapter or cable.
Refer to WP 0047 00.
Repeat functional self test.
Does display read – GPIA OK
RERUN TEST?
46
Go to block 44.
NO
YES
47
Does display read the same fault message?
48
Go to block 14.
YES
NO
49
Go to block 44.
50
Go to block 16.


51
• Fault message includes PS1.
• Power down GPIA.
• Refer to block 1.
• Replace PS1.
• Refer to WP 0077 00.
• Repeat functional self test.
Does display read – GPIA OK
RERUN TEST?
NO
YES
52
• Does display read the same fault message?
53
• Go to block 14.
YES
NO
54
• Power down GPIA.
• Refer to block 1.
• Install PS1 removed in block 51.
• Refer to WP 0077 00.
• Replace FL1.
• Refer to WP 0071 00.
• Repeat functional self test.
Does display read – GPIA OK
RERUN TEST?
55
• Go to block 16.
NO
YES
56
• Does display read the same fault message?
57
• Go to block 14.


YES
NO
58
• Go to block 41.
59
• Go to block 16.
60
• Fault message includes PS2.
• Power down GPIA.
• Refer to block 1.
• Replace diodes CR1 andCR2.
• Refer to WP 0081 00.
• Repeat functional self test.
Does display read – GPIA OK
RERUN TEST?
NO
YES
61
• Does display read the same fault message?
62
• Go to block 14.
YES
NO
63
• Power down GPIA.
• Refer to block 1.
• Replace PS2.
• Refer to WP 0078 00.
• Repeat functional self test.
Does display read – GPIA OK
RERUN TEST?
64
• Go to block 16.
NO
YES
65
• Does display read the same fault message?
66
• Go to block 14.

YES

NO

67

- Power down GPIA.
  - Refer to block 1.
- Install PS2 removed in block 63.
  - Refer to WP 0078 00.
- Replace FL2.
  - Refer to WP 0071 00.
- Repeat functional self test.

Does display read – GPIA OK
RERUN TEST?

68

- Go to block 16.

NO

YES

69

- Does display read the same fault message?

70

- Go to block 14.

YES

NO

71

- Go to block 41.

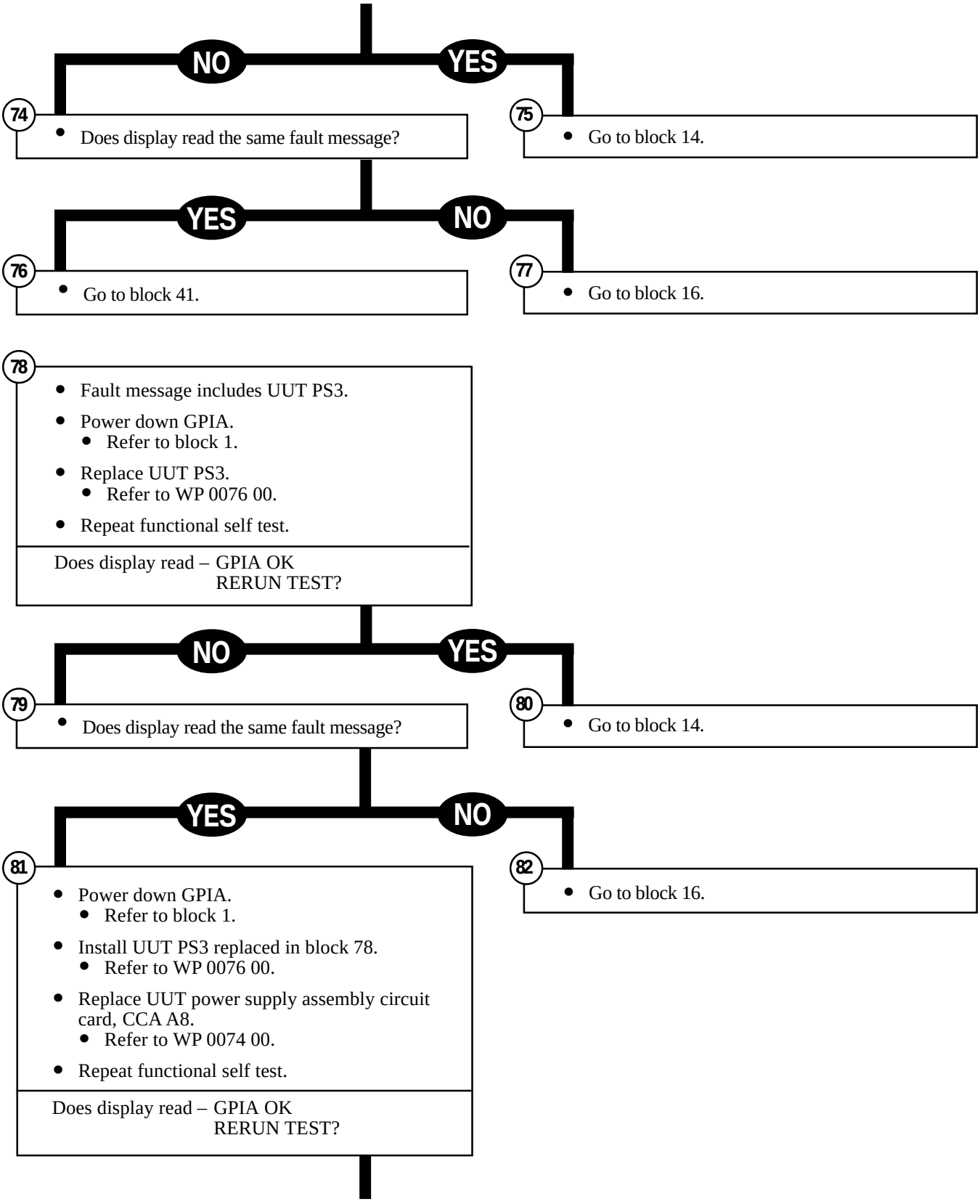
72

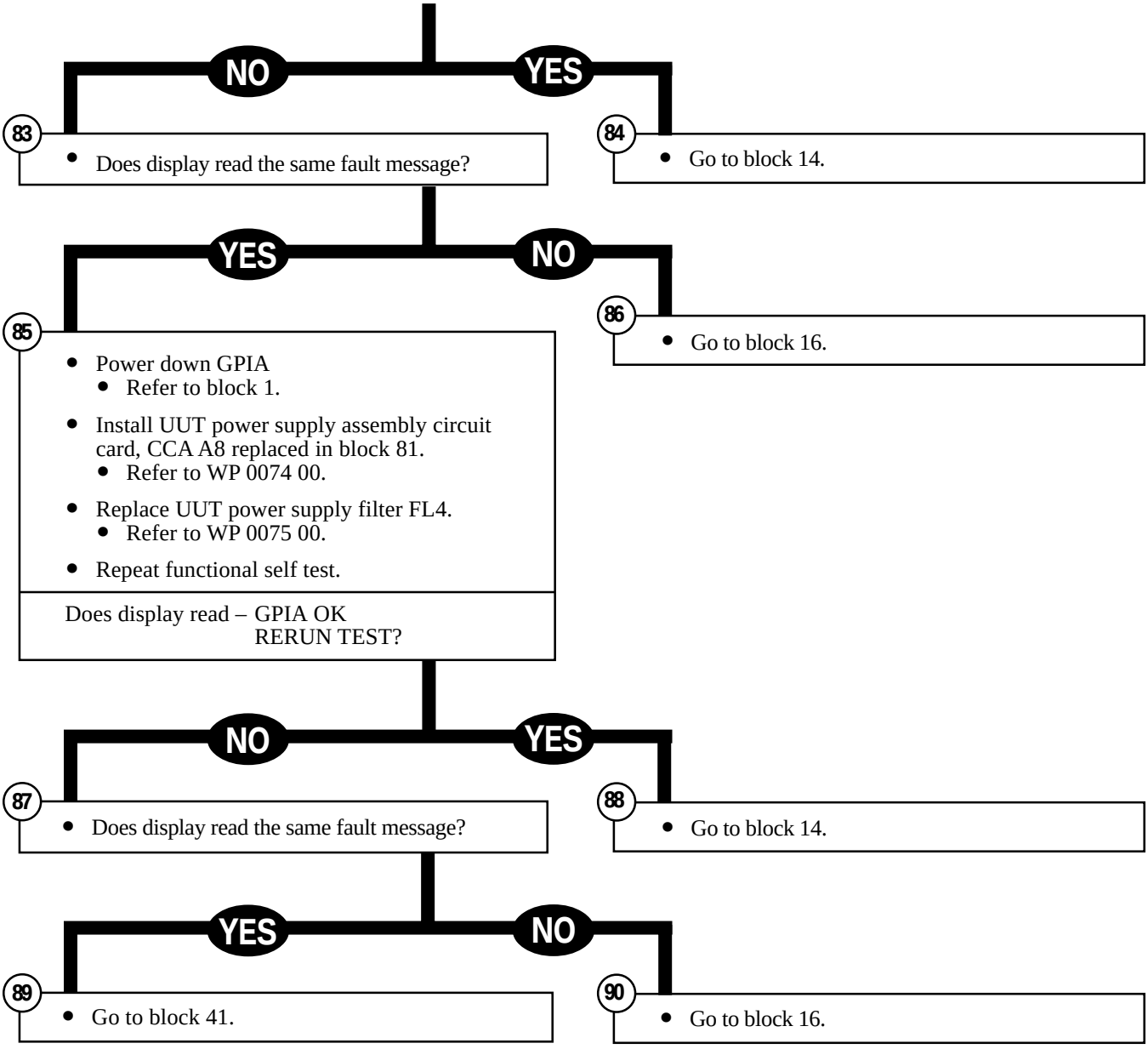
- Go to block 16.

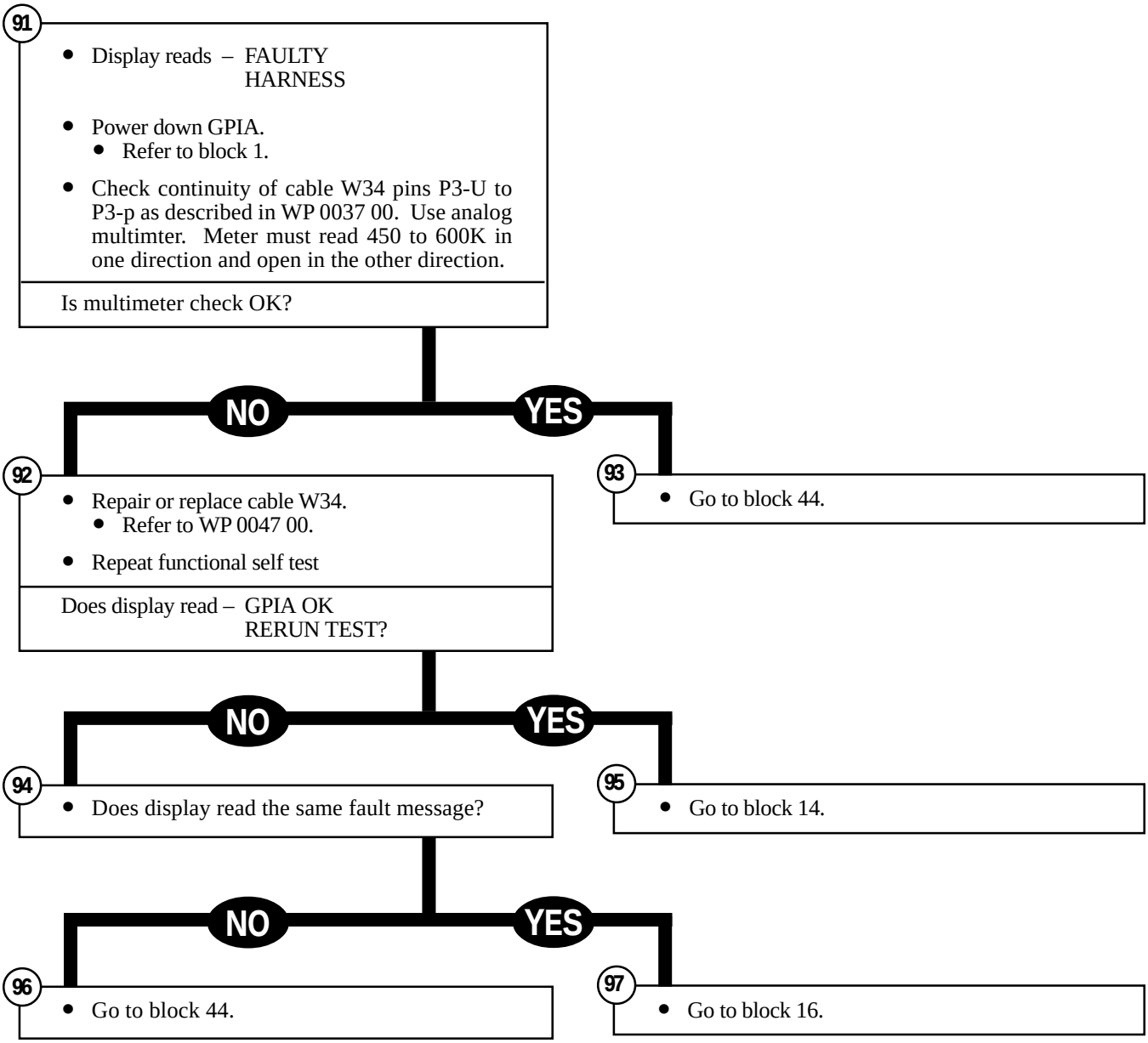
73

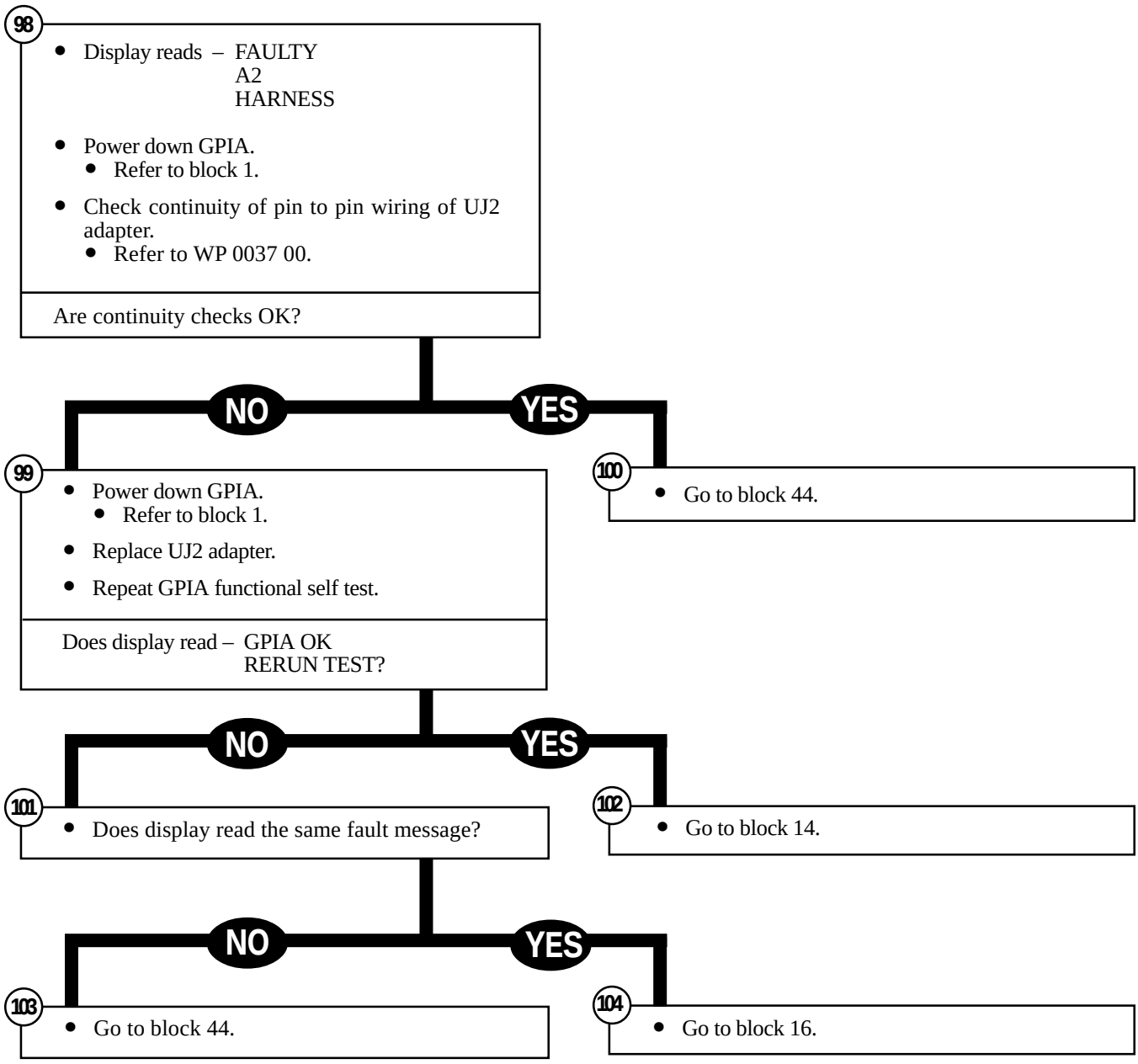
- Fault message includes power module.
- Power down GPIA.
  - Refer to block 1.
- Replace filter plate assembly circuit card, CCA A7.
  - Refer to WP 0085 00.
- Repeat functional self test.

Does display read – GPIA OK
RERUN TEST?


NO
YES
74
Does display read the same fault message?
75
Go to block 14.
YES
NO
76
Go to block 41.
77
Go to block 16.
78
Fault message includes UUT PS3.
Power down GPIA.
Refer to block 1.
Replace UUT PS3.
Refer to WP 0076 00.
Repeat functional self test.
Does display read – GPIA OK
RERUN TEST?
NO
YES
79
Does display read the same fault message?
80
Go to block 14.
YES
NO
81
Power down GPIA.
Refer to block 1.
Install UUT PS3 replaced in block 78.
Refer to WP 0076 00.
Replace UUT power supply assembly circuit card, CCA A8.
Refer to WP 0074 00.
Repeat functional self test.
Does display read – GPIA OK
RERUN TEST?
82
Go to block 16.


NO
YES
83
• Does display read the same fault message?
84
• Go to block 14.
YES
NO
85
• Power down GPIA
• Refer to block 1.
• Install UUT power supply assembly circuit card, CCA A8 replaced in block 81.
• Refer to WP 0074 00.
• Replace UUT power supply filter FL4.
• Refer to WP 0075 00.
• Repeat functional self test.
Does display read – GPIA OK
RERUN TEST?
86
• Go to block 16.
NO
YES
87
• Does display read the same fault message?
88
• Go to block 14.
YES
NO
89
• Go to block 41.
90
• Go to block 16.


91
• Display reads – FAULTY HARNESS
• Power down GPIA.
• Refer to block 1.
• Check continuity of cable W34 pins P3-U to P3-p as described in WP 0037 00. Use analog multimter. Meter must read 450 to 600K in one direction and open in the other direction.
Is multimeter check OK?
NO
YES
92
• Repair or replace cable W34.
• Refer to WP 0047 00.
• Repeat functional self test
Does display read – GPIA OK RERUN TEST?
NO
YES
94
• Does display read the same fault message?
NO
YES
96
• Go to block 44.
93
• Go to block 44.
95
• Go to block 14.
97
• Go to block 16.


98
Display reads – FAULTY
A2
HARNESS
Power down GPIA.
Refer to block 1.
Check continuity of pin to pin wiring of UJ2 adapter.
Refer to WP 0037 00.
Are continuity checks OK?
NO
YES
99
Power down GPIA.
Refer to block 1.
Replace UJ2 adapter.
Repeat GPIA functional self test.
Does display read – GPIA OK
RERUN TEST?
100
Go to block 44.
NO
YES
101
Does display read the same fault message?
102
Go to block 14.
NO
YES
103
Go to block 44.
104
Go to block 16.

From block 6

105

- Replace circuit card A3.
  - Refer to block WP 0079 00.
- Repeat functional self test..

Does display read – REPLACE
A3
GPIA CORE

YES

106

NOTE

In Table 2 (+) refers to positive multimeter lead; (–) refers to negative lead.

- Using multimeter, measure voltages at jack J13 (1) as shown in Table 2.

Were both voltage measurements correct?

NO

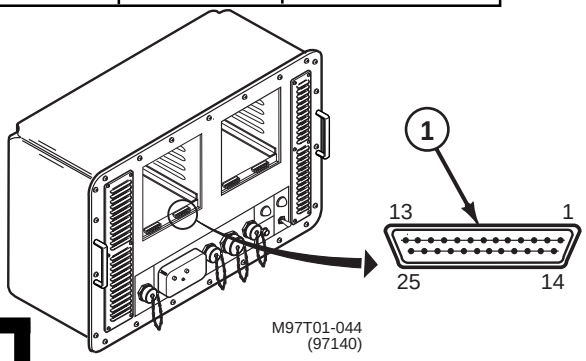
107

- If display reads – GPIA OK
  RERUN TEST

  go to block 14.
- If a fault message is displayed, go to block 1 and repeat test procedure.

Table 2.

From	To	Correct Reading
J13-8 (+)	J13-22 (–)	14.8-15.2 vdc
J13-22 (+)	J13-20 (–)	14.8-15.2 vdc



M97T01-044
(97140)

NO

108

- Power down GPIA.
  - Refer to block 1.
- Replace power supply PS2.
  - Refer to WP 0078 00.
- Repeat functional self test.

Does display read – REPLACE
A3
GPIA CORE?

YES

109

- Go to block 44.

YES

110

- Go to block 44.

NO

111

- If display reads – GPIA OK
  RERUN TEST

  go to block 14.
- If a fault message is displayed, go to block 1 and repeat test procedure.

TROUBLESHOOTING PROCEDURE **0015 00**

SYMPTOM

GPIA FAILS FUNCTIONAL SELF TEST AND DISPLAY READS – TEST SYSTEM ERROR CODE 0020

Test Equipment/Special Tools:

- None

Equipment Conditions:

- OIU and GPIA resting on clean workbench.
- Power supply connected to OIU and GPIA.
- GPIA functional self test in progress.

NOTE

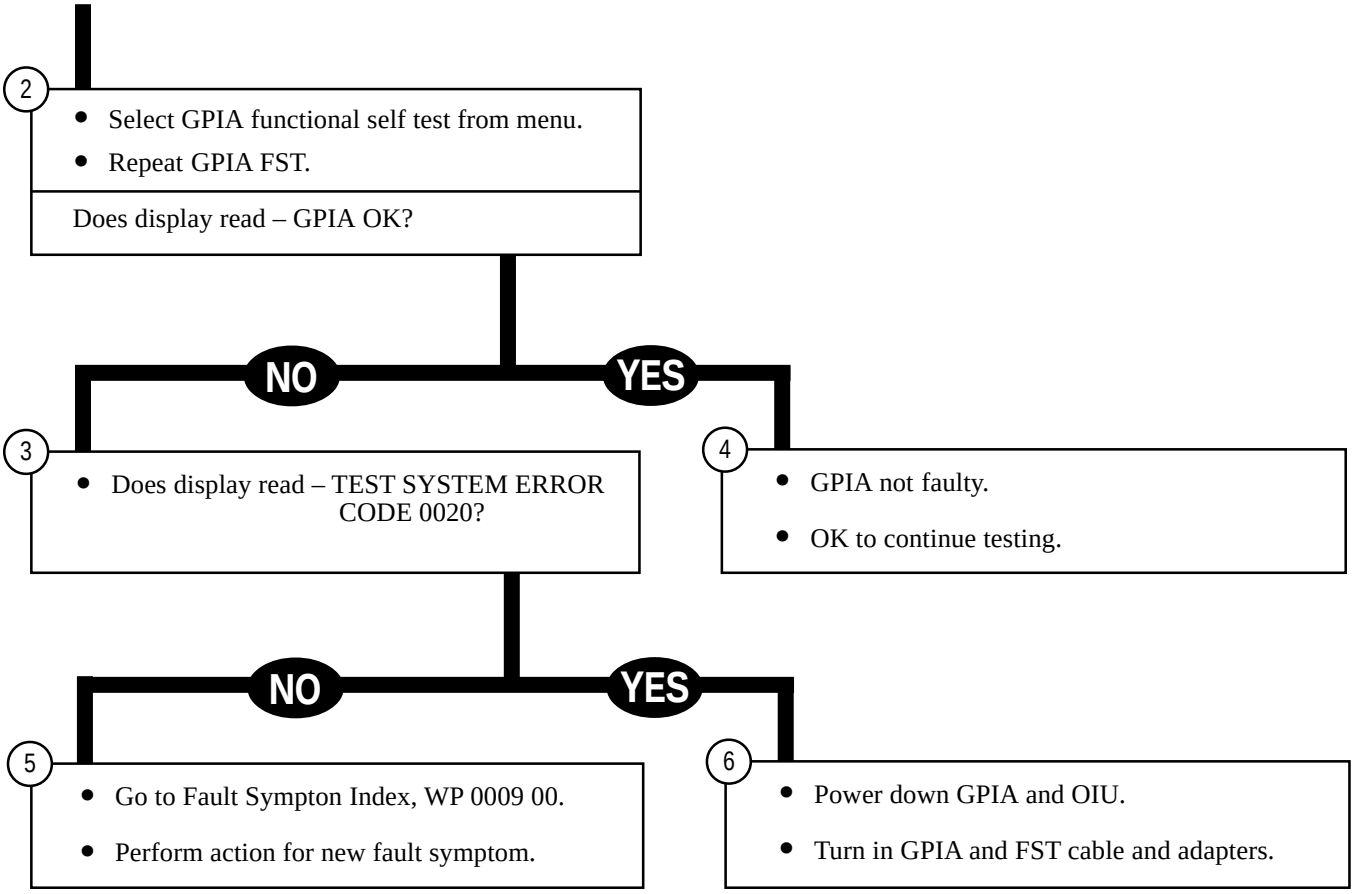
A probable cause for this fault message is the operator pressed the GPIA RESET switch or set the GPIA ON/OFF circuit breaker OFF and ON during test program execution. The test should be repeated, taking care to follw the instructions on the display for conducting the test.

1

- When the OIU display reads –

  TEST SYSTEM ERROR
  CODE 020,

  press the YES pushbutton and follow the display instructions until the GPIA is disconnected from the OIU.


2
Select GPIA functional self test from menu.
Repeat GPIA FST.
Does display read – GPIA OK?
NO
YES
3
Does display read – TEST SYSTEM ERROR CODE 0020?
4
GPIA not faulty.
OK to continue testing.
NO
YES
5
Go to Fault Sympton Index, WP 0009 00.
Perform action for new fault symptom.
6
Power down GPIA and OIU.
Turn in GPIA and FST cable and adapters.

TROUBLESHOOTING PROCEDURE 0016 00

SYMPTOM

GPIA ON/OFF CIRCUIT BREAKER TRIPS WHEN POWER IS APPLIED AND ON/OFF CIRCUIT BREAKER IS SET TO ON.

Test Equipment/Special Tools:

- None

Equipment Conditions:

- GPIA resting on clean workbench.
- Power supply connected to GPIA.

CAUTION

To avoid damage to equipment, set the power supply ON/OFF circuit breaker to OFF before replacing parts, removing and installing connectors, and soldering and unsoldering wires.

1

- Preliminary checks:
  - Check that power cable leads are connected correctly to power supply.
  - Refer to WP 0006 00.

2

- To power down GPIA and power supply:
  - Set GPIA ON/OFF circuit breaker to OFF.
  - Set power supply ON/OFF switch to OFF.

NOTE

Do not discard or turn in replaced parts until the test has been completed. Do not install GPIA electronic assembly or covers and plates until instructed.

3

- Remove GPIA from case.
  - Refer to WP 0060 00.
- Remove filter plate.
  - Refer to WP 0061 00.
- Remove front cover.
  - Refer to WP 0062 00.
- Remove radial blower end plate, but leave P19 and J19 connected.
  - Refer to WP 0083 00.

4

- Install module cavity covers on GPIA.

NOTE

Make sure module cavity covers are properly installed and interlock switches are pushed completely in. A click can be heard when the swtiches are completely pushed in.

5

- Remove wires from terminals 2 (1), 3 (2), and 5 (3) on CB1 (4).
  - Refer to WP 0065 00.
- Set diode CR8 (5) aside.

6

- To power up GPIA and power supply:
  - Set power supply ON/OFF switch to ON.
  - Set GPIA ON/OFF circuit breaker to ON.

Does GPIA ON/OFF circuit breaker trip?

NO **YES**

7

- Power down GPIA and power supply.
  - Refer to block 2.
- Install wire on terminal 2 (1) of CB1 (4).
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?

NO **YES**

9

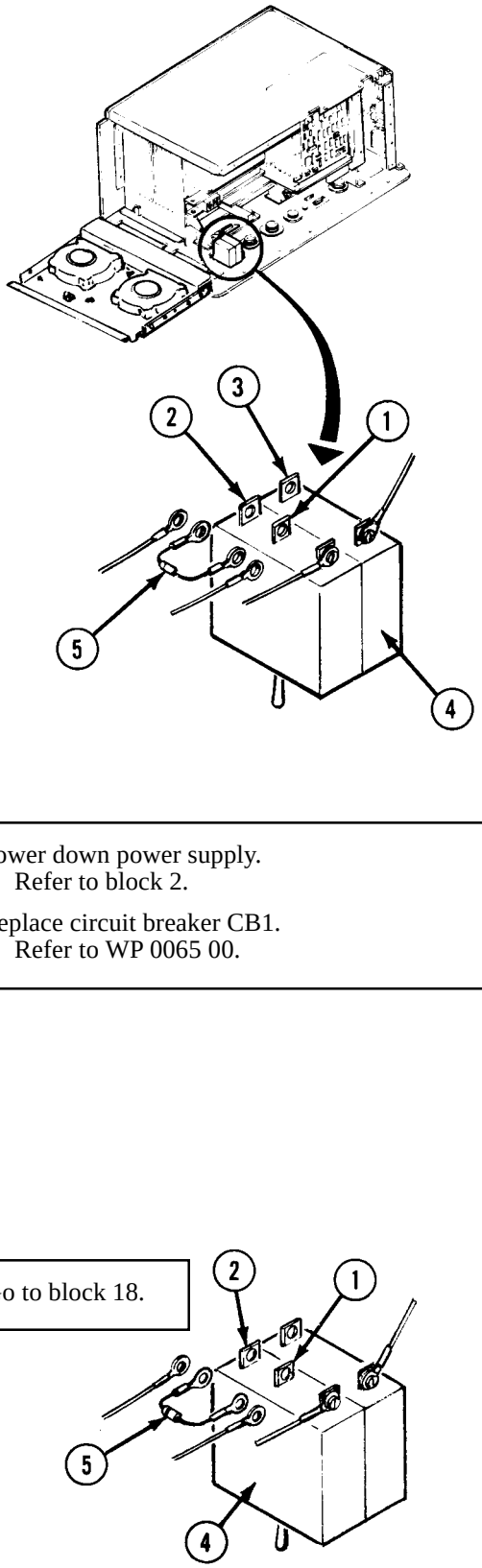
- Power down GPIA and power supply.
  - Refer to block 2.
- Remove wire from terminal 2 (1) on CB1 (4).
- Install diode CR8 (5) and wires on terminal 2 (1) and terminal 3 (2) of CB1 (4).

8

- Power down power supply.
  - Refer to block 2.
- Replace circuit breaker CB1.
  - Refer to WP 0065 00.

10

- Go to block 18.



M8T01-038

CAUTION

Diode CR8 should be installed with the black band in the same position as when removed.

11

- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?

NO **YES**

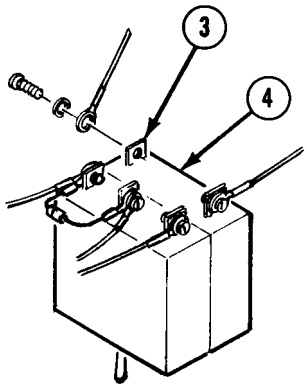
12

- Power down GPIA and power supply.
  - Refer to block 2.
- Install wire on terminal 5 (3) of CB1 (4).
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?

13

- Go to block 29.



M8T01-039

NO **YES**

14

- Power down GPIA and power supply.
  - Refer to block 2.

15

- Power down power supply.
  - Refer to block 2.

16

- Install radial blower assembly end plate.
  - Refer to WP 0083 00.
- Install front cover.
  - Refer to WP 0062 00.
- Install filter plate.
  - Refer to WP 0061 00.
- Install UUT power supply end plate.
  - Refer to WP 0072 00.
- Install GPIA in case.
  - Refer to WP 0060 00.
- Verify GPIA operation by performing GPIA FST.
  - Refer to WP 0006 00.

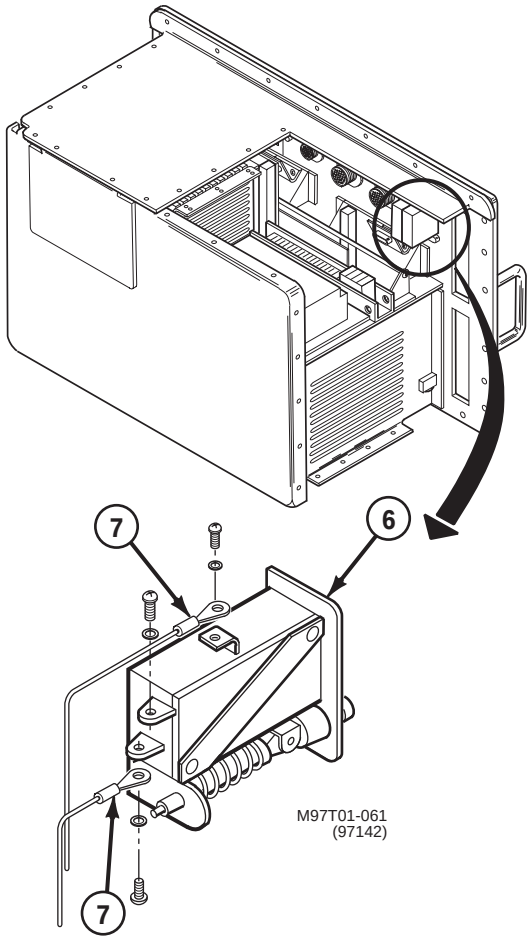
17

- Install radial blower assembly end plate.
  - Refer to WP 0083 00.
- Install front cover.
  - Refer to WP 0062 00.
- Install filter plate.
  - Refer to WP 0061 00.
- Install UUT power supply end plate.
  - Refer to WP 0072 00.
- Install GPIA in case.
  - Refer to WP 0060 00.
- Turn in GPIA to next higher level of maintenance.

18

- Power down power supply.
  - Refer to block 2.
- Remove interlock switch SW2 (6) from louver plate.
  - Refer to WP 0066 00.
- Disconnect wires (7) from interlock switch SW2 (6).
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?



Does GPIA ON/OFF circuit breaker trip?

NO

19
- Power down GPIA and power supply.
  - Refer to block 2.
- Replace interlock switch SW2.
  - Refer to WP 0066 00.
- Power up GPIA and power supply.
  - Refer to block 6.

YES

20
- Go to block 23.

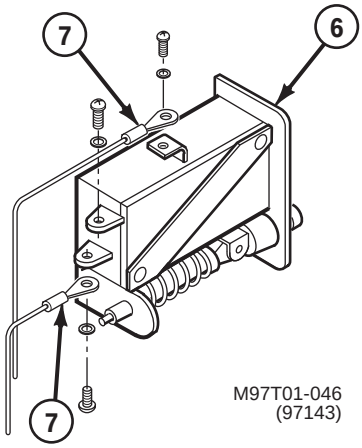
NO

21
- Go to block 9.

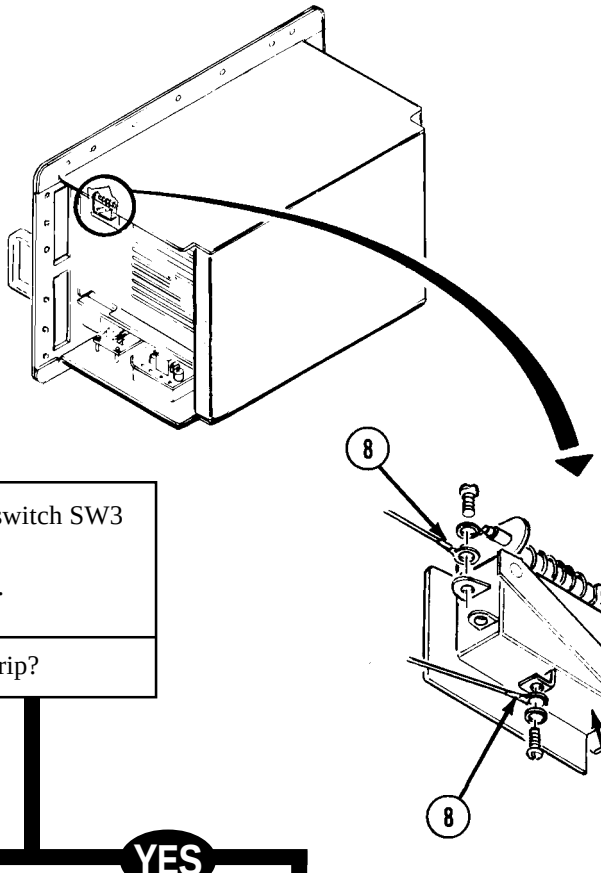
YES

22
- Power down power supply.
  - Refer to block 2.
- Install interlock switch SW2 removed in block 19.
  - Refer to WP 0066 00.
- Go to block 24.

23
- Power down power supply.
  - Refer to block 2.
- Install wires (7) on interlock switch SW2 (6) and install SW2 (6) on louver plate.
  - Refer to WP 0066 00.



M97T01-046
(97143)



24
- Remove wires (8) from interlock switch SW3 (9).
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?

NO

25
- Power down GPIA and power supply.
  - Refer to block 2.
- Replace interlock switch SW3.
  - Refer to WP 0066 00.
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?

NO

27
- Go to block 9.

YES

28
- Power down power supply.
  - Refer to block 2.
- Install interlock switch SW3 removed in block 25.
  - Refer to WP 0066 00.
- Install diode CR8 and wires on terminals 2 and 3 of CB1, as described in block 9.
- Go to block 12.

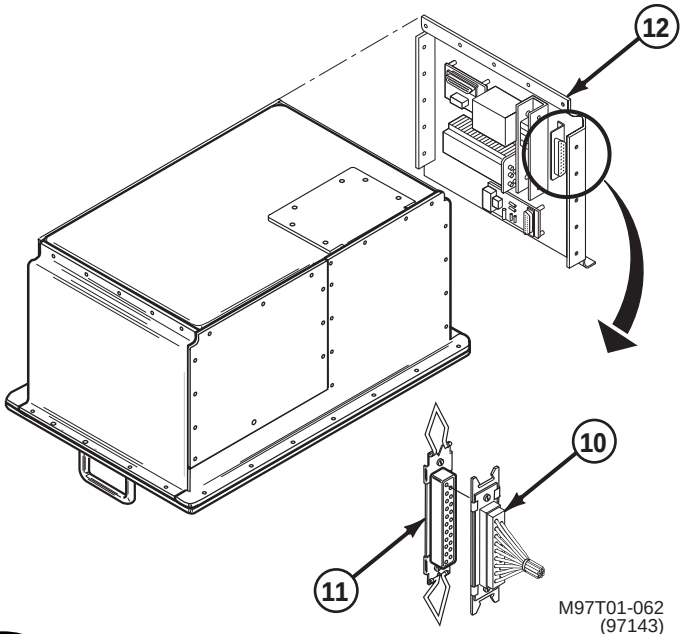
YES

26
- Power down power supply.
  - Refer to block 2.
- Install wires (8) on interlock switch SW3 (9).
- Install diode CR8 and wires on terminals 2 and 3 of CB1, as described in block 9.
- Go to block 12.

29

- Power down power supply.
  - Refer to block 2.
- Remove UUT power supply end plate. Do not disconnect P16 from J16.
  - Refer to WP 0072 00.
- Power up GPIA and power supply
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?



YES

30

- Power down power supply.
  - Refer to block 2.
- Connect connector plug P15 (10) to connector socket J15 (11) on end plate (12).
- Disconnect connector plug P9 (13) from connector socket J9 (14) on backplane (15).
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?

NO

31

- Power down power supply.
  - Refer to block 2.
- Connect connector plug P15 (10) to connector socket J15 (11) on end plate (12).
- Go to block 67.

YES

32

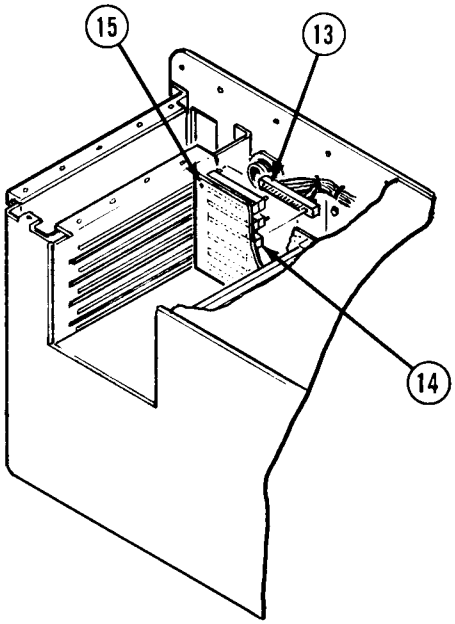
- Power down GPIA and power supply
  - Refer to block 2.
- Connect connector plug P9 (13) to connector socket J9 (14) on backplane (15).
- Disconnect connector plug P17 (16) from connector socket J17 (17) on filter plate (18).
- Power up GPIA and power supply.
  - Refer to block 6.

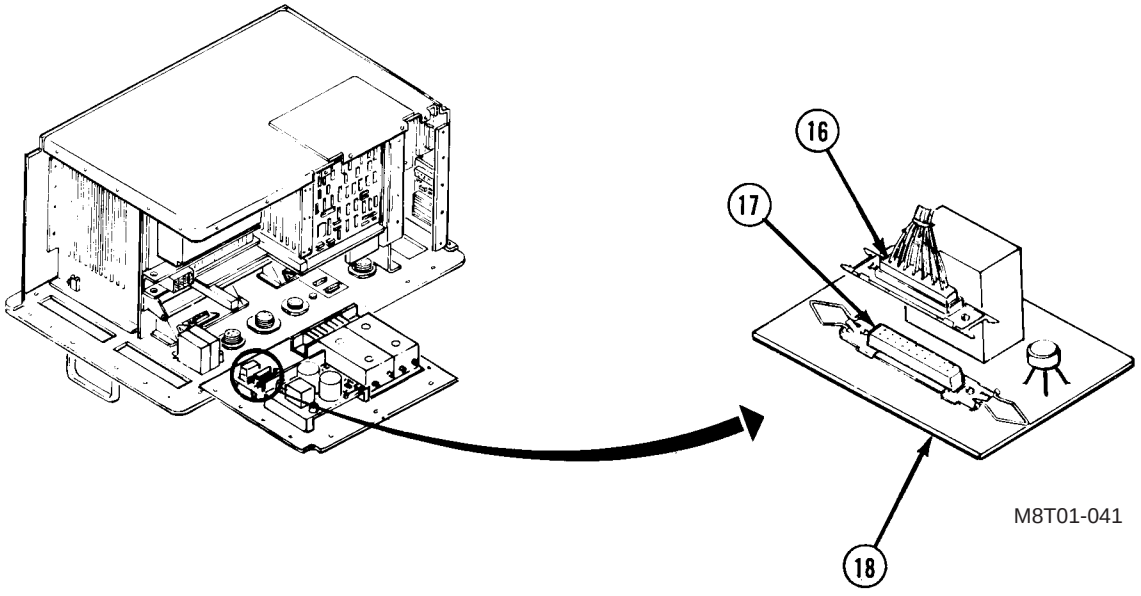
Does GPIA ON/OFF circuit breaker trip?

NO

33

- Go to block 12.





Does GPIA ON/OFF circuit breaker trip?

NO

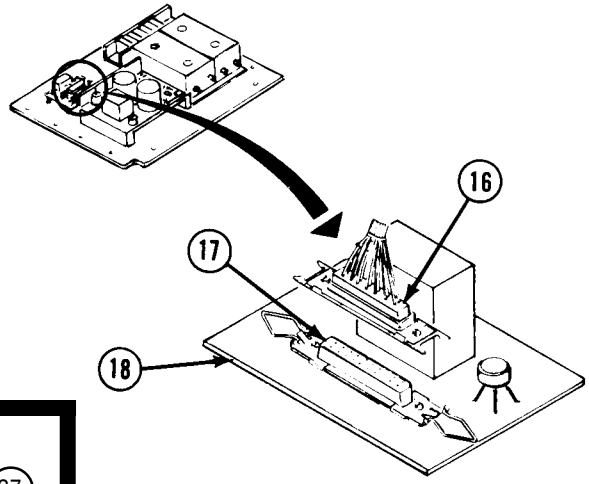
34

- Power down GPIA and power supply.
  - Refer to block 2.
- Connect connector plug P17 (16) to connector socket J17 (17) on filter plate (18).
- Replace CCA A7.
  - Refer to WP 0085 00.
- Power up GPIA and power supply.
  - Refer to block 6.

YES

35

- Go to block 38.



Does GPIA ON/OFF circuit breaker trip?

NO

36

- Go to block 12.

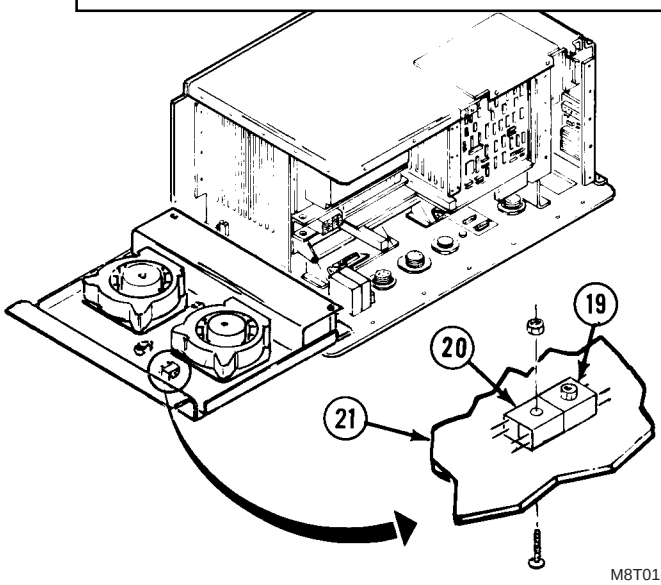
YES

37

- Power down power supply.
  - Refer to block 2.
- Install CCA A7 removed in block 34.
  - Refer to WP 0085 00.
- Return to block 12.

38

- Power down GPIA and power supply.
  - Refer to block 2.
- Connect connector plug P17 (16) to connector socket J17 (17) on filter plate (18).
- Disconnect connector plug P19 (19) from connector socket J19 (20) on radial blower assembly end plate (21).
- Power up GPIA and power supply.
  - Refer to block 6.



M8T01-042

Does GPIA ON/OFF circuit breaker trip?

NO

39
- Power down GPIA and power supply.
  - Refer to block 2.
- Replace radial blower B1.
  - Refer to WP 0084 00.
- Connect connector plug P19 (19) to connector socket J19 (20) on radial blower assembly end plate (21).
- Power up GPIA and power supply.

YES

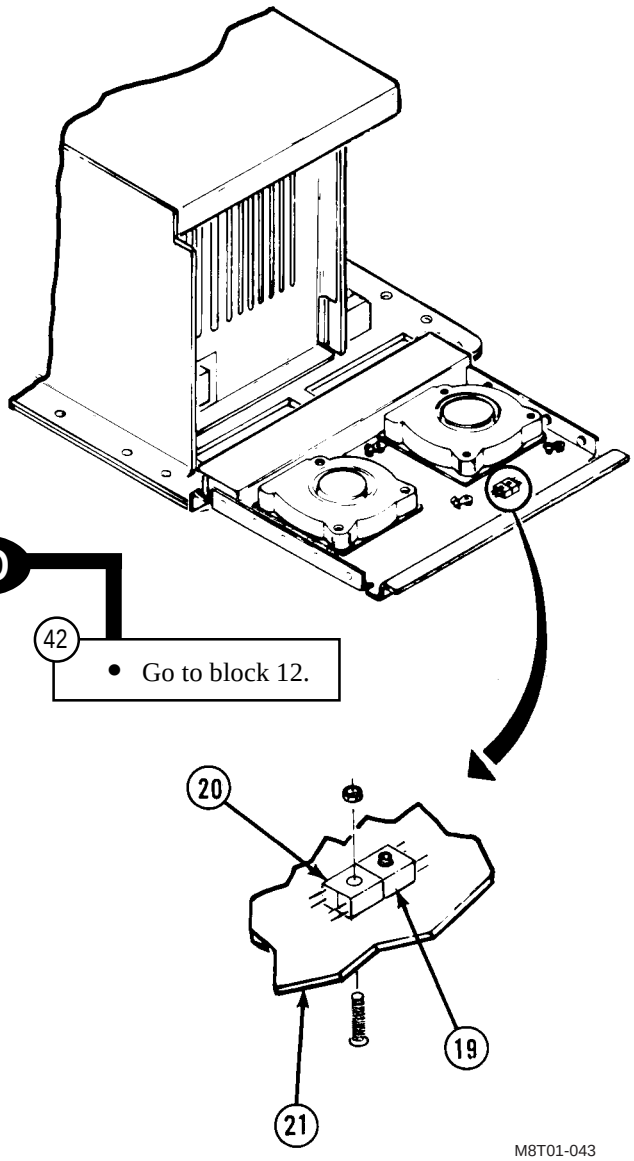
40
- Go to block 46.

YES

41
- Power down power supply.
  - Refer to block 2.
- Disconnect connector plug P19 (19) from connector socket J19 (20) on radial blower assembly end plate (21).
- Install radial blower B1 removed in block 39.
  - Refer to block WP 0084 00.

NO

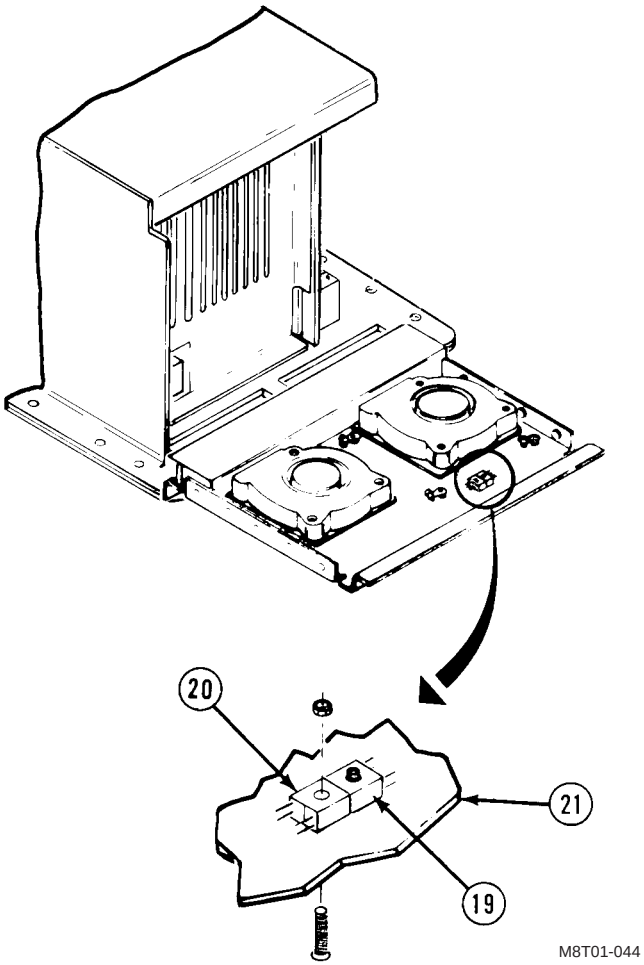
42
- Go to block 12.



43

- Replace radial blower B2.
  - Refer to WP 0084 00.
- Connect connector plug P19 (19) to connector socket J19 (20) on radial blower assembly end plate (21).
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?



NO

44

- Go to block 12.

YES

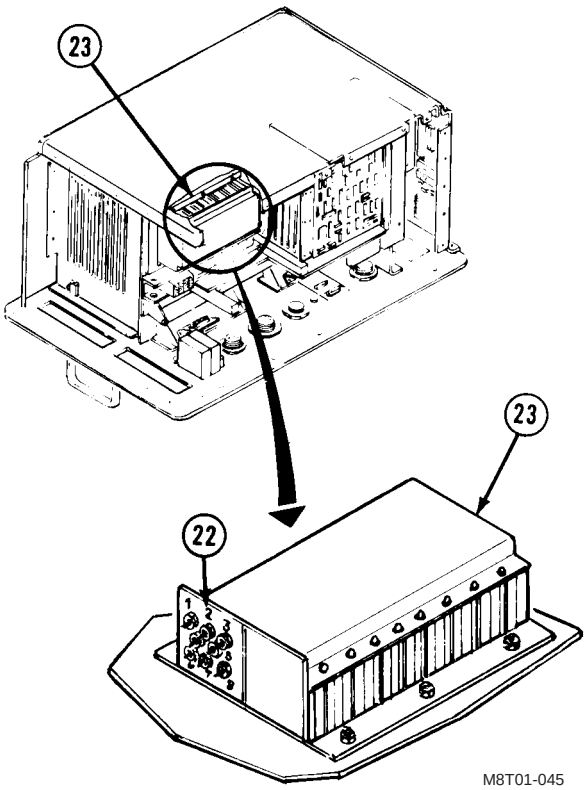
45

- Power down power supply.
  - Refer to block 2.
- Install radial blower B2 removed in block 43.
- Connect connector plug P19 (19) to connector socket J19 (20) on radial blower assembly.
- Go to block 12.

46

- Power down power supply.
  - Refer to block 2.
- Tag and unsolder wire from terminal 2 (22) of power supply PS1 (23).
- Power up GPIA and power supply
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?



NO

47

- Power down GPIA and power supply.
  - Refer to block 2.
- Replace power supply PS1.
  - Refer to WP 0077 00.
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?

NO

49

- Go to block 12.

YES

50

- Power down power supply.
  - Refer to block 2.
- Install power supply PS1 removed in block 47.
  - Refer to WP 0077 00.
- Go to block 12.

YES

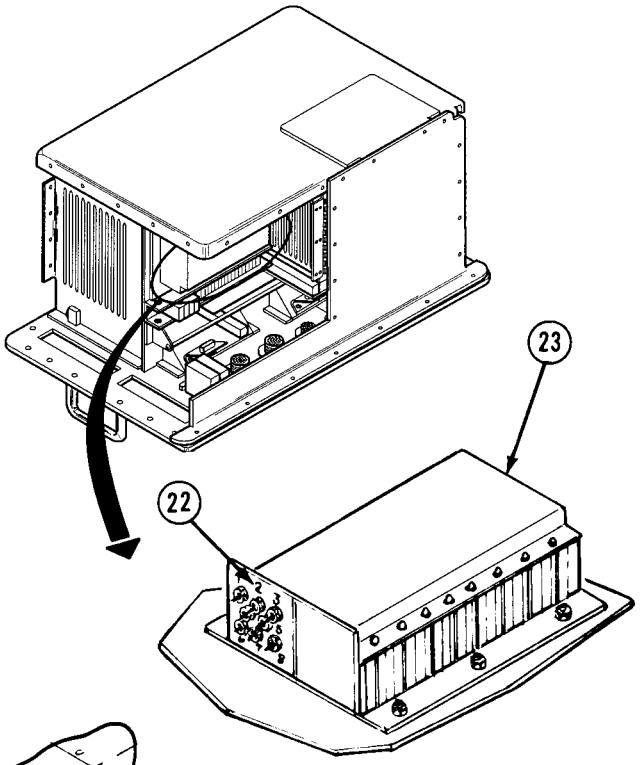
48

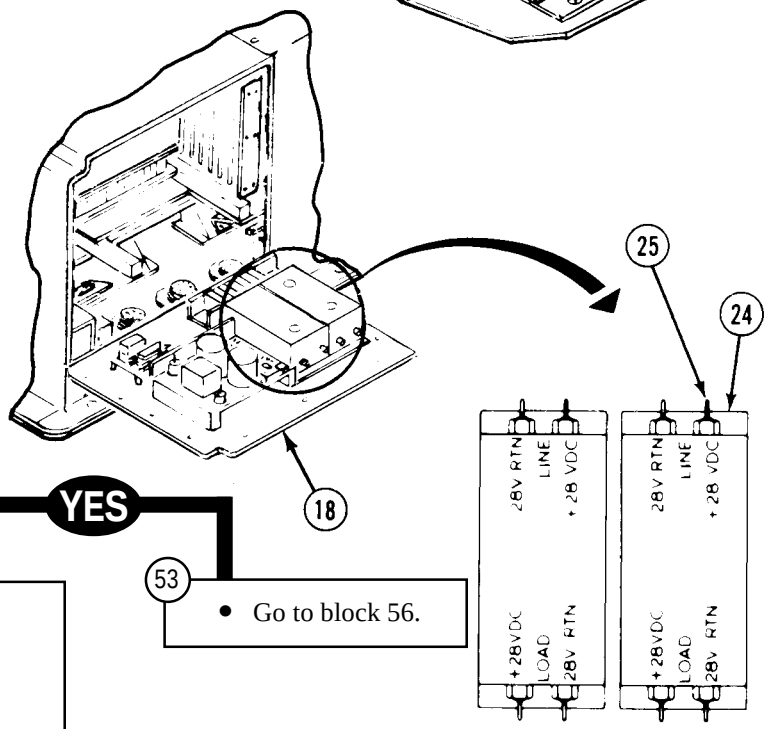
- Go to block 51.

51

- Power down GPIA and power supply.
  - Refer to block 2.
- Resolder wires on terminal 2 (22) of power supply PS1 (23).
- Tag and unsolder wires from filter FL1 (24) terminal + line (25) on filter plate (18).
- Power up GPIA and power supply
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?





M8T01-046

NO

52

- Power down GPIA and power supply.
  - Refer to block 2.
- Replace filter FL1.
  - Refer to WP 0071 00.
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?

YES

53

- Go to block 56.

NO

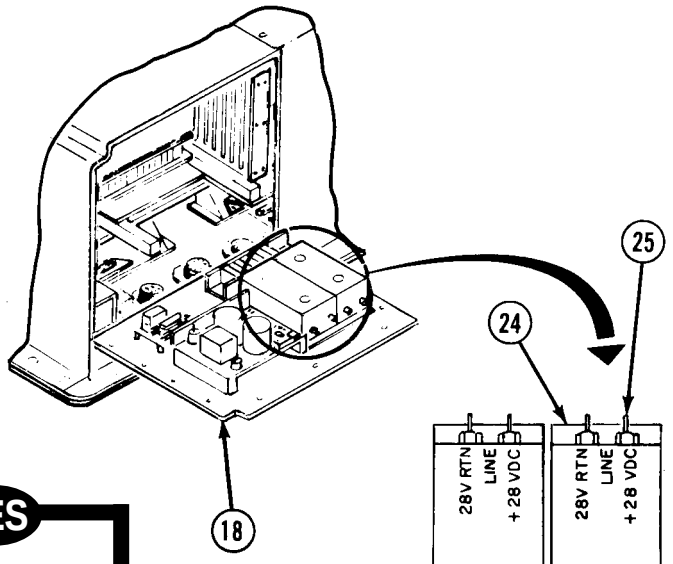
54
- Go to block 12.

YES

55
- Power down power supply.
  - Refer to block 2.
- Install filter FL1 removed in block 52.
  - Refer to block WP 0071 00.
- Return to block 12.

56
- Power down GPIA and power supply.
  - Refer to block 2.
- Resolder wires on terminal + line (25) of filter FL1 (24) on filter plate (18).
- Tag and unsolder wires from terminal 2 (26) of power supply PS2 (27).
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?



M801-047

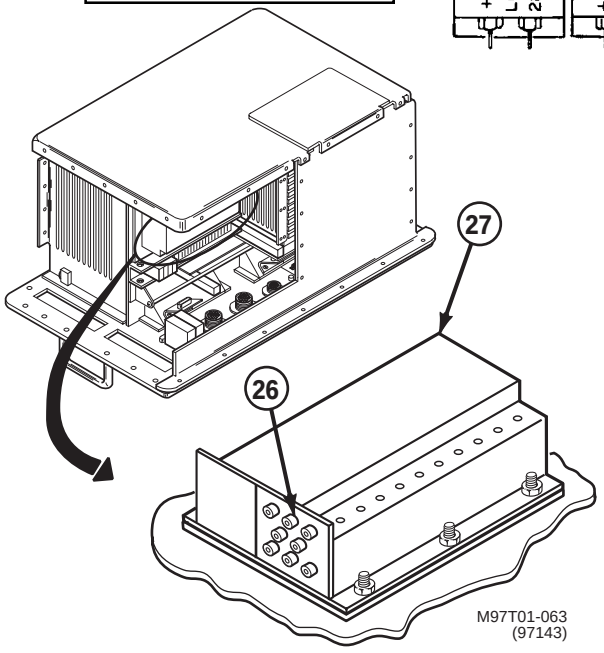
NO

57
- Power down GPIA and power supply.
  - Refer to block 2.
- Replace power supply PS2
  - Refer to WP 0078 00.
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?

YES

58
- Go to block 61.



M97T01-063
(97143)

NO

59

- Go to block 12.

YES

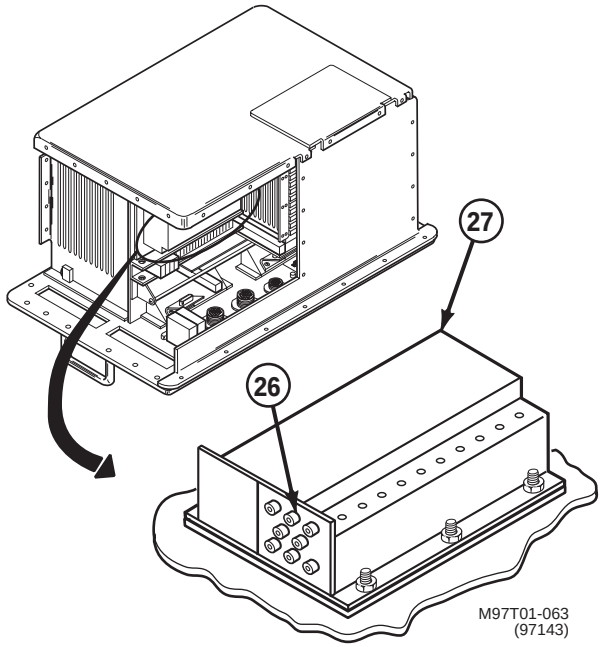
60

- Power down power supply.
  - Refer to block 2.
- Install power supply PS2 removed in block 57.
  - Refer to WP 0078 00.
- Return to block 12.

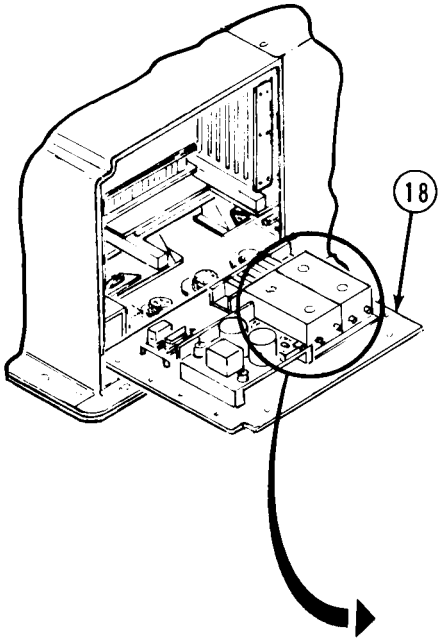
61

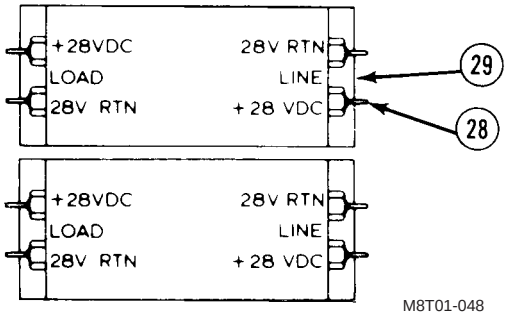
- Power down GPIA and power supply.
  - Refer to block 2.
- Resolder wires on terminal 2 (26) of power supply PS2 (27).
- Tag and unsolder wires from terminal + line (28) of filter FL2 (29) on filter plate (18).
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?



M97T01-063
(97143)





M8T01-048

NO

62
- Power down GPIA and power supply.
  - Refer to block 2.
- Replace filter FL2.
  - Refer to WP 0071 00.
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?

YES

63
- Go to block 66.

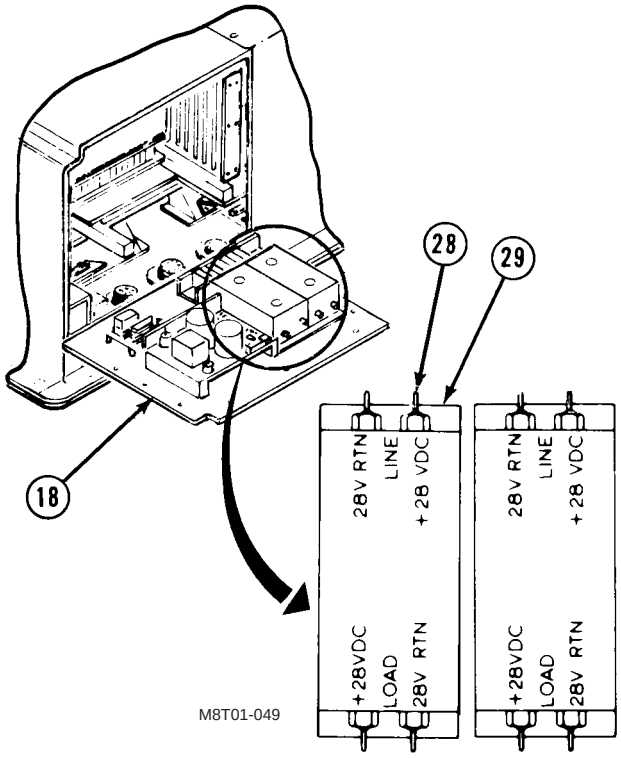
NO

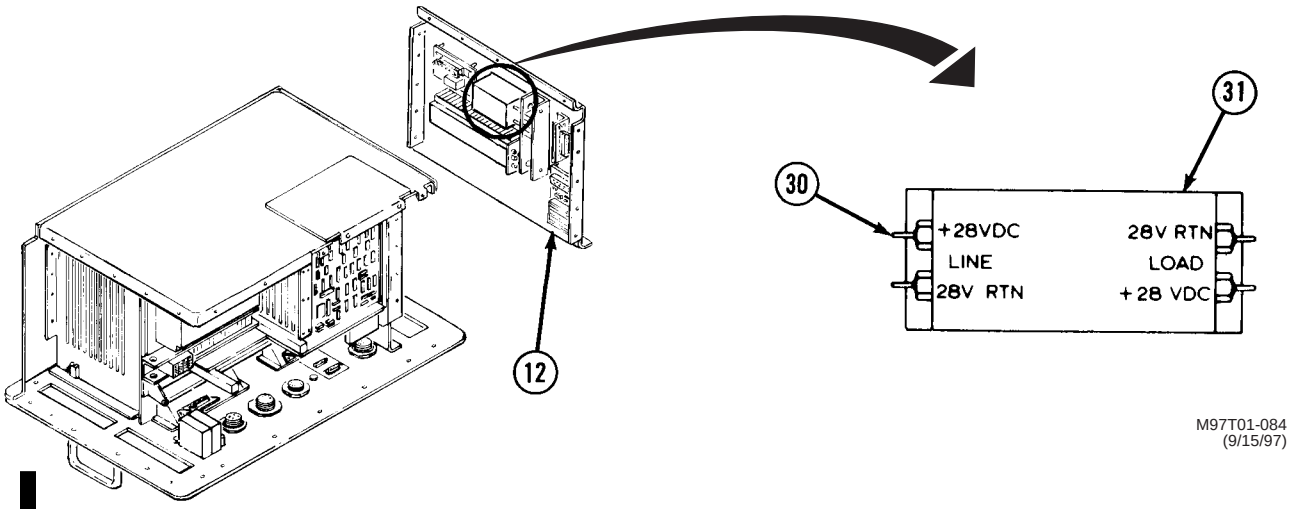
64
- Go to block 12.

YES

65
- Power down power supply.
  - Refer to block 2.
- Install filter FL2 removed in block 62.
  - Refer to WP 0071 00.
- Return to block 12.

66
- Power down GPIA and power supply.
  - Refer to block 2.
- Resolder wires on terminal + line (28) of filter FL2 (29).





M97T01-084
(9/15/97)

67

- Tag and unsolder wires from + line terminal (30) of filter FL4 (31) on UUT power supply assembly end plate (12).
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?

NO — **YES**

68

- Power down GPIA and power supply
  - Refer to block 2.
- Replace filter FL4.
  - Refer to WP 0075 00.
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?

NO — **YES**

70

- Go to block 12.

69

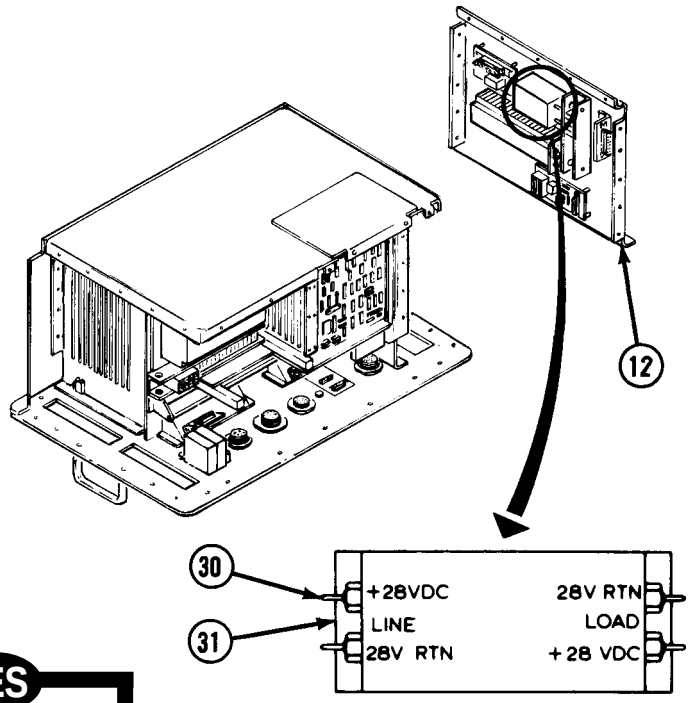
- Go to block 72.

71

- Power down power supply
  - Refer to block 2.
- Install filter FL4 removed in block 68.
  - Refer to WP 0075 00.
- Return to block 12.

72
- Power down GPIA and power supply.
  - Refer to block 2.
- Resolder wires on + line terminal (30) of filter FL4 (31) on UUT power supply assembly end plate (12).
- Disconnect connector plug P18 (32) from connector socket J18 (33).
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?



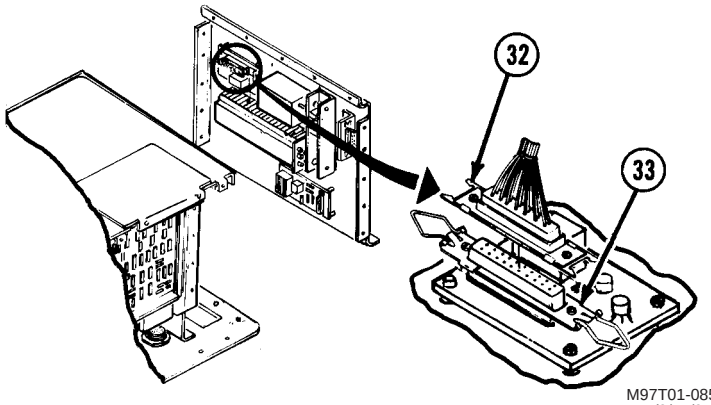
NO

73
- Power down GPIA and power supply
  - Refer to block 2.
- Replace CCA A8.
  - Refer to WP 0074 00.
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?

YES

74
- Go to block 77.



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(9/15/97)

NO

75
- Go to block 12.

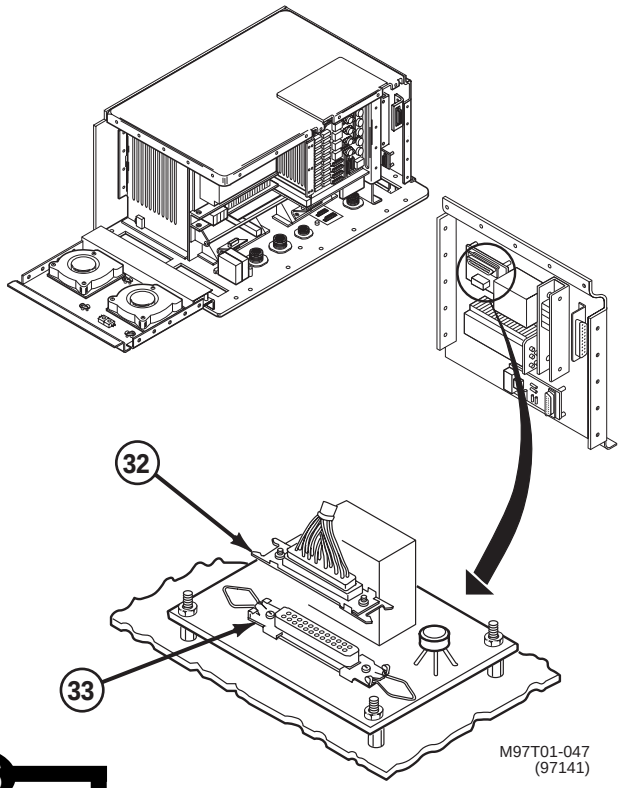
YES

76
- Power down power supply
  - Refer to block 2.
- Install CCA A8 removed in block 73.
  - Refer to WP 0074 00.
- Return to block 12.

77

- Power down GPIA and power supply.
  - Refer to block 2.
- Connect connector plug P18 (32) to connector socket J18 (33).
- Tag and unsolder wires from power supply PS3 (34) terminal 1 (35).
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?



NO

78

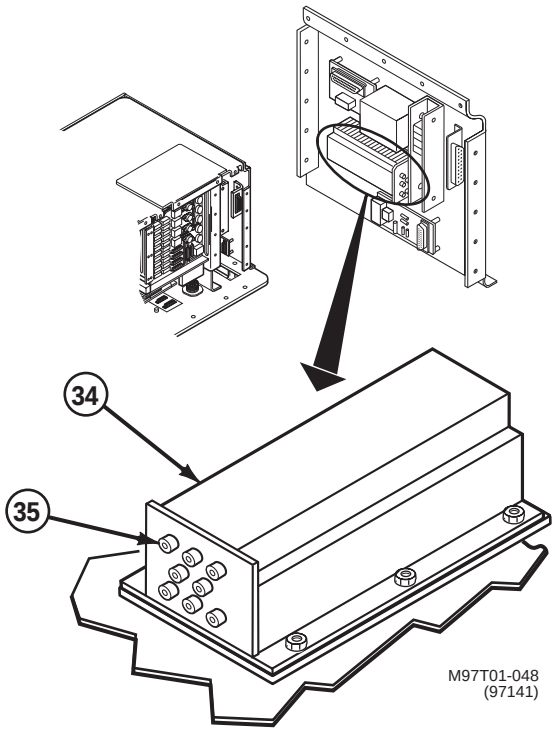
- Power down GPIA and power supply
  - Refer to block 2.
- Replace power supply PS3.
  - Refer to WP 0076 00.
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?

YES

79

- Go to block 82.



NO

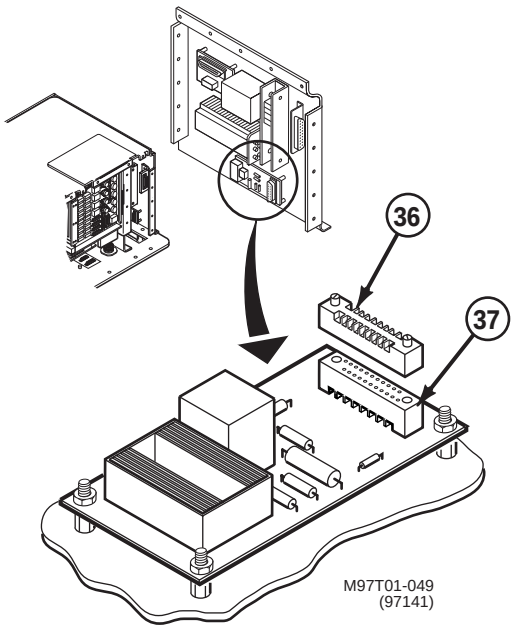
80 • Go to block 12.

YES

81
- Power down power supply
  - Refer to block 2.
- Install power supply PS3 removed in block 78.
  - Refer to WP 0076 00.
- Return to block 12.

82
- Power down GPIA and power supply.
  - Refer to block 2.
- Resolder wires on terminal 1 (35) of PS3 (34).
- Disconnect connector plug P16 (36) from connector socket J16 (37).
- Power up GPIA and power supply.
  - Refer to block 6.

Does GPIA ON/OFF circuit breaker trip?



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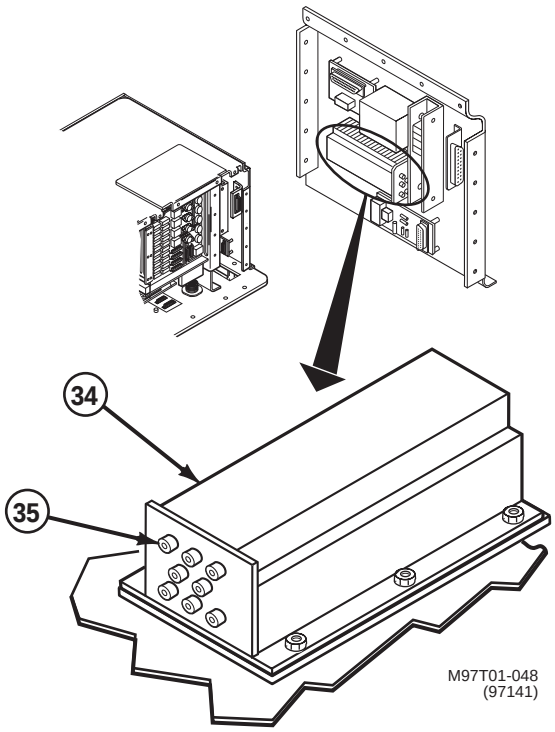
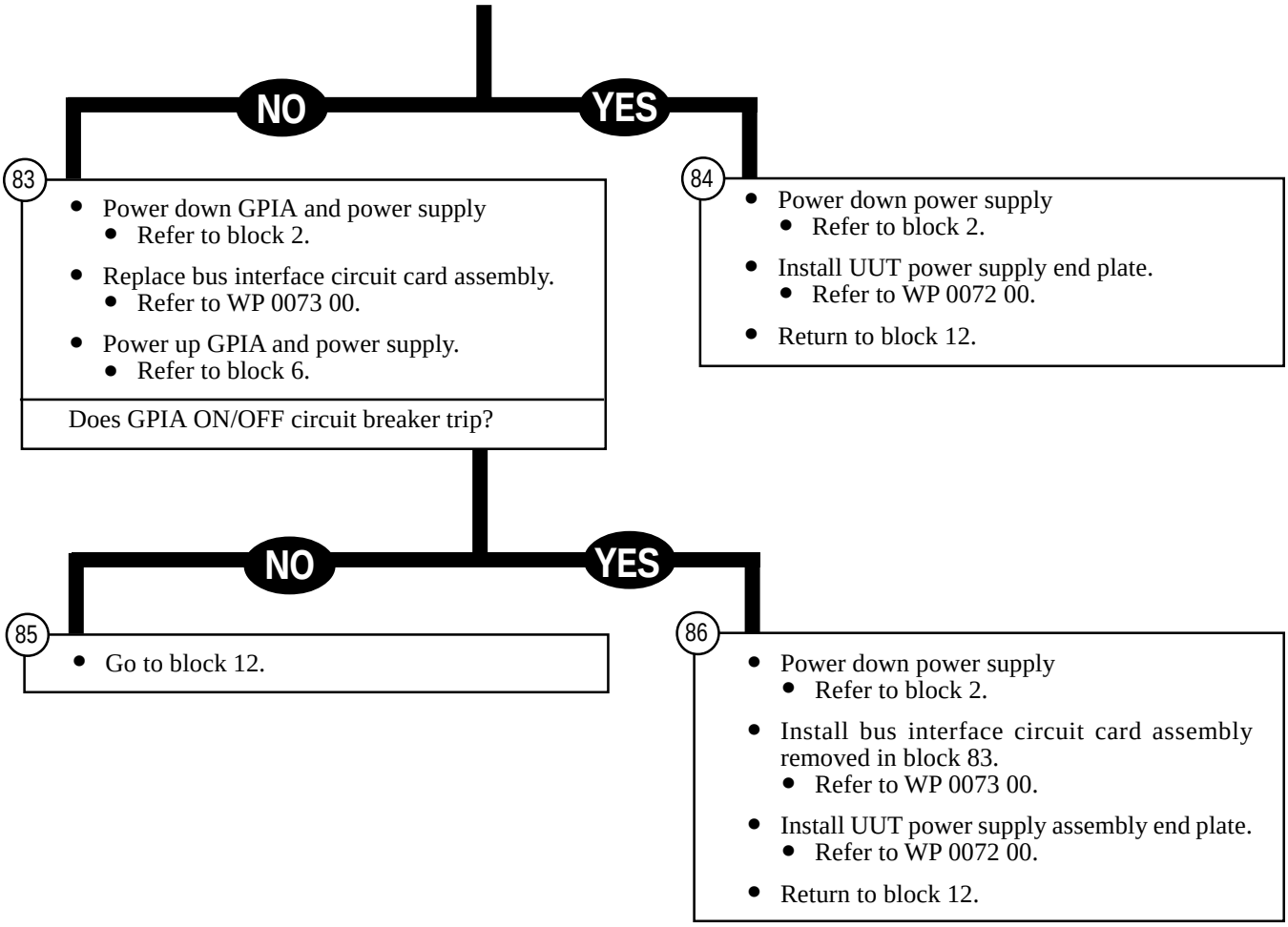
(97141)



M97T01-048
(97141)


NO
YES
83
Power down GPIA and power supply
Refer to block 2.
Replace bus interface circuit card assembly.
Refer to WP 0073 00.
Power up GPIA and power supply.
Refer to block 6.
84
Power down power supply
Refer to block 2.
Install UUT power supply end plate.
Refer to WP 0072 00.
Return to block 12.
Does GPIA ON/OFF circuit breaker trip?
NO
YES
85
Go to block 12.
86
Power down power supply
Refer to block 2.
Install bus interface circuit card assembly removed in block 83.
Refer to WP 0073 00.
Install UUT power supply assembly end plate.
Refer to WP 0072 00.
Return to block 12.

TROUBLESHOOTING PROCEDURE 0017 00

SYMPTOM

GPIA FAILS FUNCTIONAL SELF TEST AND DISPLAY READS – REPLACE
A1
GPIA CORE

Test Equipment/Special Tools:

- Multimeter

Equipment Conditions:

- OIU and GPIA resting on clean workbench.
- Power supply connected to OIU and GPIA.
- Functional self test in progress.

NOTE

Do not turn in parts until test procedure is completed.

1

- Press the YES pushbutton and follow the display instructions until the GPIA is disconnected from the OIU.
- Set GPIA ON/OFF circuit breaker to OFF.
- Remove cable W21 from GPIA UJ7.
- Remove cable W23 from GPIA UJ1.

2

NOTE

Replace circuit cards one at a time in the order they are listed in Table 1. Repeat functional self test after each card is replaced.

- Replace a circuit card from Table 1 with a new circuit card
  - Refer to WP 0079 00.
- Repeat functional self test.

Does display read – REPLACE
A1
GPIA CORE?

YES

3

- Have all circuit cards, A1 thru A6, been replaced?

NO

4

- If message display reads – GPIA OK
  RERUN TEST?
  repeat functional self test to verify no-fault condition.
  - Refer to WP 0006 00.
- If fault message is displayed, go to WP 0014 00.

Table 1.

Replacement Order	Circuit Card
1	A1
2	A5
3	A4
4	A6
5	A3
6	A2

YES NO

5

NOTE

In table 2 (+) refers to positive multimeter lead; (–) refers to negative lead.

- Power down GPIA by performing steps in block 1.
- Reinstall the original circuit card A2 removed in block 2.
  - Refer to WP 0079 00.
- Connect cable W21 to GPIA UJ7.
- Set GPIA ON/OFF circuit breaker to ON.
- Using multimeter, measure voltages at jack J13 (1) as shown in Table 2.
- Set GPIA ON/OFF circuit breakter to OFF.
- Disconnect cable W21 from GPIA UJ7.

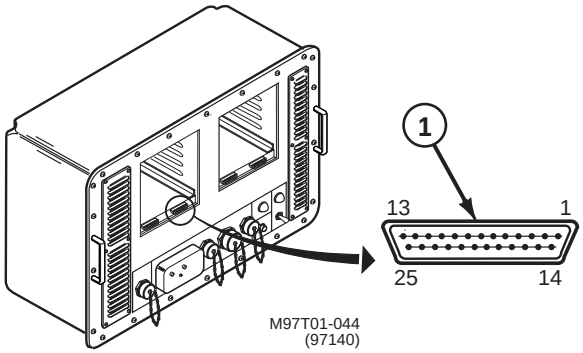
Were all voltage measurements correct?

6

- Power down GPIA by performing steps in block 1.
- Reinstall the last original circuit card removed in block 2.
  - Refer to WP 0079 00.
- Go to block 2 and replace the next circuit card listed in Table 1.

Table 2.

From	To	Correct Reading	Power Supply Tested
J13-11 (+)	J13-22 (–)	5.2-5.3 vdc	PS1
J13-22 (+)	J13-4 (–)	5.2-5.3 vdc	PS1
J13-22 (+)	J13-20 (–)	14.8 -15.2 vdc	PS2
J13-8 (+)	J13-22 (–)	14.8-15.2 vdc	PS2



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(97140)

YES NO

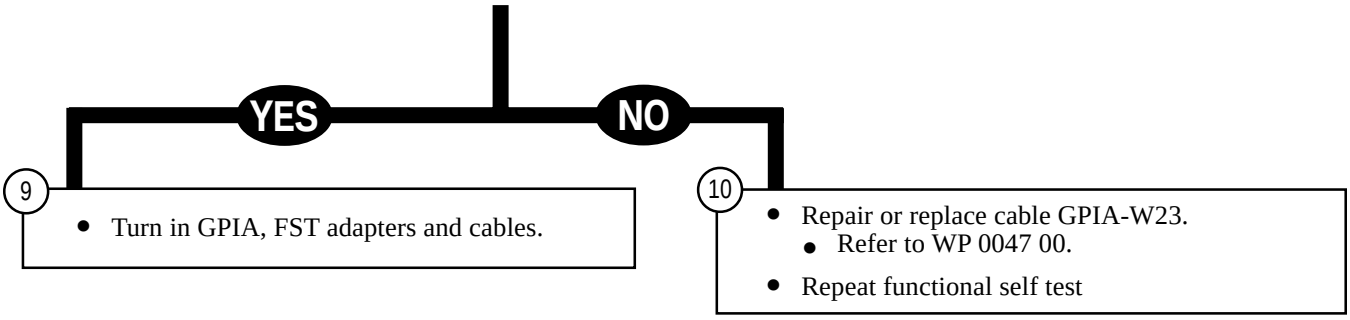
7

- Using multimeter, check cable GPIA-W23 for continuity.
  - Refer to WP 0037 00.

Does cable check OK?

8

- Go to block 11.



9

- Turn in GPIA, FST adapters and cables.

10

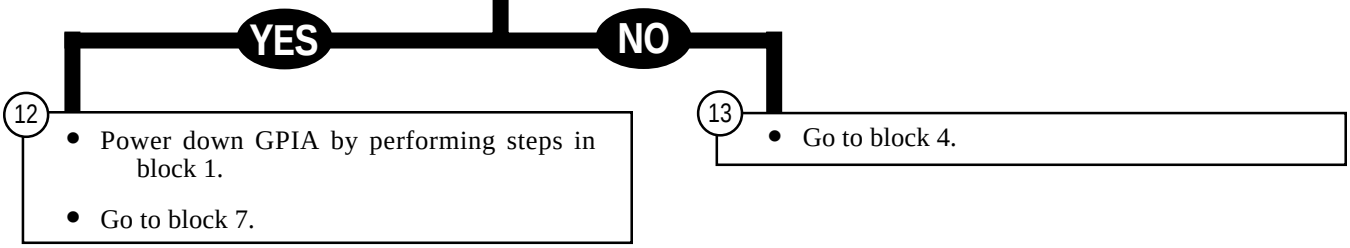
- Repair or replace cable GPIA-W23.
  - Refer to WP 0047 00.
- Repeat functional self test

From block 8.

11

- Replace the power supply, PS1 or PS2, that failed measurement.
  - Refer to WP 0077 00 for PS1 replacement, or WP 0078 00 for PS2.
- Repeat functional self test.

Does display read – REPLACE
A1
GPIA CORE



12

- Power down GPIA by performing steps in block 1.
- Go to block 7.

13

- Go to block 4.

TROUBLESHOOTING PROCEDURE **0018 00**

SYMPTOM

GPIA FAILS AUTOMATIC SELF TEST
(STAND-ALONE OPERATION).
DISPLAY READS – REPLACE AX*
GPIA CORE
ERROR CODE = XXXX

Test Equipment/Special Tools:

- Multimeter

Equipment Conditions:

- Display and GPIA resting on clean workbench.
- Power supply connected to GPIA.

1

- Set GPIA ON/OFF circuit breaker to OFF.
- Remove and then reinstall circuit cards A1 thru A6, making sure circuit cards are firmly seated.
  - Refer to WP 0079 00.
- Set GPIA ON/OFF circuit breaker to ON.

Does display read – SELF TEST OK?

NO

2

- Record the fault message.
- Set GPIA ON/OFF circuit break to OFF.

Is recorded fault message – REPLACE A3
GPIA CORE
ERROR CODE= XXXX?

YES

3

- GPIA not faulty.
- OK to continue testing.

YES NO

4

- Remove module B cavity cover.
- Pull out module B interlock switch SW3.
- Set GPIA ON/OFF circuit breaker to ON.
- Using multimeter, check J14 (1) of module B cavity for voltages listed in Table 1.

Were all voltage measurements correct?

5

- Replace circuit card identified on display.
  - Refer to WP 0079 00.
- Set GPIA ON/OFF circuit breaker to ON.
- Go to block 8.

Table 1

From	To	Correct Reading	Power Supply Tested
J14-25 (+)	J14-10 (–)	+5.2 to +5.3 vdc	PS1
J14-4 (+)	J14-10 (–)	–5.2 to –5.3 vdc	PS1
J14-21 (+)	J14-10 (–)	+14.8 to +15.2 vdc	PS2
J14-20 (+)	J14-10 (–)	–14.8 to –15.2 vdc	PS2

YES NO

6

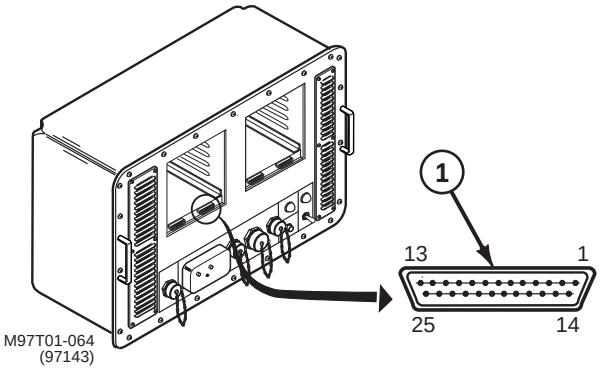
- Set GPIA ON/OFF circuit breaker to OFF.
- Install module cavity cover on module B cavity.
- Replace circuit card A3.
  - Refer to WP 0079 00.
- Set GPIA ON/OFF circuit breaker to ON.

7

- Set GPIA ON/OFF circuit breaker to OFF.
- Replace faulty power supply.
  - Refer to WP 0077 00 for PS1 replacement or WP 0078 00 for PS2.

8

Does display read –SELF TEST OK?



M97T01-064
(97143)

NO YES

9

- If recorded fault message is displayed again, turn in GPIA.
- If a different fault message is displayed, go to block 2.

10

- GPIA not faulty.
- OK to continue testing.

TROUBLESHOOTING PROCEDURE 0019 00

SYMPTOM

DISPLAY COMPLETES SELF TEST THEN BECOMES BLANK. GPIA SELF TEST FAIL LAMP IS ILLUMINATED. (STAND-ALONE OPERATION)

Test Equipment/Special Tools:

- Multimeter

Equipment Conditions:

- GPIA and EL display resting on clean work-bench.
- Power supply connected to GPIA.

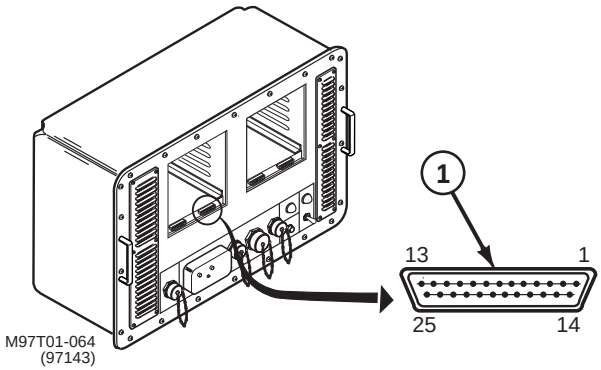
1

- Set GPIA ON/OFF circuit breaker to OFF.
- Remove module B cavity cover.
- Pull out interlock switch SW3.
- Set GPIA ON/OFF circuit breaker to ON.
- Using multimeter, check J14 (1) of module B cavity for voltages listed in Table 1.

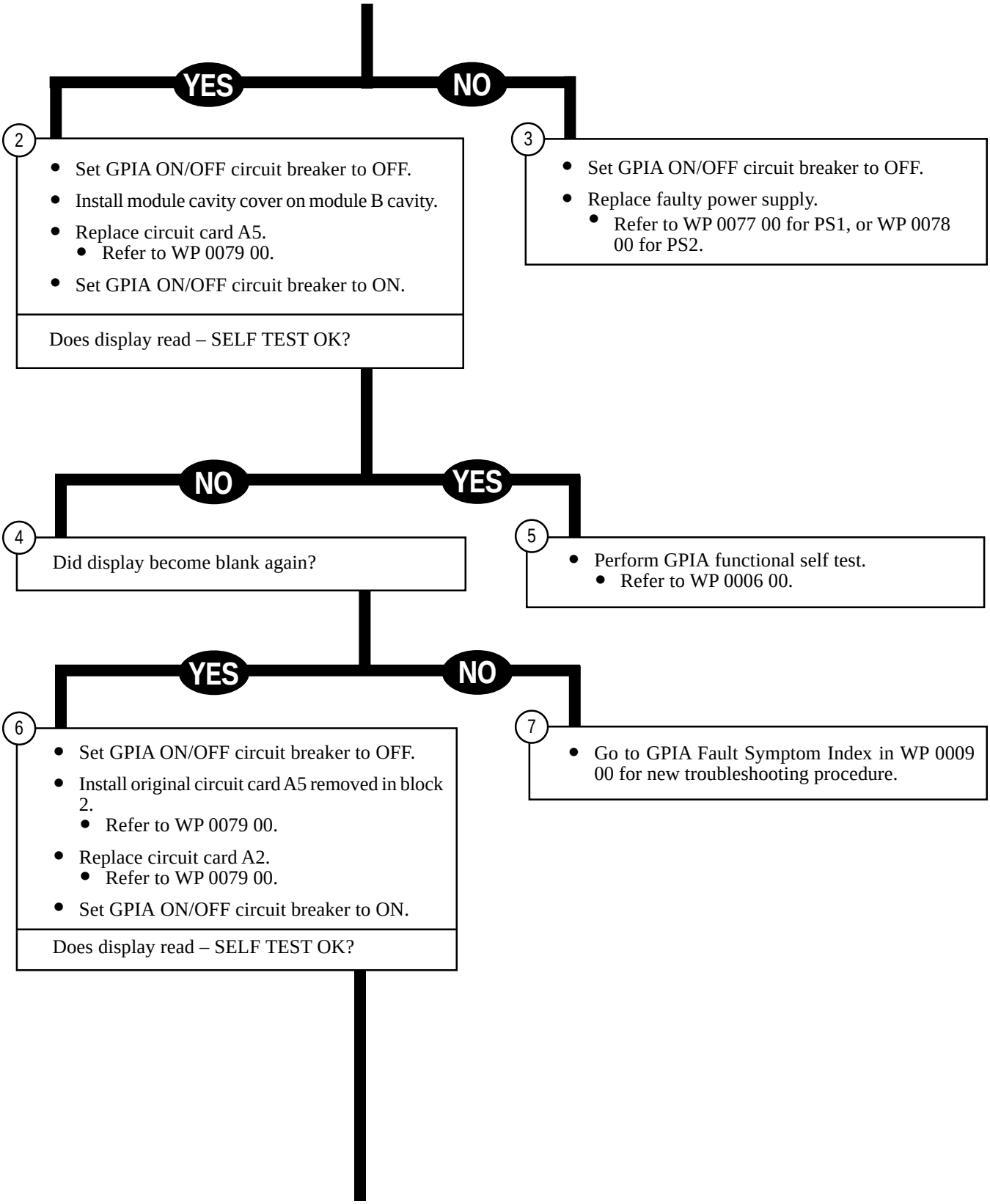
Are all voltage readings correct?

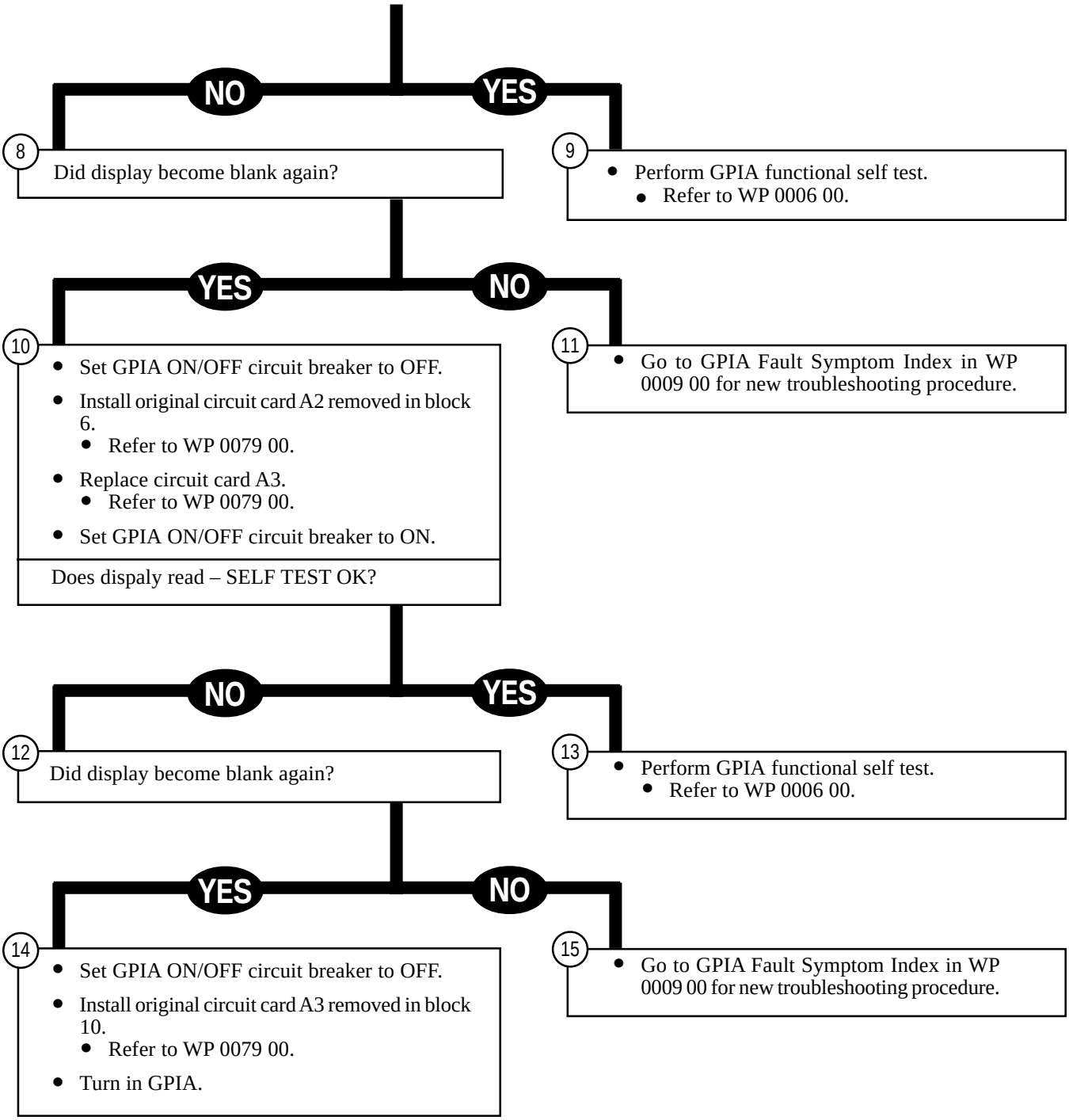
Table 1.

From	To	Correct Reading	Power Supply Tested
J14-25 (+)	J14-10 (–)	+5.2 to +5.3 vdc	PS1
J14-4 (+)	J14-10 (–)	–5.2 to –5.3 vdc	PS1
J14-21 (+)	J14-10 (–)	+14.8 to +15.2 vdc	PS2
J14-20 (+)	J14-10 (–)	–14.8 to –15.2 vdc	PS2



M97T01-064
(97143)


YES
NO
2
Set GPIA ON/OFF circuit breaker to OFF.
Install module cavity cover on module B cavity.
Replace circuit card A5.
Refer to WP 0079 00.
Set GPIA ON/OFF circuit breaker to ON.
Does display read – SELF TEST OK?
3
Set GPIA ON/OFF circuit breaker to OFF.
Replace faulty power supply.
Refer to WP 0077 00 for PS1, or WP 0078 00 for PS2.
NO
YES
4
Did display become blank again?
5
Perform GPIA functional self test.
Refer to WP 0006 00.
YES
NO
6
Set GPIA ON/OFF circuit breaker to OFF.
Install original circuit card A5 removed in block 2.
Refer to WP 0079 00.
Replace circuit card A2.
Refer to WP 0079 00.
Set GPIA ON/OFF circuit breaker to ON.
Does display read – SELF TEST OK?
7
Go to GPIA Fault Symptom Index in WP 0009 00 for new troubleshooting procedure.


NO
YES
8
Did display become blank again?
9
• Perform GPIA functional self test.
• Refer to WP 0006 00.
YES
NO
10
• Set GPIA ON/OFF circuit breaker to OFF.
• Install original circuit card A2 removed in block 6.
• Refer to WP 0079 00.
• Replace circuit card A3.
• Refer to WP 0079 00.
• Set GPIA ON/OFF circuit breaker to ON.
Does dispaly read – SELF TEST OK?
11
• Go to GPIA Fault Symptom Index in WP 0009 00 for new troubleshooting procedure.
NO
YES
12
Did display become blank again?
13
• Perform GPIA functional self test.
• Refer to WP 0006 00.
YES
NO
14
• Set GPIA ON/OFF circuit breaker to OFF.
• Install original circuit card A3 removed in block 10.
• Refer to WP 0079 00.
• Turn in GPIA.
15
• Go to GPIA Fault Symptom Index in WP 0009 00 for new troubleshooting procedure.

TROUBLESHOOTING PROCEDURE 0020 00

SYMPTOM

DISPLAY COMPLETES SELF TEST THEN BECOMES BLANK. GPIA SELF TEST FAIL LAMP IS NOT ILLUMINATED. (STANDALONE OPERATION)

Test Equipment/Special Tools:

- Multimeter

Equipment Conditions:

- GPIA and display resting on clean workbench.
- Power supply connected to GPIA.

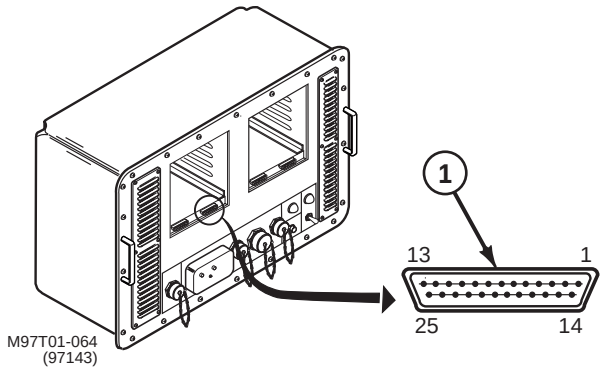
1

- Set GPIA ON/OFF circuit breaker to OFF.
- Remove module B cavity cover.
- Pull out interlock switch SW3.
- Set GPIA ON/OFF circuit breaker to ON.
- Using multimeter, check J14 (1) of module B cavity for voltages listed in Table 1.

Are all voltage readings correct?

Table 1.

From	To	Correct Reading	Power Supply Tested
J14-25 (+)	J14-10 (-)	+5.2 to +5.3 vdc	PS1
J14-4 (+)	J14-10 (-)	-5.2 to -5.3 vdc	PS1
J14-21 (+)	J14-10 (-)	+14.8 to +15.2 vdc	PS2
J14-20 (+)	J14-10 (-)	-14.8 to -15.2 vdc	PS2



YES

NO

2

- Set GPIA ON/OFF circuit breaker to OFF.
- Install module cavity cover on module B cavity.
- Check continuity of cable W228.
  - Refer to WP 0038 00.

Are continuity checks OK?

3

- Set GPIA ON/OFF circuit breaker to OFF.
- Replace faulty power supply.
  - Refer to WP 0077 00 for PS1, or WP 0078 00 for PS2.

Table 2.

From	To	Wire/Component
UJ1-5	P7-30	140
UJ1-6	P7-30	141
J7-30	J1-57	Backplane
J7-32	J1-59	Backplane
J1-3	J2-109	Backplane
J1-5	J2-111	Backplane

YES

NO

4

- Check continuity of GPIA wiring listed in Table 2.

Are continuity checks OK?

5

- Replace cable or repair cable connector.
  - Refer to WP 0047 00.

YES

NO

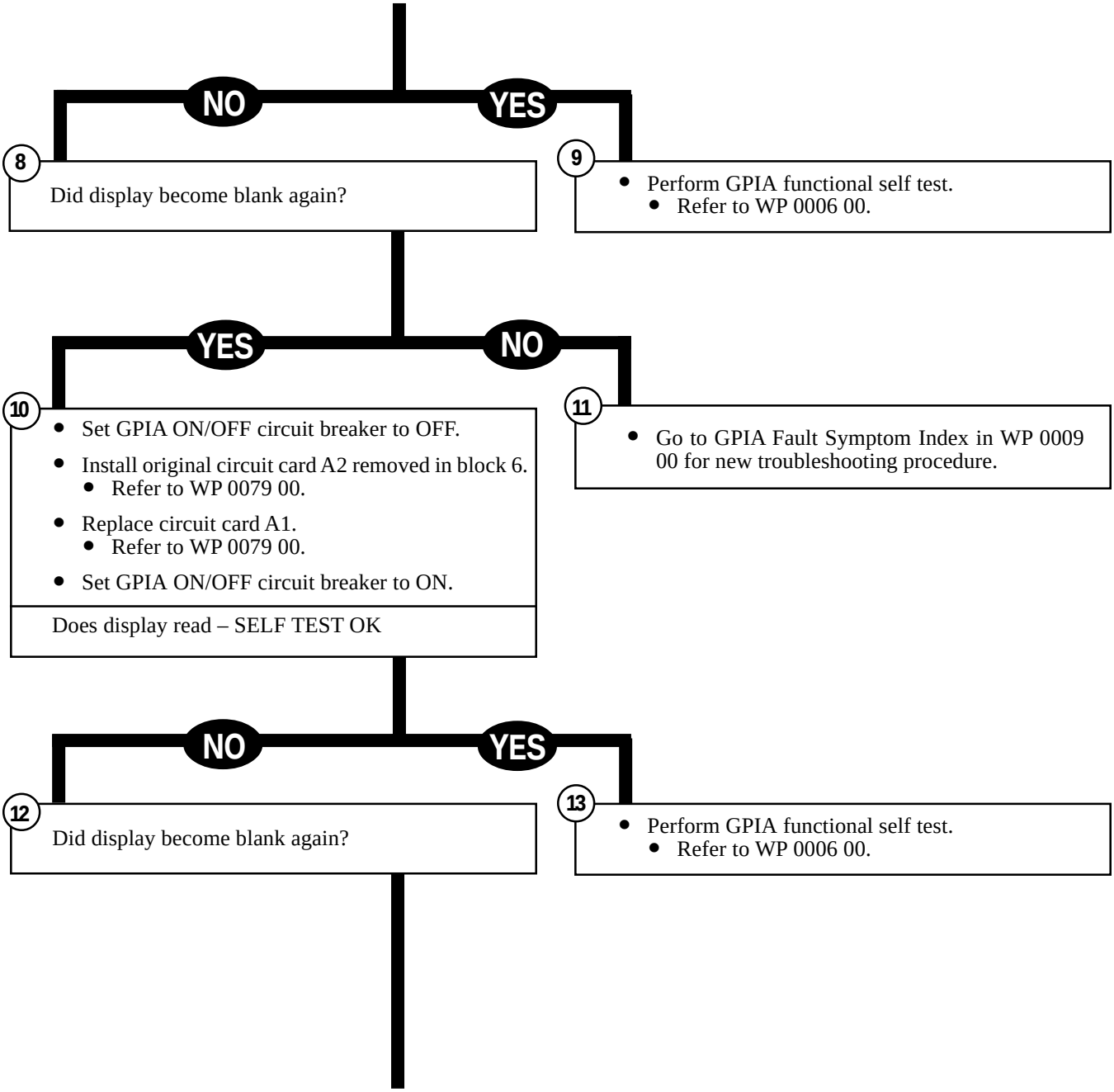
6

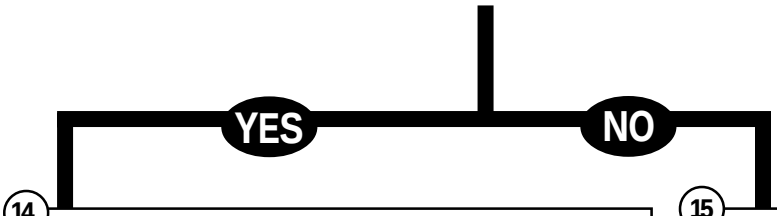
- Replace circuit card A2.
  - Refer to WP 0079 00.
- Set GPIA ON/OFF circuit breaker to ON.

Does display read – SELF TEST OK?

7

- Turn in GPIA.


NO
YES
8
Did display become blank again?
9
• Perform GPIA functional self test.
• Refer to WP 0006 00.
YES
NO
10
• Set GPIA ON/OFF circuit breaker to OFF.
• Install original circuit card A2 removed in block 6.
• Refer to WP 0079 00.
• Replace circuit card A1.
• Refer to WP 0079 00.
• Set GPIA ON/OFF circuit breaker to ON.
Does display read – SELF TEST OK
11
• Go to GPIA Fault Symptom Index in WP 0009 00 for new troubleshooting procedure.
NO
YES
12
Did display become blank again?
13
• Perform GPIA functional self test.
• Refer to WP 0006 00.



14

- Set GPIA ON/OFF circuit breaker to OFF.
- Install original circuit card A1 removed in block 10.
  - Refer to WP 0079 00.
- Turn in color display.

15

- Go to Fault Symptom Index in WP 0009 00 for new troubleshooting procedure.

SYMPTOM

GPIA FAILS FUNCTIONAL SELF TEST PERFORMED WITH DISPLAY (STANDALONE OPERATION)

Test Equipment/Special Tools:

- Multimeter

Equipment Conditions:

- GPIA and display on clean workbench.
- Power supply connected to GPIA.
- GPIA FST in progress.

1

- Record the fault message.
- Take note of which, if any, FST adapters/cables are connected to the GPIA.
- Press YES pushbutton and follow the display instructions until all cables and adapters are disconnected from the GPIA.
- Set GPIA ON/OFF circuit breaker to OFF.
- Set power supply ON/OFF switch to OFF.

Does the recorded fault message include display module?

NO

2

Does the recorded fault message include self test fail lamp?

YES

3

- Turn in color display.

NO / YES

4 • Is recorded fault message – FAULTY
GPIA
POWER HARNESS

5 • Go to block 20.

NO / YES

6 Does the recorded fault message include any of the components listed in Table 1.

7 • Perform troubleshooting procedure in WP 0022 00.

YES / NO

NOTE

If more than one component is included in a fault message, replace components one at a time in the same order components are listed.

9 • Go to block 14.

8 • Replace one component listed in the fault message.
  • Refer to Table 1 to locate the replacement task.
• Repeat functional self test.
  • Refer to WP 0006 00.

Does display read – GPIA OK

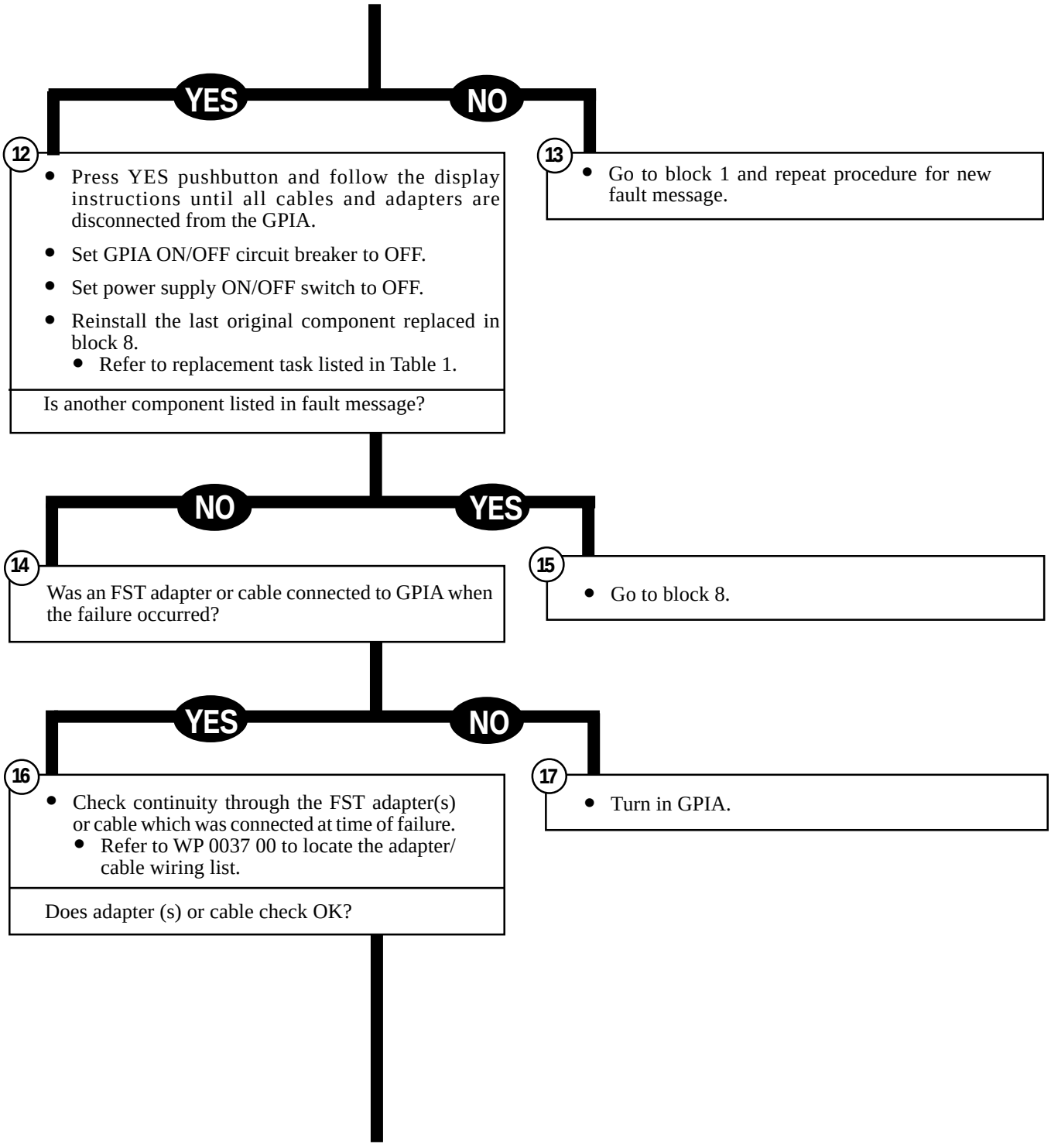
Table 1

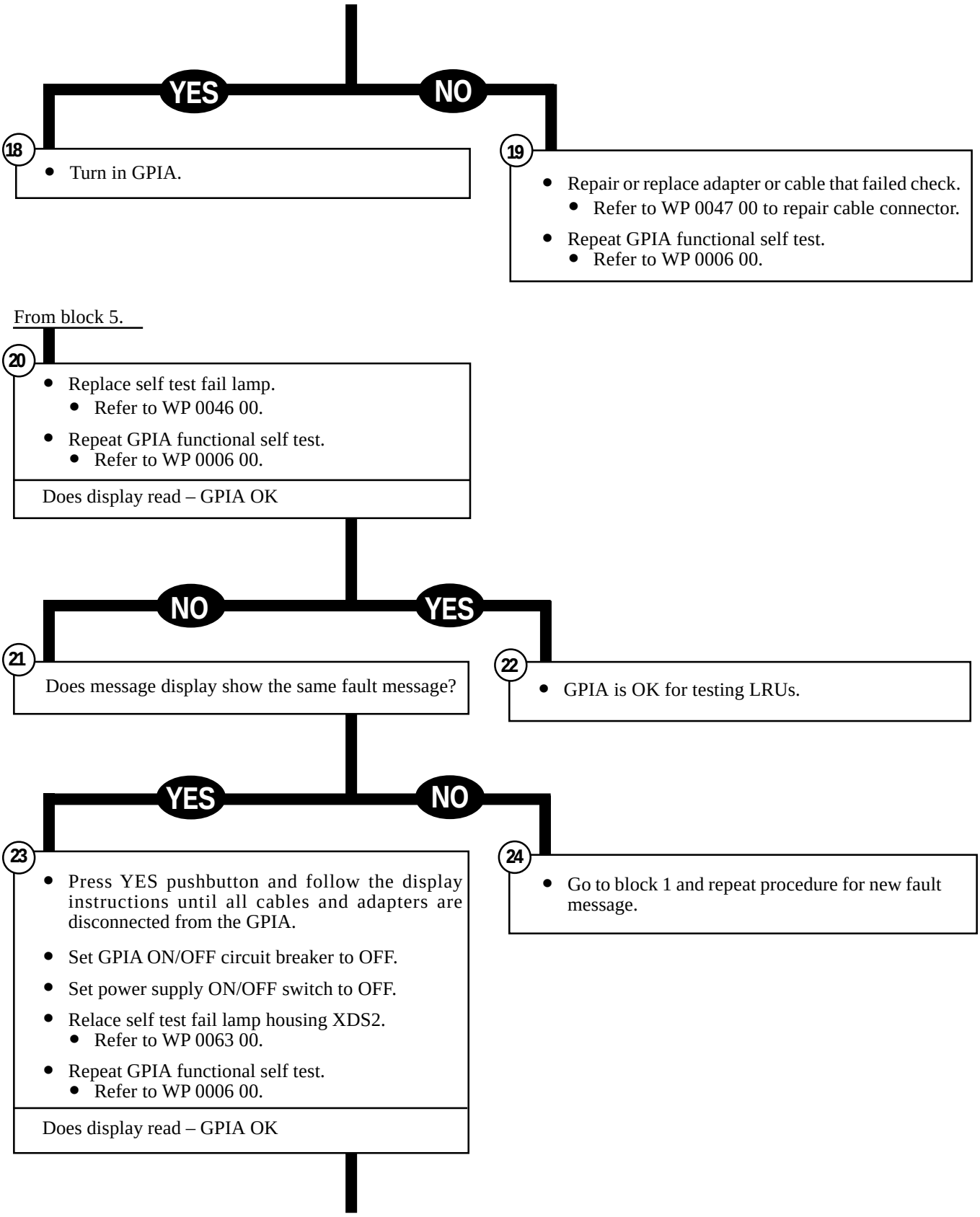
Component	Work Package
CCA A2, A3, or A6	0079 00
Power Module (CCA A7)	0085 00
Fan Assy (radial blower)	0084 00
Load Controller	0082 00
FL4 (filter FL4)	0075 00
PCM A8 (CCA A8)	0074 00
Power Cable W3 or W4	0064 00
Power Supply PS1	0077 00
Power Supply PS2	0078 00
Power Supply PS3	0076 00
Fan Assy (radial blower for GPIA P/N 9358192)	0087 00
FL1, FL2	0071 00

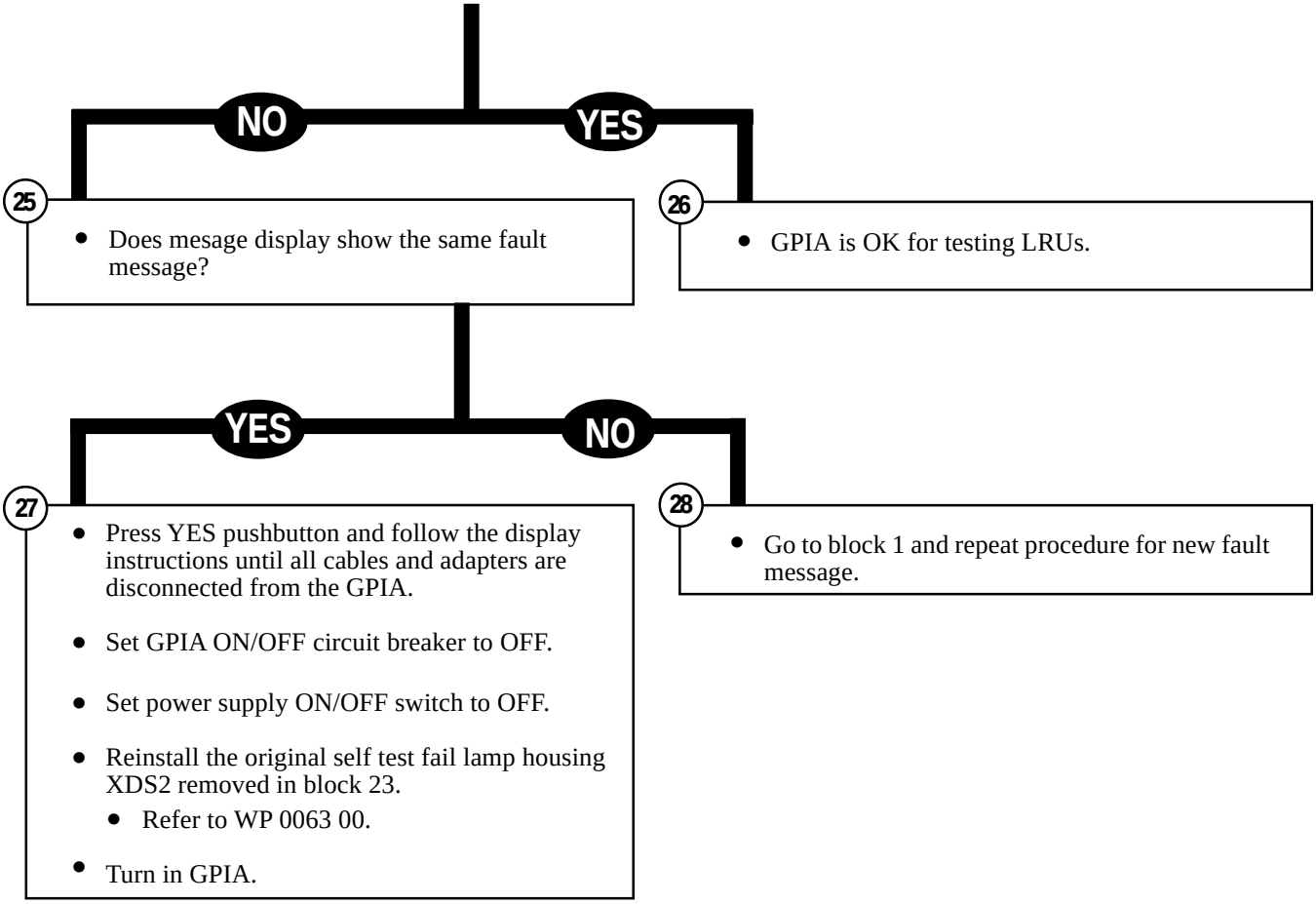
NO / YES

10 Does display show the same fault message recorded in block 1?

11 • GPIA OK for LRU testing.


YES
NO
12
• Press YES pushbutton and follow the display instructions until all cables and adapters are disconnected from the GPIA.
• Set GPIA ON/OFF circuit breaker to OFF.
• Set power supply ON/OFF switch to OFF.
• Reinstall the last original component replaced in block 8.
• Refer to replacement task listed in Table 1.
Is another component listed in fault message?
13
• Go to block 1 and repeat procedure for new fault message.
NO
YES
14
Was an FST adapter or cable connected to GPIA when the failure occurred?
15
• Go to block 8.
YES
NO
16
• Check continuity through the FST adapter(s) or cable which was connected at time of failure.
• Refer to WP 0037 00 to locate the adapter/ cable wiring list.
Does adapter (s) or cable check OK?
17
• Turn in GPIA.


YES
NO
18
• Turn in GPIA.
19
• Repair or replace adapter or cable that failed check.
• Refer to WP 0047 00 to repair cable connector.
• Repeat GPIA functional self test.
• Refer to WP 0006 00.
From block 5.
20
• Replace self test fail lamp.
• Refer to WP 0046 00.
• Repeat GPIA functional self test.
• Refer to WP 0006 00.
Does display read – GPIA OK
NO
YES
21
Does message display show the same fault message?
22
• GPIA is OK for testing LRUs.
YES
NO
23
• Press YES pushbutton and follow the display instructions until all cables and adapters are disconnected from the GPIA.
• Set GPIA ON/OFF circuit breaker to OFF.
• Set power supply ON/OFF switch to OFF.
• Relace self test fail lamp housing XDS2.
• Refer to WP 0063 00.
• Repeat GPIA functional self test.
• Refer to WP 0006 00.
Does display read – GPIA OK
24
• Go to block 1 and repeat procedure for new fault message.


NO
YES
25
Does mesage display show the same fault message?
26
GPIA is OK for testing LRUs.
YES
NO
27
Press YES pushbutton and follow the display instructions until all cables and adapters are disconnected from the GPIA.
Set GPIA ON/OFF circuit breaker to OFF.
Set power supply ON/OFF switch to OFF.
Reinstall the original self test fail lamp housing XDS2 removed in block 23.
Refer to WP 0063 00.
Turn in GPIA.
28
Go to block 1 and repeat procedure for new fault message.

SYMPTOM

GPIA FAILS FUNCTIONAL SELF TEST

DISPLAY READS – FAULTY
GPIA
POWER HARNESS

Test Equipment /Special Tools:

- Multimeter

Equipment Conditions:

- GPIA resting on clean workbench.
- Power supply connected to GPIA.
- All test cables/adapters disconnected.
- All equipment except power cable W21 disconnected from power supply.

CAUTION

To avoid damage to equipment, set the power supply ON/OFF circuit breaker to OFF before replacing parts, removing and installing connectors, and soldering and unsoldering wires.

NOTE

For location of parts, see WP 0008 00, foldout Figure 1. For GPIA power input wiring diagrams, see WP 0008 00, foldout Figure 2. Refer to WP 0006 00 to perform GPIA FST.

1

- Preliminary checks:
  - Check that power cable leads are connected correctly to power supply.
    - Refer to WP 0006 00.

2

- To power down GPIA and power supply:
  - Set GPIA ON/OFF circuit breaker to OFF.
  - Set power supply ON/OFF switch to OFF.

NOTE

Do not discard or turn in replaced parts until the test has been completed. Do not install GPIA electronics assembly or covers and plates until instructed.

3

- Remove GPIA from case.
  - Refer to WP 0060 00.
- Connect cable FST W34 connector P3 to GPIA connector UJ6.

4

- Remove module cavity covers.
- Pull out interlock switches on both module cavities.

5

- Power up GPIA and power supply.
  - Set power supply ON/OFF switch to ON.
  - Set GPIA ON/OFF circuit breaker to ON.

NOTE

The purpose of this test is to verify that the GPIA chassis is isolated from ground and that no other voltage source is shorted to the chassis. The verification is accomplished by applying +5 vdc to the chassis and using a multimeter to verify that the measured voltage is between +1.5 and +7.5 vdc.

6

NOTE

When connecting multimeter for voltage measurements, (+) refers to positive multimeter lead; (-) refers to negative multimeter lead.

- Connect multimeter (-) to 24 volt return clip and multimeter (+) to GPIA chassis.

Does multimeter read between +1.5 and +7.5 vdc?

NO **YES**

7

NOTE

Blocks 9 thru 15 are deleted.

- Go to block 16.

8

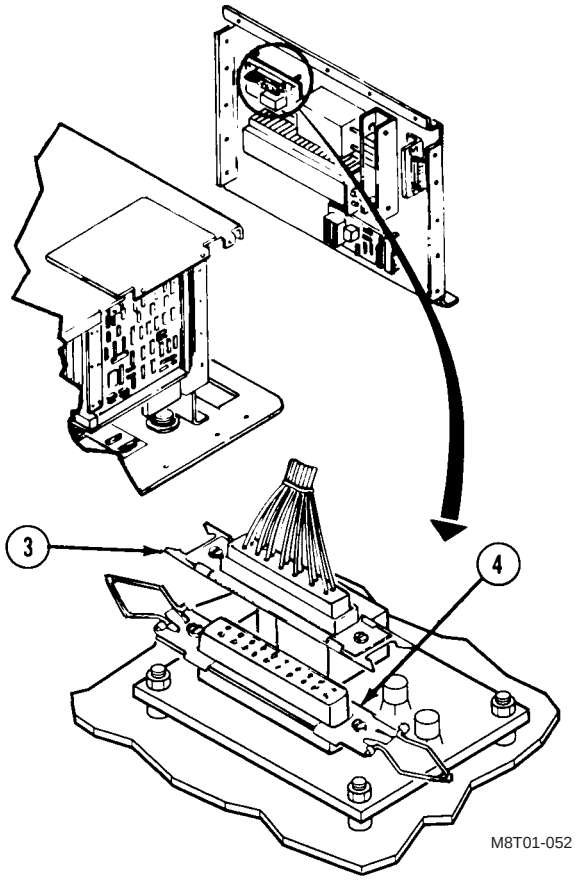
- Power down GPIA and power supply.
  - Refer to block 2.
- Install GPIA electronic assembly.
  - Refer to WP 0060 00.
- Verify GPIA operation by performing GPIA FST.

From block 7.

16

- Power down GPIA by performing steps in block 2.
- Remove UUT power supply end plate. Do not disconnect P15 from J15.
  - Refer to WP 0072 00.
- Disconnect connector plug P18 (3) from connector socket J18 (4).
- Power up GPIA and power supply.
  - Refer to block 5.
- Repeat GPIA chassis measurement as described in block 6.

Does multimeter read between +1.5 and +7.5 vdc?



NO

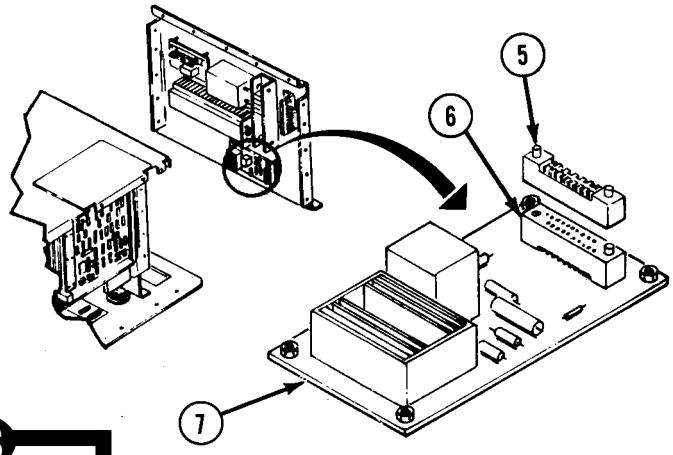
17 Does multimeter read between +1.5 and +7.5 vdc?

- Power down GPIA and power supply.
  - Refer to block 2.
- Connect connector plug P18 (3) to connector socket J18 (4).
- Disconnect connector plug P16 (5) from connector socket J16 (6).
- Power up GPIA and power supply.
  - Refer to block 5.
- Repeat GPIA chassis measurement as described in block 6.

YES

18

- Power down GPIA and power supply.
  - Refer to block 2.
- Replace CCA A8.
  - Refer to WP 0074 00.
- Verify GPIA operation by performing GPIA FST.



NO

19 Does multimeter read between +1.5 and +7.5 vdc?

- Connect connector plug P16 (5) to connector socket J16 (6) on bus interface circuit card assembly (7).
- Tag and unsolder wires from power supply PS3 (8) terminals 1 (9) and 2 (10).

NOTE

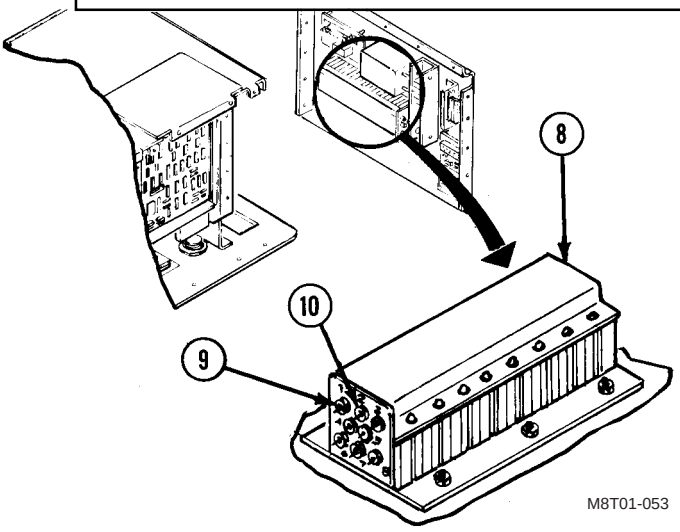
Make sure unsoldered wires do not touch the chassis or each other during multimeter check.

- Power up GPIA and power supply.
  - Refer to block 5.
- Repeat chassis measurement as described in block 6.

YES

20

- Power down GPIA and power supply.
  - Refer to block 2.
- Replace bus interface circuit card assembly.
  - Refer to WP 0073 00.
- Verify GPIA operation by performing GPIA FST.



NO

21

- Power down GPIA and power supply.
  - Refer to block 2.
- Resolder wires on power supply PS3 (8) terminals 1 (9) and 2 (10).
- Tag and unsolder wires from line terminals (11) of filter FL4 (12) on UUT power supply assembly end plate (13).

NOTE

Make sure unsoldered wires do not touch the chassis or each other during multimeter check.

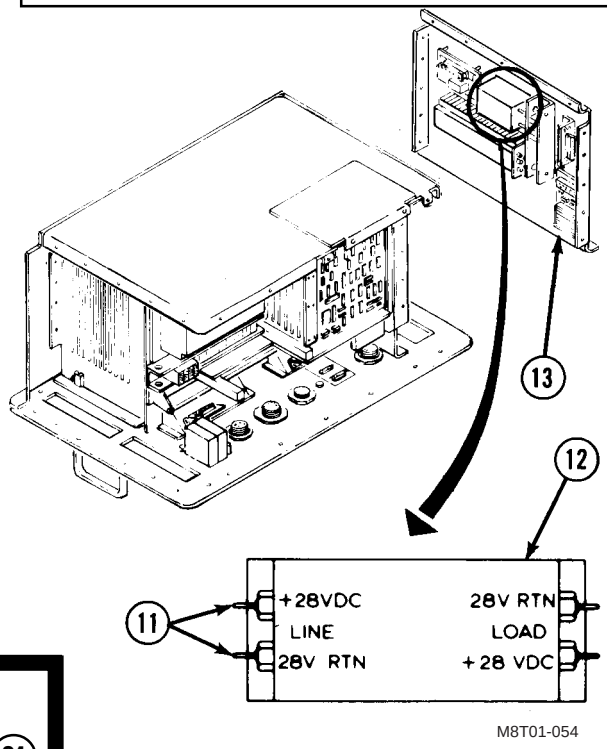
- Power up GPIA and power supply.
  - Refer to block 2.
- Repeat chassis measurement as described in block 6.

Does multimeter read between +1.5 and +7.5 vdc?

YES

22

- Power down GPIA and power supply.
  - Refer to block 2.
- Replace power supply PS3.
  - Refer to WP 0076 00.
- Verify GPIA operation by performing GPIA FST.



NO

23

- Power down GPIA and power supply.
  - Refer to block 2.
- Resolder wires on line terminals (11) of filter FL4 (12).
- Check part number of GPIA electronics assembly.

NOTE

GPIA electronics assembly part number is located in module B.

Is GPIA electronics assembly part number 9358193?

YES

24

- Power down GPIA and power supply.
  - Refer to block 2.
- Replace filter FL4.
  - Refer to WP 0075 00.
- Verify GPIA operation by performing GPIA FST.

YES

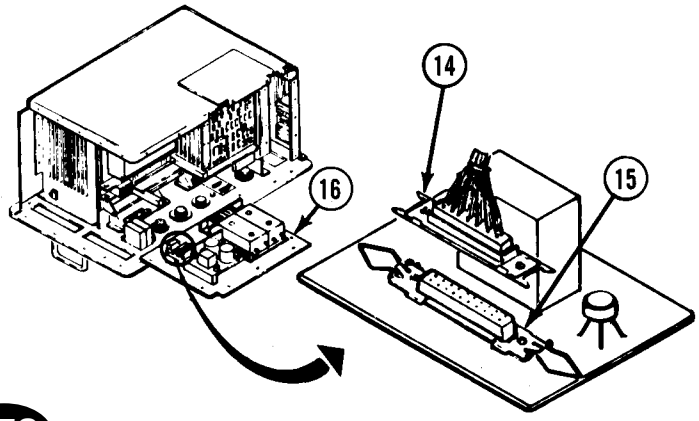
25 Disconnect connector plug P17 (14) from connector socket J17 (15) on filter plate (16).

- Power up GPIA and power supply.
  - Refer to block 5.
- Repeat chassis measurement as described in block 6.

Does multimeter read between +1.5 and +7.5 vdc?

NO

26 Go to block 34.



NO

27 Power down GPIA and power supply.

- Refer to block 2.

Connect connector plug P17 (14) to connector socket J17 (15) on filter plate (16).

YES

28 Power down GPIA and power supply.

- Refer to block 2.

Replace CCA A7.

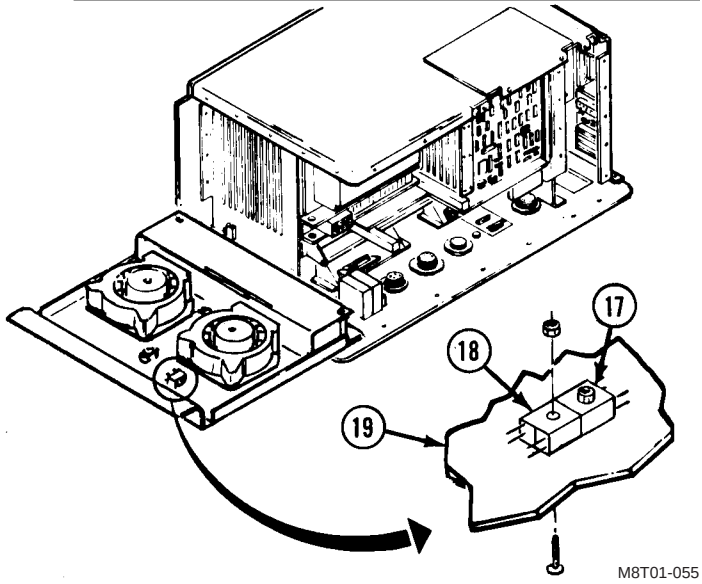
- Refer to WP 0085 00.

Verify GPIA operation by performing GPIA FST.

29 Disconnect connector plug P19 (17) from connector socket J19 (18) on radial blower assembly end plate (19).

- Power up GPIA and power supply.
  - Refer to block 5.
- Repeat GPIA chassis measurement as described in block 6.

Does multimeter read between +1.5 and +7.5 vdc?



YES

30

- Power down GPIA and power supply.
  - Refer to block 2.
- Connect connector plug P19 (17) to connector socket J19 (18) on radial blower assembly end plate (19).
- Tag and unsolder wires A (20) and B (21) on connector P19 (17).
  - Refer to WP 0084 00.

NOTE

Make sure unsoldered wires do not touch the chassis or each other during multimeter check.

- Power up GPIA and power supply.
  - Refer to block 5.
- Repeat chassis measurement check as described in block 6.

Does multimeter read between +1.5 and +7.5 vdc?

NO

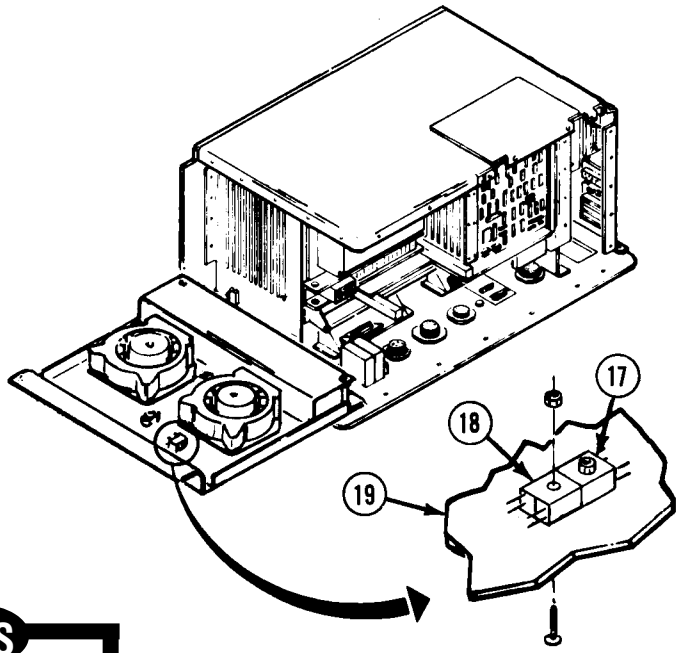
32

- Power down GPIA and power supply.
  - Refer to block 2.
- Resolder wires A (20) and B (21) on connector P19 (17).
- Replace radial blower B2.
  - Refer to WP 0084 00.
- Verify GPIA operation by performing GPIA FST.

NO

31

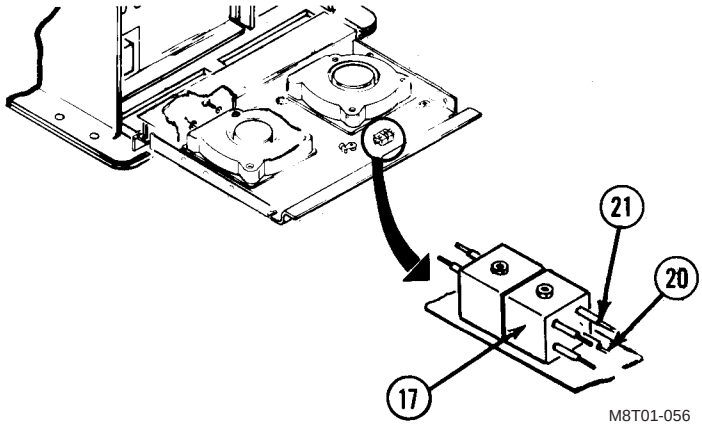
- Go to block 37.



YES

33

- Power down GPIA and power supply.
  - Refer to block 2.
- Replace radial blower B1.
  - Refer to WP 0084 00.
- Verify GPIA operation by performing GPIA FST.

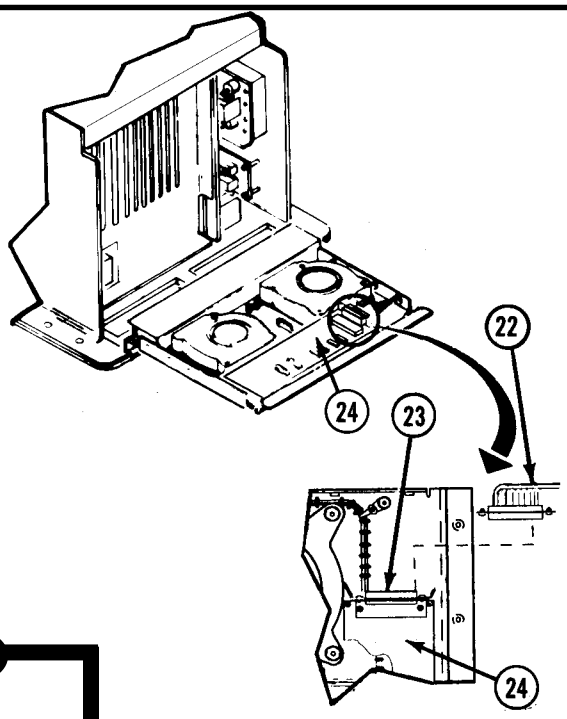


M8T01-056

From block 26.

34
- Disconnect connector plug P17 (22) from connector socket P1 (23) on load controller assembly (24).
- Power up GPIA and power supply.
  - Refer to block 5.
- Repeat chassis measurement as described in block 6.

Does multimeter read between +1.5 and +7.5 vdc?



NO

35
- Power down GPIA and power supply.
  - Refer to block 2.
- Connect connector plug P17 (22) to connector socket P1 (23) on load controller assembly (24).
- Go to block 29.

YES

36
- Power down GPIA and power supply.
  - Refer to block 2.
- Replace load controller assembly.
  - Refer to WP 0082 00.
- Verify GPIA operation by performing GPIA FST.

From block 31.

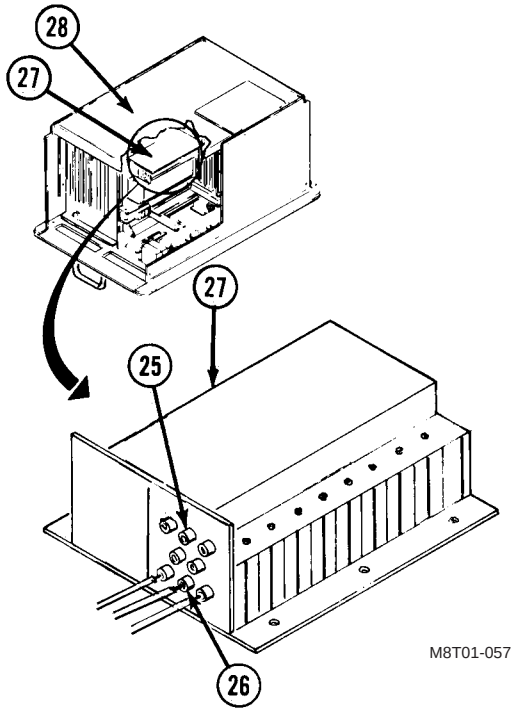
37
- Power down GPIA and power supply.
  - Refer to block 2.
- Tag and unsolder wires on terminals 2 (25) and 7 (26) of power supply PS2 (27) on back panel (28).

NOTE

Make sure unsoldered wires do not touch the chassis or each other during multimeter check.

- Power up GPIA and power supply.
  - Refer to block 5.
- Repeat chassis measurement as described in block 6.

Does multimeter read between +1.5 and +7.5 vdc?



NO

38

- Power down GPIA and power supply.
  - Refer to block 5.
- Resolder wires on terminals 2 (25) and 7 (26) of power supply PS2 (27) on back panel (28).
- Tag and unsolder wires on line terminals (29) of filter FL2 (30) on filter plate (31).

NOTE

Make sure unsoldered wires do not touch the chassis or each other during multimeter check.

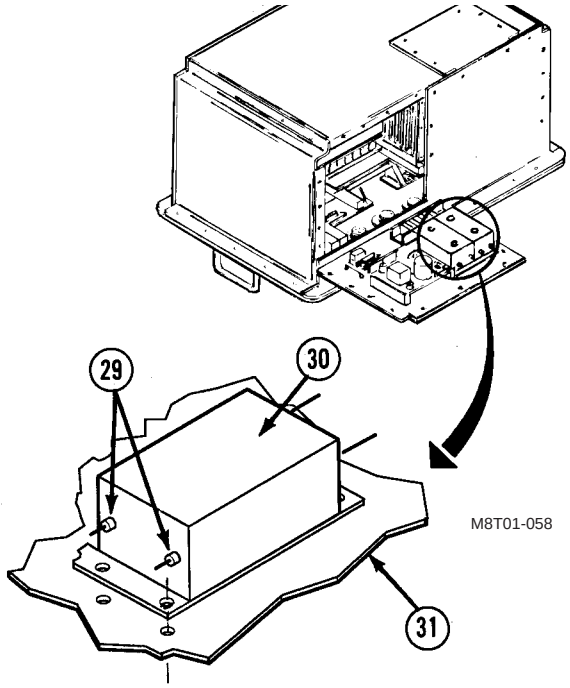
- Power up GPIA and power supply.
  - Refer to block 5.
- Repeat chassis measurement as described in block 6.

Does multimeter read between +1.5 and +7.5 vdc?

YES

39

- Power down GPIA and power supply.
  - Refer to block 2.
- Replace power supply PS2.
  - Refer to WP 0078 00.
- Verify GPIA operation by performing GPIA FST.



YES

40

- Power down GPIA and power supply.
  - Refer to block 2.
- Replace filter FL2.
  - Refer to WP 0071 00.
- Verify GPIA operation by performing GPIA FST.

NO

41

- Resolder wires on line terminals (29) of filter FL2 (30) on filter plate (31).
- Turn in GPIA.

SYMPTOM

SELF TEST FAIL LAMP IS ILLUMINATED

DISPLAY READS –
REPLACE LOAD CONTROLLER
GPIA CORE FAILURE
ERROR CODE = 0321

Equipment Conditions:

- GPIA and display resting on clean workbench.
- Power supply connected to GPIA.

1 Is GPIA P/N 12934368?

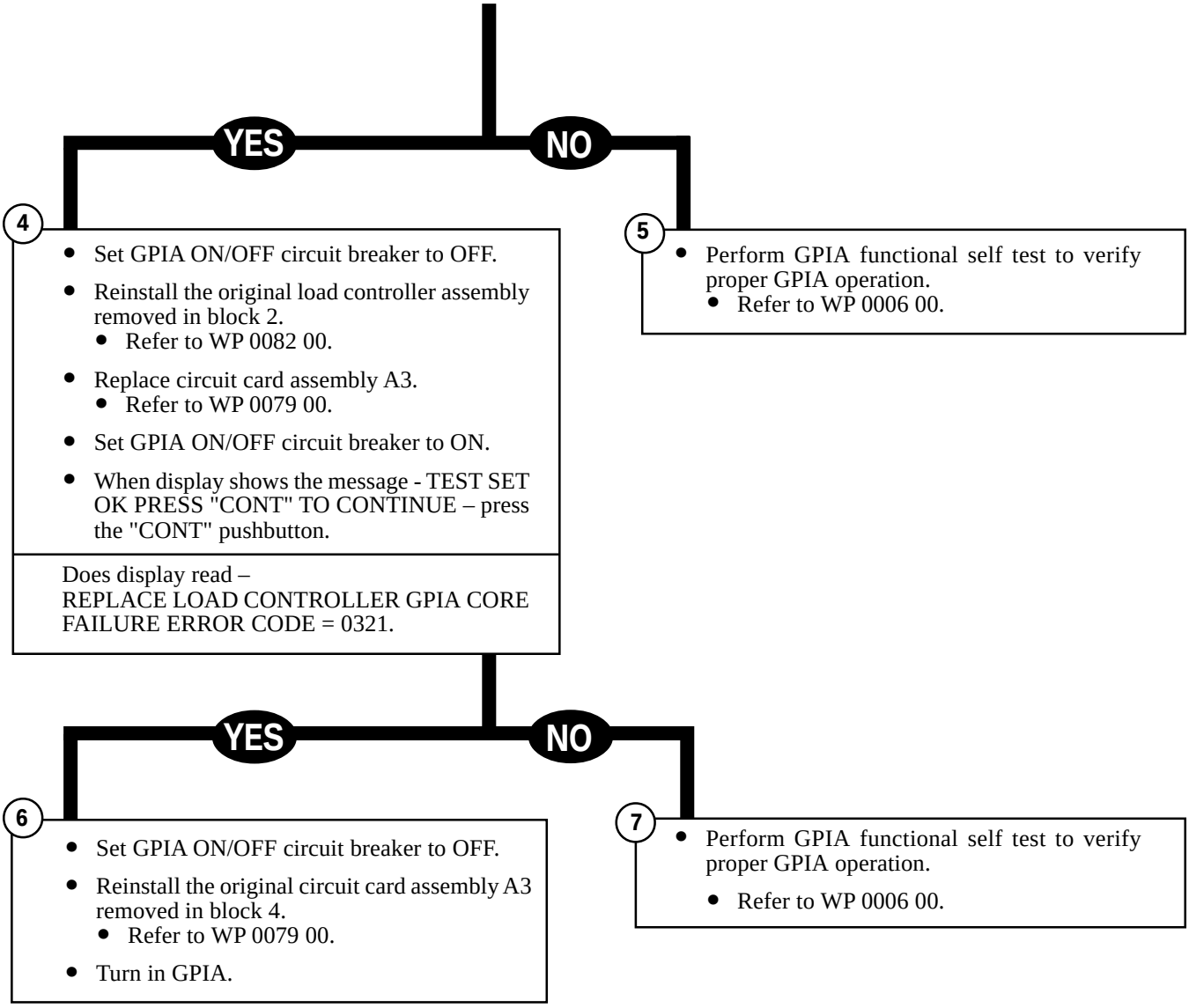
YES

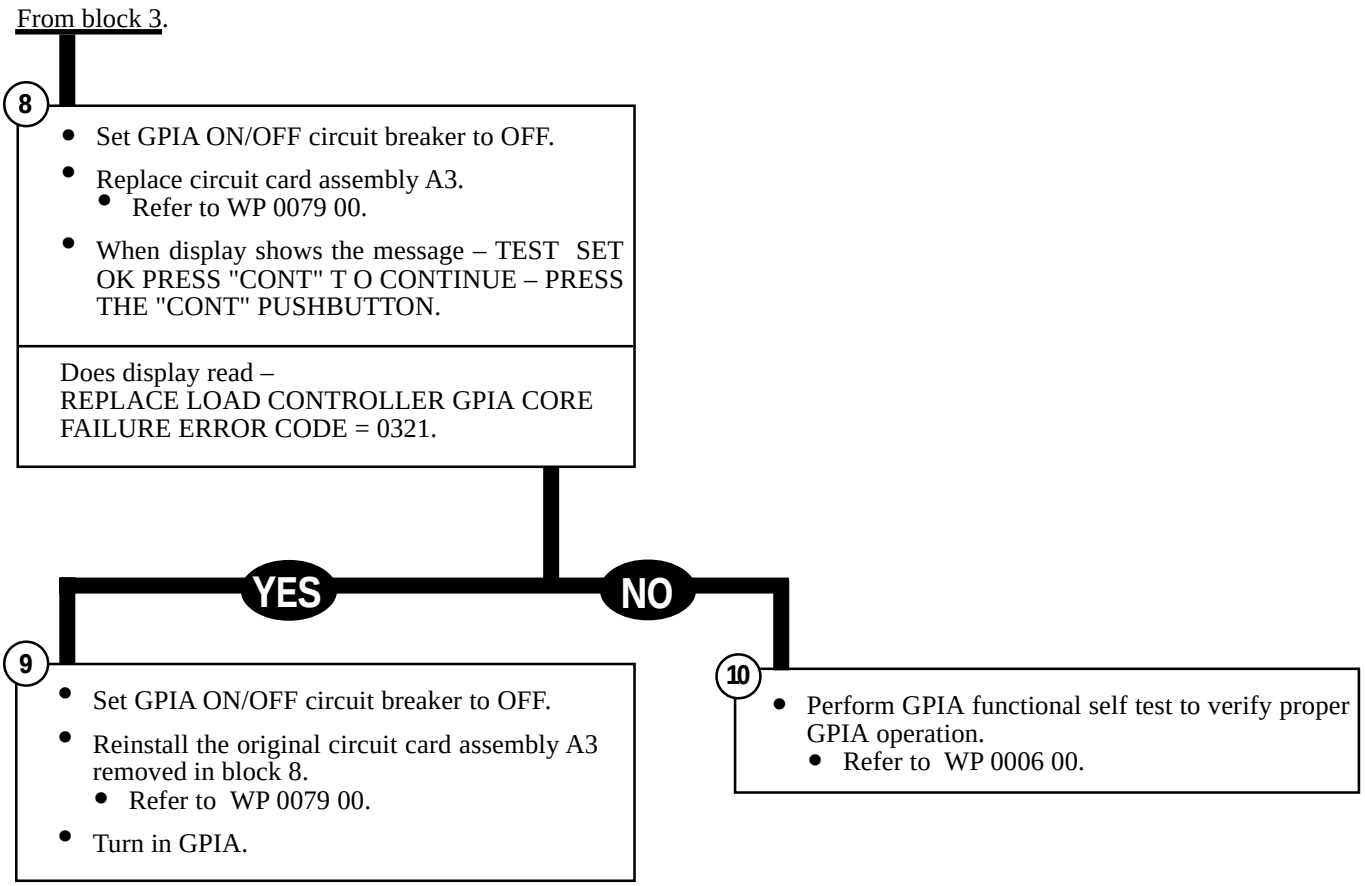
2
- Set GPIA ON/OFF circuit breaker to OFF.
- Replace load controller assembly.
  - Refer to WP 0082 00.
- Set GPIA ON/OFF circuit breaker to ON.
- When display shows the message – TEST SET OK PRESS "CONT" TO CONTINUE – press the "CONT" pushbutton.

Does display read –
REPLACE LOAD CONTROLLER GPIA CORE FAILURE ERROR CODE = 0321.

NO

3
- Go to block 8.


YES
NO
4
Set GPIA ON/OFF circuit breaker to OFF.
Reinstall the original load controller assembly removed in block 2.
Refer to WP 0082 00.
Replace circuit card assembly A3.
Refer to WP 0079 00.
Set GPIA ON/OFF circuit breaker to ON.
When display shows the message - TEST SET OK PRESS "CONT" TO CONTINUE – press the "CONT" pushbutton.
Does display read – REPLACE LOAD CONTROLLER GPIA CORE FAILURE ERROR CODE = 0321.
5
Perform GPIA functional self test to verify proper GPIA operation.
Refer to WP 0006 00.
YES
NO
6
Set GPIA ON/OFF circuit breaker to OFF.
Reinstall the original circuit card assembly A3 removed in block 4.
Refer to WP 0079 00.
Turn in GPIA.
7
Perform GPIA functional self test to verify proper GPIA operation.
Refer to WP 0006 00.


From block 3.
8
Set GPIA ON/OFF circuit breaker to OFF.
Replace circuit card assembly A3.
Refer to WP 0079 00.
When display shows the message – TEST SET OK PRESS "CONT" T O CONTINUE – PRESS THE "CONT" PUSHBUTTON.
Does display read –
REPLACE LOAD CONTROLLER GPIA CORE FAILURE ERROR CODE = 0321.
YES
NO
9
Set GPIA ON/OFF circuit breaker to OFF.
Reinstall the original circuit card assembly A3 removed in block 8.
Refer to WP 0079 00.
Turn in GPIA.
10
Perform GPIA functional self test to verify proper GPIA operation.
Refer to WP 0006 00.

SYMPTOM

SELF TEST FAIL LAMP IS ILLUMINATED

DISPLAY READS –
REPLACE A3 (UJ6-PP)
GPIA CORE FAILURE
ERROR CODE = 0320

Equipment Conditions:

- GPIA and display resting on clean workbench.
- Power supply connected to GPIA.

1

- Set GPIA ON/OFF circuit breaker to OFF.
- Replace circuit card assembly A3.
  - Refer to WP 0079 00.
- Set GPIA ON/OFF circuit breaker to ON.
- When display shows the message – TEST SET OK PRESS "CONT" TO CONTINUE – press the "CONT" pushbutton.

Does display read –
REPLACE A3 (UJ6-PP) GPIA CORE
FAILURE ERROR CODE = 0320.

YES

2

- Set GPIA ON/OFF circuit breaker to OFF
- Rinstall the original circuit card assembly A3 removed in block 1.
  - Refer to WP 0079 00.
- Turn in GPIA.

NO

3

- Perform GPIA functional self test to verify proper GPIA operation.
  - Refer to WP 0006 00.

TROUBLESHOOTING PROCEDURE **0025 00**

SYMPTOM

DURING LRU TESTING OIU DISPLAY READS – TEST SYSTEM ERROR CODE XXXXXX

Test Equipment/Special Tools:

- None

Equipment Conditions:

- LRU test in progress.

NOTE

When the OIU display shows a fault message, record the message before pushing the YES pushbutton.

1

- Set OIU ON/OFF circuit breaker to OFF.
- Set GPIA ON/OFF circuit breaker to OFF if GPIA is being used.
- Set power supply ON/OFF circuit breaker to OFF.
- Disconnect all test cables and adapters.
- Perform OIU functional self test.
  - Refer to WP 0006 00.

Does display read – DSESTS OK?

YES

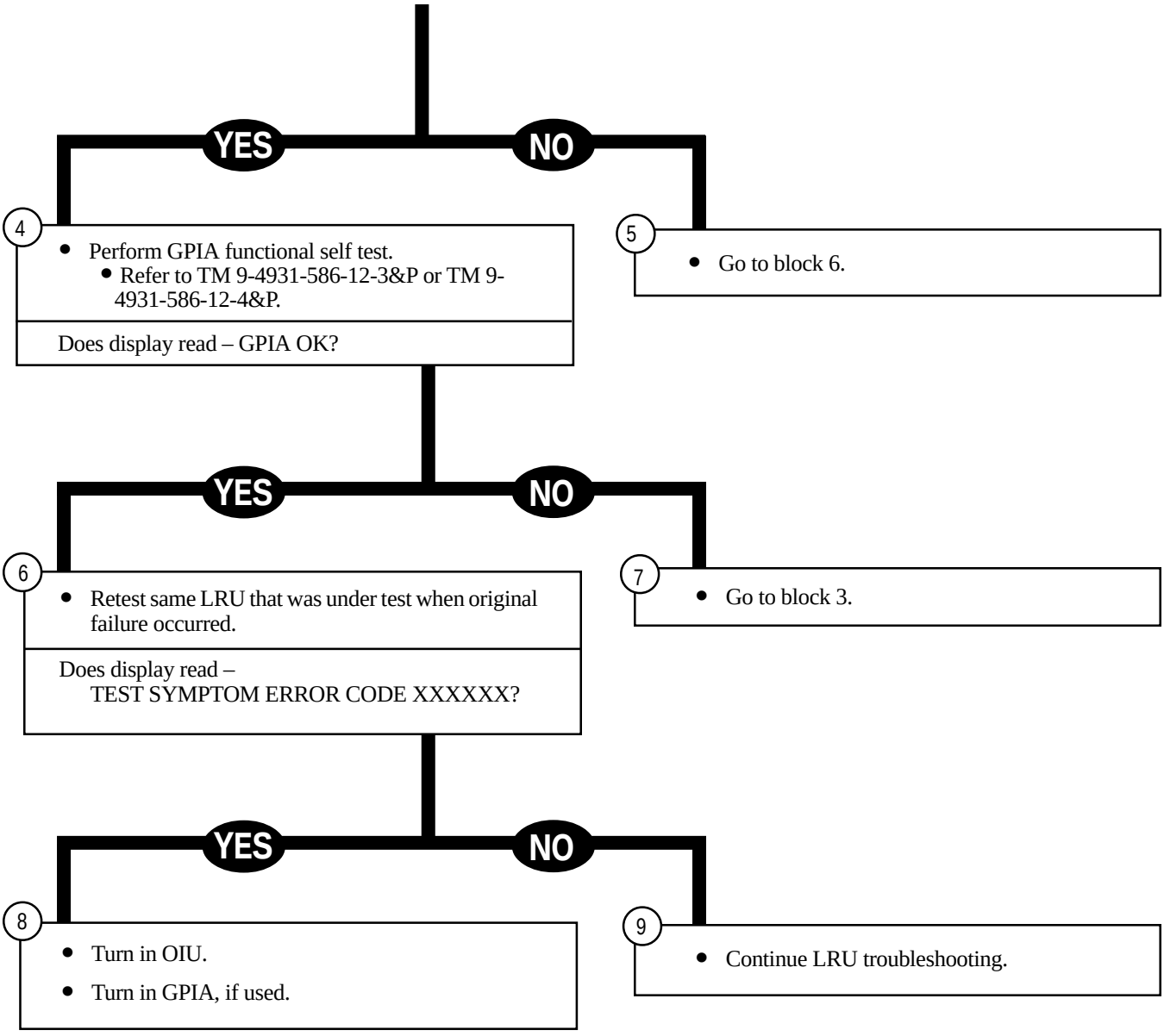
2

- Was GPIA used during LRU testing?

NO

3

- Go to Fault Symptom Index, WP 0009 00.
- Perform action for new fault symptom.


YES
NO
4
• Perform GPIA functional self test.
• Refer to TM 9-4931-586-12-3&P or TM 9-4931-586-12-4&P.
Does display read – GPIA OK?
5
• Go to block 6.
YES
NO
6
• Retest same LRU that was under test when original failure occurred.
Does display read –
TEST SYMPTOM ERROR CODE XXXXXX?
7
• Go to block 3.
YES
NO
8
• Turn in OIU.
• Turn in GPIA, if used.
9
• Continue LRU troubleshooting.

SYMPTOM

GPIA FAILS FUNCTIONAL SELF TEST AND DISPLAY READS – TEST SYSTEM ERROR CODE 0082 OR 0085

Test Equipment/Special Tools:

- None

Equipment Conditions:

- GPIA functional self test in progress.

1

- Set GPIA ON/OFF circuit breaker to OFF.
- Replace circuit card assembly A5.
  - Refer to WP 0079 00.
- Repeat GPIA functional self test.

Does display read – GPIA OK
RERUN TEST?

NO

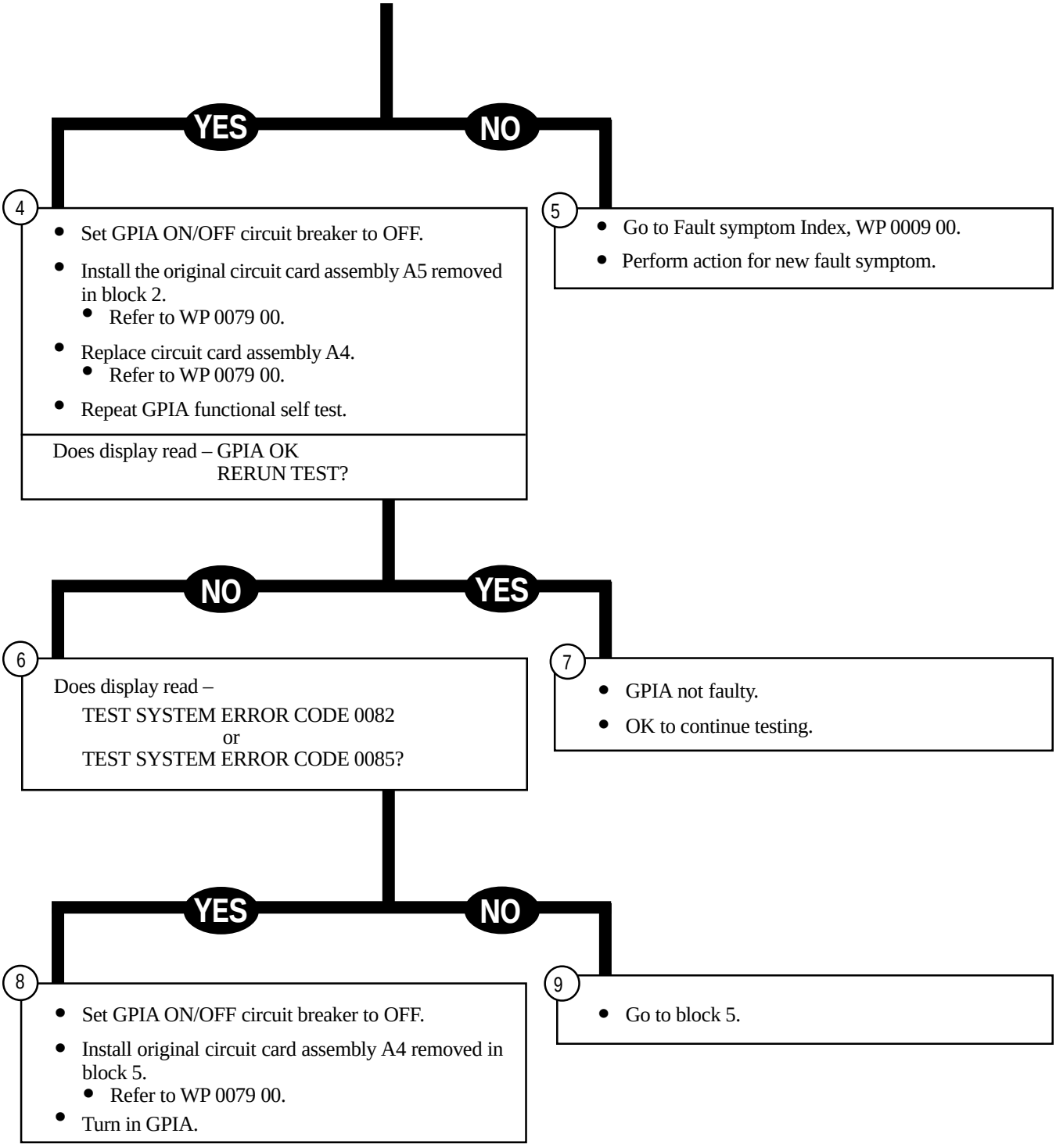
2

Does display read –
TEST SYSTEM ERROR CODE 0082
or
TEST SYSTEM ERROR CODE 0085?

YES

3

- GPIA not faulty.
- OK to continue testing.


YES
NO
4
Set GPIA ON/OFF circuit breaker to OFF.
Install the original circuit card assembly A5 removed in block 2.
Refer to WP 0079 00.
Replace circuit card assembly A4.
Refer to WP 0079 00.
Repeat GPIA functional self test.
Does display read – GPIA OK
RERUN TEST?
5
Go to Fault symptom Index, WP 0009 00.
Perform action for new fault symptom.
NO
YES
6
Does display read –
TEST SYSTEM ERROR CODE 0082
or
TEST SYSTEM ERROR CODE 0085?
7
GPIA not faulty.
OK to continue testing.
YES
NO
8
Set GPIA ON/OFF circuit breaker to OFF.
Install original circuit card assembly A4 removed in block 5.
Refer to WP 0079 00.
Turn in GPIA.
9
Go to block 5.

SYMPTOM

CFM FAILS FUNCTIONAL SELF TEST.

Test Equipment/Special Tools:

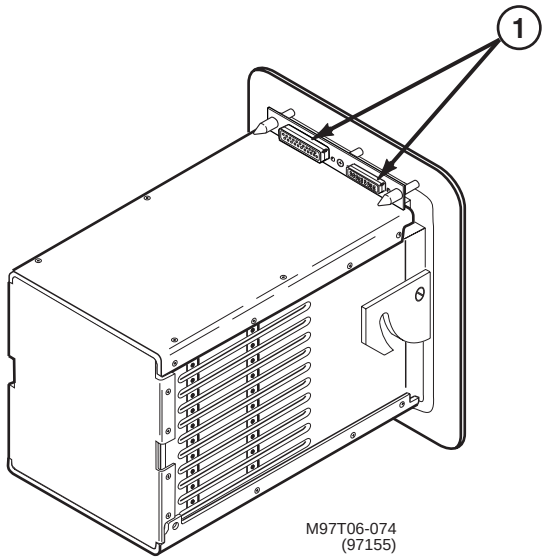
- Multimeter

Equipment Conditions:

- GPIA resting on clean workbench.
- Power supply connected to GPIA and resting on clean workbench.
- Power supply adjusted to 24 vdc.
- Laptop computer connected to GPIA and resting on clean workbench.
- CFM installed in GPIA.
- Functional self test in progress.

Table 1. CFM Component Replacement Procedures

Faulty Component	Replacement Procedure WP
Power Cable	WP 0099 00
Signal Flexible Circuit	WP 0100 00
Interface Assembly	WP 0101 00
CCA A2-A4, A6-A10	WP 0098 00
PCMCIA/Load Plate	WP 0105 00
CCA A1 RS-485/232 CCA MIL-STD-1553 CCA PCMCIA Flexible Cable Assembly	WP 0106 00 or WP 0106 12



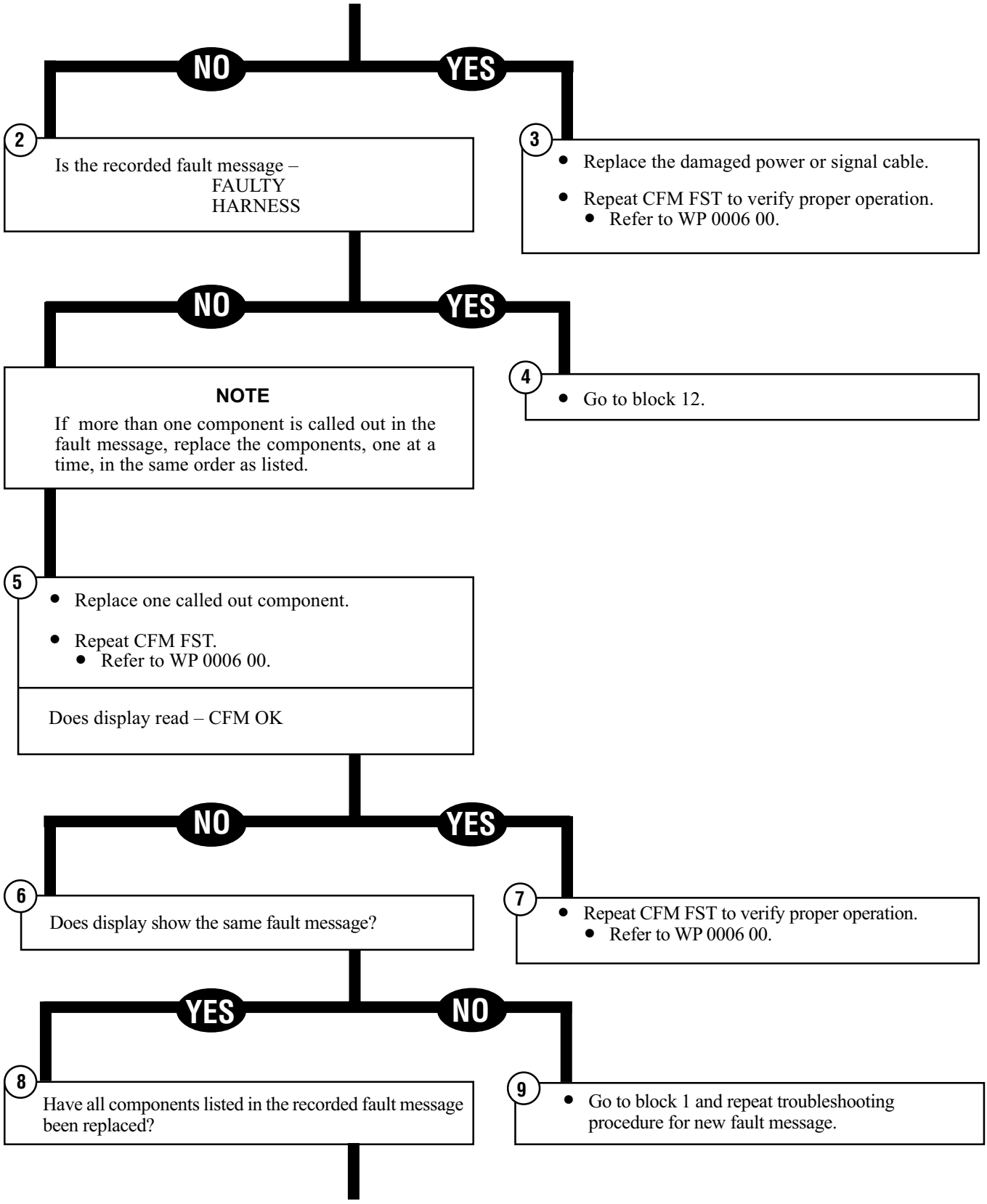
NOTE

Refer to Table 1 to locate replacement procedures for CFM components. Refer to WP 0008 00, foldout Figure 3 or 5, to locate CFM components. When the display reads a fault message, record the message before powering down GPIA.

1

- Record fault message.
- Press NO pushbutton and record test ID number.
- Power down GPIA:
  - Press STOP pushbutton and follow display instructions until all cables and adapters are disconnected.
  - Set GPIA POWER circuit breaker to OFF.
  - Set power supply ON/OFF switch to OFF.
- Remove CFM from GPIA.
- Carefully inspect the connectors of power and signal cables (1) on bottom of CFM for pushed-in, loosely seated, or bent pins.
- Inspect cables (1) for insulation cut through to conductors.

Is either cable damaged?


NO
YES
2
Is the recorded fault message – FAULTY HARNESS
3
• Replace the damaged power or signal cable.
• Repeat CFM FST to verify proper operation.
• Refer to WP 0006 00.
NO
YES
NOTE
If more than one component is called out in the fault message, replace the components, one at a time, in the same order as listed.
4
• Go to block 12.
5
• Replace one called out component.
• Repeat CFM FST.
• Refer to WP 0006 00.
Does display read – CFM OK
NO
YES
6
Does display show the same fault message?
7
• Repeat CFM FST to verify proper operation.
• Refer to WP 0006 00.
YES
NO
8
Have all components listed in the recorded fault message been replaced?
9
• Go to block 1 and repeat troubleshooting procedure for new fault message.

YES

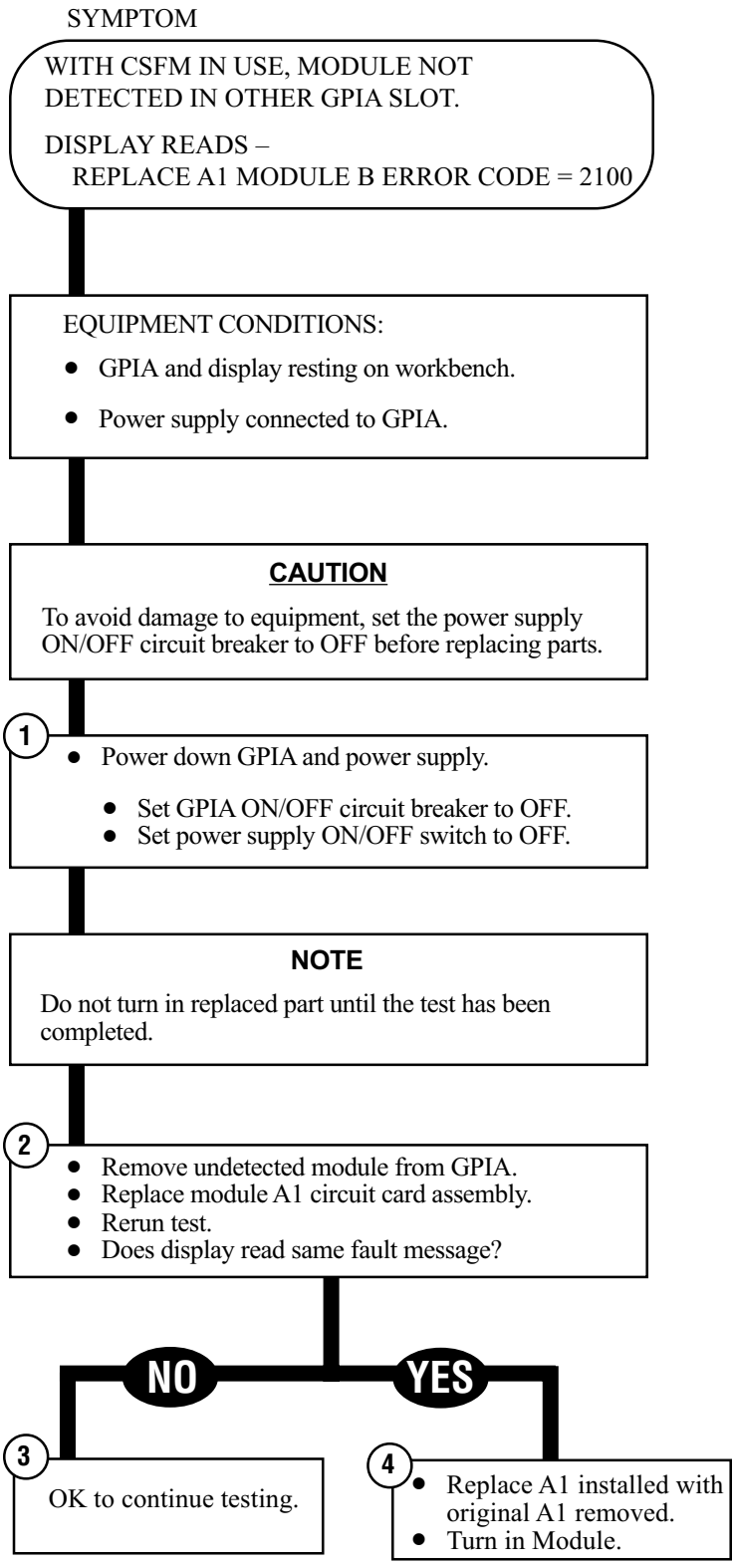
10

- Power down GPIA.
  - Press STOP pushbutton and follow display instructions until all cables and adapters are disconnected.
  - Set GPIA POWER circuit breaker to OFF.
  - Set power supply ON/OFF switch to OFF.
- Remove CFM from GPIA.
- Reinstall the last original component replaced.
- Locate the recorded ID number in WP 0035 01 (CFM P/N 13014865) or WP 0036 00 (CFM P/N 12971974).
- Using multimeter, check all CFM wiring and FST cable/adapter wiring listed for the recorded test ID number.
- Replace or repair the faulty wiring component.
- Repeat CFM FST to verify proper operation.
  - Refer to WP 0006 00.

NO

11

- Power down GPIA.
  - Press STOP pushbutton and follow display instructions until all cables and adapters are disconnected.
  - Set GPIA POWER circuit breaker to OFF.
  - Set power supply ON/OFF switch to OFF.
- Remove CFM from GPIA.
- Reinstall the last original component replaced.
- Go to block 5.


SYMPTOM
WITH CSFM IN USE, MODULE NOT DETECTED IN OTHER GPIA SLOT.
DISPLAY READS –
REPLACE A1 MODULE B ERROR CODE = 2100
EQUIPMENT CONDITIONS:
GPIA and display resting on workbench.
Power supply connected to GPIA.
CAUTION
To avoid damage to equipment, set the power supply ON/OFF circuit breaker to OFF before replacing parts.
1
Power down GPIA and power supply.
Set GPIA ON/OFF circuit breaker to OFF.
Set power supply ON/OFF switch to OFF.
NOTE
Do not turn in replaced part until the test has been completed.
2
Remove undetected module from GPIA.
Replace module A1 circuit card assembly.
Rerun test.
Does display read same fault message?
NO
YES
3
OK to continue testing.
4
Replace A1 installed with original A1 removed.
Turn in Module.

SYMPTOM

DISPLAY READS - FAULTY CFM POWER HARNESS DURING CFM FST

Test Equipment/Special Tools:

- Multimeter

Equipment Conditions:

- GPIA resting on clean workbench.
- Power supply connected to GPIA.
- Display connected to GPIA.
- CFM installed in GPIA.
- Functional self test in progress.

CAUTION

To avoid damage to equipment, set the power supply ON/OFF circuit breaker to OFF before replacing parts, removing and installing connectors, and soldering and unsoldering wires.

1

- Press the YES pushbutton and follow the display instructions until FST cables and adapters are removed.
- Set GPIA ON/OFF circuit breaker to OFF.
- Remove CFM from GPIA.
  - Refer to WP 0006 00.
- Set GPIA ON/OFF circuit breaker to ON.
- Run GPIA functional self test.
  - Refer to WP 0006 00.

Does display read - GPIA OK
RERUN TEST?

YES

2

- Set GPIA ON/OFF circuit breaker to OFF.
- Connect cable FST W34 connector P3 to GPIA connector UJ6.
- Remove all circuit cards and load plate from the CFM.
  - Refer to WP 0098 00, WP 0105 00, and WP 0106 00.
- Install module in GPIA.
  - Refer to WP 0006 00.
- Set GPIA ON/OFF circuit breaker to ON.

NOTE

When connecting multimeter for voltage measurements, (+) refers to positive multimeter lead; (-) refers to negative multimeter lead.

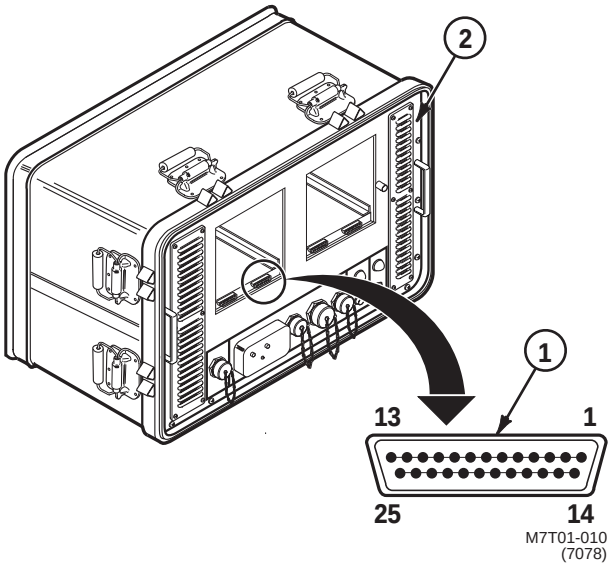
- Connect multimeter (-) to J14 (1) pin 6 and multimeter (+) to GPIA chassis (2).

Does multimeter read between +1.5 and +7.5 vdc?

NO

3

- Perform GPIA troubleshooting procedure.
  - Refer to WP 0021 00.



M7T01-010
(7078)

Does multimeter read between +1.5 and +7.5 vdc?

YES

4

- Set GPIA ON/OFF circuit breaker to OFF.
- Remove CFM from GPIA.

NOTE

Install circuit cards in the CFM in the order listed in Table 1.

- Install a circuit card listed in Table 1 in the CFM.
  - Refer to WP 0098 00, WP 0105 00, or WP 0106 00 for appropriate task.
- Install module in GPIA.
  - Refer to WP 0006 00.
- Set GPIA ON/OFF circuit breaker to ON.
- Connect multimeter (-) to J14 (1) pin 6 and multimeter (+) to GPIA chassis (2).

NO

5

- Go to block 11.

Table 1

CFM Replacement Order	Circuit Card
1	Load Plate
2	A1
3	A2
4	A3
5	A4
6	A6
7	A7
8	A8
9	A10

NO

6

- Replace the last circuit card installed in CFM with new card.
  - Refer to WP 0098 00, WP 0105 00, or WP 0106 00 for appropriate task.

YES

7

- Go to block 8.

8

- Have all circuit cards in Table 1 been installed?

YES

9

- Run CFM FST to verify all faults have been corrected.
  - Refer to WP 0006 00.

NO

10

- Go to block 4.

From block 5.

11

- Set GPIA ON/OFF circuit breaker to OFF.
- Remove CFM from GPIA.
- Remove bottom cover from CFM.
  - Refer to WP 0097 00.
- Disconnect power cable assembly connector from backplane connector.
  - Refer to WP 0099 00 to locate power cable connector.
- Install bottom cover on CFM.
  - Refer to WP 0097 00.
- Install CFM in GPIA.
- Set GPIA ON/OFF circuit breaker to ON.
- Connect multimeter (-) to J14 (1) pin 6 and multimeter (+) to GPIA chassis (2).

Does multimeter read between +1.5 and +7.5 vdc?

YES

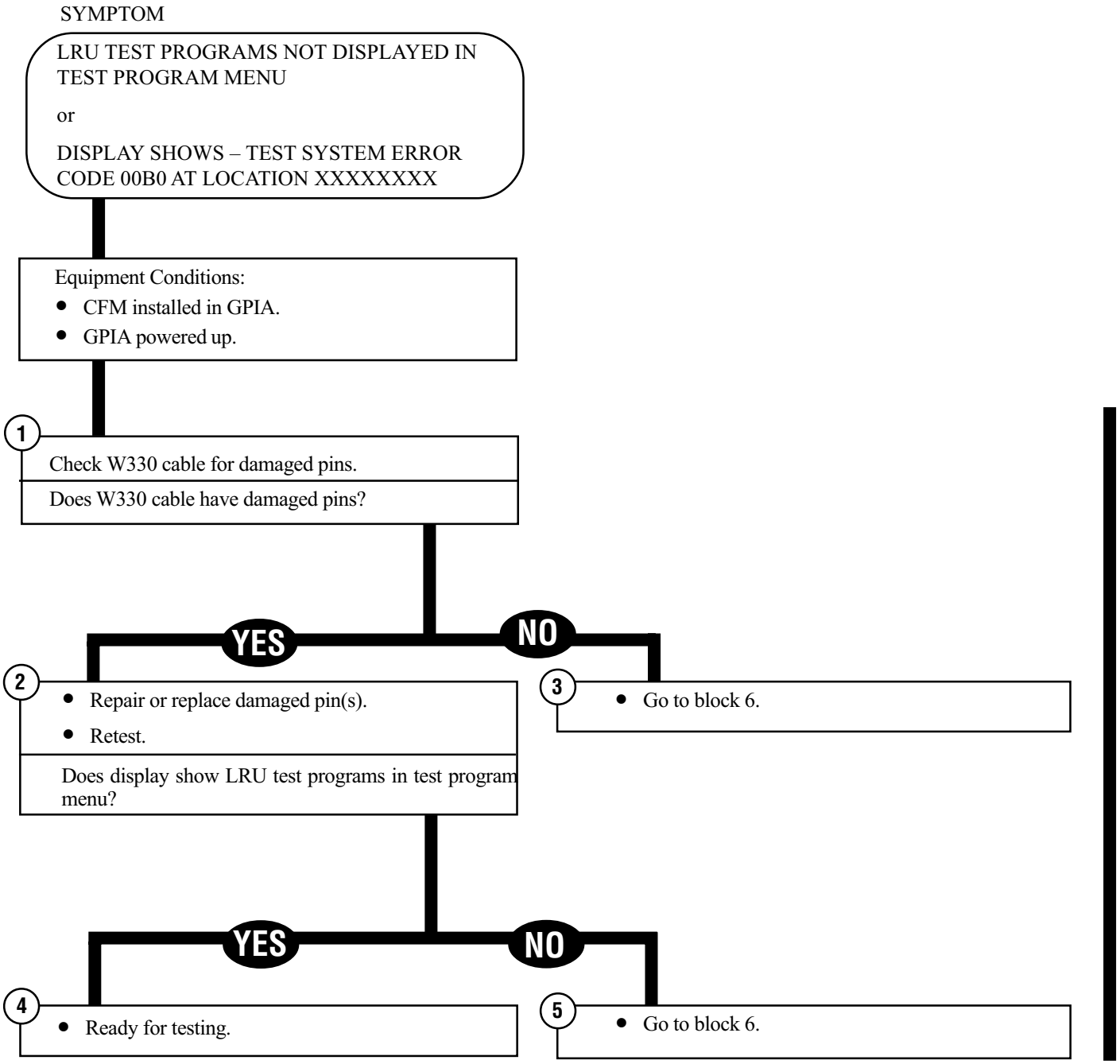
12

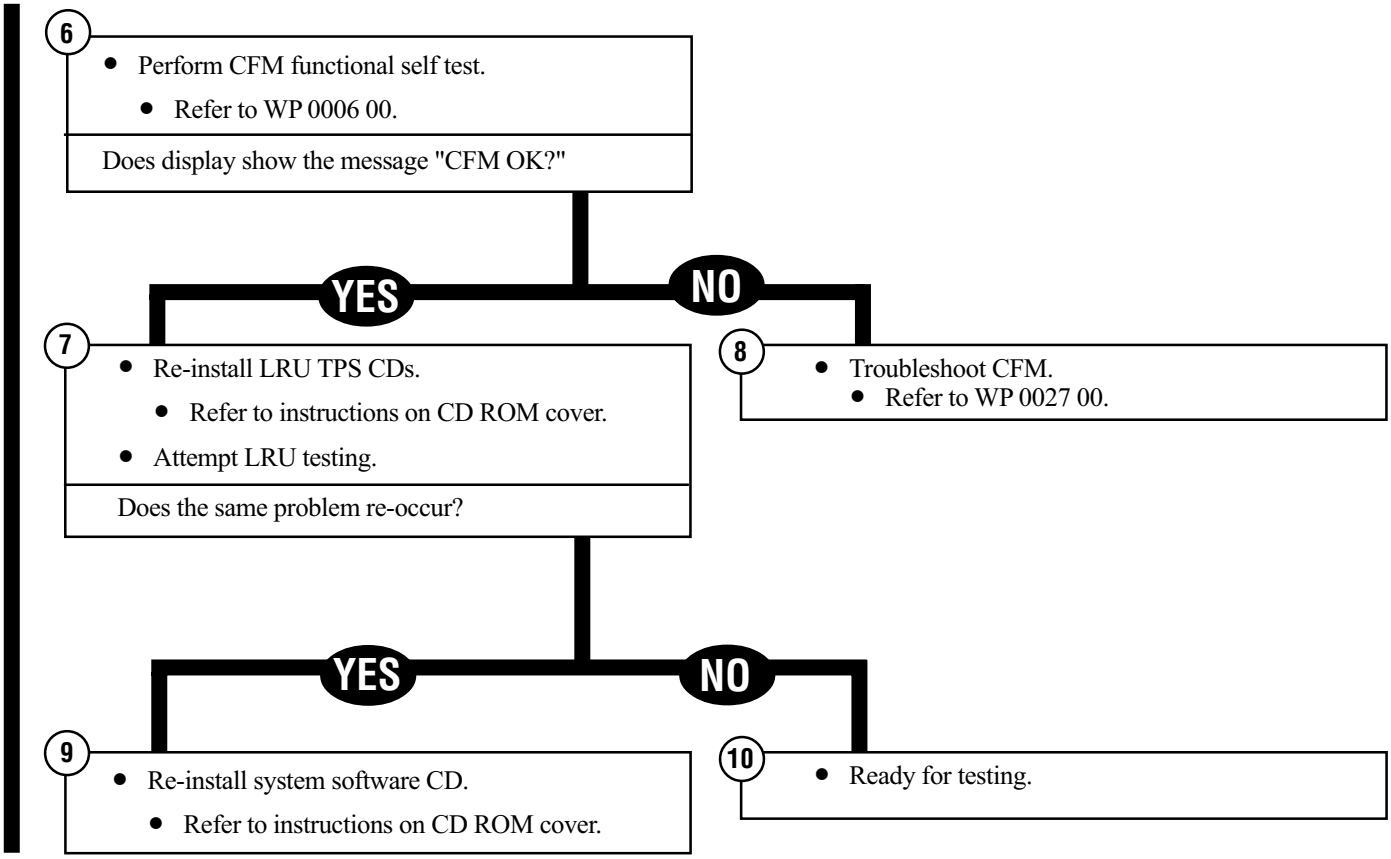
- Replace interface assembly..
  - Refer to WP 0101 00.
- Perform CFM functional self test to verify proper operation.
  - Refer to WP 0006 00.

NO

13

- Replace power cable assembly.
  - Refer to WP 0099 00.
- Perform CFM functional self test to verify proper operation.
  - Refer to WP 0006 00.


SYMPTOM
LRU TEST PROGRAMS NOT DISPLAYED IN TEST PROGRAM MENU
or
DISPLAY SHOWS – TEST SYSTEM ERROR CODE 00B0 AT LOCATION XXXXXXXX
Equipment Conditions:
• CFM installed in GPIA.
• GPIA powered up.
1
Check W330 cable for damaged pins.
Does W330 cable have damaged pins?
YES
NO
2
• Repair or replace damaged pin(s).
• Retest.
Does display show LRU test programs in test program menu?
3
• Go to block 6.
YES
NO
4
• Ready for testing.
5
• Go to block 6.


6
Perform CFM functional self test.
Refer to WP 0006 00.
Does display show the message "CFM OK?"
YES
NO
7
Re-install LRU TPS CDs.
Refer to instructions on CD ROM cover.
Attempt LRU testing.
Does the same problem re-occur?
8
Troubleshoot CFM.
Refer to WP 0027 00.
YES
NO
9
Re-install system software CD.
Refer to instructions on CD ROM cover.
10
Ready for testing.

TROUBLESHOOTING PROCEDURE 0031 00

SYMPTOM

TSA Fails Functional Self Test

Test Equipment/Special Tools:

- Multimeter

Equipment Conditions:

- Functional self test in progress; fault message displayed.

NOTE

Do not turn in or discard removed parts until troubleshooting procedure is completed.

1

- Record the displayed fault message.
- Press NO pushbutton and then record the displayed failure identification number.
- Press YES pushbutton and continue to record messages and numbers until display reads:

  FAULT MESSAGE
  DISPLAY COMPLETE
  REPEAT DISPLAY?
- Press NO pushbutton.
- Follow displayed instructions until TSA is disconnected from GPIA.

Is the recorded fault message — "An IEEE-488 BUS FAULT OCCURRED"?

NO / **YES**

2

- Look for the recorded failure identification number in left hand column of Table 1 in this work package.

Is the recorded number listed in Table 1?

YES / **NO**

4

- Check continuity for wiring of cable W457, cable W458, and/or FST adapter as indicated in right hand column of Table 1.
- Visually inspect connectors for pushed or bent pins.

Do all checked wires show continuity and do all connectors appear ok?

3

- Go to block 8.

5

- Shut down and turn in TSA.

NO

6
- Repair damaged connector or replace the faulty cable or adapter.
  - Refer to connector repair instructions in WP 0047 00.
- Repeat TSA FST.
  - Refer to WP 0007 00.

YES

7
- Shut down and turn in TSA.

From block 3.

8
- Make sure that GPIA ON/OFF circuit breaker is set to OFF.
- For access to the GPIA card cage backplane, remove circuit cards A1 thru A6.
  - Refer to WP 0079 00.
- Check continuity between IEEE-488 connector UJ3 and card cage backplane connector J2 as indicated in Table 2.
  - Refer to WP 0008 00, Foldout Figure 1, at rear of manual.

Is there continuity for all checks?

YES

9
- Replace GPIA circuit card assembly A2 with new card and install all GPIA circuit cards.
  - Refer to WP 0079 00.
- Repeat TSA FST.
  - Refer to WP 0007 00.

Does display again show – "AN IEEE-488 BUS FAULT OCCURRED"?

NO

10
- Re-install GPIA circuit cards A1 thru A6.
  - Refer to WP 0079 00.
- Turn in GPIA.

YES

11
- Re-install the original GPIA A2 circuit card assembly removed in block 9.
  - Refer to WP 0079 00.
- Shut down and turn in TSA.

NO

12
- If display shows – "TSA FST COMPLETE RERUN TEST"? – the TSA can be used to perform the calibration test.
  - Refer to WP 0007 00.
- If display shows a different fault message, repeat this troubleshooting procedure.

Table 1. Cable/Adapter Wiring

Test ID No.	Cable/Adapter Wiring
12010	• Adapter P2-A to P2-PP
12110	• Adapter P1-KK to P2-KK • Adapter P1-LL to P2-LL • Adapter P1-MM to P2-MM • Adapter P1-EE to P2-EE • Adapter P1-FF to P2-FF • Adapter P1-GG to P2-GG
12120	• Cable W457 P1-44 to P1-45
12320	• Adapter P1-F to P1-K • Adapter P1-J to P1-N • Cable W457 P2-F to P1-26 • Cable W457 P2-J to P1-7 • Cable W457 P2-K to P1-8 • Cable W457 P2-N to P1-37
12340	• Adapter P1-G to P1-L • Adapter P1-J to P1-N • Cable W457 P2-F to P1-26 • Cable W457 P2-J to P1-7 • Cable W457 P2-L to P1-9 • Cable W457 P2-N to P1-37
12360	• Adapter P1-H to P1-M • Adapter P1-Y to P1-P • Cable W457 P2-M to P1-36 • Cable W457 P2-P to P1-38 • Cable W457 P2-Y to P1-78 • Cable W457 P2-H to P1-28
13010	• Adapter P1-h to P1-i • Cable W457 P2-h to P1-23 • Cable W457 P2-i to P1-24
13020	• Adapter P1-A to P1-PP • Cable W457 P2-A to P1-18 • Cable W457 P2-PP to P1-20
13030	• Adapter P1-f to P1-g • Cable W457 P2-f to P1-21 • Cable W457 P2-g to P1-22
13210	• Adapter P1-m to P1-n • Cable W457 P2-m to P1-42 • Cable W457 P2-n to P1-43

Table 1. Cable/Adapter Wiring (continued)

Test ID No.	Cable/Adapter Wiring
13220	• Adapter P1-j to P1-k • Cable W457 P2-j to P1-40 • Cable W457 P2-k to P1-41
13510	• Cable W457 P3-28 to P1-12 • Cable W457 P3-29 to P1-13 • Cable W457 P3-1 to P1-79
13520	• Cable W457 P3-27 to P1-11 • Cable W457 P3-26 to P1-10
13530	• Cable W457 P3-37 to P1-19 • Cable W457 P3-26 to P1-10
13810	• Cable W457 P3-31 to P1-15 • Cable W457 P3-30 to P1-14
13820	• Cable W457 P3-33 to P1-17 • Cable W457 P3-32 to P1-16
13830	• Cable W457 P2-m to P1-42 • Cable W457 P2-n to P1-43 • Adapter P1-m to P1-n
13840	• Cable W457 P3-36 to P1-47 • Cable W457 P3-35 to P1-48
13930	• Cable W457 P2-KK to P1-1 • Cable W457 P2-LL to P1-2 • Cable W457 P2-MM to P1-3 • Cable W457 P2-EE to P1-4 • Cable W457 P2-FF to P1-5 • Cable W457 P2-GG to P1-6 • Cable W457 P1-44 to P1-45
13950	• Cable W457 P3-33 to P1-17 • Cable W457 P3-32 to P1-16
14010	• Cable W457 P3-30 to P1-14 • Cable W457 P3-31 to P1-15
14110	• Cable W457 P3-32 to P1-16 • Cable W457 P3-33 to P1-17
15010	• Cable W457 P1-44 to P1-45 • Cable W458 P1-73 to P1-74

Table 1. Cable/Adapter Wiring (continued)

Test ID No.	Cable/Adapter Wiring
15110	• Cable W458 P2-2 tp P1-2 • Cable W458 P2-1 to P1-1
15120	• Cable W458 P2-4 to P1-4 • Cable W458 P2-3 to P1-3
15130	• Cable W458 P2-6 to P1-6 • Cable W458 P2-5 to P1-5
15140	• Cable W458 P2-8 to P1-8 • Cable W458 P2-7 to P1-7
15150	• Cable W458 P2-10 to P1-10 • Cable W458 P2-9 to P1-9
15160	• Cable W458 P2-12 to P1-12 • Cable W458 P2-11 to P1-11
15170	• Cable W458 P2-14 to P1-14 • Cable W458 P2-13 to P1-13
15180	• Cable W458 P2-21 to P1-21 • Cable W458 P2-22 to P1-22
15190	• Cable W458 P2-23 to P1-23 • Cable W458 P2-24 to P1-24
15200	• Cable W458 P2-17 to P1-17 • Cable W458 P2-117 to P1-60
15210	• Cable W458 P2-124 to P1-65 • Cable W458 P2-125 to P1-66
15220	• Cable W458 P2-113 to P1-58 • Cable W458 P2-121 to P1-62
15230	• Cable W458 P2-16 to P1-16 • Cable W458 P2-15 to P1-15
15510	• Cable W458 P2-27 to P1-26 • Cable W458 P2-28 to P1-27
15520	• Cable W458 P2-88 to P1-47 • Cable W458 P2-89 to P1-48
16015	• Cable W458 P2-111 to P1-56 • Cable W458 P2-112 to P1-57

Table 1. Cable/Adapter Wiring (continued)

Test ID No.	Cable/Adapter Wiring
17010	• Cable W458 P1-73 to P1-74
17110	• Cable W458 P2-19 to P1-19 • Cable W458 P2-3 to P1-3
17120	• Cable W458 P2-18 to P1-18 • Cable W458 P2-17 to P1-17
17130	• Cable W458 P2-21 to P1-21 • Cable W458 P2-20 to P1-20
17140	• Cable W458 P2-4 to P1-4 • Cable W458 P2-106 to P1-53
17150	• Cable W458 P2-6 to P1-6 • Cable W458 P2-106 to P1-53
17160	• Cable W458 P2-5 to P1-5 • Cable W458 P2-106 to P1-53
17210	• Cable W458 P2-71 to P1-37 • Cable W458 P2-72 to P1-38
17220	• Cable W458 P2-75 to P1-39 • Cable W458 P2-76 to P1-40
17230	• Cable W458 P2-77 to P1-41 • Cable W458 P2-76 to P1-40
17240	• Cable W458 P2-94 to P1-49 • Cable W458 P2-95 to P1-50
18010	• Cable W458 P2-1 to P1-1 • Cable W458 P2-2 to P1-2
18030	• Cable W458 P2-7 to P1-7 • Cable W458 P2-8 to P1-8
18040	• Cable W458 P2-9 to P1-9 • Cable W458 P2-10 to P1-10
18050	• Cable W458 P2-11 to P1-11 • Cable W458 P2-12 to P1-12
18060	• Cable W458 P2-13 to P1-13 • Cable W458 P2-14 to P1-14

Table 1. Cable/Adapter Wiring (continued)

Test ID No.	Cable/Adapter Wiring
18070	• Cable W458 P2-15 to P1-15 • Cable W458 P2-16 to P1-16
19010	• Cable W458 P1-73 to P1-74
20010	• Cable W458 P2-1 to P1-1 • Cable W458 P2-2 to P1-2
20030	• Cable W458 P2-3 to P1-3 • Cable W458 P2-4 to P1-4
20040	• Cable W458 P2-63 to P1-34 • Cable W458 P2-62 to P1-33
20050	• Cable W458 P2-64 to P1-35 • Cable W458 P2-65 to P1-36
20210	• Cable W458 P2-42 to P1-31 • Cable W458 P2-43 to P1-32
20220	• Cable W458 P2-36 to P1-28 • Cable W458 P2-37 to P1-29
20230	• Cable W458 P2-38 to P1-30 • Cable W458 P2-37 to P1-29
20240	• Cable W458 P2-117 to P1-60 • Cable W458 P2-118 to P1-61
20250	• Cable W458 P2-124 to P1-65 • Cable W458 P2-125 to P1-66
20260	• Cable W458 P2-109 to P1-54 • Cable W458 P2-110 to P1-55
23015	• Cable W458 P3-122 to P1-44 • Cable W458 P3-119 to P1-42 • Cable W458 P2-21 to P1-21 • Cable W458 P2-22 to P1-22
23035	• Cable W458 P3-127 to P1-46 • Cable W458 P3-119 to P1-42 • Cable W458 P2-95 to P1-50 • Cable W458 P2-96 to P1-51
25010	• Cable W458 P3-117 to P1-43 • Cable W458 P3-119 to P1-42 • Cable W458 P2-127 to P1-63 • Cable W458 P2-128 to P1-64

Table 1. Cable/Adapter Wiring (continued)

Test ID No.	Cable/Adapter Wiring
25020	• Cable W458 P3-124 to P1-45 • Cable W458 P3-119 to P1-42 • Cable W458 P2-122 to P1-67 • Cable W458 P2-123 to P1-68
25030	• Cable W458 P3-122 to P1-44 • Cable W458 P3-119 to P1-42 • Cable W458 P2-113 to P1-52 • Cable W458 P2-114 to P1-53
25040	• Cable W458 P3-127 to P1-46 • Cable W458 P3-119 to P1-42 • Cable W458 P2-105 to P1-58 • Cable W458 P2-106 to P1-59
27015	• Cable W458 P3-117 to P1-43 • Cable W458 P3-119 to P1-42 • Cable W458 P3-34 to P1-25 • Cable W458 P3-35 to P1-26
27035	• Cable W458 P3-124 to P1-45 • Cable W458 P3-119 to P1-42 • Cable W458 P3-36 to P1-27 • Cable W458 P3-37 to P1-69
29010	• Cable W458 P3-1 to P1-5 • Cable W458 P3-2 to P1-6
29020	• Cable W458 P3-7 to P1-7 • Cable W458 P3-8 to P1-8
29030	• Cable W458 P3-71 to P1-9 • Cable W458 P3-72 to P1-10
29210	• Cable W458 P3-117 to P1-43 • Cable W458 P3-119 to P1-42
29220	• Cable W458 P3-124 to P1-45 • Cable W458 P3-119 to P1-42
29230	• Cable W458 P3-122 to P1-44 • Cable W458 P3-119 to P1-42
29240	• Cable W458 P3-127 to P1-46 • Cable W458 P3-119 to P1-42

Table 2. UJ3 Bus Continuity

Front Panel UJ3 Pins	Backplane J2 Pins
1	2
2	3
3	4
4	5
5	56
6	60
7	62
8	61
9	59
10	57
11	55
13	6
14	7
15	8
16	9
17	58

TROUBLESHOOTING PROCEDURE 0032 00

SYMPTOM

CFM/GPIA Fails Calibration Test

Test Equipment/Special Tools:

- Multimeter

Equipment Conditions:
Calibration test in progress; fault message displayed.

NOTE

Do not turn in or discard removed parts until troubleshooting procedure is completed.

1

- Record the displayed fault message.
- Press YES pushbutton and continue to record messages until display reads:

  FAULT MESSAGE
  DISPLAY COMPLETE
  REPEAT DISPLAY?
- Press NO pushbutton.
- Follow displayed instructions until TSA is disconnected from GPIA and CFM.

Did the GPIA, CFM, and TSA each pass functional self test before you started the calibration test?

YES / NO

2

Is the recorded fault message:
"FAULTY W458 CABLE"?

NO / YES

4

Is the recorded fault message either:
"FAULTY TSA"
or
"GPIA LOAD CONTROLLER OVERCURRENT"
or
"AN IEEE-488 BUS FAULT OCCURRED"?

3

- Perform functional self test for the GPIA, CFM, and TSA.
  - Refer to WP 0006 00 and WP 0007 00.
- Repeat the calibration test.
  - Refer to WP 0007 00.

5

- Go to block 17.

6 Is the recorded fault message:
"THE AMBIENT TEMPERATURE IS OUTSIDE THE RECOMMENDED RANGE FOR CALIBRATION. IDEAL TEMPERATURE IS 25 DEGREES CELSIUS"?

NO → 7
YES

7
- TSA or GPIA has failed, rerun GPIA and TSA functional self tests.
  - Refer to WP 0006 00 and WP 0007 00.

8 Is the recorded fault message:
"FAULTY GPIA A3 * A5"?

NO → 9
YES

9
- Ambient temperature between 10° and 50°C (50° and 122°F) is required to check calibration. Try the calibration test again when room temperature is within the recommended range.

10
- Replace the first circuit card listed in recorded fault message(s).
  - Refer to WP 0079 00 (GPIA A3), WP 0098 00 (CFM A2-A10), or WP 0106 00 (CFM A1).
- Repeat calibration test.
  - Refer to WP 0007 00.

Does display read:
"GPIA CFM CALIBRATION COMPLETE RERUN TEST"?

NO → 11
YES

11
- Go to block 14.

12
- Return to block 10 and replace the next faulty circuit card recorded.

NO → 13
YES

13
- GPIA and CFM are correctly calibrated and ready for LRU testing.

From block 11.

14

NOTE
In the next step, replace the GPIA A3 circuit card first.

- Replace GPIA circuit card A3 or A5.
  - Refer to WP 0079 00.
- Repeat calibration test.
  - Refer to WP 0007 00.

Does display read:
"FAULTY GPIA A3 * A5"?

NO

15

- If the display shows:
  "GPIA CFM CALIBRATION COMPLETE RERUN TEST?", the GPIA and CFM are correctly calibrated and ready for LRU testing.
- If the display shows another fault message, repeat this troubleshooting procedure.

YES

16

- Re-install the GPIA A3 circuit card removed in block 14.
  - Refer to WP 0079 00.
- Return to block 14 to replace the GPIA A5 card.

From block 5.

17

- Check continuity of cable W458 as indicated in Table 1.
- Visually inspect the checked connectors for pushed or bent pins.

Is there continuity for checked wires and do connectors appear to be OK?

Table 1.

From	To
P1-73	P1-74
P2-59	P2-60
P3-59	P3-60

NO

18

- Repair faulty cable connector or replace bad cable.
  - Refer to WP 0047 00 for the connector repair procedure.
- Repeat calibration test.
  - Refer to WP 0007 00.

YES

19

- The CFM or TSA has failed. Repeat CFM and TSA functional self tests.
  - Refer to WP 0006 00 and WP 0007 00.

SYMPTOM

GPIA FAILS POWER UP SELF TEST PERFORMED WHEN CFM IS INSTALLED.

Test Equipment/Special Tools:

- None.

Equipment Conditions:

- CFM installed.
- GPIA self test in progress.

NOTE

Refer to Table 1 to locate CFM component replacement procedures. Refer to WP 0008 00, foldout Figure 3 at rear of manual to locate CFM parts.

1

- Set GPIA ON/OFF circuit breaker to OFF.
- Remove CFM from GPIA.
- Disengage module cavity A interlock switch.
- Set GPIA ON/OFF switch to ON.

Does display show the message: "SELF TEST OK?"

YES

2

- Carefully inspect the CFM power cable assembly for exposed bare wires due to cuts or breaks in insulation.
  - Refer to foldout to locate power cable assembly.

Is power cable assembly damaged?

NO

4

Did display continuously show the message "SELF TEST IN PROGRESS"?

NO

3

- Perform GPIA troubleshooting procedure.
  - Refer to Fault Symptom Index, WP 0009 00.

YES

5

- Replace power cable assembly.
- Perform CFM functional self test to verify proper operation.
  - Refer to WP 0006 00.

Table 1. CFM Component Replacement Procedures

Faulty Component	Replacement Procedure WP
Power Cable	WP 0099 00
Signal Flexible Circuit	WP 0100 00
Interface Assembly	WP 0101 00
CCA A2-A4, A6-A8, A10	WP 0098 00
PCMCIA/Load Plate	WP 0105 00
CCA A1 RS-485/232 CCA MIL-STD-1553 CCA PCMCIA Flexible Cable Assembly	WP 0106 00

NO / YES

6
- Remove all circuit cards and the load plate from CFM.
- Install CFM in GPIA.
- Set GPIA ON/OFF circuit breaker to ON.

Does display show the message “SELF TEST OK”?

7
- Go to block 15.

YES / NO

8
- Set GPIA ON/OFF circuit breaker to OFF.
- Remove CFM from GPIA.

NOTE

In the following steps, install one circuit card or load plate at a time and repeat GPIA self test after each card or load plate is installed.

- Install one circuit card or load plate in CFM.
- Install CFM in GPIA.
- Set GPIA ON/OFF circuit breaker to ON.

Does display show the message "SELF TEST OK"?

9
- Go to block 22.

NO / YES

10
- Replace the last circuit card or load plate installed with a new card or load plate.

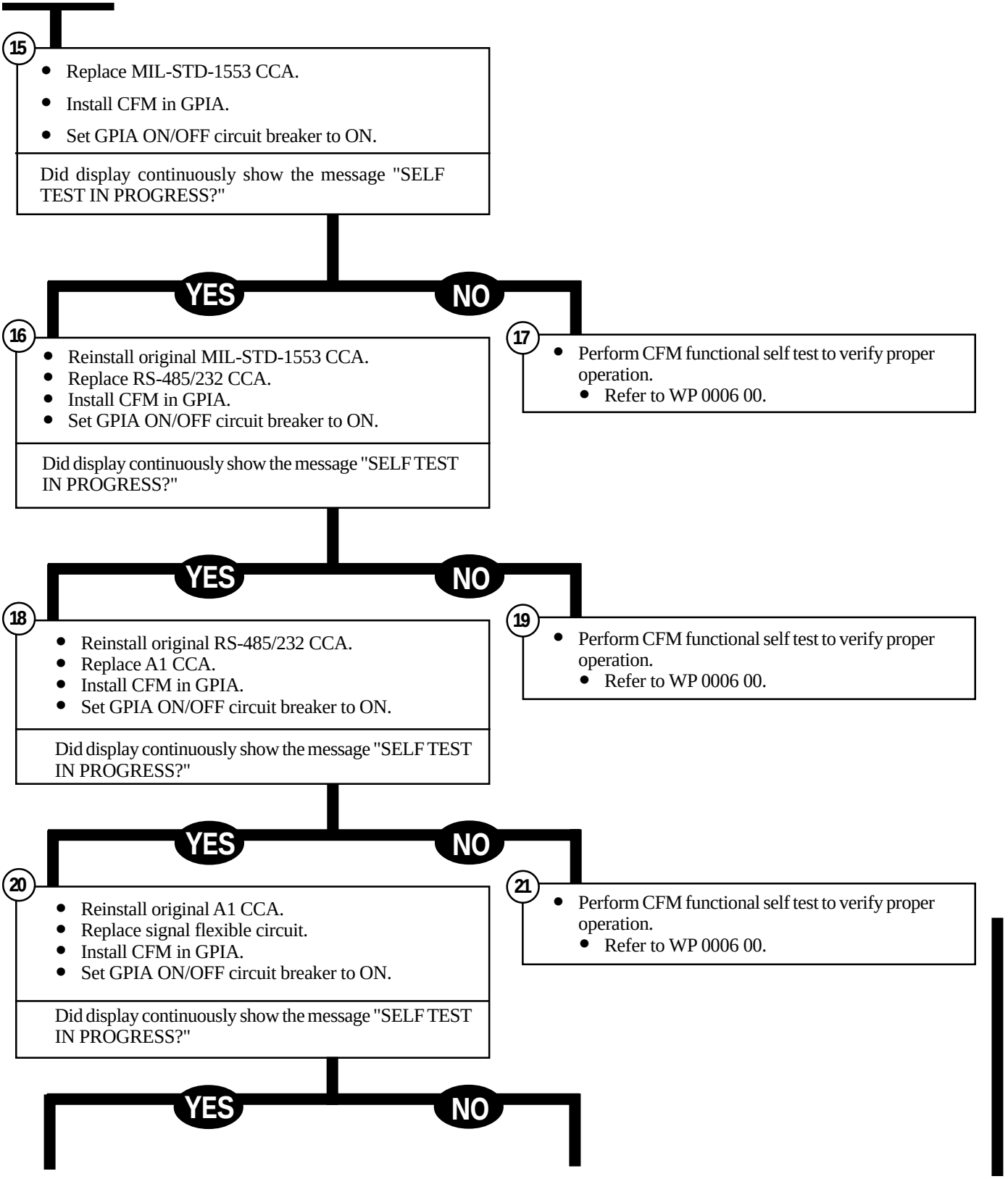
11
- Go to block 12.

12
Have all circuit cards and the load plate been installed in CFM?

YES / NO

13
- Perform CFM functional self test to verify that all faults have been corrected.
  - Refer to WP 0006 00.

14
- Go to block 8.


From block 7.
15
Replace MIL-STD-1553 CCA.
Install CFM in GPIA.
Set GPIA ON/OFF circuit breaker to ON.
Did display continuously show the message "SELF TEST IN PROGRESS?"
YES
NO
16
Reinstall original MIL-STD-1553 CCA.
Replace RS-485/232 CCA.
Install CFM in GPIA.
Set GPIA ON/OFF circuit breaker to ON.
Did display continuously show the message "SELF TEST IN PROGRESS?"
YES
NO
17
Perform CFM functional self test to verify proper operation.
Refer to WP 0006 00.
18
Reinstall original RS-485/232 CCA.
Replace A1 CCA.
Install CFM in GPIA.
Set GPIA ON/OFF circuit breaker to ON.
Did display continuously show the message "SELF TEST IN PROGRESS?"
YES
NO
19
Perform CFM functional self test to verify proper operation.
Refer to WP 0006 00.
20
Reinstall original A1 CCA.
Replace signal flexible circuit.
Install CFM in GPIA.
Set GPIA ON/OFF circuit breaker to ON.
Did display continuously show the message "SELF TEST IN PROGRESS?"
YES
NO
21
Perform CFM functional self test to verify proper operation.
Refer to WP 0006 00.
YES
NO

21.1

- Reinstall original signal flexible circuit.
- Replace interface assembly.
- Perform CFM functional self test to verify proper operation.
  - Refer to WP 0006 00.

21.2

- Perform CFM functional self test to verify proper operation.
  - Refer to WP 0006 00.

From block 9.

22

- Set GPIA ON/OFF circuit breaker to OFF.
- Remove CFM from GPIA.
- Remove bottom cover from CFM.
  - Refer to WP 0097 00.
- Disconnect power cable assembly connector from backplane connector.
  - Refer to WP 0099 00 to locate power cable connector.
- Install bottom cover on CFM.
- Install CFM in GPIA.
- Set GPIA ON/OFF circuit breaker to ON.

Does display show the message "SELF TEST OK"?

YES

23

- Replace interface assembly.
- Perform CFM functional self test to verify proper operation.
  - Refer to WP 0006 00.

NO

24

- Replace power cable assembly.
- Perform CFM functional self test to verify proper operation.
  - Refer to WP 0006 00.

SYMPTOM

SELF TEST FAIL LAMP IS ILLUMINATED.

DISPLAY READS –
R16 TEST SYSTEM ERROR CODE

Test Equipment/Special Tools:

- Multimeter

Equipment Conditions:

- GPIA and EL display resting on clean workbench.
- Power supply connected to GPIA

CAUTION

To avoid damage to equipment, set the power supply ON/OFF circuit breaker to OFF before replacing parts.

NOTE

For location of parts, see WP 0008 00, foldout Figure 1. For GPIA power input wiring diagrams, see WP 0008 00, foldout Figure 2.

1

- Preliminary checks:
  - Check that power cable leads are connected correctly to power supply.
    - Refer to WP 0006 00.

2

- Power down GPIA and power supply.
  - Set GPIA ON/OFF circuit breaker to OFF.
  - Set power supply ON/OFF switch to OFF.

NOTE

Do not discard or turn in replaced parts until the test has been completed. Do not install GPIA electronics assembly or covers and plates until instructed.

3. Remove GPIA from case.
   - Refer to WP 0060 00.

4. Remove module cavity covers.
   - Pull out interlock switches on both module cavities.

5. Remove front cover.
   - Refer to WP 0062 00.

6. Check GPIA Reset Switch SW1.
   - Using multimeter check for an open between SW1-3 and SW1-4.

Does multimeter indicate an open?

YES

7. Press and hold reset switch SW1.

Does multimeter indicate a short (continuity)?

YES

9. Release reset switch SW1.
   - Disconnect multimeter.
   - Set power supply ON/OFF switch to ON.
   - Set GPIA ON/OFF circuit breaker to ON.

NO

10. Disconnect multimeter.
    - Replace Reset Switch SW1.
      - Refer to WP 0067 00.
    - Rerun Functional Self Test.

NO

8. Disconnect multimeter.
   - Replace Reset Switch SW1.
     - Refer to WP 0067 00.
   - Rerun Functional Self Test.

NOTE

When connecting multimeter for voltage measurements, (+) refers to positive multimeter lead; (-) refers to negative multimeter lead.

11

- Using multimeter, check J13 (1) of module A cavity for voltages listed in Table 1.

Were all voltage measurements correct?

YES

12

- Set GPIA ON/OFF circuit breaker to OFF.
- Replace circuit card A5.
  - Refer to WP 0079 00.
- Rerun functional self test.

Does display read same fault message?

YES

14

- Set GPIA ON/OFF circuit breaker to OFF.
- Install original circuit card A5 removed in block 12.
  - Refer to WP 0079 00.
- Turn in GPIA.

NO

15

- If display reads - GPIA OK RERUN TEST.
  - GPIA not faulty.
  - OK to continue testing.
- If another fault is displayed -
  - Go to GPIA Fault Symptom Index for new troubleshooting procedure.

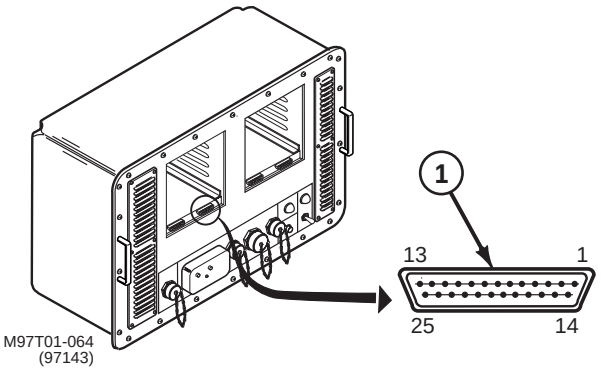
NO

13

- Go to Block 16.

Table 1.

From	To	Correct Reading	Power Supply Tested
J13-11 (+)	J13-22 (-)	+5.2 to +5.3 Vdc	PS1
J13-4 (+)	J13-22 (-)	-5.2 to -5.3 Vdc	PS1
J13-8 (+)	J13-22 (-)	+14.8 to +15.2 Vdc	PS2
J13-20 (+)	J13-22 (-)	-14.8 to -15.2 Vdc	PS2



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(97143)

From block 13

16
- Set GPIA ON/OFF circuit breaker to OFF.
- Remove first CCA listed in Table 2.
  - Refer to WP 0079 00.

17
- Connect multimeter to test point with incorrect/ missing voltage in Table 1.
- Set GPIA ON/OFF circuit breaker to ON.

Does multimeter indicate proper voltage listed in Table 1?

NO

18
- Have all the CCAs listed in Table 2 been removed?

NO

20
- Set GPIA ON/OFF circuit breaker to OFF.
- Re-install last CCA removed.
- Remove next CCA listed in Table 2.
- Go to Block 17.

YES

21
- Set GPIA ON/OFF circuit breaker to OFF.
- Re-install last CCA removed.
- Replace faulty power supply.
  - Refer to WP 0077 00 for PS1 replacement or WP 0078 00 for PS2 replacement.
- Rerun functional self test.

YES

19
- Replace CCA just removed.
  - Refer to WP 0079 00.
- Rerun functional self test.

Table 2.

Circuit Card Assembly (CCA)
A1
A2
A3
A4
A5
A6

SYMPTOM

CSFM FAILS FUNCTIONAL SELF TEST

Test Equipment/Special Tools:

- Multimeter

Equipment Conditions:

- Functional self test in progress

NOTE

To replace a faulty component, refer to the appropriate replacement procedure from Table 1. Refer to WP 0008 00 foldout Figure 4 (rear of manual) for module connector pin arrangements and parts location. Refer to WP 0035 00 for cable/adapter connector pin arrangements.

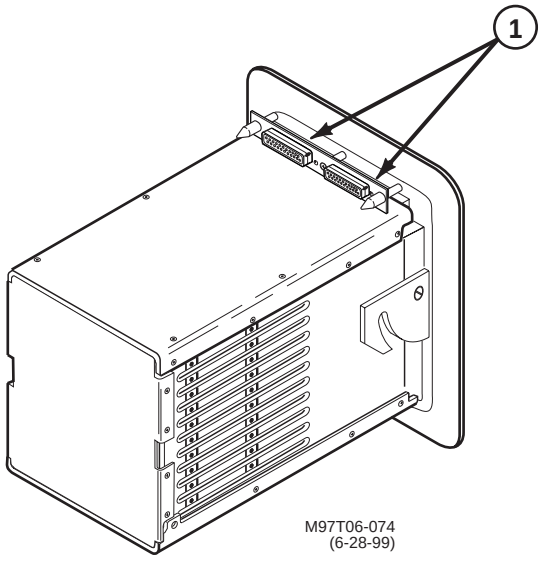
Table 1. CSFM Component Replacement Procedures

FAULTY COMPONENT	REPLACEMENT PROCEDURE WP
CSFM Signal Flexible Circuit	WP 0106 06
CSFM CCA A2, A4, A5, A7, A8 and load plate assembly	WP 0098 00
CSFM CCA A10	WP 0106 05
CSFM Interface Assembly	WP 0106 07

1

- Record fault message.
- Select NO and record test ID number.
- Power down GPIA:
  - Select STOP and follow display until all cables and adapters are disconnected.
  - Set GPIA POWER circuit breaker to OFF.
  - Set power supply ON/OFF switch to OFF.
- Remove CSFM from GPIA.
- Carefully inspect connectors (1) of signal flexible circuit for pushed-in, loosely seated, or bent pins.
- Inspect flexible circuit for damaged insulation.

Is flexible circuit damaged?



NO / **YES**

3

- Replace the signal flexible circuit.
- Repeat FST to verify proper operation.
  - Refer to WP 0006 00.

NOTE

If more than one component is called out in the fault message, replace the components one at a time in the same order as listed.

2

- Replace one called out component.
- Repeat FST.
  - Refer to WP 0006 00.

Does display read –
"CSFM OK
RERUN TEST"?

NO / **YES**

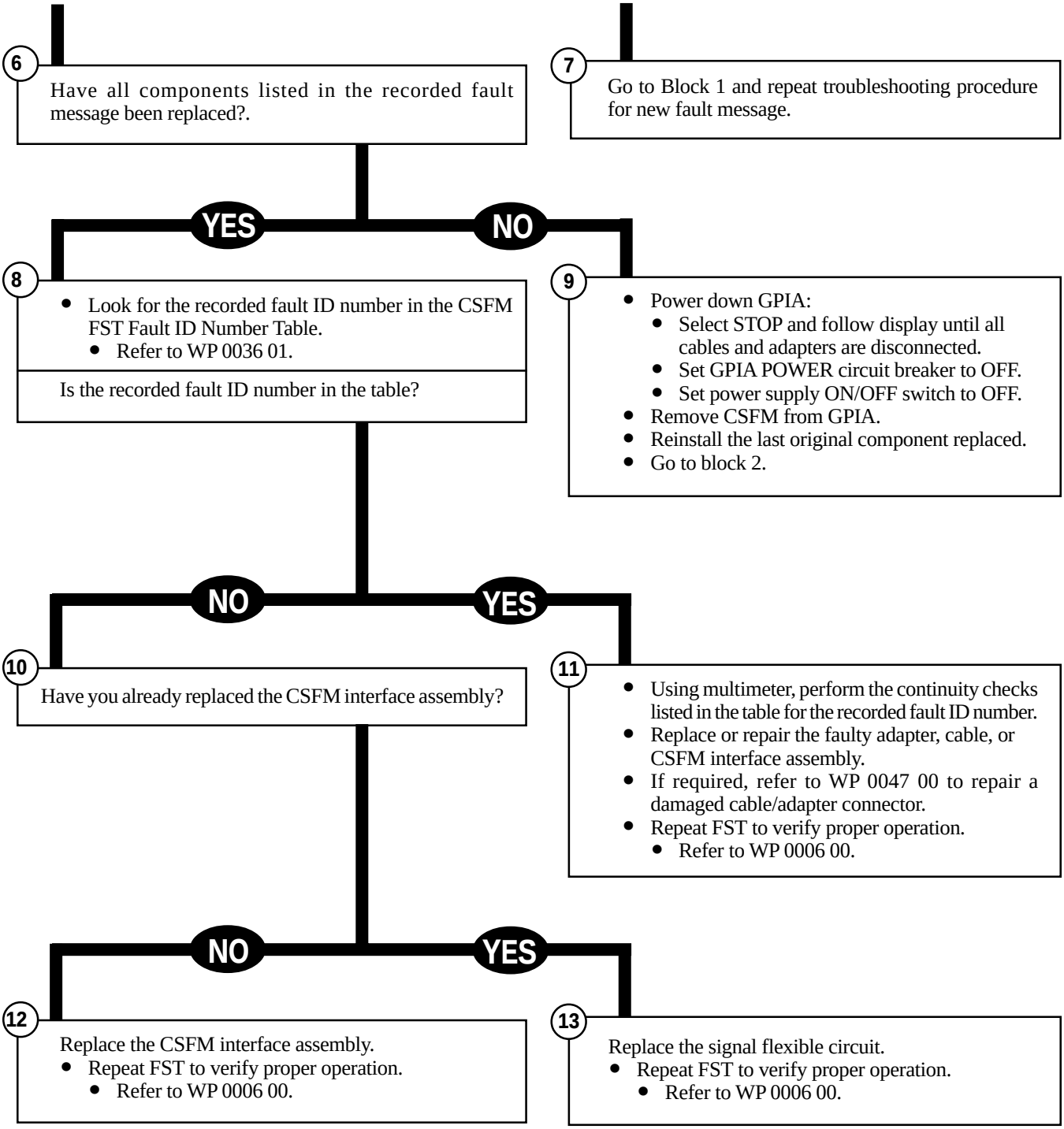
4

Does display show the same fault message?

YES / **NO**

5

- Repeat FST to verify proper operation.
  - Refer to WP 0006 00.


6
Have all components listed in the recorded fault message been replaced?.
7
Go to Block 1 and repeat troubleshooting procedure for new fault message.
YES
NO
8
• Look for the recorded fault ID number in the CSFM FST Fault ID Number Table.
• Refer to WP 0036 01.
Is the recorded fault ID number in the table?
9
• Power down GPIA:
• Select STOP and follow display until all cables and adapters are disconnected.
• Set GPIA POWER circuit breaker to OFF.
• Set power supply ON/OFF switch to OFF.
• Remove CSFM from GPIA.
• Reinstall the last original component replaced.
• Go to block 2.
NO
YES
10
Have you already replaced the CSFM interface assembly?
11
• Using multimeter, perform the continuity checks listed in the table for the recorded fault ID number.
• Replace or repair the faulty adapter, cable, or CSFM interface assembly.
• If required, refer to WP 0047 00 to repair a damaged cable/adapter connector.
• Repeat FST to verify proper operation.
• Refer to WP 0006 00.
NO
YES
12
Replace the CSFM interface assembly.
• Repeat FST to verify proper operation.
• Refer to WP 0006 00.
13
Replace the signal flexible circuit.
• Repeat FST to verify proper operation.
• Refer to WP 0006 00.

SYMPTOM

NO COMMUNICATION BETWEEN LAPTOP COMPUTER AND GPIA

Test Equipment /Special Tools::

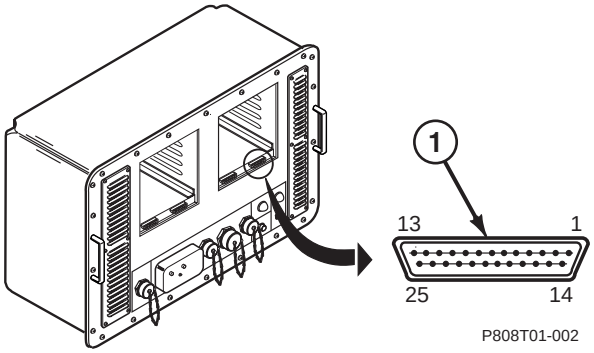
- Multimeter

Equipment Conditions:

- GPIA connected to computer by cable W330.
- Power supply connected to GPIA.

NOTE

Refer to WP 0006 00 task SET UP CSFM FOR OPERATION to check or change laptop computer TCP/IP setting.



1

- From the laptop "Start" menu select "Programs" > "PEI Electronics"> "DSESTS Troubleshooting".
- Read the text file and attempt all the suggested solutions for no communications with GPIA.

Is the communication problem solved?

NO

2

- Set GPIA ON/OFF circuit breaker to OFF.
- Remove module B cavity cover.
- Pull out module B interlock switch SW3.
- Set GPIA ON/OFF switch to ON.
- Using multimeter, check J14 (1) of module B cavity for voltages listed in Table 1.

Were all measurements correct?

YES

NO

YES

3

- Continue DSESTS testing.

Table 1.

From	To	Correct Reading	Power Supply Tested
J14-25 (+)	J14-10 (-)	+5.2 to +5.3 vdc	PS1
J14-4 (+)	J14-10 (-)	-5.2 to -5.3 vdc	PS1
J14-21 (+)	J14-10 (-)	+14.8 to +15.2 vdc	PS2
J14-20 (+)	J14-10 (-)	-14.8 to -15.2 vdc	PS2

4
- Set GPIA ON/OFF circuit breaker to OFF.
- Remove then reinstall circuit cards A1 thru A6 making sure each card is firmly seated.
  - Refer to WP 0079 00.
- Set up GPIA with laptop computer.
  - Refer to WP 0006 00.

Is communication problem solved?

NO YES

5
- Set GPIA ON/OFF circuit breaker to OFF.
- Replace faulty power supply.
  - Refer to WP 0077 00 for PS1 replacement or WP 0078 00 for PS2.

7
- Continue DSESTS testing.

6
NOTE

Replace circuit cards one at a time in the order cards are listed in Table 2.

- Set GPIA ON/OFF circuit breaker to OFF.
- Replace one circuit card from Table 2.
  - Refer to WP 0079 00.
- Set up GPIA with laptop computer.
  - Refer to WP 0006 00.

Is communication problem solved?

Table 2.

CCA Replacement Order
A5
A2
A1
A3
A4
A6

NO YES

8
Have you replaced all the circuit cards listed in Table 2?

9
- Continue DSESTS testing.

NO YES

10
- Reinstall the last original circuit card replaced.
  - Refer to WP 0079 00.
- Return to block 6 and replace the next circuit card from Table 2.

11
- Reinstall the last original circuit card replaced.
  - Refer to WP 0079 00.
- Turn in GPIA.

TROUBLESHOOTING PROCEDURE 0033 04

SYMPTOM

LAPTOP COMPUTER DOES NOT RESPOND TO INPUTS DURING LRU TEST OR FST.

Test Equipment/Special Tools:

- None

Equipment Conditions:

- DSESTS equipment/LRU resting on clean workbench.
- Power supply connected and adjusted to 24 vdc.
- Testing in-progress.

- Set GPIA ON/OFF circuit breaker to OFF.
- Set Power Supply ON/OFF switch to OFF.
- Power down MSD in accordance with manufacturer's instructions.
- Disconnect test cables from DSESTS/LRU.
- Rerun test from start.
- If laptop computer responds to inputs continue testing.
- If laptop computer does not respond to inputs attempt test two more times.
- If no input response turn in MSD.

OIU CHECKOUT PROCEDURE 0034 00

The OIU checkout procedure is used to identify faults found during PMCS and normal OIU operation. The checkout procedure will refer you to the proper follow-on maintenance required to repair the OIU. The check-out procedure is also used to verify proper OIU operation after corrective maintenance has been performed.

GENERAL INSTRUCTIONS

Test Equipment/Special Tools:

- None

Equipment Conditions:

- OIU resting on clean workbench.
- Power supply connected to OIU.
- Power supply adjusted to 24 vdc.

Preliminary procedures:

- Prepare the OIU for operation.
  - Refer to WP 0006 00.

OIU CHECKOUT

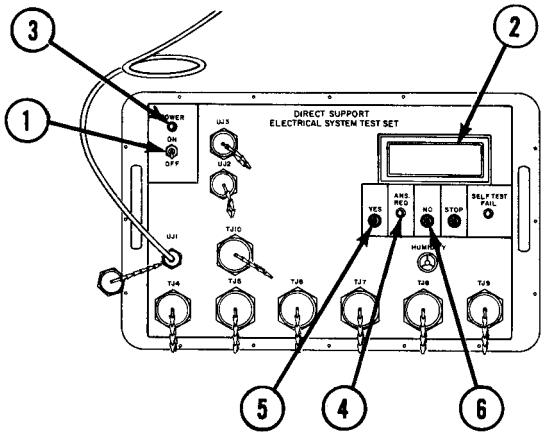
1

- Set power supply ON/OFF switch to ON.
- Set OIU ON/OFF circuit breaker (1) to ON.
- Display (2) reads – OIU RAM TEST IN PROGRESS – for about 15 seconds.
- Display (2) changes to – OIU EEPROM HEALTH CHECK IN PROGRESS – for about 3 seconds.
- Display (2) changes to – OIU DSPS XX.X SELF TEST IN PROGRESS – for about 20 seconds.

Did display show the three messages described above?

OIU RAM TEST IN PROGRESS
OIU EEPROM HEALTH CHECK IN PROGRESS
OIU DSPS XX.X SELF TEST IN PROGRESS

EXTERNAL POWER SUPPLY



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YES

2

After 20 seconds, OIU shows:

- POWER lamp (3) is on.
- ANSWER REQUIRED lamp (4) is on.
- Display (2) reads – OIU SELF TEST?

Are POWER lamp and ANSWER REQUIRED lamp on, and does display read – OIU SELF TEST?

DISPLAY
OIU SELF TEST IN PROGRESS

NO

3

- If display (2) reads – ADJUST TO 18V-30V
  VOLTS IS (actual value)
  PUSH YES WHEN OK
  - Adjust power supply until the second line on display (2) reads – VOLTS IS 24.0000 OK.
  - Refer to manufacturer's service manual for adjusting power supply.
  - Press YES pushbutton (5) after voltage is adjusted.
- If volts indicated on display (2) cannot be adjusted, shut down OIU, stow cables, and turn in OIU and FST cables and adapters.
  - Refer to WP 0006 00.
- If all lamps are off and ON/OFF circuit breaker (1) trips, shut down OIU, stow cables, and turn in OIU and FST cables and adapters.
  - Refer to WP 006 00.
- If all lamps are off and display (2) is dark (ON/OFF circuit breaker (1) not tripped) refer to WP 0009 00.
- If display is blank and SELF TEST FAIL lamp is lit, shut down OIU, stow cables, and turn in OIU, FST cables and adapters.
  - Refer to WP 0006 00.
- If display (2) shows a fault message, shut down OIU, stow cables, and turn in OIU and FST cables and adapters.
  - Refer to WP 0006 00.

YES

NO

NOTE

If NO pushbutton (6) is pressed, the self test will not be performed. Follow the display instructions to select the test menu and LRU test needed.

4

- If ANSWER REQUIRED lamp (4) is ON and display (2) reads – WARNING
  FAULTY FAN*A38*A10
  GEN 200

Shut down OIU and stow cables. Turn in OIU and FST cables and adapters.

- Refer to WP 0006 00.

- If POWER lamp (3) is off and display (2) is lit, refer to WP 0011 00.
- If display (2) does not read – OIU SELF TEST? – or is dark or unreadable, shut down OIU and stow cables. Turn in OIU and FST cables and adapters.
  - Refer to WP 0006 00.

5

- Press YES pushbutton (5).
- Display (2) flashes – SELF TEST IN PROGRESS.
- After 13 seconds display (2) reads – DISCONNECT ALL TEST CABLES.

Does display read – DISCONNECT ALL TEST CABLES?

DISPLAY	DISCONNECT ALL TEST CABLES

YES

NO

NOTE

If test cables are not disconnected, self test will not run. Message will flash after YES pushbutton is pressed if any test cable is connected.

6

- Shut down OIU and stow cables.
  - Refer to WP 0006 00.
- Turn in OIU and FST cables and adapters.

7

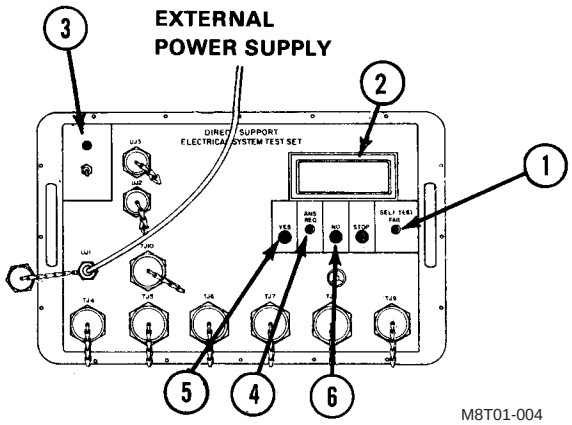
- Disconnect all test cables (if any) from OIU.
- Press YES pushbutton (5).

8 DISPLAY: SELF TEST IN PROGRESS

OIU shows:

- SELF TEST FAIL lamp (1) lights and remains on for 4 seconds.
- Display (2) flashes – SELF TEST IN PROGRESS.

Does SELF TEST FAIL lamp go off after 4 seconds, and does display flash – SELF TEST IN PROGRESS?



YES

9

- Display (2) flashes – SELF TEST IN PROGRESS – for 23 seconds.

Does display flash – SELF TEST IN PROGRESS – for 23 seconds?

DISPLAY: SELF TEST IN PROGRESS

YES

11 PRESS YES AND HOLD DISPLAY

- Display changes to – PRESS YES AND HOLD.
- Press and hold YES pushbutton.
- Display changes to – RELEASE BUTTON.

Does display change to – RELEASE BUTTON?

NO

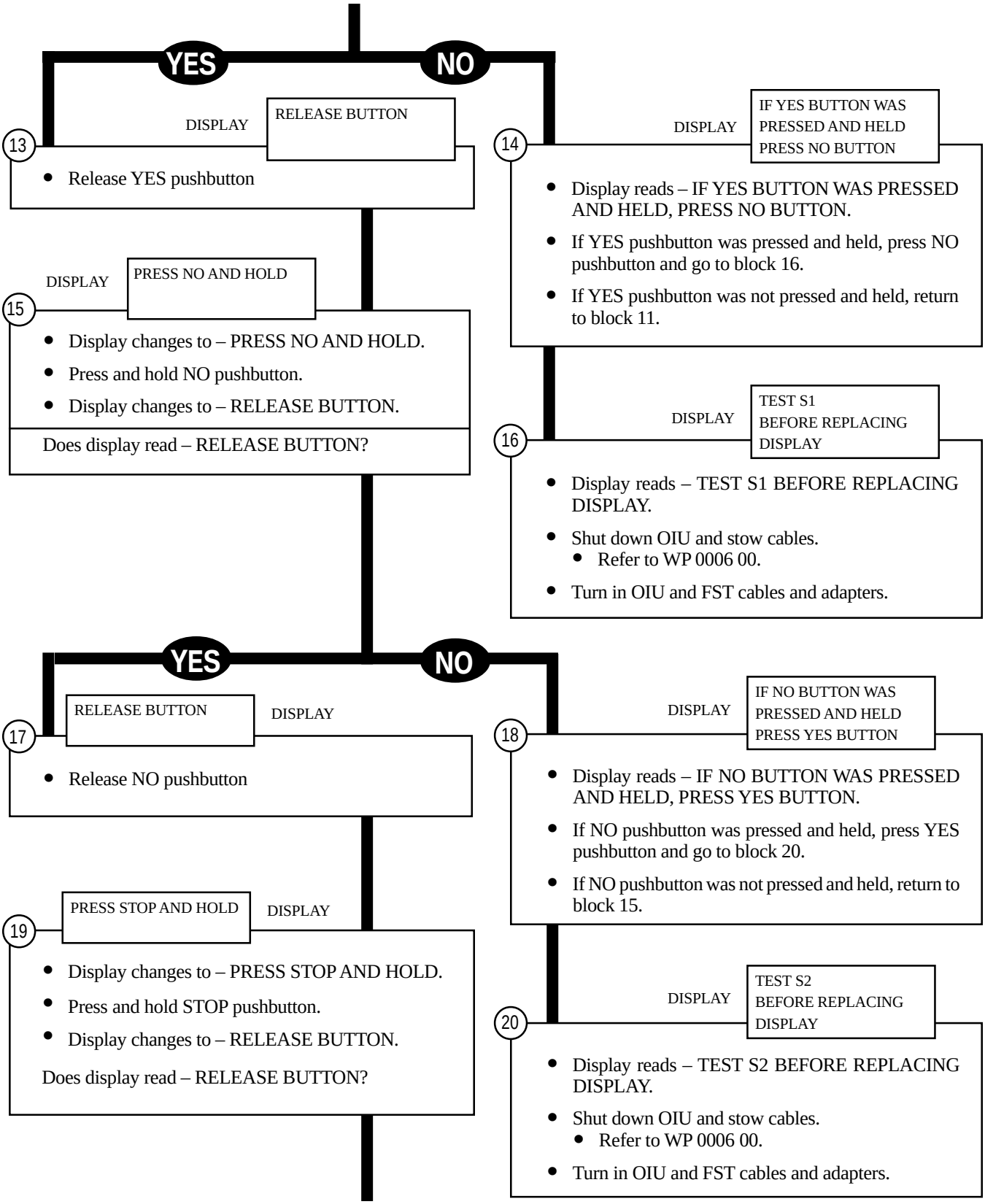
10

- If SELF TEST FAIL lamp (1) does not go off after 4 seconds, shut down OIU and stow cables.
  - Refer to WP 0006 00.
- Turn in OIU and FST cables and adapter.

NO

12

- Display shows a fault message.
- Shut down OIU and stow cables.
  - Refer to WP 0006 00.
- Turn in OIU and FST cables and adapters.


YES
NO
13
DISPLAY
RELEASE BUTTON
• Release YES pushbutton
14
DISPLAY
IF YES BUTTON WAS PRESSED AND HELD PRESS NO BUTTON
• Display reads – IF YES BUTTON WAS PRESSED AND HELD, PRESS NO BUTTON.
• If YES pushbutton was pressed and held, press NO pushbutton and go to block 16.
• If YES pushbutton was not pressed and held, return to block 11.
15
DISPLAY
PRESS NO AND HOLD
• Display changes to – PRESS NO AND HOLD.
• Press and hold NO pushbutton.
• Display changes to – RELEASE BUTTON.
Does display read – RELEASE BUTTON?
16
DISPLAY
TEST S1 BEFORE REPLACING DISPLAY
• Display reads – TEST S1 BEFORE REPLACING DISPLAY.
• Shut down OIU and stow cables.
• Refer to WP 0006 00.
• Turn in OIU and FST cables and adapters.
YES
NO
17
RELEASE BUTTON
DISPLAY
• Release NO pushbutton
18
DISPLAY
IF NO BUTTON WAS PRESSED AND HELD PRESS YES BUTTON
• Display reads – IF NO BUTTON WAS PRESSED AND HELD, PRESS YES BUTTON.
• If NO pushbutton was pressed and held, press YES pushbutton and go to block 20.
• If NO pushbutton was not pressed and held, return to block 15.
19
PRESS STOP AND HOLD
DISPLAY
• Display changes to – PRESS STOP AND HOLD.
• Press and hold STOP pushbutton.
• Display changes to – RELEASE BUTTON.
Does display read – RELEASE BUTTON?
20
DISPLAY
TEST S2 BEFORE REPLACING DISPLAY
• Display reads – TEST S2 BEFORE REPLACING DISPLAY.
• Shut down OIU and stow cables.
• Refer to WP 0006 00.
• Turn in OIU and FST cables and adapters.

YES

NO

21

- Release STOP pushbutton.
- ANSWER REQUIRED lamp and SELF TEST FAIL lamp light.
- Display reads – ARE ALL LAMPS ON?

Are ANSWER REQUIRED and SELF TEST FAIL lamps on?

DISPLAY: ARE ALL LAMPS ON?

22

DISPLAY: IF BUTTON WAS PRESSED AND HELD PRESS YES BUTTON

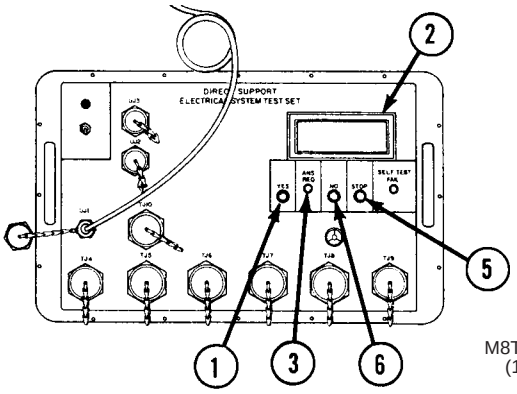
- Display reads – IF STOP BUTTON WAS PRESSED AND HELD, PRESS YES BUTTON.
- If STOP pushbutton was pressed and held, press YES pushbutton and go to block 23.
- If STOP pushbutton was not pressed and held, return to block 19.

23

DISPLAY: TEST S3 BEFORE REPLACING DISPLAY

- Display reads – TEST S3 BEFORE REPLACING DISPLAY.
- Shut down OIU and stow cables.
  - Refer to WP 0006 00.
- Turn in OIU and FST cables and adapters.

EXTERNAL POWER SUPPLY



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(1/15/98)

YES

NO

24

- Press YES pushbutton (1).
- Display (2) changes to – ALL SEGMENTS ON IN LINE 1? – and all segments in the first line of display (2) turn on.
- ANSWER REQUIRED lamp (3) lights.
- Look at each character block (4) in the first line of display (2).

Does display read – ALL SEGMENTS ON IN LINE 1? – and are all segments in first line of display on?

25

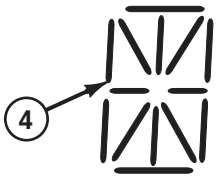
- Press NO pushbutton (6).
- Display changes to – REPLACE LAMP THAT IS OFF.
- Replace bad lamp.
  - Refer to WP 0046 00.

REPLACE LAMP
THAT IS OFF

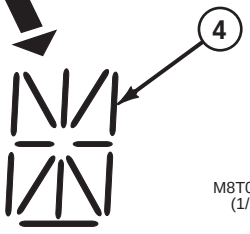
DISPLAY

ALL SEGMENTS ON
IN LINE 1?

DISPLAY



GOOD CHARACTER BLOCK,
14 SEGMENTS ON



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(1/12/98)

BAD CHARACTER BLOCK,
1 SEGMENT OFF

YES

NO

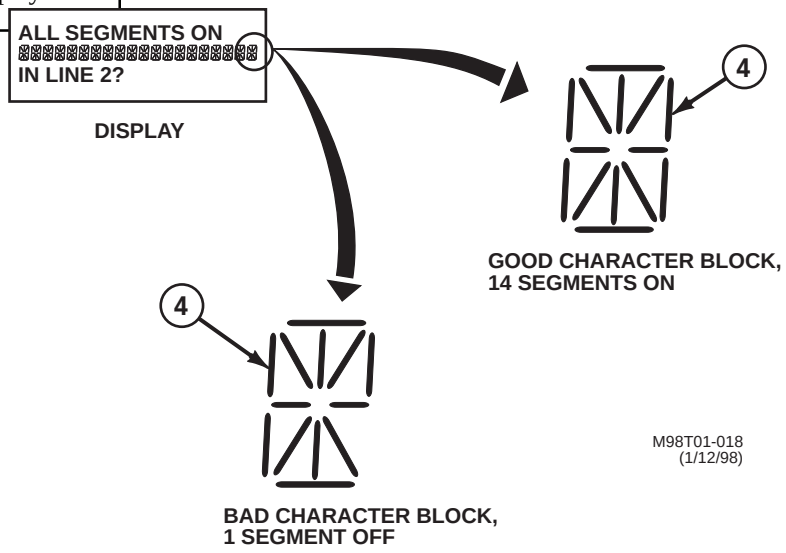
26

- Press YES pushbutton (1).
- Display (2) changes to – ALL SEGMENTS ON IN LINE 2? – and all segments in the second line of display (2) turn on.
- ANSWER REQUIRED lamp (3) lights.
- Look at each character block (4) in the second line of display (2).

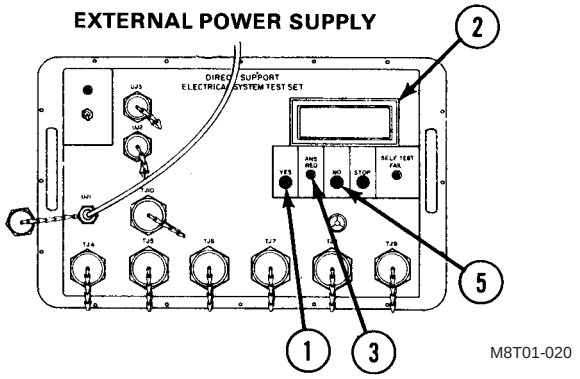
Does display read – ALL SEGMENTS ON IN LINE 2? – and are all segments in second line of display on?

27

- Press NO pushbutton (5).
- Display (2) changes to – REPLACE DISPLAY.
- Shut down OIU and stow cables.
  - Refer to WP 0006 00.
- Turn in OIU and FST cables and adapters.



OIU CHECKOUT PROCEDURE – CONTINUED 0034 00



YES NO

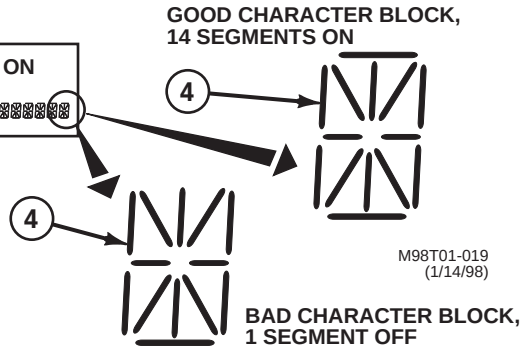
28
- Press YES pushbutton (1).
- Display (2) changes to – ALL SEGMENTS ON IN LINE 3? – and all segments in the third line of display (2) turn on.
- ANSWER REQUIRED lamp (3) lights.
- Look at each character block (4) in the third line of display (2).

Does display read – ALL SEGMENTS ON IN LINE 3? – and are all segments in third line of display on?

ALL SEGMENTS ON IN LINE 3?

DISPLAY

29
- Press NO pushbutton (5).
- Display (2) changes to – REPLACE DISPLAY.
- Shut down OIU and stow cables.
  - Refer to WP 0006 00.
- Turn in OIU and FST cables and adapters.



YES NO

30
- Press YES pushbutton (1).
- Display (2) flashes – SELF TEST IN PROGRESS – for 7 seconds and then reads – SELF TEST IN PROGRESS – steady for 10 seconds.

DISPLAY

SELF TEST IN PROGRESS

31
- Press NO pushbutton (5).
- Display (2) changes to – REPLACE DISPLAY.
- Shut down OIU and stow cables.
  - Refer to WP 0006 00.
- Turn in OIU and FST cables and adapters.

REPLACE DISPLAY

DISPLAY

32
- After 25 seconds, display (2) changes to – TEST SET OK.

Does display change to – TEST SET OK?

TEST SET OK

DISPLAY

YES NO

33
- Press YES pushbutton (1).
- Display changes to – OIU FUNCTIONAL SELF TEST DSPS XX.X – and ANSWER REQUIRED lamp is on.

34
- Display shows a fault message.
- Shut down OIU and stow cables.
  - Refer to WP 0006 00.
- Turn in OIU and FST cables and adapters.

35
- Press YES pushbutton.
- Display reads – ISOLATE GROUND CLIP.
- Make sure ground clip is isolated from OIU chassis.
- Press YES pushbutton. Display reads – DID YOU ISOLATE GROUND CLIP?
- Press YES pushbutton.
- Display flashes –
  ADJ VOLTS TO 24.0000
  VOLTS IS XX.XXXX
  PUSH YES WHEN OK.
- Adjust power supply until second line on display reads – VOLTS IS 24.0000 OK.
  - Refer to manufacturer's service manual for adjusting power supply.
- When OK flashes to the right of voltage value, push YES pushbutton and hold until display stops flashing.
- Follow display until test set finds a fault or display reads – MEMORY DEVICE AVAILABLE?

Does display read – MEMORY DEVICE AVAILABLE?

YES NO

36
- Functional self test of the OIU is OK. Download from a memory device not tested.
- Go to the specific equipment support group manual to continue OIU checkout by downloading a test menu from the memory device.

37
- Refer to Fault Symptom Index, WP 0009 00.

THIS WORK PACKAGE COVERS:

- M1/FVS cable PWR-W1 wiring diagram (Figure 1).
- GPIA power cable W21 wiring diagram (Figure 2).
- Test probe TPC-W50 wiring diagram (Figure 3).
- Test Cable and Test Adapter Connector Pin Arrangement (Figure 4).

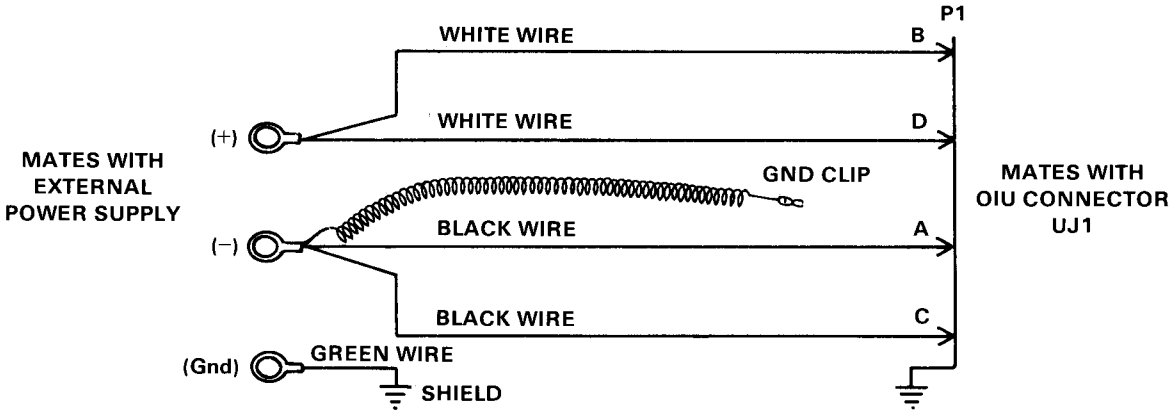


Figure 1. M1/FVS Power Cable PWR-W1

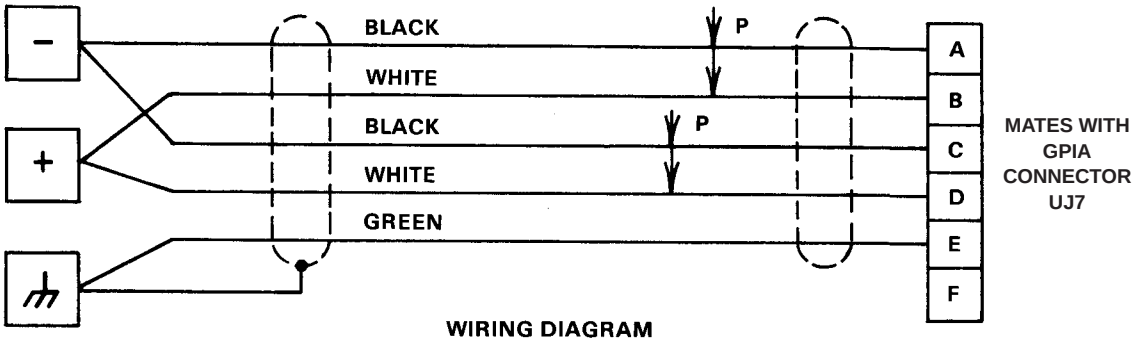


Figure 2. GPIA Power Cable W21

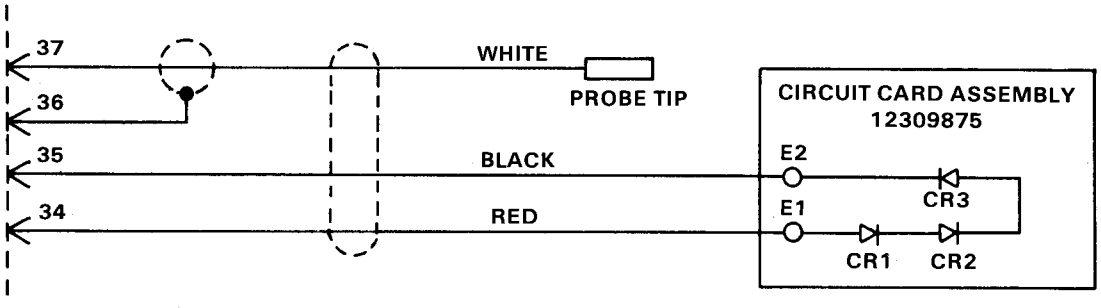
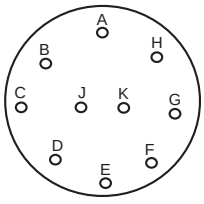
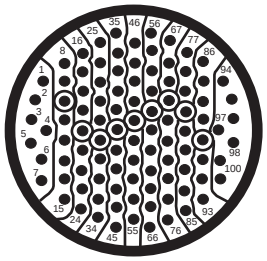


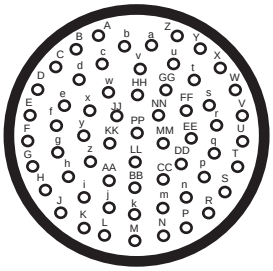
Figure 3. Test Probe TPC-W50



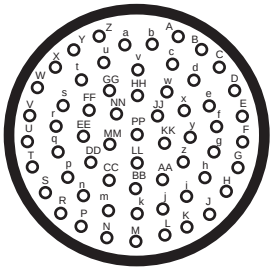
DLRU-W93, P2
RS232 W330, P3



OIU FST-TJ9-1
OIU FST-TJ9-2

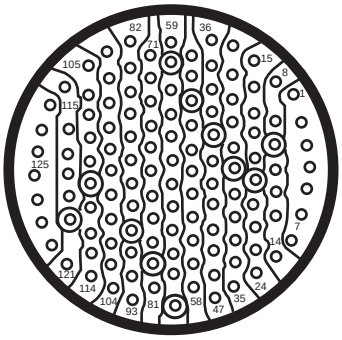


(REAR VIEW)

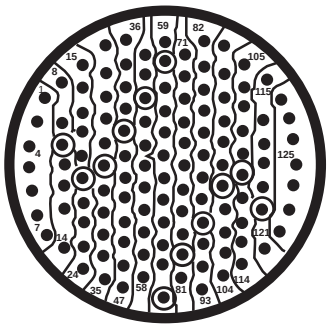


(FRONT VIEW)

W34, P3
OIU FST-W88, P1
OIU FST-W87, P2
OIU FST-TJ4
OIU FST-TJ10
TSA W457, P2
GPIA FST UJ6
TSA FST ADAPTER, P2
POWER W331, P2



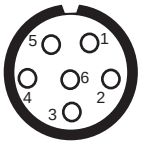
(REAR VIEW)



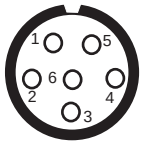
(FRONT VIEW)

OIU FST-TJ7-1
OIU FST-TJ7-2
OIU FST-W87, P1
OIU FST-TJ6 (FACE)
OIU FST-TJ5-2
OIU FST-TJ5-1
OIU FST-W88, P2
OIU FST-TJ8
TSA W458, P2, P3

CFM FST TJ1-1
CFM FST TJ2-1
CFM FST TJ2-2
CFM FST W385, P1, P2
CFM/MFM FST W200, P1, P2
CFM/MFM FST W201, P1 P2, P3

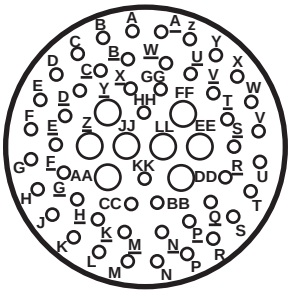


(REAR VIEW)

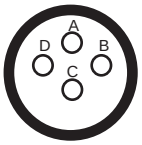


(FRONT VIEW)

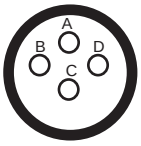
W203A P1
W203B P1



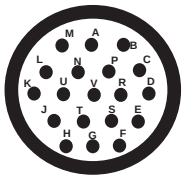
VIDEO ADAPTER, P2



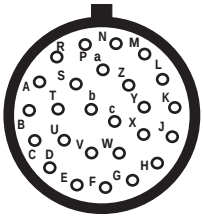
(REAR VIEW)



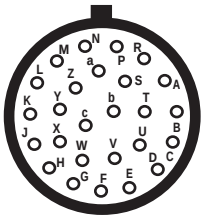
(FRONT VIEW)
PWR-W1, P1



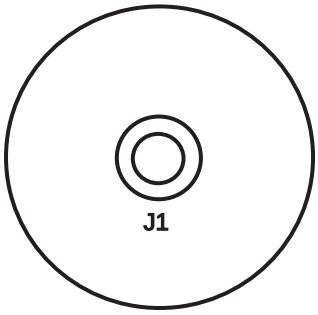
DLRU-W93, ADAPTER



(FRONT VIEW)
OIU MEMORY UJ3



(REAR VIEW)



(TOP VIEW)
OIU FST-TJ6 (BACK)

M2T02-008

Figure 4. Test Cable and Test Adapter Connector Pin Arrangement

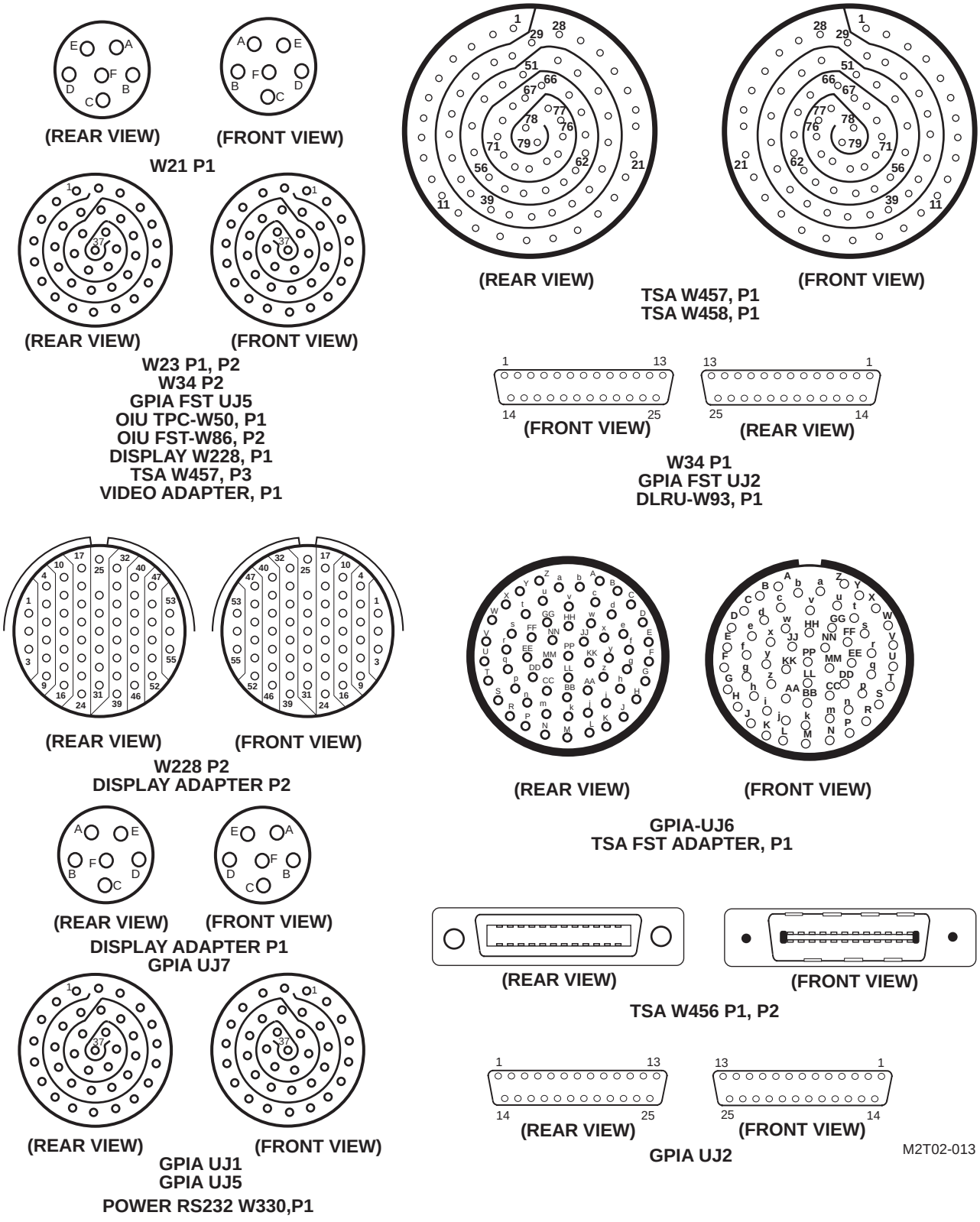


Figure 4. Test Cable and Test Adapter Connector Pin Arrangement (Continued)

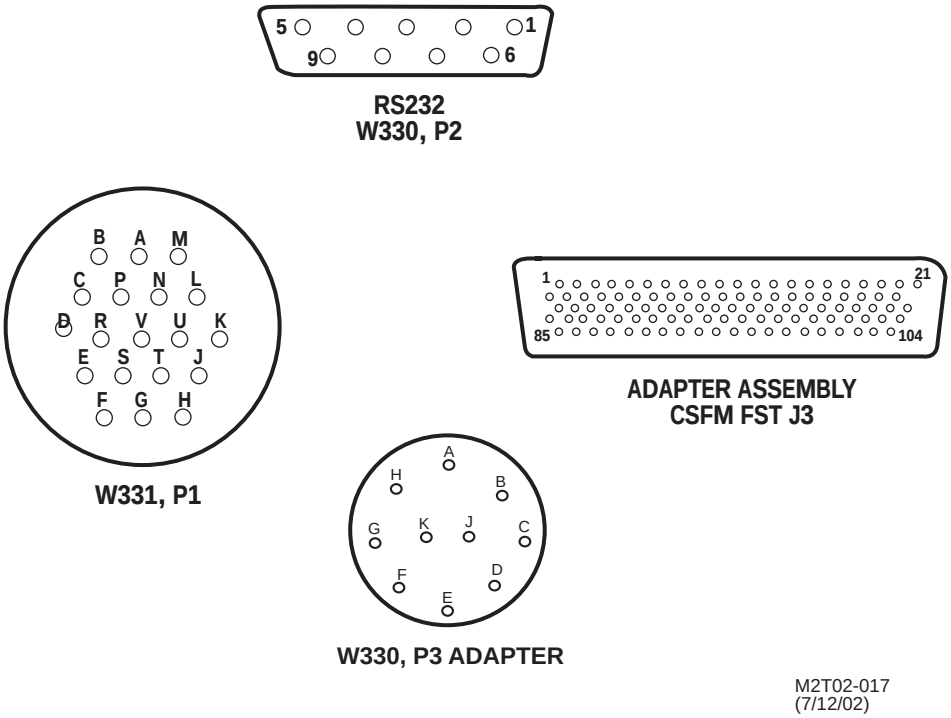


Figure 4. Test Cable and Test Adapter Connector Pin Arrangement (Continued)

NOTE

- All checks are for continuity except where noted.
- All test ID numbers are prefixed with the letter “M”.

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
6000	J1-159 TO J13-10 J1-160 TO J13-11 SIG CABLE P1-10 TO P2-10 SIG CABLE P1-11 TO P2-11
6110	J1-159 to J13-10 J1-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
6120	J1-159 to J13-10 J1-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
6130	J1-159 to J13-10 J1-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
6210	TJ1-59 to J12-6 (open)
6220	TJ2-59 to J12-6 (open)
6230	TJ3-59 to J12-6 (open)
6240	TJ4-59 to J12-6 (open)
11020	J9-62 to J13-10 J9-63 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
11120	J9-62 to J13-10 J9-63 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
11220	J9-62 to J13-10 J9-63 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE, P1-11 to P2-11

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
11320	J9-62 to J13-10 J9-63 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
11420	J9-62 to J13-10 J9-63 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
11520	J9-62 to J13-10 J9-63 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
11620	J9-62 to J13-10 J9-63 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
11720	J9-62 to J13-10 J9-63 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
11820	J9-62 to J13-10 J9-63 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
11920	J9-62 to J13-10 J9-63 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
12220	J9-62 to J13-10 J9-63 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
12320	J9-62 to J13-10 J9-63 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
12420	J9-62 to J13-10 J9-63 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
12520	J9-62 to J13-10 J9-63 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
13120	J6-159 to J13-10 J6-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
13220	J6-159 to J13-10 J6-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
13320	J6-159 to J13-10 J6-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
13420	J6-159 to J13-10 J6-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
13520	J6-159 to J13-10 J6-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
13620	J6-159 to J13-10 J6-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
13720	J6-159 to J13-10 J6-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
13820	J6-159 to J13-10 J6-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
13920	J6-159 to J13-10 J6-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
14020	J6-159 to J13-10 J6-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
14120	J6-159 to J13-10 J6-160 to J13-11 J6-159 to J13-10 J6-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
14220	J6-159 to J13-10 J6-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
14320	J6-159 to J13-10 J6-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
14420	J6-159 to J13-10 J6-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
14510	None
14520	None
14530	None
14610	J4-159 to J13-10 J4-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
14615	J4-159 to J13-10 J4-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
14620	J4-159 to J13-10 J4-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
14625	J4-159 to J13-10 J4-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
14630	J4-159 to J13-10 J4-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
14635	J4-159 to J13-10 J4-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
14640	J4-159 to J13-10 J4-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
14645	J4-159 to J13-10 J4-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
14650	J4-159 to J13-10 J4-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
15005	J3-159 to J4-159 J3-160 to J4-160
15015	J3-159 to J4-159 J3-160 to J4-160
15020	J3-159 to J4-159 J3-160 to J4-160
15030	J3-159 to J4-159 J3-160 to J4-160
15040	J3-159 to J4-159 J3-160 to J4-160
15045	J3-159 to J4-159 J3-160 to J4-160

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
15055	J3-159 to J4-159 J3-160 to J4-160
15065	J3-159 to J4-159 J3-160 to J4-160
15070	J3-159 to J4-159 J3-160 to J4-160
15110	J3-159 to J4-159 J3-160 to J4-160
15130	J3-159 to J4-159 J3-160 to J4-160
15310	J3-159 to J4-159 J3-160 to J4-160
15330	J3-159 to J4-159 J3-160 to J4-160
15410	J3-159 to J4-159 J3-160 to J4-160
15430	J3-159 to J4-159 J3-160 to J4-160
15510	J3-159 to J4-159 J3-160 to J4-160
15530	J3-159 to J4-159 J3-160 to J4-160
15610	J3-159 to J4-159 J3-160 to J4-160
15630	J3-159 to J4-159 J3-160 to J4-160
15710	J3-153 to J6-153 J4-154 to J6-154 J3-159 to J13-10 J3-160 to J13-11 SIG CABLE P1-10 to P2-10 SIG CABLE P1-11 to P2-11
16120	None
17120	None

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
31020	TJ1-59 to J1-28 TJ1-60 to J1-155 FST TJ1-59 to 60
31025	TJ1-29 to J12-6 TJ1-86 to J9-11 FST TJ1-29 to 86
31030	TJ2-59 to J1-31 TJ2-60 to J1-155 FST TJ2-1-59 to 60
31035	TJ2-22 to J12-6 TJ2-45 to J9-16 FST TJ2-1-22 to 45
31040	TJ3-59 to J1-34
31050	TJ4-59 to J1-41
31120	TJ1-107 to J1-103 TJ1-108 to J1-104 FST TJ1-107 to 108
31220	TJ3-59 to J1-34 TJ3-60 to J1-155 W200P1-59 to P1-60
31230	TJ4-59 to J1-41 TJ4-60 to J1-155 W200P2-59 to P2-60
32030	TJ4-26 to J9-33 TJ4-125 to J2-5 W200P2-26 to P2-125
32040	TJ3-26 to J9-19 TJ3-120 to J2-61 W200P1-26 to P1-120
32050	TJ3-97 to J4-94 TJ4-104 to J9-32 W200P1-97 to P2-104
32110	TJ3-99 to J4-94 TJ3-82 to J9-4 W200P1-82 to P1-99

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
32120	TJ3-83 to J9-5 TJ3-126 to J4-94 W200P1-83 to P1-126
32130	TJ3-84 to J9-6 TJ4-115 to J4-94 W200P1-84 to P2-115
32140	TJ1-20 to J12-6 TJ1-87 to J9-12 FST TJ1-20 to 87
32210	TJ1-58 to J12-6 TJ1-85 to J9-10 FST TJ1-58 to 85
32220	TJ1-84 to J9-9 TJ1-94 to J12-6 FST TJ1-84 to 94
32230	TJ1-83 to J9-8 TJ1-118 to J12-6 FST TJ1-83 to 118
32250	TJ2-46 to J9-17 TJ2-58 to J12-6 FST TJ2-1-146 to 58
32310	TJ3-7 to J12-6 TJ3-28 to J9-21 W200P1-7 to P1-28
32320	TJ3-29 to J9-26 TJ3-35 to J12-6 W200P1-29 to P1-35
32330	TJ3-30 to J9-27 TJ3-66 to J12-6 W200P1-30 to P1-66
32340	TJ4-16 to J12-6 TJ4-27 to J9-34 W200P2-16 to P2-27
32350	TJ4-28 to J9-35 TJ4-33 to J12-6 W200P2-28 to P2-33

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
32410	TJ4-29 to J9-36 TJ4-48 to J12-6 W200P2-29 to P2-48
32420	TJ4-30 to J9-37 TJ4-74 to J12-6 W200P2-30 to P2-74
32430	TJ4-91 to J9-22 TJ4-100 to J12-6 W200P2-91 to P2-100
32440	TJ4-96 to J9-39 TJ4-103 to J12-6 W200P2-96 to P2-93
32450	TJ2-56 to J9-23 TJ2-105 to J12-6 FST TJ2-1-56 to 105
32510	TJ3-20 to J12-6 TJ3-33 to J9-30 W200P1-20 to P1-33
32520	TJ3-27 to J9-20 TJ3-53 to J6-134 W200P1-27 to P1-53
32710	TJ2-91 to J9-243 TJ2-103 to J9-247 TJ2-104 to J12-3 TJ2-111 to J12-1 TJ3-15 to J9-240 TJ4-44 to J9-43 FST TJ2-1-91 to 111 FST TJ2-1-103 to 104 W200P1-15 to P2-44
32720	TJ3-18 to J9-202 TJ4-46 to J9-61 W200P1-18 to P2-46
32730	TJ2-24 to J9-195 TJ2-43 to J9-14 FST TJ2-1-24 to 43
32740	TJ2-23 to J9-194 TJ2-44 to J9-15 FST TJ2-1-23 to 44

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
32750	TJ3-9 to J9-200 TJ3-25 to J9-18 W200P1-9 to P1-25
32810	TJ1-30 to J9-193 TJ1-82 to J9-7 FST TJ1-30 to 82
32820	TJ4-20 to J9-199 TJ4-31 to J9-38 TJ4-64 to J11-63 TJ4-66 to J11-61 W200P2-20 to P2-66 W200P2-31 to P2-64
32830	TJ4-20 to J9-199 TJ4-31 to J9-38 TJ4-64 to J11-63 TJ4-66 to J11-61 W200P2-20 to P2-66 W200P2-31 to P2-64
32840	TJ4-19 to J9-198 TJ4-31 to J9-38 TJ4-64 to J11-63 TJ4-65 to J11-62 W200P2-19 to P2-65 W200P2-31 to P2-64
32850	TJ4-19 to J9-198 TJ4-31 to J9-38 TJ4-64 to J11-63 TJ4-65 to J11-62 W200P2-19 to P2-65 W200P2-31 to P2-64
32910	TJ2-64 to J9-40 TJJ-113 to J9-209 TJ2-119 to J11-58 TJ2-121 to J11-56 FST TJ2-1-64 to 121 FST TJ2-1-113 to 119
32920	TJ2-64 to J9-40 TJ2-113 to J9-209 TJ2-119 to J11-58 TJ2-121 to J11-56 FST TJ2-1-64 to 121 FST TJ2-1-113 to 119

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
32930	TJ2-110 to J9-31 TJ2-113 to J9-209 TJ2-119 to J11-58 TJ2-120 to J11-57 FST TJ2-1-110 to 120 FST TJ2-1-113 to 119
32940	TJ2-110 to J9-31 TJ2-113 to J9-209 TJ2-119 to J11-58 TJ2-120 to J11-57 FST TJ2-1-110 to 120 FST TJ2-1-113 to 119
33110	TJ2-17 to J6-66 TJ2-18 to J6-79 TJ2-76 to J6-105 TJ2-77 to J6-104 FST TJ2-1-17 to 76 FST TJ2-1-18 to 77
33120	TJ2-21 to J6-77 TJ2-75 to J6-96 TJ2-78 to J6-98 TJ2-106 to J6-35 FST TJ2-1-21 to 75 FST TJ2-1-78 to 106
33130	TJ2-13 to J6-63 TJ2-14 to J6-64 TJ2-71 to J6-45 TJ2-72 to J6-46 FST TJ2-1-13 to 71 FST TJ2-1-14 to 72
33140	TJ3-39 to J6-56 TJ3-71 to J11-38 TJ4-14 to J6-62 TJ4-38 to J6-94 W200P1-39 to P1-71 W200P1-38 to P2-14
33210	TJ1-5 to J6-30 TJ1-27 to J6-50 TJ1-95 to J1-96 FST TJ1-5 to 96 FST TJ1-27 to 95

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
33220	TJ1-6 to J6-29 TJ1-27 to J6-50 TJ1-97 to TJ1-95 FST TJ1-6 to 97 FST TJ1-27 to 95
33230	TJ1-7 to J6-28 TJ1-27 to J6-50 TJ1-98 to TJ1-95 TJ1-100 to TJ1-101 FST TJ1-7 to 101 FST TJ1-98 to 100 FST TJ1-27 to 95
33240	TJ1-8 to J6-27 TJ1-27 to J6-50 TJ1-102 to TJ1-100 FST TJ1-8 to 102 FST TJ1-98 to 100 FST TJ1-27 to 95
33250	TJ1-9 to J6-24 TJ1-27 to J6-50 TJ1-62 to TJ1-63 TJ1-103 to TJ1-100 FST TJ1-9 to 63 FST TJ1-27 to 95 FST TJ1-62 to 103 FST TJ1-98 to 100
33310	TJ1-10 to J6-23 TJ1-27 to J6-50 TJ1-64 to TJ1-62 FST TJ1-10 to 64 FST TJ1-27 to 95 FST TJ1-62 to 103 FST TJ1-98 to 100
33320	TJ1-22 to J6-14 TJ1-27 to J6-50 TJ1-64 to TJ1-62 FST TJ1-22 to 65 FST TJ1-27 to 95 FST TJ1-62 to 103 FST TJ1-98 to 100
33330	TJ1-10 to TJ4-3 TJ3-1 to J6-39 W200P1-1 to P2-3

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
33340	TJ1-9 to TJ4-4 TJ3-2 to J6-40 W200P1-2 to P2-4
33410	TJ2-3 to J6-78 TJ2-73 to J6-50 TJ2-79 to TJ2-80 FST TJ2-1-3 to 80 FST TJ2-1-73 to 79
33420	TJ2-15 to J6-65 TJ2-16 to J6-80 TJ2-74 to J6-101 TJ2-81 to TJ2-79 FST TJ2-1-15 to 81 FST TJ2-1-16 to 74
33520	TJ1-28 to J6-51 TJ1-117 to J6-35 TJ3-4 to J6-42 TJ3-42 to J6-100 TJ3-67 to TJ3-69 FST TJ1-28 to 117 W200P1-4 to P1-69 W200P1-42 to P1-67
33530	TJ3-5 to J6-33 TJ3-67 to TJ3-70 TJ3-74 to TJ3-75 W200P1-5 to P1-75 W200P1-70 to P1-74
33540	TJ3-6 to J6-34 TJ3-74 to TJ3-76 W200P1-6 to P1-76
33550	TJ3-67 to TJ3-68 TJ4-5 to J6-59 TJ4-49 to TJ4-50 W200P1-68 to P2-49 W200P2-5 to P2-50
33610	TJ4-6 to J6-60 TJ4-49 to TJ4-51 W200P2-6 to P2-51

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
33620	TJ4-7 to J6-9 TJ4-49 to TJ4-52 TJ4-75 to TJ4-76 W200P2-7 to P2-76 W200P2-52 to P2-75
33630	TJ4-8 to J6-10 TJ4-75 to TJ4-77 W200P2-8 to W200P2-77
33640	TJ4-9 to J6-17 TJ4-75 to TJ4-78 W200P2-9 to W200P2-78
33710	TJ4-10 to J6-19 TJ4-75 to TJ4-79 TJ4-87 to TJ4-88 W200P2-10 to P2-88 W200P2-79 to P2-87
33720	TJ4-13 to J6-61 TJ4-89 to TJ4-87 W200P2-13 to P2-89
33905	TJ1-37 to J9-87 TJ1-38 to J9-148 TJ1-39 to J9-147 TJ1-40 to J9-86 TJ1-41 to J9-85 TJ1-42 to J9-146 TJ1-43 to J9-84 TJ1-44 to J9-145 TJ1-45 to J9-83 TJ1-46 to J9-144 TJ1-66 to J9-138 TJ1-67 to J9-75 TJ1-68 to J9-137 TJ1-69 to J9-74 TJ1-70 to J9-136 TJ1-71 to J9-73 TJ1-72 to J9-135 TJ1-73 to J9-72 TJ1-74 to J9-134 TJ1-75 to J9-71 FST TJ1-37 to 66 FST TJ1-38 to 67 FST TJ1-39 to 68 FST TJ1-40 to 69

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
33905 (cont.)	FST TJ1-41 to 70 FST TJ1-42 to 71 FST TJ1-43 to 72 FST TJ1-44 to 73 FST TJ1-45 to 74 FST TJ1-45 to 75
33910	TJ2-49 to J9-68 TJ2-57 to J9-157 TJ3-45 to J9-93 TJ3-46 to J9-156 TJ3-47 to J9-95 TJ3-48 to J9-94 TJ3-49 to J9-158 TJ3-90 to J9-71 TJ3-91 to J9-134 TJ4-21 to J9-72 TJ4-22 to J9-135 TJ4-23 to J9-73 FST TJ2-1-49 to 57 W200P1-45 to P1-90 W200P1-46 to P1-91 W200P1-47 to P2-21 W200P1-48 to P2-22 W200P1-49 to P2-23
33915	TJ1-37 to J9-87 TJ1-38 to J9-148 TJ1-39 to J9-147 TJ1-40 to J9-86 TJ1-41 to J9-85 TJ1-42 to J9-146 TJ1-43 to J9-84 TJ1-44 to J9-145 TJ1-45 to J9-83 TJ1-46 to J9-144 TJ1-66 to J9-138 TJ1-67 to J9-75 TJ1-68 to J9-137 TJ1-69 to J9-74 TJ1-70 to J9-136 TJ1-71 to J9-73 TJ1-72 to J9-135 TJ1-73 to J9-72 TJ1-74 to J9-134 TJ1-75 to J9-71 FST TJ1-37 to 66 FST TJ1-38 to 67 FST TJ1-39 to 68

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
33915 (cont)	FST TJ1-40 to 69 FST TJ1-41 to 70 FST TJ1-42 to 71 FST TJ1-43 to 72 FST TJ1-44 to 73 FST TJ1-45 to 74 FST TJ1-46 to 75
33920	TJ2-49 to J9-68 TJ2-57 to J9-157 TJ3-45 to J9-93 TJ3-46 to J9-156 TJ3-47 to J9-95 TJ3-48 to J9-94 TJ3-49 to J9-158 TJ3-90 to J9-71 TJ3-91 to J9-134 TJ4-21 to J9-72 TJ4-22 to J9-135 TJ4-23 to J9-73 FST TJ2-1-49 to 57 W200P1-45 to P1-90 W200P1-46 to P1-91 W200P1-47 to P2-21 W200P1-48 to P2-22 W200P1-49 to P2-23
33925	TJ2-49 to J9-68 TJ2-57 to J9-157 TJ3-45 to J9-93 TJ3-46 to J9-156 TJ3-47 to J9-95 TJ3-48 to J9-94 TJ3-49 to J9-158 TJ3-90 to J9-71 TJ3-91 to J9-134 TJ4-21 to J9-72 TJ4-22 to J9-135 TJ4-23 to J9-73 FST TJ2-1-49 to 57 W200P1-45 to P1-90 W200P1-46 to P1-91 W200P1-47 to P2-21 W200P1-48 to P2-22 W200P1-49 to P2-23

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
33930	TJ2-49 to J9-68 TJ2-57 to J9-157 TJ3-45 to J9-93 TJ3-46 to J9-156 TJ3-47 to J9-95 TJ3-48 to J9-94 TJ3-49 to J9-158 TJ3-90 to J9-71 TJ3-91 to J9-134 TJ4-21 to J9-72 TJ4-22 to J9-135 TJ4-23 to J9-73 FST TJ2-1-49 to 57 W200P1-45 to P1-90 W200P1-46 to P1-91 W200P1-47 to P2-21 W200P1-48 to P2-22 W200P1-49 to P2-23
34110	TJ2-67 to J11-69 TJ2-68 to J11-70 TJ2-112 to J9-208 TJ2-122 to J11-75 TJ2-123 to J11-76 TJ2-124 to J9-196 FST TJ2-1-68 to 122 FST TJ2-1-68 to 122 FST TJ2-1-123 to 124 J11-35 to J6-8 J11-36 to J6-7
34120	TJ2-65 to J11-67 TJ2-66 to J11-68 TJ2-85 to J9-193 TJ2-88 to J9-211 TJ2-96 to J11-77 TJ2-97 to J11-78 FST TJ2-1-65 to 88 FST TJ2-1-66 to 96 FST TJ2-1-85 to 97 J11-35 to J6-8 J11-36 to J6-7
34130	TJ1-11 to J6-22 TJ1-12 to J6-21 TJ1-52 to J11-75 TJ1-53 to J11-76 FST TJ1-11 to 53 FST TJ1-12 to 52

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
34140	None
34150	None
34210	TJ3-8 to J9-211 TJ3-80 to J11-73 TJ3-81 to J11-74 TJ3-98 to J6-75 TJ4-25 to J12-3 TJ4-55 to J11-38 W200P1-80 to P1-80 W200P1-81 to P1-98 W200P2-25 to P2-55
34220	TJ3-57 to J11-51 TJ3-102 to J11-59 TJ4-53 to J11-85 TJ4-54 to J11-86 TJ4-54 to J11-86 W200P1-57 to P2-53 W200P1-102 to P2-54
34230	TJ3-57 to J11-51 TJ3-102 to J11-59 TJ4-53 to J11-85 TJ4-54 to J11-86 W200P1-57 to P2-53 W200P1-102 to P2-54
34240	TJ3-57 to J11-51 TJ3-102 to J11-59 TJ4-53 to J11-85 TJ4-54 to J11-86 W200P1-57 to P2-53 W200P1-102 to P2-54
34250	None
34310	TJ3-10 to J9-197 TJ3-78 to J11-71 TJ3-79 to J11-72 TJ3-92 to J9-55 W200P1-10 to P1-79 W200P1-78 to P1-92
34510	TJ3-73 to J12-6 TJ4-94 to J3-16

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
34510 (cont.)	TJ4-95 to J3-15 TJ4-98 to J3-6 TJ4-105 to J4-4 TJ4-106 to J4-45 W200P1-73 to P2-98 W200P2-94 to P2-105 W200P2-95 to P2-106
34520	TJ3-23 to J3-16 TJ3-24 to J3-15 TJ4-1 to J6-3 TJ4-2 to J6-4 TJ3-73 to J12-6 TJ4-94 to J3-16 TJ4-95 to J3-15 TJ4-98 to J3-6 TJ4-105 to J4-4 TJ4-106 to J4-45 W200P1-23 to P2-1 W200P1-24 to P2-2 W200P1-73 to P2-98 W200P2-94 to P2-105 W200P2-95 to P2-106
34530	TJ2-1 to J6-5 TJ2-2 to J6-6 TJ2-94 to J4-4 TJ2-95 to J4-45 TJ3-73 to J12-6 TJ4-98 to J3-6 FST TJ2-1-1 to 94 FST TJ2-1-2 to 95 W200P1-73 to P2-98
34540	TJ3 -73 to J12-6 TJ4-94 to J3-16 TJ4-95 to J3-15 TJ4-98 to J3-6 TJ4-105 to J4-4 TJ4-106 to J4-45 W200P1-73 to P2-98 W200P2-94 to P2-105 W200P2-95 to P2-106

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
34550	TJ3-73 to J12-6 TJ4-94 to J3-16 TJ4-95 to J3-15 TJ4-98 to J3-6 TJ4-105 to J4-4 TJ4-106 to J4-45 W200P1-73 to P2-98 W200P2-94 to P2-105 W200P2-95 to P2-106
34610	TJ3-73 to J12-6 TJ4-94 to J3-16 TJ4-95 to J3-15 TJ4-98 to J3-6 TJ4-105 to J4-4 TJ4-106 to J4-45 W200P1-73 to P2-98 W200P2-94 to P2-105 W200P2-95 to P2-106
34620	TJ3-73 to J12-6 TJ4-94 to J3-16 TJ4-95 to J3-15 TJ4-98 to J3-6 TJ4-105 to J4-4 TJ4-106 to J4-45 W200P1-73 to P2-98 W200P2-94 to P2-105 W200P2-95 to P2-106
34710	TJ3-73 to J12-6 TJ4-94 to J3-16 TJ4-95 to J3-15 TJ4-98 to J3-6 TJ4-105 to J4-4 TJ4-106 to J4-45 W200P1-73 to P2-98 W200P2-94 to P2-105 W200P2-95 to P2-106
34720	TJ3 -73 to J12-6 TJ4-94 to J3-16 TJ4-95 to J3-15 TJ4-98 to J3-6 TJ4-105 to J4-4 TJ4-106 to J4-45 W200P1-73 to P2-98 W200P2-94 to P2-105 W200P2-95 to P2-106

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
34740	TJ3-73 to J12-6 TJ4-94 to J3-16 TJ4-95 to J3-15 TJ4-98 to J3-6 TJ4-105 to J4-4 TJ4-106 to J4-45 W200P1-73 to P2-98 W200P2-94 to P2-105 W200P2-95 to P2-106
34910	TJ3-21 to J3-13 TJ3-22 to J3-12 TJ3-73 to J12-6 TJ3-109 to J4-9 TJ3-110 to J4-46 TJ4-98 to J3-6 W200P1-21 to P1-109 W200P1-22 to P1-110 W200P1-73 to P2-98
34920	TJ3-62 to J6-72 TJ3-63 to J6-73 TJ4-101 to J3-13 TJ4-102 to J3-12 W200P1-62 to P2-102 W200P1-63 to P2-101
34930	TJ3-73 to J12-6 TJ4-11 to J6-19 TJ4-12 to J6-20 TJ4-98 to J3-6 TJ4-113 to J4-9 TJ4-114 to J4-46 W200P1-73 to P2-98 W200P2-11 to P2-113 W200P2-12 to P2-114
35110	TJ3-21 to J3-13 TJ3-22 to J3-12 TJ3-62 to J6-72 TJ3-63 to J6-73 TJ3-73 to J12-6 TJ3-109 to J4-9 TJ3-110 to J4-46 TJ4-98 to J3-6 TJ4-101 to J3-13 TJ4-102 to J3-12

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
35110 (cont)	W200P1-21 to P1-109 W200P1-22 to P1-110 W200P1-73 to P2-98 W200P1-62 to P2-102 W200P1-63 to P2-101
35130	TJ3-21 to J3-13 TJ3-22 to J3-12 TJ3-62 to J6-72 TJ3-63 to J6-73 TJ3-73 to J12-6 TJ3-109 to J4-9 TJ3-110 to J4-46 TJ4-98 to J3-6 TJ4-101 to J3-13 TJ4-102 to J3-12 W200P1-21 to P1-109 W200P1-22 to P1-110 W200P1-73 to P2-98 W200P1-62 to P2-102 W200P1-63 to P2-101
35210	TJ3-21 to J3-13 TJ3-22 to J3-12 TJ3-62 to J6-72 TJ3-63 to J6-73 TJ3-73 to J12-6 TJ3-109 to J4-9 TJ3-110 to J4-46 TJ4-98 to J3-6 TJ4-101 to J3-13 TJ4-102 to J3-12 W200P1-21 to P1-109 W200P1-22 to P1-110 W200P1-73 to P2-98 W200P1-62 to P2-102 W200P1-63 to P2-101
35230	TJ3-21 to J3-13 TJ3-22 to J3-12 TJ3-62 to J6-72 TJ3-63 to J6-73 TJ3-73 to J12-6 TJ3-109 to J4-9 TJ3-110 to J4-46 TJ4-98 to J3-6 TJ4-101 to J3-13 TJ4-102 to J3-12 W200P1-21 to P1-109

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
35230 (cont)	W200P1-22 to P1-110 W200P1-73 to P2-98 W200P1-62 to P2-102 W200P1-63 to P2-101
35410	TJ3-73 to J12-6 TJ3-95 to J3-7 TJ3-96 to J3-6 TJ3-124 to J4-13 TJ3-125 to J34-45 TJ4-98 to J3-6 W200P1-73 to P2-98 W200P1-95 to P1-124 W200P1-96 to P1125
35610	TJ3-64 to J6-71 TJ3-65 to J6-74 TJ3-117 to J2-39 TJ3-118 to J2-40 W200P1-64 to P1-117 W200P1-65 to P1-118
35710	TJ3-64 to J6-71 TJ3-65 to J6-74 TJ3-117 to J2-39 TJ3-118 to J2-40 W200P1-64 to P1-117 W200P1-65 to P1-118
35735	TJ3-64 to J6-71 TJ3-65 to J6-74 TJ3-117 to J2-39 TJ3-118 to J2-40 W200P1-64 to P1-117 W200P1-65 to P1-118
35750	TJ3-64 to J6-71 TJ3-65 to J6-74 TJ3-117 to J2-39 TJ3-118 to J2-40 W200P1-64 to P1-117 W200P1-65 to P1-118
35910	TJ1-23 to J6-11 TJ1-24 to J6-12 TJ1-88 to J2-13 TJ1-89 to J2-15 FST TJ1-23 to 88 FST TJ1-24 to 89

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
36110	TJ1-3 to J6-32 TJ1-4 to J6-31 TJ1-91 to J2-10 TJ1-92 to J2-16 FST TJ1-3 to 92 FST TJ1-4 to 91
36220	TJ3-122 to J2-57 TJ3-123 to J2-56 TJ3-127 to J2-59 TJ3-128 to J2-60 TJ4-119 to J2-15 TJ4-122 to J2-9 TJ4-123 to J2-16 TJ4-127 to J2-10 W200P1-122 to P2-127 W200P1-123 to P2-119 W200P1-127 to P2-122 W200P1-128 to P2-123
36420	TJ1-59 to J12-6 (open)
36430	TJ2-59 to J12-6 (open)
36440	TJ3-59 to J1-34 TJ3-60 to J1-155 W200P1-59 to P1-60
36450	TJ4-59 to J1-41 TJ4-60 to J1-155 W200P2-59 to P2-60
36520	TJ3-50 to J1-103 TJ3-51 to J1-104 W200P1-50 to P1-51
36620	TJ3-59 to J12-6 (open)
36630	TJ4-59 to J12-6 (open)
40120	TJ1-59 to J1-28 TJ1-60 to J1-155 W201P1-59 to P1-60
40130	TJ2-59 to J1-31 TJ2-60 to J1-155 FST TJ2-2-59 to 60

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
40135	TJ2-63 to J9-39 TJ2-115 to J11-21 FST TJ2-2-63 to 115
40140	TJ3-59 to J12-6 (open)
40150	TJ4-59 to J12-6 (open)
40220	TJ1-76 to J1-106 TJ1-77 to J1-157 W201P1-76 to P1-77
40320	TJ3-59 to J1-34 TJ3-61 to J1-155 W201P2-59 to P2-61
40330	TJ4-59 to J1-41 TJ4-60 to J1-155 W201P3-59 to P3-60
41140	TJ1-80 to J9-5 TJ1-93 to J2-5 W201P1-80 to P1-93
41150	TJ3-25 to J9-18 TJ3-115 to J2-65 W201P2-25 to P2-115
41210	TJ3-27 to J9-20 TJ3-119 to J2-38 W201P2-27 to P2-119
41220	TJ4-26 to J9-33 TJ4-116 to J2-11 W201P3-26 to P3-116
41230	TJ4-27 to J9-34 TJ4-118 to J2-5 W201P3-27 to P3-118
41240	TJ3-34 to J3-14 TJ3-85 to J9-7 W201P2-34 to P2-85
41250	TJ3-86 to J9-8 TJ4-24 to J3-14 W201P2-86 to P3-24

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
41310	TJ3-87 to J9-9 TJ4-99 to J3-14 W201P2-87 to P3-99
41320	TJ1-86 to J9-11 TJ1-116 to J3-14 W201P1-86 to P1-116
41330	TJ1-120 to J3-14 TJ4-28 to J9-35 W201P1-120 to P3-28
41340	TJ4-17 to J6-134 TJ4-31 to J9-38 W201P3-17 to P3-31
41350	TJ1-79 to J9-4 TJ1-99 to J12-3 W201P1-79 to P1-99
41420	TJ2-110 to J9-31 TJ2-116 to J11-22 FST TJ2-2-110 to 116
41430	TJ1-61 to J12-3 TJ4-30 to J9-37 W201P1-61 to P3-30
41440	TJ3-32 to J9-29 TJ3-73 to J12-6 W201P2-32 to P2-73
41450	TJ3-31 to J9-28 TJ3-72 to J12-6 W201P2-31 to P2-72
41510	TJ3-33 to J9-30 TJ4-84 to J12-6 W201P2-33 to P3-84
41520	TJ3-19 to J9-199 TJ3-30 to J9-27 W201P2-19 to P2-30
41530	TJ2-64 to J9-40 TJ2-114 to J9-210 TJ4-47 to J12-1 TJ4-120 to J9-242 TJ2-2-64 to 114 W201P3-47 to P3-120

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
41540	TJ1-87 to J9-12 TJ1-104 to J11-88 TJ1-114 to J11-89 TJ1-119 to J11-90 TJ4-43 to J9-42 TJ4-45 to J9-44 W201P1-87 to P1-104 W201P1-114 to P3-43 W201P1-119 to P3-45
41550	TJ1-87 to J9-12 TJ1-104 to J11-88 TJ1-114 to J11-89 TJ1-119 to J11-90 TJ4-43 to J9-42 TJ4-45 to J9-44 W201P1-87 to P1-104 W201P1-114 to P3-43 W201P1-119 to P3-45
41610	TJ1-87 to J9-12 TJ1-104 to J11-88 TJ1-114 to J11-89 TJ1-119 to J11-90 TJ4-43 to J9-42 TJ4-45 to J9-44 W201P1-87 to P1-104 W201P1-114 to P3-43 W201P1-119 to P3-45
41620	TJ1-87 to J9-12 TJ1-104 to J11-88 TJ1-114 to J11-89 TJ1-119 to J11-90 TJ4-43 to J9-42 TJ4-45 to J9-44 W201P1-87 to P1-104 W201P1-114 to P3-43 W201P1-119 to P3-45
41710	TJ1-115 to J9-250 TJ2-9 to J6-59 TJ2-61 to J9-24 TJ4-25 to J12-3 TJ4-42 to J11-39 TJ4-121 to J9-247 W201P1-115 to P3-42 FST TJ2-2-9 to 61 W201P3-25 to P3-121

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
41720	TJ1-115 to J9-250 TJ2-10 to J6-60 TJ2-62 to J9-25 TJ4-25 to J12-3 TJ4-42 to J11-39 TJ4-121 to J9-1950 W201P1-115 to P3-42 FST TJ2-2-10 to 62 W201P3-25 to P3-121
41730	TJ1-115 to J9-247 TJ2-20 to J6-68 TJ2-109 to J9-21 TJ4-25 to J12-3 TJ4-42 to J11-39 TJ4-121 to J9-247 W201P1-115 to P3-42 FST TJ2-2-20 to 109 W201P3-25 to P3-121
41740	TJ1-17 to J6-16 TJ1-115 to J9-250 TJ4-25 to J12-3 TJ4-42 to J11-39 TJ4-90 to J9-21 TJ4-121 to J9-247 W201P-17 to P3-90 W201P-115 to P3-42 W201P3-25 to P3-121
41750	TJ1-115 to J9-250 TJ2-1 to J6-5 TJ2-107 to J9-19 TJ4-25 to J12-3 TJ4-42 to J11-39 TJ4-121 to J9-247 W201P1-115 to P3-42 FST TJ2-2-1 to 107 W201P3-25 to P3-121
41810	TJ1-115 to J9-250 TJ2-2 to J6-6 TJ2-108 to J9-26 TJ4-25 to J12-3 TJ4-42 to J11-39 TJ4-121 to J9-247 W201P1-115 to P3-42 FST TJ2-2-2 to 108 W201P3-25 to P3-121

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
41820	TJ1-115 to J9-250 TJ3-44 to J9-22 TJ4-25 to J12-3 TJ4-42 to TB7-39 TJ4-80 to J6-73 TJ4-121 to J9-247 W201P1-115 to P3-42 W201P2-44 to P3-80 W201P3-25 to P3-121
41830	TJ2-11 to J6-61 TJ2-12 to J6-62 TJ2-22 to J12-6 TJ2-55 to J9-22 TJ2-79 to TJ2-81 FST TJ2-2-11 to 55 FST TJ2-2-12 to 81 FST TJ2-2-22 to 79
41910	TJ1-1 to J6-34 TJ1-2 to J6-33 TJ1-18 to J6-45 TJ1-19 to J6-48 W201P1-1 to P1-18 W201P1-2 to P1-19
41920	TJ1-13 to J6-20 TJ1-14 to J6-19 TJ3-36 to J6-54 TJ3-39 to J6-56 W201P1-13 to P2-39 W201P1-14 to P2-36
41930	TJ1-15 to J6-18 TJ1-16 to J6-17 TJ3-37 to J6-56 TJ3-38 to J6-94 W201P1-15 to P2-37 W201P1-16 to P2-38
41940	TJ4-38 to J6-94 TJ4-39 to J6-43 TJ4-67 to J6-21 TJ4-68 to J6-22 W201P3-38 to P3-67 W201P3-39 to P3-68

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
41950	TJ1-27 to J6-50 TJ3-40 to J6-31 TJ3-41 to J6-32 TJ3-43 to J6-101 W210P1-27 to P2-40 W201P2-41 to P2-43
41960	TJ4-40 to J6-100 TJ4-41 to J6-101 TJ4-82 to J6-71 TJ4-83 to J6-74 W201P3-40 to P3-82 W201P3-41 to P3-83
42110	TJ1-29 to J12-6 TJ1-55 to J6-3 TJ1-56 to J6-4 TJ4-15 to J11-55 W201P1-29 to P1-56 W201P1-55 to P3-15
42115	TJ1-29 to J12-6 TJ1-55 to J6-3 TJ1-56 to J6-4 TJ4-15 to J11-55 W201P1-29 to P1-56 W201P1-55 to P3-15
42120	TJ3-14 to J6-29 TJ3-16 to J6-30 TJ4-32 to J12-11 TJ4-107 to J12-6 W201P2-14 to P3-32 W201P2-16 to P3-107
42130	TJ1-23 to J6-11 TJ1-24 to J6-12 TJ3-104 to J12-3 TJ3-11 to J12-1 W201P1-23 to P2-11 W201P1-24 to P2-104
42310	TJ3-3 to J6-41 TJ3-12 to J9-212 W201P2-3 to P2-12

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
42320	TJ3-1 to J6-39 TJ3-2 to J6-40 TJ3-13 to J9-248 TJ3-17 to J9-201 W201P2-1 to P2-17 W201P2-2 to P2-13
42330	TJ4-3 to J6-23 TJ4-108 to J9-203 W201P3-3 to P3-108
42350	TJ2-2 to J6-6 TJ2-108 to J9-26 FST TJ2-2 to 108
42410	TJ4-72 to J6-70 TJ4-111 to J9-206 W201P3-72 to P3-111
42420	TJ4-81 to J6-72 TJ4-112 to J9-207 W201P3-81 to P3-113
42430	TJ4-71 to J6-75 TJ4-110 to J9-205 W201P3-71 to P3-110
42440	TJ4-4 to J6-24 TJ4-109 to J9-204 W201P3-4 to P3-109
42510	TJ1-31 to J9-153 TJ1-32 to J9-89 TJ1-33 to J9-152 TJ1-34 to J9-88 TJ1-35 to J9-151 TJ1-36 to J9-149 TJ1-47 to J9-155 TJ1-48 to J9-92 TJ1-49 to J9-154 TJ1-50 to J9-90 TJ1-51 to J9-91 TJ1-66 to J9-138 TJ1-67 to J9-75 TJ1-68 to J9-137 TJ1-69 to J9-74 TJ1-70 to J9-136 TJ1-71 to J9-73

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
42510 (cont)	TJ1-72 to J9-135 TJ1-73 to J9-72 TJ1-74 to J9-134 TJ1-75 to J9-71 TJ2-25 to J9-144 TJ2-26 to J9-83 TJ2-27 to J9-145 TJ2-28 to J9-84 TJ2-29 to J9-146 TJ2-30 to J9-85 TJ2-31 to J9-86 TJ2-32 to J9-147 TJ2-33 to J9-76 TJ2-34 to J9-139 TJ2-35 to J9-77 TJ2-36 to J9-140 TJ2-37 to J9-78 TJ2-38 to J9-141 TJ2-39 to J9-79 TJ2-40 to J9-80 TJ2-54 to J9-133 TJ2-57 to J9-157 TJ3-48 to J9-94 TJ3-49 to J9-158 TJ3-88 to J9-138 TJ3-89 to J9-150 TJ3-90 to J9-71 W201P1-31 to P1-70 W201P1-32 to P1-71 W201P1-33 to P1-72 W201P1-34 to P1-73 W201P1-35 to P1-74 W201P1-36 to P1-75 W201P1-47 to P1-66 W201P1-48 to P2-90 W201P1-49 to P1-68 W201P1-50 to P1-69 W201P1-51 to P1-67 FST TJ2-2-25 to 33 FST TJ2-2-26 to 34 FST TJ2-2-27 to 35 FST TJ2-2-28 to TJ2-36 FST TJ2-2-29 to 37 FST TJ2-2-30 to 38 FST TJ2-2-31 to 39 FST TJ2-2-32 to 40 FST TJ2-2-54 to 57 W201P2-48 to P2-88 W201P2-49 to P2-89

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
42515	Same as ID 42510.
42520	Same as ID 42510.
42525	Same as ID 42510.
42530	Same as ID 42510.
42535	Same as ID 42510.
42900	TJ2-3 to J6-78 TJ2-41 to J9-142 FST TJ2-2-3 to 41
42905	TJ2-4 to J6-69 TJ2-42 to J9-81 FST TJ2-2-4 to 42
42910	TJ2-5 to J6-15 TJ2-47 to J9-143 FST TJ2-2-5 to 47
42915	TJ2-6 to J6-25 TJ2-48 to J9-82 FST TJ2-2-6 to 48
42920	TJ2-8 to J6-58 TJ2-50 to J9-131 FST TJ2-2-8 to 50
42925	TJ2-15 to J6-65 TJ2-51 to J9-69 FST TJ2-2-15 to 51
42930	TJ2-17 to J6-66 TJ2-52 to J9-132 FST TJ2-2-17 to 52
42935	TJ2-18 to J6-79 TJ2-53 to J9-70 FST TJ2-2-18 to 53
42940	TJ2-19 to J6-67 TJ2-101 to J9-150 FST TJ2-2-19 to 101
42945	TJ2-7 to J6-57 TJ2-102 to J9-134 FST TJ2-2-27 to 102

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
42950	TJ2-3 to J6-78 TJ2-41 to J9-142 FST TJ2-2-3 to 41
42955	TJ2-4 to J6-69 TJ2-42 to J9-81 FST TJ2-2-4 to 42
42960	TJ2-5 to J6-15 TJ2-47 to J9-143 FST TJ2-2-5 to 47
42965	TJ2-6 to J6-25 TJ2-48 to J9-82 FST TJ2-2-6 to 48
42970	TJ2-8 to J6-58 TJ2-50 to J9-131 FST TJ2-2-8 to 50
42975	TJ2-15 to J6-65 TJ2-51 to J9-69 FST TJ2-2-15 to 51
42980	TJ2-17 to J6-66 TJ2-52 to J9-132 FST TJ2-2-17 to 52
42985	TJ2-18 to J6-79 TJ2-53 to J9-70 FST TJ2-2-18 to 53
42990	TJ2-19 to J6-67 TJ2-101 to J9-150 FST TJ2-2-19 to 101
42995	TJ2-7 to J6-57 TJ2-102 to J9-134 FST TJ2-2-7 to 102
43010	TJ2-42 to J9-81 TJ2-47 to J9-143 TJ2-48 to J9-82 TJ2-83 to J9-162 TJ2-84 to J9-163 TJ2-86 to J9-102 TJ2-87 to J9-103 TJ2-89 to J9-165

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
43010 (cont)	TJ2-90 to J9-166 TJ2-93 to J9-96 TJ2-98 to J9-159 TJ2-99 to J9-160 TJ2-100 to J9-161 TJ2-125 to J9-97 TJ2-126 to J9-98 TJ2-127 to J9-99 TJ2-128 to J9-100 FST TJ2-2-42 to 84 FST TJ2-2-47 to 83 FST TJ2-2-48 to 90 FST TJ2-2-86 to 92 FST TJ2-2-87 to 93 FST TJ2-2-89 to 98 FST TJ2-2-92 to 127 FST TJS-2-93 to 128 FST TJ2-2-99 to 126 FST TJ2-2-100 to 125
43015	Same as ID 43010.
43020	Same as ID 43010.
43030	Same as ID 43010.
43035	Same as ID 43010.
43040	Same as ID 43010.
43050	Same as ID 43010.
43055	Same as ID 43010.
43060	Same as ID 43010.
43070	Same as ID 43010.
43075	Same as ID 43010.
43080	Same as ID 43010.
43110	Same as ID 43010.
43115	Same as ID 43010.
43120	Same as ID 43010.
43130	Same as ID 43010.

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
43135	Same as ID 43010.
43140	Same as ID 43010.
43150	Same as ID 43010.
43155	Same as ID 43010.
43160	Same as ID 43010.
43170	Same as ID 43010.
43175	Same as ID 43010.
43180	Same as ID 43010.
43210	TJ3-11 to J9-198 TJ3-57 to J11-51 TJ4-61 to J11-66 TJ4-63 to J11-64 W201P2-11 to P3-63 W201P2-57 to P3-61
43220	TJ3-11 to J9-198 TJ3-57 to J11-51 TJ4-61 to J11-66 TJ4-63 to J11-64 W201P2-11 to P3-63 W201P2-57 to P3-61
43230	TJ3-57 to J11-51 TJ4-18 to J9-196 TJ4-61 to J11-66 TJ4-62 to J11-65 W201P2-57 to P3-61 W201P3-18 to P3-62
43240	TJ3-57 to J11-51 TJ4-18 to J9-196 TJ4-61 to J11-66 TJ4-62 to J11-65 W201P2-57 to P3-61 W201P3-18 to P3-62
43310	TJ1-25 to J6-9 TJ1-26 to J6-10 TJ3-7 to J12-6 TJ3-96 to J3-6

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
43310 (cont)	TJ3-107 to J4-4 TJ3-108 to J4-45 W201P1-25 to P2-107 W201P1-26 to P2-108 W201P2-7 to P2-96
43510	TJ3-7 to J12-6 TJ3-96 to J3-6 TJ3-124 to J4-13 TJ3-125 to J4-45 TJ4-97 to J3-7 TJ4-98 to J3-6 W201P2-7 to P2-96 W201P2-124 to P3-97 W201P2-125 to P3-98
43520	TJ1-7 to J6-28 TJ1-8 to J6-27 TJ1-113 to J3-9 TJ1-121 to J3-8 TJ3-7 to J12-6 TJ3-96 to J3-6 TJ3-124 to J4-13 TJ3-125 to J4-45 TJ4-97 to J3-7 TJ4-98 to J3-6 W201P1-7 to P1-121 W201P1-8 to P1-113 W201P2-7 to P2-96 W201P2-124 to P3-97 W201P2-125 to P3-98
43530	TJ3-7 to J12-6 TJ3-96 to J3-6 TJ3-124 to J4-13 TJ3-125 to J4-45 TJ4-97 to J3-7 TJ4-98 to J3-6 W201P2-7 to P2-96 W201P2-124 to P3-97 W201P2-125 to P3-98
43560	TJ3-7 to J12-6 TJ3-96 to J3-6 TJ3-124 to J4-13 TJ3-125 to J4-45 TJ4-97 to J3-7 TJ4-98 to J3-6

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
43560 (cont)	W201P2-7 to P2-96 W201P2-124 to P3-97 W201P2-125 to P3-98
43910	TJ3-7 to J12-6 TJ3-96 to J3-6 TJ4-36 to J3-22 TJ4-37 to J3-21 TJ4-113 to J4-9 TJ4-114 to J4-46 W201P2-7 to P2-96 W210P3-36 to P3-113 W201P3-37 to P3-114
44210	TJ3-7 to J12-6 TJ3-96 to J3-6 TJ3-103 to J3-4 TJ3-109 to J4-9 TJ3-110 to J4-46 TJ3-112 to J3-56 W201P2-7 to P2-96 W201P2-103 to P2-109 W201P2-110 to P2-112
44230	Same as ID 44210.
44310	Same as ID 44210.
44430	Same as ID 44210.
44610	TJ 4-92 to J6-63 TJ4-93 to J6-64 TJ4-117 to J2-3 TJ4-126 to J2-15 W201P3-92 to P3-117 W201P3-93 to P3-126
44620	TJ1-21 to J6-13 TJ1-22 to J6-14 TJ4-124 to J2-4 TJ4-128 to J2-16 W201P1-21 to P3-124 W201P1-22 to P3-128
44630	TJ1-88 to J2-13 TJ1-89 to J2-15 TJ4-34 to J3-35 TJ4-35 to J3-23 W201P1-88 to P3-34 W201P1-89 to P3-35

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
44640	Same as ID 44630.
44650	Same as ID 44630.
44660	Same as ID 44630.
44720	TJ1-105 to J2-23 TJ1-106 to J2-24 TJ3-105 to J2-63 TJ3-106 to J2-62 TJ2-113 to J2-66 TJ3-114 to J2-67 TJ3-117 to J2-39 TJ3-118 to J2-40 TJ4-119 to J2-15 TJ4-122 to J2-9 TJ4-127 to J2-10 W201P1-105 to P2-117 W201P1-106 to P2-118 W201P2-105 to P3-127 W201P2-106 to P3-123 W201P2-113 to P3-122 W201P2-114 to P3-119
45120	TJ1-59 to J12-6 (open)
45130	TJ2-59 to J12-6 (open)
45140	TJ3-59 to J1-34 TJ3-61 to J1-155 W201P2-59 to P2-61
45150	TJ4-59 to J1-41 TJ4-60 to J1-155 W201P3-59 to P3-60
45220	TJ3-54 to J1-106 TJ3-55 to J1-157 W201P2-54 to P2-55
45320	TJ3-59 to J12-6 (open)
45330	TJ 4-59 to J12-6 (open)
46120	TJ1-59 to J1-28 TJ1-60 to J1-155 W385P1-59 to P1-60

TEST ID NO.	CFM/FST CABLE/ADAPTER WIRING
46140	TJ3-59 to J1-34 TJ3-60 to J1-155 W385P2-59 to P2-60
46530	TJ1-127 to J3-68 TJ1-128 to J3-69 TJ3-109 to J4-9 TJ3-110 to J4-46 W385P1-127 to P2-109 W385P1-128 to P2-110
46630	TJ3-93 to J3-70 TJ3-94 to J3-71 TJ3-107 to J4-4 TJ3-108 to J4-45 W385P2-93 to P2-107 W385P2-94 to P2-108
46730	TJ1-122 to J3-70 TJ1-123 to J3-71 TJ1-124 to J3-11 TJ1-125 to J3-10 W385P1-122 to P1-124 W385P1-123 to P1-125
46830	TJ3-58 to J3-3 TJ3-72 to J12-6 TJ3-112 to J3-56 TJ3-124 to J4-13 TJ3-125 to J4-45 W385P2-58 to P2-124 W385P2-112 to P2-125
60065, 60155, 60185, 60186, 60255, 60355	Front panel J1-1 to 1553 harness P2-1 Front panel J1-2 to 1553 harness P2-8 Front panel J1-3 to 1553 harness P2-2 1553A-W203 J1-1 to P2-inner shield 1553A-W203 J1-2 to P2-outer shield 1553A-W203 J1-3 to P2-inner conductor
60465, 60555, 60585, 60586, 60655, 60755	Front panel J1-4 to 1553 harness P2-3 Front panel J1-5 to 1553 harness P2-4 Front panel J1-6 to 1553 harness P2-10 1553B-W203 J1-4 to P2-inner shield 1553B-W203 J1-5 to P2-inner conductor 1553B-W203 J1-6 to P2-outer shield

CFM AND CFM FST WIRING FAULT ISOLATION TABLE 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
		NOTE All checks listed are for continuity unless otherwise specified.
REPLACE CFM A1		• REPLACE CFM CARD A1 (Refer to WP 0106 00). Retest. If test fails, check CFM wiring harness; CFM FST adapter TJ1, TJ2-1, or TJ2-2; and cable W200, W201, or W385:
	M06000, M06110, M06120, M06130, M06210, M06220, M06230, M06240	• Backplane J1-159 to J19 signal cable P1-10 • Backplane J1-160 to J19 signal cable P1-11
	M31020	• Front panel TJ1-59 to backplane J1-28 • Front panel TJ1-60 to backplane J1-155 • CFM FST adapter TJ1 P1-59 to P1-60
	M31030	• Front panel TJ2-59 to backplane J1-31 • Front panel TJ2-60 to backplane J1-155 • CFM FST adapter TJ2-1 P1-59 to P1-60
	M31040, M40140	• Front panel TJ3-59 to backplane J1-34 • Front panel TJ3-60 or TJ3-61 to backplane J1-15
	M31050, M40150	• Front panel TJ4-59 to backplane J1-41 • Front panel TJ4-60 to backplane J1-155
	M31220, M36440, M36620	• Front panel TJ3-59 to backplane J1-34 • Front panel TJ3-60 to backplane J1-155 • Cable W200 P1-59 to P1-60
	M31230, M36450, M36630	• Front panel TJ4-59 to backplane J1-41 • Front panel TJ4-60 to backplane J1-155 • Cable W200 P2-59 to P2-60
	M36420, M45120	• Front panel TJ1-59 to backplane J1-28 • Front panel TJ1-60 to backplane J1-155
	M36430, M45130	• Front panel TJ2-59 to backplane J1-31 • Front panel TJ2-60 to backplane J1-155
	M40120	• Front panel TJ1-59 to backplane J1-28 • Front panel TJ1-60 to backplane J1-155 • Cable W201 P1-59 to P1-60
	M40130	• Front panel TJ2-59 to backplane J1-31 • Front panel TJ2-61 to backplane J1-155 • CFM FST adapter TJ2-2 P1-59 to P1-61

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A1 (cont)	M40320, M45140	• Front panel TJ3-59 to backplane J1-34 • Front panel TJ3-60 or TJ3-61 to backplane J1-155 • Cable W201 P2-59 to P2-61
	M40330, M45150	• Front panel TJ4-59 to backplane J1-41 • Front panel TJ4-60 to backplane J1-155 • Cable W201 P3-59 to P3-60
	M45320	• Front panel TJ3-59 to backplane J1-34 • Front panel TJ3-60 or TJ3-61 to backplane J1-155 • Cable W201 P2-59 to P2-61
	M45330	• Front panel TJ4-59 to backplane J1-41 • Front panel TJ4-60 to backplane J1-155 • Front panel TJ4-59 to TJ4-60, open
	M46120	• Front panel TJ1-59 to backplane J1-28 • Front panel TJ1-60 to backplane J1-155 • Cable W385 P1-59 to P1-60
	M46140	• Front panel TJ3-59 to backplane J1-34 • Front panel TJ3-60 or TJ3-61 to backplane J1-155 • Cable W385 P2-59 to P2-60
REPLACE CFM A2	M16120, M17120	• Replace CFM card A2 (Refer to WP 0098 00). Retest. If test fails, check CFM wiring harness and cable W200 or W201: • Backplane J2-159 to J19 signal cable P1-10 • Backplane J2-160 to J19 signal cable P1-11
	M35710, M35735, M35750	• Backplane J2-153 to J19 signal cable P1-6 • Backplane J2-154 to J19 signal cable P1-5 • Backplane J2-159 to J19 signal cable P1-10 • Backplane J2-160 to J19 signal cable P1-11 • Front panel TJ3-64 to backplane J6-71 • Front panel TJ3-65 to backplane J6-74 • Front panel TJ3-117 to backplane J2-39 • Front panel TJ3-118 to backplane J2-40 • Cable W200 P1-64 to P1-117 • Cable W200 P1-65 to P1-118
	M36220	• Front panel TJ3-122 to backplane J2-57 • Front panel TJ3-123 to backplane J2-56 • Front panel TJ3-127 to backplane J2-59 • Front panel TJ3-128 to backplane J2-60 • Front panel TJ4-119 to backplane J2-15 • Front panel TJ4-122 to backplane J2-9 • Front panel TJ4-123 to backplane J2-16

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A2 (cont)	M36220 (cont)	• Front panel TJ4-127 to backplane J2-10 • Cable W200 P1-122 to P2-127 • Cable W200 P1-123 to P2-119 • Cable W200 P1-127 to P2-122 • Cable W200 P1-128 to P2-123
	M44720	• Front panel TJ1-105 to backplane J2-23 • Front panel TJ1-106 to backplane J2-24 • Front panel TJ3-105 to backplane J2-63 • Front panel TJ3-106 to backplane J2-62 • Front panel TJ3-113 to backplane J2-66 • Front panel TJ3-114 to backplane J2-67 • Front panel TJ3-117 to backplane J2-39 • Front panel TJ3-118 to backplane J2-40 • Front panel TJ4-119 to backplane J2-15 • Front panel TJ4-122 to backplane J2-9 • Front panel TJ4-123 to backplane J2-16 • Front panel TJ4-127 to backplane J2-10 • Cable W201 P1-105 to P2-117 • Cable W201 P1-106 to P2-118 • Cable W201 P2-105 to P3-127 • Cable W201 P2-106 to P3-123 • Cable W201 P2-113 to P3-122 • Cable W201 P2-114 to P3-119
REPLACE CFM A3	M15110, M15130, M15310, M15330, M15410, M15430, M15510, M15530, M15610, M15630	• Replace CFM card A3 (Refer to WP 0098 00). Retest. If test fails, check CFM wiring harness and cable W200 or W201: • Backplane J3-159 to J19 signal cable P1-10 • Backplane J3-160 to J19 signal cable P1-11
	M34540, M34550, M34610, M34620, M34710, M34720, M34740	• Front panel TJ3-73 to J20 power cable P1-6 • Front panel TJ3-96 to backplane J3-6 • Front panel TJ3-125 to backplane J4-45 • Front panel TJ4-94 to backplane J3-16 • Front panel TJ4-95 to backplane J3-15 • Front panel TJ4-98 to backplane J3-6 • Front panel TJ4-105 to backplane J4-4 • Front panel TJ4-106 to backplane J4-45 • Cable W200 P1-73 to P2-98 • Cable W200 P1-96 to P1-125 • Cable W200 P2-94 to P2-105 • Cable W200 P2-95 to P2-106
	M35110, M35130, M35210, M35230	• Front panel TJ3-21 to backplane J3-13 • Front panel TJ3-22 to backplane J3-12 • Front panel TJ3-62 to backplane J6-72

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A3 (cont)	M35110, M35130, M35210, M35230 (cont)	• Front panel TJ3-63 to backplane J6-73 • Front panel TJ3-73 to J20 power cable P1-6 • Front panel TJ3-96 to backplane J3-6 • Front panel TJ3-109 to backplane J4-9 • Front panel TJ3-110 to backplane J4-46 • Front panel TJ3-125 to backplane J4-45 • Front panel TJ4-69 to backplane J3-5 • Front panel TJ4-70 to backplane J3-58 • Front panel TJ4-80 to backplane J6-73 • Front panel TJ4-81 to backplane J6-72 • Front panel TJ4-98 to backplane J3-6 • Front panel TJ4-101 to backplane J3-13 • Front panel TJ4-102 to backplane J3-12 • Cable W200 P1-21 to P1-109 • Cable W200 P1-22 to P1-110 • Cable W200 P1-62 to P2-102 • Cable W200 P1-63 to P2-101 • Cable W200 P1-73 to P2-98 • Cable W200 P1-96 to P1-125 • Cable W200 P2-69 to P2-80 • Cable W200 P2-70 to P2-81
	M43530, M43560	• Front panel TJ3-7 to J20 power cable P1-6 • Front panel TJ3-96 to backplane J3-6 • Front panel TJ3-124 to backplane J4-13 • Front panel TJ3-125 to backplane J4-45 • Front panel TJ4-97 to backplane J3-7 • Front panel TJ4-98 to backplane J3-6 • Cable W201 P2-7 to P2-96 • Cable W201 P2-124 to P3-97 • Cable W201 P2-125 to P3-98
	M43910	• Front panel TJ3-7 to J20 power cable P1-6 • Front panel TJ3-96 to backplane J3-6 • Front panel TJ3-125 to backplane J4-45 • Front panel TJ4-36 to backplane J3-22 • Front panel TJ4-37 to backplane J3-21 • Front panel TJ4-98 to backplane J3-6 • Front panel TJ4-113 to backplane J4-9 • Front panel TJ4-114 to backplane J4-46 • Cable W201 P2-7 to P2-96 • Cable W201 P2-125 to P3-98 • Cable W201 P3-36 to P3-113 • Cable W201 P3-37 to P3-114

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A3 (cont)	M44210, M44230, M44310, M44430	• Front panel TJ3-7 to J20 power cable P1-6 • Front panel TJ3-96 to backplane J3-6 • Front panel TJ3-103 to backplane J3-4 • Front panel TJ3-109 to backplane J4-9 • Front panel TJ3-110 to backplane J4-46 • Front panel TJ3-112 to backplane J3-56 • Front panel TJ3-125 to backplane J4-45 • Front panel TJ4-98 to backplane J3-6 • Cable W201 P2-7 to P2-96 • Cable W201 P2-103 to P2-109 • Cable W201 P2-110 to P2-112 • Cable W201 P2-125 to P3-98
	M44630, M44640, M44650, M44660	• Front panel TJ1-88 to backplane J2-13 • Front panel TJ1-89 to backplane J2-15 • Front panel TJ4-34 to backplane J3-35 • Front panel TJ4-35 to backplane J3-23 • Cable W201 P1-88 to P3-34 • Cable W201 P1-89 to P3-35
	M46530	• Front panel TJ1-127 to backplane J3-68 • Front panel TJ1-128 to backplane J3-69 • Front panel TJ3-109 to backplane J4-9 • Front panel TJ3-110 to backplane J4-46 • Cable W385 P1-127 to P2-109 • Cable W385 P1-128 to P2-110
	M46630	• Front panel TJ3-93 to backplane J3-70 • Front panel TJ3-94 to backplane J3-71 • Front panel TJ3-107 to backplane J4-4 • Front panel TJ3-108 to backplane J4-45 • Cable W385 P2-93 to P2-107 • Cable W385 P2-94 to P2-108
	M46730	• Front panel TJ1-122 to backplane J3-70 • Front panel TJ1-123 to backplane J3-71 • Front panel TJ1-124 to backplane J3-11 • Front panel TJ1-125 to backplane J3-10 • Cable W385 P1-122 to P2-124 • Cable W385 P1-123 to P2-125
	M46830	• Front panel TJ3-58 to backplane J3-3 • Front panel TJ3-72 to J20 power cable P1-6 • Front panel TJ3-112 to backplane J3-56 • Front panel TJ3-124 to backplane J4-13 • Front panel TJ3-125 to backplane J4-45 • Cable W385 P2-58 to P2-124 • Cable W385 P2-112 to P2-125

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A4	M14510, M14520, M14530, M14610, M14615, M14620, M14625, M14630, M14635, M14640, M14645, M14650, M15030, M15040, M15045, M15055, M15065, M15070	• Replace CFM card A4 (Refer to WP 0098 00). Retest. If test fails, check CFM wiring harness: • Backplane J4-159 to J19 signal cable P1-10 • Backplane J4-160 to J19 signal cable P1-11
REPLACE CFM A6	M13120, M13220, M13320, M13420, M13520, M13620, M13720, M13820, M13920, M14020, M14120, M14220, M14320, M14420	• Replace CFM card A6 (Refer to WP 0098 00). Retest. If test fails, check CFM wiring harness, CFM FST adapter TJ1, TJ2-1, or TJ2-2, and cable W200 or W201: • Backplane J6-159 to J19 signal cable P1-10 • Backplane J6-160 to J19 signal cable P1-11
	M33110	• Front panel TJ2-17 to backplane J6-66 • Front panel TJ2-18 to backplane J6-79 • Front panel TJ2-76 to backplane J6-105 • Front panel TJ2-77 to backplane J6-104 • CFM FST adapter TJ2-1 P1-17 to P1-76 • CFM FST adapter TJ2-1 P1-18 to P1-77
	M33120	• Front panel TJ2-21 to backplane J6-77 • Front panel TJ2-75 to backplane J6-96 • Front panel TJ2-78 to backplane J6-98 • Front panel TJ2-106 to backplane J6-35 • CFM FST adapter TJ2-1 P1-21 to P1-75 • CFM FST adapter TJ2-1 P1-78 to P1-106
	M33130	• Front panel TJ2-13 to backplane J6-63 • Front panel TJ2-14 to backplane J6-64 • Front panel TJ2-71 to backplane J6-45 • Front panel TJ2-72 to backplane J6-46 • CFM FST adapter TJ2-1 P1-13 to P1-71 • CFM FST adapter TJ2-1 P1-14 to P1-72
	M33210	• Front panel TJ1-5 to backplane J6-30 • Front panel TJ1-96 to TJ1-5 • CFM FST adapter TJ1 P1-5 to P1-96

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A6 (cont)	M33410	• Front panel TJ2-3 to backplane J6-78 • Front panel TJ2-73 to backplane J6-50 • Front panel TJ2-79 to TJ2-80, TJ2-81 • CFM FST adapter TJ2-1 P1-3 to P1-94 • CFM FST adapter TJ2-1 P1-73 to P1-79
	M34520	• Front panel TJ3-23 to backplane J3-16 • Front panel TJ3-24 to backplane J3-15 • Front panel TJ3-73 to J20 power cable P1-6 • Front panel TJ3-96 to backplane J3-6 • Front panel TJ3-125 to backplane J4-45 • Front panel TJ4-1 to backplane J6-3 • Front panel TJ4-2 to backplane J6-4 • Front panel TJ4-94 to backplane J3-16 • Front panel TJ4-95 to backplane J3-15 • Front panel TJ4-98 to backplane J3-6 • Front panel TJ4-105 to backplane J4-4 • Front panel TJ4-106 to backplane J4-45 • Cable W200 P1-23 to P2-1 • Cable W200 P1-24 to P2-2 • Cable W200 P1-73 to P2-98 • Cable W200 P1-96 to P1-125 • Cable W200 P2-94 to P2-105 • Cable W200 P2-95 to P2-106
	M34920	• Front panel TJ3-62 to backplane J6-72 • Front panel TJ3-63 to backplane J6-73 • Front panel TJ4-11 to backplane J6-19 • Front panel TJ4-12 to backplane J6-20 • Front panel TJ4-101 to backplane J3-13 • Front panel TJ4-102 to backplane J3-12 • Front panel TJ4-113 to backplane J4-9 • Front panel TJ4-114 to backplane J4-46 • Cable W200 P1-62 to P2-102 • Cable W200 P1-63 to P2-101 • Cable W200 P2-11 to P2-113 • Cable W200 P2-12 to P2-114
	M34930	• Front panel TJ3-73 to J20 power cable P1-6 • Front panel TJ3-96 to backplane J3-6 • Front panel TJ3-125 to backplane J4-45 • Front panel TJ4-11 to backplane J6-19 • Front panel TJ4-12 to backplane J6-20 • Front panel TJ4-98 to backplane J3-6 • Front panel TJ4-113 to backplane J4-9 • Front panel TJ4-114 to backplane J4-46

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A6 (cont)	M34930 (cont)	• Cable W200 P1-73 to P2-98 • Cable W200 P1-96 to P1-125 • Cable W200 P2-11 to P2-113 • Cable W200 P2-12 to P2-114
	M41830	• Front panel TJ2-11 to backplane J6-61 • Front panel TJ2-12 to backplane J6-62 • Front panel TJ2-22 to J20 power cable P1-6 • Front panel TJ2-55 to backplane J8-21 • Front panel TJ2-79 to TJ2-80, TJ2-81 • CFM FST adapter TJ2-2 P1-11 to P1-55 • CFM FST adapter TJ2-2 P1-12 to P1-81 • CFM FST adapter TJ2-2 P1-22 to P1-79
	M41910	• Front panel TJ1-1 to backplane J6-34 • Front panel TJ1-2 to backplane J6-33 • Front panel TJ1-18 to backplane J6-45 • Front panel TJ1-19 to backplane J6-48 • Cable W201 P1-1 to P1-18 • Cable W201 P1-2 to P1-19
	M41920	• Front panel TJ1-13 to backplane J6-20 • Front panel TJ1-14 to backplane J6-19 • Front panel TJ3-36 to backplane J6-54 • Front panel TJ3-39 to backplane J6-56 • Cable W201 P1-13 to P2-39 • Cable W201 P1-14 to P2-36
	M41930	• Front panel TJ1-15 to backplane J6-18 • Front panel TJ1-16 to backplane J6-17 • Front panel TJ3-37 to backplane J6-56 • Front panel TJ3-38 to backplane J6-94 • Cable W201 P1-15 to P2-37 • Cable W201 P1-16 to P2-38
	M41940	• Front panel TJ4-38 to backplane J6-94 • Front panel TJ4-39 to backplane J6-43 • Front panel TJ4-67 to backplane J6-21 • Front panel TJ4-68 to backplane J6-22 • Cable W201 P3-38 to P3-67 • Cable W201 P3-39 to P3-68
	M41950	• Front panel TJ1-27 to backplane J6-50 • Front panel TJ3-40 to backplane J6-31 • Front panel TJ3-41 to backplane J6-32 • Front panel TJ3-43 to backplane J6-101

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A6 (cont)	M41950 (cont)	• Cable W201 P1-27 to P2-40 • Cable W201 P2-41 to P2-43
	M41960	• Front panel TJ4-40 to backplane J6-100 • Front panel TJ4-41 to backplane J6-101 • Front panel TJ4-82 to backplane J6-71 • Front panel TJ4-83 to backplane J6-74 • Cable W201 P3-40 to P3-82 • Cable W201 P3-41 to P3-83
	M42120	• Front panel TJ3-14 to backplane J6-50 • Front panel TJ3-16 to backplane J6-31 • Front panel TJ4-32 to J20 power cable P1-11 • Front panel TJ4-107 to J20 power cable P1-6 • Cable W201 P2-14 to P3-32 • Cable W201 P2-16 to P3-107
	M42130	• Front panel TJ1-23 to backplane J6-11 • Front panel TJ1-24 to backplane J6-12 • Front panel TJ3-104 to backplane J2-106 • Front panel TJ3-111 to termination board J1-96 • Cable W201 P1-23 to P2-111 • Cable W201 P1-24 to P2-104
	M42900, M42950	• Front panel TJ2-3 to backplane J6-78 • Front panel TJ2-41 to backplane J7-28 • CFM FST adapter TJ2-2 P1-3 to P1-41
	M42905, M42955	• Front panel TJ2-4 to backplane J6-69 • Front panel TJ2-42 to backplane J7-29 • CFM FST adapter TJ2-2 P1-4 to P1-42
	M42910, M42960	• Front panel TJ2-5 to backplane J6-15 • Front panel TJ2-47 to backplane J7-30 • CFM FST adapter TJ2-2 P1-5 to P1-47
	M42915, M42965	• Front panel TJ2-6 to backplane J6-25 • Front panel TJ2-48 to backplane J7-31 • CFM FST adapter TJ2-2 P1-6 to P1-48
	M42920, M42970	• Front panel TJ2-8 to backplane J6-58 • Front panel TJ2-50 to backplane J7-4 • CFM FST adapter TJ2-2 P1-8 to P1-50
	M42925, M42975	• Front panel TJ2-15 to backplane J6-65 • Front panel TJ2-51 to backplane J7-5 • CFM FST adapter TJ2-2 P1-15 to P1-51

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A6 (cont)	M42940, M42990	• Front panel TJ2-19 to backplane J6-67 • Front panel TJ2-101 to backplane J7-54 • CFM FST adapter TJ2-2 P1-19 to P1-101
	M42945, M42995	• Front panel TJ2-7 to backplane J6-57 • Front panel TJ2-102 to backplane J7-10 • CFM FST adapter TJ2-2 P1-7 to P1-102
REPLACE CFM A7	M12220, M12320, M12420, M12520	• Replace CFM card A7 (Refer to WP 0098 00). Retest. If test fails, check CFM wiring harness, CFM FST adapter TJ1, TJ2-1, or TJ2-2, and cable W200 or W201: • Backplane J7-159 to J19 signal cable P1-10 • Backplane J7-160 to J19 signal cable P1-11
	M33905	• Front panel TJ1-37 to backplane J7-49 • Front panel TJ1-38 to backplane J7-48 • Frontpanel TJ1-39 to backplane J7-46 • Front panel TJ1-40 to backplane J7-45 • Front panel TJ1-41 to backplane J7-43 • Front panel TJ1-42 to backplane J7-42 • Front panel TJ1-43 to backplane J7-41 • Front panel TJ1-44 to backplane J7-40 • Front panel TJ1-45 to backplane J7-39 • Front panel TJ1-46 to backplane J7-38 • Front panel TJ1-66 to backplane J7-18 • Front panel TJ1-67 to backplane J7-17 • Front panel TJ1-68 to backplane J7-16 • Front panel TJ1-69 to backplane J7-15 • Front panel TJ1-70 to backplane J7-14 • Front panel TJ1-71 to backplane J7-13 • Front panel TJ1-72 to backplane J7-12 • Front panel TJ1-73 to backplane J7-11 • Front panel TJ1-74 to backplane J7-10 • Front panel TJ1-75 to backplane J7-9 • CFM FST adapter TJ1 P1-37 to P1-66 • CFM FST adapter TJ1 P1-38 to P1-67 • CFM FST adapter TJ1 P1-39 to P1-68 • CFM FST adapter TJ1 P1-40 to P1-69 • CFM FST adapter TJ1 P1-41 to P1-70 • CFM FST adapter TJ1 P1-42 to P1-71 • CFM FST adapter TJ1 P1-43 to P1-72 • CFM FST adapter TJ1 P1-44 to P1-73 • CFM FST adapter TJ1 P1-45 to P1-74 • CFM FST adapter TJ1 P1-46 to P1-75
	M33910	• Front panel TJ2-49 to backplane J7-3 • Front panel TJ2-57 to backplane J7-70

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A7 (cont)	M33910 (cont)	• Front panel TJ3-45 to backplane J7-67 • Front panel TJ3-46 to backplane J7-68 • Front panel TJ3-47 to backplane J7-71 • Front panel TJ3-48 to backplane J7-69 • Front panel TJ3-49 to backplane J7-72 • Front panel TJ3-90 to backplane J7-9 • Front panel TJ3-91 to backplane J7-10 • Front panel TJ4-21 to backplane J7-11 • Front panel TJ4-22 to backplane J7-12 • Front panel TJ4-23 to backplane J7-13 • CFM FST adapter TJ2-1 P1-49 to P1-57 • Cable W200 P1-45 to P1-90 • Cable W200 P1-46 to P1-91 • Cable W200 P1-47 to P2-21 • Cable W200 P1-48 to P2-22 • Cable W200 P1-49 to P2-23
	M33915	• Front panel TJ1-37 to backplane J7-49 • Front panel TJ1-38 to backplane J7-48 • Front panel TJ1-39 to backplane J7-46 • Front panel TJ1-40 to backplane J7-45 • Front panel TJ1-41 to backplane J7-43 • Front panel TJ1-42 to backplane J7-42 • Front panel TJ1-43 to backplane J7-41 • Front panel TJ1-44 to backplane J7-40 • Front panel TJ1-45 to backplane J7-39 • Front panel TJ1-46 to backplane J7-38 • Front panel TJ1-66 to backplane J7-18 • Front panel TJ1-67 to backplane J7-17 • Front panel TJ1-68 to backplane J7-16 • Front panel TJ1-69 to backplane J7-15 • Front panel TJ1-70 to backplane J7-14 • Front panel TJ1-71 to backplane J7-13 • Front panel TJ1-72 to backplane J7-12 • Front panel TJ1-73 to backplane J7-11 • Front panel TJ1-74 to backplane J7-10 • Front panel TJ1-75 to backplane J7-9 • CFM FST adapter TJ1 P1-37 to P1-66 • CFM FST adapter TJ1 P1-38 to P1-67 • CFM FST adapter TJ1 P1-39 to P1-68 • CFM FST adapter TJ1 P1-40 to P1-69 • CFM FST adapter TJ1 P4-41 to P1-70 • CFM FST adapter TJ1 P1-42 to P1-71 • CFM FST adapter TJ1 P1-43 to P1-72 • CFM FST adapter TJ1 P1-44 to P1-73 • CFM FST adapter TJ1 P1-45 to P1-74 • CFM FST adapter TJ1 P1-46 to P1-75

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A7 (cont)	M33920, M33925, M33930	• Front panel TJ2-49 to backplane J7-3 • Front panel TJ2-57 to backplane J7-70 • Front panel TJ3-45 to backplane J7-67 • Front panel TJ3-46 to backplane J7-68 • Front panel TJ3-47 to backplane J7-71 • Front panel TJ3-48 to backplane J7-69 • Front panel TJ3-49 to backplane J7-72 • Front panel TJ3-90 to backplane J7-9 • Front panel TJ3-91 to backplane J7-10 • Front panel TJ4-21 to backplane J7-11 • Front panel TJ4-22 to backplane J7-12 • Front panel TJ4-23 to backplane J7-13 • CFM FST adapter TJ2-1 P1-49 to P1-57 • Cable W200 P1-45 to P1-90 • Cable W200 P1-46 to P1-91 • Cable W200 P1-47 to P2-21 • Cable W200 P1-48 to P2-22 • Cable W200 P1-49 to P2-23
	M42510, M42515, M42520, M42525, M42530, M42535	• Front panel TJ1-31 to backplane J7-60 • Front panel TJ1-32 to backplane J7-59 • Front panel TJ1-33 to backplane J7-58 • Front panel TJ1-34 to backplane J7-57 • Front panel TJ1-35 to backplane J7-56 • Front panel TJ1-36 to backplane J7-50 • Front panel TJ1-47 to backplane J7-64 • Front panel TJ1-48 to backplane J7-65 • Front panel TJ1-49 to backplane J7-62 • Front panel TJ1-50 to backplane J7-61 • Front panel TJ1-51 to backplane J7-63 • Front panel TJ1-66 to backplane J7-18 • Front panel TJ1-67 to backplane J7-17 • Front panel TJ1-68 to backplane J7-16 • Front panel TJ1-69 to backplane J7-15 • Front panel TJ1-70 to backplane J7-14 • Front panel TJ1-71 to backplane J7-13 • Front panel TJ1-72 to backplane J7-12 • Front panel TJ1-73 to backplane J7-11 • Front panel TJ1-74 to backplane J7-10 • Front panel TJ1-75 to backplane J7-9 • Front panel TJ2-25 to backplane J7-38 • Front panel TJ2-26 to backplane J7-39 • Front panel TJ2-27 to backplane J7-40 • Front panel TJ2-28 to backplane J7-41 • Front panel TJ2-29 to backplane J7-42 • Front panel TJ2-30 to backplane J7-43 • Front panel TJ2-31 to backplane J7-45

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A7 (cont)	M42510, M42515, M42520, M42525, M42530, M42535 (cont)	• Front panel TJ2-32 to backplane J7-46 • Front panel TJ2-33 to backplane J7-19 • Front panel TJ2-34 to backplane J7-20 • Front panel TJ2-35 to backplane J7-21 • Front panel TJ2-36 to backplane J7-22 • Front panel TJ2-37 to backplane J7-23 • Front panel TJ2-38 to backplane J7-24 • Front panel TJ2-39 to backplane J7-25 • Front panel TJ2-40 to backplane J7-27 • Front panel TJ2-54 to backplane J7-8 • Front panel TJ2-57 to backplane J7-70 • Front panel TJ3-48 to backplane J7-69 • Front panel TJ3-49 to backplane J7-72 • Front panel TJ3-88 to backplane J7-18 • Front panel TJ3-89 to backplane J7-54 • Front panel TJ3-90 to backplane J7-9 • Cable W201 P1-31 to P1-70 • Cable W201 P1-32 to P1-71 • Cable W201 P1-33 to P1-72 • Cable W201 P1-34 to P1-73 • Cable W201 P1-35 to P1-74 • Cable W201 P1-36 to P1-75 • Cable W201 P1-47 to P1-66 • Cable W201 P1-48 to P2-90 • Cable W201 P1-49 to P1-68 • Cable W201 P1-50 to P1-69 • Cable W201 P1-51 to P1-67 • Cable W201 P2-48 to P2-88 • Cable W201 P2-49 to P2-89 • CFM FST adapter TJ2-2 P1-25 to P1-33 • CFM FST adapter TJ2-2 P1-26 to P1-34 • CFM FST adapter TJ2-2 P1-27 to P1-35 • CFM FST adapter TJ2-2 P1-28 to P1-36 • CFM FST adapter TJ2-2 P1-29 to P1-37 • CFM FST adapter TJ2-2 P1-30 to P1-38 • CFM FST adapter TJ2-2 P1-31 to P1-39 • CFM FST adapter TJ2-2 P1-32 to P1-40 • CFM FST adapter TJ2-2 P1-54 to P1-57
	M43010, M43015, M43020, M43030, M43035, M43040, M43050, M43055, M43060, M43070, M43075, M43080, M43110, M43115,	• Front panel TJ2-42 to backplane J7-29 • Front panel TJ2-47 to backplane J7-30 • Front panel TJ2-48 to backplane J7-31 • Front panel TJ2-83 to backplane J7-79 • Front panel TJ2-84 to backplane J7-80 • Front panel TJ2-86 to backplane J7-77 • Front panel TJ2-87 to backplane J7-78

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A7 (cont)	M43120, M43130, M43135, M43140, M43150, M43155, M43160, M43170, M43175, M43180	• Front panel TJ2-89 to backplane J7-100 • Front panel TJ2-90 to backplane J7-101 • Front panel TJ2-92 to backplane J7-51 • Front panel TJ2-93 to backplane J7-105 • Front panel TJ2-98 to backplane J7-98 • Front panel TJ2-99 to backplane J7-104 • Front panel TJ2-100 to backplane J7-134 • Front panel TJ2-125 to backplane J7-32 • Front panel TJ2-126 to backplane J7-33 • Front panel TJ2-127 to backplane J7-34 • Front panel TJ2-128 to backplane J7-35 • CFM FST adapter TJ2-2 P1-42 to P1-84 • CFM FST adapter TJ2-2 P1-47 to P1-83 • CFM FST adapter TJ2-2 P1-48 to P1-90 • CFM FST adapter TJ2-2 P1-86 to P1-92, P1-127 • CFM FST adapter TJ2-2 P1-87 to P1-93, P1-128 • CFM FST adapter TJ2-2 P1-89 to P1-98 • CFM FST adapter TJ2-2 P1-99 to P1-126 • CFM FST adapter TJ2-2 P1-100 to P1-125
REPLACE CFM A8	M11420, M11520, M11620, M11720, M11820, M11920	• Replace CFM card A8 (Refer to WP 0098 00). Retest. If test fails, check CFM wiring harness; CFM FST adapter TJ1, TJ2-1, or TJ2-2; and cable W200 or W201: • Backplane J8-159 to J19 signal cable P1-10 • Backplane J8-160 to J19 signal cable P1-11
	M31025	• Front panel TJ1-29 to J20 power cable P1-6 • Front panel TJ1-86 to backplane J8-10 • CFM FST adapter TJ1 P1-29 to P1-86
	M31035	• Front panel TJ2-22 to J20 power cable P1-6 • Front panel TJ2-45 to backplane J8-14 • CFM FST adapter TJ2-1 P1-22 to P1-45
	M32140	• Front panel TJ1-20 to J20 power cable P1-6 • Front panel TJ1-87 to backplane J8-11 • CFM FST adapter TJ1 P1-20 to P1-87
	M32210	• Front panel TJ1-58 to J20 power cable P1-6 • Front panel TJ1-85 to backplane J8-9 • CFM FST adapter TJ1 P1-58 to P1-85
	M32220	• Front panel TJ1-84 to backplane J8-8 • Front panel TJ1-94 to J20 power cable P1-6 • CFM FST adapter TJ1 P1-48 to P1-94

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A8 (cont)	M32230	• Front panel TJ1-83 to backplane J8-7 • Front panel TJ1-118 to J20 power cable P1-6 • CFM FST adapter TJ1 P1-83 to P1-118
	M32250	• Front panel TJ2-46 to backplane J8-16 • Front panel TJ2-58 to J20 power cable P1-6 • CFM FST adapter TJ2-1 P1-46 to P1-58
	M32310	• Front panel J3-7 to J20 power cable P1-6 • Frontpanel TJ3-28 to backplane J8-20 • Cable W200 P1-7 to P1-28
	M32320	• Front panel TJ3-29 to backplane J8-25 • Front panel TJ3-35 to J20 power cable P1-6 • Cable W200 P1-29 to P1-35
	M32330	• Front panel TJ3-30 to backplane J8-25 • Front panel TJ3-66 to J20 power cable P1-6 • Cable W200 P1-30 to P1-66
	M32340	• Front panel TJ4-16 to J20 power cable P1-6 • Front panel TJ4-27 to backplane J8-35 • Cable W200 P2-16 to P2-27
	M32350	• Front panel TJ4-28 to backplane J8-38 • Front panel TJ4-33 to J20 power cable P1-6 • Cable W200 P2-28 to P2-33
	M32410	• Front panel TJ4-29 to backplane J8-39 • Front panel TJ4-48 to J20 power cable P1-6 • Cable W200 P2-29 to P2-48
	M32420	• Front panel TJ4-30 to backplane J8-40 • Front panel TJ4-74 to J20 power cable P1-6 • Cable W200 P2-30 to P2-74
	M32430	• Front panel TJ4-91 to backplane J8-21 • Front panel TJ4-100 to J20 power cable P1-6 • Cable W200 P2-91 to P2-100
	M32440	• Front panel TJ4-96 to backplane J8-42 • Front panel TJ4-103 to J20 power cable P1-6 • Cable W200 P2-96 to P2-103
	M32450	• Front panel TJ2-56 to backplane J8-22 • Front panel TJ2-105 to J20 power cable P1-6 • CFM FST adapter TJ2-1 P1-56 to P1-105

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A8 (cont)	M32510	• Front panel TJ3-20 to J20 power cable P1-6 • Front panel TJ3-33 to backplane J8-30 • Cable W200 P1-20 to P1-33
	M41350	• Front panel TJ1-79 to backplane J8-3 • Front panel TJ1-99 to termination board J1-45 • Cable W201 P1-79 to P1-99
	M41430	• Front panel TJ1-61 to termination board J1-95 • Front panel TJ4-30 to backplane J8-40 • Cable W201 P1-61 to P3-30
	M41440	• Front panel TJ3-32 to backplane J8-29 • Front panel TJ3-73 to J20 power cable P1-6 • Cable W201 P2-32 to P2-73
	M41450	• Front panel TJ3-31 to backplane J8-28 • Front panel TJ3-72 to J20 power cable P1-6 • Cable W201 P2-31 to P2-72
	M41510	• Front panel TJ3-33 to backplane J8-30 • Front panel TJ4-84 to J20 power cable P1-6 • Cable W201 P2-33 to P3-84
	M41750	• Front panel TJ2-1 to backplane J6-5 • Front panel TJ2-107 to backplane J8-18 • CFM FST adapter TJ2-2 P1-1 to P1-107
	M41810	• Front panel TJ2-2 to backplane J6-6 • Front panel TJ2-108 to backplane J8-25 • CFM FST adapter TJ2-2 P1-2 to P1-108
REPLACE CFM A10	M11020, M11120, M11220, M11320	• Replace CFM card A10 (Refer to WP 0098 00). Retest. If test fails, check CFM wiring harness and cable W201: • Backplane J10-159 to J19 signal cable P1-10 • Backplane J10-160 to J19 signal cable P1-11
	M42310	• Front panel TJ3-3 to backplane J6-41 • Front panel TJ3-12 to backplane J10-23 • Cable W201 P2-3 to P2-12
	M42320	• Front panel TJ3-1 to backplane J6-39 • Front panel TJ3-2 to backplane J6-40 • Front panel TJ3-13 to backplane J10-51 • Front panel TJ3-17 to backplane J10-11 • Cable W201 P2-1 to P2-17 • Cable W201 P2-2 to P2-13

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM A10 (cont)	M42330	• Front panel TJ4-3 to backplane J6-23 • Front panel TJ4-108 to backplane J10-13 • Cable W201 P3-3 to P3-108
	M42420	• Front panel TJ4-81 to backplane J6-72 • Front panel TJ4-112 to backplane J10-17 • Cable W201 P3-81 to P3-112
	M42430	• Front panel TJ4-71 to backplane J6-75 • Front panel TJ4-110 to backplane J10-15 • Cable W201 P3-71 to P3-110
	M42440	• Front panel TJ4-4 to backplane J6-24 • Front panel TJ4-109 to backplane J10-14 • Cable W201 P3-4 to P3-109
FAULTY HARNESS	M33220	• Front panel TJ1-6 to backplane J6-29 • Front panel TJ1-97 to TJ1-6 • CFM FST adapter TJ1 P1-6 to P1-97
	M33230	• Front panel TJ1-7 to backplane J6-28 • Front panel TJ1-95 to TJ1-96, TJ1-97, TJ1-98 • Front panel TJ1-100 to TJ1-101, TJ1-102, TJ1-103 • CFM FST adapter TJ1 P1-7 to P1-101 • CFM FST adapter TJ1 P1-98 to P1-100
	M33240	• Front panel TJ1-8 to backplane J6-27 • Front panel TJ1-100 to TJ1-101, TJ1-102, TJ1-103 • CFM FST adapter TJ1 P1-8 to P1-102
	M33250	• Front panel TJ1-9 to backplane J6-24 • Front panel TJ1-62 to TJ1-63, TJ1-64, TJ1-65 • Front panel TJ1-100 to TJ1-101, TJ1-102, TJ1-103 • CFM FST adapter TJ1 P1-9 to P1-63 • CFM FST adapter TJ1 P1-62 to P1-103
	M33310	• Front panel TJ1-10 to backplane J6-23 • Front panel TJ1-62 to TJ1-63, TJ1-64, TJ1-65 • CFM FST adapter TJ1 P1-10 to P1-64
	M33320	• Front panel TJ1-22 to backplane J6-14 • Front panel TJ1-62 to TJ1-63, TJ1-64, TJ1-65 • CFM FST adapter TJ1 P1-22 to P1-65
	M33330	• Front panel TJ3-1 to backplane J6-39 • Front panel TJ4-3 to backplane J6-23 • Cable W200 P1-1 to P2-3

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
FAULTY HARNESS (cont)	M33340	• Front panel TJ3-2 to backplane J6-40 • Front panel TJ4-4 to backplane J6-24 • Cable W200 P1-2 to P2-4
	M33420	• Front panel TJ2-15 to backplane J6-65 • Front panel TJ2-16 to backplane J6-80 • Front panel TJ2-74 to backplane J6-101 • Front panel to TJ2-79, TJ2-80, TJ2-81 • CFM FST adapter TJ2-1 P1-15 to P1-81 • CFM FST adapter TJ2-1 P1-16 to P1-74
	M33520	• Front panel TJ1-28 to backplane J6-51 • Front panel TJ1-117 to backplane J6-35 • Front panel TJ3-4 to backplane J6-42 • Front panel TJ3-42 to backplane J6-100 • Front panel TJ3-67 to TJ3-68, TJ3-69, TJ3-70 • CFM FST adapter TJ1 P1-28 to P1-117 • Cable W200 P1-4 to P1-69 • Cable W200 P1-42 to P1-67
	M33530	• Front panel TJ1-28 to backplane J6-51 • Front panel TJ1-117 to backplane J6-35 • Front panel TJ3-5 to backplane J6-33 • Front panel TJ3-67 to TJ3-68, TJ3-69, TJ3-70 • Front panel TJ3-74 to TJ3-75, TJ3-76 • CFM FST adapter TJ1 P1-28 to P1-117 • Cable W200 P1-5 to P1-75 • Cable W200 P1-70 to P1-74
	M33540	• Front panel TJ1-28 to backplane J6-51 • Front panel TJ1-117 to backplane J6-35 • Front panel TJ3-6 to backplane J6-34 • Front panel TJ3-74 to TJ3-75, TJ3-76 • CFM FST adapter TJ1 P1-28 to P1-117 • Cable W200 P1-6 to P1-76
	M33550	• Front panel TJ1-28 to backplane J6-51 • Front panel TJ1-117 to backplane J6-35 • Front panel TJ3-67 to TJ3-68, TJ3-69, TJ3-70 • Front panel TJ4-5 to backplane J6-24 • Front panel TJ4-49 to TJ4-50, TJ4-51, TJ4-52 • CFM FST adapter TJ1 P1-28 to P1-117 • Cable W200 P2-5 to P2-50 • Cable W200 P1-68 to P2-49
	M33610	• Front panel TJ1-28 to backplane J6-51 • Front panel TJ1-117 to backplane J6-35 • Front panel TJ4-6 to backplane J6-60

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
FAULTY HARNESS (cont)	M33610 (cont)	• Front panel TJ4-49 to TJ4-50, TJ4-51, TJ4-52 • CFM FST adapter TJ1 P1-28 to P1-117 • Cable W200 P2-6 to P2-51
	M33620	• Front panel TJ1-28 to backplane J6-51 • Front panel TJ1-117 to backplane J6-35 • Front panel TJ4-7 to backplane J6-9 • Front panel TJ4-49 to TJ4-50, TJ4-51, TJ4-52 • Front panel TJ4-75 to TJ4-76, TJ4-77, TJ4-78, TJ4-79 • CFM FST adapter TJ1 P1-28 to P1-117 • Cable W200 P2-7 to P2-76 • Cable W200 P2-52 to P2-75
	M33630	• Front panel TJ1-28 to backplane J6-51 • Front panel TJ1-117 to backplane J6-35 • Front panel TJ4-6 to backplane J6-60 • Front panel TJ4-51 to TJ4-49, TJ4-50, TJ4-52 • CFM FST adapter TJ1 P1-28 to P1-117 • Cable W200 P2-6 to P2-51
	M33640	• Front panel TJ1-28 to backplane J6-51 • Front panel TJ1-117 to backplane J6-35 • Front panel TJ4-9 to backplane J6-17 • Front panel TJ4-75 to TJ4-76, TJ4-77, TJ4-78, TJ4-79 • CFM FST adapter TJ1 P1-28 to P1-117 • Cable W200 P2-9 to P2-78
	M33710	• Front panel TJ1-28 to backplane J6-51 • Front panel TJ1-117 to backplane J6-35 • Front panel TJ4-10 to backplane J6-18 • Front panel TJ4-75 to TJ4-76, TJ4-77, TJ4-78, TJ4-79 • Front panel TJ4-87 to TJ4-88, TJ4-89 • CFM FST adapter TJ1 P1-28 to P1-117 • Cable W200 P2-10 to P2-88 • Cable W200 P2-79 to P2-87
	M33720	• Front panel TJ1-28 to backplane J6-51 • Front panel TJ1-117 to backplane J6-35 • Front panel TJ4-13 to backplane J6-61 • Front panel TJ4-87 to TJ4-88, TJ4-89 • CFM FST adapter TJ1 P1-28 to P1-117 • Cable W200 P2-13 to P2-89
	M34130	• Front panel TJ1-11 to backplane J6-22 • Front panel TJ1-12 to backplane J6-21 • Front panel TJ1-52 to termination board J7-75 • Front panel TJ1-53 to termination board J7-76 • CFM FST adapter TJ1 P1-11 to P1-53 • CFM FST adapter TJ1 P1-12 to P1-52

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
FAULTY HARNESS (cont)	M34530	• Front panel TJ2-1 to backplane J6-5 • Front panel TJ2-2 to backplane J6-6 • Front panel TJ2-94 to backplane J4-4 • Front panel TJ2-95 to backplane J4-45 • Front panel TJ3-73 to J20 power cable P1-6 • Front panel TJ3-96 to backplane J3-6 • Front panel TJ3-125 to backplane J3-6 • Front panel TJ4-98 to backplane J3-6 • CFM FST adapter TJ2-1 P1-1 to P1-94 • CFM FST adapter TJ2-1 P1-2 to P1-95 • Cable W200 P1-73 to P2-98 • Cable W200 P1-96 to P1-125
	M41820	• Front panel TJ3-44 to backplane J8-21 • Front panel TJ4-80 to backplane J6-73 • Cable W201 P2-44 to P3-80
	M42930, M42980	• Front panel TJ2-17 to backplane J6-66 • Front panel TJ2-52 to backplane J7-6 • CFM FST adapter TJ2-2 P1-17 to P1-52
	M42935, M42985	• Front panel TJ2-18 to backplane J6-79 • Front panel TJ2-53 to backplane J7-7 • CFM FST adapter TJ2-2 P1-18 to P1-53
	M43310	• Front panel TJ1-25 to backplane J6-9 • Front panel TJ1-26 to backplane J6-10 • Front panel TJ3-7 to J20 power cable P1-6 • Front panel TJ3-96 to backplane J3-6 • Front panel TJ3-107 to backplane J4-4 • Front panel TJ3-108 to backplane J4-45 • Front panel TJ3-125 to backplane J4-45 • Front panel TJ4-98 to backplane J3-6 • Cable W201 P1-25 to P2-107 • Cable W201 P1-26 to P2-108 • Cable W201 P2-7 to P2-96 • Cable W201 P2-125 to P3-98

REPLACE CFM RS232 BOARD		• Replace CFM RS-232/RS-485 board on CFM card A1. (Refer to WP 0106 00). Retest. If test fails, check CFM wiring harness, CFM FST adapter TJ1, and cable W200:
		  • Backplane J1-159 to J19 signal cable P1-10
		  • Backplane J1-160 to J19 signal cable P1-11

	M31120	• Front panel TJ1-107 to backplane J1-103 • Front panel TJ1-108 to backplane J1-104 • CFM FST adapter TJ1 P1-107 to P1-108

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
REPLACE CFM RS232 BOARD (cont)	M36520	• Front panel TJ3-50 to backplane J1-103 • Front panel TJ3-51 to backplane J1-104 • Cable W200 P1-50 to P1-51
	M40220	• Front panel TJ1-76 to backplane J1-106 • Front panel TJ1-77 to backplane J1-157 • Cable W201 P1-76 to P1-77
	M45220	• Front panel TJ3-54 to backplane J1-106 • Front panel TJ3-55 to backplane J1-157 • Cable W201 P2-54 to P2-55
REPLACE CFM 1553* GPIA A2 BOARD		• Replace CFM 1553B board on CFM card A1. (Refer to WP 0106 00). Retest. If test fails, check CFM wiring harness and cable 1553A-W203 or 1553B-W203: • Backplane J1-159 to J19 signal cable P1-10 • Backplane J1-160 to J19 signal cable P1-11
	M60065, M60155, M60255, M60355	• Front panel J1-1 to 1553 harness 12934108 P2-1 • Front panel J1-2 to 1553 harness 12934108 P2-8 • Front panel J1-3 to 1553 harness 12934108 P2-2 • Cable 1553A-W203 J1-1 to P2-inner shield • Cable 1553A-W203 J1-2 to P2-outer shield • Cable 1553A-W203 J1-3 to P2-inner conductor
	M60465, M6955, M60655, M60755	• Front panel J1-4 to 1553 harness 12934108 P2-3 • Front panel J1-5 to 1553 harness 12934108 P2-4 • Front panel J1-6 to 1553 harness 12934108 P2-10 • Cable 1553B-W203 J1-4 to P2-inner shield • Cable 1553B-W203 J1-5 to P2-inner conductor • Cable 1553B-W203 J1-6 to P2-outer shield
REPLACE CFM LOAD PLATE		• Replace CFM load plate (Refer to WP 0105 00). Retest. If test fails, check CFM wiring harness and cable W201: • Backplane J1-159 to J19 signal cable P1-10 • Backplane J1-160 to J19 signal cable P1-11
	M42115	• Front panel TJ1-29 to J20 power cable P1-6 • Front panel TJ1-55 to backplane J6-3 • Front panel TJ1-56 to backplane J6-4 • Front panel TJ4-15 to termination board J7-55 • Cable W201 P1-29 to P1-56 • Cable W201 P1-55 to P3-15

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
FAULTY CFM A2 * A6		• Replace CFM card A2 (Refer to WP 0098 00). Retest. If test fails, replace CFM card A6 (Refer to WP 0098 00). Retest. If test fails, check CFM wiring harness, CFM FST adapter TJ1, and cable W200 or W201: • Backplane J2-153 to J19 signal cable P1-6 • Backplane J2-154 to J19 signal cable P1-5 • Backplane J2-159 to J19 signal cable P1-10 • Backplane J2-160 to J19 signal cable P1-11 • Backplane J2-153 to J19 signal cable P1-6 • Backplane J6-154 to J19 signal cable P1-5 • Backplane J6-159 to J19 signal cable P1-10 • Backplane J6-160 to J19 signal cable P1-11
	M35610	• Front panel TJ3-64 to backplane J6-71 • Front panel TJ3-65 to backplane J6-74 • Front panel TJ3-117 to backplane J2-39 • Front panel TJ3-118 to backplane J2-40 • Cable W200 P1-64 to P1-117 • Cable W200 P1-65 to P1-118
	M35910	• Front panel TJ1-23 to backplane J6-11 • Front panel TJ1-24 to backplane J6-12 • Front panel TJ1-88 to backplane J2-13 • Front panel TJ1-89 to backplane J2-15 • CFM FST adapter TJ1 P1-23 to P1-88 • CFM FST adapter TJ1 P1-24 to P1-89
	M36110	• Front panel TJ1-3 to backplane J6-32 • Front panel TJ1-4 to backplane J6-31 • Front panel TJ1-91 to backplane J2-10 • Front panel TJ1-92 to backplane J2-16 • CFM FST adapter TJ1 P1-3 to P1-92 • CFM FST adapter TJ1 P1-4 to P1-91
	M44610	• Front panel TJ4-92 to backplane J6-63 • Front panel TJ4-93 to backplane J6-64 • Front panel TJ4-117 to backplane J2-3 • Front panel TJ4-126 to backplane J2-15 • Cable W201 P3-92 to P3-117 • Cable W201 P3-93 to P3-126
	M44620	• Front panel TJ1-21 to backplane J6-13 • Front panel TJ1-22 to backplane J6-14 • Front panel TJ4-124 to backplane J2-4 • Front panel TJ4-128 to backplane J2-16 • Cable W201 P1-21 to P3-124 • Cable W201 P1-22 to P3-128

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
FAULTY CFM A3 * A4		• Replace CFM card A3 (Refer to WP 0098 00). Retest. If test fails, replace CFM card A4. (Refer to WP 0098 00). Retest. If test fails, check CFM wiring harness and cable W200 or W201:
	M15005, M15015, M15020	• Backplane J3-159 to J19 signal cable P1-10 • Backplane J3-160 to J19 signal cable P1-11 • Backplane J4-159 to J19 signal cable P1-10 • Backplane J4-160 to J19 signal cable P1-11
	M34510	• Front panel TJ3-73 to J20 power cable P1-6 • Front panel TJ4-94 to backplane J3-16 • Front panel TJ4-95 to backplane J3-15 • Front panel TJ4-98 to termination board J3-6 • Front panel TJ4-105 to termination board J4-4 • Front panel TJ4-106 to termination board J4-45 • Cable W200 P1-73 to P2-98 • Cable W200 P2-94 to P2-105 • Cable W200 P2-95 to P2-106
	M34910	• Front panel TJ3-21 to backplane J3-13 • Front panel TJ3-22 to backplane J3-12 • Front panel TJ3-73 to J20 power cable P1-6 • Front panel TJ3-96 to backplane J3-6 • Front panel TJ3-109 to backplane J4-9 • Front panel TJ3-110 to backplane J4-46 • Front panel TJ3-125 to backplane J4-45 • Front panel TJ4-98 to backplane J3-6 • Cable W200 P1-73 to P2-98 • Cable W200 P1-96 to P1-125 • Cable W200 P1-21 to P1-109 • Cable W200 P1-22 to P1-110
	M35410	• Front panel TJ3-73 to J20 power cable P1-6 • Front panel TJ3-95 to backplane J3-7 • Front panel TJ3-96 to backplane J3-6 • Front panel TJ3-124 to backplane J4-13 • Front panel TJ3-125 to backplane J4-45 • Front panel TJ4-98 to backplane J3-6 • Cable W200 P1-73 to P2-98 • Cable W200 P1-95 to P1-124 • Cable W200 P1-96 to P1-125
	M43510, M43520	• Front panel TJ1-7 to backplane J6-28 • Front panel TJ1-8 to backplane J6-27 • Front panel TJ1-113 to backplane J3-9 • Front panel TJ1-121 to backplane J3-8

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
FAULTY CFM A3 * A4 (cont)	M43510, M43520 (cont)	• Front panel TJ3-7 to J20 power cable P1-6 • Front panel TJ3-96 to backplane J3-6 • Front panel TJ3-124 to backplane J4-13 • Front panel TJ3-125 to backplane J4-45 • Front panel TJ4-97 to backplane J3-7 • Front panel TJ4-98 to backplane J3-6 • Cable W201 P1-7 to P1-121 • Cable W201 P1-8 to P1-113 • Cable W201 P2-7 to P2-96 • Cable W201 P2-124 to P3-97 • Cable W201 P2-125 to P3-98
FAULTY CFM A3 * A6	M15710	• Replace CFM card A3 (Refer to WP 0098 00). Retest. If test fails, replace CFM card A6 (Refer to WP 0100 00). Retest. If test fails, check CFM wiring harness: • Backplane J3-153 to J19 signal cable P1-6 • Backplane J3-154 to J19 signal cable P1-5 • Backplane J3-159 to J19 signal cable P1-10 • Backplane J3-160 to J19 signal cable P1-11 • Backplane J3-153 to J19 signal cable P1-6 • Backplane J3-154 to J19 signal cable P1-5 • Backplane J3-159 to J19 signal cable P1-10 • Backplane J6-160 to J19 signal cable P1-11
FAULTY CFM A6 * A8 * LOAD PLATE		• Replace CFM card A6 (Refer to WP 0098 00). Retest. If test fails, replace CFM card A8. (Refer to WP 0098 00). Retest. If test fails, replace CFM load plate (Refer to WP 0105 00). Retest. If test fails, check CFM wiring harness and cable W200 or W201: • Backplane J1-159 to J19 signal cable P1-10 • Backplane J1-160 to J19 signal cable P1-11 • Backplane J6-159 to J19 signal cble P1-10 • Backplane J6-160 to J19 signal cable P1-11 • Backplane J8-159 to J19 signal cable P1-10 • Backplane J8-160 to J19 signal cable P1-11
	M33140	• Front panel TJ3-38 to backplane J6-94 • Front panel TJ3-39 to backplane J6-56 • Front panel TJ3-71 to termination board J7-38 • Front panel TJ4-14 to backplane J6-62 • Cable W200 P1-38 to P2-14 • Cable W200 P1-39 to P1-71
	M42110	• Front panel TJ1-29 to J20 power cable P1-6 • Front panel TJ1-55 to backplane J6-3 • Front panel TJ1-56 to backplane J6-4 • Front panel TJ4-15 to termination board J7-55 • Cable W201 P1-29 to P1-56 • Cable W201 P1-55 to P3-15

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
FAULTY CFM A6 * A10		• Replace CFM card A6 (Refer to WP 0098 00). Retest. If test fails, replace CFM card A10 (Refer to WP 0100 00). Retest. If test fails, check CFM wiring harness, CFM FST adapter TJ2-2, and cable W201: • Backplane J6-159 to J19 signal cable P1-10 • Backplane J6-160 to J19 signal cable P1-11 • Backplane J10-159 to J19 signal cable P1-10 • Backplane J10-160 to J19 signal cable P1-11
	M42350	• Front panel TJ2-2 to backplane J6-6 • Front panel TJ2-108 to backplane J8-25 • CFM FST adapter TJ2-2 P1-2 to P1-108
	M42410	• Front panel TJ4-72 to backplane J6-70 • Front panel TJ4-111 to backplane J10-16 • Cable W201 P3-72 to P3-111
FAULTY CFM A8 * A1		• Replace CFM card A8 (Refer to WP 0098 00). Retest. If test fails, replace CFM card A1 (Refer to WP 0109 00). Retest. If test fails, check CFM wiring harness and cable W200 or W201: • Backplane J8-159 to J19 signal cable P1-10 • Backplane J8-160 to J19 signal cable P1-11 • Backplane J1-159 to J19 signal cable P1-10 • Backplane J1-160 to J19 signal cable P1-11
	M32010	• Front panel TJ3-32 to backplane J8-29 • Front panel TJ3-52 to backplane J1-105 • Cable W200 P1-32 to P1-52
	M32020	• Front panel TJ3-31 to backplane J8-28 • Front panel TJ3-56 to backplane J1-105 • Cable W200 P1-31 to P1-56
	M41110	• Front panel TJ1-78 to backplane J1-158 • Front panel TJ1-81 to backplane J8-5 • Cable W201 P1-78 to P1-81
	M41120	• Front panel TJ1-57 to backplane J8-12 • Front panel TJ1-109 to backplane J1-105 • Cable W201 P1-57 to P1-109
FAULTY CFM A8 * A2		• Replace CFM card A8 (Refer to WP 0098 00). Retest. If test fails, replace CFM card A2 (Refer to WP 0098 00). Retest. If test fails, check CFM wiring harness and cable W200 or W201: • Backplane J8-159 to J19 signal cable P1-10 • Backplane J8-160 to J19 signal cable P1-11 • Backplane J2-159 to J19 signal cable P1-10 • Backplane J2-160 to J19 signal cable P1-11

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
FAULTY CFM A8 * A2 (cont)	M32030	• Front panel TJ4-26 to backplane J8-34 • Front panel TJ4-125 to backplane J2-5 • Cable W200 P2-26 to P2-125
	M32040	• Front panel TJ3-26 to backplane J8-18 • Front panel TJ3-120 to backplane J2-61 • Cable W200 P1-26 to P1-120
	M41140	• Front panel TJ1-80 to backplane J8-4 • Front panel TJ1-93 to backplane J2-5 • Cable W201 P1-80 to P1-93
	M41150	• Front panel TJ3-25 to backplane J8-17 • Front panel TJ3-115 to backplane J2-65 • Cable W201 P2-25 to P2-115
	M41210	• Front panel TJ3-27 to backplane J8-19 • Front panel TJ3-119 to backplane J2-38 • Cable W201 P2-27 to P2-119
	M41220	• Front panel TJ4-26 to backplane J8-34 • Front panel TJ4-116 to backplane J2-11 • Cable W201 P3-26 to P3-116
	M41230	• Front panel TJ4-27 to backplane J8-35 • Front panel TJ4-118 to backplane J2-5 • Cable W201 P3-27 to P3-118
FAULTY CFM A8 * A3		• Replace CFM card A8 (Refer to WP 0098 00). Retest. If test fails, replace CFM card A3 (Refer to WP 0098 00). Retest. If test fails, check CFM wiring harness and cable W200 or W201: • Backplane J8-159 to J19 signal cable P1-10 • Backplane J8-160 to J19 signal cable P1-11 • Backplane J3-159 to J19 signal cable P1-10 • Backplane J3-160 to J19 signal cable P1-11
	M32050	• Front panel TJ3-97 to backplane J4-94 • Front panel TJ4-104 to backplane J8-33 • Cable W200 P1-97 to P2-104
	M32110	• Front panel TJ3-82 to backplane J8-3 • Front panel TJ3-99 to backplane J4-94 • Cable W200 P1-82 to P1-99
	M32120	• Front panel TJ3-83 to backplane J8-4 • Front panel TJ3-126 to backplane J4-94 • Cable W200 P1-83 to P1-126

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
FAULTY CFM A8 * A3 (cont)	M32130	• Front panel TJ3-84 to backplane J8-5 • Front panel TJ4-115 to backplane J4-94 • Cable W200 P1-84 to P2-115
	M41240	• Front panel TJ3-34 to backplane J3-14 • Front panel TJ3-85 to backplane J8-6 • Cable W201 P2-34 to P2-85
	M41250	• Front panel TJ3-86 to backplane J8-7 • Front panel TJ4-24 to backplane J3-14 • Cable W201 P2-86 to P3-24
	M41310	• Front panel TJ3-87 to backplane J8-8 • Front panel TJ4-99 to backplane J3-14 • Cable W201 P2-87 to P3-99
	M41320	• Front panel TJ1-86 to backplane J8-7 • Front panel TJ1-116 to backplane J3-14 • Cable W201 P1-86 to P1-116
	M41330	• Front panel TJ4-28 to backplane J8-38 • Front panel TJ1-120 to backplane J3-14 • Cable W201 P3-28 to P1-120
FAULTY CFM A8 * A6		• Replace CFM card A8 (Refer to WP 0098 00). Retest. If test fails, replace CFM card A6 (Refer to WP 0098 00). Retest. If test fails, check CFM wiring harness, CFM FST adapter TJ2-2, and cable W201: • Backplane J8-159 to J19 signal cable P1-10 • Backplane J8-160 to J19 signal cable P1-11 • Backplane J10-159 to J19 signal cable P1-10 • Backplane J10-160 to J19 signal cable P1-11
	M41340	• Front panel TJ4-17 to backplane J6-134 • Front panel TJ4-31 to backplane J8-41 • Cable W201 P3-17 to P3-31
	M41710	• Front panel TJ1-115 to backplane J10-53 • Front panel TJ2-9 to backplane J6-59 • Front panel TJ2-61 to backplane J8-23 • Front panel TJ4-25 to termination board J1-95 • Front panel TJ4-42 to termination board J7-39 • Front panel TJ4-121 to backplane J10-50 • Cable W201 P1-115 to P3-42 • Cable W201 P3-25 to P3-121 • CFM FST adapter TJ2-2 P1-9 to P1-61

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
FAULTY CFM A8 * A6 (cont)	M41720	• Front panel TJ2-10 to backplane J6-60 • Front panel TJ2-62 to backplane J8-24 • CFM FST adapter TJ2-2 P1-10 to P1-62
	M41730	• Front panel TJ2-20 to backplane J6-68 • Front panel TJ2-109 to backplane J8-20 • CFM FST adapter TJ2-2 P1-20 to P1-109
	M41740	• Front panel TJ1-17 to backplane J6-16 • Front panel TJ4-90 to backplane J8-20 • Cable W201 P1-17 to P3-90

FAULTY
CFM A8 * A10
		• Replace CFM card A8 (Refer to WP 0098 00). Retest. If test fails, replace CFM card A10 (Refer to WP 0098 00). Retest. If test fails, check CFM wiring harness, CFM FST adapters TJ2-1 or TJ2-2, and cable W200 or W201:
		  • Backplane J8-159 to J19 signal cable P1-10
		  • Backplane J8-160 to J19 signal cable P1-11
		  • Backplane J10-159 to J19 signal cable P1-10
		  • Backplane J10-160 to J19 signal cable P1-11

	M32520	• Front panel TJ3-27 to backplane J8-19 • Front panel TJ3-53 to backplane J6-134 • Cable W200 P1-27 to P1-53
	M32710	• Front panel TJ2-91 to backplane J10-43 • Front panel TJ2-103 to backplane J10-50 • Front panel TJ2-104 to termination board J1-95 • Front panel TJ2-111 to termination board J1-96 • Front panel TJ3-15 to backplane J10-40 • Front panel TJ4-44 to backplane J8-49 • Cable W200 P1-15 to P2-44 • CFM FST adapter TJ2-1 P1-91 to P1-111 • CFM FST adapter TJ2-1 P1-103 to P1-104
	M32720	• Front panel TJ3-18 to backplane J10-12 • Front panel TJ4-46 to backplane J8-51 • Cable W200 P1-18 to P2-46
	M32730	• Front panel TJ2-24 to backplane J10-5 • Front panel TJ2-43 to backplane J8-13 • CFM FST adapter TJ2-1 P1-24 to P1-43
	M32740	• Front panel TJ2-23 to backplane J10-4 • Front panel TJ2-44 to backplane J8-14 • CFM FST adapter TJ2-1 P1-23 to P1-44

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
FAULTY CFM A8 * A10 (cont)	M32750	• Front panel TJ3-9 to backplane J10-10 • Front panel TJ3-25 to backplane J8-17 • Cable W200 P1-9 to P1-25
	M32810	• Front panel TJ1-30 to backplane J10-3 • Front panel TJ1-82 to backplane J8-6 • CFM FST adapter TJ1 P1-30 to P1-82
	M41520	• Front panel TJ3-19 to backplane J10-9 • Front panel TJ3-30 to backplane J8-27 • Cable W201 P2-19 to P2-30
	M41530	• Front panel TJ2-64 to backplane J8-43 • Front panel TJ2-114 to backplane J10-20 • Frontpanel TJ4-47 to termination board J1-96 • Front panel TJ4-120 to backplane J10-42 • CFM FST adapter TJ2-2 P1-64 to P1-114 • Cable W201 P3-47 to P3-120

FAULTY
CFM A8 * A10 *
LOAD PLATE
		• Replace CFM card A8 (Refer to WP 0098 00). Retest. If test fails, replace CFM card A10 (Refer to WP 0098 00). Retest. If test fails, replace CFM load plate (Refer to WP 0105 00). Retest. If test fails, check CFM wiring harness and cable W200:
		  • Backplane J1-159 to J19 signal cable P1-10
		  • Backplane J1-160 to J19 signal cable P1-11
		  • Backplane J8-159 to J19 signal cable P1-10
		  • Backplane J8-160 to J19 signal cable P1-11
		  • Backplane J10-159 to J19 signal cable P1-10
		  • Backplane J10-160 to J19 signal cable P1-11

	M32820, M32830, M32840, M32850	• Front panel TJ4-19 to backplane J10-8 • Front panel TJ4-20 to backplane J10-9 • Front panel TJ4-31 to backplane J8-41 • Front panel TJ4-64 to termination board J7-63 • Front panel TJ4-65 to termination board J7-62 • Front panel TJ4-66 to termination board J7-61 • Cable W200 P2-19 to P2-65 • Cable W200 P2-20 to P2-66 • Cable W200 P2-31 to P2-64
	M32910, M32920, M32930, M32940	• Front panel TJ2-64 to backplane J8-43 • Front panel TJ2-110 to backplane J8-31 • Front panel TJ2-113 to backplane J10-19 • Front panel TJ2-119 to termination board J7-58 • Front panel TJ2-120 to termination board J7-57 • Front panel TJ2-121 to termination board J7-56 • CFM FST adapter TJ2-1 P1-64 to P1-121

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
FAULTY CFM A8 * A10 * LOAD PLATE (cont)	M32910, M32920, M32930, M32940 (cont)	• CFM FST adapter TJ2-1 P1-110 to P1-120 • CFM FST adapter TJ2-1 P1-113 to P1-119
	M34110, M34120	• Front panel TJ2-65 to termination board J7-67 • Front panel TJ2-66 to termination board J7-68 • Front panel TJ2-67 to termination board J7-69 • Front panel TJ2-68 to termination board J7-70 • Front panel TJ2-85 to backplane J10-3 • Front panel TJ2-88 to backplane J10-21 • Front panel TJ2-96 to termination board J7-77 • Front panel TJ2-97 to termination board J7-78 • Front panel TJ2-112 to backplane J10-18 • Front panel TJ2-122 to termination board J7-75 • Front panel TJ2-123 to termination board J7-76 • Front panel TJ2-124 to backplane J10-6 • CFM FST adapter TJ2-1 P1-65 to P1-88 • CFM FST adapter TJ2-1 P1-66 to P1-96 • CFM FST adapter TJ2-1 P1-67 to P1-112 • CFM FST adapter TJ2-1 P1-68 to P1-122 • CFM FST adapter TJ2-1 P1-85 to P1-97 • CFM FST adapter TJ2-1 P1-123 to P1-124
	M34140, M34150	• Front panel TJ1-11 to backplane J6-22 • Front panel TJ1-12 to backplane J6-21 • Front panel TJ1-52 to termination board J7-75 • Front panel TJ1-53 to termination board J7-76 • CFM FST adapter TJ1 P1-11 to P1-53 • CFM FST adapter TJ1 P1-12 to P1-52
	M34310	• Front panel TJ3-10 to backplane J10-7 • Front panel TJ3-78 to termination board J7-71 • Front panel TJ3-79 to termination board J7-72 • Front panel TJ3-92 to backplane J8-45 • Cable W200 P1-10 to P1-79 • Cable W200 P1-78 to P1-92
	M41540, M41550, M41610, M41620	• Front panel TJ1-87 to backplane J8-11 • Front panel TJ1-104 to termination board J7-88 • Front panel TJ1-114 to termination board J7-89 • Front panel TJ1-119 to termination board J7-90 • Front panel TJ4-43 to backplane J8-48 • Front panel TJ4-45 to backplane J8-50 • Cable W201 P1-87 to P1-104 • Cable W201 P1-114 to P3-43 • Cable W201 P1-119 to P3-45

CFM AND CFM FST WIRING FAULT ISOLATION TABLE – CONTINUED 0036 00

Fault Message	Test ID No.	Operator Action/Remarks to CFM/Adapter Wiring
FAULTY CFM A8 * LOAD PLATE		• Replace CFM card A8 (Refer to WP 0098 00). Retest. If test fails, replace CFM load plate (Refer to WP 0105 00). Retest. If test fails, check CFM wiring harness, CFM FST adapter TJ2-2, and cable W200 or W201: • Backplane J1-159 to J19 signal cable P1-10 • Backplane J1-160 to J19 signal cable P1-11 • Backplane J8-159 to J19 signal cable P1-10 • Backplane J8-160 to J19 signal cable P1-11
	M34210	• Front panel TJ3-8 to backplane J10-21 • Front panel TJ3-80 to termination board J7-73 • Front panel TJ3-81 to termination board J7-74 • Front panel TJ3-98 to backplane J6-75 • Front panel TJ4-25 to termination board J1-95 • Front panel TJ4-55 to termination board J7-38 • Cable W200 P1-8 to P1-80 • Cable W200 P1-81 to P1-98 • Cable W200 P2-25 to P2-55
	M34220, M34230, M34240, M34250	• Front panel TJ3-57 to termination board J7-51 • Front panel TJ3-102 to termination board J7-59 • Front panel TJ4-53 to termination board J7-85 • Front panel TJ4-54 to termination board J7-86 • Cable W200 P1-57 to P2-53 • Cable W200 P1-102 to P2-54
	M40135	• Front panel TJ2-63 to backplane J8-42 • Front panel TJ2-115 to termination board J7-21 • CFM FST adapter TJ2-2 P1-63 to P1-115
	M41420	• Front panel TJ2-110 to backplane J8-31 • Front panel TJ2-116 to termination board J7-22 • CFM FST adapter TJ2-2 P1-110 to P1-116
	M4310, M43220, M43230, M43240	• Front panel TJ3-11 to backplane J10-8 • Front panel TJ3-57 to termination board J7-51 • Front panel TJ4-18 to backplane J10-6 • Front panel TJ4-61 to termination board J7-66 • Front panel TJ4-62 to termination board J7-65 • Front panel TJ4-63 to termination board J7-64 • Cable W201 P2-11 to P3-63 • Cable W201 P2-57 to P3-61 • Cable W201 P3-18 to P3-62

CSFM FST FAULT ID NUMBER TABLE 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A01030	W331 P2-p to P2-PP
A01035	W331 P1-V to P1-G CSFM front panel UJ8-V to backplane J10-109 CSFM front panel UJ8-G to UJ8-N
A05900	CSFM front panel TJ8-125 to backplane J7-10 CSFM front panel TJ6-2 to UJ8-C
A05925	CSFM front panel TJ4-c to backplane J7-112 CSFM front panel TJ4-c to backplane J8-112
A05940	CSFM front panel TJ4-e to backplane J8-113 CSFM front panel TJ4-c to backplane J7-113
A06005	CSFM front panel TJ4-A to backplane J10-60 Adapter FST TJ4-A to FST TJ4-HH
A06020	CSFM front panel TJ5-71 to backplane J2-56 CSFM front panel TJ5-60 to backplane J4-178 Adapter FST TJ5-1-60 to FST TJ5-1-71
A06040	CSFM front panel TJ7-1 to backplane J10-161 CSFM front panel TJ7-128 to backplane J10-91 Adapter FST TJ7-1-1 to FST TJ7-1-128
A06060	CSFM front panel TJ10-A to backplane J10-59 CSFM front panel TJ10-AA to backplane J11-79 CSFM front panel TJ10-BB to backplane J11-99 CSFM front panel TJ10-u to backplane J4-106 Adapter FST TJ10-BB to FST TJ10-u
A07200	CSFM front panel TJ6-7 to backplane J7-174 CSFM front panel TJ6-99 to backplane J2-20 Adapter FST TJ6-7 to FST TJ6-99
A07410	CSFM front panel TJ6-7 to backplane J5-174
A08005	CSFM front panel TJ7-126 to backplane J8-111 CSFM front panel TJ7-85 to backplane J4-43 Adapter FST TJ7-1-85 to FST TJ7-1-126
A08010	CSFM front panel TJ7-126 to backplane J7-170
A08015	CSFM front panel TJ7-126 to TJ5-102 CSFM front panel TJ5-6 to backplane J7-43 Adapter FST TJ5-1-6 to FST TJ5-1-102
A08320	CSFM front panel TJ6-30 to backplane J4-139 CSFM front panel TJ5-6 to TJ6-47 Adapter FST TJ6-30 to FST TJ6-47

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A08322	Same as A07200
A08340	CSFM front panel TJ7-126 to backplane J11-46 CSFM front panel UJ8-F to backplane J11-39 CSFM front panel TJ7-126 to backplane J7-170
A08760	CSFM front panel TJ4-U to backplane J7-162 CSFM front panel UJ8-E to TJ4-K Adapter FST TJ4-K to FST TJ4-U
A09070	CSFM front panel UJ8-E to TJ5-110 CSFM front panel TJ5-119 to backplane J7-177 Adapter FST TJ5-1-110 to FST TJ5-1-119
A09080	CSFM front panel UJ8-E TO TJ6-2 CSFM front panel TJ6-24 to backplane J4-44 Adapter FST TJ6-2 to FST TJ6-24
A09085	CSFM front panel UJ8-E to TJ6-8 CSFM front panel TJ6-56 to backplane J4-176 Adapter FST TJ6-8 to FST TJ6-56
A09090	CSFM front panel UJ8-E to TJ7-5 CSFM front panel TJ7-12 to backplane J7-111 Adapter FST TJ7-1-5 to FST TJ7-1-12
A09495	CSFM front panel UJ8-E to TJ8-119 CSFM front panel TJ8-11 to backplane J7-63 Adapter FST TJ8-11 to FST TJ8-119
A09605	CSFM front panel UJ8-E to TJ8-122 CSFM front panel TJ8-12 to backplane J7-160 Adapter FST TJ8-12 to FST TJ8-122
A10130	CSFM front panel UJ8-L to TJ4-J CSFM front panel TJ4-V to backplane J2-22 Adapter FST TJ4-J to FST TJ4-V
A10135	CSFM front panel TJ4-V to TJ6-87 Adapter FST TJ6-87 to FST TJ6-116
A10145	CSFM front panel UJ8-L to TJ5-111 CSFM front panel TJ5-66 to backplane J2-29 Adapter FST TJ5-1-66 to FST TJ5-1-111
A10155	CSFM front panel UJ8-L to TJ5-113 CSFM front panel TJ5-67 to backplane J2-55 Adapter FST TJ5-1-67 to FST TJ5-1-113
A10165	CSFM front panel UJ8-L to TJ6-3 CSFM front panel TJ6-97 to backplane J2-40 Adapter FST TJ6-3 to FST TJ6-97

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A10175	CSFM front panel UJ8-L to TJ6-9 CSFM front panel TJ6-57 to backplane J11-49 Adapter FST TJ6-9 to FST TJ6-57
A10180	CSFM front panel UJ8-E to TJ6-8 CSFM front panel TJ6-56 to backplane J4-176 Adapter FST TJ6-8 to FST TJ6-56
A10185	CSFM front panel UJ8-L to TJ7-3 CSFM front panel TJ7-91 to backplane J2-12 Adapter FST TJ7-1-3 to FST TJ7-1-91
A10195	CSFM front panel UJ8-L to TJ7-6 CSFM front panel TJ7-89 to backplane J2-72 Adapter FST TJ7-1-6 to FST TJ7-1-89
A10215	CSFM front panel UJ8-L to TJ8-120 CSFM front panel TJ8-76 to backplane J2-46 Adapter FST TJ8-76 to FST TJ8-120
A10220	CSFM front panel TJ6-88 to TJ8-76 Adapter FST TJ6-22 to FST TJ6-88
A10235	CSFM front panel UJ8-L to TJ8-123 CSFM front panel TJ8-77 to backplane J2-30 Adapter FST TJ8-77 to FST TJ8-123
A10240	CSFM front panel TJ6-89 to TJ8-77 Adapter FST TJ6-23 to FST TJ6-89
A10518	CSFM front panel UJ8-B to backplane T11-84 CSFM front panel TJ4-c to backplane J11-96 CSFM front panel TJ4-c to backplane J7-112
A10520	CSFM front panel TJ4-PP to backplane J11-23 CSFM front panel TJ4-PP to backplane J4-122
A10525	CSFM front panel TJ4-NN to backplane J11-2 CSFM front panel TJ4-NN to backplane J4-173
A10560	CSFM front panel UJ8-M to backplane J11-83 CSFM front panel TJ4-e to backplane J11-86 CSFM front panel TJ4-e to backplane J7-113
A10565	CSFM front panel TJ4-F to backplane J4-37 Adapter FST TJ4-F to FST TJ4-e
A10765	CSFM front panel TJ5-24 to backplane J2-23 CSFM front panel TJ5-24 to backplane J7-186
A10770	CSFM front panel TJ5-7 to backplane J7-148 Adapter FST TJ5-1-7 to FST TJ5-1-24

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A10810	CSFM front panel TJ5-24 to backplane J11-57 CSFM front panel TJ5-64 to backplane J11-1 CSFM front panel TJ5-8 to backplane J7-96 Adapter FST TJ5-1-8 to FST TJ5-1-64
A10830	CSFM front panel TJ5-64 to backplane J4-172
A10835	CSFM front panel TJ6-31 to backplane J4-143 Adapter FST TJ6-31 to FST TJ6-48
A10840	CSFM front panel TJ6-49 to TJ5-8 CSFM front panel TJ6-32 to backplane J7-123 Adapter FST TJ6-32 to FST TJ6-49
A10845	CSFM front panel TJ5-19 to backplane J11-51 CSFM front panel TJ5-19 to backplane J4-94
A10850	CSFM front panel TJ5-9 to J7-46 Adapter FST TJ5-1-9 to FST TJ5-1-19
A10855	CSFM front panel TJ5-9 to backplane TJ6-50 CSFM front panel TJ6-50 to backplane J7-46
A11040	CSFM front panel TJ6-84 to backplane J2-42 CSFM front panel TJ6-84 to backplane J4-42
A11050	CSFM front panel TJ5-79 to TJ6-84 CSFM front panel TJ5-5 to backplane J4-94 Adapter FST TJ5-1-5 to FST TJ5-1-79
A11055	CSFM front panel TJ5-5 to TJ6-46 CSFM front panel TJ6-29 to backplane J4-83 Adapter FST TJ6-29 to FST TJ6-46
A11060	CSFM front panel TJ6-46 to backplane J7-94
A11065	CSFM front panel TJ6-83 to backplane J11-100 CSFM front panel TJ6-58 to backplane J4-98 CSFM front panel TJ6-58 to backplane J11-94 Adapter FST TJ6-83 to FST TJ6-84
A11070	CSFM front panel TJ6-36 to backplane J4-76 Adapter FST TJ6-36 to FST TJ6-58
A11075	CSFM front panel TJ6-61 to backplane J11-78 CSFM front panel TJ6-61 to backplane J4-175
A11080	CSFM front panel TJ6-37 to backplane J4-74 Adapter FST TJ6-37 to FST TJ6-61
A11125	CSFM front panel TJ5-71 to backplane J2-56 CSFM front panel TJ5-71 to backplane J4-56

Test ID No.	CSFM/FST Cable/Adapter Wiring
A11140	CSFM front panel TJ5-61 to TJ7-22 CSFM front panel TJ7-11 to backplane J7-114 Adapter FST TJ7-1-11 to FST TJ7-1-22 Adapter FST TJ5-1-61 to FST TJ5-1-71
A11145	CSFM front panel TJ7-11 to TJ8-8 CSFM front panel TJ8-19 to backplane J7-13 Adapter FST TJ8-8 to FST TJ8-19
A11150	CSFM front panel TJ5-61 to TJ8-75 CSFM front panel TJ8-27 to backplane J7-126 Adapter FST TJ8-27 to FST TJ8-75
A11160	CSFM front panel TJ5-60 to backplane J4-178 Adapter FST TJ5-1-60 to FST TJ5-1-61
A11220	CSFM front panel TJ5-69 to backplane J2-58 CSFM front panel TJ5-69 to backplane J4-163
A11230	CSFM front panel TJ5-69 to backplane J7-178 Adapter FST TJ5-1-59 to FST TJ5-1-69
A11235	CSFM front panel TJ5-59 to TJ7-20 CSFM front panel TJ7-88 to backplane J4-15 Adapter FST TJ7-1-20 to FST TJ7-1-88
A11310	Adapter FST TJ6-122 to FST TJ6-125
A11422	CSFM front panel TJ7-31 to backplane J8-95 CSFM front panel TJ7-31 to backplane J7-90
A11425	Adapter FST TJ7-1-24 to FST TJ7-1-31
A11430	CSFM front panel TJ7-24 to TJ8-74 CSFM front panel TJ8-28 to backplane J7-151 Adapter FST TJ8-28 to FST TJ8-74
A11435	CSFM front panel TJ8-104 to backplane J11-15 CSFM front panel TJ8-104 to backplane J7-19 CSFM front panel TJ7-24 to backplane J11-7
A11440	CSFM front panel TJ8-29 to backplane J7-47 Adapter FST TJ8-29 to FST TJ8-104
A11445	CSFM front panel TJ5-18 to TJ-24 CSFM front panel TJ5-18 to backplane J7-189
A11532	CSFM front panel TJ6-92 to backplane J2-48 CSFM front panel TJ6-92 to backplane J4-149
A11535	CSFM front panel TJ8-22 to backplane J7-116 CSFM front panel TJ6-92 to TJ8-80

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
	Adapter FST TJ8-22 to FST TJ8-80 Adapter FST TJ6-81 to FST TJ6-92
A11545	CSFM front panel TJ6-81 to TJ8-73 CSFM front panel TJ8-73 to backplane J7-180
A11550	CSFM front panel TJ8-20 to backplane J7-167 Adapter FST TJ8-20 to FST TJ8-73
A11555	CSFM front panel TJ8-105 to backplane J4-164
A11560	CSFM front panel TJ8-105 to backplane J11-55 CSFM front panel TJ6-81 to backplane J11-54 CSFM front panel TJ8-30 to backplane J7-7 Adapter FST TJ8-30 to FST TJ8-105 Adapter FST TJ6-81 to FST TJ6-92
A11613	CSFM front panel TJ5-23 to backplane J2-43 CSFM front panel TJ5-23 to backplane J7-190
A11627	CSFM front panel TJ5-13 to TJ6-54 CSFM front panel TJ6-117 to backplane J4-45 Adapter FST TJ6-54 to FST TJ6-117 Adapter FST TJ5-1-13 to FST TJ5-1-23
A11628	CSFM front panel TJ5-13 to backplane J7-95
A11725	CSFM front panel TJ5-57 to TJ5-126 CSFM front panel TJ5-68 to backplane J2-4 CSFM front panel TJ5-72 to backplane J4-8 Adapter FST TJ5-1-57 to FST TJ5-1-68 Adapter FST TJ5-1-72 to FST TJ5-1-126
A12020	CSFM front panel TJ7-93 to backplane J5-142 CSFM front panel TJ7-94 to backplane J5-141 CSFM front panel TJ7-90 to backplane J4-21 Adapter FST TJ7-1-90 to FST TJ7-1-94 Adapter FST TJ7-1-69 to FST TJ7-1-93
A12363	CSFM front panel TJ10-C to backplane J2-64 CSFM front panel TJ10-B to backplane J4-39 Adapter FST TJ10-B to FST TJ10-C
A12710	CSFM front panel TJ10-C to backplane J4-64 CSFM front panel TJ10-B to backplane J2-39
A12730	CSFM front panel TJ10-B to backplane J5-39 CSFM front panel TJ4-E to backplane J5-90 CSFM front panel TJ4-W to backplane J7-15 Adapter FST TJ4-E to FST TJ4-W

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A12910	CSFM front panel TJ5-120 to backplane J7-70 CSFM front panel TJ5-2 to backplane J5-170 Adapter FST TJ5-1-2 to FST TJ5-1-120
A12940	CSFM front panel TJ5-65 to backplane J2-24 CSFM front panel TJ5-65 to backplane J4-24
A12945	CSFM front panel TJ5-122 to backplane J7-17 Adapter FST TJ5-1-65 to FST TJ5-1-122
A13020	CSFM front panel TJ6-5 to backplane J8-98 CSFM front panel TJ6-5 to backplane J4-132
A13025	CSFM front panel TJ6-33 to backplane J4-6 Adapter FST TJ6-5 to FST TJ6-33
A13030	CSFM front panel TJ5-62 to backplane J5-183 CSFM front panel TJ5-123 to backplane J7-23 CSFM front panel TJ6-5 to backplane J5-183 Adapter FST TJ5-1-62 to FST TJ5-1-123
A13115	CSFM front panel TJ5-115 to backplane J11-38
A13120	CSFM front panel TJ5-121 to backplane J7-45 Adapter FST TJ5-1-115 to FST TJ5-1-121
A13130	CSFM front panel TJ5-115 to backplane J2-138 CSFM front panel TJ5-115 to backplane J4-138
A13420	CSFM front panel TJ8-82 to TJ6-94 CSFM front panel TJ6-21 to backplane J7-159 Adapter FST TJ6-21 to FST TJ6-94
A13430	CSFM front panel TJ8-15 to backplane J7-12 Adapter FST TJ8-82 to FST TJ8-97 Adapter FST TJ8-15 to FST TJ8-98
A13440	Same as A13430
A13446	Same as A13430
A13475	CSFM front panel TJ8-109 to backplane J11-18 CSFM front panel TJ6-111 to backplane J11-58 CSFM front panel TJ6-38 to backplane J4-75 Adapter FST TJ8-109 to FST TJ8-116 Adapter FST TJ6-38 to FST TJ6-111
A13480	CSFM front panel TJ6-108 to backplane J11-56 Adapter FST TJ6-20 to FST TJ6-108
A13482	CSFM front panel TJ8-109 to backplane J7-169

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A13485	CSFM front panel TJ5-96 to backplane J7-139 Adapter FST TJ5-1-29 to FST TJ5-1-96
A13490	CSFM front panel TJ5-29 to backplane J7-83
A13505	CSFM front panel TJ8-109 to backplane J5-167 CSFM front panel TJ5-74 to backplane J4-60 CSFM front panel TJ5-30 to backplane J11-48 Adapter FST TJ5-1-20 to FST TJ5-1-74
A13510	CSFM front panel TJ5-30 to backplane J4-167
A13535	CSFM front panel TJ5-75 to backplane J2-16 CSFM front panel TJ5-101 to backplane J5-95 CSFM front panel TJ5-108 to backplane J5-96 CSFM front panel TJ5-108 to backplane J4-147 Adapter FST TJ5-1-75 to FST TJ5-1-101
A13540	CSFM front panel TJ8-23 to backplane J7-5 Adapter FST TJ8-23 to FST TJ8-108
A13560	CSFM front panel TJ5-76 to backplane J2-57 CSFM front panel TJ5-20 to backplane J5-114 CSFM front panel TJ5-100 to backplane J5-115 CSFM front panel TJ5-44 to backplane J4-166 Adapter FST TJ5-1-20 to FST TJ5-1-76 Adapter FST TJ5-1-44 to FST TJ5-1-100
A13565	CSFM front panel TJ5-44 to backplane J2-166
A13580	CSFM front panel TJ4-N to backplane J2-6 CSFM front panel TJ6-18 to backplane J4-151 CSFM front panel TJ6-113 to TJ4-JJ (1K ± 1 ohm) Adapter FST TJ5-1-20 to FST TJ5-1-76 Adapter FST TJ5-1-44 to FST TJ5-1-100
A13582	CSFM front panel TJ6-113 to backplane J4-144
A13585	CSFM front panel TJ4-N to backplane J4-58 CSFM front panel TJ6-18 to backplane J2-151
A13590	CSFM front panel TJ8-66 to backplane J2-151 CSFM front panel TJ6-18 to TJ8-66
A13620	CSFM front panel TJ4-M to backplane J2-11 CSFM front panel TJ6-17 to backplane J4-161 CSFM front panel TJ4-KK to TJ6-112 (1K ± 1 ohm) Adapter FST TJ4-M to FST TJ4-KK Adapter FST TJ6-17 to FST TJ6-112
A13625	CSFM front panel TJ4-M to TJ6-4

Test ID No.	CSFM/FST Cable/Adapter Wiring
A13628	CSFM front panel TJ6-112 to backplane J4-157
A13630	CSFM front panel TJ6-17 to backplane J2-161 CSFM front panel TJ4-M to backplane J4-62
A13640	CSFM front panel TJ8-113 to backplane J2-19 CSFM front panel TJ8-3 to backplane J7-144 CSFM front panel TJ8-102 to TJ8-103 (2K ± 100 ohms) Adapter FST TJ8-103 to FST TJ8-113 Adapter FST TJ8-3 to FST TJ8-102
A13642	CSFM front panel TJ8-102 to backplane J4-169
A13643	CSFM front panel TJ8-103 to backplane J7-127
A13645	CSFM front panel TJ8-3 to backplane J2-196 CSFM front panel TJ8-113 to backplane J4-121
A13655	CSFM front panel TJ8-48 to TJ6-62 CSFM front panel TJ8-48 to backplane J2-91 CSFM front panel TJ6-40 to backplane J4-79 Adapter FST TJ8-48 to FST TJ8-106 Adapter FST TJ6-40 to FST TJ6-62
A13660	CSFM front panel TJ8-107 to backplane J5-165 CSFM front panel TJ8-106 to backplane J5-164 CSFM front panel TJ8-65 to backplane J4-130 Adapter FST TJ8-65 to FST TJ8-107
A13665	CSFM front panel TJ8-106 to backplane J7-163
A13670	CSFM front panel TJ8-107 to backplane J7-164
A14105	CSFM front panel TJ8-89 to backplane J8-36 CSFM front panel TJ8-32 to backplane J7-91 Adapter FST TJ8-32 to FST TJ8-89
A14110	CSFM front panel TJ8-90 to backplane J8-38 CSFM front panel TJ8-33 to backplane J7-39 Adapter FST TJ8-33 to FST TJ8-90
A14115	CSFM front panel TJ8-91 to backplane J8-39 CSFM front panel TJ8-34 to backplane J7-75 Adapter FST TJ8-34 to FST TJ8-91
A14120	CSFM front panel TJ8-92 to backplane J8-37 CSFM front panel TJ8-35 to backplane J7-91 Adapter FST TJ8-35 to FST TJ8-92
A14125	CSFM front panel TJ8-93 to backplane J8-31 CSFM front panel JT8-36 to backplane J7-142 Adapter FST TJ8-36 to FST TJ8-93

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A14130	CSFM front panel TJ8-94 to backplane J8-35 CSFM front panel TJ8-37 to backplane J7-142 Adapter FST TJ8-37 to FST TJ8-94
A14135	CSFM front panel TJ8-95 to backplane J8-46 CSFM front panel TJ8-38 to backplane J7-48 Adapter FST TJ8-38 to FST TJ8-95
A14140	CSFM front panel TJ8-101 to backplane J8-24 CSFM front panel TJ8-40 to backplane J7-101 Adapter FST TJ8-40 to FST TJ8-101
A14145	CSFM front panel TJ5-86 to backplane J8-56 CSFM front panel TJ5-10 to backplane J7-149 Adapter FST TJ5-1-10 to FST TJ5-1-86
A14150	CSFM front panel TJ5-10 to TJ6-51 CSFM front panel TJ6-35 to backplane J4-145 Adapter FST TJ6-35 to FST TJ6-51
A14155	CSFM front panel TJ5-87 to backplane J8-47 CSFM front panel TJ5-11 to backplane J7-97 Adapter FST TJ5-1-11 to FST TJ5-1-87
A14160	CSFM front panel TJ5-11 to TJ6-52 CSFM front panel TJ6-25 to backplane J4-80 Adapter FST TJ6-25 to FST TJ6-52
A14165	CSFM front panel TJ5-88 to backplane J8-59 CSFM front panel TJ5-12 to backplane J7-150 Adapter FST TJ5-1-12 to FST TJ5-1-88
A14170	CSFM front panel TJ5-12 to TJ6-53 CSFM front panel TJ6-128 to backplane J7-118 Adapter FST TJ6-53 to FST TJ6-128
A14205	CSFM front panel TJ7-64 to backplane J8-62 CSFM front panel TJ7-40 to backplane J8-130 Adapter FST TJ7-1-40 to FST TJ7-1-64
A14210	Adapter FST TJ7-1-40 to FST TJ7-1-41
A14225	CSFM front panel TJ7-42 to backplane J8-147 CSFM front panel TJ7-67 to backplane J8-48 Adapter FST TJ7-1-42 to FST TJ7-1-67
A14230	Adapter FST TJ7-1-42 to FST TJ7-1-44
A14245	CSFM front panel TJ7-43 to backplane J8-148 CSFM front panel TJ7-68 to backplane J8-44 Adapter FST TJ7-1-43 to FST TJ7-1-68

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A14250	Adapter FST TJ7-1-43 to FST TJ7-1-45
A14265	CSFM front panel TJ7-46 to backplane J8-139 CSFM front panel TJ7-71 to backplane J8-43 Adapter FST TJ7-1-46 to FST TJ7-1-71
A14270	Adapter FST TJ7-1-46 to FST TJ7-1-48
A14285	CSFM front panel TJ4-47 to backplane J8-138 CSFM front panel TJ7-72 to backplane J8-42 Adapter FST TJ7-1-47 to FST TJ7-1-72
A14290	Adapter FST TJ7-1-47 to FST TJ7-1-49
A14405	CSFM front panel TJ7-50 to backplane J8-133 CSFM front panel TJ7-74 to packplane J8-23 Adapter FST TJ7-1-50 to FST TJ7-1-74
A14410	Adapter FST TJ7-1-50 to FST TJ7-1-52
A14425	CSFM front panel TJ7-75 to backplane J8-61 CSFM front panel TJ7-53 to backplane J8-143 Adapter FST TJ7-1-51 to FST TJ7-1-75 Adapter FST TJ7-1-51 to FST TJ7-1-53
A14430	CSFM front panel TJ7-51 to backplane J8-132
A14445	CSFM front panel TJ7-54 to backplane J8-142 CSFM front panel TJ7-76 to backplane J8-19 Adapter FST TJ7-1-54 to FST TJ7-1-76
A14450	Adapter FST TJ7-1-54 to FST TJ7-1-55
A14465	CSFM front panel TJ7-56 to backplane J8-145 CSFM front panel TJ7-77 to backplane J8-21 Adapter FST TJ7-1-56 to FST TJ7-1-77
A14470	Adapter FST TJ7-1-56 to FST TJ7-1-57
A14485	CSFM front panel TJ7-58 to backplane J8-135 CSFM front panel TJ7-78 to backplane J8-58 Adapter FST TJ7-1-58 to FST TJ7-1-78
A14500	CSFM front panel TJ5-33 to backplane J7-88 CSFM front panel TJ5-56 to backplane J5-24 Adapter FST TJ5-1-33 to FST TJ5-1-56
A14505	CSFM front panel TJ5-22 to backplane J7-187 CSFM front panel TJ5-55 to backplane J5-123 CSFM front panel TJ5-17 to backplane J5-128 Adapter FST TJ5-1-22 to FST TJ5-1-17

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A14510	CSFM front panel TJ6-102 to backplane J10-39 CSFM front panel TJ6-14 to backplane J5-178 Adapter FST TJ6-14 to FST TJ6-102
A14515	CSFM front panel TJ6-103 to backplane J10-41 CSFM front panel TJ6-13 to backplane J5-177 Adapter FST TJ6-13 to FST TJ6-103
A14560	CSFM front panel TJ10-v to backplane J5-106 CSFM front panel TJ10-x to backplane J7-58 CSFM front panel TJ10-w to backplane J5-161 CSFM front panel TJ10-E to backplane J2-66 Adapter FST TJ10-E to FST TJ10-v Adapter FST TJ10-HH to FST TJ10-w
A14565	CSFM front panel TJ10-G to backplane J2-71 CSFM front panel TJ10-s to backplane J5-157 CSFM front panel TJ6-115 to backplane J5-57 CSFM front panel TJ6-115 to backplane J7-56 Adapter FST TJ10-G to FST TJ10-s Adapter FST TJ10-HH to FST TJ10-t Adapter FST TJ10-HH to FST TJ10-w Adapter FST TJ10-HH to FST TJ10-KK Adapter FST TJ10-MM to FST TJ10-s (150 ± 15 ohms)
A14575	CSFM front panel TJ5-17 to backplane J5-128 CSFM front panel TJ5-55 to backplane J5-123 CSFM front panel TJ5-98 to backplane J4-150 CSFM front panel TJ5-105 to backplane J5-81 Adapter FST TJ5-1-17 to FST TJ5-1-55 Adapter FST TJ5-1-98 to FST TJ5-1-105
A14576	CSFM front panel TJ5-16 to backplane J7-30 CSFM front panel TJ5-104 to backplane J5-82 Adapter FST TJ5-1-16 to FST TJ5 -1-104
A14615	CSFM front panel TJ8-78 to backplane J2-63 CSFM front panel TJ8-78 to backplane J4-63
A14620	CSFM front panel TJ8-70 to backplane J4-158 Adapter FST TJ8-70 to FST TJ8-78
A14625	CSFM front panel TJ6-90 to TJ8-78 CSFM front panel TJ6-34 to backplane J7-55 Adapter FST TJ6-34 to FST TJ6-90

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A14630	CSFM front panel TJ6-68 to backplane J2-149 CSFM front panel TJ8-70 to backplane J2-158 CSFM front panel TJ6-41 to backplane J4-113 Adapter FST TJ6-41 to FST TJ6-68
A14660	CSFM front panel TJ8-79 to backplane J2-44 CSFM front panel TJ8-79 to backplane J4-95
A14665	CSFM front panel TJ8-71 to backplane J2-159 CSFM front panel TJ8-71 to backplane J4-159
A14670	CSFM front panel TJ6-27 to backplane J4-81 CSFM front panel TJ6-67 to backplane J2-150 Adapter FST TJ6-67 to FST TJ6-150
A14975	CSFM front panel TJ5-128 to UJ8-G Adapter FST TJ5-1-70 to FST TJ5-1-128
A14980	CSFM front panel TJ7-6 to UJ8-U Adapter FST TJ7-1-6 to FST TJ7-1-89
A14990	CSFM front panel TJ6-71 to UJ8-L (3.3K ± 165 ohms) CSFM front panel TJ6-100 to backplane J4-61 CSFM front panel TJ6-100 to backplane J2-61 Adapter FST TJ6-71 to FST TJ6-100
A14995	CSFM front panel TJ6-72 to UJ8-L (3.3K ± 165 ohms) CSFM front panel TJ6-101 to backplane J4-59 CSFM front panel TJ6-101 to backplane J2-59 Adapter FST TJ6-72 to FST TJ6-101
A15000	CSFM front panel TJ7-127 to UJ8-A Adapter FST TJ7-1-92 to FST TJ7-1-127
A15005	CSFM front panel TJ5-103 to UJ8-A Adapter FST TJ5-1-73 to FST TJ5-1-103
A15010	CSFM front panel TJ5-53 to backplane J2-177 Adapter FST TJ5-1-46 to FST TJ5-1-53
A15015	CSFM front panel TJ5-46 to backplane J2-6 CSFM front panel TJ5-46 to backplane J4-58
A15035	CSFM front panel TJ5-92 to UJ8-A Adapter FST TJ5-1-92 to FST TJ5-1-99
A15040	CSFM front panel TJ5-77 to backplane J2-47 CSFM front panel TJ5-43 to backplane J4-126 Adapter FST TJ5-1-43 to FST TJ5-1-77
A15050	CSFM front panel TJ5-78 to backplane J2-60 Adapter FST TJ5-1-43 to FST TJ5-1-78

CSFM FST FAULT ID NUMBER TABLE – CONTINUED **0036 01**

Test ID No.	CSFM/FST Cable/Adapter Wiring
A15065	CSFM front panel TJ5-116 to backplane J2-120 CSFM front panel TJ6-45 to backplane J4-29 CSFM front panel TJ6-119 to backplane J11-81 CSFM front panel TJ5-116 to backplane J11-69 Adapter FST TJ6-45 to FST TJ6-119
A15105	CSFM front panel TJ6-6 to UJ8-A Adapter FST TJ6-6 to FST TJ6-86
A15115	CSFM front panel UJ8-E to backplane J11-11 CSFM front panel TJ6-15 to backplane J11-77 CSFM front panel TJ6-15 to backplane J4-125
A15120	CSFM front panel TJ6-78 to backplane J4-185 Adapter FST TJ6-15 to FST TJ6-78
A15125	CSFM front panel TJ7-30 to backplane J11-26 CSFM front panel TJ7-30 to backplane J4-23
A15130	CSFM front panel TJ7-83 to backplane J4-84 Adapter FST TJ7-1-30 to FST TJ7-1-83
A15135	CSFM front panel TJ6-78 to backplane J2-185
A15145	CSFM front panel TJ7-83 to backplane J2-186
A15152	CSFM front panel TJ6-127 to backplane J8-196 CSFM front panel TJ6-127 to backplane J7-93
A15155	CSFM front panel TJ6-76 to backplane J2-181 Adapter FST TJ6-76 to FST TJ6-127
A15165	CSFM front panel TJ6-76 TJ8-67 CSFM front panel TJ8-124 to backplane J2-162 Adapter FST TJ8-67 to FST TJ8-124
A16210	CSFM front panel TJ7-2 to backplane J11-16 CSFM front panel TJ7-84 to backplane J4-31 CSFM backplane J2-133 to backplane J11-53 Adapter FST TJ7-1-2 to FST TJ7-1-84
A16220	CSFM front panel TJ7-4 to UJ8-A Adapter FST TJ7-1-4 to FST TJ7-1-80
A16225	CSFM front panel TJ7-29 to UJ8-A Adapter FST TJ7-1-29 to FST TJ7-1-82
A16230	CSFM front panel TJ8-121 to UJ8-A Adapter FST TJ8-112 to FST TJ8-121
A16235	CSFM front panel TJ10-A to backplane J10-59 CSFM front panel TJ10-AA to backplane J4-170 Adapter FST TJ10-A to FST TJ10-AA

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A16236	CSFM front panel TJ10-BB to backplane J11-99 CSFM front panel TJ10-BB to backplane J7-108 CSFM front panel TJ10-AA to backplane J11-79
A16545	CSFM front panel TJ10-d to backplane J2-170 CSFM front panel TJ10-X to backplane J11-21 CSFM front panel TJ10-X to backplane J4-14 CSFM front panel TJ10-Y to backplane J11-4 Adapter FST TJ10-Y to FST TJ10-d
A16605	CSFM front panel TJ6-121 to UJ8-G Adapter FST TJ6-1 to FST TJ6-121 Adapter FST TJ6-1 to FST TJ6-16
A16615	CSFM front panel TJ6-60 to UJ8-G Adapter FST TJ6-60 to FST TJ6-118
A16625	CSFM front panel TJ6-124 to backplane J11-68 CSFM front panel TJ6-124 to backplane J4-110 CSFM backplane J11-9 to backplane J2-147 Adapter FST TJ6-124 to FST TJ6-126
A16635	CSFM front panel TJ6-70 to backplane J2-180 Adapter FST TJ6-70 to FST TJ6-93
A16640	CSFM front panel TJ6-93 to backplane J4-38
A16650	CSFM front panel TJ5-94 to UJ8-A Adapter FST TJ5-1-94 to FST TJ5-1-97
A16655	CSFM front panel TJ8-114 to backplane J2-146 CSFM front panel TJ8-111 to backplane J4-114
A16663	CSFM front panel T10-T to UJ8-A Adapter FST TJ10-T to FST TJ10-b
A16670	CSFM front panel TJ5-103 to UJ8-A CSFM front panel TJ10-F to TJ5-73 Adapter FST TJ5-1-73 to FST TJ5-1-103
A16675	CSFM front panel TJ10-G to backplane J2-71 CSFM front panel TJ10-G to backplane J4-71
A16680	CSFM front panel TJ10-H to backplane J2-68 CSFM front panel TJ10-H to backplane J4-68
A16715	CSFM front panel TJ5-80 to backplane J2-36 CSFM front panel TJ5-80 to backplane J4-87
A16720	CSFM front panel TJ5-80 to TJ6-85 CSFM front panel TJ6-44 to backplane J4-85 Adapter FST TJ6-44 to FST TJ6-85

CSFM FST FAULT ID NUMBER TABLE – CONTINUED **0036 01**

Test ID No.	CSFM/FST Cable/Adapter Wiring
A16725	CSFM front panel TJ4-P to backplane J7-183 CSFM front panel TJ4-k to backplane J5-189 Adapter FST TJ4-P to FST TJ4-k
A16730	CSFM backplane TJ6-44 to backplane J2-85
A16740	CSFM front panel TJ4-j to backplane J5-190 CSFM front panel TJ4-L to UJ8-L Adapter FST TJ4-L to FST TJ4-j
A16750	CSFM front panel TJ7-111 to backplane J8-4 CSFM front panel TJ7-35 to backplane J4-182 Adapter FST TJ7-1-35 to FST TJ7-1-111
A16755	CSFM front panel TJ7-112 to backplane J8-5 CSFM front panel TJ7-36 to backplane J4-183 Adapter FST TJ7-1-36 to FST TJ7-1-112
A16760	CSFM front panel TJ7-113 to backplane J8-6 CSFM front panel TJ7-32 to backplane J8-116 Adapter FST TJ7-1-32 to FST TJ7-1-113
A16765	CSFM front panel TJ7-114 to backplane J8-7 CSFM front panel TJ7-33 to backplane J8-117 Adapter FST TJ7-1-33 to FST TJ7-1-114
A16770	CSFM front panel TJ7-115 to backplane J8-8 CSFM front panel TJ7-34 to backplane J4-181 Adapter FST TJ7-1-34 to FST TJ7-1-115
A16775	CSFM front panel TJ7-37 to backplane J8-9 CSFM front panel TJ7-8 to backplane J7-157 Adapter FST TJ7-1-8 to FST TJ7-1-37
A16780	CSFM front panel TJ7-59 to backplane J8-11 CSFM front panel TJ7-9 to backplane J7-40 Adapter FST TJ7-1-9 to FST TJ7-1-59
A16845	CSFM front panel TJ7-60 to backplane J8-166 CSFM front panel TJ7-38 to backplane J8-165 CSFM front panel TJ7-62 to backplane J8-164 CSFM front panel TJ7-39 to backplane J8-163 CSFM front panel TJ7-61 to backplane J8-162 CSFM front panel TJ7-63 to backplane J8-22 CSFM front panel TJ7-66 to backplane J8-33 CSFM front panel TJ7-65 to backplane J8-32 Adapter FST TJ7-1-60 to FST TJ7-1-63 Adapter FST TJ7-1-38 to FST TJ7-1-66 Adapter FST TJ7-1-62 to FST TJ7-1-63 Adapter FST TJ7-1-39 to FST TJ7-1-66 Adapter FST TJ7-1-61 to FST TJ7-1-65

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A17010	CSFM front panel TJ8-1 to backplane J10-8 CSFM front Panel TJ10-HH to UJ8-G Cable FST-W88-P1-HH to P2-1
A17030	CSFM front panel TJ4-Z to backplane J2-139 CSFM front panel TJ6-113 to backplane J4-144 Cable FST-W87-P1-113 to P2-Z
A17050	CSFM front panel TJ7-31 to backplane J8-95 CSFM front panel TJ7-31 to backplane J7-190 CSFM front panel TJ7-128 to UJ8-G Adapter FST TJ7-2-31 to FST TJ7-2-128
A17100	CSFM front panel TJ3-85 to backplane J10-9 CSFM front panel TJ3-1 to UJ8-G Adapter FST TJ3-1 to FST TJ3-85
A17400	CSFM front panel TJ7-116 to backplane J8-159 CSFM front panel TJ7-117 to backplane J8-161 CSFM front panel TJ7-75 to backplane J8-61 CSFM front panel TJ7-68 to backplane J8-44 Adapter FST TJ7-2-68 to FST TJ7-2-117 Adapter FST TJ7-2-75 to FST TJ7-2-116
A17522	CSFM front panel TJ6-122 to backplane J8-94 CSFM front panel TJ6-122 to backplane J7-38
A17525	CSFM front panel TJ6-110 to backplane J11-75 CSFM front panel TJ5-22 to backplane J11-17 CSFM front panel TJ5-8 to backplane J7-96 Cable FST-W87-P1-110 to P1-122 Adapter FST TJ5-2-8 to FST TJ5-2-22
A18030	CSFM front panel TJ5-22 to backplane J7-187
A18035	CSFM front panel TJ5-22 to TJ7-28 CSFM front panel TJ7-7 to backplane J7-41 Adapter FST TJ7-2-7 to FST TJ7-2-28
A18205	CSFM front panel TJ6-109 to backplane J11-59 CSFM front panel TJ6-25 to backplane J4-86 Cable FST-W87-P1-25 to P1-109
A18210	CSFM front panel TJ6-25 to backplane J2-86
A18315	CSFM front panel TJ5-32 to backplane J7-42 CSFM front panel TJ5-32 to backplane J5-146
A18325	CSFM front panel TJ5-125 to backplane J5-145 CSFM front panel TJ5-70 to backplane J4-7 Adapter FST TJ5-2-70 to FST TJ5-2-125

CSFM FST FAULT ID NUMBER TABLE – CONTINUED **0036 01**

Test ID No.	CSFM/FST Cable/Adapter Wiring
A18327	CSFM front panel TJ5-125 to backplane J7-146
A18335	CSFM front panel TJ5-33 to backplane J5-93 CSFM front panel TJ5-33 to backplane J7-188
A18337	CSFM front panel TJ6-26 to backplane J4-80 CSFM front panel TJ6-107 to backplane J11-25 CSFM front panel TJ5-33 to backplane J11-67 Cable FST-W87-P1-26 to P1-107
A18340	CSFM front panel TJ6-105 to backplane J11-61 CSFM front panel TJ6-27 to backplane J4-81 Cable FST-W87-P1-27 to P1-105
A18605	CSFM front panel TJ5-22 to backplane J2-35 CSFM front panel TJ8-3 to backplane J2-196 CSFM front panel TJ7-7 to TJ8-4 Cable FST-W88-P2-3 to P2-4
A18905	CSFM front panel TJ5-22 to backplane J7-187
A19025	CSFM front panel TJ5-25 to backplane J2-76 CSFM front panel TJ5-10 to backplane J7-149 Adapter FST TJ5-2-10 to FST TJ5-2-25
A19030	CSFM front panel TJ5-25 to backplane J7-179
A19035	CSFM front panel TJ5-25 to TJ6-118 CSFM front panel TJ6-28 to backplane J4-73 Cable FST-W87-P1-28 to P1-118
A19210	CSFM front panel TJ5-25 to backplane J11-37 CSFM front panel TJ5-26 to backplane J11-71 CSFM front panel TJ5-44 to backplane J4-166 Adapter FST TJ5-2-26 to FST TJ5-2-44
A19215	CSFM front panel TJ5-26 to backplane J4-48
A19220	CSFM front panel TJ4-B to backplane J5-202 CSFM front panel TJ4-U to backplane J7-162 Cable FST-W87-P2-B to P2-U
A19225	CSFM front panel TJ5-27 to backplane J11-45 CSFM front panel TJ5-12 to backplane J7-150 Adapter FST TJ5-2-12 to FST TJ5-2-27
A19230	CSFM front panel TJ5-27 to backplane J4-11
A19235	CSFM front panel TJ4-D to backplane J11-45 CSFM front panel TJ4-F to backplane J4-37 Cable FST-W87-P2-D to P2-F

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A19245	CSFM front panel TJ5-63 to backplane J5-188 CSFM front panel TJ5-11 to backplane J7-197 Adapter FST TJ5-2-11 to FST TJ5-2-63
A19250	CSFM front panel TJ5-63 to backplane J7-138
A19255	CSFM front panel TJ5-44 to backplane J2-166
A19270	CSFM front panel TJ5-25 to backplane J7-179
A19305	CSFM front panel TJ5-96 to backplane J8-92 CSFM front panel TJ5-96 to backplane J7-139
A19310	CSFM front panel TJ5-58 to backplane J7-188 Adapter FST TJ5-2-58 to FST TJ5-2-96
A19315	CSFM front panel TJ5-58 to TJ7-19 CSFM front panel TJ7-10 to backplane J7-11 Adapter FST TJ7-2-10 to FST TJ7-2-19
A19320	CSFM front panel TJ5-58 to TJ4-R CSFM front panel TJ6-29 to backplane J4-83 Cable FST-W87-P1-29 to P2-R
A19325	CSFM front panel TJ5-45 to backplane J7-165 CSFM front panel TJ5-28 to backplane J11-60 CSFM front panel TJ5-58 to backplane J11-20 Adapter FST TJ5-2-28 to FST TJ5-2-45
A19330	CSFM front panel TJ5-28 to backplane J7-140
A19332	CSFM fron panel TJ5-45 to backplane J2-164
A19335	CSFM front panel TJ5-58 to backplane J11-20
A19340	CSFM backlane J5-187 to backplane J11-43
A19522	CSFM front panel TJ6-12 to backplane J5-176 CSFM front panel TJ6-21 to backplane J7-159 Cable FST-W87-P1-12 to P1-21
A19530	CSFM front panel TJ5-72 to backplane J4-8 CSFM front panel TJ5-118 to backplane J5-184 Adapter FST TJ5-2-72 to FST TJ5-2-118
A19535	CSFM front panel TJ5-118 to backplane J7-132
A19550	CSFM front panel TJ6-11 to backplane J5-136 CSFM front panel TJ6-31 to backplane J4-143 Cable FST-W87-P1-11 to P1-31

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A19553	CSFM front panel TJ6-82 to backplane J5-87 CSFM front panel TJ6-127 to backplane J7-93 Cable FST-W87-P1-82 to P1-127
A19555	CSFM front panel TJ7-123 to backplane J5-172 CSFM front panel TJ7-123 to backplane J7-172
A19810	CSFM front panel TJ5-97 to backplane J8-91 CSFM front panel TJ5-31 to backplane J4-131 Adapter FST TJ5-2-31 to FST TJ5-2-97
A19815	CSFM front panel TJ5-108 to backplane J11-7 CSFM backplane J5-181 to backplane J11-74 CSFM front panel TJ5-7 to backplane J7-148 Adapter FST TJ5-2-7 to FST TJ5-2-108
A19820	CSFM front panel TJ5-108 to backplane J7-189
A19825	CSFM front panel TJ5-62 to backplane J4-132 CSFM front panel TJ5-18 to TJ5-108 Adapter FST TJ5-2-18 to FST TJ5-2-62
A19835	CSFM front panel TJ5-13 to backplane J7-95 CSFM front panel TJ5-17 to backplane J5-128 Adapter FST TJ5-2-13 to FST TJ5-2-17
A19840	CSFM front panel TJ5-17 to backplane J7-128
A19860	CSFM front panel TJ6-5 to TJ5-62
A19880	CSF front panel TJ5-15 to backplane J5-31 CSFM front panel TJ5-74 to backplane J4-60 Adapter FST TJ5-2-15 to FST TJ5-2-74
A19890	CSFM front panel TJ5-16 to backplane J7-30 CSFM front panel TJ5-16 to backplane J5-30
A20017	CSFM front panel TJ5-73 to backplane J2-34 CSFM front panel TJ5-73 to backplane J4-34
A20030	CSFM front panel TJ5-76 to backplane J4-57 CSFM front panel TJ5-107 to backplane J5-131 Adapter FST TJ5-2-76 to FST TJ5-2-107
A20035	CSFM front panel TJ5-75 to backplane J4-16 CSFM front panel TJ5-106 to backplane J5-132 Adapter FST TJ5-2-75 to FST TJ5-2-106
A20050	CSFM front panel TJ5-105 to backplane J5-81 CSFM front panel TJ5-99 to backplane J4-67 Adapter FST TJ5-2-99 to FST TJ5-2-105

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A20055	CSFM front panel TJ5-104 to backplane J5-82 CSFM front panel TJ5-6 to backplane J7-43 Adapter FST TJ5-2-6 to FST TJ5-2-104
A20060	CSFM front panel TJ5-99 to backplane J2-67
A21000	CSFM front panel TJ4-a to backplane J5-72 CSFM front panel TJ4-W to backplane J7-15 Cable FST-W87-P2-W to P2-a
A21005	CSFM front panel TJ4-a to backplane J7-72
A21050	CSFM front panel TJ4-X to backplane J5-21 CSFM front panel TJ4-X to backplane J7-21
A21075	CSFM front panel TJ5-55 to backplane J5-123 CSFM front panel TJ5-119 to backplane J7-177 Adapter FST TJ5-2-55 to FST TJ5-2-119
A21100	CSFM front panel TJ5-56 to backplane J5-24 CSFM front panel TJ5-121 to backplane J7-45 Adapter FST TJ5-2-56 to FST TJ5-2-121
A21125	CSFM front panel TJ5-82 to backplane J5-124 CSFM front panel TJ5-122 to backplane J7-17 Adapter FST TJ5-2-82 to FST TJ5-2-122
A21130	CSFM front panel TJ5-82 to backplane J7-125
A21175	CSFM front panel TJ5-84 to backplane J5-175 CSFM front panel TJ5-123 to backplane J7-23 Adapter FST TJ5-2-84 to FST TJ5-2-123
A21180	CSFM front panel TJ5-84 to backplane J7-175
A21225	CSFM front panel TJ6-12 to backplane J5-176 CSFM front panel TJ6-21 to backplane J7-159 Cable FST-W87-P1-12 to P1-21
A21250	CSFM front panel TJ6-13 to backplane J5-177 CSFM front panel TJ6-22 to backplane J7-4 Cable FST-W87-P1-13 to P1-22
A21275	CSFM front panel TJ6-14 to backplane J5-178 CSFM front panel TJ6-23 to backplane J7-124 Cable FST-W87-P1-14 to P1-23
A21300	CSFM front panel TJ7-118 to backplane J5-125 CSFM front panel TJ7-11 to backplane J7-114 Adapter FST TJ7-2-11 to FST TJ7-2-118

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A21325	CSFM front panel TJ7-120 to backplane J5-122 CSFM front panel TJ7-12 to backplane J7-111 Adapter FST TJ7-2-12 to FST TJ7-2-120
A21350	CSFM front panel TJ7-121 to backplane J5-74 CSFM front panel TJ7-14 to backplane J7-121 Adapter FST TJ7-2-14 to FST TJ7-2-121
A21375	CSFM front panel TJ8-2 to backplane J5-73 CSFM front panel TJ8-11 to backplane J7-63 Cable FST-W88-P2-2 to P2-11
A21400	CSFM front panel TJ8-86 to backplane J5-22 CSFM front panel TJ10-R to backplane J7-131 Cable FST-W88-P1-R to P2-86
A21425	CSFM front panel TJ8-85 to backplane J5-23 CSFM front panel TJ10-M to backplane J7-130 Cable FST-W88-P1-M to P2-85
A21450	CSFM front panel TJ8-83 to backplane J5-75 CSFM front panel TJ10-S to backplane J7-148 Cable FST-W88-P1-S to P2-83
A21575	CSFM front panel TJ10-p to backplane J5-12 CSFM front panel TJ8-17 to backplane J7-115 Cable FST-W88-P1-p to P2-17
A21500	CSFM front panel TJ10-n to backplane J5-13 CSFM front panel TJ8-16 to backplane J7-166 Cable FST-W88-P1-n to P2-16
A21525	CSFM front panel TJ10-m to backplane J5-14 CSFM front panel TJ8-15 to backplane J7-12 Cable FST-W88-P1-m to P2-15
A21550	CSFM front panel TJ10-k to backplane J5-15 CSFM front panel TJ8-33 to backplane J7-39 Cable FST-W88-P1-k to P2-33
A21575	CSFM front panel TJ4-f to backplane J5-111 CSFM front panel TJ6-37 to backplane J4-74 Cable FST-W87-P1-37 to P2-f
A21650	Same as 21400
A21925	CSFM front panel TJ7-122 to backplane J5-137 CSFM front panel TJ7-9 to backplane J7-40 Adapter FST TJ7-2-9 to FST TJ7-2-122
A22025	CSFM front panel TJ7-123 to backplane J5-172 CSFM front panel TJ7-123 to backplane J7-172

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A22140	CSFM front panel TJ4-M to backplane J2-11 CSFM front panel TJ4-M to backplane J4-62 CSFM front panel TJ4-b to UJ8-G (3K ± 150 ohms) Cable FST-W87-P2-M to P2-b
A22160	CSFM front panel TJ5-67 to backplane J2-55 CSFM front panel TJ5-67 to backplane J4-55 CSFM front panel TJ5-3 to UJ8-G (3K ± 150 ohms) Adapter FST TJ5-2-3 to FST TJ5-2-67
A22170	CSFM front panel TJ5-68 to backplane J2-4 CSFM front panel TJ5-68 to backplane J4-4 CSFM front panel TJ5-83 to UJ8-G (3K ± 150 ohms) Adapter FST TJ5-2-68 to FST TJ5-2-83
A22180	CSFM front panel TJ569 to backplane J2-58 CSFM front panel TJ5-69 to backplane J4-163 CSFM front panel TJ5-85 to UJ8-G (3K ± 150 ohms)) Adapter FST TJ5-2-69 to FST TJ5-2-85
A22505	CSFM front panel TJ8-76 to backplane J2-46 CSFM front panel TJ8-76 to backplane J4-46 CSFM front panel TJ8-84 to UJ8-G (3K ± 150 ohms) Cable FST-W88-P2-76 to P2-84
A28405	CSFM front panel TJ5-66 to backplane J2-29 CSFM front panel TJ5-66 to backplane J7-14 CSFM front panel TJ8-66 to backplane J2-151 CSFM front panel TJ10-N to backplane J5-150 CSFM front panel TJ5-124 to backplane J5-138 Cable FST-W88-P1-N to P2-66 Adapter FST TJ5-2-66 to FST TJ5-2-124
A28510	CSFM front panel TJ8-66 to backplane J4-151
A28520	CSFM front panel TJ8-83 to backplane J5-75 Cable FST-W88-P1-S to P2-83
A28525	CSFM front panel TJ10-S to backplane J4-148
A29005	CSFM front panel TJ10-J to backplane J7-87
A29010	CSFM front panel TJ8-20 to backplane J7-167 Cable FST-W88-P1-J to P2-20
A29045	CSFM front panel TJ10-y to backplane J7-134
A29050	CSFM front panel TJ8-21 to backplane J7-92 Cable FST-W88-P1-y to P2-21
A31020	CSFM front panel TJ8-116 to backplane J8-97 CSFM front panel TJ7-85 to backplane J4-43 CSFM front panel TJ7-105 to TJ8-116 Adapter FST TJ7-2-85 to FST TJ7-2-105

CSFM FST FAULT ID NUMBER TABLE – CONTINUED **0036 01**

Test ID No.	CSFM/FST Cable/Adapter Wiring
A31030	CSFM front panel TJ10-CC to backplane J8-68 CSFM front panel TJ10-DD to backplane J8-67 CSFM front panel TJ6-24 to backplane J4-44 CSFM front panel TJ6-79 to TJ8-69 Cable FST W88-P1-DD to P2-69 Cable FST W87-P1-24 to P1-79
A31035	CSFM front panel TJ8-69 to backplane J2-168
A31040	CSFM front panel TJ8-116 to backplane J7-141 Cable FST W88-P1-CC to P2-116
A31100	CSFM front panel TJ6-24 to backplane J2-197
A31415	CSFM front panel TJ10-H to backplane J2-68 CSFM front panel TJ10-i to backplane J7-122 CSFM front panel TJ10-i to TJ10-j (4.99K ± 50 ohms) Cable FST-W88-P1-H to P1-j
A31417	CSFM front panel TJ10-KK to backplane J7-80 Cable FST-W88-P1-i to P1-KK
A31420	CSFM front panel TJ10-KK to backplane J5-41
A31530	CSFM front panel TJ8-22 to backplane J7-116 CSFM front panel TJ10-EE to backplane J5-46 Cable FST-W88-P1-EE to P2-22
A31535	CSFM front panel TJ10-EE to backplane J7-86
A31545	CSFM front panel TJ8-23 to backplane J7-5 CSFM front panel TJ10-JJ to backplane J5-47 Cable FST-W88-P1-JJ TO P2-23
A31550	CSFM front panel TJ10-JJ to backplane J7-87
A31560	CSFM front panel TJ8-24 to backplane J7-147 CSFM front panel TJ10-GG to backplane J5-45 Cable FST-W88-P1-GG to P2-24
A31565	CSFM front panel TJ10-GG to backplane J7-85
A31575	CSFM front panel TJ8-25 to backplane J7-32 CSFM front panel TJ10-FF to backplane J5-44 Cable FST-W88-P1-FF to P2-25
A31580	CSFM front panel TJ10-FF to backplane J7-84
A31590	CSFM front panel TJ8-26 to backplane J7-135 CSFM front panel TJ10-MM to backplane J5-43 Cable FST-W88-P1-MM TO P2-26

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A31705	CSFM front panel TJ10-MM to backplane J7-82
A31715	CSFM front panel TJ8-77 to backplane J2-30 CSFM front panel TJ8-77 to backplane J4-30
A31720	CSFM front panel TJ10-LL to backplane J7-81 Cable FST-W88-P1-LL to P2-77
A31725	CSFM front panel TJ10-LL to backplane J5-42
A31760	CSFM front panel TJ10-U to backplane J4-171 CSFM front panel TJ10-U to backplane J11-19 CSFM front panel UJ8-E to J11-10
A31765	CSFM front panel TJ10-V to backplane J4-124 CSFM front panel TJ10-V to backplane J11-70
A31770	CSFM front panel TJ10-W to backplane J4-127 CSFM front panel TJ10-W to backplane J11-24
A31775	CSFM front panel TJ10-h to backplane J4-123 CSFM front panel TJ10-h to backplane J11-3
A31780	CSFM front panel TJ8-125 to UJ8-E CSFM front panel TJ8-125 to backplane J7-10
A31785	CSFM front panel TJ8-118 to UJ8-E CSFM front panel TJ8-36 to backplane J7-74 Cable FST-W88-P2-36 to P2-118
A31790	CSFM front panel TJ8-126 to UJ8-E CSFM front panel TJ8-30 to backplane J7-7 Cable FST-W88-P2-30 to P2-126
A31955	CSFM front panel TJ10-PP to backplane J5-201 CSFM front panel TJ8-27 to backplane J7-126 Cable FST W88-P1-PP to P2-27
A32500	CSFM front panel TJ10-NN to backplane J5-200 Cable FST-W88-P1-NN to P2-113
A32505	CSFM front panel TJ5-59 to J7-178 CSFM front panel TJ5-59 to TJ7-20 Adapter FST TJ7-2-1 to FST TJ7-2-20
A32510	CSFM front panel TJ6-16 to J4-17 CSFM front panel TJ4-S to TJ5-59 Cable FST-W87-P1-16 to P2-S
A32520	CSFM front panel TJ4-LL to TJ4-MM (1K ± 10 ohms) CSFM front panel TJ4-L to UJ8-L

CSFM FST FAULT ID NUMBER TABLE – CONTINUED **0036 01**

Test ID No.	CSFM/FST Cable/Adapter Wiring
	Cable FST-W87-P1-32 to P2-A Cable FST-W87-P2-A to P2-LL Cable FST-W87-P2-L to P2-MM
A32525	CSFM front panel TJ6-77 to backplane J2-170 Cable FST-W87-P1-32 to P2-A Cable FST-W87-P1-77 to P2-A
A32540	CSFM front panel TJ4-G to backplane J2-148 CSFM front panel TJ6-30 to backplane J4-139 Cable FST-W87-P1-30 to P2-G
A32542	CSFM front panel TJ4-NN to backplane J4-173 Cable FST-W87-P2-G to P2-NN
A32550	CSFM front panel TJ4-V to backplane J2-22 CSFM front panel TJ4-V to backplane J4-22 CSFM front panel TJ4-s to UJ8-G Cable FST-W87-P2-V to P2-s
A32555	CSFM front panel TJ6-97 to backplane J2-40 CSFM front panel TJ6-97 to backplane J4-40 CSFM front panel TJ4-AA to UJ8-G Cable FST-W87-P1-97 to P2-AA
A32560	CSFM front panel TJ6-98 to backplane J2-41 CSFM front panel TJ6-98 to backplane J4-41 CSFM front panel TJ4-CC to UJ8-G Cable FST-W87-P1-98 to P2-CC
A32565	CSFM front panel TJ6-99 to backplane J2-20 CSFM front panel TJ6-99 to backplane J4-19 CSFM front panel TJ4-EE to UJ8-G Cable FST-W87-P1-99 to P2-EE
A32570	CSFM front panel TJ6-100 to backplane J2-61 CSFM front panel TJ6-100 to backplane J4-61 CSFM front panel TJ4-GG to UJ8-G Cable FST-W87-P1-100 to P2-GG
A32705	CSFM front panel TJ6-101 to backplane J2-59 CSFM front panel TJ6-101 to backplane J4-59 CSFM front panel TJ4-g to UJ8-G Cable FST-W87-P1-101 to P2-g
A32735	CSFM front panel TJ6-1 to backplane J8-187 CSFM front panel TJ6-19 to backplane J4-162 Cable FST-W87-P1-1 to P1-19
A32740	CSFM front panel TJ6-19 to backplane J2-162

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A32750	CSFM front panel TJ5-23 to backplane J2-43 CSFM front panel TJ5-14 to backplane J7-98 Adapter FST TJ5-2-14 to FST TJ5-2-23
A32755	CSFM front panel TJ6-124 to backplane J4-110 CSFM front panel TJ6-14 to TJ6-55 Cable FST-W87-P1-55 to P1-124
A32760	CSFM front panel TJ8-46 to backplane J7-171 CSFM front panel TJ6-124 to TJ8-64 Cable FST-W88-P2-46 to P2-64
A32765	CSFM front panel TJ6-66 to backplane J2-114 CSFM front panel TJ8-34 to backplane J7-75 CSFM front panel TJ6-66 to TJ8-111 Cable FST-W88-P2-34 to P2-111
A32770	CSFM front panel TJ6-117 to backplane J4-45 CSFM front panel TJ6-56 to backplane J11-31 CSFM front panel TJ6-57 to backplane J11-49 Cable FST-W87-P1-56 to P1-66 Cable FST-W87-P1-57 to P1-117
A32785	CSFM front panel TJ8-14 to backplane J2-140 CSFM front panel TJ8-49 backplane J4-92 Cable FST-W88-P2-14 to P2-49
A32790	CSFM front panel TJ6-128 to backplane J7-118 CSFM front panel TJ6-63 to TJ8-49 Cable FST-W87-P1-63 to P1-128
A33005	CSFM front panel TJ6-15 to backplane J11-77 CSFM front panel TJ6-15 to backplane J4-125 CSFM front panel UJ8-E to backplane J11-11
A33010	CSFM front panel TJ6-78 to J4-185 Cable FST-W87-P1-15 to P1-78
A33015	CSFM front panel TJ6-78 to J2-185
A33025	Cable FST-W87-P1-84 to P2-i CSFM front panel TJ4-i to UJ8-G
A33030	Cable FST-W87-P1-86 to P2-q CSFM front panel TJ4-q to UJ8-G
A33040	Cable FST-W87-P1-91 to P2-y CSFM panel TJ4-y to UJ8-G
A40035	CSFM front panel TJ8-112 to backplane J2-17 CSFM front panel TJ6-62 to backplane J4-91 CSFM front panel TJ6-80 to TJ8-110

CSFM FST FAULT ID NUMBER TABLE – CONTINUED **0036 01**

Test ID No.	CSFM/FST Cable/Adapter Wiring
	Cable FST-W87-P1-62 to P1-80 Cable FST-W88-P2-110 to P2-112
A40040	CSFM front panel TJ6-116 to backplane J4-35 CSFM front panel TJ6-95 to TJ8-112 Cable FST-W87-P1-95 to P1-116
A40045	CSFM front panel TJ6-80 to backplane J2-167
A40055	CSFM front panel TJ6-75 to backplane J2-169 Cable FST-W87-P1-75 to P1-116
A40070	CSFM front panel TJ6-73 to backplane J2-188 CSFM front panel TJ6-76 to TJ8-67 Cable FST-W87-P1-73 to P1-76 Cable FST-W88-P2-67 to P2-81
A40080	CSFM front panel TJ6-74 to backplane J2-187 Cable FST-W87-P1-74 to P1-76
A40605	CSFM front panel TJ10-D to backplane J2-65 CSFM front panel TJ10-X to backplane J4-14 Cable FST-W88-P1-D to P1-X
A40615	CSFM front panel TJ7-83 to backplane J2-33 CSFM front panel TJ7-80 to backplane J4-89 Adapter FST TJ7-2-80 to FST TJ7-2-83
A40625	CSFM front panel TJ7-82 to backplane J2-45 CSFM front panel TJ7-84 to backplane J4-31 Adapter FST TJ7-2-82 to FST TJ7-2-84
A40650	CSFM front panel TJ10-F to backplane J2-34 CSFM front panel TJ10-G to backplane J4-71 CSFM front panel TJ5-16 to backplane J5-30 CSFM front panel TJ10-F to TJ5-73 Adapter FST TJ5-2-16 to FST TJ5-2-73 Cable FST-W88-P1-F to P1-G
A40660	CSFM front panel TJ10-C to backplane J2-64 CSFM front panel TJ10-C to backplane J4-64
A40665	CSFM front panel TJ8-68 to backplane J2-163 Cable FST-W88-P1-C to P2-68
A41025	CSFM front panel TJ5-4 to backplane J2-130 CSFM front panel TJ5-20 to backplane J7-117 Adapter FST TJ5-2-4 to FST TJ5-2-20
A41040	CSFM front panel TJ5-47 to backplane J2-125 CSFM front panel TJ5-19 to backplane J4-94 Adapter FST TJ5-2-19 to FST TJ5-2-47

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A41050	CSFM front panel TJ5-48 to backplane J2-124 Adapter FST TJ5-2-19 to FST TJ5-2-48
A41060	CSFM front panel TJ5-49 to backplane J2-127 Adapter FST TJ5-2-19 to FST TJ5-2-49
A410070	CSFM front panel TJ5-50 to backplane J2-123 Adapter FST TJ5-2-19 to FST TJ5-2-50
A41080	CSFM front panel TJ5-90 to backplane J8-23 CSFM front panel TJ5-9 to backplane J7-46 Adapter FST TJ5-2-9 to FST TJ5-2-90
A41200	CSFM front panel TJ7-88 to backplane J4-15 CSFM front panel TJ7-15 to backplane J11-27 CSFM front panel UJ8-E to backplane J11-11 Adapter FST TJ7-2-15 to FST TJ7-2-88
A41202	CSFM front panel TJ7-15 to backplane J4-135
A41205	CSFM front panel TJ7-89 to backplane J4-72 CSFM front panel TJ7-16 to backplane J11-93 Adapter FST TJ7-2-16 to FST TJ7-2-89
A41210	CSFM front panel TJ7-125 to UJ8-A Adapter FST TJ7-2-92 to FST TJ7-2-125
A41215	CSFM front panel TJ5-1 to backplane J10-110 CSFM front panel TJ5-29 to backplane J7-83 Adapter FST TJ5-2-1 to FST TJ5-2-29
A41225	CSFM front panel TJ5-77 to backplane J2-47 CASFM front panel TJ5-34 to backplane J4-108 Adapter FST TJ5-2-34 to FST TJ5-2-77
A41230	CSFM front panel TJ5-36 to backplane J2-174 Adapter FST TJ5-2-34 to FST TJ5-2-36
A41240	CSFM front panel TJ5-37 to backplane J2-165 Adapter FST TJ5-2-34 to FST TJ5-2-37
A41250	CSFM front panel TJ5-36 to backplane J2-143
A41260	CSFM front panel TJ5-37 to backplane J2-115
A41525	CSFM front panel TJ5-78 to backplane J2-60 CSFM front panel TJ5-35 to backplane J4-141 Adapter FST TJ5-2-35 to FST TJ5-2-78
A41530	CSFM front panel TJ5-38 to backplane J2-172 Adapter FST TJ5-2-35 to FST TJ5-2-38

CSFM FST FAULT ID NUMBER TABLE – CONTINUED **0036 01**

Test ID No.	CSFM/FST Cable/Adapter Wiring
A41540	CSFM front panel TJ5-39 to backplane J2-173 Adapter FST TJ5-2-35 to FST TJ5-2-39
A41547	CSFM front panel TJ5-40 to backplane J2-172 Adapter FST TJ5-2-35 to FST TJ5-2-40
A41550	CSFM front panel TJ5-38 to backplane J2-145
A41560	CSFM front panel TJ5-39 to backplane J2-144
A41570	CSFM front panel TJ5-40 to backplane J2-142
A41585	CSFM front panel TJ7-90 to backplane J2-21 CSFM front panel TJ7-13 to backplane J7-119 CSFM front panel TJ7-13 to UJ8-G (51K ± 2.55 K ohms) Adapter FST TJ7-2-13 to FST TJ7-2-90
A41800	CSFM front panel TJ5-41 to backplane J7-129 CSFm front panel TJ5-42 to backplane J4-128 Adapter FST TJ5-2-41 to FST TJ5-2-42
A41805	CSFM front panel TJ5-95 to UJ8-A Adapter FST TJ5-2-71 to FST TJ5-2-95
A41815	CSFM front panel TJ7-79 to backplane J8-93 CSFM front panel TJ7-106 to backplane J7-174 Adapter FST TJ7-2-17 to FST TJ7-2-79 Adapter FST TJ7-2-17 to FST TJ7-2-106
A41820	CSFM front panel TJ7-17 to backplane J2-182
A41830	CSFM front panel TJ6-7 to TJ7-106 Cable FST-W87-P1-7 to P1-69
A41840	CSFM front panel TJ6-65 to backplane J2-97 CSFM front panel TJ6-112 to backplane J4-157 Cable FST-W87-P1-65 to P1-112
A41845	CSFM front panel TJ8-39 to backplane J4-1743 CSFM front panel TJ6-65 to TJ8-51 Cable FST-W88-P2-39 to P2-51
A41848	CSFM front panel TJ8-87 to backplane J8-34 CSFM front panel TJ8-12 to backplane J7-160 Cable FST-W88-P2-12 to P2-87
A41865	CSFM front panel TJ8-13 to backplane J2-94 CSFM front panel TJ10-f to backplane J4-165 Cable FST-W88-P1-f to P2-13

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A42005	CSFM front panel TJ8-88 to backplane J8-41 CSFM front panel TJ8-18 to backplane J7-64 Cable FST-W88-P2-18 to P2-88
A42020	CSFM front panel TJ8-41 to backplane J4-36 CSFM front panel TJ10-U to backplane J11-19 CSFM front panel UJ8-E to backplane J11-10 Cable FST-W88-P1-U to P2-41
A42025	CSFM front panel TJ10-U to backplane J4-171
A42030	CSFM front panel TJ10-V to backplane J11-70 CSFM front panel TJ10-V to backplane J4-124
A42035	CSFM front panel TJ8-42 to backplane J7-168 Cable FST-W88-P1-V to P2-42
A42040	CSFM front panel TJ10-W to backplane J11-24 CSFM front panel TJ10-W to backplane J4-127
A42045	CSFM front panel TJ8-43 to backplane J7-16 Cable FST-W88-P1-W to P2-43
A42050	CSFM front panel TJ10-h to backplane J11-3 CSFM front panel TJ10-h to backplane J4-123
A42055	CSFM front panel TJ8-44 to backplane J7-44 Cable FST-W88-P1-h to P2-44
A42060	CSFM front panel TJ7-16 to backplane J11-93 CSFM front panel TJ7-16 to backplane J7-36 CSFM front panel UJ8-E to backplane J11-11
A42070	CSFM front panel TJ8-56 to backplane J2-116 CSFM front panel TJ8-57 to backplane J4-117 Cable FST-W88-P2-56 to P2-57
A42075	CSFM front panel TJ8-58 to backplane J2-96 CSFM front panel TJ8-59 to backplane J4-119 Cable FST-W88-P2-58 to P2-59
A42080	CSFM front panel TJ8-60 to backplane J2-134 CSFM front panel TJ8-61 to backplane J4-111 Cable FST-W88-P2-60 to P2-61
A42085	CSFM front panel TJ8-62 to backplane J2-132 CSFM front panel TJ8-63 to backplane J4-93 Cable FST-W88-P2-62 to P2-63
A42110	CSFM front panel TJ8-82 to backplane J2-5 CSFM front panel TJ8-82 to backplane J4-5 CSFM front panel TJ10-c to UJ8-G (5.62 ± 56 ohms) Cable FST-W88-P1-c to P2-82

CSFM FST FAULT ID NUMBER TABLE – CONTINUED **0036 01**

Test ID No.	CSFM/FST Cable/Adapter Wiring
A42115	CSFM front panel TJ8-100 to backplane J8-48 CSFM front panel TJ8-100 to backplane J7-145
A42125	CSFM front panel TJ8-117 to backplane J2-139 CSFM front panel TJ8-45 to backplane J7-173 Cable FST-W88-P2-45 to P2-117
A42135	CSFM front panel TJ10-d to backplane J2-70 CSFM front panel TJ10-d to backplane J4-70 Cable FST-W88-P1-d to P2-70
A42140	CSFM front panel TJ8-52 to backplane J2-135 CSFM front panel TJ8-31 to backplane J4-106 Cable FST-W88-P2-31 to P2-52
A42165	CSFM front panel TJ8-54 to backplane J2-137 CSFM front panel TJ10-u to backplane J4-106 Cable FST-W88-P1-u to P2-54
A42175	CSFM front panel TJ8-78 to backplane J2-63 CSFM front panel TJ10-e to backplane J4-189 Cable FST-W88-P1-e to P2-78
A42195	CSFM front panel TJ8-55 to backplane J2-112 CSFM front panel TJ10-g to backplane J4-120 Cable FST-W88-P1-g to P2-55
A57000	CSFM front panel TJ3-51 to backplane J7-198 CSFM front panel TJ3-14 to backplane J10-16 Adapter FST TJ3-14 to FST TJ3-51
A57005	CSFM front panel TJ3-50 to backplane J7-202 CSFM front panel TJ3-96 to backplane J8-85 Adapter FST TJ3-50 to FST TJ3-96
A57010	CSFM front panel TJ3-95 to backplane J8-84 Adapter FST TJ3-14 to FST TJ3-95
A57040	CSFM front panel TJ3-52 to backplane J8-16 CSFM front panel TJ3-60 to backplane J8-118 Adapter FST TJ3-52 to FST TJ3-60
457045	CSFM front panel TJ3-75 to backplane J4-198 CSFM front panel TJ3-88 to backplane J8-196 CSFM front panel TJ3-87 to backplane J8-192 Adapter FST TJ3-52 to FST TJ3-87 Adapter FST TJ3-75 to FST TJ3-88
A57062	CSFM front panel TJ3-86 to backplane J8-188 Adapter FST TJ3-75 to FST TJ3-86

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A57070	CSFM front panel TJ3-84 to backplane J8-186 CSFM front panel TJ3-74 to backplane J4-202 Adapter FST TJ3-74 to FST TJ3-84
A57075	CSFM front panel TJ3-101 to backplane J8-12 CSFM front panel TJ3-102 to backplane J8-13 CSFM front panel TJ3-103 to backplane J11-34 Adapter FST TJ3-101 to FST TJ3-103 Adapter FST TJ3-74 to FST TJ3-102
A57090	CSFM front panel TJ3-49 to backplane J7-201 CSFM front panel TJ3-23 to backplane J10-167 Adapter FST TJ3-23 to FST TJ3-49
A57095	CSFM front panel TJ3-56 to backplane J7-176 CSFM front panel TJ3-94 to backplane J8-182 Adapter FST TJ3-56 to FST TJ3-94
A57100	CSFM front panel TJ3-93 to backplane J8-181 Adapter FST TJ3-23 to FST TJ3-93
A57125	CSFM front panel TJ3-89 to backplane J8-167 CSFM front panel TJ3-90 to backplane J8-168 CSFM front panel TJ3-66 to backplane J8-124 CSFM front panel TJ3-53 to backplane J8-17 Adapter FST TJ3-53 to FST TJ3-89 Adapter FST TJ3-66 to FST TJ3-90
A57135	CSFM front panel TJ3-65 to backplane J8-123 Adapter FST TJ3-53 to FST TJ3-65
A57150	CSFM front panel TJ3-55 to backplane J8-18 CSFM front panel TJ3-91 to backplane J8-157 CSFM front panel TJ3-92 to backplane J8-158 CSFM front panel TJ3-78 to backplane J7-67 Adapter FST TJ3-55 to FST TJ3-91 Adapter FST TJ3-78 to FST TJ3-92
A57165	CSFM front panel TJ3-79 to backplane J7-68 CSFM front panel TJ3-28 to backplane J10-65 Adapter FST TJ3-28 to FST TJ3-79
A57170	CSFM front panel TJ3-72 to backplane J4-200 CSFM front panel TJ3-98 to backplane J8-71 Adapter FST TJ3-72 to FST TJ3-98
A57175	CSFM front panel TJ3-97 to backplane J8-29 Adapter FST TJ3-28 to FST TJ3-97

CSFM FST FAULT ID NUMBER TABLE – CONTINUED **0036 01**

Test ID No.	CSFM/FST Cable/Adapter Wiring
A57200	CSFM front panel TJ3-83 to backplane J8-185 CSFM front panel TJ3-73 to backplane J4-201 Adapter FST TJ3-73 to FST TJ3-83
A57205	CSFM front panel TJ3-99 to backplane J8-14 CSFM front panel TJ3-100 to backplane J8-15 CSFM front panel TJ3-54 to backplane J10-76 Adapter FST TJ3-54 to FST TJ3-99 Adapter FST TJ3-73 to FST TJ3-100
A57320	CSFM front panel TJ3-86 to backplane J8-188 CSFM front panel TJ3-75 to backplane J4-198 Adapter FST TJ3-75 to FST TJ3-86
A57355	CSFM front panel UJ8-B to backplane J11-84 CSFM front panel TJ3-104 to backplane J11-87 CSFM front panel TJ3-57 to backplane J7-18 Adapter FST TJ3-57 to FST TJ3-104
A57390	CSFM front panel TJ3-80 to backplane J8-106 CSFM front panel TJ3-48 to backplane J7-200 Adapter FST TJ3-48 to FST TJ3-80
A57400	CSFM front panel TJ3-81 to backplane J8-183 Adapter FST TJ3-48 to FST TJ3-81
A57410	CSFM front panel TJ3-82 to backplane J8-184 Adapter FST TJ3-48 to FST TJ3-82
A59000	CSFM front panel TJ3-2 to backplane J10-179 CSFM front panel TJ3-3 to backplane J10-128 Adapter FST TJ3-2 to FST TJ3-3
A59005	CSFM front panel TJ3-2 to backplane J10-179 CSFM front panel TJ3-3 to backplane J10-128 Adapter FST TJ3-2 to FST TJ3-3
A59050	CSFM front panel TJ3-4 to backplane J10-23 CSFM front panel TJ3-5 to backplane J10-75 Adapter FST TJ3-4 to FST TJ3-5
A59100	CSFM front panel TJ3-7 to backplane J10-177 CSFM front panel TJ3-9 to backplane J10-125 CSFM front panel TJ3-8 to backplane J10-178 CSFM front panel TJ3-10 to backplane J10-176 Adapter FST TJ3-7 to FST TJ3-9 Adapter FST TJ3-8 to FST TJ3-10
A59200	CSFM front panel TJ3-13 to backplane J10-67 CSFM front panel TJ3-15 to backplane J10-15 Adapter FST TJ3-13 to FST TJ3-15

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A59250	CSFM front panel TJ3-14 to backplane J10-16 CSFM front panel TJ3-16 to backplane J10-14 Adapter FST TJ3-14 to FST TJ3-95 Adapter FST TJ3-16 to FST TJ3-96
A59300	CSFM front panel TJ3-18 to backplane J10-120 CSFM front panel TJ3-19 to backplane J10-171 CSFM front panel TJ3-20 to backplane J10-172 CSFM front panel TJ3-21 to backplane J10-173 Adapter FST TJ3-18 to FST TJ3-20 Adapter FST TJ3-19 to FST TJ3-21
A59400	CSFM front panel TJ3-22 to backplane J10-168 CSFM front panel TJ3-24 to backplane J10-118 Adapter FST TJ3-22 to FST TJ3-24
A59450	CSFM front panel TJ3-23 to backplane J10-167 CSFM front panel TJ3-25 to backplane J10-169 Adapter FST TJ3-23 to FST TJ3-93 Adapter FST TJ3-25 to FST TJ3-94
A59500	CSFM front panel TJ3-27 to backplane J10-13 CSFM front panel TJ3-29 to backplane J10-64 Adapter FST TJ3-27 to FST TJ3-29 CSFM front panel TJ3-28 to backplane J10-64 CSFM front panel TJ3-30 to backplane J10-12 Adapter FST TJ3-28 to FST TJ3-97 Adapter FST TJ3-30 to FST TJ3-98
A59600	CSFM front panel TJ3-35 to backplane J10-166 CSFM front panel TJ3-36 to backplane J10-115 CSFM front panel TJ3-37 to backplane J10-114 CSFM front panel TJ3-38 to backplane J10-165 Adapter FST TJ3-35 to FST TJ3-37 Adapter FST TJ3-36 to FST TJ3-38
A59700	CSFM front panel TJ3-39 to backplane J10-11 CSFM front panel TJ3-40 to backplane J10-63 CSFM front panel TJ3-41 to backplane J10-62 CSFM front panel TJ3-42 to backplane J10-10 Adapter FST TJ3-39 to FST TJ3-41 Adapter FST TJ3-40 to FST TJ3-42
A59800	CSFM front panel TJ3-11 to backplane J10-74 CSFM front panel TJ3-12 to backplane J10-22 CSFM front panel TJ3-33 to backplane J10-21 CSFM front panel TJ3-34 to backplane J10-73 Adapter FST TJ3-11 to FST TJ3-33 Adapter FST TJ3-12 to FST TJ3-34

CSFM FST FAULT ID NUMBER TABLE – CONTINUED 0036 01

Test ID No.	CSFM/FST Cable/Adapter Wiring
A62000	CSFM front panel TJ3-6 to backplane J11-73 CSFM front panel TJ3-69 to backplane J8-127 Adapter FST TJ3-6 to FST TJ3-69
A62010	CSFM front panel TJ3-17 to backplane J10-55 CSFM front panel TJ3-64 to backplane J8-122 Adapter FST TJ3-17 to FST TJ3-64
A62020	CSFM front panel TJ3-26 to backplane J10-56 CSFM front panel TJ3-67 to backplane J8-125 Adapter FST TJ3-26 to FST TJ3-67
A62030	CSFM front panel TJ3-32 to backplane J10-66 CSFM front panel TJ3-68 to backplane J8-126 Adapter FST TJ3-32 to FST TJ3-68
A62040	CSFM front panel TJ3-31 to backplane J10-61 CSFM front panel TJ3-70 to backplane J8-128 Adapter FST TJ3-31 to FST TJ3-70
A62050	CSFM front panel TJ3-45 to backplane J10-71 CSFM front panel TJ3-71 to backplane J8-129 Adapter FST TJ3-45 to FST TJ3-71
A62052	CSFM front panel TJ4-a to backplane J5-72 CSFM front panel TJ4-W to backplane J7-15 Cable FST-W87 P2-a to P2-W
A62057	CSFM front panel TJ4-f to backplane J5-111 CSFM front panel TJ6-37 to backplane J4-75 Cable FST-W87 P1-37 to P2-f
A65090	Continuity through CSFM coaxial adapter/connector TJ1 Continuity through CSFM coaxial cable

CABLE WIRE LISTS TABLES, PART ONE 0037 00

THIS WORK PACKAGE COVERS:

Cable wiring lists for the following test cables and adapters:

- OIU MEM-W60 (Table 1)
- OIU FST-TJ4 (Table 2)
- OIU FST-TJ5-1 (Table 3)
- OIU FST-TJ5-2 (Table 4)
- OIU FST-TJ6 (Table 5)
- OIU FST-TJ7-1 (Table 6)
- OIU FST-TJ7-2 (Table 7)
- OIU FST-TJ8 (Table 8)
- OIU FST-TJ9-1 (Table 9)
- OIU FST-TJ9-2 (Table 10)
- OIU FST-TJ10 (Table 11)
- OIU FST-W86 (Table 12)
- OIU FST-W87 (Table 13)
- OIU FST-W88 (Table 14)
- GPIA-W21 (Table 15)
- GPIA-W23 (Table 16)
- GPIA FST-W34 (Table 17)
- GPIA FST-UJ2 (Table 18)
- GPIA FST-UJ5-1 (Table 19)
- GPIA FST-UJ5-2 (Table 20)
- GPIA FST-UJ6-1 (Table 21)
- GPIA FST-UJ6-2 (Table 22)
- GPIA FST-UJ6-3 (Table 23)
- GPIA FST-UJ6-4 (Table 24)
- GPIA FST-UJ6-5 (Table 25)

Table 1. M1/FVS Memory (MEM-W60) Cable Wiring List

From W60-P1 UJ3	To W60-P2 J1
P1-A	P2-A
P1-B	P2-B
P1-C	P2-C
P1-D	P2-D
P1-E	P2-E
P1-H	P2-H
P1-P	P2-P
P1-R	P2-R
P1-R	DR1-16
P1-S	P2-S
P1-T	P2-T
P1-U	P2-U
P1-V	P2-V
P1-W	P2-W
P1-X	P2-X
P1-Y	P2-Y
P1-Z	P2-Z
P1-a	P2-a

Table 2. CSFM/OIU Functional Self Test (FST-TJ4) Test Plug Wiring List

From	To
*A	*HH
C	Z
E	W
F	e
**H	**HH
J	V
K	U
L	j
M	KK
N	JJ
P	k
c	PP

* P/N 12309035-1 only
** P/N 12309035 only

Table 3. CSFM/OIU Functional Self Test (FST-TJ5-1) Test Plug Wiring List

From	To
1	14
1	93
2	120
5	79
6	102
7	24
8	64
9	19
10	86
11	87
12	88
13	23
*16	*104
*17	*22
*17	*55
20	76
29	96
30	74
*33	*56
43	77
43	78
44	100
45	127

Table 3. CSFM/OIU Functional Self Test (FST-TJ5-1) Test Plug Wiring List (cont)

From	To
46	53
57	68
59	69
**60	**70
*61	*60
61	71
62	123
65	122
66	111
67	113
*70	*128
72	126
73	103
75	101
80	109
92	99
94	97
*98	*105
110	119
**112	**128
115	121

* P/N 12309036-6 only
** P/N 12309036-4 only

Table 4. CSFM/OIU Functional Self Test (FST-TJ5-2) Test Plug Wiring List

From	To
1	29
3	67
4	20
6	104
7	108
8	22
9	90
10	25
11	63
12	27
13	17
14	23
15	74
16	73
18	62
19	47
19	48
19	49
19	50
21	57
26	44
28	45
31	97
32	51
33	52
34	36
34	37

Table 4. CSFM/OIU Functional Self Test (FST-TJ5-2) Test Plug Wiring List (cont)

From	To
34	77
35	38
35	39
35	40
35	78
41	42
41	43
55	119
56	121
58	96
60	101
65	98
66	124
68	83
69	85
70	125
71	95
72	118
75	106
76	107
82	122
84	123
86	89
91	128
99	105
120	127

Table 5. CSFM/OIU Functional Self Test (FST-TJ6) Test Plug Wiring List

From	To
1	121
1	16
2	24
3	97
4	39
5	33
6	86
7	99
8	56
9	57
*12	*104
*12	*114
*13	*103
*14	*102
15	78
17	112
18	113
20	108
21	94
22	88
23	89
25	52
26	91
27	67
28	50
29	46
30	47
31	48
32	49

Table 5. CSFM/OIU Functional Self Test (FST-TJ6) Test Plug Wiring List (cont)

From	To
34	90
35	51
36	58
37	61
38	111
40	62
41	68
42	96
43	Backshell
44	85
45	119
53	128
54	117
*59	*106
60	118
70	93
71	100
72	101
76	127
81	92
83	84
87	116
95	J1
98	Backshell
**105	**115
*109	*120
122	125
124	126

* P/N 12309037-3 and 12309037-4 only.
** P/N 12309037-3 only.

Table 6. CSFM/OIU Functional Self Test (FST-TJ7-1) Test Plug Wiring List

From	To
*1	*128
2	84
3	91
4	80
5	12
6	89
7	25
8	37
9	59
10	21
11	22
14	27
18	81
20	88
24	31
29	82
30	83
32	113
33	114
34	115
35	111
36	112
38	39
38	66
40	41

Table 6. CSFM/OIU Functional Self Test (FST-TJ7-1) Test Plug Wiring List (cont)

From	To
40	64
42	44
42	67
43	45
43	68
46	48
46	71
47	49
47	72
50	52
50	74
51	53
51	75
54	55
54	76
56	57
56	77
58	78
60	62
60	63
61	65
69	93
85	126
90	94
92	127
**106	**128

* P/N 12309038-4 only
** P/N 12309038-1 only

Table 7. CSFM/OIU Functional Self Test (FST-TJ7-2) Test Plug Wiring List

From	To
1	20
7	28
8	18
8	21
8	123
9	122
10	19
11	118
12	120
13	90
14	121
15	88
16	89
17	79
17	106
22	93
**26	**128
*31	*128
32	108
33	107
35	110
36	109
63	97
63	101
65	95
65	99

Table 7. CSFM/OIU Functional Self Test (FST-TJ7-2) Test Plug Wiring List (cont)

From	To
66	96
66	100
68	117
69	119
70	73
71	104
72	103
75	116
77	98
77	102
80	83
82	84
85	105
92	125

* P/N 12309038-5 only
** P/N 12309038-3 only

Table 8. CSFM/OIU Functional Self Test (FST-TJ8) Test Plug Wiring List

From	To
3	102
4	21
5	16
6	17
7	18
8	19
11	119
12	122
15	98
20	73
22	80
23	108
26	72
27	75
28	74
29	104
30	105
32	89
33	90
34	91
35	92
36	93
37	94
38	95
40	101
47	127
48	106
65	107
67	124
70	78

Table 8. CSFM/OIU Functional Self Test (FST-TJ8) Test Plug Wiring List (cont)

From	To
71	79
76	120
77	123
82	97
99	115
103	113
109	116
111	114
112	121

Table 9. OIU Functional Self Test (FST-TJ9-1) Test Plug Wiring List

From	To
3	30
4	14
8	31
9	15
13	62
14	4
15	9
16	64
21	32
33	57
37	60
38	61
39	63
44	45

Table 10. OIU Functional Self Test (FST-TJ9-2) Test Plug Wiring List

From	To
1	33
2	63
10	12
13	53
15	16
17	34
18	35
19	41
20	42
22	43
23	39
24	44
25	30
26	31
27	32
28	40
29	49
36	37
37	36
38	58
46	50
47	55
48	56
51	54
52	100

Table 11. CSFM/OIU Functional Self Test (FST-TJ10) Test Plug Wiring List

From	To	Resistance
A	AA	
B	C	
D	L	
E	v	
F	Z	
G	s	
H	q	
T	b	
Y	d	
s	G	
**BB	**HH	
***BB	***u	
*HH	*t *w	
****HH	****t ****w ****KK	
****MM	****s	150 ± 15 ohms

* P/N 12309041-2 only
** P/N 12309041 only
*** P/N 12309041, 12309041-2, and 12309041-3 only.
**** P/N 12309041-3 only.

Table 12. OIU Functional Self Test (FST-W86) Cable Wiring List

From W86-P2 OIU UJ2	To W86-P1 MM J1
4	H
5	A
10	H
11	C
18	V
19	Y
20	X
21	W
22	Z
25	P
26	D
27	B
28	U
29	T
30	R
31	E
32	a
33	S

Table 13. CSFM/OIU Functional Self Test (FST-W87) Cable Wiring List

From W87-P1 OIU TJ6	To W87-P2 OIU TJ4
P1-1	JUMPER
P1-19	JUMPER
P1-7	JUMPER
P1-69	JUMPER
P1-11	JUMPER
P1-31	JUMPER
P1-12	JUMPER
P1-21	JUMPER
P1-13	JUMPER
P1-22	JUMPER
P1-14	JUMPER
P1-23	JUMPER
P1-15	JUMPER
P1-78	JUMPER
P1-16	P2-S
P1-17	JUMPER
P1-64	JUMPER
P1-20	JUMPER
P1-46	JUMPER
P1-114	JUMPER
P1-24	JUMPER
P1-79	JUMPER
P1-25	JUMPER
P1-109	JUMPER
P1-26	JUMPER
P1-107	JUMPER
P1-27	JUMPER
P1-105	JUMPER
P1-28	JUMPER
P1-118	JUMPER

Table 13. CSFM/OIU Functional Self Test (FST-W87) Cable Wiring List (cont)

From W87-P1 OIU TJ6	To W87-P2 OIU TJ4
P1-29	P2-R
P1-30	P2-G
P1-32	P2-A
P1-33	P2-h
P1-34	P2-x
P1-35	JUMPER
P1-115	JUMPER
P1-36	P2-t
P1-37	P2-f
P1-38	P2-z
P1-39	P2-p
P1-40	P2-DD
P1-41	JUMPER
P1-120	JUMPER
P1-42	P2-r
P1-43	P2-FF
P1-44	P2-BB
P1-45	P2-m
P1-55	JUMPER
P1-124	JUMPER
P1-56	JUMPER
P1-66	JUMPER
P1-57	JUMPER
P1-117	JUMPER
P1-59	JUMPER
P1-61	JUMPER
P1-62	JUMPER
P1-80	JUMPER
P1-63	JUMPER
P1-128	JUMPER

Table 13. CSFM/OIU Functional Self Test (FST-W87) Cable Wiring List (cont)

From W87-P1 OIU TJ6	To W87-P2 OIU TJ4
P1-65	JUMPER
P1-112	JUMPER
P1-68	P2-T
P1-73	JUMPER
P1-74	JUMPER
P1-76	JUMPER
P1-75	JUMPER
P1-95	JUMPER
P1-116	JUMPER
P1-77	P2-A
P1-82	JUMPER
P1-127	JUMPER
P1-84	P2-i
P1-85	P2-n
P1-86	P2-q
P1-91	P2-y
P1-92	P2-C
P1-96	P2-E
P1-97	P2-AA
P1-98	P2-CC
P1-99	P2-EE
P1-100	P2-GG
P1-101	P2-g
P1-110	JUMPER
P1-122	JUMPER
*P1-113	*P2-Z
JUMPER	P2-A
JUMPER	P2-LL
JUMPER	P2-U
JUMPER	P2-B

Table 13. CSFM/OIU Functional Self Test (FST-W87) Cable Wiring List (cont)

From W87-P1 OIU TJ6	To W87-P2 OIU TJ4
JUMPER	P2-F
JUMPER	P2-D
JUMPER	P2-NN
JUMPER	P2-G
JUMPER	P2-MM
JUMPER	P2-L
JUMPER	P2-b
JUMPER	P2-M
JUMPER	P2-Y
JUMPER	P2-N
JUMPER	P2-s
JUMPER	P2-V
JUMPER	P2-a
JUMPER	P2-W
JUMPER	**P2-HH
JUMPER	**P2-X

* P/N 12309043-1 only
** P/N 12309043 only

Table 14. CSFM/OIU Functional Self Test (FST-W88) Cable Wiring List

From W88-P1 OIU TJ10	To W88-P2 OIU TJ8
P1-B	P2-5
P1-C	P2-68
P1-D	JUMPER
P1-X	JUMPER
P1-E	JUMPER
P1-K	JUMPER
P1-F	JUMPER
P1-G	JUMPER
P1-H	JUMPER
P1-j	JUMPER
P1-J	P2-20
P1-M	P2-85
P1-N	P2-66
P1-R	P2-86
P1-S	P2-83
P1-U	P2-41
P1-V	P2-42
P1-W	P2-43
P1-Z	P2-96
P1-Z	JUMPER
P1-q	JUMPER
P1-Z	JUMPER
P1-s	JUMPER
P1-Z	JUMPER
P1-v	JUMPER
P1-a	P2-108
P1-c	P2-82
P1-d	P2-70
P1-e	P2-78
P1-f	P2-13
P1-g	P2-55

Table 14. CSFM/OIU Functional Self Test (FST-W88) Cable Wiring List (cont)

From W88-P1 OIU TJ10	To W88-P2 OIU TJ8
P1-h	P2-44
P1-i	JUMPER
P1-KK	JUMPER
P1-k	P2-33
P1-m	P2-15
P1-n	P2-16
P1-p	P2-17
P1-r	P2-75
P1-t	P2-115
P1-u	P2-54
P1-w	P2-80
P1-x	P2-32
P1-y	P2-21
**P1-CC	**P2-69
*P1-CC	*P2-116
**P1-DD	**P2-116
*P1-DD	*P2-69
P1-EE	P2-22
P1-FF	P2-25
P1-GG	P2-24
*P1-HH	*P2-1
P1-JJ	P2-23
P1-LL	P2-77
P1-MM	P2-26
**P1-NN	**P2-28
*P1-NN	*P2-113
P1-PP	P2-27
JUMPER	P2-2
JUMPER	P2-11
JUMPER	P2-4
JUMPER	P2-3

* P/N 12309044-1 only
** P/N 12309044 only

Table 14. CSFM/OIU Functional Self Test (FST-W88) Cable Wiring List (cont)

From W88-P1 OIU TJ10	To W88-P2 OIU TJ8
JUMPER	P2-6
JUMPER	P2-19
JUMPER	P2-9
JUMPER	P2-95
JUMPER	P2-10
JUMPER	P2-93
JUMPER	P2-12
JUMPER	P2-87
JUMPER	P2-14
JUMPER	P2-49
JUMPER	P2-18
JUMPER	P2-88
JUMPER	P2-29
JUMPER	P2-125
JUMPER	P2-30
JUMPER	P2-126
JUMPER	P2-31
JUMPER	P2-52
JUMPER	P2-34
JUMPER	P2-111
JUMPER	P2-35
JUMPER	P2-100
JUMPER	P2-36
JUMPER	P2-118
JUMPER	P2-37
JUMPER	P2-127
JUMPER	P2-39
JUMPER	P2-51
JUMPER	P2-40
JUMPER	P2-50

Table 14. CSFM/OIU Functional Self Test (FST-W88) Cable Wiring List (cont)

From W88-P1 OIU TJ10	To W88-P2 OIU TJ8
JUMPER	P2-45
JUMPER	P2-117
JUMPER	P2-46
JUMPER	P2-64
JUMPER	P2-53
JUMPER	P2-128
JUMPER	P2-56
JUMER	P2-57
JUMPER	P2-58
JUMPER	P2-59
JUMPER	P2-60
JUMPER	P2-61
JUMPER	P2-62
JUMPER	P2-63
JUMPER	P2-67
JUMPER	P2-81
JUMPER	P2-76
JUMPER	P2-84
JUMPER	P2-110
JUMPER	P2-112

Table 15. GPIA Power Cable Wiring List W21

GPIA UJ7 W21-P1	Power Supply
UJ7-A	Terminal Lug (-)
UJ7-C	Terminal Lug (-)
UJ7-B	Terminal Lug (+)
UJ7-D	Terminal Lug (+)
UJ7-E	Terminal Lug (GND)

Table 16. GPIA/OIU Interface (GPIA-W23) Cable Wiring List

W23-P1 OIU-UJ2	W23-P2 GPIA UJ1
P1-4	P2-4
P1-7	P2-7
P1-8	P2-8
P1-10	P2-10
P1-11	P2-11
P1-12	P2-12
P1-13	P2-13
P1-14	P2-14
P1-15	P2-15
P1-18	P2-18
P1-19	P2-19
P1-20	P2-20
P1-21	P2-21
P1-22	P2-22
P1-23	P2-23
P1-24	P2-24
P1-25	P2-25
P1-26	P2-26
P1-27	P2-27
P1-28	P2-28
P1-29	P2-29
P1-30	P2-30
P1-31	P2-31
P1-32	P2-32
P1-33	P2-33
P1-35	P2-35
P1-36	P2-36

Table 17. GPIA FST-W34 Cable Wiring List

From	To	Resistance
P1-1	P3-PP	20K ± 200 ohms
P1-2	P3-PP	20K ± 200 ohms
P1-3	P3-A	1K ± 10 ohms
P1-4	P2-37	10K ± 100 ohms
P1-5	P2-37	10K ± 100 ohms
P1-7	P2-35	10K ± 100 ohms
P1-8	P2-27	10K ± 100 ohms
P1-9	P2-27	10K ± 100 ohms
P1-11	P2-29	10K ± 100 ohms
P1-12	P2-29	10K ± 100 ohms
P1-13	P2-29	10K ± 100 ohms
P1-14	P3-PP	20K ± 200 ohms
P1-15	P3-h	20K ± 200 ohms
P1-16	P3-h	20K ± 200 ohms
P1-17	P2-37	10K ± 100 ohms
P1-20	P2-35	10K ± 100 ohms
P1-21	P2-27	10K ± 100 ohms
P1-24	P2-29	10K ± 100 ohms
P1-25	P2-29	10K ± 100 ohms
P2-01	P2-37	2K ± 20 ohms
P2-26	P2-27	2K ± 20 ohms
P2-28	P2-29	2K ± 20 ohms
P2-34	P2-36	2K ± 20 ohms

Table 17. GPIA FST-W34 Cable Wiring List (cont)

From	To	Resistance
P2-35	P2-36	2K ±20 ohms
P3-A	P3-PP	1K ±10 ohms
P3-U (–)	P3-p (+)	Open
P3-U (+)	P3-p (–)	450K to 600K ohms
P3-e	P3-f	Continuity
P3-g	P3-p	100K ±1000 ohms
P3-g	back shell	Continuity
P3-h	P3-X	10K ±100 ohms

Note: (+) denotes positive lead of analog multimeter.
(–) denotes negative lead of analog multimeter.

W34-P1
GPIA J13/
J14

W34-P2
GPIA UJ5

W34-P3
GPIA UJ6

Table 18. Functional Self Test Adapter FST-UJ2 Wiring List

From	To	Resistance
P1-2	P1-3	1K ± 50 ohms
P1-4	P1-5	-
P1-6	P1-20	1K ± 50 ohms

Table 19. Functional Self Test Adapter FST-UJ5-1 Wiring List

From	To	Resistance
P1-27	P1-36	-
P1-29	P1-36	-
P1-33	P1-35	-
P1-36	P1-32	10K ± 100 ohms

Table 20. Functional Self Test Adapter FST-UJ5-2 Wiring List

From	To	Resistance
P1-1	P1-37	10K ± 100 ohms
P1-26	P1-37	10K ± 100 ohms
P1-28	P1-37	10K ± 100 ohms
P1-33	P1-37	-

Table 21. Functional Self Test Adapter FST-UJ6-1 Wiring List

From	To	Resistance
P1-A	P1-PP	10K ± 100 ohms
P1-X	P1-g	10K ± 100 ohms
P1-f	P1-e	10K ± 100 ohms
P1-g	P1-f	10K ± 100 ohms
P1-i	P1-h	10K ± 100 ohms
P1-j	P1-h	10K ± 100 ohms
P1-m	P1-PP	10K ± 100 ohms

Table 22. Functional Self Test Adapter FST-UJ6-2 Wiring List

From	To	Resistance
P1-B	P1-h	20K ± 200 ohms
P1-C	P1-h	20K ± 200 ohms
P1-D	P1-h	20K ± 200 ohms
P1-E	P1-h	20K ± 200 ohms
P1-X	P1-PP	2K ± 20 ohms
P1-f	P1-g	2K ± 20 ohms
P1-AA	P1-BB	-
P1-BB	P1-CC	-
P1-CC	P1-DD	-
P1-DD	P1-f	-
P1-EE	P1-h	2K ± 20 ohms
P1-FF	P1-GG	-
P1-GG	P1-HH	-
P1-HH	P1-AA	-
P1-KK	P1-g	20K ± 200 ohms
P1-LL	P1-g	20K ± 200 ohms
P1-MM	P1-g	20K ± 200 ohms
P1-NN	P1-g	20K ± 200 ohms
P1-PP	P1-A	2K ± 20 ohms

Table 23. Functional Self Test Adapter FST-UJ6-3 Wiring List

From	To	Resistance
P1-V	P1-g	10K ± 100 ohms
P1-X	P1-g	2K ± 20 ohms
P1-a	P1-h	2K ± 20 ohms
P1-b	P1-h	1K ± 10 ohms
P1-c	P1-h	499 ohms ± 5 ohms
P1-d	P1-h	249 ohms ± 2.5 ohms
P1-e	P1-f	-
P1-k	P1-g	10K ± 100 ohms
P1-n	P1-g	10K ± 100 ohms
P1-p	P1-h	1K ± 10 ohms
P1-p	P1-PP	2K ± 20 ohms
P1-AA	P1-PP	10K ± 100 ohms
P1-BB	P1-PP	10K ± 100 ohms
P1-CC	P1-PP	10K ± 100 ohms
P1-DD	P1-PP	10K ± 100 ohms

Table 24. Functional Self Test Adapter FST-UJ6-4 Wiring List

From	To	Resistance
P1-U	P1-g	-
P1-X	P1-h	2K ± 20 ohms
P1-f	P1-e	-
P1-p	P1-PP	2K ± 20 ohms
P1-w	P1-BB	-
P1-x	P1-h	10K ± 100 ohms
P1-y	P1-h	10K ± 100 ohms
P1-z	P1-h	10K ± 100 ohms
P1-EE	P1-PP	10K ± 100 ohms
P1-FF	P1-PP	10K ± 100 ohms
P1-GG	P1-PP	10K ± 100 ohms
P1-HH	P1-AA	-

Table 25. Functional Self Test Adapter FST-UJ6-5 Wiring List

From	To	Resistance
P1-A	P1-PP	2K ± 20 ohms
P1-e	P1-f	-
P1-f	P1-g	2K ± 20 ohms
P1-i	P1-h	2K ± 20 ohms
P1-q	P1-g	10K ± 100 ohms
P1-r	P1-g	10K ± 100 ohms
P1-s	P1-h	10K ± 100 ohms
P1-t	P1-h	10K ± 100 ohms
P1-u	P1-PP	10K ± 100 ohms
P1-v	P1-PP	10K ± 100 ohms
P1-w	P1-BB	-

CABLE WIRE LISTS TABLES, PART TWO 0038 00

THIS WORK PACKAGE COVERS:

Cable wiring lists for the following test cables and adapters:

- GPIA Connector UJ1 (Table 1)
- GPIA Connector UJ2 (Table 2)
- GPIA Connector UJ5 (Table 3)
- GPIA Connector UJ6 (Table 4)
- GPIA Connector UJ7 (Table 5)
- DLRU-W93 (Table 6)
- CFM/MFM FST-W200 (Table 7)
- CFM/MFM FST-W201 (Table 8)
- CFM/GPIA FST 1553A-W203 (Table 9)
- CFM/GPIA FST 1553B-W203 (Table 10)
- CFM FST-TJ1 (Table 11)
- CFM FST-TJ2-1 (Table 12)
- CFM FST-TJ2-2 (Table 13)
- CFM FST-W385 (Table 14)
- EL/DPY-W228 (Table 15)
- EL Display FST Adapter (Table 16)
- TSA W456 (Table 17)
- TSA W457 (Table 18)
- TSA FST Adapter UJ6/W457 (Table 19)
- TSA W458 (Table 20)
- Color Display Adapter (Table 21)
- RS232 W330 (Table 22)
- W330-P3 Adapter (Table 23)
- Power W331 (Table 24)
- CSFM FST J3 Adapter (Table 25)

Table 1. GPIA Connector UJ1

From	Wire Number	To
UJ1-1	119	P7-8
UJ1-2	370	FL2-LINE 28V
UJ1-3*	189	140-142
UJ1-4	144	P7-36
UJ1-5	140	P7-30
UJ1-6	141	P7-32
UJ1-7	117	P7-3
UJ1-8	116	P7-2
UJ1-10*	190	120
UJ1-11	120	P7-9
UJ1-12	143	P7-35
UJ1-16	142	P7-34
UJ1-18	121	P7-10
UJ1-19	122	P7-11
UJ1-20	123	P7-12
UJ1-21	124	P7-13
UJ1-22	125	P7-14
UJ1-23	126	P7-15

Table 1. GPIA Connector UJ1 (cont)

From	Wire Number	To
UJ1-24	127	P7-16
UJ1-25	128	P7-17
UJ1-26	129	P7-18
UJ1-27	130	P7-19
UJ1-28	131	P7-20
UJ1-29	132	P7-21
UJ1-30*	191	133-135, 143, 144
UJ1-31	135	P7-24
UJ1-32	134	P7-23
UJ1-33	133	P7-22
UJ1-34	192	CHASSIS
UJ1-36*	193	116, 117
UJ1-37	371	FL2-LINE RTN

* Shield termination for the shielded wires in "To" column.

Table 2. GPIA Connector UJ2

From	Wire Number	To
UJ2-1	194	CHASSIS
UJ2-2	105	P8-36
UJ2-3	86	P8-10
UJ2-4	89	P8-13
UJ2-5	88	P8-12
UJ2-6	90	P8-14
UJ2-7*	195	86, 88-91, 105
UJ2-20	91	P8-15

*Shield termination for the shielded wires in "To" column.

Table 3. GPIA Connector UJ5

From	Wire Number	To
UJ5-1	64	P9-41
UJ5-26*	261	40
UJ5-27	40	P9-15
UJ5-28*	262	31
UJ5-29	31	P9-5
UJ5-30*	263	32
UJ5-31	32	P9-6
UJ5-32*	264	30
UJ5-33	30	P9-4
UJ5-34*	264	28, 29
UJ5-35	29	P9-3
UJ5-36	28	P9-2
UJ5-37	39	P9-14

*Shield termination for the shielded wires in "To" column.

Table 4. GPIA Connector UJ6

From	Wire Number	To
UJ6-A	63	P9-40
UJ6-B	266	TB3-5E
UJ6-C	267	TB3-5F
UJ6-D	268	TB3-5G
UJ6-E	269	TB3-5H
UJ6-U	139	P7-29
UJ6-V*	270	139
UJ6-W	260	TB1-1H
UJ6-X	387	TB3-3C
UJ6-Y	77	P9-54
UJ6-Z	76	P9-53
UJ6-a	58	P9-35
UJ6-b	57	P9-34
UJ6-c	56	P9-33
UJ6-d	55	P9-32
UJ6-e*	271	47, 49
UJ6-f	47	P9-22
UJ6-g	49	P9-24
UJ6-h	33	P9-7
UJ6-i*	272	33
UJ6-j	46	P9-21
UJ6-k*	273	46
UJ6-m	45	P9-20
UJ6-n*	274	45
UJ6-p	256	TB1-8G
UJ6-q	178	P15-17
UJ6-r	169	P15-3
UJ6-s	171	P15-6
UJ6-t	179	P15-18
UJ6-u	173	P15-8
UJ6-v	182	P15-21
UJ6-w	170	P15-4
UJ6-x	181	P15-20
UJ6-y	172	P15-7
UJ6-z	180	P15-19
UJ6-AA	275	TB1-9K
UJ6-BB	276	TB1-9J
UJ6-CC	277	TB1-10G
UJ6-DD	278	TB1-10F
UJ6-EE	279	TB1-18E
UJ6-FF	280	TB1-18F
UJ6-GG	281	TB1-18G
UJ6-HH	282	TB1-18H
UJ6-JJ	388	TB1-18D
UJ6-KK	283	P17-16
UJ6-LL	284	P17-15
UJ6-MM	285	P17-3
UJ6-NN	286	P17-2
UJ6-PP	38	P9-13

*Shield termination for the shielded wires in "To" column.

Table 5. GPIA Connector UJ7

From	Wire Number	To
UJ7-A	287	MODULE A9 L2-1
UJ7-B	288	CB1-1
UJ7-C	289	TB1-18A
UJ7-D	290	CB1-4
UJ7-E	291	CHASSIS
UJ7-F	292	CHASSIS

Table 6. Digital LRU (DLRU-W93) Cable Wiring List

From	To	Resistance
P1-2	P2-B	-
P1-3	P2-J	-
P1-7	P2-C	-
Adapter F	Adapter R	-
Adapter S	Adapter T	-
*Adapter A (+)	Adapter D (–)	7000K ± 100K Ohms
*Adapter A (–)	Adapter D (+)	Open
*Adapter L(+)	Adapter D (–)	700K ± 100K Ohms
*Adapter L (–)	Adapter D (+)	Open

* Measure with analog multimeter.
(+) Denotes positive multimeter lead.
(–) Denotes negative multimeter lead.

Table 7. CFM/MFM FST Cable Assembly W200 – Wire List

W200-P1 CFM-TJ3	W200-P2 CFM TJ4
P1-1	P2-3
P1-2	P2-4
P1-4 } Jumper	–
P1-69 } Jumper	–
P1-5 } Jumper	–
P1-75 } Jumper	–
P1-6 } Jumper	–
P1-76 } Jumper	–
P1-7 } Jumper	–
P1-28 } Jumper	–
P1-8 } Jumper	–
P1-80 } Jumper	–
P1-9 } Jumper	–
P1-25 } Jumper	–
P1-10 } Jumper	–
P1-79 } Jumper	–
P1-15	P2-44
P1-18	P2-46
P1-20 } Jumper	–
P1-33 } Jumper	–
P1-21 } Jumper	–
P1-109 } Jumper	–
P1-22 } Jumper	–
P1-110 } Jumper	–
P1-23	P2-1
P1-24	P2-2
P1-26 } Jumper	–
P1-120 } Jumper	–
P1-27 } Jumper	–
P1-53 } Jumper	–

W200-P1 CFM-TJ3	W200-P2 CFM TJ4
P1-29 } Jumper	–
P1-35 } Jumper	–
P1-30 } Jumper	–
P1-66 } Jumper	–
P1-31 } Jumper	–
P1-56 } Jumper	–
P1-32 } Jumper	–
P1-52 } Jumper	–
P1-38	P2-14
P1-39 } Jumper	–
P1-71 } Jumper	–
P1-42 } Jumper	–
P1-67 } Jumper	–
P1-45 } Jumper	–
P1-90 } Jumper	–
P1-46 } Jumper	–
P1-91 } Jumper	–
P1-47	P2-21
P1-48	P2-22
P1-49	P2-23
P1-50 } Jumper	–
P1-51 } Jumper	–
P1-57	P2-53
P1-59 } Jumper	–
P1-60 } Jumper	–
P1-62	P2-102
P1-63	P2-101
P1-64 } Jumper	–
P1-117 } Jumper	–
P1-65 } Jumper	–
P1-118 } Jumper	–

Table 7. CFM/MFM FST Cable Assembly W200 – Wire List (cont)

W200-P1 CFM-TJ3	W200-P2 CFM TJ4
P1-68	P2-49
P1-70 } Jumper	–
P1-74 } Jumper	–
P1-73	P2-98
P1-78 } Jumper	–
P1-92 } Jumper	–
P1-81 } Jumper	–
P1-98 } Jumper	–
P1-82 } Jumper	–
P1-99 } Jumper	–
P1-83 } Jumper	–
P1-126 } Jumper	–
P1-84	P2-115
P1-95 } Jumper	–
P1-124 } Jumper	–
P1-96 } Jumper	–
P1-125 } Jumper	–
P1-97	P2-104
P1-102	P2-54
P1-122	P2-127
P1-123	P2-119
P1-127	P2-122
P1-128	P2-123
–	P2-5 } Jumper
–	P2-50 } Jumper
–	P2-6 } Jumper
–	P2-51 } Jumper
–	P2-7 } Jumper
–	P2-76 } Jumper
–	P2-8 } Jumper
–	P2-77 } Jumper

W200-P1 CFM-TJ3	W200-P2 CFM TJ4
–	P2-9 } Jumper
–	P2-78 } Jumper
–	P2-10 } Jumper
–	P2-88 } Jumper
–	P2-11 } Jumper
–	P2-113 } Jumper
–	P2-12 } Jumper
–	P2-114 } Jumper
–	P2-13 } Jumper
–	P2-89 } Jumper
–	P2-16 } Jumper
–	P2-27 } Jumper
–	P2-19 } Jumper
–	P2-65 } Jumper
–	P2-20 } Jumper
–	P2-66 } Jumper
–	P2-25 } Jumper
–	P2-55 } Jumper
–	P2-26 } Jumper
–	P2-125 } Jumper
–	P2-28 } Jumper
–	P2-33 } Jumper
–	P2-29 } Jumper
–	P2-48 } Jumper
–	P2-30 } Jumper
–	P2-74 } Jumper
–	P2-31 } Jumper
–	P2-64 } Jumper
–	P2-52 } Jumper
–	P2-75 } Jumper

Table 7. CFM/MFM FST Cable Assembly W200 – Wire List (cont)

W200-P1 CFM-TJ3	W200-P2 CFM TJ4
–	P2-59 } Jumper
–	P2-60
–	P2-69 } Jumper
–	P2-80
–	P2-70 } Jumper
–	P2-81
–	P2-79 } Jumper
–	P2-87
–	P2-91 } Jumper
–	P2-100
–	P2-94 } Jumper
–	P2-105
–	P2-95 } Jumper
–	P2-106
–	P2-96 } Jumper
–	P2-103

Table 8. CFM/MFM FST Cable Assembly W201 – Wire List

W201-P1 CFM TJ1	W201-P2 CFM TJ3	W201-P3 CFM TJ4
P1-1 } Jumper	–	–
P1-18 } Jumper	–	–
P1-2 } Jumper	–	–
P1-19 } Jumper	–	–
P1-7 } Jumper	–	–
P1-121 } Jumper	–	–
P1-8 } Jumper	–	–
P1-113 } Jumper	–	–
P1-13	P2-39	–
P1-14	P2-36	–
P1-15	P2-37	–
P1-16	P2-38	–
P1-17	–	P3-90
P1-21	–	P3-124
P1-22	–	P3-128
P1-23	P2-111	–
P1-24	P2-104	–
P1-25	P2-107	–
P1-26	P2-108	–
P1-27	P2-40	–
P1-29 } Jumper	–	–
P1-56 } Jumper	–	–
P1-31 } Jumper	–	–
P1-70 } Jumper	–	–
P1-32 } Jumper	–	–
P1-71 } Jumper	–	–
P1-33 } Jumper	–	–
P1-72 } Jumper	–	–
P1-34 } Jumper	–	–
P1-73 } Jumper	–	–

Table 8. CFM/MFM FST Cable Assembly W201 – Wire List (cont)

W201-P1 CFM TJ1	W201-P2 CFM TJ3	W201-P3 CFM TJ4
P1-35 } Jumper	–	–
P1-74 } Jumper	–	–
P1-36 } Jumper	–	–
P1-75 } Jumper	–	–
P1-47 } Jumper	–	–
P1-66 } Jumper	–	–
P1-48	P2-90	–
P1-49 } Jumper	–	–
P1-68 } Jumper	–	–
P1-50 } Jumper	–	–
P1-69 } Jumper	–	–
P1-51 } Jumper	–	–
P1-67 } Jumper	–	–
P1-55	–	P3-15
P1-57 } Jumper	–	–
P1-109 } Jumper	–	–
P1-59 } Jumper	–	–
P1-60 } Jumper	–	–
P1-61	–	P3-30
P1-76 } Jumper	–	–
P1-77 } Jumper	–	–
P1-78 } Jumper	–	–
P1-81 } Jumper	–	–
P1-79 } Jumper	–	–
P1-99 } Jumper	–	–
P1-80 } Jumper	–	–
P1-93 } Jumper	–	–
P1-86 } Jumper	–	–
P1-116 } Jumper	–	–
P1-87 } Jumper	–	–
P1-104 } Jumper	–	–

Table 8. CFM/MFM FST Cable Assembly W201 – Wire List (cont)

W201-P1 CFM TJ1	W201-P2 CFM TJ3	W201-P3 CFM TJ4
P1-88	–	P3-34
P1-89	–	P3-35
P1-105	P2-117	–
P1-106	P2-118	–
P1-114	–	P3-43
P1-115	–	P3-42
P1-119	–	P3-45
P1-120	–	P3-28
–	P2-1 } Jumper	–
–	P2-17 } Jumper	–
–	P2-2 } Jumper	–
–	P2-13 } Jumper	–
–	P2-3 } Jumper	–
–	P2-12 } Jumper	–
–	P2-7 } Jumper	–
–	P2-96 } Jumper	–
–	P2-11	P3-63
–	P2-14	P3-32
–	P2-16	P3-107
–	P2-19 } Jumper	–
–	P2-30 } Jumper	–
–	P2-25 } Jumper	–
–	P2-115 } Jumper	–
–	P2-27 } Jumper	–
–	P2-119 } Jumper	–
–	P2-31 } Jumper	–
–	P2-72 } Jumper	–
–	P2-32 } Jumper	–
–	P2-73 } Jumper	–
–	P2-33	P3-84

Table 8. CFM/MFM FST Cable Assembly W201 – Wire List (cont)

W201-P1 CFM TJ1	W201-P2 CFM TJ3	W201-P3 CFM TJ4
–	P2-34 } Jumper	–
–	P2-85	–
–	P2-41 } Jumper	–
–	P2-43	–
–	P2-44	P3-80
–	P2-48 } Jumper	–
–	P2-88	–
–	P2-49 } Jumper	–
–	P2-89	–
–	P2-54 } Jumper	–
–	P2-55	–
–	P2-57	P3-61
–	P2-59 } Jumper	–
–	P2-61	–
–	P2-86	P3-24
–	P2-87	P3-99
–	P2-103 } Jumper	–
–	P2-109	–
–	P2-105	P3-127
–	P2-106	P3-123
–	P2-110 } Jumper	–
–	P2-112	–
–	P2-113	P3-122
–	P2-114	P3-119
–	P2-124	P3-97
–	P2-125	P3-98
–	–	P3-3 } Jumper
–	–	P3-108
–	–	P3-4 } Jumper
–	–	P3-109

Table 8. CFM/MFM FST Cable Assembly W201 – Wire List (cont)

W201-P1 CFM TJ1	W201-P2 CFM TJ3	W201-P3 CFM TJ4
–	–	P3-17 } Jumper
–	–	P3-31
–	–	P3-18 } Jumper
–	–	P3-62
–	–	P3-25 } Jumper
–	–	P3-121
–	–	P3-26 } Jumper
–	–	P3-116
–	–	P3-27 } Jumper
–	–	P3-118
–	–	P3-36 } Jumper
–	–	P3-113
–	–	P3-37 } Jumper
–	–	P3-114
–	–	P3-38 } Jumper
–	–	P3-67
–	–	P3-39 } Jumper
–	–	P3-68
–	–	P3-40 } Jumper
–	–	P3-82
–	–	P3-41 } Jumper
–	–	P3-83
–	–	P3-47 } Jumper
–	–	P3-120
–	–	P3-59 } Jumper
–	–	P3-60
–	–	P3-71 } Jumper
–	–	P3-110
–	–	P3-72 } Jumper
–	–	P3-111

Table 8. CFM/MFM FST Cable Assembly W201 – Wire List (cont)

W201-P1 CFM TJ1	W201-P2 CFM TJ3	W201-P3 CFM TJ4
–	–	P3-81 } Jumper
–	–	P3-112 } Jumper
–	–	P3-92 } Jumper
–	–	P3-117 } Jumper
–	–	P3-93 } Jumper
–	–	P3-126 } Jumper

Table 9. CFM FST Cable Assembly 1553A-W203 – Wire List

1553A-W203-P1 CFM J1	1553A-W203-P2 GPIA UJ4
P1-1	P2-Inner Shield
P1-2	P2-Outer Shield
P1-3	P2-Inner Conductor

Table 10. CFM FST Cable Assembly 1553B-W203 – Wire List

1553B-W203-P1 CFM J1	1553B-W203-P2 GPIA UJ4
P1-4	P2-Inner Shield
P1-5	P2-Inner Conductor
P1-6	P2-Outer Shield

Table 11. CFM FST Adapter TJ1 – Wire List

From	To
P1-3	P1-92
P1-4	P1-91
P1-5	P1-96
P1-6	P1-97
P1-7	P1-101
P1-8	P1-102
P1-9	P1-63
P1-10	P1-64
P1-11	P1-53
P1-12	P1-52
P1-20	P1-87
P1-22	P1-65
P1-23	P1-88
P1-24	P1-89
P1-27	P1-95
P1-28	P1-117
P1-29	P1-86
P1-30	P1-82
P1-37	P1-66
P1-38	P1-67
P1-39	P1-68
P1-40	P1-69
P1-41	P1-70
P1-42	P1-71
P1-43	P1-72
P1-44	P1-73
P1-45	P1-74
P1-46	P1-75
P1-58	P1-85
P1-59	P1-60
P1-62	P1-103
P1-83	P1-118
P1-84	P1-94
P1-98	P1-100
P1-107	P1-108

Table 12. CFM FST Adapter TJ2-1 – Wire List

From	To
P1-1	P1-94
P1-2	P1-95
P1-3	P1-80
P1-13	P1-71
P1-14	P1-72
P1-15	P1-81
P1-16	P1-74
P1-17	P1-76
P1-18	P1-77
P1-21	P1-75
P1-22	P1-45
P1-23	P1-44
P1-24	P1-43
P1-46	P1-58
P1-49	P1-57
P1-54	P1-82
P1-56	P1-105
P1-59	P1-60
P1-64	P1-121
P1-65	P1-88
P1-66	P1-96
P1-67	P1-112
P1-68	P1-122
P1-73	P1-79
P1-78	P1-106
P1-85	P1-97
P1-91	P1-111
P1-103	P1-104
P1-110	P1-120
P1-113	P1-119
P1-123	P1-124

Table 13. CFM FST Adapter TJ2-2 – Wire List

From	To
P1-1	P1-107
P1-2	P1-108
P1-3	P1-41
P1-4	P1-42
P1-5	P1-47
P1-6	P1-48
P1-7	P1-102
P1-8	P1-50
P1-9	P1-61
P1-10	P1-62
P1-11	P1-55
P1-12	P1-81
P1-15	P1-51
P1-17	P1-52
P1-18	P1-53
P1-19	P1-101
P1-20	P1-109
P1-22	P1-79
P1-25	P1-33
P1-26	P1-34
P1-27	P1-35
P1-28	P1-36
P1-29	P1-37
P1-30	P1-38
P1-31	P1-39
P1-32	P1-40
P1-42	P1-84
P1-47	P1-83
P1-48	P1-90
P1-54	P1-57
P1-59	P1-60

From	To
P1-63	P1-115
P1-64	P1-114
P1-86	P1-92
P1-87	P1-93
P1-89	P1-98
P1-92	P1-127
P1-93	P1-128
P1-99	P1-126
P1-100	P1-125
P1-110	P1-116

Table 14. CFM/FST Cable Assembly W385 – Wire List

W385-P1 CFM TJ1	W385-P2 CFM TJ3
P1-59 } *	-
P1-60	-
P1-122 } *	-
P1-124	-
P1-123 } *	-
P1-125	-
P1-127	P2-109
P1-128	P2-110
-	P2-58 } *
-	P2-124
-	P2-59 } *
-	P2-60
-	P2-72 } *
-	P2-112
-	P2-125
-	P2-93 } *
-	P2-107
-	P2-94 } *
-	P2-108

* Jumpered Pins

Table 15. EL Display Cable Assembly W228 – Wire List

W228-P1 GPIA UJ1	W228-P2 EL DPY J3
P1-2	P2-1
P1-5	P2-7
P1-6	P2-8
P1-37	P2-4

Table 16. EL Display FST Adapter – Wire List

From	To
P1-A	P2-4
P1-B	P2-1

Table 17. TSA Cable Assembly
W456 – Wire List

W456-P1	W456-P2
P1-1	P2-1
P1-2	P2-2
P1-3	P2-3
P1-4	P2-4
P1-5	P2-5
P1-6	P2-6
P1-7	P2-7
P1-8	P2-8
P1-9	P2-9
P1-10	P2-10
P1-11	P2-11
P1-12	P2-12
P1-13	P2-13
P1-14	P2-14
P1-15	P2-15
P1-16	P2-16
P1-17	P2-17
P1-18	P2-18
P1-19	P2-19
P1-20	P2-20
P1-21	P2-21
P1-22	P2-22
P1-23	P2-23
P1-24	P2-24

Table 18. TSA Cable Assembly
W457 – Wire List

W457-P1 TSA-J4	W457-P2 GPIA-UJ6	W457-P3 GPIA-UJ5
P1-1	P2-KK	-
P1-2	P2-LL	-
P1-3	P2-MM	-
P1-4	P2-EE	-
P1-5	P2-FF	-
P1-6	P2-GG	-
P1-7	P2-J	-
P1-8	P2-K	-
P1-9	P2-L	-
P1-10	-	P3-26
P1-11	-	P3-27
P1-12	-	P3-28
P1-13	-	P3-29
P1-15	-	P3-31
P1-16	-	P3-32
P1-17	-	P3-33
P1-18	P2-A	-
P1-19	-	P3-37
P1-20	P2-PP	-
P1-21	P2-f	-
P1-22	P2-g	-
P1-23	P2-h	-
P1-24	P2-i	-
P1-26	P2-F	-
P1-27	P2-G	-
P1-28	P2-H	-
P1-36	P2-M	-
P1-37	P2-N	-
P1-38	P2-P	-
P1-40	P2-j	-
P1-41	P2-k	-
P1-42	P2-m	-
P1-43	P2-n	-
P1-44 } *	-	-
P1-45	-	-
P1-47	-	P3-36
P1-48	-	P3-35
P1-78	P2-Y	-
P1-79	-	P3-1

* Jumpered Pins

Table 19. TSA FST Adapter Assembly
UJ6/W457 – Wire List

W457-P1	W457-P2
P1-A } *	-
P1-PP	-
P1-F } *	-
P1-K	-
P1-G } *	-
P1-L	-
P1-H } *	-
P1-M	-
P1-J } *	-
P1-N	-
P1-P } *	-
P1-Y	-
P1-f } *	-
P1-g	-
P1-h } *	-
P1-i	-
P1-j } *	-
P1-k	-
P1-m } *	-
P1-n	-
P1-EE	P2-EE
P1-FF	P2-FF
P1-GG	P2-GG
P1-KK	P2-KK
P1-LL	P2-LL
P1-MM	P2-MM

* Jumpered Pins

Table 20. TSA Cable Assembly W458 – Wire List

W458-P1 TSA-J1/J2/J3	W458-P2 CFM-TJ1/TJ2/TJ3	W458-P3 CFM-TJ4
P1-1	P2-1	-
P1-2	P2-2	-
P1-3	P2-3	-
P1-4	P2-4	-
P1-5	P2-5	P3-1
P1-6	P2-6	P3-2
P1-7	P2-7	P3-7
P1-8	P2-8	P3-8
P1-9	P2-9	P3-71
P1-10	P2-10	P3-72
P1-11	P2-11	-
P1-12	P2-12	-
P1-13	P2-13	-
P1-14	P2-14	-
P1-15	P2-15	-
P1-16	P2-16	-
P1-17	P2-17	-
P1-18	P2-18	-
P1-19	P2-19	-
P1-20	P2-20	-
P1-21	P2-21	-
P1-22	P2-22	-
P1-23	P2-23	-
P1-24	P2-24	-
P1-25	-	P3-34
P1-26	P2-27	P3-35
P1-27	P2-28	P3-36
P1-28	P2-36	-
P1-29	P2-37	-
P1-30	P2-38	-
P1-31	P2-42	-
P1-32	P2-43	-
P1-33	P2-62	-
P1-34	P2-63	-
P1-35	P2-64	-
P1-36	P2-65	-
P1-37	P2-71	-
P1-38	P2-72	-
P1-39	P2-75	-
P1-40	P2-76	-
P1-41	P2-77	-
P1-42	-	P3-119
P1-43	-	P3-117

Table 20. TSA Cable Assembly W458 – Wire List (cont)

W458-P1 TSA-J1/J2/J3	W458-P2 CFM-TJ1/TJ2/TJ3	W458-P3 CFM-TJ4
P1-44	-	P3-122
P1-45	-	P3-124
P1-46	-	P3-127
P1-47	P2-88	-
P1-48	P2-89	-
P1-49	P2-94	-
P1-50	P2-95	-
P1-51	P2-96	-
P1-52 *	P2-113	-
P1-58 *	-	-
P1-53 *	P2-106 *	-
P1-59 *	P2-114 *	-
P1-54	P2-109	-
P1-55	P2-110	-
P1-56	P2-111	-
P1-57	P2-112	-
P1-60	P2-117	-
P1-61	P2-118	-
P1-63	P2-127	-
P1-64	P2-128	-
P1-65	P2-124	-
P1-67	P2-122	-
P1-68	P2-123	-
P1-69	-	P3-37
P1-70	P2-105	-
P1-73 *	-	-
P1-74 *	-	-
-	P2-59 *	-
-	P2-60 *	-
-	-	P3-59 *
-	-	P3-60 *
-	-	P3-100 *
-	-	P3-114 *

*Jumpered Pins

Table 21. Color Display Adapter Wiring List

From	To
P1–1	P2–K
P1–2	P2–M
P1–3	P2–k
P1–4	P2–J
P1–5	P2–H
P1–6	P2–m
P1–7	P2–f
P1–8	P2–E
P1–9	P2–p
P1–10	P2–n
P1–11	P2–X
P1–12	P2–Y
P1–13	P2–Z
P1–14	P2–a
P1–15	P2–P
P1–16	P2–N
P1–19 } *	P2–R
P1–21 } *	
P1–22 } *	
P1–25	P2–U
P1–26	P2–T
P1–27	P2–S
P1–28	P2–q
P1–37	P2–W

* Jumpered Pins

Table 22. Cable Assembly Power RS232 W330 – Wire List

NOTE

Remove opto-isolator before making measurements from P1 to P2

GPIA-UJ1 W330 P1	PC-SERIAL W330 P2	VCTU-J1 W330 P3
P1-2		P3-A
P1-2	P2-1*	
P1-3	P2-5	P3-E
P1-5	-	P3-K
P1-6	P2-3	P3-G
P1-34	-	P3-B
P1-37	-	P3-H
-	P2-2	P3-F
-	-	-
-	-	-

* 675 to 703 ohms

Table 23. Adapter Assembly W330-P3

ADAPTER ASSEMBLY W330-P3
P1-F, P1-K *
-
-

* Jumpered Pins

Table 24. Cable Assembly Power W331 – Wire List

CSFM UJ8 W331 P1	GPIA UJ6 W331 P2
P1-A	P2-y
P1-B	P2-s
P1-C	P2-KK
P1-D	P2-LL
P1-E	P2-MM
P1-F	P2-v
P1-G *	-
P1-V *	-
P1-H	P2-z
P1-J	P2-EE
P1-K	P2-FF
P1-L	P2-GG
P1-M	P2-r
P1-P	P2-w
P1-R	P2-NN
P1-U	P2-HH
-	P2-p *
-	P2-PP *
-	-

* Jumpered Pins

Table 25. CSFM FST J3 Adapter Assembly - Wire List

CSFM FST J3 ADAPTER	
P1-1	*
P1-85	*
P1-2	*
P1-3	*
P1-4	*
P1-5	*
P1-6	*
P6-69	*
P1-7	*
P1-9	*
P1-8	*
P1-10	*
P1-11	*
P1-33	*
P1-12	*
P1-34	*
P1-13	*
P1-15	*
P1-14	*
P1-51	*
P1-95	*
P1-16	*
P1-50	*
P1-96	*
P1-17	*
P1-64	*
P1-18	*
P1-20	*
P1-19	*
P1-21	*
P1-22	*
P1-24	*
P1-23	*
P1-49	*
P1-93	*
P1-25	*
P1-56	*
P1-94	*

CSFM FST J3 ADAPTER	
P1-26	*
P1-67	*
P1-27	*
P1-29	*
P1-28	*
P1-79	*
P1-97	*
P6-30	*
P1-72	*
P1-98	*
P1-31	*
P1-70	*
P1-32	*
P1-68	*
P1-35	*
P1-37	*
P1-36	*
P1-38	*
P1-39	*
P1-41	*
P1-40	*
P1-42	*
P1-43	*
P1-58	*
P1-44	*
P1-59	*
P1-45	*
P1-71	*
P1-46	*
P1-76	*
P1-47	*
P1-77	*
P1-48	*
P1-80	*
P1-81	*
P1-82	*
-	
-	

CSFM FST J3 ADAPTER	
P1-52	*
P1-60	*
P1-87	*
P1-53	*
P1-65	*
P1-89	*
P1-54	*
P1-99	*
P1-55	*
P1-91	*
P1-57	*
P1-104	*
P1-66	*
P1-90	*
P1-73	*
P1-83	*
P1-100	*
P1-74	*
P1-84	*
P1-102	*
P1-75	*
P1-86	*
P1-88	*
P1-78	*
P1-92	*
P1-101	*
P1-103	*
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	

* Jumpered pin

CFM P/N 13014865 WIRE LIST TABLE 0038 01

From Front Panel	To Motherboard
TJ1-1	J6-34
TJ1-2	J6-33
TJ1-3	J6-32
TJ1-4	J6-31
TJ1-5	J6-30
TJ1-6	J6-29
TJ1-7	J6-28
TJ1-8	J6-27
TJ1-9	J6-24
TJ1-10	J6-23
TJ1-11	J6-22
TJ1-12	J6-21
TJ1-13	J6-20
TJ1-14	J6-19
TJ1-15	J6-18
TJ1-16	J6-17
TJ1-17	J6-16
TJ1-18	J6-45
TJ1-19	J6-48
TJ1-20	J12-6
TJ1-21	J6-13
TJ1-22	J6-14
TJ1-23	J6-11
TJ1-24	J6-12
TJ1-25	J6-9
TJ1-26	J6-10
TJ1-27	J6-50
TJ1-28	J6-51
TJ1-29	J12-6
TJ1-30	J9-193

From Front Panel	To Motherboard
TJ1-31	J9-153
TJ1-32	J9-89
TJ1-33	J9-152
TJ1-34	J9-88
TJ1-35	J9-151
TJ1-36	J9-149
TJ1-37	J9-87
TJ1-38	J9-148
TJ1-39	J9-147
TJ1-40	J9-86
TJ1-41	J9-85
TJ1-42	J9-146
TJ1-43	J9-84
TJ1-44	J9-145
TJ1-45	J9-83
TJ1-46	J9-144
TJ1-47	J9-155
TJ1-48	J9-92
TJ1-49	J9-154
TJ1-50	J9-90
TJ1-51	J9-91
TJ1-52	J11-75
TJ1-53	J11-76
TJ1-55	J6-3
TJ1-56	J6-4
TJ1-57	J9-13
TJ1-58	J12-6
TJ1-59	J1-28
TJ1-60	J1-155
TJ1-61	J12-3

CFM P/N 13014865 WIRE LIST TABLE – CONTINUED **0038 01**

From Front Panel	To Motherboard
TJ1-62	–
TJ1-63	–
TJ1-64	–
TJ1-65	–
TJ1-66	J9-138
TJ1-67	J9-75
TJ1-68	J9-137
TJ1-69	J9-74
TJ1-70	J9-136
TJ1-71	J9-73
TJ1-72	J9-135
TJ1-73	J9-72
TJ1-74	J9-134
TJ1-75	J9-71
TJ1-76	J1-106
TJ1-77	J1-157
TJ1-78	J1-158
TJ1-79	J9-4
TJ1-80	J9-5
TJ1-81	J9-6
TJ1-82	J9-7
TJ1-83	J9-8
TJ1-84	J9-9
TJ1-85	J9-10
TJ1-86	J9-11
TJ1-87	J9-12
TJ1-88	J2-13
TJ1-89	J2-15
TJ1-91	J2-10
TJ1-92	J2-16
TJ1-93	J2-5

Jumper: TJ1-62, TJ1-63, TJ1-64, TJ1-65

From Front Panel	To Motherboard
TJ1-94	J12-6
TJ1-95	–
TJ1-96	–
TJ1-97	–
TJ1-98	–
TJ1-99	J12-3
TJ1-100	–
TJ1-101	–
TJ1-102	–
TJ1-103	–
TJ1-104	J11-88
TJ1-105	J2-23
TJ1-106	J2-24
TJ1-107	J1-103
TJ1-108	J1-104
TJ1-109	J1-105
TJ1-110	J1-29
TJ1-111	J3-16
TJ1-112	J3-15
TJ1-113	J3-9
TJ1-114	J11-89
TJ1-115	J9-250
TJ1-116	J3-14
TJ1-117	J6-35
TJ1-118	J12-6
TJ1-119	J11-90
TJ1-120	J3-14
TJ1-121	J3-8
TJ1-122	J3-70
TJ1-123	J3-71
TJ1-124	J3-11

Jumper: TJ1-95, TJ1-96, TJ1-97, TJ1-98

Jumper: TJ1-100, TJ1-101, TJ1-102, TJ1-103

CFM P/N 13014865 WIRE LIST TABLE – CONTINUED **0038 01**

From Front Panel	To Motherboard
TJ1-125	J3-10
TJ1-127	J3-68
TJ1-128	J3-69
TJ2-1	J6-5
TJ2-2	J6-6
TJ2-3	J6-78
TJ2-4	J6-69
TJ2-5	J6-15
TJ2-6	J6-25
TJ2-7	J6-57
TJ2-8	J6-58
TJ2-9	J6-59
TJ2-10	J6-60
TJ2-11	J6-61
TJ2-12	J6-62
TJ2-13	J6-63
TJ2-14	J6-64
TJ2-15	J6-65
TJ2-16	J6-80
TJ2-17	J6-66
TJ2-18	J6-79
TJ2-19	J6-67
TJ2-20	J6-68
TJ2-21	J6-77
TJ2-22	J12-6
TJ2-23	J9-194
TJ2-24	J9-195
TJ2-25	J9-144
TJ2-26	J9-83
TJ2-27	J9-145
TJ2-28	J9-84

From Front Panel	To Motherboard
TJ2-29	J9-146
TJ2-30	J9-85
TJ2-31	J9-86
TJ2-32	J9-147
TJ2-33	J9-76
TJ2-34	J9-139
TJ2-35	J9-77
TJ2-36	J9-140
TJ2-37	J9-78
TJ2-38	J9-141
TJ2-39	J9-79
TJ2-40	J9-80
TJ2-41	J9-142
TJ2-42	J9-81
TJ2-43	J9-14
TJ2-44	J9-15
TJ2-45	J9-16
TJ2-46	J9-17
TJ2-47	J9-143
TJ2-48	J9-82
TJ2-49	J9-68
TJ2-50	J9-131
TJ2-51	J9-69
TJ2-52	J9-132
TJ2-53	J9-70
TJ2-54	J9-133
TJ2-55	J9-22
TJ2-56	J9-23
TJ2-57	J9-157
TJ2-58	J12-6
TJ2-59	J1-31

CFM P/N 13014865 WIRE LIST TABLE – CONTINUED **0038 01**

From Front Panel	To Motherboard
TJ2-60	J1-155
TJ2-61	J9-24
TJ2-62	J9-25
TJ2-63	J9-39
TJ2-64	J9-40
TJ2-65	J11-67
TJ2-66	J11-68
TJ2-67	J11-69
TJ2-68	J11-70
TJ2-71	J6-45
TJ2-72	J6-46
TJ2-73	J6-50
TJ2-74	J6-101
TJ2-75	J6-96
TJ2-76	J6-105
TJ2-77	J6-104
TJ2-78	J6-98
TJ2-79 } Jumper	–
TJ2-80 } Jumper	–
TJ2-81 } Jumper	–
TJ2-82	J9-164
TJ2-83	J9-162
TJ2-84	J9-163
TJ2-85	J9-193
TJ2-86	J9-102
TJ2-87	J9-103
TJ2-88	J9-211
TJ2-89	J9-165
TJ2-90	J9-166
TJ2-91	J9-243

From Front Panel	To Motherboard
TJ2-92	J9-101
TJ2-93	J9-96
TJ2-94	J4-4
TJ2-95	J4-45
TJ2-96	J11-77
TJ2-97	J11-78
TJ2-98	J9-159
TJ2-99	J9-160
TJ2-100	J9-161
TJ2-101	J9-150
TJ2-102	J9-134
TJ2-103	J9-247
TJ2-104	J12-3
TJ2-105	J12-6
TJ2-106	J6-35
TJ2-107	J9-19
TJ2-108	J9-26
TJ2-109	J9-21
TJ2-110	J9-31
TJ2-111	J12-1
TJ2-112	J9-208
TJ2-113	J9-209
TJ2-114	J9-210
TJ2-115	J11-21
TJ2-116	J11-22
TJ2-119	J11-58
TJ2-120	J11-57
TJ2-121	J11-56
TJ2-122	J11-75
TJ2-123	J11-76

CFM P/N 13014865 WIRE LIST TABLE – CONTINUED 0038 01

From Front Panel	To Motherboard
TJ2-124	J9-196
TJ2-125	J9-97
TJ2-126	J9-98
TJ2-127	J9-99
TJ2-128	J9-100
TJ3-1	J6-39
TJ3-2	J6-40
TJ3-3	J6-41
TJ3-4	J6-42
TJ3-5	J6-33
TJ3-6	J6-34
TJ3-7	J12-6
TJ3-8	J9-211
TJ3-9	J9-200
TJ3-10	J9-197
TJ3-11	J9-198
TJ3-12	J9-212
TJ3-13	J9-248
TJ3-14	J6-29
TJ3-15	J9-240
TJ3-16	J6-30
TJ3-17	J9-201
TJ3-18	J9-202
TJ3-19	J9-199
TJ3-20	J12-6
TJ3-21	J3-13
TJ3-22	J3-12
TJ3-23	J3-16
TJ3-24	J3-15
TJ3-25	J9-18
TJ3-26	J9-19

From Front Panel	To Motherboard
TJ3-27	J9-20
TJ3-28	J9-21
TJ3-29	J9-26
TJ3-30	J9-27
TJ3-31	J9-28
TJ3-32	J9-29
TJ3-33	J9-30
TJ3-34	J3-14
TJ3-35	J12-6
TJ3-36	J6-54
TJ3-37	J6-56
TJ3-38	J6-94
TJ3-39	J6-56
TJ3-40	J6-31
TJ3-41	J6-32
TJ3-42	J6-100
TJ3-43	J6-101
TJ3-44	J9-22
TJ3-45	J9-93
TJ3-46	J9-156
TJ3-47	J9-95
TJ3-48	J9-94
TJ3-49	J9-158
TJ3-50	J1-103
TJ3-51	J1-104
TJ3-52	J1-105
TJ3-53	J6-134
TJ3-54	J1-106
TJ3-55	J1-157
TJ3-56	J1-158
TJ3-57	J11-51

CFM P/N 13014865 WIRE LIST TABLE – CONTINUED **0038 01**

From Front Panel	To Motherboard
TJ3-58	J3-3
TJ3-59	J1-34
TJ3-60	J1-155
TJ3-61	J1-155
TJ3-62	J6-72
TJ3-63	J6-73
TJ3-64	J6-71
TJ3-65	J6-74
TJ3-66	J12-6
TJ3-67	–
TJ3-68 (Jumper)	–
TJ3-69 (Jumper)	–
TJ3-70 (Jumper)	–
TJ3-71	J11-38
TJ3-72	J12-6
TJ3-73	J12-6
TJ3-74	–
TJ3-75 (Jumper)	–
TJ3-76 (Jumper)	–
TJ3-77 (Jumper)	–
TJ3-78	J11-71
TJ3-79	J11-72
TJ3-80	J11-73
TJ3-81	J11-74
TJ3-82	J9-4
TJ3-83	J9-5
TJ3-84	J9-6
TJ3-85	J9-7
TJ3-86	J9-8
TJ3-87	J9-9

From Front Panel	To Motherboard
TJ3-88	J9-138
TJ3-89	J9-150
TJ3-90	J9-71
TJ3-91	J9-134
TJ3-92	J9-41
TJ3-93	J3-70
TJ3-94	J3-71
TJ3-95	J3-7
TJ3-96	J3-6
TJ3-97	J4-94
TJ3-98	J6-75
TJ3-99	J4-94
TJ3-100	J2-17
TJ3-101	J2-18
TJ3-102	J11-59
TJ3-103	J3-4
TJ3-104	J12-3
TJ3-105	J2-63
TJ3-106	J2-62
TJ3-107	J4-4
TJ3-108	J4-45
TJ3-109	J4-9
TJ3-110	J4-46
TJ3-111	J12-1
TJ3-112	J3-56
TJ3-113	J2-66
TJ3-114	J2-67
TJ3-115	J2-65
TJ3-117	J2-39
TJ3-118	J2-40

CFM P/N 13014865 WIRE LIST TABLE – CONTINUED **0038 01**

From Front Panel	To Motherboard
TJ3-119	J2-38
TJ3-120	J2-61
TJ3-122	J2-57
TJ3-123	J2-56
TJ3-124	J4-13
TJ3-125	J4-45
TJ3-126	J4-94
TJ3-127	J2-59
TJ3-128	J2-60
TJ4-1	J6-3
TJ4-2	J6-4
TJ4-3	J6-23
TJ4-4	J6-24
TJ4-5	J6-59
TJ4-6	J6-60
TJ4-7	J6-9
TJ4-8	J6-10
TJ4-9	J6-17
TJ4-10	J6-18
TJ4-11	J6-19
TJ4-12	J6-20
TJ4-13	J6-61
TJ4-14	J6-62
TJ4-15	J11-55
TJ4-16	J12-6
TJ4-17	J6-134
TJ4-18	J9-196
TJ4-19	J9-198
TJ4-20	J9-199
TJ4-21	J9-72
TJ4-22	J9-135

From Front Panel	To Motherboard
TJ4-23	J9-73
TJ4-24	J3-14
TJ4-25	J12-3
TJ4-26	J9-33
TJ4-27	J9-34
TJ4-28	J9-35
TJ4-29	J9-36
TJ4-30	J9-37
TJ4-31	J9-38
TJ4-32	J12-11
TJ4-33	J12-6
TJ4-34	J3-35
TJ4-35	J3-23
TJ4-36	J3-22
TJ4-37	J3-21
TJ4-38	J6-94
TJ4-39	J6-43
TJ4-40	J6-100
TJ4-41	J6-101
TJ4-42	J11-39
TJ4-43	J9-42
TJ4-44	J9-43
TJ4-45	J9-44
TJ4-46	J9-45
TJ4-47	J12-1
TJ4-48	J12-6
TJ4-49	–
TJ4-50 } Jumper	–
TJ4-51	–
TJ4-52	–
TJ4-53	J11-85

CFM P/N 13014865 WIRE LIST TABLE – CONTINUED **0038 01**

From Front Panel	To Motherboard
TJ4-54	J11-86
TJ4-55	J11-38
TJ4-56	J11-80
TJ4-57	J11-79
TJ4-59	J1-41
TJ4-60	J1-155
TJ4-61	J11-66
TJ4-62	J11-65
TJ4-63	J11-64
TJ4-64	J11-63
TJ4-65	J11-62
TJ4-66	J11-61
TJ4-67	J6-21
TJ4-68	J6-22
TJ4-69	J3-5
TJ4-70	J3-58
TJ4-71	J6-75
TJ4-72	J6-70
TJ4-74	J12-6
TJ4-75	–
TJ4-76	–
TJ4-77 Jumper	–
TJ4-78	–
TJ4-79	–
TJ4-80	J6-73
TJ4-81	J6-72
TJ4-82	J6-71
TJ4-83	J6-74
TJ4-84	J12-6
TJ4-85	J11-82
TJ4-86	J11-81

From Front Panel	To Motherboard
TJ4-87	–
TJ4-88 Jumper	–
TJ4-89	–
TJ4-90	J9-21
TJ4-91	J9-22
TJ4-92	J6-63
TJ4-93	J6-64
TJ4-94	J3-16
TJ4-95	J3-15
TJ4-96	J9-39
TJ4-97	J3-7
TJ4-98	J3-6
TJ4-99	J3-14
TJ4-100	J12-6
TJ4-101	J3-13
TJ4-102	J3-12
TJ4-103	J12-6
TJ4-104	J9-32
TJ4-105	J4-4
TJ4-106	J4-45
TJ4-107	J12-6
TJ4-108	J9-203
TJ4-109	J9-204
TJ4-110	J9-205
TJ4-111	J9-206
TJ4-112	J9-207
TJ4-113	J4-9
TJ4-114	J4-46
TJ4-115	J4-94
TJ4-116	J2-11
TJ4-117	J2-3

From Front Panel	To Motherboard
TJ4-118	J2-5
TJ4-119	J2-15
TJ4-120	J9-242
TJ4-121	J9-247
TJ4-122	J2-9
TJ4-123	J2-16
TJ4-124	J2-4
TJ4-125	J2-5
TJ4-126	J2-15
TJ4-127	J2-10
TJ4-128	J2-16

CFM WIRE LIST TABLE 0039 00

From Front Panel	To Motherboard
TJ1-1	J6-34
TJ1-2	J6-33
TJ1-3	J6-32
TJ1-4	J6-31
TJ1-5	J6-30
TJ1-6	J6-29
TJ1-7	J6-28
TJ1-8	J6-27
TJ1-9	J6-24
TJ1-10	J6-23
TJ1-11	J6-22
TJ1-12	J6-21
TJ1-13	J6-20
TJ1-14	J6-19
TJ1-15	J6-18
TJ1-16	J6-17
TJ1-17	J6-16
TJ1-18	J6-45
TJ1-19	J6-48
TJ1-20	J20-6(ANGND)
TJ1-21	J6-13
TJ1-22	J6-14
TJ1-23	J6-11
TJ1-24	J6-12
TJ1-25	J6-9
TJ1-26	J6-10
TJ1-27	J6-50
TJ1-28	J6-51
TJ1-29	J20-6(ANGND)
TJ1-30	J10-3
TJ1-31	J7-60

From Front Panel	To Motherboard
TJ1-32	J7-59
TJ1-33	J7-58
TJ1-34	J7-57
TJ1-35	J7-56
TJ1-36	J7-50
TJ1-37	J7-49
TJ1-38	J7-48
TJ1-39	J7-46
TJ1-40	J7-45
TJ1-41	J7-43
TJ1-42	J7-42
TJ1-43	J7-41
TJ1-44	J7-40
TJ1-45	J7-39
TJ1-46	J7-38
TJ1-47	J7-64
TJ1-48	J7-65
TJ1-49	J7-62
TJ1-50	J7-61
TJ1-51	J7-63
TJ1-52	Termination Board
–	(TB)J7-75
TJ1-53	(TB)J7-76
TJ1-55	J6-3
TJ1-56	J6-4
TJ1-57	J8-12
TJ1-58	J20-6(ANGND)
TJ1-59	J1-28
TJ1-60	J1-155
TJ1-61	(TB)J1-95

CFM WIRE LIST TABLE – CONTINUED 0039 00

From Front Panel	To Motherboard
TJ1-62	–
TJ1-63	–
TJ1-64 (Jumper)	–
TJ1-65	–
TJ1-66	J7-18
TJ1-67	J7-17
TJ1-68	J7-16
TJ1-69	J7-15
TJ1-70	J7-14
TJ1-71	J7-13
TJ1-72	J7-12
TJ1-73	J7-11
TJ1-74	J7-10
TJ1-75	J7-9
TJ1-76	J1-106
TJ1-77	J1-157
TJ1-78	J1-158
TJ1-79	J8-3
TJ1-80	J8-4
TJ1-81	J8-5
TJ1-82	J8-6
TJ1-83	J8-7
TJ1-84	J8-8
TJ1-85	J8-9
TJ1-86	J8-10
TJ1-87	J8-11
TJ1-88	J2-13
TJ1-89	J2-15
TJ1-91	J2-10
TJ1-92	J2-16
TJ1-93	J2-5

From Front Panel	To Motherboard
TJ1-94	J20-6(ANGND)
TJ1-95	–
TJ1-96 (Jumper)	–
TJ1-97	–
TJ1-98	–
TJ1-99	(TB)J1-45
TJ1-100	–
TJ1-101 (Jumper)	–
TJ1-102	–
TJ1-103	–
TJ1-104	(TB)J7-88
TJ1-105	J2-23
TJ1-106	J2-24
TJ1-107	J1-103
TJ1-108	J1-104
TJ1-109	J1-105
TJ1-110	J1-29
TJ1-111	J3-16
TJ1-112	J3-15
TJ1-113	J3-9
TJ1-114	(TB)J7-89
TJ1-115	J10-53
TJ1-116	J3-14
TJ1-117	J6-35
TJ1-118	J20-6(ANGND)
TJ1-119	(TB)J7-90
TJ1-120	J3-14
TJ1-121	J3-8
TJ1-122	J3-70
TJ1-123	J3-71
TJ1-124	J3-11

CFM WIRE LIST TABLE – CONTINUED **0039 00**

From Front Panel	To Motherboard
TJ1-125	J3-10
TJ1-127	J3-68
TJ1-128	J3-69
TJ2-1	J6-5
TJ2-2	J6-6
TJ2-3	J6-78
TJ2-4	J6-69
TJ2-5	J6-15
TJ2-6	J6-25
TJ2-7	J6-57
TJ2-8	J6-58
TJ2-9	J6-59
TJ2-10	J6-60
TJ2-11	J6-61
TJ2-12	J6-62
TJ2-13	J6-63
TJ2-14	J6-64
TJ2-15	J6-65
TJ2-16	J6-80
TJ2-17	J6-66
TJ2-18	J6-79
TJ2-19	J6-67
TJ2-20	J6-68
TJ2-21	J6-77
TJ2-22	J20-6(ANGND)
TJ2-23	J10-4
TJ2-24	J10-5
TJ2-25	J7-38
TJ2-26	J7-39
TJ2-27	J7-40
TJ2-28	J7-41

From Front Panel	To Motherboard
TJ2-29	J7-42
TJ2-30	J7-43
TJ2-31	J7-45
TJ2-32	J7-46
TJ2-33	J7-19
TJ2-34	J7-20
TJ2-35	J7-21
TJ2-36	J7-22
TJ2-37	J7-23
TJ2-38	J7-24
TJ2-39	J7-25
TJ2-40	J7-27
TJ2-41	J7-28
TJ2-42	J7-29
TJ2-43	J8-13
TJ2-44	J8-14
TJ2-45	J8-15
TJ2-46	J8-16
TJ2-47	J7-30
TJ2-48	J7-31
TJ2-49	J7-3
TJ2-50	J7-4
TJ2-51	J7-5
TJ2-52	J7-6
TJ2-53	J7-7
TJ2-54	J7-8
TJ2-55	J8-21
TJ2-56	J8-22
TJ2-57	J7-70
TJ2-58	J20-6(ANGND)
TJ2-59	J1-31

CFM WIRE LIST TABLE – CONTINUED **0039 00**

From Front Panel	To Motherboard
TJ2-60	J1-155
TJ2-61	J8-23
TJ2-62	J8-24
TJ2-63	J8-42
TJ2-64	J8-43
TJ2-65	(TB)J7-67
TJ2-66	(TB)J7-68
TJ2-67	(TB)J7-69
TJ2-68	(TB)J7-70
TJ2-71	J6-45
TJ2-72	J6-46
TJ2-73	J6-50
TJ2-74	J6-101
TJ2-75	J6-96
TJ2-76	J6-105
TJ2-77	J6-104
TJ2-78	J6-98
TJ2-79 } Jumper	–
TJ2-80 } Jumper	–
TJ2-81 } Jumper	–
TJ2-82	J7-94
TJ2-83	J7-79
TJ2-84	J7-80
TJ2-85	J10-3
TJ2-86	J7-77
TJ2-87	J7-78
TJ2-88	J10-21
TJ2-89	J7-100
TJ2-90	J7-101
TJ2-91	J10-43
TJ2-92	J7-51

From Front Panel	To Motherboard
TJ2-93	J7-105
TJ2-94	J4-4
TJ2-95	J4-45
TJ2-96	(TB)J7-77
TJ2-97	(TB)J7-78
TJ2-98	J7-98
TJ2-99	J7-104
TJ2-100	J7-134
TJ2-101	J7-54
TJ2-102	J7-10
TJ2-103	J10-50
TJ2-104	(TB)J1-95(24VRTN)
–	(J20 Pwr Cable P1-3)
TJ2-105	J20-6(ANGND)
TJ2-106	J6-35
TJ2-107	J8-18
TJ2-108	J8-25
TJ2-109	J8-20
TJ2-110	J8-31
TJ2-111	(TB)J1-96(24VDC)
–	(J20 Pwr Cable P1-1)
TJ2-112	J10-18
TJ2-113	J10-19
TJ2-114	J10-20
TJ2-115	(TB)J7-21
TJ2-116	(TB)J7-22
TJ2-119	(TB)J7-58
TJ2-120	(TB)J7-57
TJ2-121	(TB)J7-56
TJ2-122	(TB)J7-75
TJ2-123	(TB)J7-76

CFM WIRE LIST TABLE – CONTINUED **0039 00**

From Front Panel	To Motherboard
TJ2-124	J10-6
TJ2-125	J7-32
TJ2-126	J7-33
TJ2-127	J7-34
TJ2-128	J7-35
TJ3-1	J7-39
TJ3-2	J6-40
TJ3-3	J6-41
TJ3-4	J6-42
TJ3-5	J6-33
TJ3-6	J6-34
TJ3-7	J20-6(ANGND)
TJ3-8	J10-21
TJ3-9	J10-10
TJ3-10	J10-7
TJ3-11	J10-8
TJ3-12	J10-23
TJ3-13	J10-51
TJ3-14	J6-29
TJ3-15	J10-40
TJ3-16	J6-30
TJ3-17	J10-11
TJ3-18	J10-12
TJ3-19	J10-9
TJ3-20	J20-6(ANGND)
TJ3-21	J3-13
TJ3-22	J3-12
TJ3-23	J3-16
TJ3-24	J3-15
TJ3-25	J8-17
TJ3-26	J8-18

From Front Panel	To Motherboard
TJ3-27	J8-19
TJ3-28	J8-20
TJ3-29	J8-25
TJ3-30	J8-27
TJ3-31	J8-28
TJ3-32	J8-29
TJ3-33	J8-30
TJ3-34	J3-14
TJ3-35	J20-6(ANGND)
TJ3-36	J6-54
TJ3-37	J6-56
TJ3-38	J6-94
TJ3-39	J6-56
TJ3-40	J6-31
TJ3-41	J6-32
TJ3-42	J6-100
TJ3-43	J6-101
TJ3-44	J8-21
TJ3-45	J7-67
TJ3-46	J7-68
TJ3-47	J7-71
TJ3-48	J7-69
TJ3-49	J7-72
TJ3-50	J1-103
TJ3-51	J1-104
TJ3-52	J1-105
TJ3-53	J6-134
TJ3-54	J1-106
TJ3-55	J1-157
TJ3-56	J1-158
TJ3-57	(TB)J7-51

CFM WIRE LIST TABLE – CONTINUED **0039 00**

From Front Panel	To Motherboard
TJ3-58	J3-3
TJ3-59	J1-34
TJ3-60	J1-155
TJ3-61	J1-155
TJ3-62	J6-72
TJ3-63	J6-73
TJ3-64	J6-71
TJ3-65	J6-74
TJ3-66	J20-6(ANGND)
TJ3-67	–
TJ3-68 (Jumper)	–
TJ3-69 (Jumper)	–
TJ3-70 (Jumper)	–
TJ3-71	(TB)J7-38
TJ3-72	J20-6(ANGND)
TJ3-73	J20-6(ANGND)
TJ3-74	–
TJ3-75 (Jumper)	–
TJ3-76 (Jumper)	–
TJ3-77 (Jumper)	–
TJ3-78	(TB)J7-71
TJ3-79	(TB)J7-72
TJ3-80	(TB)J7-73
TJ3-81	(TB)J7-74
TJ3-82	J8-3
TJ3-83	J8-4
TJ3-84	J8-5
TJ3-85	J8-6
TJ3-86	J8-7
TJ3-87	J8-8
TJ3-88	J7-18

From Front Panel	To Motherboard
TJ3-89	J7-54
TJ3-90	J7-9
TJ3-91	J7-10
TJ3-92	J8-45
TJ3-93	J3-70
TJ3-94	J3-71
TJ3-95	J3-7
TJ3-96	J3-6
TJ3-97	J4-94
TJ3-98	J6-75
TJ3-99	J4-94
TJ3-100	J2-17
TJ3-101	J2-18
TJ3-102	(TB)J7-59
TJ3-103	J3-4
TJ3-104	J2-106(24VRTN)
–	(J20 Pwr Cable P1-3)
TJ3-105	J2-63
TJ3-106	J2-62
TJ3-107	J4-4
TJ3-108	J4-45
TJ3-109	J4-9
TJ3-110	J4-46
TJ3-111	(TB)J1-96(24VDC)
–	(J20 Pwr Cable P1-1)
TJ3-112	J3-56
TJ3-113	J2-66
TJ3-114	J2-67
TJ3-115	J2-65
TJ3-117	J2-39
TJ3-118	J2-40

CFM WIRE LIST TABLE – CONTINUED **0039 00**

From Front Panel	To Motherboard
TJ3-119	J2-38
TJ3-120	J2-61
TJ3-122	J2-57
TJ3-123	J2-56
TJ3-124	J4-13
TJ3-125	J4-45
TJ3-126	J4-94
TJ3-127	J2-59
TJ3-128	J2-60
TJ4-1	J6-3
TJ4-2	J6-4
TJ4-3	J6-23
TJ4-4	J6-24
TJ4-5	J6-59
TJ4-6	J6-60
TJ4-7	J6-9
TJ4-8	J6-10
TJ4-9	J6-17
TJ4-10	J6-18
TJ4-11	J6-19
TJ4-12	J6-20
TJ4-13	J6-61
TJ4-14	J6-62
TJ4-15	(TB)J7-55
TJ4-16	J20-6(ANGND)
TJ4-17	J6-134
TJ4-18	J10-6
TJ4-19	J10-8
TJ4-20	J10-9
TJ4-21	J7-11
TJ4-22	J7-12

From Front Panel	To Motherboard
TJ4-23	J7-13
TJ4-24	J3-14
TJ4-25	(TB)J1-95
TJ4-26	J8-34
TJ4-27	J8-35
TJ4-28	J8-38
TJ4-29	J8-39
TJ4-30	J8-40
TJ4-31	J8-41
TJ4-32	J20-11(5VDC)
TJ4-33	J20-6(ANGND)
TJ4-34	J3-35
TJ4-35	J3-23
TJ4-36	J3-22
TJ4-37	J3-21
TJ4-38	J6-94
TJ4-39	J6-43
TJ4-40	J6-100
TJ4-41	J6-101
TJ4-42	(TB)J7-39
TJ4-43	J8-48
TJ4-44	J8-49
TJ4-45	J8-50
TJ4-46	J8-51
TJ4-47	(TB)J1-96
TJ4-48	J20-6(ANGND)
TJ4-49	–
TJ4-50	–
TJ4-51	–
TJ4-52	–
TJ4-53	(TB)J7-85

Jumper

CFM WIRE LIST TABLE – CONTINUED **0039 00**

From Front Panel	To Motherboard
TJ4-54	(TB)J7-86
TJ4-55	(TB)J7-38
TJ4-56	(TB)J7-80
TJ4-57	(TB)J7-79
TJ4-59	J1-41
TJ4-60	J1-155
TJ4-61	(TB)J7-66
TJ4-62	(TB)J7-65
TJ4-63	(TB)J7-64
TJ4-64	(TB)J7-63
TJ4-65	(TB)J7-62
TJ4-66	(TB)J7-61
TJ4-67	J6-21
TJ4-68	J6-22
TJ4-69	J3-5
TJ4-70	J3-58
TJ4-71	J6-75
TJ4-72	J6-70
TJ4-74	J20-6(ANGND)
TJ4-75	–
TJ4-76	–
TJ4-77 (Jumper)	–
TJ4-78	–
TJ4-79	–
TJ4-80	J6-73
TJ4-81	J6-72
TJ4-82	J6-71
TJ4-83	J6-74
TJ4-84	J20-6(ANGND)
TJ4-85	(TB)J7-82
TJ4-86	(TB)J7-81

From Front Panel	To Motherboard
TJ4-87	–
TJ4-88 (Jumper)	–
TJ4-89	–
TJ4-90	J8-20
TJ4-91	J8-21
TJ4-92	J6-63
TJ4-93	J6-64
TJ4-94	J3-16
TJ4-95	J3-15
TJ4-96	J8-42
TJ4-97	J3-7
TJ4-98	J3-6
TJ4-99	J3-14
TJ4-100	J20-6(ANGND)
TJ4-101	J3-13
TJ4-102	J3-12
TJ4-103	J20-6(ANGND)
TJ4-104	J8-33
TJ4-105	J4-4
TJ4-106	J4-45
TJ4-107	J20-6(ANGND)
TJ4-108	J10-13
TJ4-109	J10-14
TJ4-110	J10-15
TJ4-111	J10-16
TJ4-112	J10-17
TJ4-113	J4-9
TJ4-114	J4-46
TJ4-115	J4-94
TJ4-116	J2-11
TJ4-117	J2-3

CFM WIRE LIST TABLE – CONTINUED 0039 00

From Front Panel	To Motherboard
TJ4-118	J2-5
TJ4-119	J2-15
TJ4-120	J10-42
TJ4-121	J10-50
TJ4-122	J2-9
TJ4-123	J2-16
TJ4-124	J2-4
TJ4-125	J2-5
TJ4-126	J2-15
TJ4-127	J2-10
TJ4-128	J2-16

Table 1. CSFM Motherboard Connections - Wire List

	J2	J4	J5	J7	J8	J10	J11
TJ3-2	-	-	-	-	-	P1-179	-
TJ3-3	-	-	-	-	-	P1-128	-
TJ3-4	-	-	-	-	-	P1-23	-
TJ3-5	-	-	-	-	-	P1-75	-
TJ3-6	-	-	-	-	-	-	P1-73
TJ3-7	-	-	-	-	-	P1-177	-
TJ3-8	-	-	-	-	-	P1-178	-
TJ3-9	-	-	-	-	-	P1-125	-
TJ3-10	-	-	-	-	-	P1-176	-
TJ3-11	-	-	-	-	-	P1-74	-
TJ3-12	-	-	-	-	-	P1-22	-
TJ3-13	-	-	-	-	-	P1-67	-
TJ3-14	-	-	-	-	-	P1-16	-
TJ3-15	-	-	-	-	-	P1-15	-
TJ3-16	-	-	-	-	-	P1-14	-
TJ3-17	-	-	-	-	-	P1-55	-
TJ3-18	-	-	-	-	-	P1-120	-
TJ3-19	-	-	-	-	-	P1-171	-
TJ3-20	-	-	-	-	-	P1-172	-
TJ3-21	-	-	-	-	-	P1-173	-
TJ3-22	-	-	-	-	-	P1-168	-
TJ3-23	-	-	-	-	-	P1-167	-
TJ3-24	-	-	-	-	-	P1-118	-
TJ3-25	-	-	-	-	-	P1-169	-
TJ3-26	-	-	-	-	-	P1-56	-
TJ3-27	-	-	-	-	-	P1-13	-
TJ3-28	-	-	-	-	-	P1-65	-
TJ3-29	-	-	-	-	-	P1-64	-
TJ3-30	-	-	-	-	-	P1-12	-
TJ3-31	-	-	-	-	-	P1-61	-
TJ3-32	-	-	-	-	-	P1-66	-
TJ3-33	-	-	-	-	-	P1-21	-
TJ3-34	-	-	-	-	-	P1-73	-
TJ3-35	-	-	-	-	-	P1-166	-
TJ3-36	-	-	-	-	-	P1-115	-
TJ3-37	-	-	-	-	-	P1-114	-
TJ3-38	-	-	-	-	-	P1-165	-
TJ3-39	-	-	-	-	-	P1-11	-
TJ3-40	-	-	-	-	-	P1-63	-
TJ3-41	-	-	-	-	-	P1-62	-
TJ3-42	-	-	-	-	-	P1-10	-
TJ3-43	-	-	-	-	-	P1-188	-
TJ3-44	-	-	-	-	-	P1-137	-
TJ3-45	-	-	-	-	-	P1-71	-

Table 1. CSFM Front Panel To Motherboard - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ3-46	-	-	-	-	-	P1-139	-
TJ3-47	-	-	-	-	-	P1-189	-
TJ3-48	-	-	-	P1-200	-	-	-
TJ3-49	-	-	-	P1-201	-	-	-
TJ3-50	-	-	-	P1-202	-	-	-
TJ3-51	-	-	-	P1-198	-	-	-
TJ3-52	-	-	-	-	P1-16	-	-
TJ3-53	-	-	-	-	P1-17	-	-
TJ3-54	-	-	-	-	-	P1-76 } *	-
	-	-	-	-	-	P1-79 } *	-
TJ3-55	-	-	-	-	P1-18	-	-
TJ3-56	-	-	-	P1-176	-	-	-
TJ3-57	-	-	-	P1-18	-	-	-
TJ3-58	-	-	-	P1-24	-	-	-
TJ3-59	-	-	-	P1-22	-	-	-
TJ3-60	-	-	-	-	P1-118	-	-
TJ3-61	-	-	-	-	-	P1-18	-
TJ3-62	-	-	-	-	-	P1-69	-
TJ3-63	-	-	-	-	-	P1-81	-
TJ3-64	-	-	-	-	P1-122	-	-
TJ3-65	-	-	-	-	P1-123	-	-
TJ3-66	-	-	-	-	P1-124	-	-
TJ3-67	-	-	-	-	P1-125	-	-
TJ3-68	-	-	-	-	P1-126	-	-
TJ3-69	-	-	-	-	P1-127	-	-
TJ3-70	-	-	-	-	P1-128	-	-
TJ3-71	-	-	-	-	P1-129	-	-
TJ3-72	-	P1-200	-	-	-	-	-
TJ3-73	-	P1-201	-	-	-	-	-
TJ3-74	-	P1-202	-	-	-	-	-
TJ3-75	-	P1-198	-	-	-	-	-
TJ3-76	-	-	-	P1-34	-	-	-
TJ3-77	-	-	-	P1-66	-	-	-
TJ3-78	-	-	-	P1-67	-	-	-
TJ3-79	-	-	-	P1-68	-	-	-
TJ3-80	-	-	-	-	P1-106	-	-
TJ3-81	-	-	-	-	P1-183	-	-
TJ3-82	-	-	-	-	P1-184	-	-
TJ3-83	-	-	-	-	P1-185	-	-
TJ3-84	-	-	-	-	P1-186	-	-
TJ3-85	-	-	-	-	-	P1-9	-
TJ3-86	-	-	-	-	P1-188	-	-
TJ3-87	-	-	-	-	P1-192	-	-
TJ3-88	-	-	-	-	P1-196	-	-
TJ3-89	-	-	-	-	P1-167	-	-
TJ3-90	-	-	-	-	P1-168	-	-

* Jumpered

Table 1. CSFM Motherboard Connections - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ3-91	-	-	-	-	P1-157	-	-
TJ3-92	-	-	-	-	P1-158	-	-
TJ3-93	-	-	-	-	P1-181	-	-
TJ3-94	-	-	-	-	P1-182	-	-
TJ3-95	-	-	-	-	P1-84	-	-
TJ3-96	-	-	-	-	P1-85	-	-
TJ3-97	-	-	-	-	P1-29	-	-
TJ3-98	-	-	-	-	P1-71	-	-
TJ3-99	-	-	-	-	P1-14	-	-
TJ3-100	-	-	-	-	P1-15	-	-
TJ3-101	-	-	-	-	P1-12	-	-
TJ3-102	-	-	-	-	P1-13	-	-
TJ3-103	-	-	-	-	-	-	P1-34
TJ3-104	-	-	-	-	-	-	P1-87
TJ4-A	-	-	-	-	-	P1-60	-
TJ4-B	-	P1-48	P1-202	-	-	-	P1-71
TJ4-C	-	-	P1-89	-	-	-	-
TJ4-D	-	P1-11	-	-	-	-	P1-45
TJ4-E	-	-	P1-90	-	-	-	-
TJ4-G	P1-148	-	-	-	-	-	-
TJ4-J	-	P1-199	-	P1-199	-	-	-
TJ4-L	-	P1-20	-	-	P1-20	-	-
TJ4-M	P1-11 } *	P1-62	-	-	-	-	-
	P1-113 } *	-	-	-	-	-	-
TJ4-N	P1-6 } *	P1-58	-	-	-	-	-
	P1-60 } *	-	-	-	-	-	-
	P1-109 } *	-	-	-	-	-	-
TJ4-P	-	-	-	P1-183	-	-	-
TJ4-R	-	-	-	P1-188	-	-	-
TJ4-S	-	-	-	P1-178	-	-	-
TJ4-U	-	-	-	P1-162	-	-	-
TJ4-V	P1-22	P1-22	-	-	-	-	-
TJ4-W	-	-	-	P1-15	-	-	-
TJ4-X	-	-	P1-21	P1-21	-	-	-
TJ4-Z	P1-139	-	-	-	-	-	-
TJ4-a	-	-	P1-72	P1-72	-	-	-
TJ4-c	-	-	-	P1-112	P1-112	-	P1-96
TJ4-d	-	-	-	P1-184	-	-	-
TJ4-e	-	-	-	P1-113	P1-113	-	P1-86 } *
	-	-	-	-	-	-	P1-90 } *
TJ4-f	-	-	P1-111	-	-	P1-111	-
TJ4-g	-	-	-	-	-	-	-
TJ4-h	-	-	P1-58	P1-58	-	-	-
TJ4-i	-	-	-	-	-	P1-116	-
TJ4-j	-	-	P1-190	-	-	P1-9	-
TJ4-k	-	-	P1-189	-	-	-	-

* Jumpered

Table 1. CSFM Front Panel To Motherboard - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ4-m	-	-	P1-112	-	-	-	-
TJ4-n	-	-	-	-	-	P1-121	-
TJ4-p	-	-	P1-163	-	-	-	-
TJ4-q	-	-	-	-	-	P1-126	-
TJ4-r	-	-	P1-162	-	-	-	-
TJ4-s	-	-	-	-	-	P1-133	-
TJ4-t	-	-	P1-111	-	-	-	-
TJ4-u	-	-	-	-	-	P1-138	-
TJ4-v	-	-	-	-	-	-	P1-33
TJ4-w	-	-	-	-	-	-	P1-13
TJ4-x	-	-	P1-58	P1-58	-	-	-
TJ4-y	-	-	-	-	-	P1-144	-
TJ4-z	-	-	P1-163	-	-	-	-
TJ4-AA	-	-	-	-	-	P1-148	-
TJ4-BB	-	-	P1-112	-	-	-	-
TJ4-CC	-	-	-	-	-	P1-151	-
TJ4-DD	-	-	P1-60	P1-60	-	-	-
TJ4-EE	-	-	-	-	-	P1-200	-
TJ4-FF	-	-	P1-162	-	-	-	-
TJ4-HH	-	-	-	-	-	P1-82	-
TJ4-NN	-	P1-173	-	-	-	-	P1-2
TJ4-PP	-	P1-122	-	-	-	-	P1-23
TJ4-F11	-	P1-37	-	-	-	-	-
TJ5-1	-	-	-	-	-	P1-110	-
TJ5-2	-	-	P1-170	-	-	-	-
TJ5-4	P1-130	-	-	-	-	-	-
TJ5-5	-	-	-	P1-94	-	-	-
TJ5-6	-	-	-	P1-43	-	-	-
TJ5-7	-	-	-	P1-148	-	-	-
TJ5-8	-	-	-	P1-96	-	-	-
TJ5-9	-	-	-	P1-46	-	-	-
TJ5-10	-	-	-	P1-149	-	-	-
TJ5-11	-	-	-	P1-97	-	-	-
TJ5-12	-	-	-	P1-150	-	-	-
TJ5-13	-	-	-	P1-95	-	-	-
TJ5-14	-	-	-	P1-98	-	-	-
TJ5-15	-	-	P1-31	P1-31	-	-	-
TJ5-16	-	-	P1-30	P1-30	-	-	-
TJ5-17	-	-	P1-128	P1-128	-	-	-
TJ5-18	-	-	P1-80	P1-189	-	-	P1-7
TJ5-19	-	P1-94	-	-	-	-	P1-51
TJ5-20	-	-	P1-114	P1-117	-	-	-
TJ5-21	-	-	P1-133	P1-133	-	-	-
TJ5-22	P1-35	-	P1-169	P1-187	-	P1-47	P1-17
TJ5-23	P1-43	-	-	P1-190	-	-	-
TJ5-24	P1-23	-	-	P1-186	-	-	P1-57

Table 1. CSFM Motherboard Connections - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ5-25	P1-76	-	-	P1-179	-	-	P1-37 *
	-	-	-	-	-	-	P1-47 *
TJ5-26	-	P1-148	P1-202	-	-	-	P1-71
TJ5-27	-	P1-11	-	-	-	-	P1-45
TJ5-28	-	-	P1-192	P1-140	-	-	P1-60
TJ5-29	-	-	P1-83	P1-83	-	-	-
TJ5-30	-	-	-	P1-167	-	-	P1-48
TJ5-31	-	P1-131	P1-182	-	-	-	-
TJ5-32	-	-	P1-146	P1-42	-	-	-
TJ5-33	-	-	P1-93	P1-88	-	P1-45	P1-67
TJ5-34	P1-108	P1-108	-	-	-	-	-
TJ5-35	P1-141	P1-141	-	-	-	-	-
TJ5-36	P1-174 *	-	-	-	-	-	-
	P1-143 *	-	-	-	-	-	-
TJ5-37	P1-165 *	-	-	-	-	-	-
	P1-115 *	-	-	-	-	-	-
TJ5-38	P1-172 *	-	-	-	-	-	-
	P1-145 *	-	-	-	-	-	-
TJ5-39	P1-144 *	-	-	-	-	-	-
	P1-173 *	-	-	-	-	-	-
TJ5-40	P1-142 *	-	-	-	-	-	-
	P1-171 *	-	-	-	-	-	-
TJ5-41	P1-129	P1-129	-	-	-	-	-
TJ5-42	P1-128	P1-128	-	-	-	-	-
TJ5-43	P1-126	P1-126	-	-	-	-	-
TJ5-44	P1-166	P1-166	-	-	-	-	-
TJ5-45	P1-164	-	-	P1-165	-	-	-
TJ5-46	P1-6 *	P1-58	-	-	-	-	-
	P1-60 *	-	-	-	-	-	-
	P1-109 *	-	-	-	-	-	-
TJ5-47	P1-125	-	-	-	-	-	-
TJ5-48	P1-124	-	-	-	-	-	-
TJ5-49	P1-127	-	-	-	-	-	-
TJ5-50	P1-123	-	-	-	-	-	-
TJ5-51	P1-175	-	-	-	-	-	-
TJ5-52	P1-176	-	-	-	-	-	-
TJ5-53	P1-177	-	-	-	-	-	-
TJ5-54	P1-182	-	-	-	-	-	-
TJ5-55	-	-	P1-123	-	-	-	-
TJ5-56	-	-	P1-24	-	-	-	-
TJ5-57	-	-	-	P1-183	-	-	-
TJ5-58	-	-	-	P1-188	-	-	P1-120
TJ5-59	-	-	-	P1-178	-	-	-
TJ5-60	-	P1-178	-	-	-	-	-
TJ5-61	-	-	-	P1-185	-	-	-

* Jumpered

Table 1. CSFM Front Panel To Motherboard - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ5-62	-	P1-132	P1-183	-	P1-98	-	-
TJ5-63	-	-	P1-188	P1-138	-	-	-
TJ5-64	-	P1-172	-	-	-	-	P1-1
TJ5-65	P1-24	P1-24	P1-127	-	-	-	-
TJ5-66	P1-29	-	-	P1-14	-	-	-
TJ5-67	P1-55	P1-55	-	-	-	-	-
TJ5-68	P1-4	P1-4	-	-	-	-	-
TJ5-69	P1-58	P1-163	-	-	-	-	-
TJ5-70	P1-7	P1-7	-	-	-	-	-
TJ5-71	P1-56	P1-56	-	-	-	-	-
TJ5-72	P1-8	P1-8	-	-	-	-	-
TJ5-73	P1-34	P1-34	-	-	-	-	-
TJ5-74	P1-62	P1-60	-	-	-	-	-
TJ5-75	P1-16	P1-16	-	-	-	-	-
TJ5-76	P1-57	P1-57	-	-	-	-	-
TJ5-77	P1-47	-	-	-	-	-	-
TJ5-78	P1-60	-	-	-	-	-	-
TJ5-79	P1-42	P1-42	-	-	-	-	-
TJ5-80	P1-36 } *	P1-87	-	-	-	-	-
	P1-87 }	-	-	-	-	-	-
TJ5-81	P1-37 } *	P1-88	-	-	-	-	-
	P1-88 }	-	-	-	-	-	-
TJ5-82	-	P1-125	P1-124	-	-	-	-
TJ5-83	-	-	-	-	-	-	-
TJ5-84	-	-	P1-175	P1-175	-	-	-
TJ5-86	-	-	-	-	P1-56	-	-
TJ5-87	-	-	-	-	P1-47	-	-
TJ5-88	-	-	-	-	P1-59	-	-
TJ5-89	-	-	-	-	P1-62	-	-
TJ5-90	-	-	-	-	P1-23	-	-
TJ5-91	-	-	-	-	P1-45	-	-
TJ5-96	-	-	-	P1-139	P1-92	-	-
TJ5-97	-	P1-90	-	-	P1-91	-	-
TJ5-98	-	P1-150	P1-150	-	-	-	-
TJ5-99	P1-67	P1-67	-	-	-	-	-
TJ5-100	-	-	P1-115	-	-	-	-
TJ5-101	-	-	P1-95	-	-	-	-
TJ5-102	-	-	P1-171	P1-170	-	-	P1-46 } *
	-	-	-	-	-	-	P1-12 }
TJ5-104	-	-	P1-82	-	-	-	-
TJ5-105	-	-	P1-81	-	-	-	-
TJ5-106	-	-	P1-132	-	-	-	-
TJ5-107	-	-	P1-131	-	-	-	-
TJ5-108	-	-	P1-80	-	-	-	P1-7
TJ5-109	-	-	P1-185	-	-	-	-
TJ5-111	-	P1-192	-	-	-	-	-

* Jumpered

Table 1. CSFM Motherboard Connections - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ5-113	-	-	-	P1-191	-	-	-
TJ5-115	P1-138	P1-138	-	-	-	-	P1-38
TJ5-116	P1-120	-	-	-	-	-	P1-69
TJ5-117	P1-122	-	-	-	-	-	-
TJ5-118	-	-	P1-184	P1-132	-	-	-
TJ5-119	-	-	-	P1-177	-	-	-
TJ5-120	-	-	-	P1-70	-	-	-
TJ5-121	-	-	-	P1-45	-	-	-
TJ5-122	-	-	-	P1-17	-	-	-
TJ5-123	-	-	-	P1-23	-	-	-
TJ5-124	-	-	P1-138	-	-	-	-
TJ5-127	P1-10	P1-10	-	-	-	-	-
TJ5-128	-	-	-	-	-	P1-86	-
TJ6-1	-	-	-	-	P1-187	-	-
TJ6-4	P1-11	P1-62 } *	-	-	-	-	-
	-	P1-113 } *	-	-	-	-	
TJ6-5	-	P1-132	P1-183	-	P1-98	-	-
TJ6-7	-	-	P1-174	P1-174	-	-	-
TJ6-11	-	-	P1-36	-	-	-	-
TJ6-12	-	-	P1-176	-	-	-	-
TJ6-13	-	-	P1-177	-	-	-	-
TJ6-14	-	-	P1-178	-	-	-	-
TJ6-15	-	P1-125	-	-	-	-	P1-77
TJ6-16	-	P1-17	-	-	-	-	-
TJ6-17	P1-161	P1-161	-	-	-	-	-
TJ6-18	P1-151	P1-151	-	-	-	-	-
TJ6-19	P1-162	P1-162	P1-136	-	-	-	-
TJ6-20	-	-	-	P1-137	-	-	-
TJ6-21	-	-	-	P1-159	-	-	-
TJ6-22	-	-	-	P1-4	-	-	-
TJ6-23	-	-	-	P1-124	-	-	-
TJ6-24	P1-197	P1-44	-	-	-	-	-
TJ6-25	P1-86	P1-86	-	-	-	-	-
TJ6-26	P1-80	P1-80	-	-	-	-	-
TJ6-27	P1-81	P1-81	-	-	-	-	-
TJ6-28	P1-73	P1-73	-	-	-	-	-
TJ6-29	P1-83	P1-83	-	-	-	-	-
TJ6-30	P1-190	P1-139	-	-	-	-	-
TJ6-31	P1-191	P1-143	-	-	-	-	-
TJ6-32	-	-	-	P1-123	-	-	-
TJ6-33	-	P1-6	-	-	-	-	-
TJ6-34	-	-	-	P1-55	-	-	-
TJ6-35	-	P1-145	-	-	-	-	-
TJ6-36	-	P1-76	-	-	-	-	-
TJ6-37	P1-74	P1-74	-	-	-	-	-

* Jumpered

Table 1. CSFM Front Panel To Motherboard - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ6-38	P1-75	P1-75	-	-	-	-	-
TJ6-39	P1-9	P1-9	-	-	-	-	-
TJ6-40	P1-79	P1-79	-	-	-	-	-
TJ6-41	-	P1-113	-	-	-	-	-
TJ6-42	-	P1-32	-	-	-	-	-
TJ6-43	P1-84	P1-133	-	-	-	-	-
TJ6-44	P1-85	P1-85	-	-	-	-	-
TJ6-45	-	P1-29	-	-	-	-	-
TJ6-46	-	-	-	P1-94	-	-	-
TJ6-47	-	-	-	P1-43	-	-	-
TJ6-48	-	-	-	P1-148	-	-	-
TJ6-49	-	-	-	P1-96	-	-	-
TJ6-50	-	-	-	P1-46	-	-	-
TJ6-51	-	-	-	P1-149	-	-	-
TJ6-52	-	-	-	P1-97	-	-	-
TJ6-53	-	-	-	P1-150	-	-	-
TJ6-54	-	-	-	P1-95	-	-	
TJ6-55	-	-	-	P1-98	-	-	-
TJ6-56	-	P1-176	-	-	-	-	P1-31
TJ6-57	-	P1-177	-	-	-	-	P1-49
TJ6-58	-	P1-198	-	-	-	-	P1-94
TJ6-59	-	-	P1-59	P1-59	-	-	-
TJ6-60	-	-	-	-	-	-	-
TJ6-61	-	P1-175	-	-	-	-	P1-78
TJ6-62	P1-91	P1-91	-	-	-	-	-
TJ6-63	P1-92	P1-92	-	-	-	-	-
TJ6-64	P1-107	P1-107	-	-	-	-	-
TJ6-65	P1-97	P1-97	-	-	-	-	-
TJ6-66	P1-114	P1-114	-	-	-	-	-
TJ6-67	P1-150	-	-	-	-	-	-
TJ6-68	P1-149	-	-	-	-	-	-
TJ6-69	P1-178	-	-	-	-	-	-
TJ6-70	P1-180	-	-	-	-	-	-
TJ6-73	P1-188	-	-	-	-	-	-
TJ6-74	P1-187	-	-	-	-	-	-
TJ6-75	P1-169	-	-	-	-	-	-
TJ6-76	P1-181	-	-	-	-	-	-
TJ6-77	P1-170	-	-	-	-	-	-
TJ6-78	P1-185	P1-185	-	-	-	-	-
TJ6-79	P1-168	P1-168	-	-	-	-	-
TJ6-80	P1-167	-	-	-	-	-	-
TJ6-81	-	-	-	P1-180	-	-	P1-54
TJ6-82	-	-	P1-87	-	-	-	-
TJ6-83	-	-	-	P1-192	-	-	P1-100
TJ6-84	P1-42	P1-42	-	-	-	-	-
TJ6-85	P1-36 *	P1-87	-	-	-	-	-
	P1-87 *	-	-	-	-	-	-

* Jumpered

Table 1. CSFM Motherboard Connections - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ6-86	P1-37 } *	P1-88	-	-	-	-	-
	P1-88 } *	-	-	-	-	-	-
TJ6-87	P1-22	-	-	-	-	-	-
TJ6-88	P1-46 } *	P1-46	-	-	-	-	-
	P1-95 } *	-	-	-	-	-	-
TJ6-89	P1-30	P1-30	-	-	-	-	-
TJ6-90	P1-63	P1-63	-	-	-	-	-
TJ6-91	P1-44	P1-95	-	-	-	-	-
TJ6-92	P1-48	P1-149	-	-	-	-	-
TJ6-93	P1-38	P1-38	-	-	-	-	-
TJ6-94	P1-5	P1-5	-	-	-	-	-
TJ6-95	P1-17 } *	P1-118	-	-	-	-	-
	P1-118 } *	-	-	-	-	-	-
TJ6-97	P1-40	P1-40	-	-	-	-	-
TJ6-98	P1-41	P1-41	-	-	-	-	-
TJ6-99	P1-20	P1-19	-	-	-	-	-
TJ6-100	P1-61	P1-61	-	-	-	-	-
TJ6-101	P1-59	P1-59	-	-	-	-	-
TJ6-102	-	-	-	-	-	P1-39	-
TJ6-103	-	-	-	-	-	P1-41	-
TJ6-104	-	-	-	-	-	P1-42	-
TJ6-105	-	-	P1-168	-	-	P1-46	P1-61
TJ6-106	-	-	-	-	-	P1-40	-
TJ6-107	-	-	-	-	-	-	P1-25
TJ6-108	-	-	P1-32	-	-	P1-44	P1-56
TJ6-109	-	-	P1-94	-	-	P1-48	P1-59
TJ6-110	-	-	-	-	-	-	P1-75
TJ6-111	-	-	-	-	-	-	P1-58
TJ6-112	-	P1-157	-	-	-	-	-
TJ6-113	-	P1-114	-	-	-	-	-
TJ6-114	-	-	P1-61	P1-61	-	-	-
TJ6-115	-	-	P1-57	P1-56	-	-	-
TJ6-116	-	P1-35	-	-	-	-	-
TJ6-117	-	P1-45	-	-	-	-	-
TJ6-118	P1-76	-	-	-	-	-	P1-37 } *
	-	-	-	-	-	-	P1-47 } *
TJ6-119	-	-	-	-	-	-	P1-81
TJ6-120	-	-	P1-60	P1-60	-	-	-
TJ6-122	-	-	-	P1-38	P1-94	-	-
TJ6-123	-	-	-	-	-	P1-94	-
TJ6-124	-	P1-110	-	-	-	-	P1-68
TJ6-125	-	-	-	P1-182	-	P1-95	-
TJ6-127	-	-	-	P1-93	P1-96	-	-
TJ6-128	-	-	-	P1-118	-	-	-
TJ7-1	P1-161	-	-	-	-	-	-
TJ7-2	-	-	-	-	-	-	P1-16

* Jumpered

Table 1. CSFM Front Panel To Motherboard - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ7-7	-	-	-	P1-41	-	-	-
TJ7-8	-	-	-	P1-157	-	-	-
TJ7-9	-	-	-	P1-40	-	-	-
TJ7-10	-	-	-	P1-11	-	-	-
TJ7-11	-	-	-	P1-114	-	-	-
TJ7-12	-	-	-	P1-111	-	-	-
TJ7-13	-	-	-	P1-119	-	-	-
TJ7-14	-	-	-	P1-121	-	-	-
TJ7-15	-	P1-135	-	-	-	-	P1-27
TJ7-16	-	-	-	P1-36	-	-	P1-93
TJ7-17	P1-182	-	-	-	-	-	-
TJ7-18	-	P1-179	-	-	-	-	-
TJ7-19	-	-	-	P1-188	-	-	-
TJ7-20	-	-	-	P1-178	-	-	-
TJ7-21	-	-	-	P1-181	-	-	-
TJ7-22	-	-	-	P1-185	-	-	-
TJ7-23	-	-	-	P1-180	-	-	P1-54
TJ7-24	-	-	-	P1-189	-	-	P1-7
TJ7-25	-	P1-180	-	-	-	-	-
TJ7-26	P1-76	-	-	P1-179	-	-	P1-37 } *
	-	-	-	-	-	-	P1-47 }
TJ7-27	P1-43	-	-	P1-190	-	-	-
TJ7-28	P1-35	-	P1-169	P1-187	-	P1-47	P1-17
TJ7-30	-	P1-23	-	-	-	-	P1-26
TJ7-31	-	-	-	P1-90	P1-95	-	-
TJ7-32	-	-	-	-	P1-116	-	-
TJ7-33	-	-	-	-	P1-117	-	-
TJ7-34	-	P1-181	-	-	-	-	-
TJ7-35	-	P1-182	-	-	-	-	-
TJ7-36	-	P1-183	-	-	-	-	-
TJ7-37	-	-	-	-	P1-9	-	-
TJ7-38	-	-	-	-	P1-165	-	-
TJ7-39	-	-	-	-	P1-163	-	-
TJ7-40	-	-	-	-	P1-130	-	-
TJ7-41	-	-	-	-	P1-146	-	-
TJ7-42	-	-	-	-	P1-147	-	-
TJ7-43	-	-	-	-	P1-148	-	-
TJ7-44	-	-	-	-	P1-149	-	-
TJ7-45	-	-	-	-	P1-141	-	-
TJ7-46	-	-	-	-	P1-139	-	-
TJ7-47	-	-	-	-	P1-138	-	-
TJ7-48	-	-	-	-	P1-137	-	-
TJ7-49	-	-	-	-	P1-134	-	-
TJ7-50	-	-	-	-	P1-133	-	-
TJ7-51	-	-	-	-	P1-132	-	-
TJ7-52	-	-	-	-	P1-131	-	-

* Jumpered

Table 1. CSFM Motherboard Connections - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ7-53	-	-	-	-	P1-143	-	-
TJ7-54	-	-	-	-	P1-142	-	-
TJ7-55	-	-	-	-	P1-144	-	-
TJ7-56	-	-	-	-	P1-145	-	-
TJ7-57	-	-	-	-	P1-136	-	-
TJ7-58	-	-	-	-	P1-135	-	-
TJ7-59	-	-	-	-	P1-11	-	-
TJ7-60	-	-	-	-	P1-166	-	-
TJ7-61	-	-	-	-	P1-162	-	-
TJ7-62	-	-	-	-	P1-164	-	-
TJ7-63	-	-	-	-	P1-22	-	-
TJ7-64	-	-	-	P1-62	P1-62	-	-
TJ7-65	-	-	-	-	P1-32	-	-
TJ7-66	-	-	-	-	P1-33	-	-
TJ7-67	-	-	-	P1-145	P1-48	-	-
TJ7-68	-	-	-	-	P1-44	-	-
TJ7-69	P1-200 } *	P1-188	-	-	-	-	
	P1-189 } *	-	-	-	-	-	-
TJ7-70	P1-198	-	-	P1-57	P1-57	-	-
TJ7-71	-	-	-	-	P1-43	-	-
TJ7-72	-	-	-	-	P1-42	-	-
TJ7-73	P1-199	P1-47	-	-	P1-55	-	-
TJ7-74	-	-	-	-	P1-23	-	-
TJ7-75	-	-	-	-	P1-61	-	-
TJ7-76	-	-	-	-	P1-19	-	-
TJ7-77	-	-	-	-	P1-21	-	-
TJ7-78	-	-	-	-	P1-58	-	-
TJ7-79	-	-	-	P1-89	P1-93	-	-
TJ7-80	P1-32 } *	P1-89	-	-	-	-	-
	P1-89 } *	-	-	-	-	-	-
TJ7-81	P1-82 } *	P1-82	-	-	-	-	-
	P1-183 } *	-	-	-	-	-	-
TJ7-82	P1-145 } *	P1-142	-	-	-	-	-
	P1-192 } *	-	-	-	-	-	-
TJ7-83	P1-33 } *	P1-84	-	-	-	-	-
	P1-186 } *	-	-	-	-	-	-
TJ7-84	P1-31 } *	P1-31	-	-	-	-	-
	P1-184 } *	-	-	-	-	-	-
TJ7-85	-	P1-43	-	-	-	-	-
TJ7-86	-	-	-	-	-	-	P1-92
TJ7-87	-	-	-	-	-	-	P1-97
TJ7-88	P1-15	P1-15	-	-	-	-	-
TJ7-89	P1-72	P1-72	-	-	-	-	-
TJ7-90	P1-21	P1-21	-	-	-	-	-
TJ7-91	P1-12	P1-12	-	-	-	-	-
TJ7-92	P1-13	P1-13	-	-	-	-	-

* Jumpered

Table 1. CSFM Front Panel To Motherboard - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ7-93	-	-	P1-142	-	-	-	-
TJ7-94	-	-	P1-141	-	-	-	-
TJ7-95	-	-	-	-	P1-73	-	-
TJ7-96	-	-	-	-	P1-72	-	-
TJ7-97	-	-	-	-	P1-75	-	-
TJ7-98	-	-	-	-	P1-74	-	-
TJ7-99	-	-	-	-	P1-80	-	-
TJ7-100	-	-	-	-	P1-79	-	-
TJ7-101	-	-	-	-	P1-82	-	-
TJ7-102	-	-	-	-	P1-81	-	-
TJ7-103	-	-	-	-	P1-87	-	-
TJ7-104	-	-	-	-	P1-86	-	-
TJ7-105	-	-	-	P1-141	P1-97	-	-
TJ7-106	-	-	P1-174	-	-	-	-
TJ7-107	-	-	-	-	P1-63	-	-
TJ7-108	-	-	-	-	P1-64	-	-
TJ7-109	-	-	-	-	P1-65	-	
TJ7-110	-	-	-	-	P1-66	-	-
TJ7-111	-	-	-	-	P1-4	-	-
TJ7-112	-	-	-	-	P1-5	-	-
TJ7-113	-	-	-	-	P1-6	-	-
TJ7-114	-	-	-	-	P1-7	-	-
TJ7-115	-	-	-	-	P1-8	-	-
TJ7-116	-	-	-	-	P1-159	-	-
TJ7-117	-	-	-	-	P1-161	-	-
TJ7-118	-	-	P1-125	-	-	-	-
TJ7-120	-	-	P1-122	-	-	-	-
TJ7-121	-	-	P1-74	-	-	-	-
TJ7-122	-	-	P1-137	-	-	-	-
TJ7-123	-	-	P1-172	P1-172	-	-	-
TJ7-124	-	P1-184	-	-	-	-	-
TJ7-126	-	-	P1-171	P1-170	P1-111	-	P1-46 } *
	-	-	-	-	-	-	P1-12 }
TJ7-128	-	-	-	-	-	P1-91	-
TJ8-1	-	-	-	-	-	P1-8	-
TJ8-2	-	-	P1-73	-	-	-	-
TJ8-3	P1-196	-	-	P1-144	-	-	-
TJ8-4	-	-	-	P1-41	-	-	-
TJ8-5	-	-	-	P1-157	-	-	-
TJ8-6	-	-	-	P1-40	-	-	-
TJ8-7	-	-	-	P1-11	-	-	-
TJ8-8	-	-	-	P1-114	-	-	-
TJ8-9	-	-	-	-	P1-89	-	-
TJ8-10	-	-	-	-	P1-88	-	-
TJ8-11	-	-	-	P1-63	-	-	-
TJ8-12	-	-	-	P1-160	-	-	-

* Jumpered

Table 1. CSFM Motherboard Connections - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ8-13	P1-94	-	-	-	-	-	-
TJ8-14	P1-140	P1-140	-	-	-	-	-
TJ8-15	-	-	-	P1-12	-	-	-
TJ8-16	-	-	-	P1-166	-	-	-
TJ8-17	-	-	-	P1-115	-	-	-
TJ8-18	-	-	-	P1-64	-	-	-
TJ8-19	-	-	-	P1-13	-	-	-
TJ8-20	-	-	-	P1-167	-	-	-
TJ8-21	-	-	-	P1-92	-	-	-
TJ8-22	-	-	-	P1-116	-	-	-
TJ8-23	-	-	-	P1-5	-	-	-
TJ8-24	-	-	-	P1-147	-	-	-
TJ8-25	-	-	-	P1-32	-	-	-
TJ8-26	-	-	-	P1-135	-	-	-
TJ8-27	-	-	-	P1-126	-	-	-
TJ8-28	-	-	-	P1-151	-	-	-
TJ8-29	-	-	-	P1-47	-	-	
TJ8-30	-	-	-	P1-7	-	-	-
TJ8-31	-	-	-	P1-33	-	-	-
TJ8-32	-	-	-	P1-91	-	-	-
TJ8-33	-	-	-	P1-39	-	-	-
TJ8-34	-	-	-	P1-75	-	-	-
TJ8-35	-	P1-160	-	-	-	-	-
TJ8-36	-	-	-	P1-74	-	-	-
TJ8-37	-	-	-	P1-142	-	-	-
TJ8-38	-	-	-	P1-48	-	-	-
TJ8-39	-	-	-	P1-143	-	-	-
TJ8-40	-	-	-	P1-161	-	-	-
TJ8-41	-	P1-36	-	-	-	-	-
TJ8-42	-	-	-	P1-168	-	-	-
TJ8-43	-	-	-	P1-16	-	-	-
TJ8-44	-	-	-	P1-44	-	-	-
TJ8-45	-	-	-	P1-173	-	-	-
TJ8-46	-	-	-	P1-171	-	-	-
TJ8-47	-	-	-	P1-65	-	-	-
TJ8-48	P1-91	P1-91	-	-	-	-	-
TJ8-49	P1-92	-	-	-	-	-	-
TJ8-50	P1-107	P1-107	-	-	-	-	-
TJ8-51	P1-97	P1-97	-	-	-	-	-
TJ8-52	P1-135	-	-	P1-136	-	-	-
TJ8-53	P1-136	P1-136	-	-	-	-	-
TJ8-54	P1-137	P1-137	-	-	-	-	-
TJ8-55	P1-112	P1-112	-	-	-	-	-
TJ8-56	P1-116	P1-116	-	-	-	-	-
TJ8-57	P1-117	P1-117	-	-	-	-	-

* Jumpered

Table 1. CSFM Front Panel To Motherboard - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ8-58	P1-96	P1-96	-	-	-	-	-
TJ8-59	P1-119	P1-119	-	-	-	-	-
TJ8-60	P1-134	P1-134	-	-	-	-	-
TJ8-61	P1-111	P1-111	-	-	-	-	-
TJ8-62	P1-132	P1-133	-	-	-	-	-
TJ8-63	P1-93	P1-93	-	-	-	-	-
TJ8-64	P1-110	P1-110	-	-	-	-	P1-68
TJ8-65	P1-131	P1-130	-	-	-	-	-
TJ8-66	P1-98 } *	P1-151	-	-	-	-	-
	P1-151 } *	-	-	-	-	-	-
TJ8-67	P1-181	-	-	-	-	-	-
TJ8-68	P1-163	-	-	-	-	-	-
TJ8-69	P1-168	P1-168	-	-	-	-	-
TJ8-70	P1-158	P1-158	-	-	-	-	-
TJ8-71	P1-159	P1-159	-	-	-	-	-
TJ8-72	-	-	-	P1-181	-	-	-
TJ8-73	-	-	-	P1-180	-	-	P1-54
TJ8-74	-	-	-	P1-189	-	-	P1-7
TJ8-75	P1-46	-	-	P1-185	-	-	-
TJ8-76	-	P1-46	-	-	-	-	-
TJ8-77	P1-30	P1-30	-	-	-	-	-
TJ8-78	P1-63	P1-63	-	-	-	-	-
TJ8-79	P1-44	P1-95	-	-	-	-	-
TJ8-80	P1-48	P1-149	-	-	-	-	-
TJ8-81	P1-38	P1-38	-	-	-	-	-
TJ8-82	P1-5	P1-5	-	-	-	-	-
TJ8-83	-	-	P1-75	-	-	-	-
TJ8-84	-	P1-174	-	-	-	-	-
TJ8-85	-	-	P1-23	-	-	-	-
TJ8-86	-	-	P1-22	-	-	-	-
TJ8-87	-	-	-	-	P1-34	-	-
TJ8-88	-	-	-	-	P1-41	-	-
TJ8-89	-	-	-	-	P1-36	-	-
TJ8-90	-	-	-	-	P1-38	-	-
TJ8-91	-	-	-	-	P1-39	-	-
TJ8-92	-	-	-	-	P1-37	-	-
TJ8-93	-	-	-	P1-29	P1-31	-	-
TJ8-94	-	-	-	P1-35	P1-35	-	-
TJ8-95	-	-	-	P1-37	P1-46	-	-
TJ8-97	-	-	P1-180	-	-	-	P1-8
TJ8-98	-	-	-	P1-120	-	-	-
TJ8-99	-	-	-	P1-184	-	-	-
TJ8-100	-	-	-	P1-145	P1-48	-	-
TJ8-101	-	-	-	-	P1-24	-	-
TJ8-102	-	P1-169	-	-	-	-	-
TJ8-103	-	-	-	P1-127	-	-	-

* Jumpered

Table 1. CSFM Motherboard Connections - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ8-104	-	-	-	P1-19	-	-	P1-5
TJ8-105	-	P1-164	-	-	-	-	P1-55
TJ8-106	-	-	P1-164	P1-163	-	-	-
TJ8-107	-	-	P1-165	P1-164	-	-	-
TJ8-108	-	P1-147	P1-96	-	-	-	-
TJ8-109	-	-	P1-167	P1-169	-	P1-43	P1-18
TJ8-110	P1-167	-	-	-	-	-	-
TJ8-111	P1-114	P1-114	-	-	-	-	-
TJ8-112	P1-17 *	P1-118	-	-	-	-	-
	P1-118 *	-	-	-	-	-	-
TJ8-113	P1-19 *	P1-121	-	-	-	-	-
	P1-121 *	-	-	-	-	-	-
TJ8-114	P1-146	P1-146	-	-	-	-	-
TJ8-115	P1-18	P1-18	-	-	-	-	-
TJ8-116	-	-	-	P1-141	P1-97	-	-
TJ8-117	P1-139	-	-	-	-	-	-
TJ8-118	-	-	-	-	-	-	P1-10 *
	-	-	-	-	-	-	P1-22 *
TJ8-124	P1-162	-	-	-	-	-	-
TJ8-125	-	-	-	P1-10	-	-	P1-10 *
	-	-	-	-	-	-	P1-22 *
TJ8-126	-	-	-	-	-	-	P1-10 *
	-	-	-	-	-	-	P1-22 *
TJ8-127	-	-	-	P1-69	-	-	-
TJ8-128	-	-	-	-	-	P1-96	-
TJ10-A	-	-	-	-	-	P1-59	-
TJ10-B	P1-39	P1-39	P1-39	-	-	-	-
TJ10-C	P1-64	P1-64	-	-	-	-	-
TJ10-D	P1-65	P1-65	-	-	-	-	-
TJ10-E	P1-66	P1-66	-	-	-	-	-
TJ10-F	P1-34	P1-34	-	-	-	-	-
TJ10-G	P1-71	P1-71	-	-	-	-	-
TJ10-H	P1-68	P1-68	-	-	-	-	-
TJ10-J	-	-	-	P1-129	-	-	P1-87
TJ10-K	-	-	-	-	-	-	UJ8-A *
	-	-	-	-	-	-	UJ8-F *
	-	-	-	-	-	-	UJ8-N *
TJ10-M	-	-	-	P1-130	-	-	-
TJ10-N	-	P1-150	-	-	-	-	-
TJ10-R	-	-	-	P1-131	-	-	-
TJ10-S	-	P1-148	P1-149	-	-	-	-
TJ10-U	-	P1-171	-	-	-	-	P1-19
TJ10-V	-	P1-124	-	-	-	-	P1-70
TJ10-W	-	P1-127	-	-	-	-	P1-24
TJ10-X	-	P1-14	-	-	-	-	P1-21 *
	-	-	-	-	-	-	P1-41 *

* Jumpered

Table 1. CSFM Front Panel To Motherboard - Wire List (Cont.)

	J2	J4	J5	J7	J8	J10	J11
TJ10-Y	-	-	-	-	-	-	P1-4
TJ10-Z	-	-	P1-109	-	-	-	-
TJ10-a	-	-	P1-110	-	-	-	-
TJ10-b	P1-69	P1-69	-	-	-	-	-
TJ10-d	P1-70	P1-70	-	-	-	-	-
TJ10-f	-	P1-165	-	-	-	-	P1-50
TJ10-g	-	P1-120	-	-	-	-	P1-85
TJ10-h	-	P1-123	-	-	-	-	P1-3
TJ10-i	-	-	-	P1-122	-	-	-
TJ10-k	-	-	P1-15	-	-	-	-
TJ10-m	-	-	P1-14	-	-	-	-
TJ10-n	-	-	P1-13	-	-	-	-
TJ10-p	-	-	P1-12	-	-	-	-
TJ10-q	-	-	P1-106	P1-106	-	-	-
TJ10-r	-	-	P1-107	P1-107	-	-	-
TJ10-s	-	-	P1-157	-	-	-	-
TJ10-t	-	-	P1-158	P1-158	-	-	
TJ10-u	-	P1-106	-	-	-	-	-
TJ10-v	-	-	P1-160	-	-	-	-
TJ10-w	-	-	P1-161	-	-	-	-
TJ10-x	-	-	P1-58	P1-58	-	-	-
TJ10-y	-	-	-	P1-134	-	-	P1-62
TJ10-z	-	P1-186	-	-	-	-	-
TJ10-AA	-	P1-170	-	-	-	-	P1-79
TJ10-BB	-	-	-	P1-108	-	-	P1-99
TJ10-CC	-	-	-	-	P1-68	-	-
TJ10-DD	-	-	-	-	P1-67	-	-
TJ10-EE	-	-	P1-46	P1-86	-	-	-
TJ10-FF	-	-	P1-44	P1-84	-	-	-
TJ10-GG	-	-	P1-45	P1-85	-	-	-
TJ10-HH	-	-	-	-	-	P1-106	-
TJ10-JJ	-	-	-	P1-87	-	-	-
TJ10-KK	-	-	P1-41	P1-80	-	-	-
TJ10-LL	-	-	P1-42	P1-81	-	-	-
TJ10-MM	-	-	P1-43	P1-82	-	-	-
TJ10-NN	-	-	P1-200	-	-	-	-
TJ10-PP	-	-	P1-201	-	-	-	-
UJ8-B	-	-	-	-	-	-	P1-84
UJ8-D	-	-	-	-	-	-	-
UJ8-E	-	-	-	-	-	-	P1-11 } *
	-	-	-	-	-	-	P1-36 }
UJ8-F	-	-	-	-	-	-	P1-35 } *
	-	-	-	-	-	-	P1-39 }
UJ8-J	-	-	-	-	-	-	P1-28 } *
	-	-	-	-	-	-	P1-44 }
UJ8-M	-	-	-	-	-	-	P1-83

* Jumpered

Table 1. CSFM Motherboard Connections - Wire List

	J2	J4	J5	J7	J8	J10	J11
UJ8-S	-	-	-	-	-	-	P1-98
UJ8-V	-	-	-	-	-	P1-109	-
-	P1-106 } *	-	-	-	-	-	-
-	P1-202 } *	-	-	-	-	-	-
-	P1-157 } *	-	-	-	-	-	-
-	P1-201 } *	-	-	-	-	-	-
-	-	P1-187	-	P1-71	-	-	-
-	-	P1-115	-	-	P1-30	-	P1-82
-	-	-	P1-198	-	-	-	P1-40
-	-	-	P1-166	-	-	-	P1-42
-	-	-	P1-187	-	-	-	P1-43
-	-	-	P1-129	-	-	-	P1-52
-	-	-	P1-191	-	-	-	P1-6
-	-	-	P1-196	-	-	-	P1-32
-	-	-	P1-181	-	-	-	P1-74
-	-	-	P1-6	-	P1-6	-	-
-	-	-	P1-7	-	P1-110	-	-
-	-	-	P1-8	-	P1-8	-	-
-	-	-	P1-76	-	P1-76	-	-
-	-	-	P1-9	-	P1-9	-	-
-	-	-	P1-173	-	-	P1-196	-
-	-	-	P1-120	-	-	P1-197	-
-	-	-	P1-70	-	-	P1-198	-
-	-	-	P1-19	-	-	P1-199	-
-	-	-	-	-	P1-201 } *	P1-87 } *	P1-130
-	-	-	-	-	P1-202 } *	P1-117 } *	-
-	-	-	-	-	P1-69 } *	P1-92 } *	-
-	-	-	-	-	P1-151 } *	P1-122 } *	-
-	-	-	-	-	P1-172	-	P1-64
-	-	-	-	-	P1-173	-	P1-65
-	-	-	-	-	P1-174	-	P1-76
-	-	-	-	-	P1-175	-	P1-15
-	-	-	-	-	P1-176	-	P1-14
-	-	-	-	-	P1-177	-	P1-63
-	-	-	-	-	P1-178	-	P1-66
-	-	-	-	-	-	P1-97 } *	-
-	-	-	-	-	-	P1-127 } *	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

* Jumpered

CHAPTER 4

UNIT MAINTENANCE INSTRUCTIONS

SITE AND SHELTER REQUIREMENTS

The OIU and GPIA will function properly in temperatures from 32°F (0°C) to +131°F (+55°C). The equipment is waterproof when the case covers are in place and secured.

SERVICE UPON RECEIPT OF EQUIPMENT

General

The equipment cases give adequate protection against corrosion and damage during shipment and should ensure delivery to their destination in a satisfactory condition.

Checking Equipment

(1) Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on SF 364, Report of Discrepancy (ROD).

(2) Check the equipment against WP 0160 00, Components of End Item and Basic Issue Items List, to see if the shipment is complete. Report all discrepancies in accordance with the instructions of DA PAM 738-750.

(3) Perform operating procedures; refer to Chapter 2.

Installation

The OIU and GPIA must be installed in a manufactured rack. Refer to WP 0163 00 for instructions to manufacture a rack.

PMCS INTRODUCTION

The checks described in the Preventive Maintenance Checks and Services (PMCS) table (Table 1) are performed to find, correct, or report problems before they result in serious damage or failure. The interval column tells you when to perform the checks. "Before" checks are performed before power is applied to equipment; "During" checks are performed after equipment is powered up. Both "Before" and "During" checks are performed once each day for each equipment item which will be used for the day's LRU testing. The calibration check (item no. 19) is performed every 120 days. Refer to the troubleshooting procedures in Chapter 3 to correct any malfunctions. If you cannot correct a malfunction, report the problem on DA Form 2404. The "Equipment Is Not Ready/Available" column tells you when and why your equipment cannot be used until it is repaired.

WARNING

ELECTRICAL SHOCK

High voltage present, to avoid hazard always use caution when performing PMCS with power applied.

NOTE

The terms "ready/available" and "mission/capable" refer to the same status: Equipment is on hand and is able to perform its combat missions (see DA PAM 750-8).

Table 1. Preventive Maintenance Checks and Services

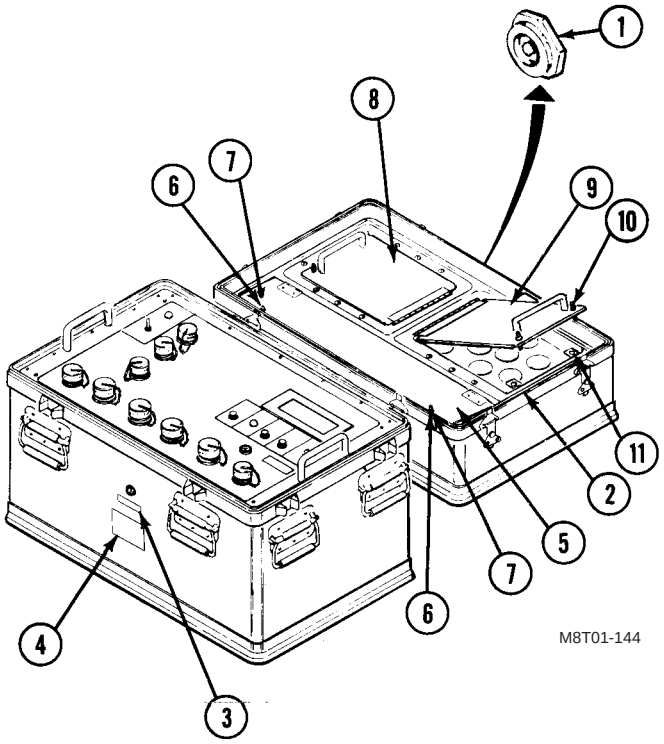
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:
1	Before		OIU Case	 1. Look at case cover pressure relief valve (1) for damage and check for freedom of movement. 2. Look at case seal (2) for breaks, cracks, and deterioration. 3. Look at identification plate (3) for damage and check that information on plate is legible. 4. Check for missing or damaged decals (4). 5. Open stowage compartment lid (5) and check lid fasteners, stud assembly (6), and receptacle (7) for proper operation. 6. Open stowage module assembly lids (8) and (9) and check lid fasteners, stud assembly (10), and receptacle (11) for proper operation.	

Table 1. Preventive Maintenance Checks and Services (Continued)

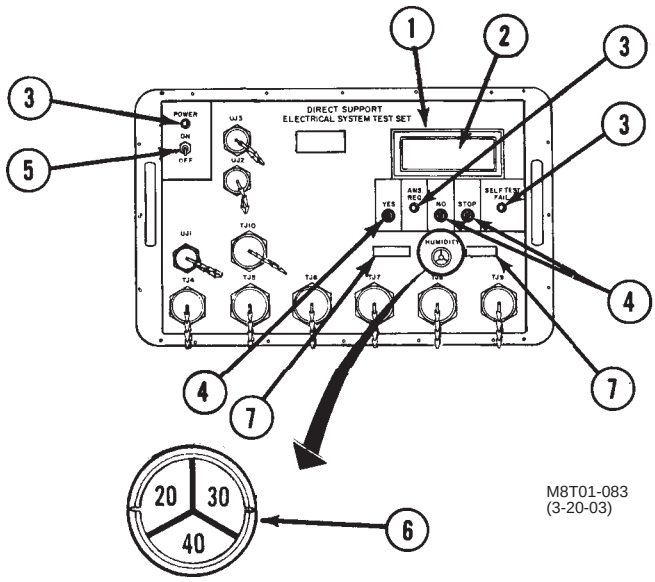
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:
2	Before		OIU Operator Panel		
				1. Look at display (1) for cracked or broken EMI window (2).	
				2. Look at panel indicator lamps (3) for cracked or missing lenses and lamps.	Lamps are cracked or missing.
				3. Look at panel switches (4) and circuit breaker (5) for any damage or looseness and proper switch action.	Switches and circuit breakers are damaged or have improper switch action.
				NOTE The humidity indicator is divided into three zones, 20, 30, and 40, as shown in the indicator. The numbers indicate the percent of moisture (humidity) inside the electronics assembly. As the desiccant absorbs moisture, the indicator color changes from blue to pink. The pink area is first seen in the 20 zone, next spreads to the 30 zone, and finally covers the 40 zone. Replace the desiccant inside the indicator when the number 30 is covered by pink.	
				4. Inspect humidity indicator (6). If required, replace desiccant. Refer to WP 0043 00.	
				5. Look at identification plates (7) for damage and check that information on plates is legible.	

Table 1. Preventive Maintenance Checks and Services (Continued)

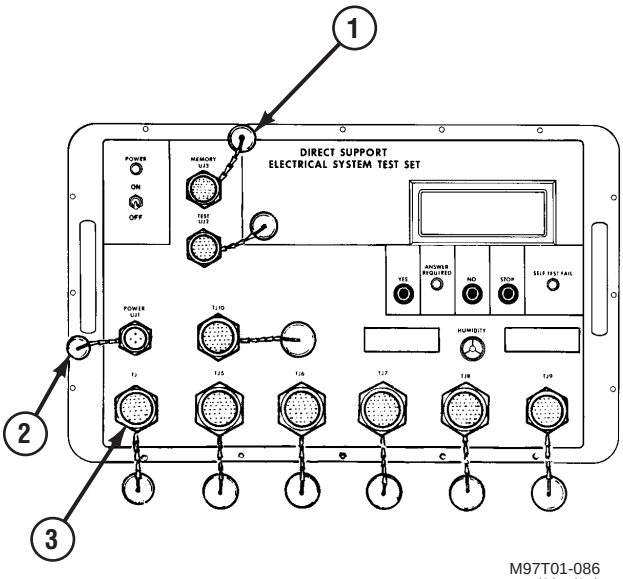
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:
3	Before		OIU Panel Connectors	 M97T01-086 (9/15/97) 1. Unscrew and take off 9 test connector covers (1) and power connector cover (2) from 10 panel connectors (3). 2. Look at connector covers (1) and (2) for any damage to threads or attaching chain. 3. Look at panel connectors (3) for bent, pushed-in, corroded, or missing pins. 4. Look at panel connectors (3) for broken shells, cracked inserts, or stripped threads. 5. Screw on all connector covers (1).	Panel connectors have bent, pushed-in, corroded, or missing pins, broken shells, cracked inserts, or stripped threads.

Table 1. Preventive Maintenance Checks and Services (Continued)

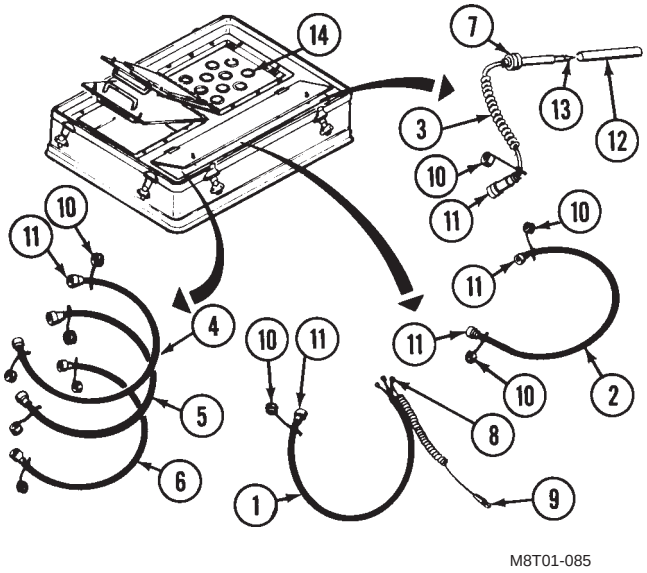
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:
4	Before		Power cable, memory cable, FST cables, FST adapters, and test probe	 M8T01-085	
				1. Look at cables (1), (2), (3), (4), (5), (6), and test probe (7) for cuts or breaks in insulation.	Cables or test probe cut through insulation and into conductors.
				2. Look at cable (1) for bent, broken, or missing terminal lugs (8) and clip (9)	Cable has bent, broken, or missing terminal lugs or clip.
				3. Pull off connector covers (10) and look at connectors (11) for bent, pushed-in, corroded, or missing contacts.	Connectors have bent, pushed-in, corroded, or missing contacts.
				4. Unscrew cover (12) from probe tip (13) and look at probe tip (13) for damage.	Probe tip is damaged.
				5. Screw cover (12) on probe tip (13).	
				6. Put covers (10) on connectors (11).	
				7. Check for missing or damaged adapters (14).	Any adapter is missing or damaged.

Table 1. Preventive Maintenance Checks and Services (Continued)

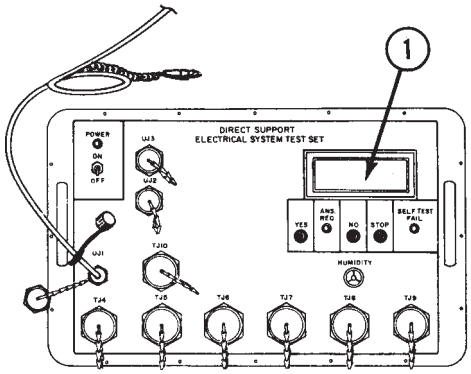
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:
5	During		OIU Self Test	**EXTERNAL POWER SUPPLY, 18-30 VDC**  M8T01-086 1. Perform OIU self test; refer to WP 0006 00. 2. At end of self test, OIU display (1) must read TEST SET OK.	Display reads a fault message.

Table 1. Preventive Maintenance Checks and Services (Continued)

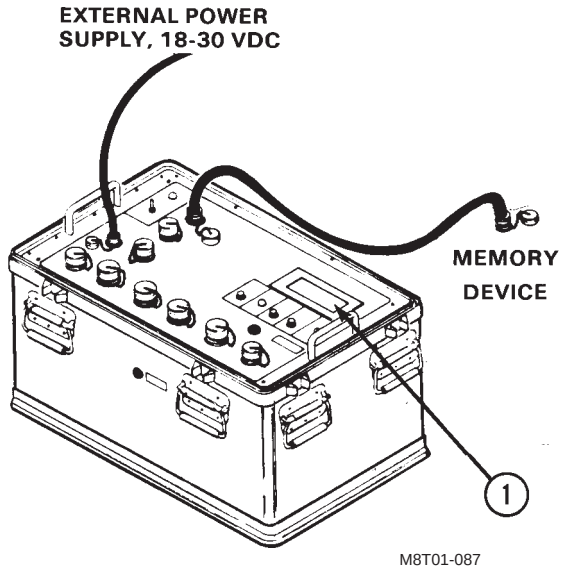
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:
6	During		OIU Functional Self Test	 1. Perform a functional self test; refer to WP 0006 00. 2. At end of functional self test, OIU display (1) must read DSESTS OK.	Display reads a message.

Table 1. Preventive Maintenance Checks and Services (Continued)

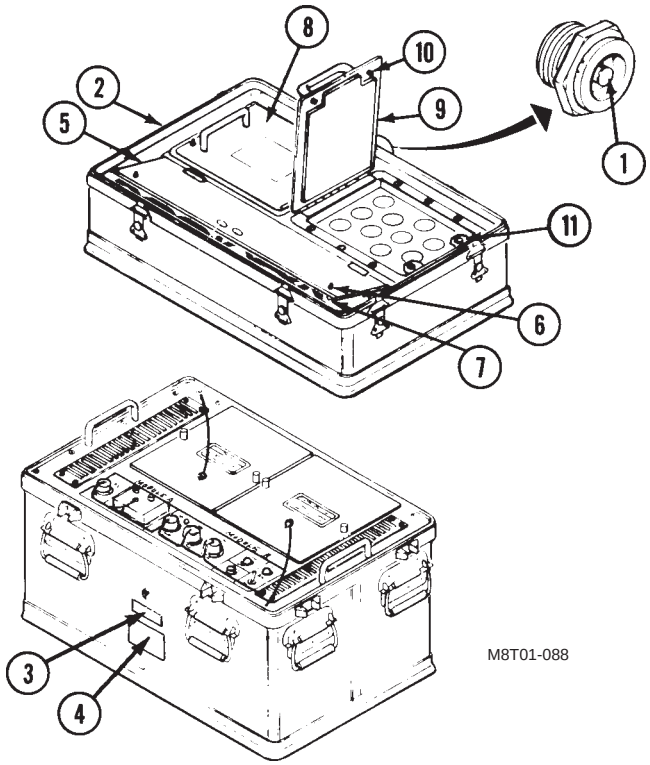
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:*
7	Before		GPIA Case	 1. Look at case cover pressure relief valve (1) for damage and check for freedom of movement. 2. Look at case seal (2) for breaks, cracks, and deterioration. 3. Look at identification plate (3) for damage and check that information on plate is legible. 4. Check for missing or damaged decals (4). 5. Open stowage compartment lid (5) and check lid fasteners, stud assembly (6), and receptacle (7) for proper operation. 6. Open stowage module assembly lids (8) and (9) and check lid fasteners, stud assembly (10), and receptacle (11) for proper operation.	*Not reportable if DSESTS configuration does not include the GPIA.

Table 1. Preventive Maintenance Checks and Services (Continued)

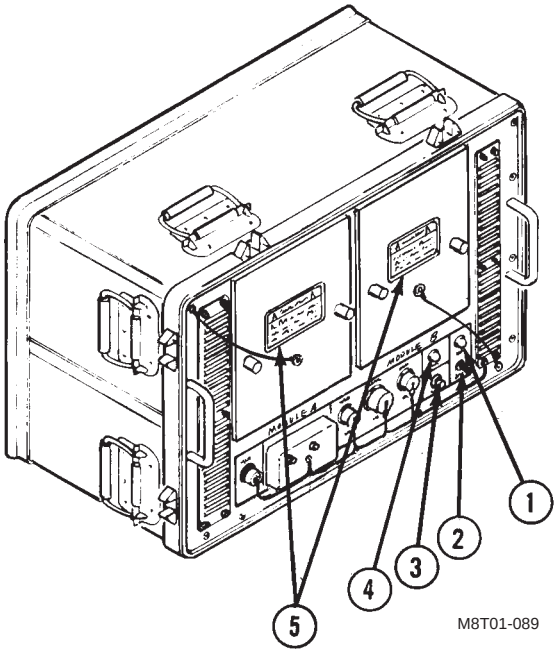
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:*
8	Before		GPIA Operator Panel		
				1. Look at power indicator lamp (1) for cracked or missing lens and lamp.	Lamps are cracked or missing.
				2. Look at power circuit breaker (2) for any damage and looseness and proper switch action.	Reset switch or power circuit breaker is damaged or has improper switch action.
				3. Look at reset switch (3) for damage and looseness and proper switch action.	
				4. Look at self test fail lamp (4) for cracked or missing lens and lamp.	
				5. Look at decals (5) for damage and check that information on plate is legible.	
					*Not reportable if DSESTS configuration does not include the GPIA.

Table 1. Preventive Maintenance Checks and Services (Continued)

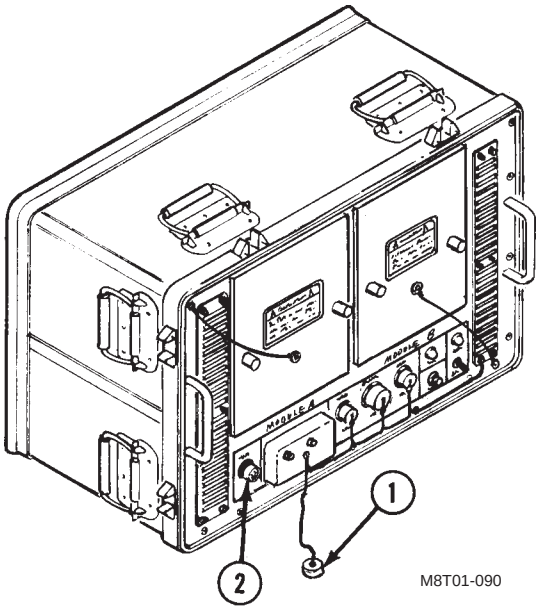
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:*
9	Before		GPIA Panel Connectors	 1. Remove five test connector covers (1). 2. Look at connector covers (1) for any damage to grooves or guide pins, or attaching lanyard. 3. Look at panel connectors (2) for bent, pushed-in, corroded, or missing contacts. 4. Look at panel connectors (2) for broken shells, cracked inserts, or damaged grooves or guide pins. 5. Install all connector covers (1).	Connectors have bent, pushed-in, corroded, or missing contacts. Connectors have broken shells, cracked inserts, or damaged grooves or guide pins. *Not reportable if DSESTS configuration does not include the GPIA.

Table 1. Preventive Maintenance Checks and Services (Continued)

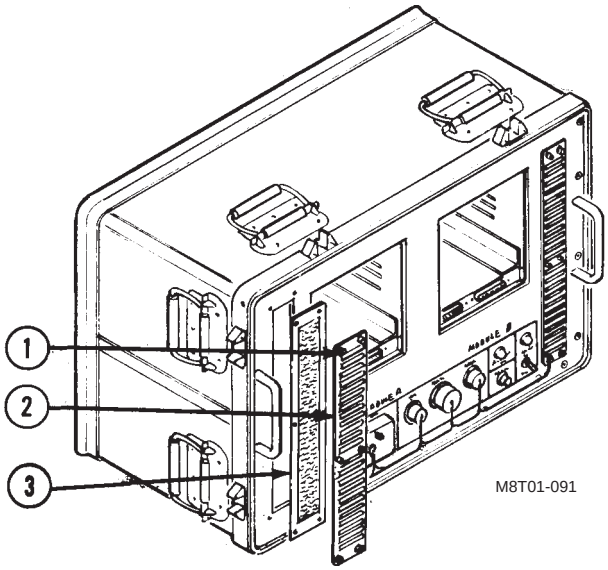
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:*
10	Before		GPIA Air Filter	 1. Loosen six screws (1) on air filter cover (2). 2. Lift cover (2) and remove air filter (3) for inspection and cleaning. a. Wash in warm, soapy water. **CAUTION** Clean air filter with soap and water. Do not use solvent. Solvent can damage air filter. b. Dry air filter. Apply adhesive (Item 1,WP 0162 00) to air filter every 30 days of operation. 3. Align cover (2), air filter (3), and screws (1). 4. Tighten screws (1).	*Not reportable if DSESTS configuration does not include the GPIA.

Table 1. Preventive Maintenance Checks and Services (Continued)

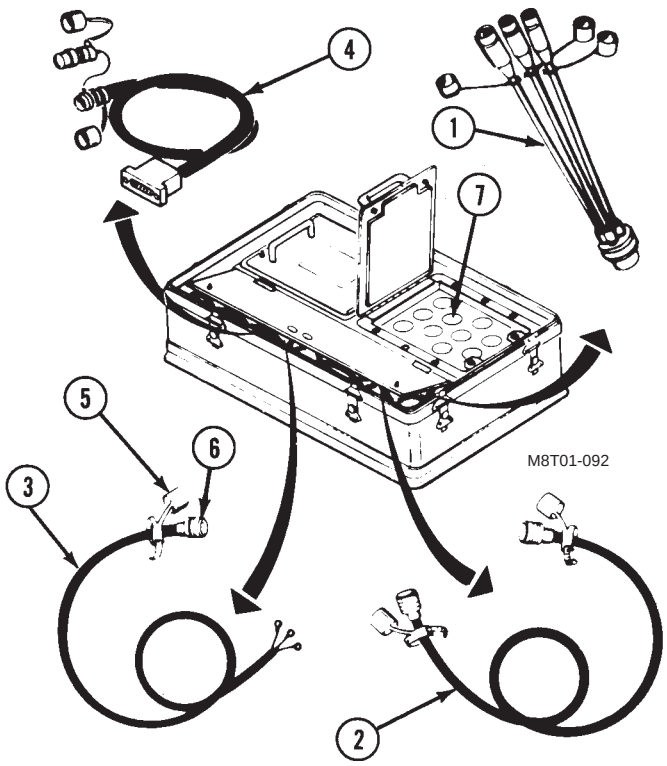
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:*
11	Before		Cable Assemblies and FST Adapters		
				1. Look at cables (1), (2), (3), and (4) for cuts or breaks in insulation.	Cable is cut through insulation and into conductors.
				2. Pull off connector covers (5) and look at connectors (6) for bent, pushed-in, corroded, or missing contact.	Connectors have bent, pushed-in. corroded, or missing contacts.
				3. Put covers (5) on connectors (6).	
				5. Check for missing or damaged adapters (7).	Adapters are missing or damaged. *Not reportable if DSESTS configuration does not include the GPIA.

Table 1. Preventive Maintenance Checks and Services (Continued)

Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:*
12	During		GPIA	**NOTE** GPIA FST is performed with different equipment depending on the LRU's to be tested. • M1 DECU LRU – tested with OIU and M1 memory module; refer to TM 9-4931-586-12-2&P. • M1 TIS LRU's – tested with OIU and M1 memory module; refer to TM 9-4931-586-12-4&P. • FVS DECA LRU – tested with OIU and FVS memory module; refer to TM 9-4931-586-12-3&P. • M1A2 LRU's – tested with display; refer to WP 0006 00. • TOW LRUs – tested with display; refer to WP 0006 00. 1. Perform functional self test. 2. At end of functional self test, OIU or display must read GPIA OK.	Display reads a fault message. *Not reportable if DSESTS configuration does not include the GPIA.

Table 1. Preventive Maintenance Checks and Services (Continued)

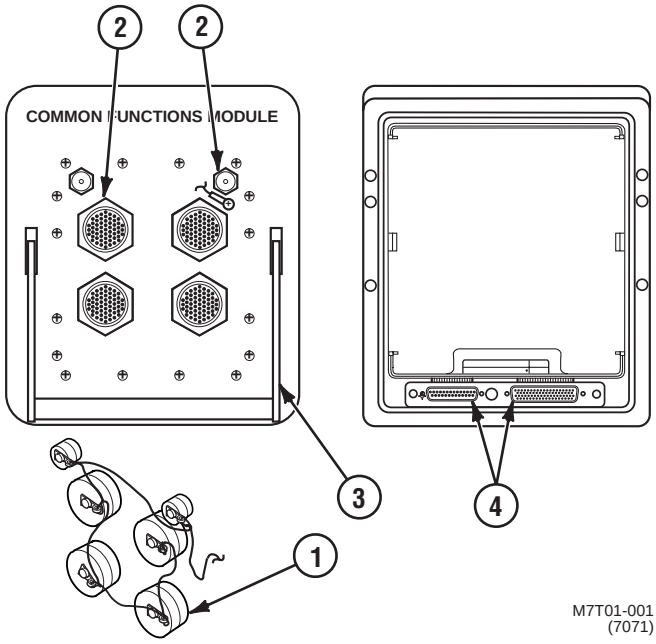
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:
13	Before		CFM	 1. Unscrew and take off panel connector covers (1).	
				2. Look at connector covers (1) for any damage to grooves, guide pins, or attaching lanyard.	
				3. Look at panel connectors (2) for bent, loose, pushed-in, corroded, or missing contacts.	Connectors have bent, loose, pushed-in, corroded, or missing contacts.
				4. Look at panel connectors (2) for broken shells, cracked inserts, or damaged grooves or guide pins.	Connectors have broken shells, cracked inserts, or damaged grooves or guide pins.
				5. Screw on panel connector covers (1).	
				6. Look at locking handle (3) for damage.	
				7. Inspect power and signal connectors (4) for bent, loosely-seated, pushed-in, corroded, or missing pins.	Connectors have bent, loosely-seated, pushed-in, corroded, or missing pins.

Table 1. Preventive Maintenance Checks and Services (Continued)

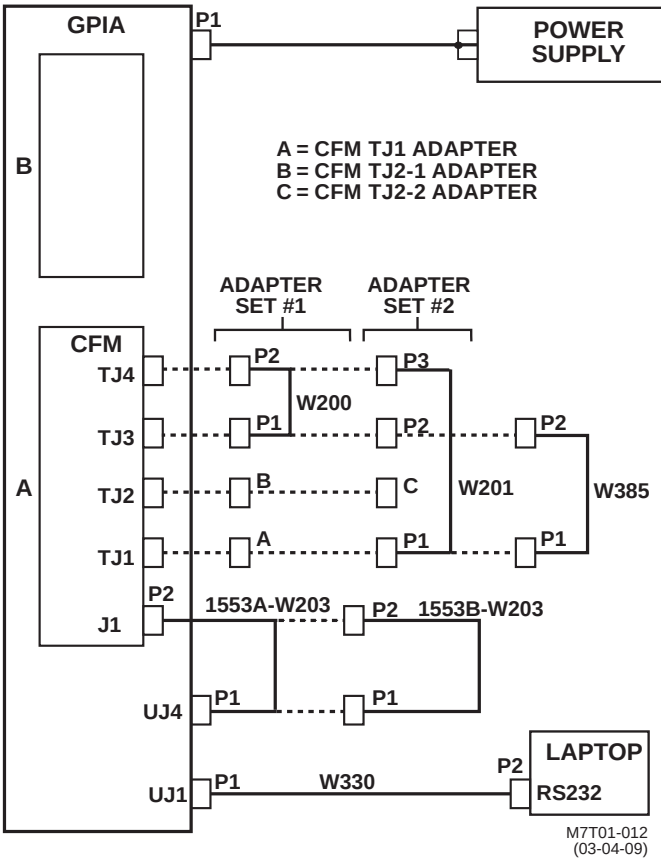
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:
14	During		CFM	 1. Set up GPIA and CFM for FST operation; refer to WP 0006 00. 2. Run CFM FST; refer to WP 0006 00. 3. At end of CFM FST, display should read: CFM OK 4. Press NO pushbutton and follow display instructions to close out FST program.	Display reads a fault message or has no message.

Table 1. Preventive Maintenance Checks and Services (Continued)

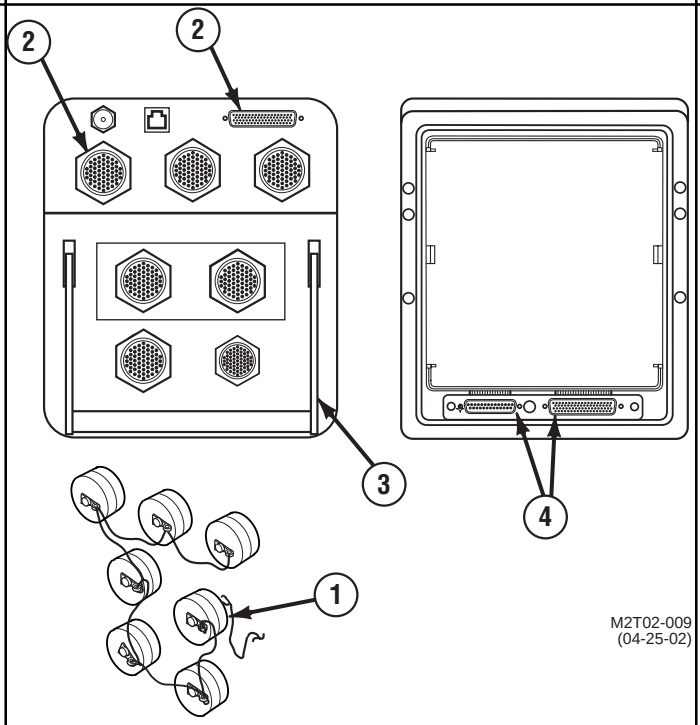
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:
15	Before		CSFM	 1. Unscrew and take off panel connector covers (1). 2. Inspect connector covers (1) for any damage to grooves, guide pins, or attaching lanyard. 3. Inspect panel connectors (2) for bent, loose, pushed-in, corroded, or missing contacts. 4. Inspect panel connectors (2) for broken shells, cracked inserts, or damaged grooves or guide pins. 5. Screw on panel connector covers (1). 6. Inspect locking handle (3) for damage. 7. Inspect power and signal connectors (4) for bent, loosely-seated, pushed-in, corroded, or missing pins.	Connectors have bent, loose, pushed-in, corroded, or missing contacts. Connectors have broken shells, cracked inserts, or damaged grooves or guide pins. Connectors have bent, loosely-seated, pushed-in, corroded, or missing pins.

Table 1. Preventive Maintenance Checks and Services (Continued)

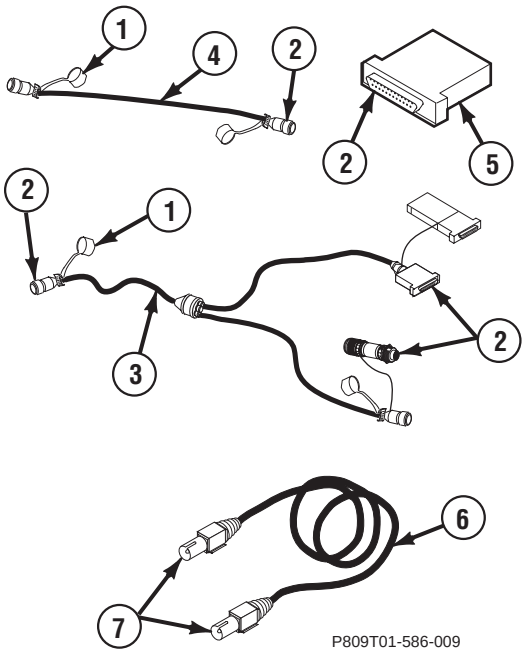
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:
16	Before		Cables W330, W331 and W332, adapter CSFM FST J3	 1. Remove connector covers (1) from connectors (2). 2. Inspect connectors (2) of cable W330 (3), cable W331 (4), and CSFM FST J3 adapter (5) for bent, pushed-in, loose, broken, corroded, or missing contacts. 3. Install connector covers (1) on connectors (2). 4. Inspect cable W332 (6) for broken or missing connectors (7).	 Connectors have bent, loose, pushed-in, corroded, or missing contacts. Connector is missing or broken.

Table 1. Preventive Maintenance Checks and Services (Continued)

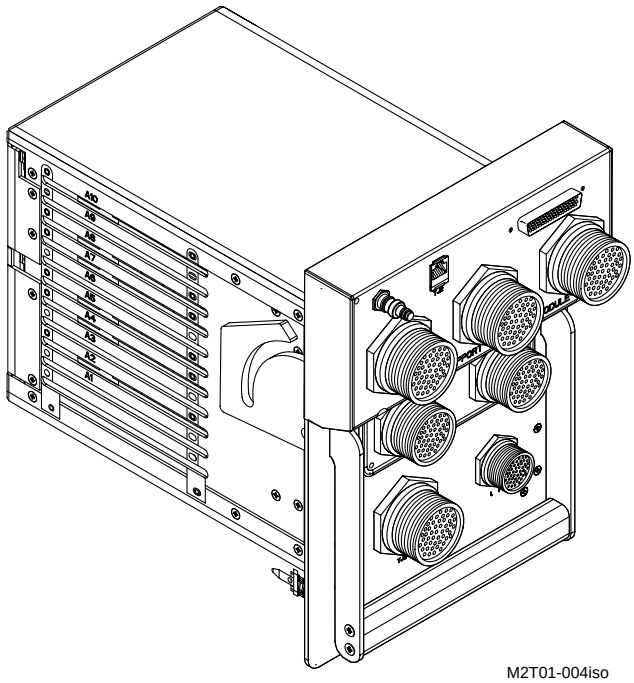
Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:
1 7	During		CSFM Functional Self Test	 M2T01-004iso 1. Perform a functional self test; refer to WP 0006 00. 2. At end of functional self test, laptop display must read CSFM FST OK.	Display shows a fault message.

Table 1. Preventive Maintenance Checks and Services (Continued)

Item No.	Interval	Man-Hour	Item to be Checked or Serviced	Procedure	Equipment Not Ready/ Available If:
18	120 Days		GPIA and CFM	1. Perform TSA FST; refer to WP 0007 00. 2. Perform calibration check of GPIA and CFM; refer to WP 0007 00.	Display reads a fault message.

GENERAL MAINTENANCE INSTRUCTIONS 0042 00

GENERAL

The following maintenance practices and the instructions contained in the electrical connector repair kit must be followed any time you are working on the equipment.

WARNING

Solvents, isopropyl alcohol, and methanol burn easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in well ventilated area. Use appropriate personal protective equipment (safety glasses, gloves, etc.) when using chemicals.

CAUTION

Use low wattage soldering iron when replacing wires, connectors, plugs, and receptacles. Connectors, plugs, or receptacles may be damaged if high wattage soldering iron is used. This equipment contains components which can be damaged by electrostatic electricity. Handle circuit cards by frames only. Static charge from your hand can damage circuit card. Place circuit cards in anti-static bag. Do not stack anti-static bags containing circuit cards.

CLEANING

Mechanical Parts

Use one of the following methods to remove dirt, grease, oil, etc., from all metal surfaces:

- Dip tank: stir or shake fast for 1 minute in each tank
- Vapor degreaser: soak for about 2 to 3 minutes
- Wipe with rags: dip rags in dry cleaning solvent
- Stiff brush or scraper: clean hard-to-get-to areas with stiff-bristle brush or scraper

Use appropriate personal protective equipment (safety glasses, gloves, etc.) when using chemicals.

Electrical Parts

Clean, dirt, grease, oil, etc., from metal surface, connectors, and parts by dipping into container of isopropyl alcohol (item 6, WP 0162 00). Dip stiff brush into isopropyl alcohol and brush off parts you cannot dip. Dry with compressed, oil-free air, or wipe dry with clean rag (item 10, WP 0162 00).

PAINTING

Refer to TM 43-0139 and AR 750-58 for ways to paint and supplies to use.

SOLDERING TECHNIQUES

Solder connections must be bright and clean before soldering. Remove dirt and grease from connections with isopropyl alcohol (item 6, WP 0162 00) and acid swabbing brush (item 5, WP 0162 00). Solder (item 12, WP 0162 00) must be a non-acid type. All wires, parts, and soldering iron must be pre-tinned for good connection and maximum transfer of heat. Clean all solder joints with acid swabbing brush and cleaning compound after soldering to obtain a bright, clean surface. When soldering or unsoldering wires or parts, use long, round nose pliers to hold wires or parts.

TAGGING ELECTRICAL WIRES OR PARTS

Before removing electrical wires from parts, look for pin or terminal identification numbers on parts. Also check for wire numbers and color of wire. If wire numbers are present, write down the wire number and wire termination point for each wire to be removed. If wire numbers are not present, record the wire termination and identify the wire with a tag (item 14, WP 0162 00). Be careful that tags don't come off during the unsoldering procedure. Remove all tags after the wires are put back on the termination points.

INSULATION SLEEVING

Before unsoldering or cutting wire terminations, cut off insulation sleeving with pocket knife. Use care so as not to damage the wires while removing the insulation sleeving. Before putting the wires back on, cut pieces of new insulation sleeving with pocket knife and steel rule. The new insulation sleeving should be twice the diameter of the part over which it will be shrunk. Put new piece of insulation sleeving on wire before putting wire on terminal or part. Solder or crimp wire to terminal or part. Slide insulation sleeving over solder or crimp connection and terminal. Hold thermal gun 4 to 5 inches away from insulation sleeving and apply heat for approximately 30 seconds. Take away thermal gun as soon as insulation sleeving forms to shape of wire and terminal. Let insulation sleeving cool for 30 seconds before handling.

LACING TAPE/STRAPS

Before cutting lacing tape or straps to free a wire from a wire bundle, note and write down location of original lacings or straps. Cut lacing tape or straps with pocket knife, using care not to cut wires in wire bundle. After repair is made, tie wire bundle with lacing tape (item 15, WP 0162 00) or straps (RPSTL) as close as possible to same location as the original lacings or straps.

CABLE CLAMPS

When a wire bundle has to be moved for access to other parts, it may be necessary to loosen or take off cable clamps. To take off a cable clamp, unscrew and take off nut holding the cable clamp with 11/32-inch socket and handle. Remove lockwasher and clamp from stud; discard lockwasher. After repair has been made, put cable, cable clamp, and new lockwasher in place. Screw on and tighten nut with 11/32-inch socket and handle.

REPLACING WIRES

When removing a wire that is to be replaced, note the wire routing, lacing tape, cable clamps, insulation sleeving, wire size, and wire color. The new wire must be the same size and color. Measure gauge of wire being removed with steel rule. Connect the new wire the same way as the original, either solder or crimp, using insulation sleeving where applicable. Secure wire in wire bundle, if applicable, the same places as the original.

REPLACING CIRCUIT CARDS

When replacing circuit cards, hold cards by edges only. Do not touch any electrical components on cards. Do not bend or twist cards. Place circuit cards inside an anti-static bag (item 17, WP 0162 00) after removal. Do not stack anti-static bags containing cards.

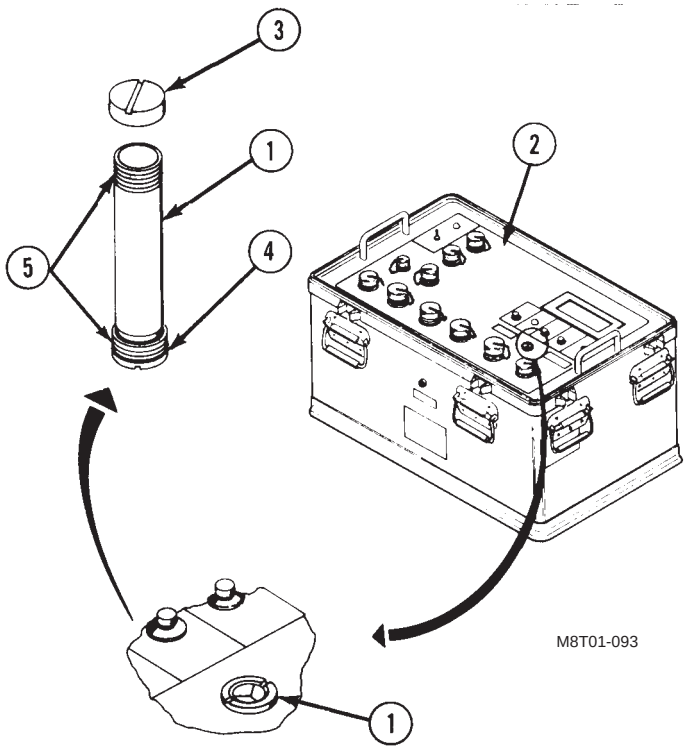
REPLACE DESICCANT 0043 00

THIS WORK PACKAGE COVERS:
Removal, Inspection, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turrett Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Desiccant Pellets (Item 7, WP 0162 00)
Grease (Item 9, WP 0162 00)
Preformed Packing

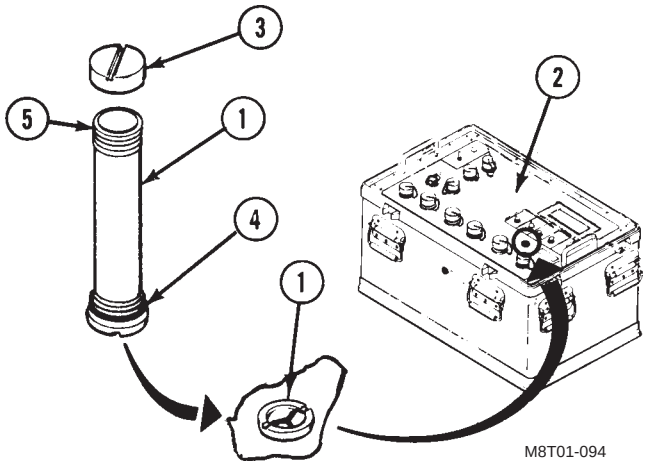


NOTE

Use this task to replace desiccant in the humidity desiccator in the OIU, FVS M1/M1A1 memory modules, IA, EIA, and EMA. The OIU humidity desiccator is shown.

REMOVE

1. USE PUTTY KNIFE TO UNSCREW AND REMOVE HUMIDITY DESICCATOR (1) FROM UNIT (2).
2. REMOVE DESICCANT FROM HUMIDITY DESICCATOR (1).
   a. Use putty knife to unscrew and remove end cap (3) from desiccator (1).
   b. Pour out desiccant pellets. Dispose of pellets.



INSPECT

3. INSPECT HUMIDITY DESICCATOR (1).

   a. Remove preformed packing (4) from desiccator (1). Dispose of preformed packing.
   b. Inspect desiccator (1) for stripped or broken threads (5). If bad, dispose of desiccator (1) and end cap (3).

INSTALL

4. INSTALL HUMIDITY DESICCATOR (1) AND NEW DESICCANT IN UNIT (2).

   a. Put a thin coat of grease on new preformed packing (4) and slide packing on desiccator (1).
   b. Fill desiccator (1) with new desiccant pellets.
   c. Install end cap (3) on desiccator (1) and tighten with putty knife.
   d. Install humidity desiccator (1) in unit (2). Use putty knife to tighten.

END OF TASK

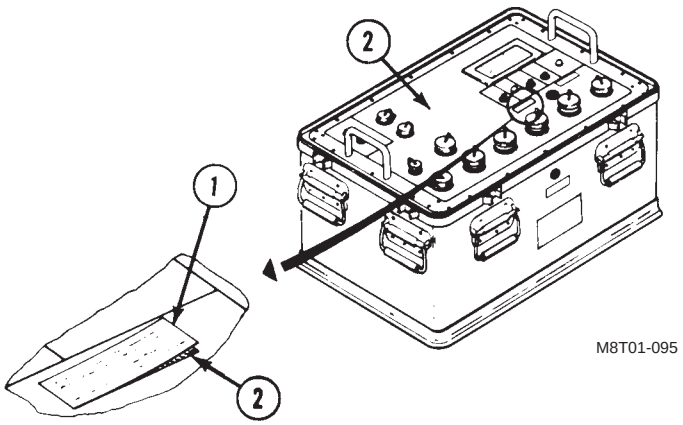
REPLACE IDENTIFICATION PLATE 0044 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Identification Plate
Solvent (Item 13, WP 0162 00)
Wiping Rag (Item 10, WP 0162 00)



NOTE

Use this task to replace the identification plate on the OIU, DSTA, FVS and M1/M1A1 memory modules, ECA, EIA, IA, DSTAI, GPIA, SSI/CEU, and DECU SRU tester assembly. The OIU identification plate is shown.

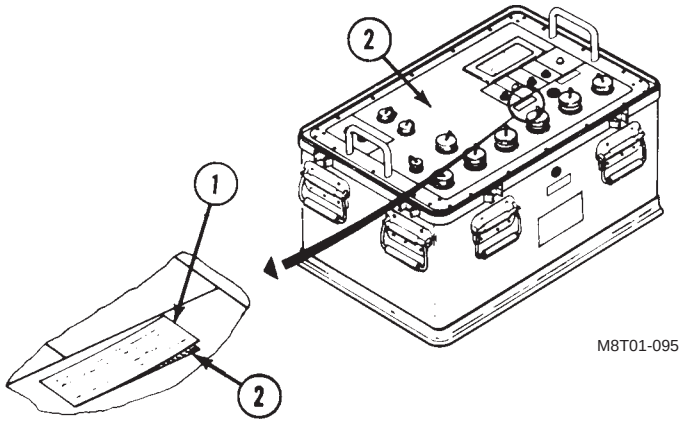
REMOVE

1. REMOVE IDENTIFICATION PLATE (1) FROM UNIT (2).
   a. Pry up and peel off plate (1) with pocket knife. Set plate (1) aside for later use.

WARNING

Solvents burn easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in a well ventilated area.

   b. Clean surface (2) with solvent and rag. Dry surface (2) with clean rag.



INSTALL

2. TRANSFER INFORMATION FROM OLD PLATE (1) TO NEW PLATE (1) WITH DIE SET AND HAMMER. DISCARD OLD PLATE.

3. INSTALL IDENTIFICATION PLATE (1) ON UNIT (2).
   a. Peel backing off identification plate (1).
   b. Wet back of identification plate with solvent.
   c. Place identification plate (1) in position on surface (2) and press in place.

END OF TASK

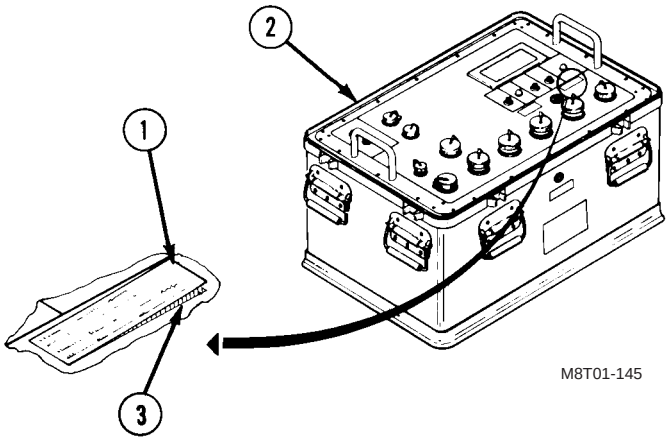
REPLACE PROGRAM LEVEL IDENTIFICATION PLATE 0045 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Identification Plate
Solvent (Item 13, WP 0162 00)
Wiping Rag (Item 10, WP 0162 00)



NOTE

Use this task to replace the program level identification plate on the OIU, DSTA, FVS and M1/M1A1 memory modules, EIA, IA, DSTAI, and GPIA. The program level identification plate on the OIU is shown.

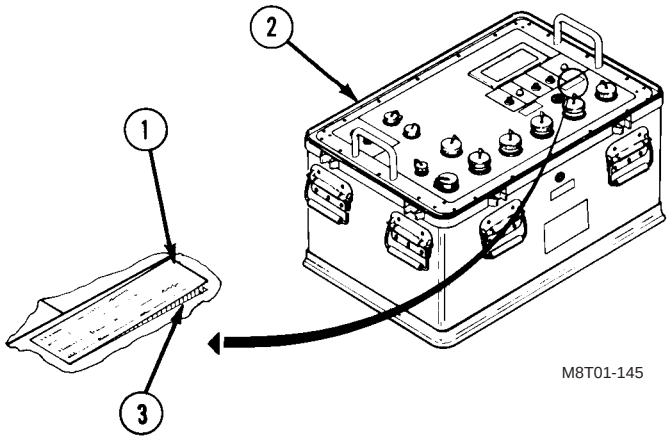
REMOVE

1. REMOVE PROGRAM LEVEL IDENTIFICATION PLATE (1) FROM UNIT (2).
   a. Pry up and peel off identification plate (1) from unit (2). Set plate (1) aside for later use.

WARNING

Solvents burn easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in a well ventilated area.

   b. Clean surface (3) with solvent and rag to take off old adhesive. Dry surface (3) with clean rag.



INSTALL

2. TRANSFER INFORMATION FROM OLD PLATE (1) TO NEW PLATE (1) WITH BALL POINT PEN. DISCARD OLD PLATE.

3. INSTALL IDENTIFICATION PLATE (1) ON UNIT (2).

   a. Peel backing off identification plate (1).
   b. Place identification plate in position on surface (3) and press in place.

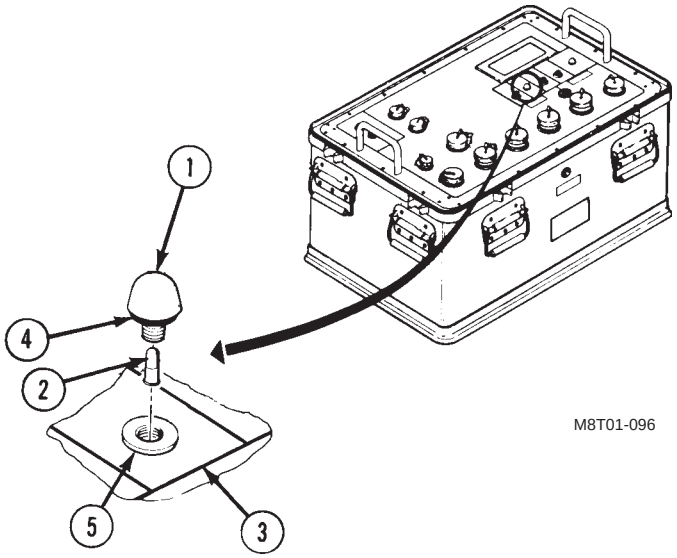
END OF TASK

REPLACE LENS AND LAMPS 0046 00

THIS WORK PACKAGE COVERS:
Removal, Inspection, Installation

INITIAL SETUP

Materials/Parts:
Incandescent Lamp
Light Lens



NOTE

Use this task to replace any lens and lamp on the OIU, DSTA, EIA, and GPIA. The OIU ANSWER REQUIRED lens and lamp are shown.

REMOVE

1. REMOVE LENS (1) AND LAMP (2) FROM UNIT (3).
   a. Unscrew and remove lens (1) and preformed packing (4).
   b. Pull out lamp (2) from lens (1).

INSPECT

2. INSPECT LENS (1) AND LAMP (2).
   a. Inspect lamp (2) for break in filament. If broken, discard. If OK, set aside for later use.
   b. Inspect lens (1) and preformed packing (4) for breaks or cracks. If bad, discard. If OK, set aside for later use.

INSTALL

3. INSTALL LENS (1) AND LAMP (2) IN UNIT (3).
   a. Place lamp (2) in lens (1). Check that lens (1) has preformed packing (4).
   b. Screw lens (1) and lamp (2) into housing (5).

END OF TASK

REPAIR/REPLACE TEST CABLE OR FRONT PANEL CONNECTOR 0047 00

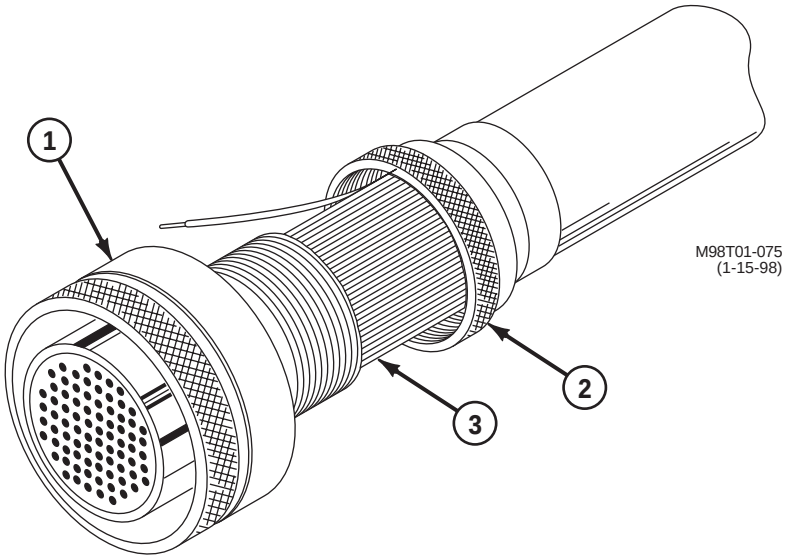
THIS WORK PACKAGE COVERS:
Removal, Inspection, Repair, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Artillery and Turret Mechanic's Tool Kit
SC 5180-95-CL-A12
Electrical Maintenance Kit 5705498

Materials/Parts:
Connector (as required)
Contact (as required)

Equipment Conditions:
Cable assembly or unit with connector removed from front panel on workbench.



NOTE

Use this task to repair or replace any test cable or front panel connector. A test cable connector is shown. Read WP 0042 00 before doing any work.

REMOVE

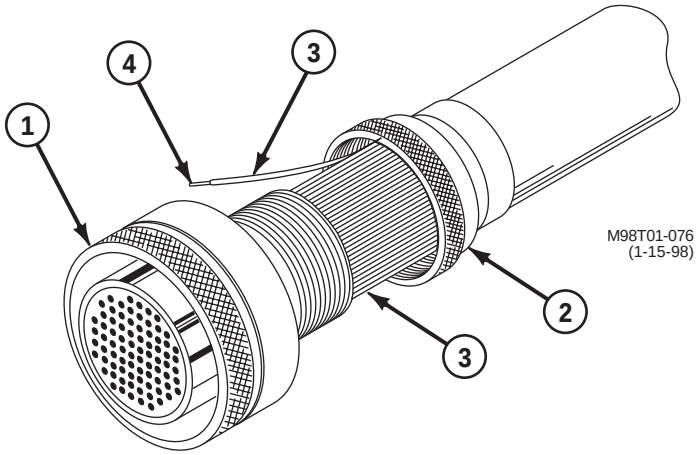
NOTE

Perform step 1 if repairing test cable connector.

1. REMOVE CONNECTOR (1) FROM COUPLING NUT (2).
   a. Using connector holding pliers and strap wrench, unscrew coupling nut (2) from connector (1).
   b. Pull connector (1) away from coupling nut (2) as far as wires (3) will allow.

NOTE

If repairing wire(s) (3) do steps 2a and 2b. If replacing electrical connector; do steps 2a and 2c.



2. REMOVE CONTACT(S) (4) FROM CONNECTOR (1).

   a. Using insert-extract tool, take contact (4) out of connector (1).
   b. Repeat step 2a until all bad contacts are removed.
   c. Repeat step 2a until all contacts are removed to replace connector.

INSPECT

3. INSPECT CONNECTOR (1) FOR CRACKS OR BREAKS.

   a. If bad, turn in connector (1).
   b. If OK, set aside for later use.

REPAIR

4. REPAIR WIRE(S) (3).

   a. Using pliers, cut bad contact (4) from wire (3). Discard bad contact.
   b. Using wire stripper and crimping tool, put new contact (4) on wire (3).

INSTALL

5. INSTALL CONTACT(S) (4) IN CONNECTOR (1).

   a. Using insert-extract tool, put contact (4) in connector (1).
   b. Repeat step 5a until all contacts are installed.

NOTE

Perform step 6 if repairing or replacing a test cable connector.

6. INSTALL CONNECTOR (1) ON COUPLING NUT (2).

   a. Using connector holding pliers and strap wrench or soft jaw pliers, screw coupling nut (2) on connector (1).

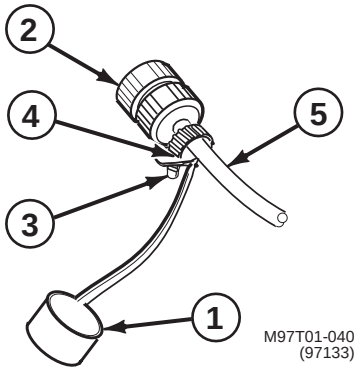
END OF TASK

REPLACE CABLE CONNECTOR PROTECTIVE COVER 0048 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Materials/Parts:
Protective Cover (as required)



REMOVE

1. REMOVE CABLE CONNECTOR PROTECTIVE COVER (1) FROM CABLE CONNECTOR (2).
   a. Pull cover strap (3) out of locking hole (4).
   b. Pull cover (1) off of connector (2). Discard cover.

INSTALL

2. INSTALL NEW CABLE PROTECTIVE COVER (1) ON CABLE CONNECTOR (2).
   a. Wrap new cover strap (3) around cable (5) close to connector (2).
   b. Push strap (3) through locking hole (4) and pull strap to tighten.
   c. Push cover (1) over connector (2).

END OF TASK

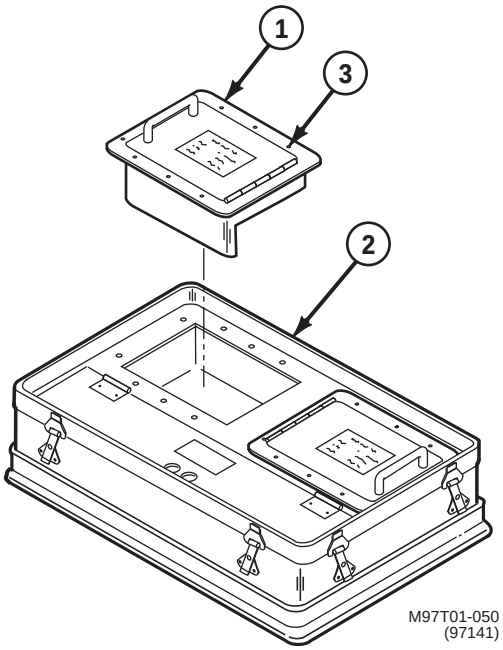
REPLACE STOWAGE MODULE ASSEMBLY 0049 00

THIS WORK PACKAGE COVERS:
Removal,Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Stowage Module Assembly



NOTE

Use this task to replace either stowage module assembly in the OIU or GPIA case cover. The OIU extender card stowage module is shown.

REMOVE

1. REMOVE STOWAGE MODULE ASSEMBLY (1) FROM OIU COVER (2).
   a. Turn eight turnlock fastener studs (3) one-quarter turn counterclockwise.
   b. Lift stowage module assembly (1) from cover (2). Discard stowage module assembly.

INSTALL

2. INSTALL NEW STOWAGE MODULE ASSEMBLY (1) IN COVER (2).
   a. Place stowage module (1) in cover (2).
   b. Turn eight turnlock fastener studs (3) one-quarter turn clockwise.

END OF TASK

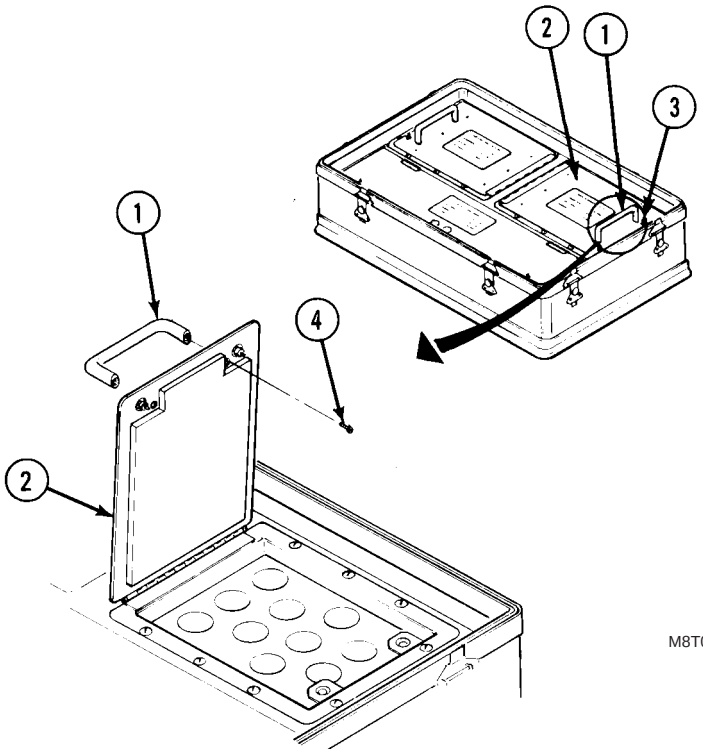
REPLACE HANDLE (GPIA STOWAGE MODULE LID) 0050 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Handle
Sealing Compound (Item 11, WP 0162 00)

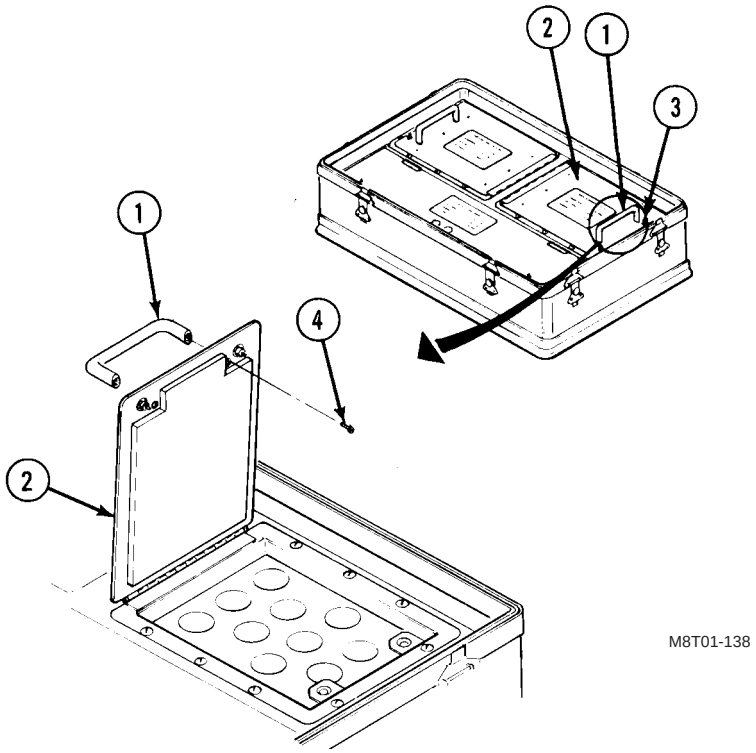


NOTE

Use this task to replace stowage module handle on OIU or GPIA lid. Replace handles on left and right stowage module the same way. The handle on right stowage module is shown.

REMOVE

1. REMOVE HANDLE (1) FROM STOWAGE MODULE ASSEMBLY COVER (2).
   a. Press in two turnlock stud assemblies (3) on stowage module assembly cover (2) and open cover.
   b. Remove two screws (4) from handle (1). Discard handle.



INSTALL

2. INSTALL NEW HANDLE (1) ON STOWAGE MODULE ASSEMBLY COVER (2) AND INSTALL TWO SCREWS (4).

NOTE

Step 2a applies to GPIA stowage module handle only.

a. Lightly coat the threads of two screws (4) with sealing compound.
b. Place handle (1) on stowage module assembly cover (2) and install two screws (4).
c. Close stowage module assembly cover (2) and press in two turnlock stud assemblies (3) to lock.

END OF TASK

REPLACE TURNLOCK FASTENER STUD 0051 00

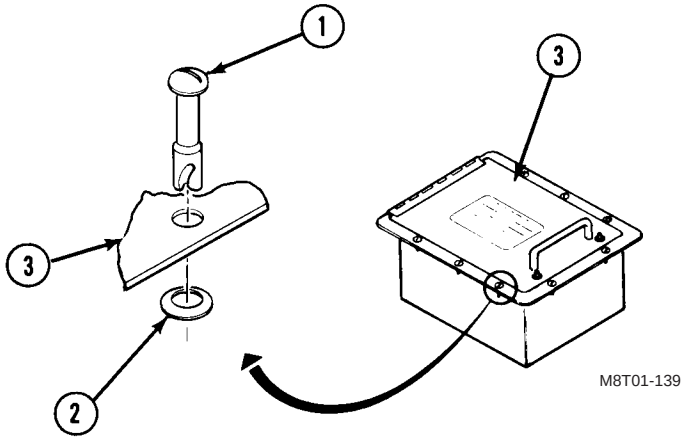
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove stowage module asembly from OIU cover; refer to WP 0049 00.

Materials/Parts:
Nonmetallic Grommet
Turnlock Fastener Stud



NOTE

Use this task to replace the turnlock fastener stud on either OIU or GPIA cover stowage module assembly. The OIU FST stowage module assembly is shown.

REMOVE

1. REMOVE TURNLOCK FASTENER STUD (1) AND GROMMET (2) FROM STOWAGE MODULE (3).
   a. Remove grommet (2) from turnlock fastener stud (1). Use diagonal cutting pliers.
   b. Remove turnlock fastener stud (1) from stowage module (3). Discard fastener stud (1) and grommet (2).

INSTALL

2. INSTALL NEW TURNLOCK FASTENER STUD (1) AND NEW GROMMET (2) IN STOWAGE MODULE (3).
   a. Put turnlock fastener stud (1) in hole in stowage module (3).
   b. Put grommet (2) over end of turnlock fastener stud (1).
   c. Press edge of grommet (2) until it will not slide off turnlock fastener stud (1). Use long, round nose pliers.

END OF TASK

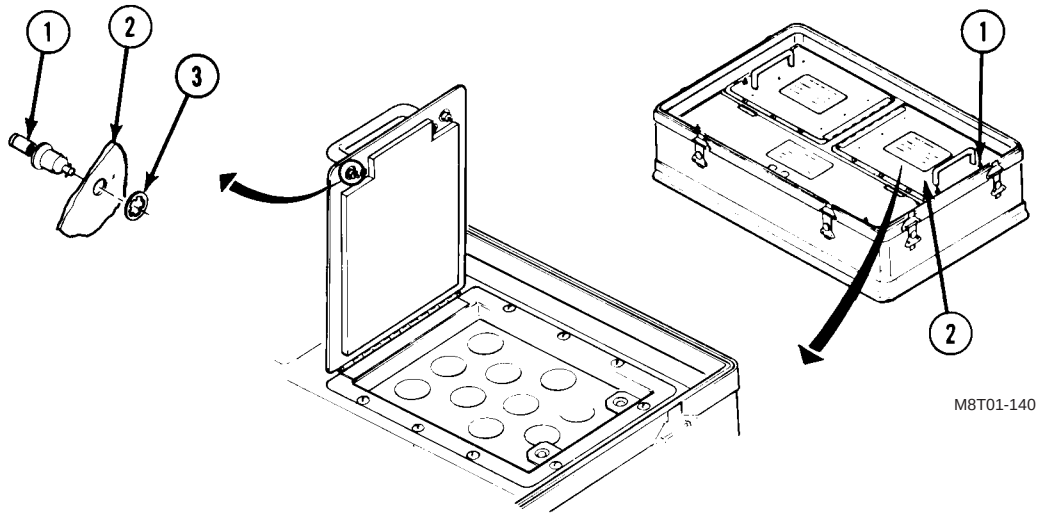
REPLACE TURNLOCK STUD ASSEMBLY 0052 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Retainer
Turnlock Stud Assembly



NOTE

Use this task to replace any turnlock stud assembly in the OIU or GPIA cable cover panel or stowage module assemblies. The OIU FST adapter stowage module assembly cover is shown.

REMOVE

1. REMOVE TURNLOCK STUD ASSEMBLY (1) FROM FST STOWAGE ASSEMBLY COVER (2).
   a. Pry retainer (3) from turnlock stud assembly (1).
   b. Remove turnlock stud assembly (1) from stowage assembly cover (2). Discard turnlock stud assembly (1) and retainer (3).

INSTALL

2. INSTALL NEW TURNLOCK STUD ASSEMBLY (1) IN STOWAGE ASSEMBLY COVER (2).
   a. Put turnlock stud assembly (1) through hole in cover (2).
   b. Put new retainer (3) over turnlock stud assembly (1) and push it firmly against cover (2).

END OF TASK

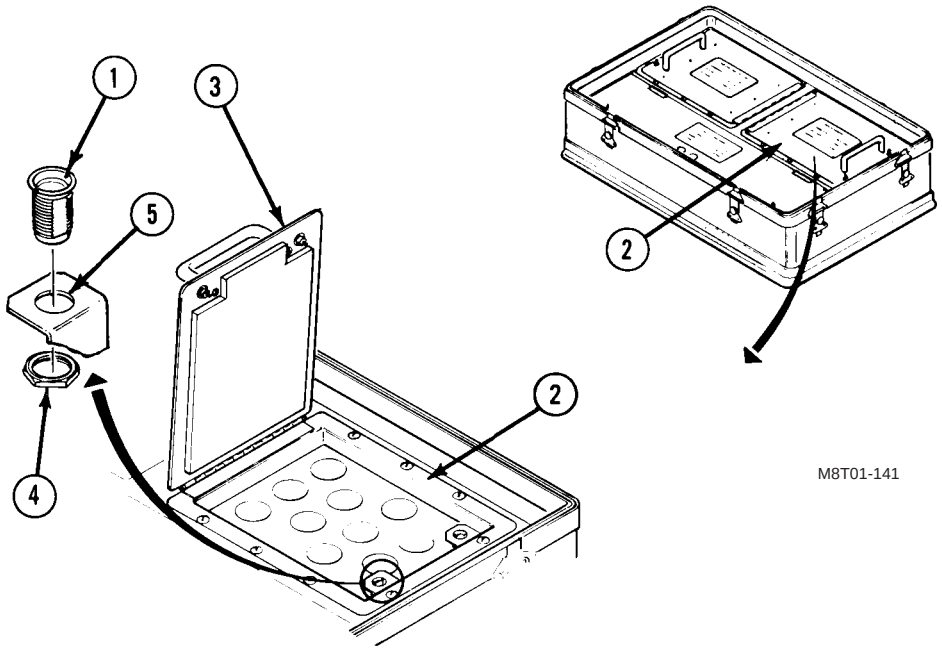
REPLACE TURNLOCK RECEPTACLE 0053 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Nut
Receptacle

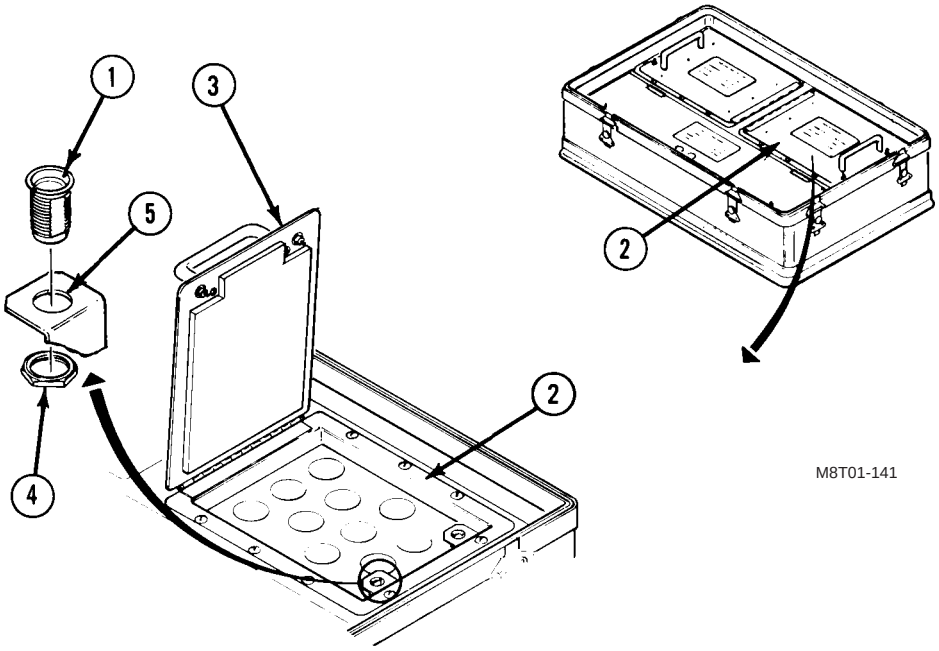


NOTE

Use this task to replace the turnlock receptacle in the stowage module covers and the cable panel cover in the OIU or GPIA cover. The OIU FST adapter stowage module is shown.

REMOVE

1. REMOVE TURNLOCK RECEPTACLE (1) FROM STOWAGE MODULE ASSEMBLY (2).
   a. Open stowage module cover (3).
   b. Remove nut (4) from turnlock receptacle (1). Discard nut (4).
   c. Remove turnlock receptacle (1) from bracket (5). Discard turnlock receptacle (1).



INSTALL

2. INSTALL NEW TURNLOCK RECEPTACLE (1) IN STOWAGE MODULE ASSEMBLY (2).
   a. Place turnlock receptacle (1) in bracket (5).
   b. Install new nut (4) on turnlock receptacle (1).
   c. Close stowage module assembly cover (3).

END OF TASK

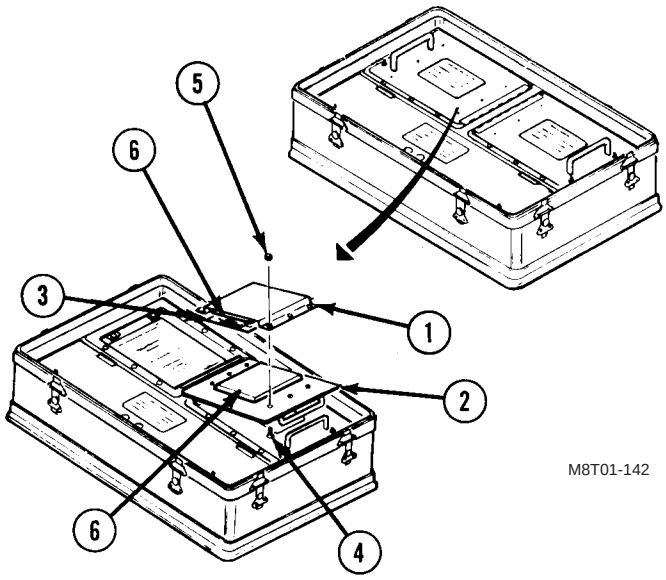
REPLACE EXTENDER CARD STOWAGE BRACKET 0054 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Bracket
Locknuts (6)

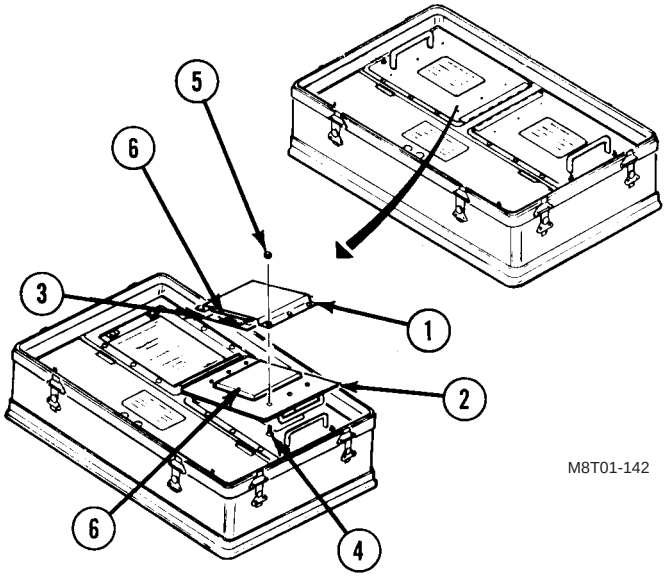


NOTE

Use this task to replace the extender card stowage bracket on the cover of extender card stowage module assembly.

REMOVE

1. REMOVE EXTENDER CARD STOWAGE BRACKET (1) FROM STOWAGE MODULE ASSEMBLY COVER (2).
   a. Open stowage module cover (2).
   b. Remove extender card (3) from extender card stowage module bracket (1).
   c. Remove six screws (4) and locknuts (5) from stowage module cover (2) and extender card stowage bracket (1). Discard stowage bracket and locknuts.



INSTALL

2. INSPECT PADS (6). IF DAMAGED, REPLACE PADS (6); REFER TO WP 0055 00.

3. INSTALL NEW EXTENDER CARD STOWAGE BRACKET (1) ON STOWAGE MODULE ASSEMBLY COVER (2).
   a. Install extender card stowage bracket (1), six screws (4), and new locknuts (5).
   b. Install extender card (3) in extender card stowage bracket (1).
   c. Close stowage module cover (2).

END OF TASK

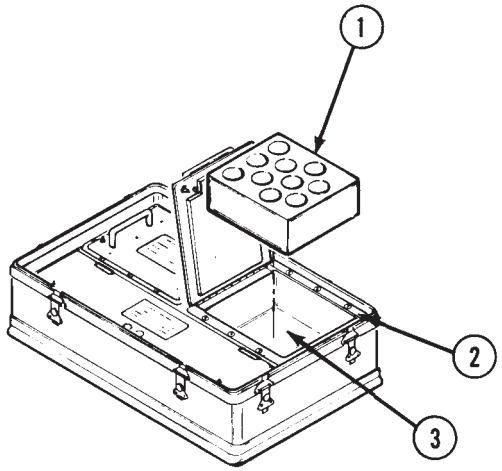
REPLACE PADS 0055 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Acid Swabbing Brush, (Item 5, WP 0162 00)
Adhesive (Item 2, WP 00162 00)
Dry Cleaning Solvent (Item 8, WP 0162 00)
Pad (as required)
Wiping Rag (Item 10, WP 0162 00)



M8T01-106
(1/19/98)

NOTE

Use this task to remove or install pads in either stowage module assembly of the OIU or GPIA. The FST stowage module assembly is shown.

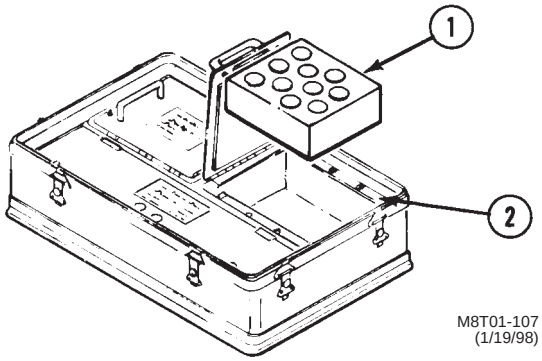
REMOVE

1. REMOVE PAD (1) FROM STOWAGE MODULE (2).
   a. Pry up pad (1) with putty knife and pull away from module (2). Discard pad.

WARNING

Adhesives and solvents burn easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in a well ventilated area.

   b. Clean surface (3) with putty knife, solvent, and rag to remove old adhesive. Dry surface (3) with clean rag.



INSTALL

2. INSTALL NEW PAD (1) IN COVER (2).
   a. Apply a thin coat of adhesive with brush to surface of pad (1).
   b. Place pad (1) in position and press in place.

END OF TASK

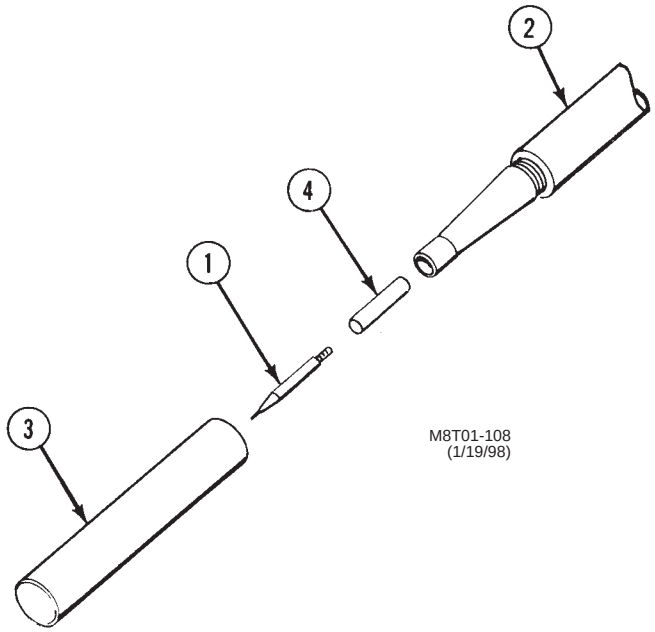
REPLACE TEST PROBE TIP 0056 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Insulation Sleeving
Probe Tip



REMOVE

1. REMOVE PROBE TIP (1) FROM FRONT HOUSING (2).
   a. Remove protective cap (3) from front housing (2).
   b. Remove probe tip (1) and insulation sleeving (4) from front housing (2). Use pliers. Discard probe tip (1) and insulation sleeving (4).

INSTALL

2. INSTALL NEW PROBE TIP (1) ON FRONT HOUSING (2).
   a. Place new insulation sleeving (4) on probe tip (1) and screw probe tip into front housing (2). Use pliers.
   b. Install protective cap (3) on front housing (2).

END OF TASK

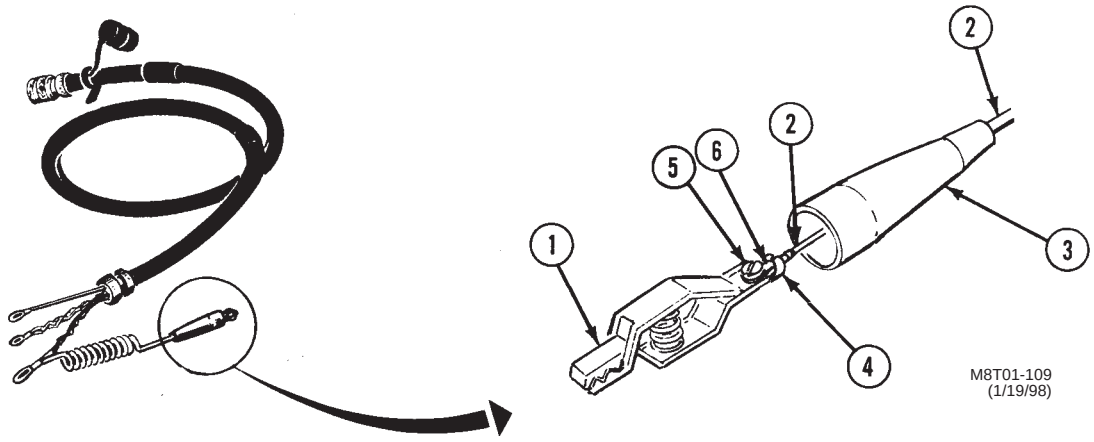
REPLACE ELECTRICAL CLIP 0057 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Electrical Clip



REMOVE

1. REMOVE ELECTRICAL CLIP (1) FROM CABLE (2).
   a. Slide clip insulator (3) down cable (2).
   b. Bend out clip cable clamp (4). Use long nose pliers.
   c. Remove screw (5) and pull electrical clip (1) away from cable (2). Discard electrical clip and screw.
   d. Slide clip insulator (3) off cable (2). Discard clip insulator.

INSTALL

2. INSTALL NEW ELECTRICAL CLIP (1) ON CABLE (2).
   a. Slide new clip insulator (3) onto cable (2).
   b. Install new screw (5) through wire loop (6) and electrical clip (1).
   c. Bend clip cable clamp (4) over wire (2). Use long nose pliers.
   d. Slide clip insulator (3) over electrical clip (1).

END OF TASK

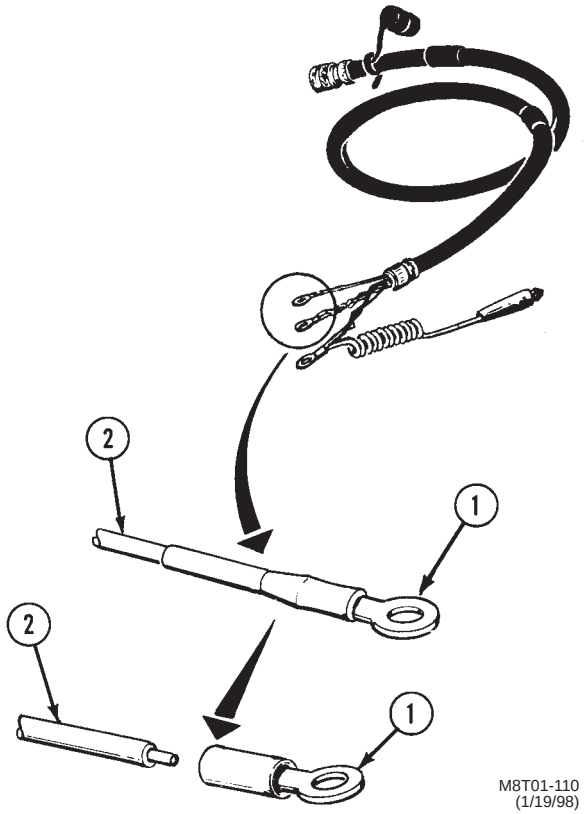
REPLACE CABLE TERMINAL LUG 0058 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Electrical Maintenance Kit 5705498

Materials/Parts:
Terminal (as required)



M8T01-110
(1/19/98)

REMOVE

NOTE

Use this task to replace any cable terminal lug except the power cable terminal lug that is joined to both a cable wire and the ground clip wire. The power cable is shown.

1. REMOVE TERMINAL LUG (1) FROM CABLE WIRE (2).
   a. Cut cable wire (2) as close as possible to terminal lug (1).
   b. Discard terminal lug (1).

INSTALL

2. INSTALL NEW TERMINAL LUG (1) ON CABLE WIRE (2).
   a. Strip insulation from cable wire (2) equal to depth of new terminal lug (1).
   b. Put cable wire (2) in terminal lug (1). Crimp terminal lug (1).

END OF TASK

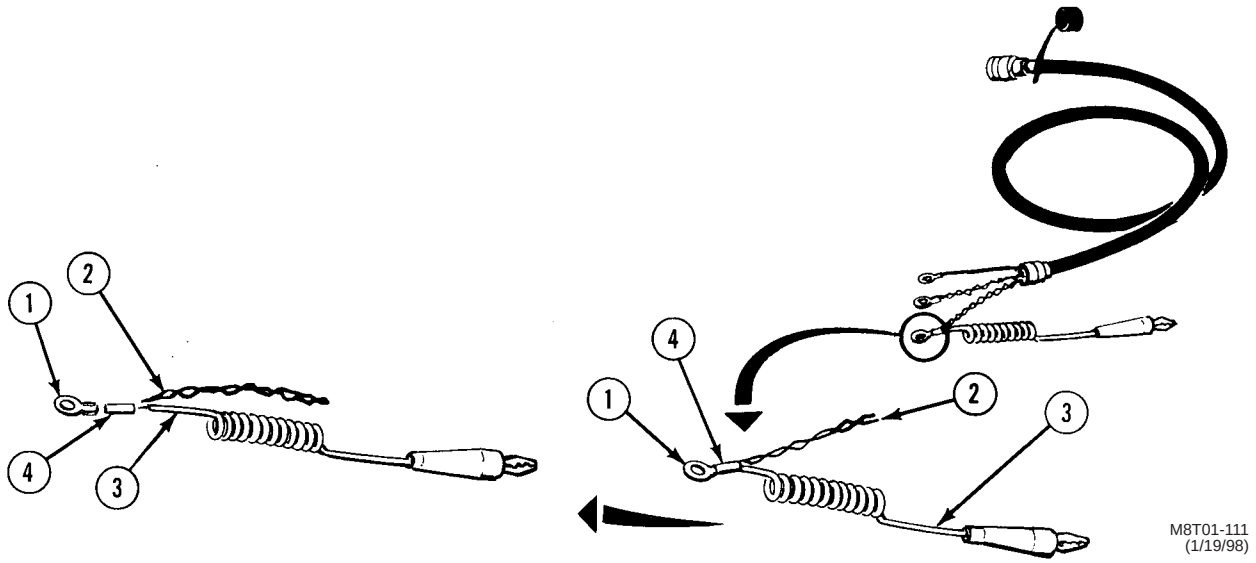
REPLACE POWER CABLE WIRE-GROUND CLIP TERMINAL LUG 0059 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Electrical Maintenance Kit 5705498
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22
or
Tool Kit, Electronic System Maintenance
SC-5180-95-CL-B29

Materials/Parts:
Insulation Sleeving
Terminal (as required)



REMOVE

1. REMOVE TERMINAL LUG (1) FROM CABLE WIRE (2) AND GROUND CLIP WIRE (3).
   a. Remove insulation sleeving (4) from cable wire (2) and ground clip wire (3). Discard sleeving (4).
   b. Cut cable wire (2) and ground clip wire (3) as close as possible to terminal lug (1). Discard terminal lug (1).

INSTALL

2. INSTALL NEW TERMINAL LUG (1) ON CABLE WIRE (2) AND GROUND CLIP WIRE (3).
   a. Strip insulation from cable wire (2) and ground clip wire (3) equal to depth of new terminal lug (1).
   b. Cut new 2-inch piece of insulation sleeving (4). Slide cable wire (2) and ground clip wire (3) into insulation sleeving (4).
   c. Put cable wire (2) and ground clip wire (3) in terminal lug (1). Crimp terminal lug (1).

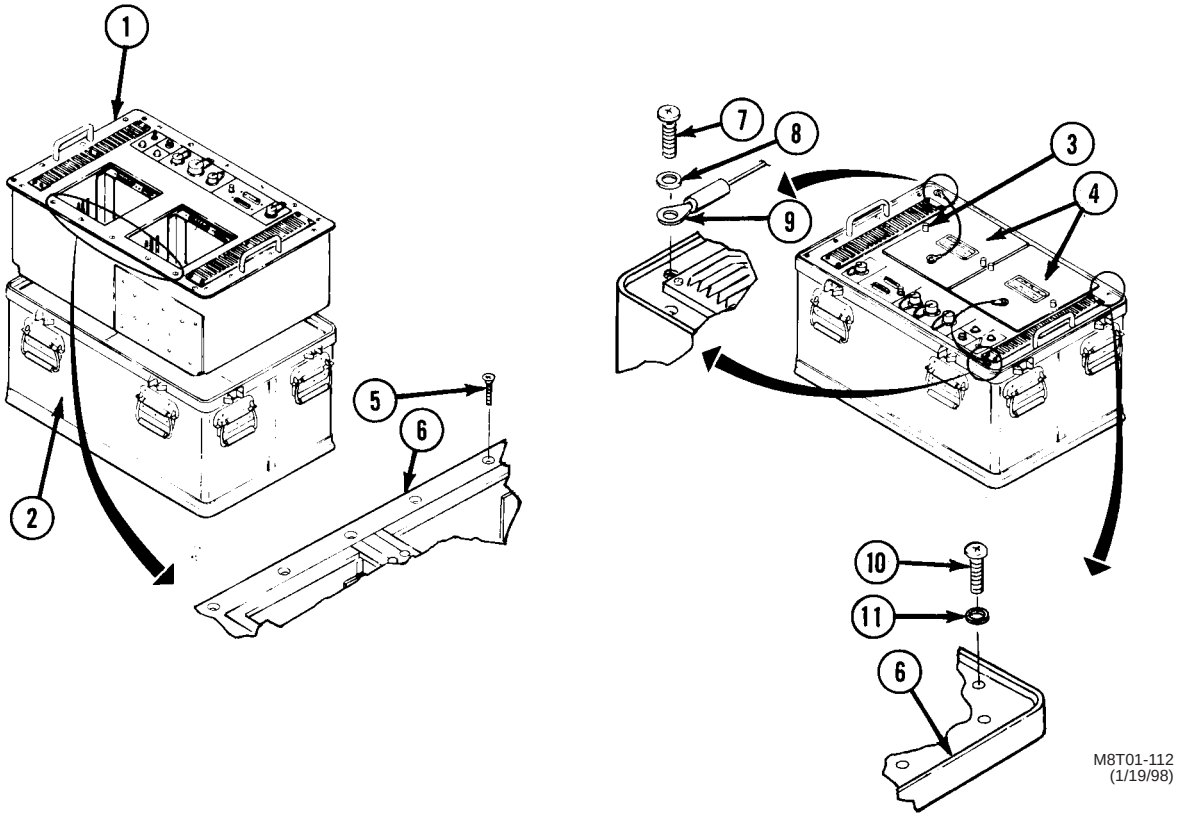
END OF TASK

REMOVE/INSTALL GPIA IN CASE ASSEMBLY 0060 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

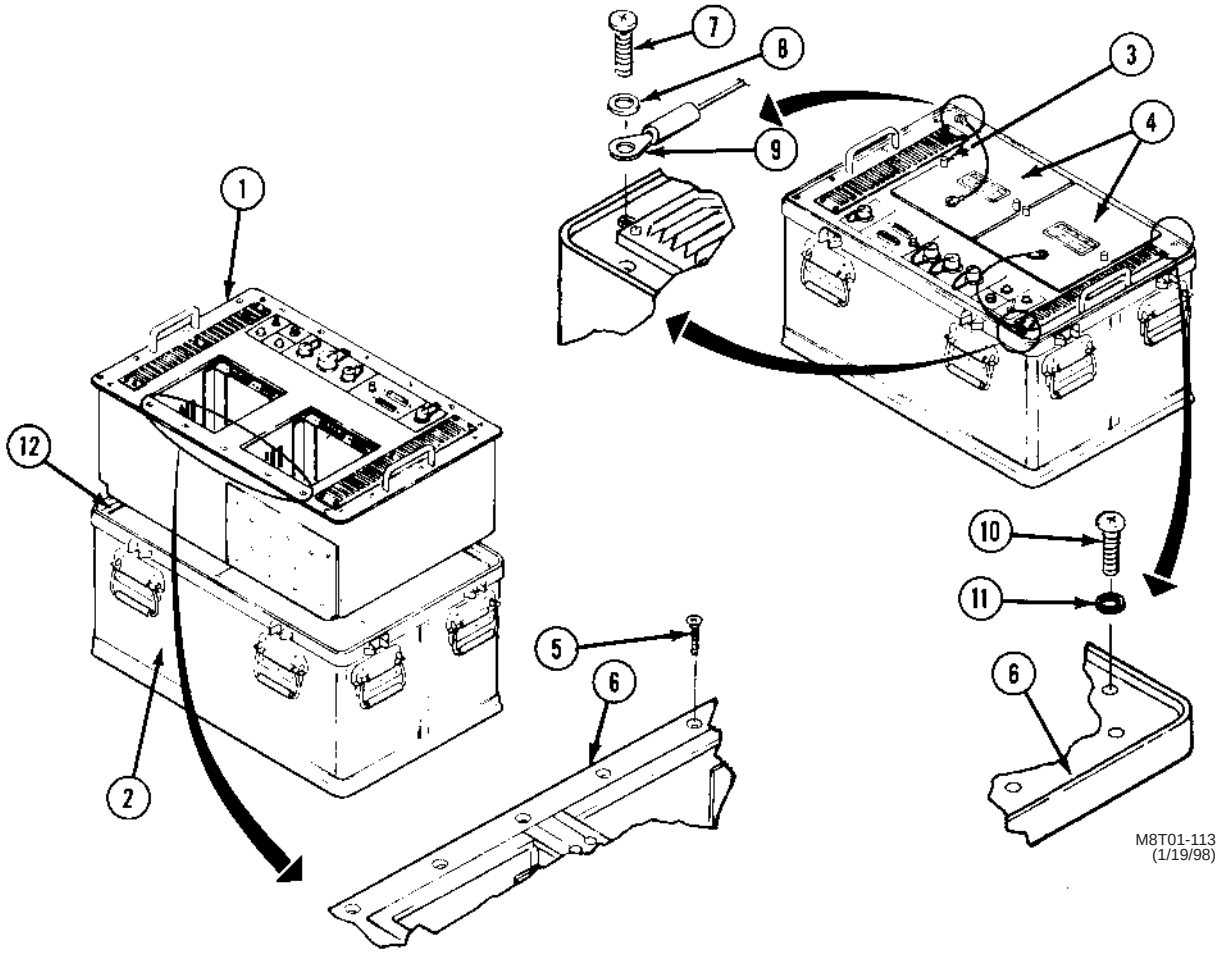


REMOVE

NOTE

Screws (5) are a different type than screws (7). Set screws (5) aside for replacement at same location.

1. REMOVE GPIA (1) FROM CASE ASSEMBLY (2).
   a. Loosen four thumb screws (3) from cover and remove module cavity covers (4).
   b. Remove five screws (5) from top edge of operator panel (6).
   c. Remove two screws (7) and washers (8) securing module blank panel lanyard (9) to operator panel (6).
   d. Remove remaining 15 screws (10) and washers (11) from around edge of operator panel (6).
   e. Lift GPIA (1) from case (2) and place on clean workbench.



INSTALL

2. INSTALL GPIA (1) IN CASE ASSEMBLY (2).
   a. Lift GPIA (1) and place in case (2).
   b. Install five screws (5) in top edge of oeprator panel (6).
   c. Install two screws (7) and washers (8) securing module blank panels lanyard assembly (9) to operator panel (6).
   d. Install 15 screws (10) and washers (11) around edge of operator panel (6).
   e. Install module cavity covers (4) on GPIA (1). Secure with four thumb screws (3).

END OF TASK

REMOVE/INSTALL GPIA FILTER PLATE 0061 00

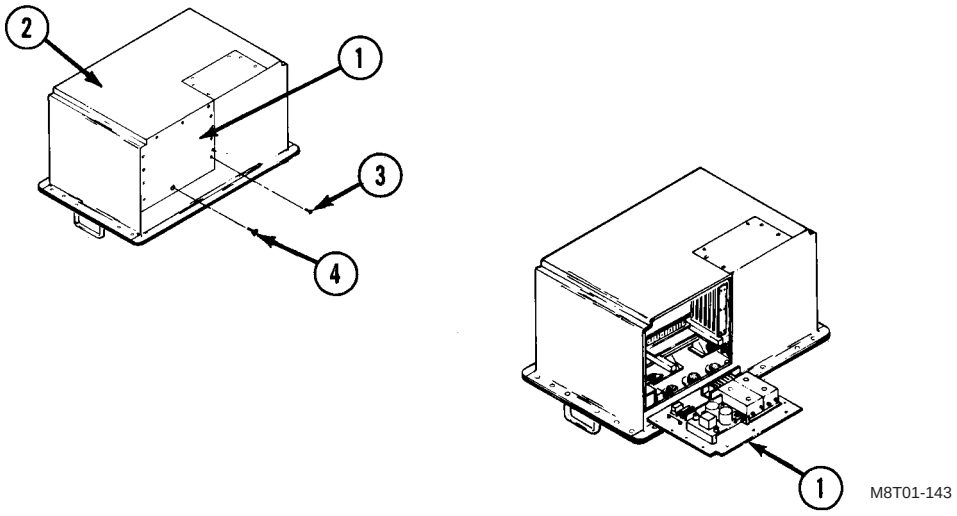
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Sealing Compound (Item 11, WP 0162 00)
Viscous Coating (Item 16, WP 0162 00)

Equipment Conditions:
Remove GPIA from case assembly; refer to WP 0060 00.



REMOVE

NOTE

Screw (4) is a different size than screws (3). Set screw (4) aside for replacement at same location.

1. REMOVE FILTER PLATE (1) FROM GPIA (2).
   a. Remove 10 screws (3) around outer edge of filter plate (1).
   b. Remove one screw (4) from bottom center of filter plate (1).
   c. Lower filter plate (1).

INSTALL

2. INSTALL FILTER PLATE (1) ON GPIA (2).
   a. Lightly coat 10 screws (3) with viscous coating and antiseize compound.
   b. Tilt filter plate (1) up to GPIA (2) and install 10 screws (3) around outer edge of filter plate (1).
   c. Lightly coat one screw (4) in bottom center of filter plate (1) with sealing compound.
   d. Install one screw (4) in bottom center of filter plate (1).

END OF TASK

REMOVE/INSTALL GPIA FRONT COVER 0062 00

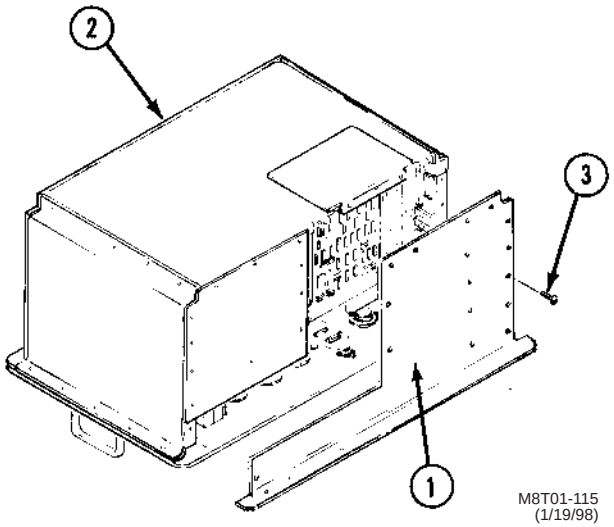
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove GPIA from case assembly; refer to WP 0060 00.

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Viscous Coating (Item 16, WP 0162 00)



M8T01-115
(1/19/98)

REMOVE

1. REMOVE FRONT COVER (1) FROM GPIA (2).
   a. Remove 16 screws (3), holding front cover (1) on GPIA (2).
   b. Set front cover (1) and 16 screws (3) aside.

INSTALL

2. INSTALL FRONT COVER (1) ON GPIA (2).
   a. Lightly coat 16 screws (3) with viscous coating and antiseize compound.
   b. Put front cover (1) onto GPIA (2) and secure with 16 screws (3).

END OF TASK

REPLACE GPIA LAMP HOUSING XDS1 OR XDS2 0063 00

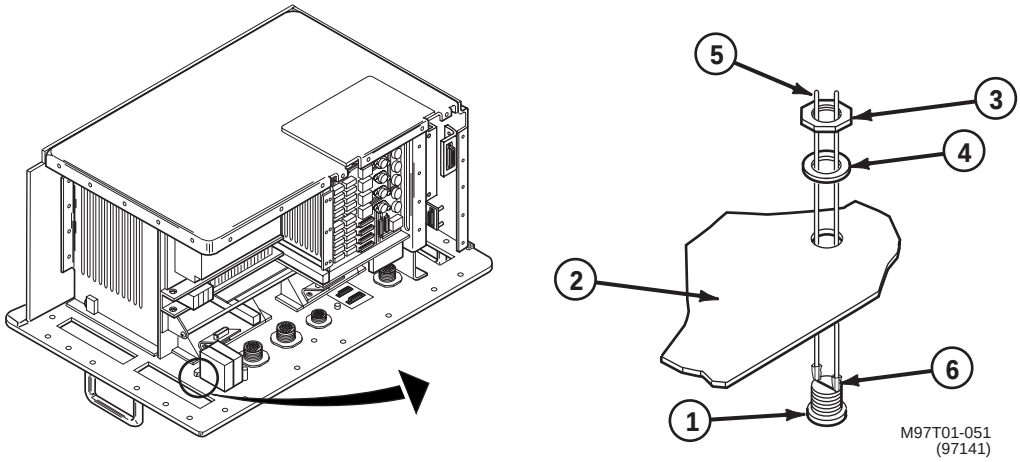
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove filter plate; refer to WP 0061 00.
Remove front cover; refer to WP 0062 00.
Remove radial blower assembly end plate; refer to WP 0083 00.
Remove circuit breaker CB1; refer to WP 0065 00.

Materials/Parts:
Insulation Sleeving
Lamp Housing



NOTE

Use this task to replace either SELF TEST FAIL or POWER ON/OFF lamp housing. Read WP 0042 00, General Maintenance, before doing any work.

REMOVE

1. REMOVE LAMP HOUSING (1) FROM OPERATOR PANEL (2).
   a. Remove nut (3) and lockwasher (4) from back of lamp housing (1).
   b. Pull lamp housing (1) from front of operator panel (2) with wires (5) attached.
   c. Unsolder two wires (5) from terminals on lamp housing (1). Discard lamp housing and insulation sleeving (6).
   d. Push wires (5) back through hole in operator panel (2). Discard nut (3) and lockwasher (4).

INSTALL

2. INSTALL NEW LAMP HOUSING (1) IN OPERATOR PANEL (2).
   a. Slide new nut (3) and new lockwasher (4) on two wires (5). Push wires through hole in operator panel (2).
   b. Cut two 1/2-inch pieces of insulation sleeving (6) and slide on two wires (5).
   c. Solder two wires (5) on two terminals on lamp housing (1).
   d. Place lamp housing (1) in operator panel (2). Secure with new nut (3) and new lockwasher (4).

END OF TASK

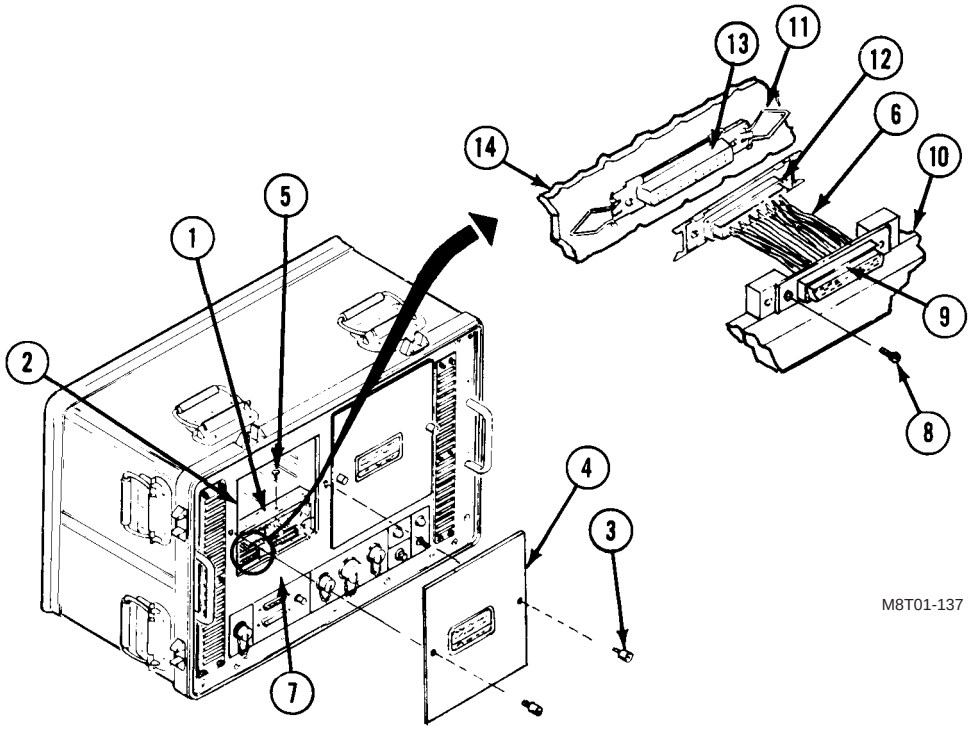
REPLACE GPIA SIGNAL CABLES W1 AND W2 OR POWER CABLES W3 AND W4 0064 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Signal Cable or Power Cable
Viscous Coating (Item 16, WP 0162 00)

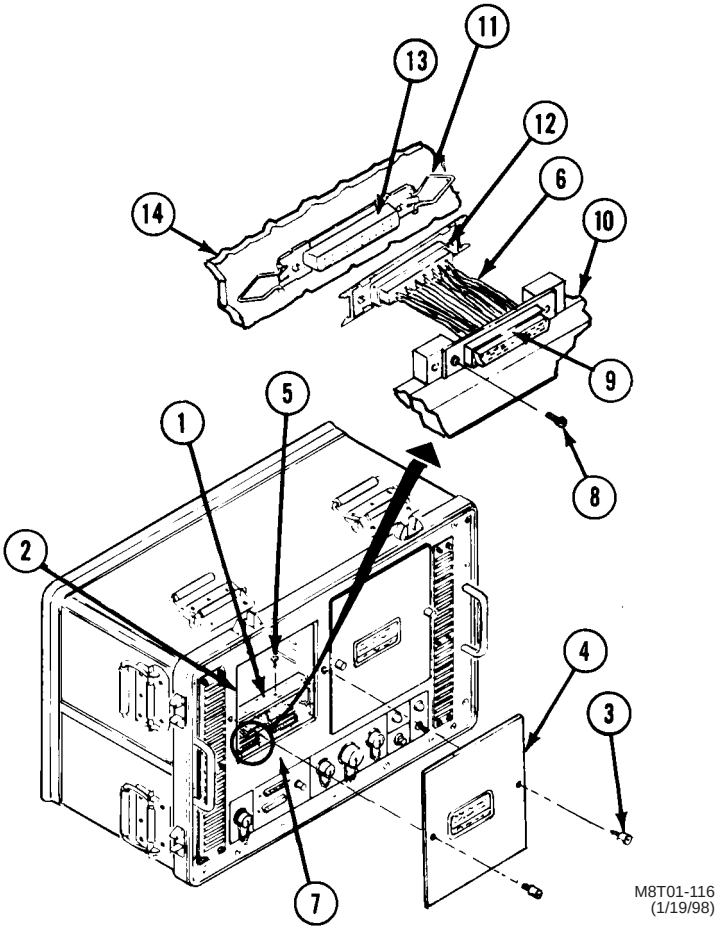


NOTE

The two signal cables W1 and W2 and the two power cables W3 and W4 are removed and installed in the same way. Cable W1 is shown. The signal cables go from the connector block to the terminal board backplane. The power cables go from the connector block to the connector block angle.

REMOVE

1. REMOVE CONNECTOR COVER (1) FROM MODULE (2).
   a. Remove captive screws (3) on module cavity cover (4). Set cover aside.
   b. Remove five screws (5) from connector cover (1).
   c. Remove connector cover (1) from module (2).



2. REMOVE SIGNAL CABLE W1 (6) FROM ELECTRONICS ASSEMBLY (7).
   a. Remove two screws (8) holding connector plug W1-P2 (9) in connector block (10).
   b. Release two latches (11) securing connector plug W1-P1 (12) to connector socket J11 (13) on terminal board backplane (14). Pull P1 from J11.
   c. Remove cable W1 (6) from electronic assembly and discard cable W1.

INSTALL

3. INSTALL NEW SIGNAL CABLE W1 (6) IN ELECTRONICS ASSEMBLY (7).
   a. Place cable W1 (6) in electronics assembly (7).
   b. Install connector plug W1-P1 (12) in connector socket J11 (13) on terminal board backplane (14). Secure with two latches (11).
   c. Lightly coat two screws (8) with viscous coating.
   d. Install connector plug W1-P2 (9) in connector block (10). Secure with two screws (8).

4. INSTALL CONNECTOR COVER (1) ON MODULE (2).
   a. Place connector cover (1) on module (2).
   b. Lightly coat five screws (5) with viscous coating and antiseize compound.
   c. Install five screws (5) in connector cover (1).
   d. Install module cavity cover (4) on electronics assembly (7).

END OF TASK

REPLACE GPIA CIRCUIT BREAKER CB1 0065 00

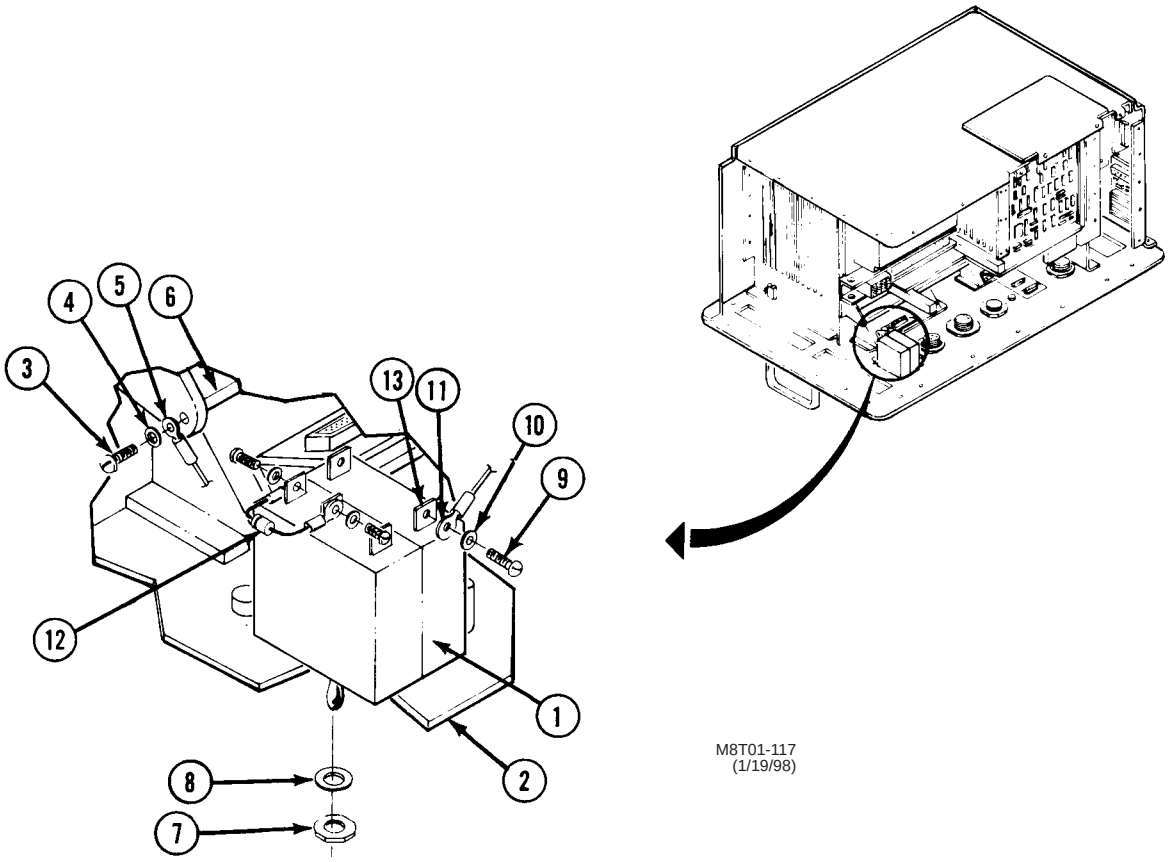
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Circuit Breaker
Lockwasher (5)
Lockwasher

Equipment Conditions:
Remove filter plate; refer to WP 0061 00.
Remove front cover; refer to WP 0062 00.
Remove radial blower assembly end plate; refer to WP 0083 00.

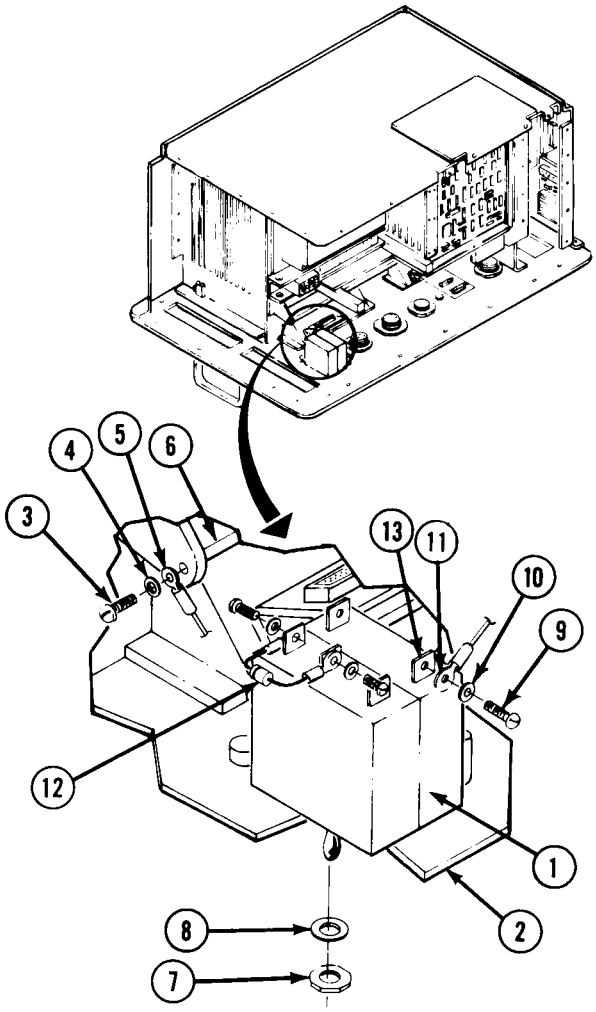


M8T01-117
(1/19/98)

REMOVE

1. REMOVE CIRCUIT BREAKER (1) FROM OPERATOR PANEL (2).

   a. Remove screw (3) and lockwasher (4) securing terminal lug (5) to lacing bar (6). Discard lockwasher.
   b. Remove nut (7) and lockwasher (8) securing circuit breaker (1) to front panel (2). Discard nut and lockwasher.
   c. Pull circuit breaker (1) with wires attached from operator panel (2).
   d. Remove five screws (9) and lockwashers (10) securing terminal lugs (11) and diode (12) to terminals (13). Set diode aside. Discard screws, lockwashers, and circuit breaker.



M8T01-118
(1/19/98)

INSTALL

NOTE

Discard key washer and ON/OFF plate furnished with new circuit breaker.

2. INSTALL NEW CIRCUIT BREAKER (1) IN OPERATOR PANEL (2).
   a. Secure terminal lugs (11) and diode (12), removed in Step 1d, to terminals (13) with five screws (9) and new lockwashers (10).
   b. Place circuit breaker (1) in operator panel (2).
   c. Install new nut (7) and new lockwasher (8) on circuit breaker (1).
   d. Secure terminal lug (5) to lacing bar (6) with screw (3) and new lockwasher (4).

END OF TASK

REPLACE GPIA INTERLOCK SWITCH SW2 OR SW3 0066 00

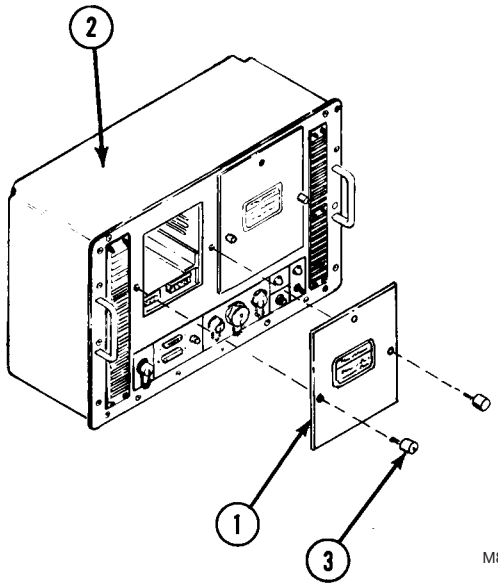
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
If replacing switch SW3, remove radial blower assembly end plate; refer to WP 0083 00.

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Interlock Switch
Lockwasher (6)
Viscous Coating (Item 16, WP 0162 00)



M8T01-119
(1/19/98)

NOTE

Use this task to remove either interlock switch SW2 or SW3. Switch SW2 is shown.

REMOVE

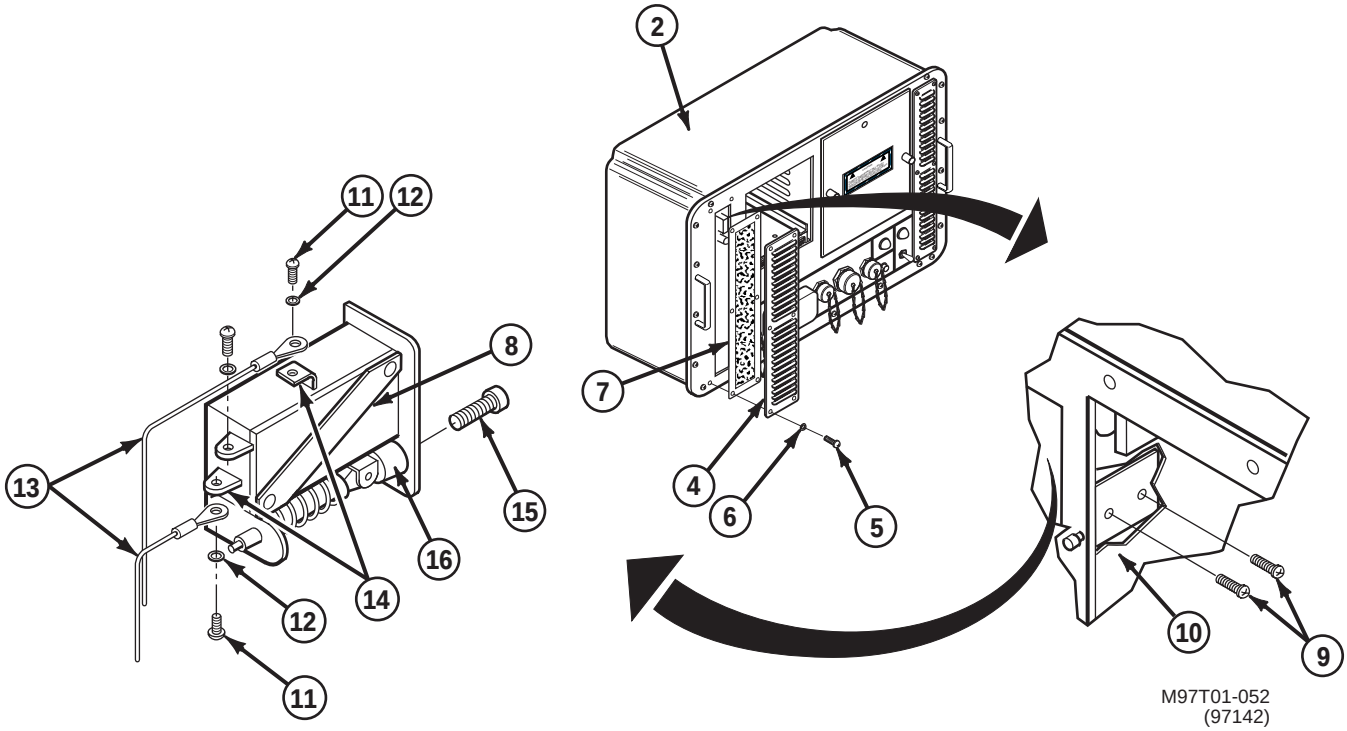
NOTE

Perform Step 2 only if replacing switch SW2.

1. REMOVE MODULE COVER ASSEMBLY (1) FROM GPIA (2).

NOTE

If replacing switch SW2, remove module A cover assembly. If replacing switch SW3, remove module B cover assembly.



a. Unscrew captive screws (3) on module cover assembly (1).
b. Set cover aside.

2. REMOVE LOUVER PLATE (4) FROM MODULE A SIDE OF ELECTRONICS ASSEMBLY (2).

a. Remove six screws (5) and lockwashers (6) from louver plate (4). Discard lockwashers.
b. Remove louver plate (4) and filter (7).

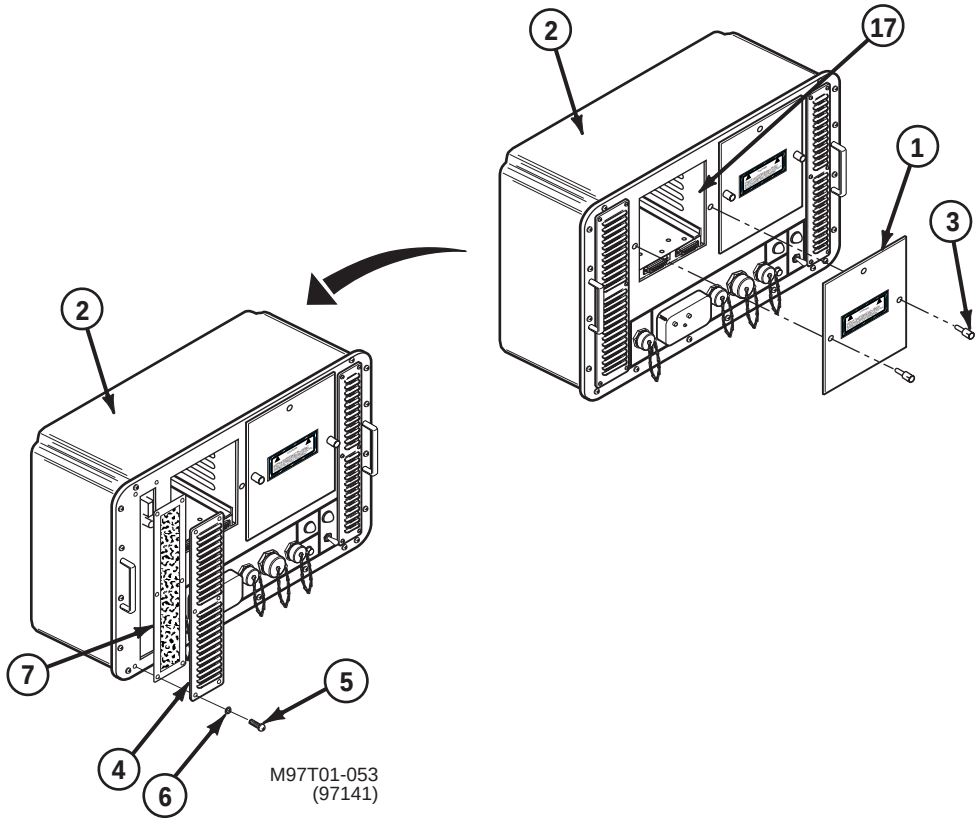
3. REMOVE INTERLOCK SWITCH SW2 (8) FROM ELECTRONICS ASSEMBLY (2).

a. Remove two screws (9) securing switch SW2 (8) to bracket (10).
b. Remove two screws (11) and lockwashers (12) holding two wires (13) to two terminals (14). Discard screws and lockwashers.
c. Remove one screw (15) from switch actuator rod (16). Retain screw and discard switch.

INSTALL

4. INSTALL NEW INTERLOCK SWITCH SW2 (8) IN ELECTRONICS ASSEMBLY (2).

a. Lightly coat threads of one screw (15) removed in Step 3c with viscous coating and install screw in actuator rod (16).
b. Install two wires (13) on terminals (14) with new screws (11) and new lockwashers (12) supplied with new switch (8).
c. Lightly coat two screws (9) with viscous coating and antiseize compound.
d. Place switch SW2 (8) on bracket (10) and install with two screws (9).



5. INSTALL LOUVER PLATE (4) ON MODULE A SIDE OF ELECTRONICS ASSEMBLY (2).
   a. Lightly coat the threads of six screws (5) with antiseize compound.
   b. Place louver plate (4) with filter (7) on electronics assembly (2) and secure with six screws (5) and new lockwashers (6).

6. INSTALL MODULE COVER ASSEMBLY (1) ON GPIA (2).
   a. Place cover assembly (1) over module cavity (17).
   b. Secure cover (1) to GPIA (2) with captive screws (3).

END OF TASK

REPLACE GPIA RESET SWITCH SW1 0067 00

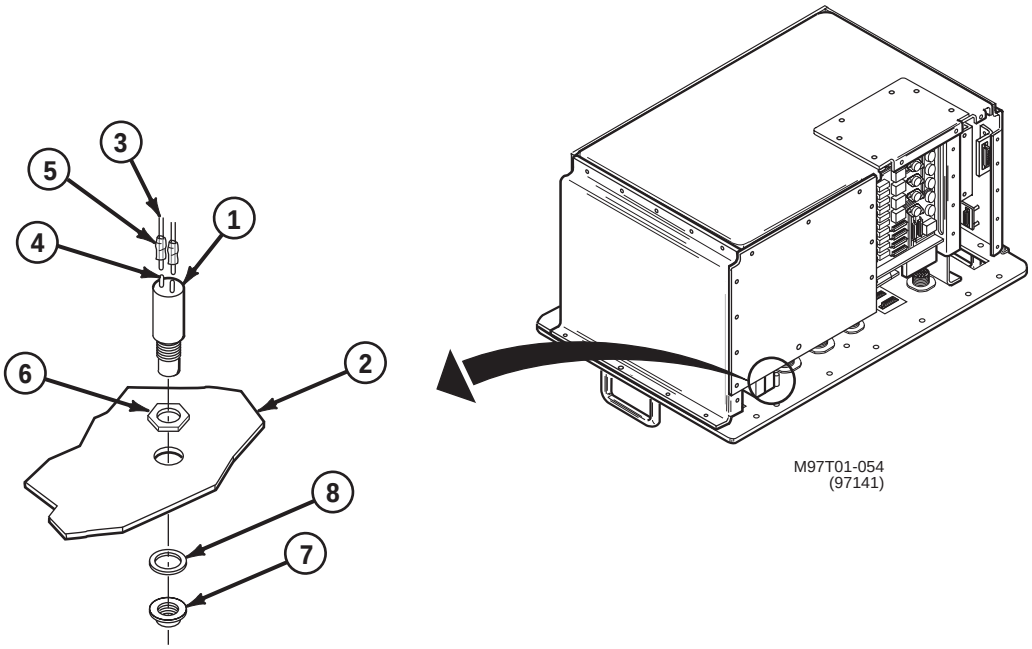
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22
9/16-inch Combination Wrench (fabricated, WP 0163 00)

Equipment Conditions:
Remove front cover; refer to WP 0062 00.

Materials/Parts:
Insulation Sleeving
Push Switch



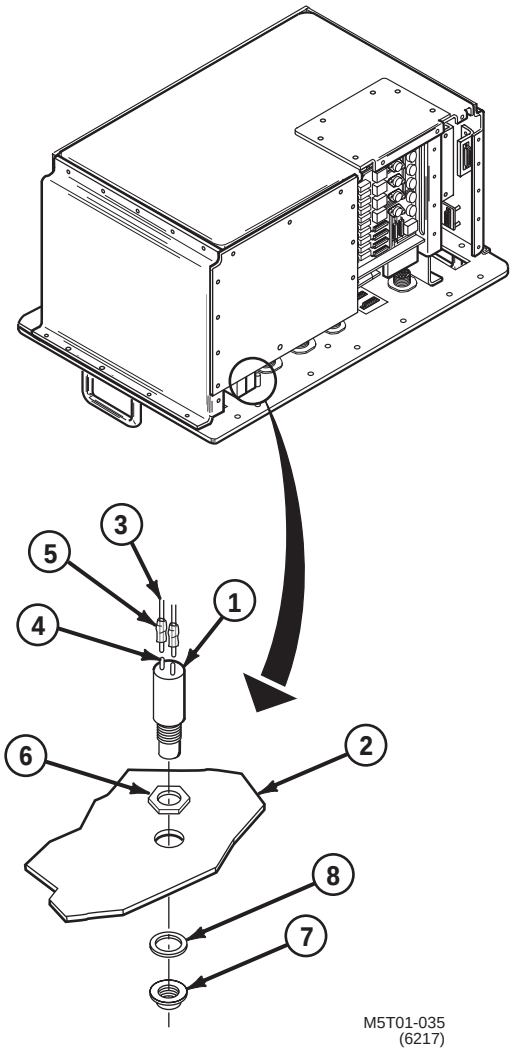
NOTE

Read WP 0042 00, General Maintenance, before doing any work.

REMOVE

1. REMOVE RESET SWITCH (1) FROM OPERATOR PANEL (2).

   a. Unsolder two wires (3) from two terminals (4) on switch (1). Discard insulation sleeving (5).
   b. Loosen nut (6). Use fabricated wrench.



c. Remove dress ring (7) and gasket (8) from switch (1). Discard dress ring and gasket.
d. Remove switch (1) and nut (6) from operator panel (2). Discard nut and switch.

INSTALL

2. INSTALL NEW RESET SWITCH S1 (1) IN OPERATOR PANEL (2).

a. Place switch (1) with new nut (6) in operator panel (2).
b. Install new gasket (8) and new dress ring (7) on switch (1).
c. Tighten nut (6). Use fabricated wrench.
d. Cut two 1/2-inch pieces of insulation sleeving (5) and slide sleeving on two wires (3).
e. Solder two wires (3) to two terminals (4).

END OF TASK

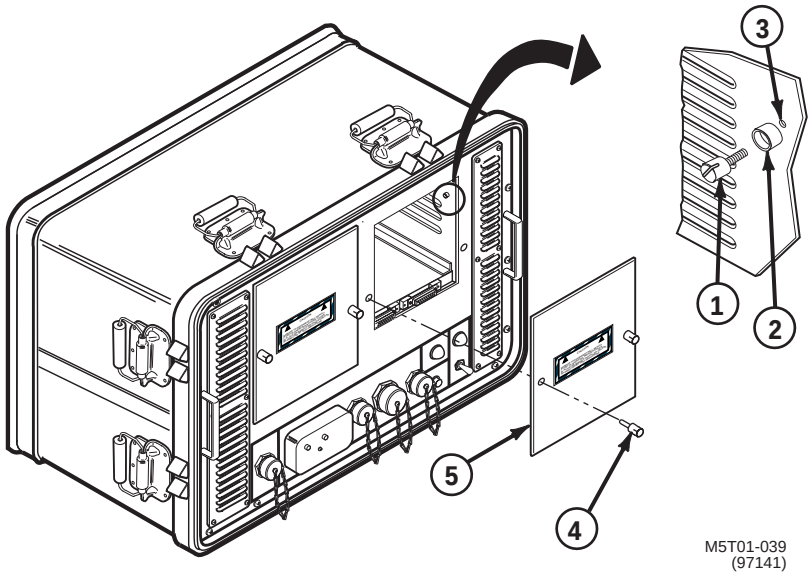
REPLACE GPIA SPACER AND SHOULDER SCREW 0068 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Shoulder Screw
Spacer



M5T01-039
(97141)

NOTE

Use this task to replace any of the four spacer and shoulder screws from module cavities.

REMOVE

1. REMOVE SHOULDER SCREW (1) AND SPACER (2) FROM MODULE CAVITY (3).
   a. Unscrew captive screws (4) on module cavity cover (5). Set cover aside.
   b. Unscrew and remove shoulder screw (1) and spacer (2).

INSTALL

2. INSTALL NEW SHOULDER SCREW (1) AND SPACER (2) IN MODULE CAVITY (3).
   a. Lightly coat the threads of shoulder screw (1) with antiseize compound.
   b. Screw in shoulder screw (1) with spacer (2).
   c. Place cover (5) over module cavity (3) and secure with captive screws (4).

END OF TASK

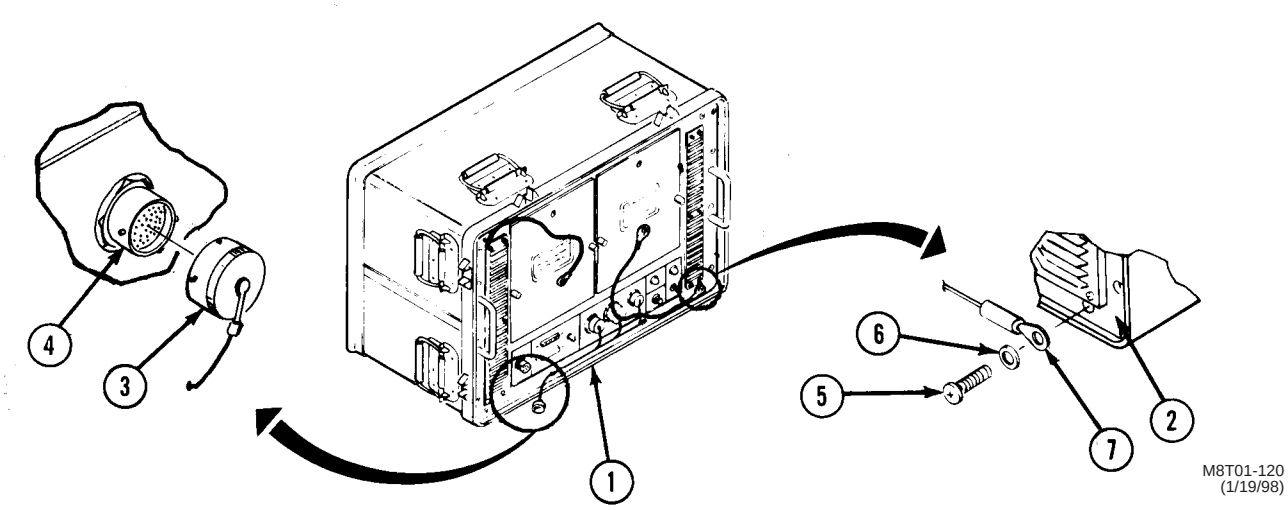
REPLACE GPIA CONNECTOR PROTECTIVE COVER ASSEMBLY 0069 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Artillery and Turret Mechanic's Tool Kit
SC 5180-95-CL-A12

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Connector Protective Cover Assembly
Lockwasher



REMOVE

1. REMOVE CONNECTOR PROTECTIVE COVER ASSEMBLY (1) FROM OPERATOR PANEL (2).
   a. Remove protective covers (3) from connectors (4).
   b. Remove screw (5) and lockwasher (6) securing eyelet (7) of protective cover assembly (1) to operator panel (2). Discard protective cover assembly and lockwasher.

INSTALL

2. INSTALL NEW PROTECTIVE COVER ASSEMBLY (1) ON OPERATOR PANEL (2).
   a. Lightly coat the threads of screw (5) with antiseize compound.
   b. Secure eyelet (7) of protective cover assembly (1) to operator panel (2) with screw (5) and new lockwasher (6).
   c. Install protective covers (3) on connectors (4).

END OF TASK

REPAIR/REPLACE GPIA OPERATOR PANEL CONNECTOR 0070 00

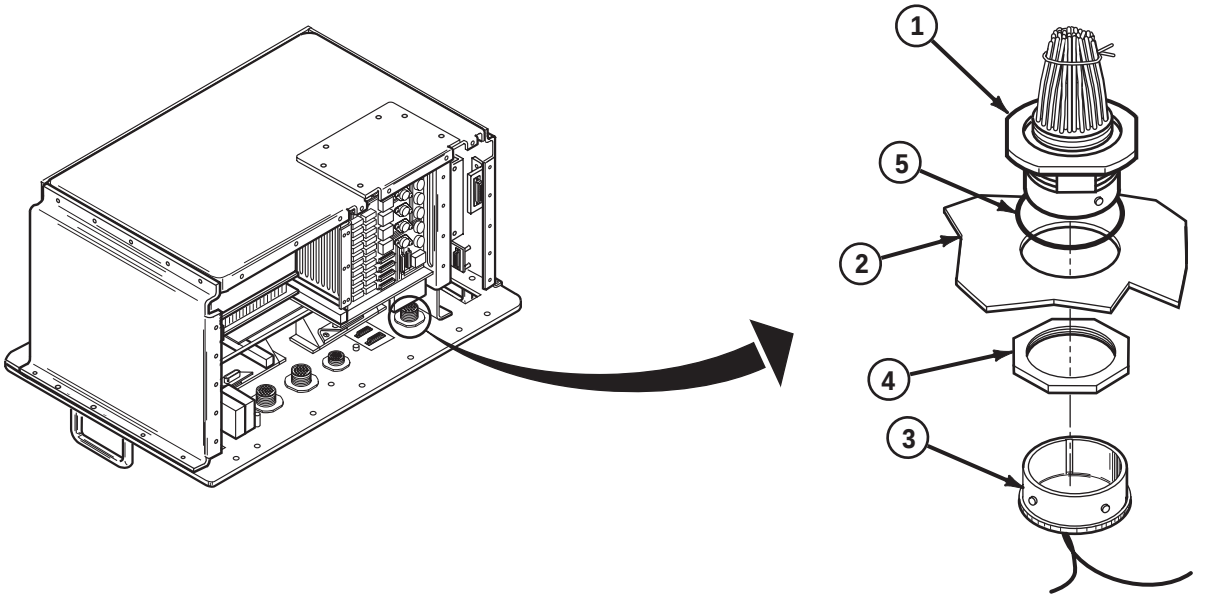
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Electrical Maintenance Kit, 5705498
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Artillery and Turret Mechanic's Tool Kit
SC 5180-95-CL-A12

Equipment Conditions:
Remove filter plate; refer to WP 0061 00.
Remove front cover; refer to WP 0062 00.

Materials/Parts:
Connector (as required)
Contacts (as required)



M8T01-121
(1/22/98)

NOTE

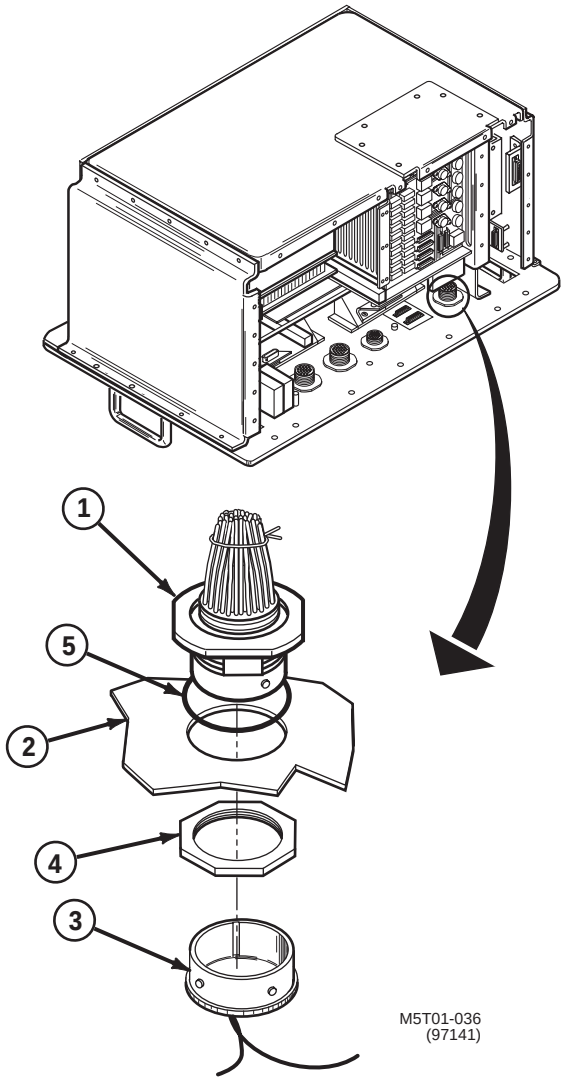
Use this task to replace GPIA connectors UJ1, UJ5, UJ6, or UJ7. Connector UJ1 is shown. Read WP 0042 00, General Maintenance, before doing any work. Refer to WP 0038 00 to locate wire lists for operator panel connectors.

REMOVE

1. REMOVE PANEL CONNECTOR (1) FROM OPERATOR PANEL (2).
   a. Unscrew and take off protective cover (3) from connector (1).
   b. Unscrew and take off jam nut (4). Set nut aside for later use.
   c. Remove connector (1) and gasket (5) from back side of panel (2).

INSTALL

2. REPAIR OR REPLACE CONNECTOR (1) REMOVED FROM OPERATOR PANEL (2).
   Refer to WP 0047 00.



3. INSTALL NEW OR REPAIRED CONNECTOR (1) IN OPERATOR PANEL (2).

   a. Install connector (1) with gasket (5) in operator panel (2) and secure with jam nut (4).
   b. Install protective cover (3) on connector (1).

END OF TASK

REPLACE GPIA CONNECTOR UJ4 0070 01

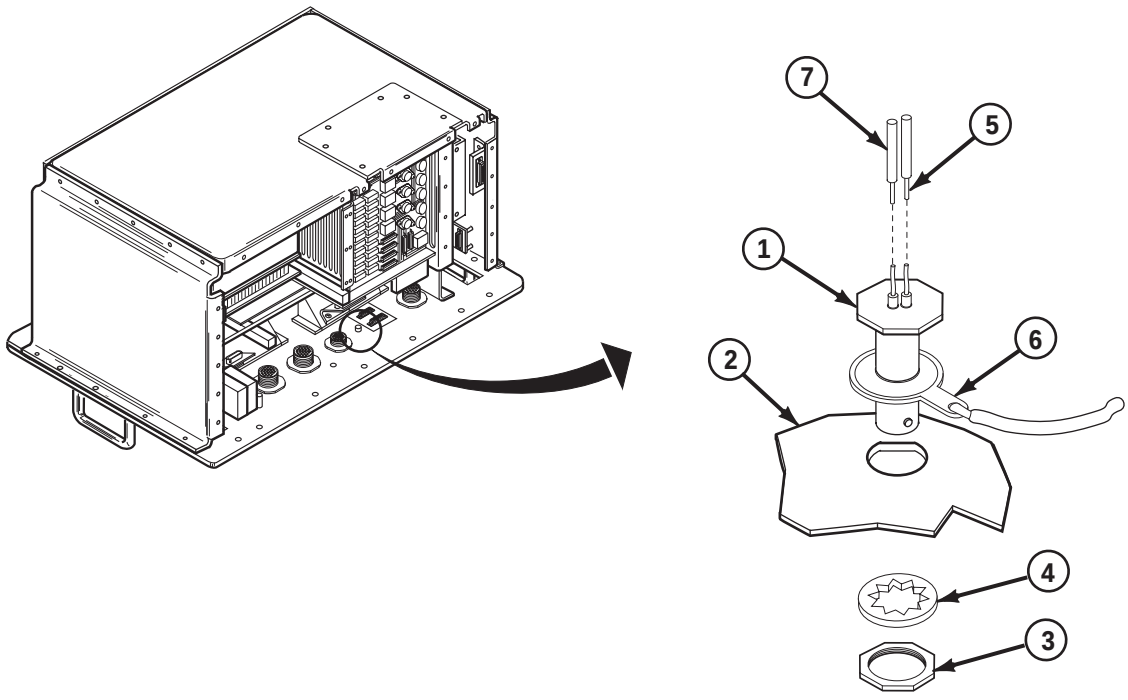
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Insulation Sleeving
Connector

Equipment Conditions:
Remove filter plate; refer to WP 0061 00.
Remove front cover; refer to WP 0062 00.



P804-T01-001

NOTE

Read work package 0042 00, General Maintenance, before doing any work.

REMOVE

1. REMOVE PANEL CONNECTOR UJ4 (1) FROM OPERATOR PANEL (2).
   a. Remove nut (3) and lockwasher (4) from front of connector (1).
   b. Pull connector (1) from back of operator panel (2) with wires (5) attached.
   c. Remove and retain terminal lug (6) from front of connector (1).
   d. Tag and unsolder two wires (5) from terminals on connector (1). Discard connector and insulation sleeving (7).
   e. Discard lockwasher (4) and nut (3).

INSTALL

NOTE

Discard the terminal lug (6) that comes with the new connector. The old terminal lug will be reused.

2. INSTALL NEW CONNECTOR (1) IN OPERATOR PANEL (2).
   a. Cut two 1/2-inch pieces of insulation sleeving (7) and slide on two wires (5).
   b. Solder two wires (5) on two terminals on connector (1).
   c. Shrink insulation sleeving (7).
   d. Slide connector (1) through terminal lug (6).
   e. Place connector (1) in operator panel (2). Secure with new nut (3) and lockwasher (4).

END OF TASK

REPLACE GPIA LINE FILTER FL1 OR FL2 0071 00

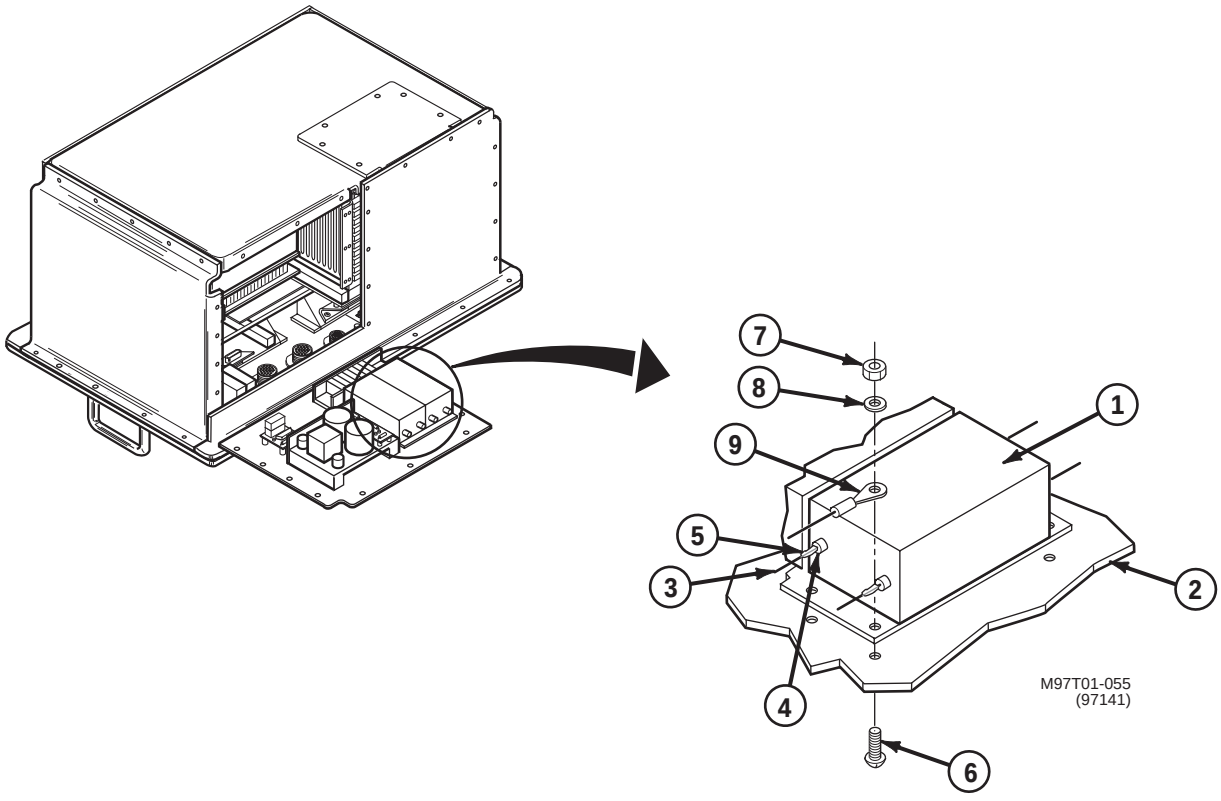
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove filter plate; refer to WP 0061 00.

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Filter Assembly
Insulation Sleeving
Lockwashers (4)

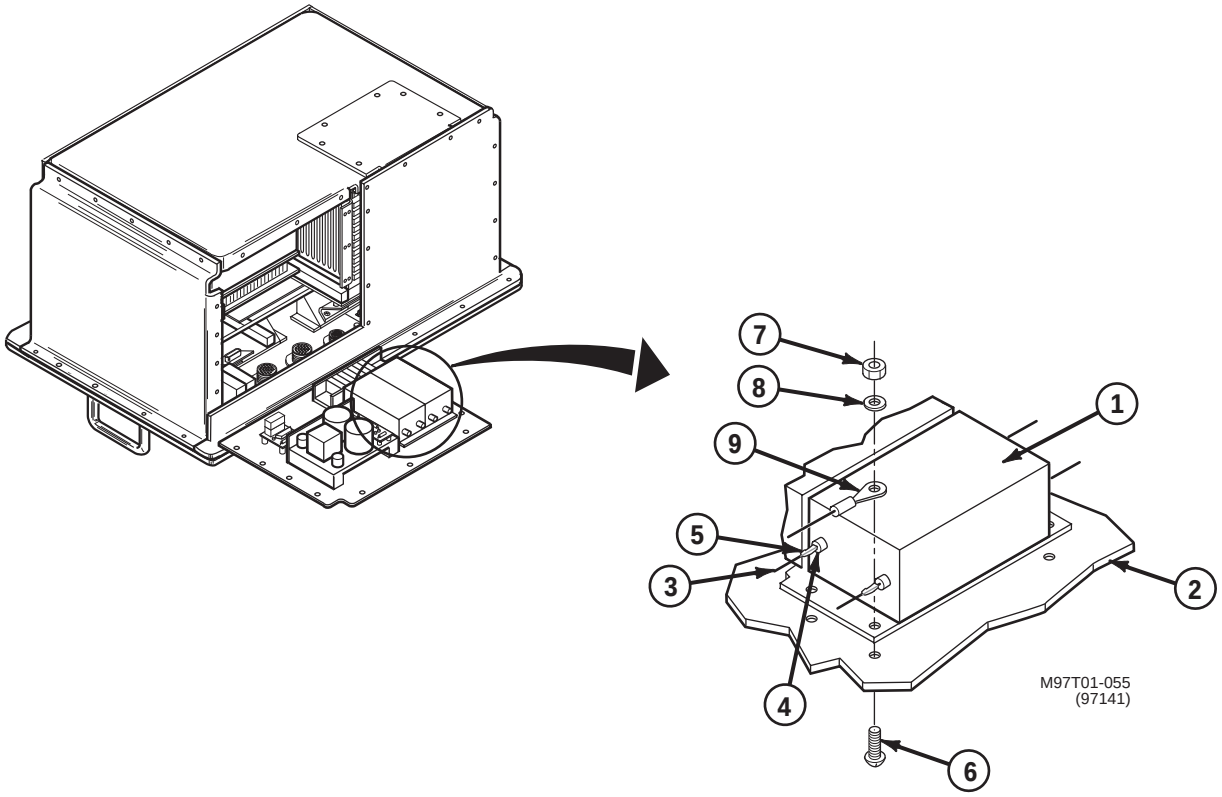


NOTE

Use this task to replace filter FL 1 or FL2. FL1 is shown. Read WP 0042 00, General Maintenance, before doing any work.

REMOVE

1. REMOVE FILTER FL1 (1) FROM FILTER PLATE (2).
   a. Unsolder wires (3) from four filter terminals (4). Discard insulation sleeving (5).
   b. Remove four screws (6), nuts (7), lockwashers (8), and ground terminals (9). Discard lockwashers and filter.



INSTALL

2. INSTALL NEW FILTER FL1 (1) ON FILTER PLATE (2).
   a. Plate filter FL1 (1) on filter plate (2).
   b. Lightly coat the threads of four screws (6) with antiseize compound.
   c. Place ground terminals (9) on filter (1) and install four screws (6), new lockwashers (8), and nuts (7).
   d. Cut four 1/2-inch pieces of insulation sleeving (5) and slide sleeving on wires (3).
   e. Solder wires (3) to four filter terminals (4).

END OF TASK

REMOVE/INSTALL UUT POWER SUPPLY END PLATE 0072 00

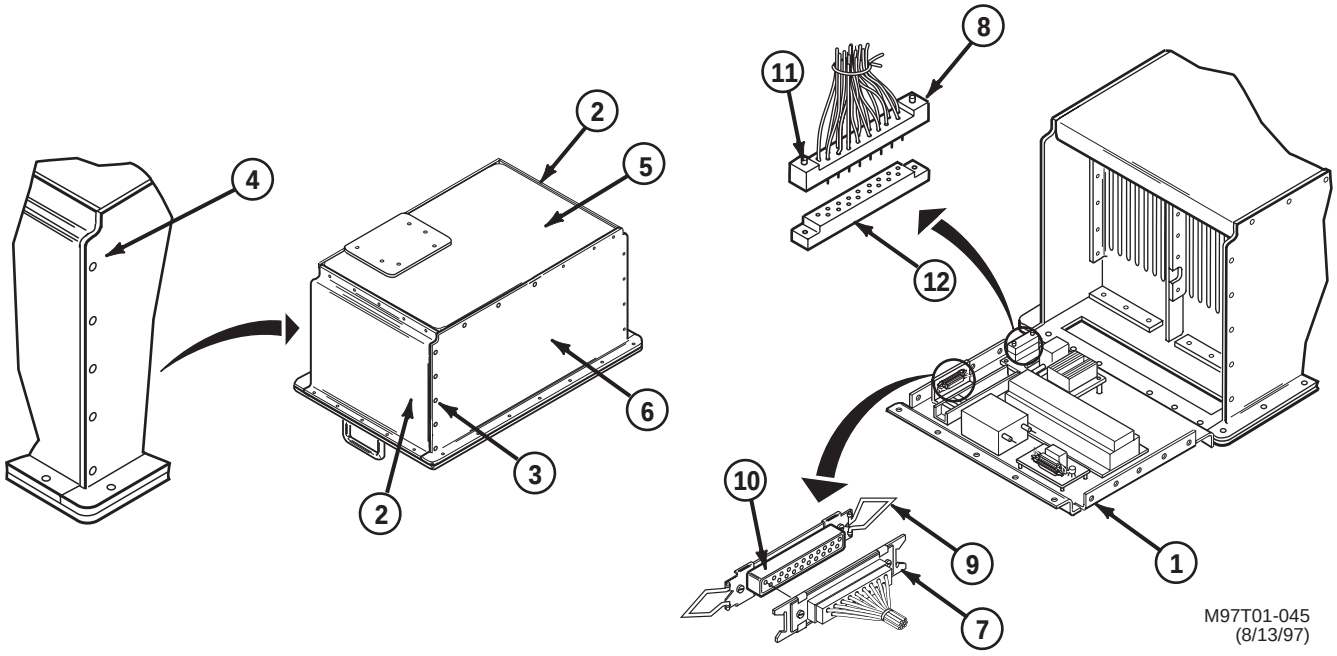
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove GPIA from case assembly;
refer to WP 0060 00.

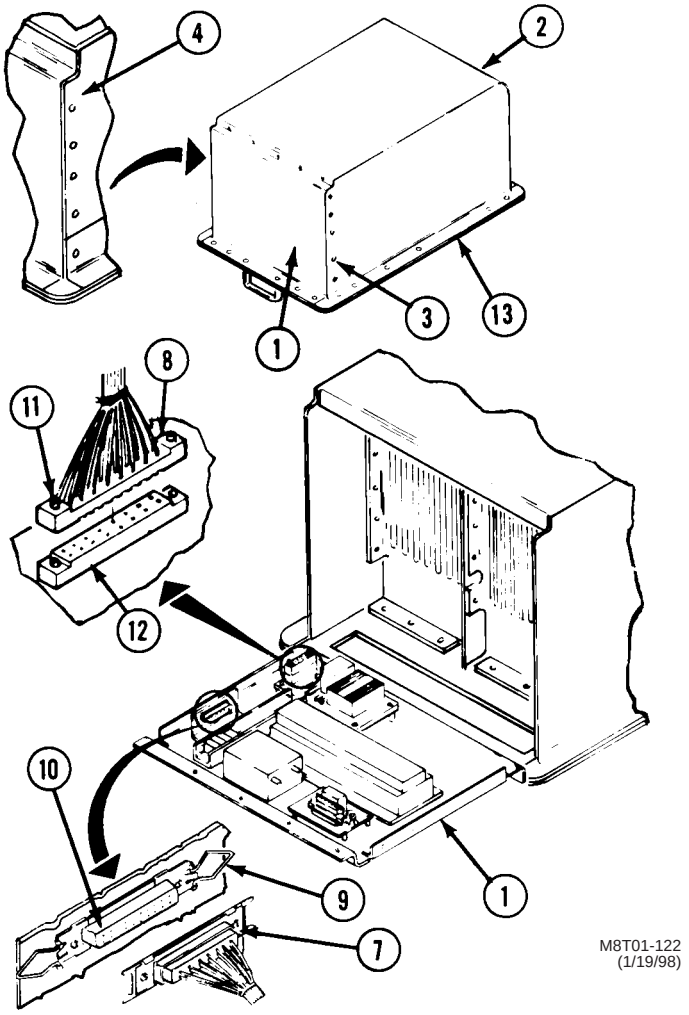
Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Viscous Coating (Item 16, WP 0162 00)



REMOVE

1. REMOVE UUT POWER SUPPLY END PLATE (1) FROM GPIA (2).
   a. Remove 15 screws (3) securing UUT power supply assembly end plate (1) to front panel (4), bottom panel (5), and rear panel (6).
   b. Lower end plate (1) to gain access to connectors P15 (7) and P16 (8).

2. DISCONNECT PLUGS P15 (7) AND P16 (8) FROM END PLATE (1).
   a. Release two latches (9) securing connector plug P15 (7) to connector socket J15 (10) on end plate (1).
   b. Pull plug P15 (7) from socket J15 (10).
   c. Evenly loosen two screws (11) on plug P16 (8).
   d. Pull plug P16 (8) from socket J16 (12).
   e. Remove UUT power supply assembly end plate (1) and set aside.



INSTALL

3. CONNECT PLUGS P15 (7) AND P16 (8) TO END PLATE (1).

   a. Position end plate (1) on rear edge of operator panel (13).
   b. Connect P16 (8) to socket J16 (12) and evenly tighten two screws (11).
   c. Connect P15 (7) to J15 (10) and secure with two latches (9).

4. INSTALL UUT POWER SUPPLY END PLATE (1) ON GPIA (2).

   a. Lightly coat 15 screws (3) with antiseize compound and viscous coating.
   b. Raise end plate into position on GPIA (2) and secure with 15 screws (3).

END OF TASK

REPLACE UUT POWER SUPPLY ASSEMBLY BUS INTERFACE CIRCUIT CARD ASSEMBLY 0073 00

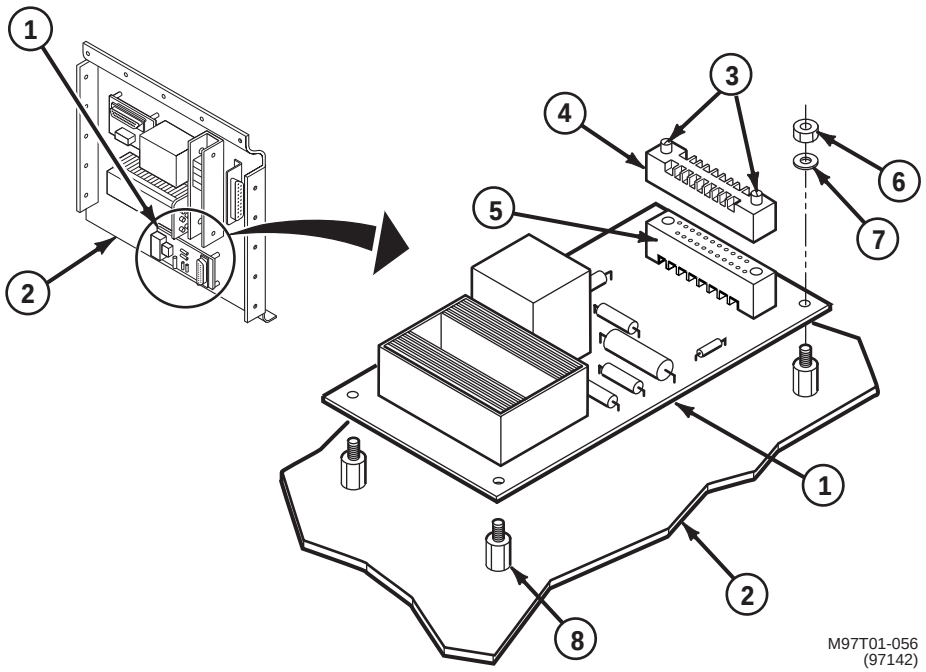
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove UUT power supply end plate; refer to WP 0072 00.

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Circuit Card Assembly
Viscous Coating (Item 16, WP 0162 00)



REMOVE

1. REMOVE CIRCUIT CARD ASSEMBLY (1) FROM PLATE (2).
   a. Evenly loosen two screws (3) on P16 (4). Pull connector plug P16 (4) from connector socket J16 (5).
   b. Remove four nuts (6) and washers (7) holding circuit card (1) to standoffs (8). Lift circuit card off standoffs. Discard circuit card.

INSTALL

2. INSTALL NEW CIRCUIT CARD ASSEMBLY (1) ON PLATE (2).
   a. Lightly coat the threads of four standoffs (8) with viscous coating and antiseize compound.
   b. Place circuit card on four standoffs (8) and secure with nuts (6) and washers (7).
   c. Install connector plug P16 (4) in connector socket J16 (5). Evenly tighten two screws (3) on P16.

END OF TASK

REPLACE UUT POWER SUPPLY ASSEMBLY CCA A8 0074 00

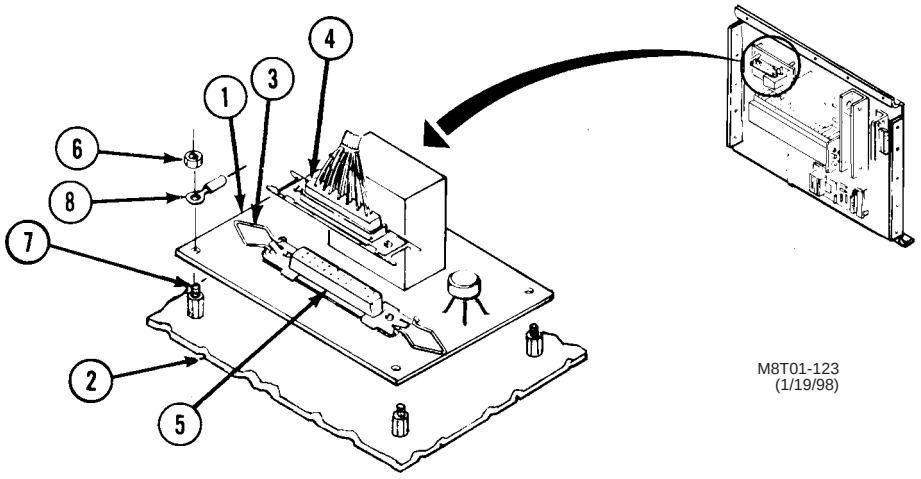
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove UUT power supply end plate; refer to WP 0072 00.

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
CCA A8
Viscous Coating (Item 16, WP 0162 00)



REMOVE

1. REMOVE CCA A8 (1) FROM POWER SUPPLY END PLATE (2).
   a. Release two latches (3) securing connector P18 (4) to J1 (5) and pull P18 from J1.
   b. Remove four nuts (6) securing CCA A8 (1) to standoffs (7).
   c. Lift terminal lug (8) off standoff (7).
   d. Lift CCA A8 (1) off standoff (7) and discard module.

INSTALL

2. INSTALL NEW CCA A8 (1) ON POWER SUPPLY END PLATE (2).
   a. Lightly coat threads of four standoffs (7) with viscous coating and antiseize compound.
   b. Place CCA A8 (1) on four standoffs (7).
   c. Place terminal lug (8) on standoff (7) and secure CCA A8 (1) to standoffs (7) with four nuts (6).
   d. Install connector plug P18 (4) in connector socket J1 (5). Secure with two latches (3).

END OF TASK

REPLACE UUT POWER SUPPLY ASSEMBLY FILTER FL4 0075 00

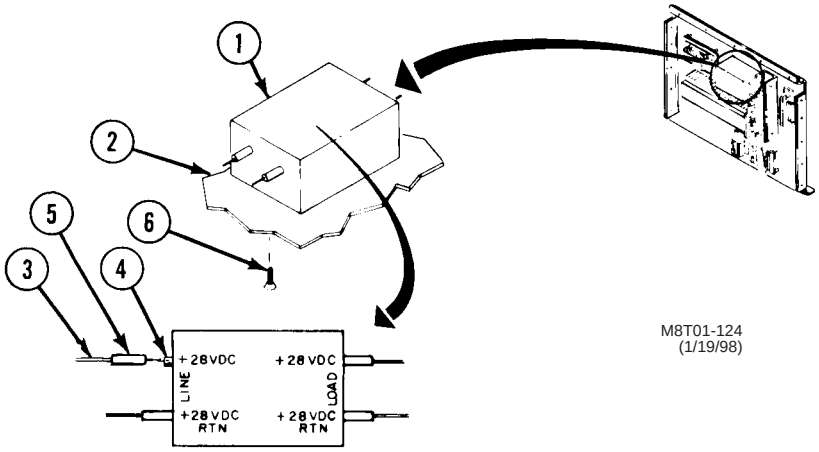
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove UUT power supply end plate; refer to WP 0072 00.

Materials/Parts:
Insulation Sleeving
Line Filter
Sealing Compound (Item 11, WP 0162 00)



NOTE

Read WP 0042 00, General Maintenance, before doing any work.

REMOVE

1. REMOVE FILTER (1) FROM PLATE (2).
   a. Unsolder wires (3) from four terminals (4) on filter (1). Discard insulation sleeving (5).
   b. Remove four screws (6) securing filter (1) to plate (2). Discard filter.

INSTALL

2. INSTALL NEW FILTER (1) ON PLATE (2).
   a. Lightly coat threads of four screws (6) with sealing compound.
   b. Secure filter (1) to plate (2) with four screws (6).
   c. Cut four 3/4-inch pieces of insulation sleeving (5) and place on wires (3).
   d. Solder wires (3) to four terminals (4) on filter (1).

END OF TASK

REPLACE UUT POWER SUPPLY PS3 0076 00

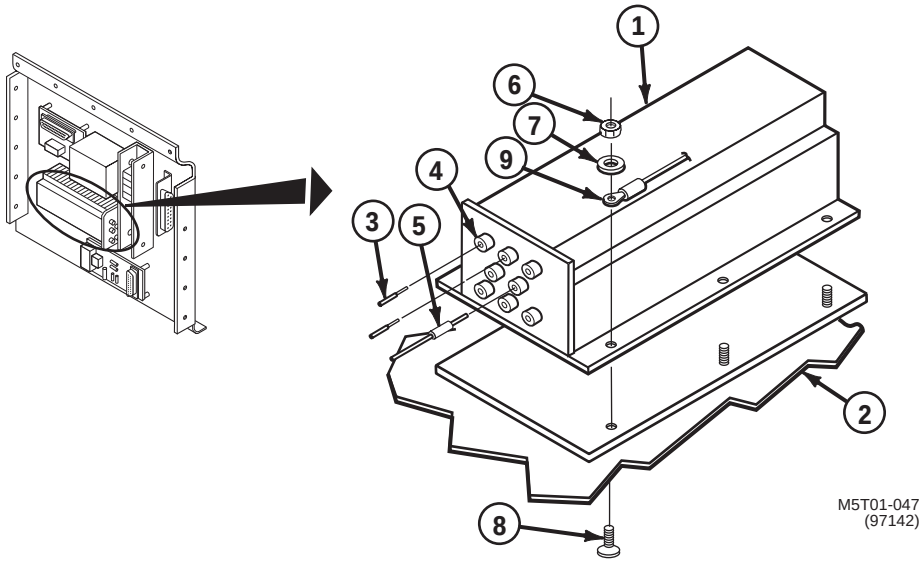
THIS WORK PACKAGE COVERS:
Removal, Inspection, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove UUT power supply end plate; refer to WP 0072 00.

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Insulation Sleeving
Lockwasher (6)
Power Supply
Thermal Pad (as required)

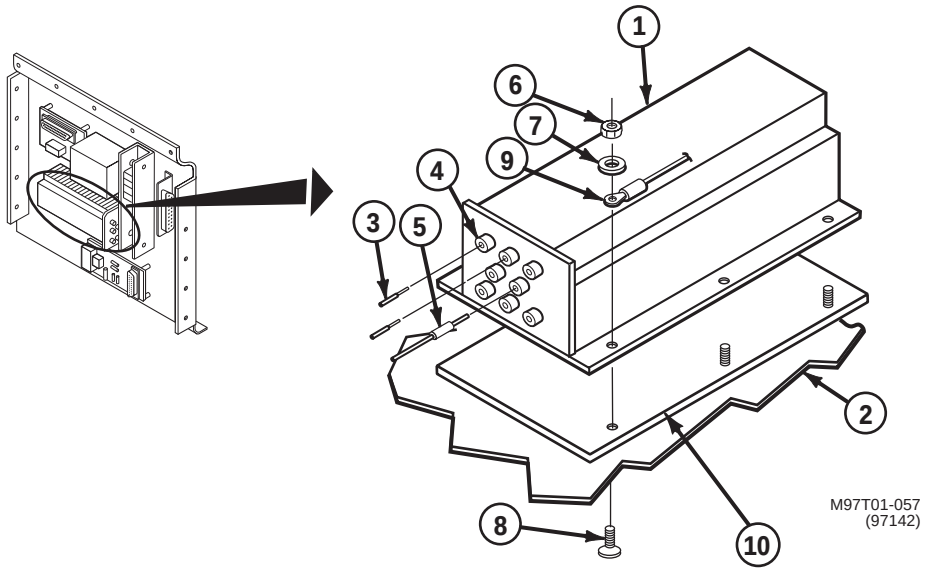


NOTE

Read WP 0042 00, General Maintenance, before doing any work.

REMOVE

1. REMOVE POWER SUPPLY PS3 (1) FROM END PLATE (2).
   a. Unsolder wires (3) from seven terminals (4) on power supply (1). Discard insulation sleeving (5).
   b. Remove six nuts (6), lockwashers (7), screws (8), and two terminal lugs (9) securing power supply (1) to end plate (2). Discard lockwashers and move terminal lugs to the side.
   c. Lift power supply (1) off end plate (2) and turn in.



INSPECT

2. INSPECT THERMAL PAD (10).

   a. Visually inspect thermal pad (10) for any breaks or cracks.
   b. Replace thermal pad (10) if damaged.

INSTALL

3. INSTALL NEW POWER SUPPLY PS3 (1) ON END PLATE (2).

   a. Lightly coat the threads of six screws (8) with antiseize compound.
   b. Secure power supply (1) to end plate (2) with six screws (8), new lockwashers (7), two terminal lugs (9), and nuts (6).
   c. Cut seven 1/2-inch pieces of insulation sleeving (5) and place on wires (3).
   d. Solder wires (3) to seven terminals (4).

END OF TASK

REPLACE POWER SUPPLY PS1 0077 00

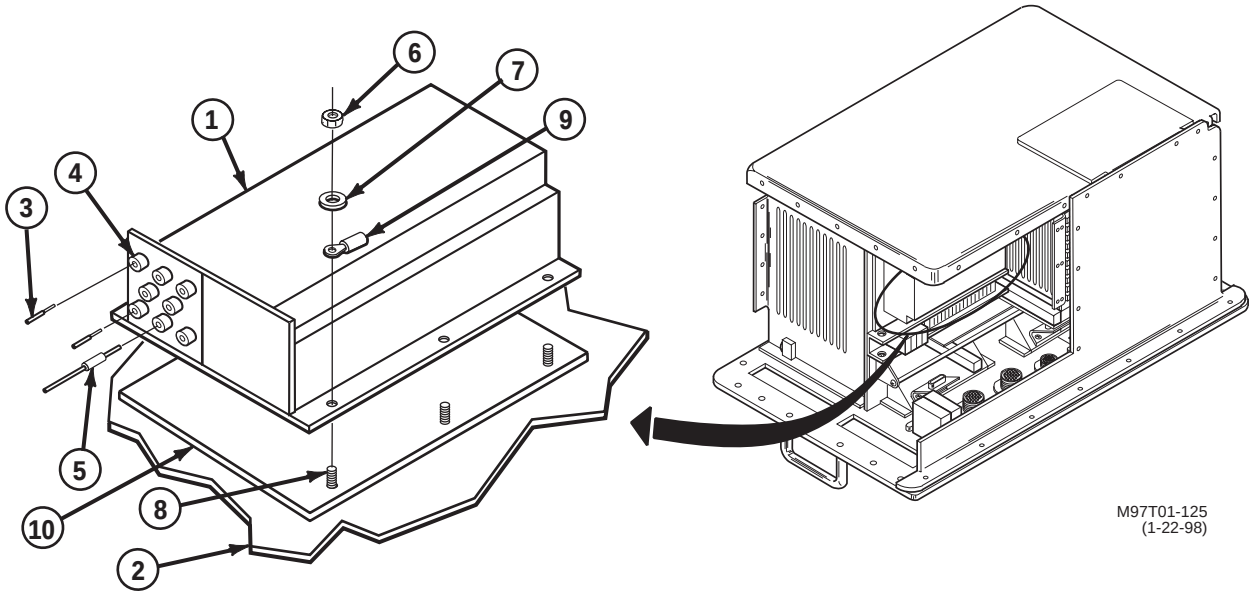
THIS WORK PACKAGE COVERS:
Removal, Inspection, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove filter plate;
refer to WP 0061 00.
Remove radial blower assembly end plate;
refer to WP 0083 00.

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Insulation Sleeving
Lockwasher (6)
Power Supply
Thermal Pad (as required)

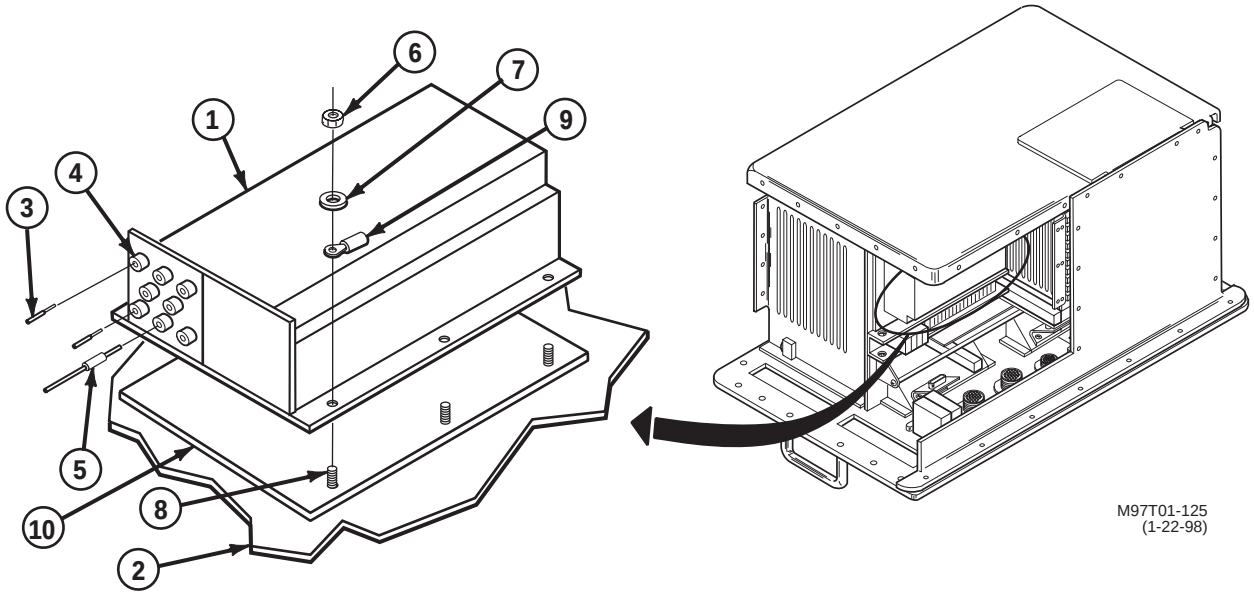


NOTE

Read WP 0042 00, General Maintenance, before doing any work.

REMOVE

1. REMOVE POWER SUPPLY PS1 (1) FROM DIVIDER PLATE (2).
   a. Unsolder wires (3) from eight terminals (4) on power supply (1). Discard insulation sleeving (5).
   b. Remove two nuts (6) and lockwashers (7) from front two studs (8) securing power supply (1) to divider plate (2). Discard lockwashers.
   c. Remove three terminal lugs (9) from studs (8) and move to the side
   d. Remove remaining four nuts (6) and lockwashers (7) from studs (8). Discard lockwashers.
   e. Lift out power supply PS1 (1) and turn in.



INSPECT

2. INSPECT THERMAL PAD (10).

   a. Visually inspect thermal pad (10) for any breaks or cracks.
   b. Replace thermal pad (10) if damaged.

INSTALL

3. INSTALL NEW POWER SUPPLY PS1 (1) ON DIVIDER PLATE (2).

   a. Place power supply (1) in position on divider plate (2).
   b. Lightly coat six studs (8) with antiseize compound.
   c. Put three terminal lugs (9) on front two studs (8) and install nuts (6) and new lockwashers (7) on front two studs.
   d. Install remaining four nuts (6) and new lockwashers (7) on studs (8).
   e. Cut eight 1/2-inch pieces of insulation sleeving (5) and place on wires (3).
   f. Solder wires (3) to eight terminals (4).

END OF TASK

REPLACE POWER SUPPLY PS2 0078 00

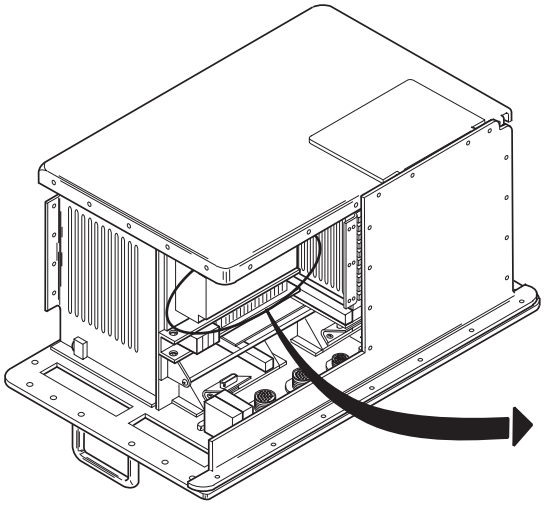
THIS WORK PACKAGE COVERS:
Removal, Inspection, Installation

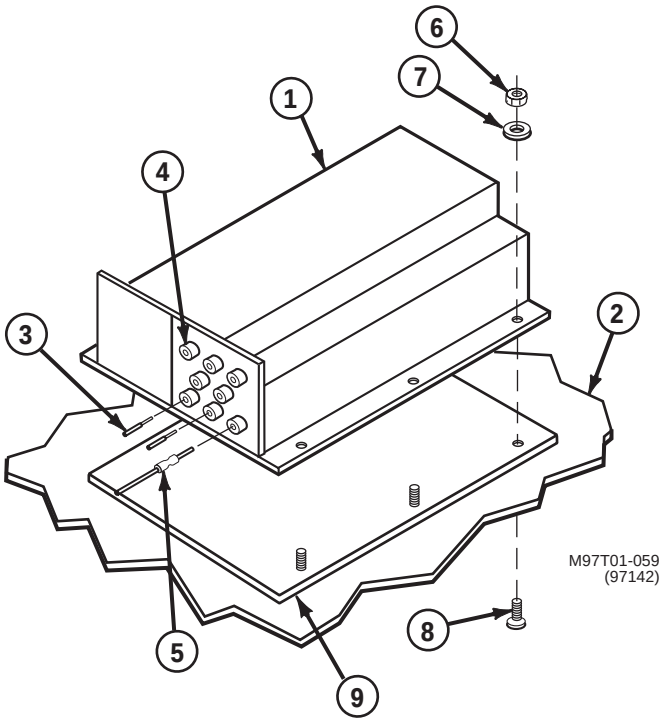
INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Insulation Sleeving
Lockwasher (6)
Power Supply
Thermal Pad (as required)

Equipment Conditions:
Remove filter plate; refer to WP 0061 00.
Remove radial blower assembly end plate; refer to WP 0083 00.



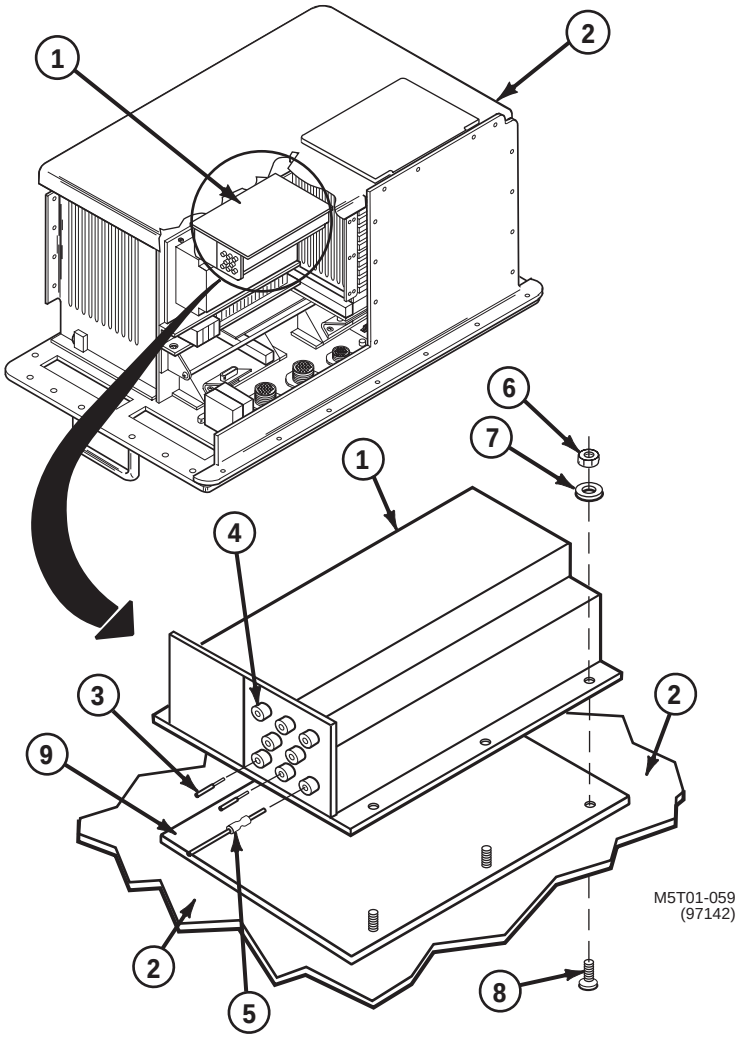


NOTE

Read WP 0042 00, General Maintenance, before doing any work.

REMOVE

1. REMOVE POWER SUPPLY PS2 (1) FROM BACK PANEL (2).
   a. Unsolder wires (3) from eight terminals (4) on power supply (1). Discard insulation sleeving (5).
   b. Remove six nuts (6), lockwashers (7), and screws (8) securing power supply PS2 (1) to bottom panel (2). Discard lockwashers.
   c. Lift out power supply and turn in.



INSPECT

2. INSPECT THERMAL PAD (9).
   a. Visually inspect thermal pad (9) for any breaks or cracks.
   b. Replace thermal pad (9) if damaged.

INSTALL

3. INSTALL NEW POWER SUPPLY PS2 (1) ON BACK PANEL (2).
   a. Lightly coat six screws (8) with antiseize compound.
   b. Secure power supply PS2 (1) on bottom panel (2) by installing six screws (8), new lockwashers (7), and nuts (6).
   c. Cut eight 1/2-inch pieces of insulation sleeving (5) and place on wires (3).
   d. Solder eight wires (3) to eight terminals (4) on power supply PS2 (1).

END OF TASK

REPLACE CIRCUIT CARD ASSEMBLIES A1 THRU A6 0079 00

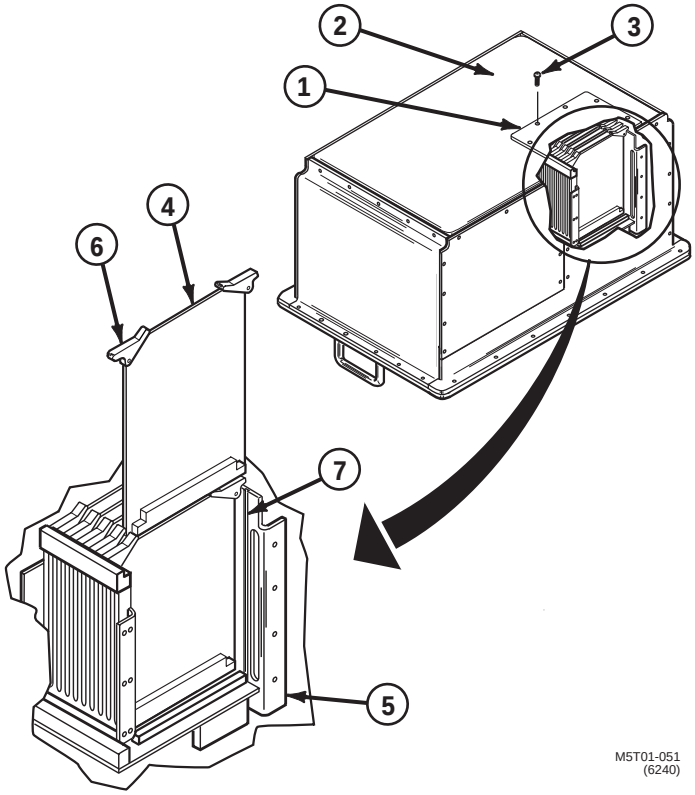
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Artillery and Turret Mechanic's Tool Kit
SC 5180-95-CL-A12

Materials/Parts:
Circuit Card Assembly
Sealing Compound (Item 11, WP 0162 00)

Equipment Conditions:
Remove GPIA from case assembly; refer to WP 0060 00.

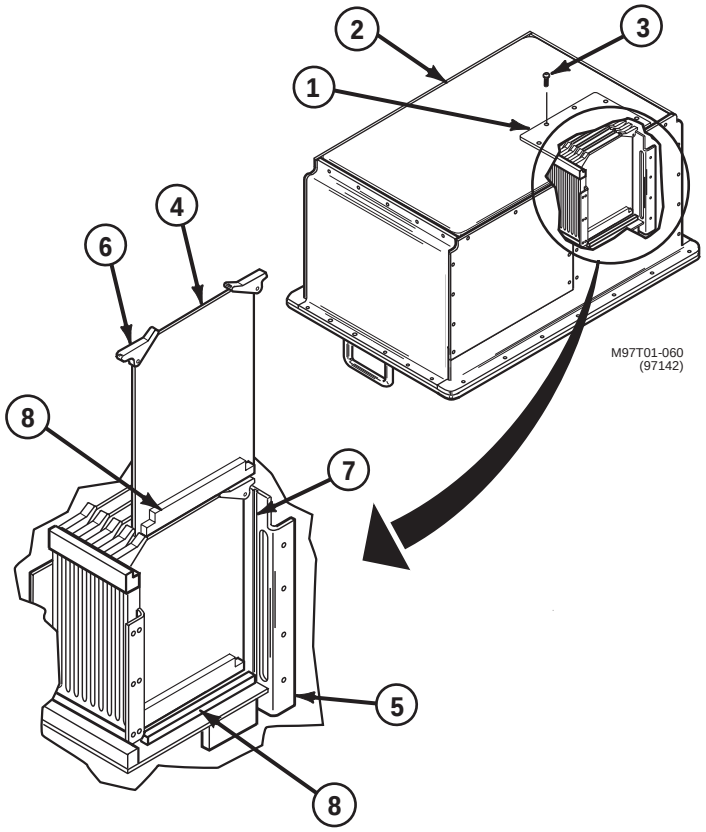


CAUTION

When replacing circuit card A4, make sure the DSPS level of replacement circuit card matches the DSPS level of GPIA. DSPS level stickers are on circuit card frame and inside the GPIA module A cavity. Mismatched DSPS levels can cause test set failure or incorrect LRU diagnosis.

NOTE

This task may be used to remove any card cage circuit card. Circuit card A1 is shown.



REMOVE

1. REMOVE CARD CAGE COVER (1) FROM BOTTOM PANEL (2).
   a. Remove eight screws (3) from card cage cover (1).
   b. Remove card cage cover (1) from bottom panel (2).

2. REMOVE CIRCUIT CARD ASSEMBLY (4) FROM CARD CAGE (5).
   a. Pull up circuit card tabs (6) and remove circuit card assembly (4) from card cage (5).
   b. Inspect card guide (7). Replace if damaged.

INSTALL

3. INSTALL NEW CIRCUIT CARD ASSEMBLY (4) IN CARD CAGE (5).
   a. Place circuit card assembly (4) in card guides (7) and align connectors (8) for proper mating.
   b. Press down on circuit card tabs (6) until circuit card (4) seats into position.

4. INSTALL CARD CAGE COVER (1) ON BOTTOM PANEL (2).
   a. Place card cage cover (1) on bottom panel (2).
   b. Lightly coat the threads of eight screws (3) with sealing compound.
   c. Install eight screws (3) in card cage cover (1).

END OF TASK

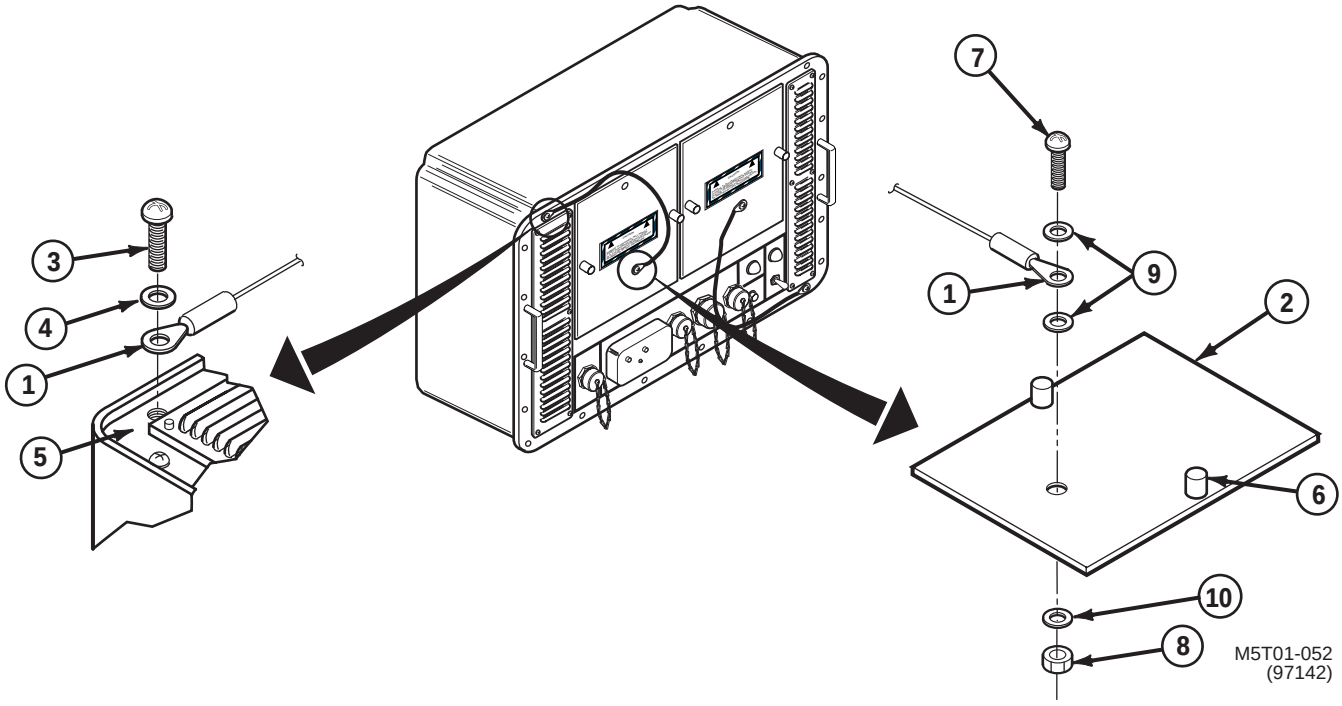
REPLACE MODULE CAVITY COVER ASSEMBLY LANYARD 0080 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Lanyard

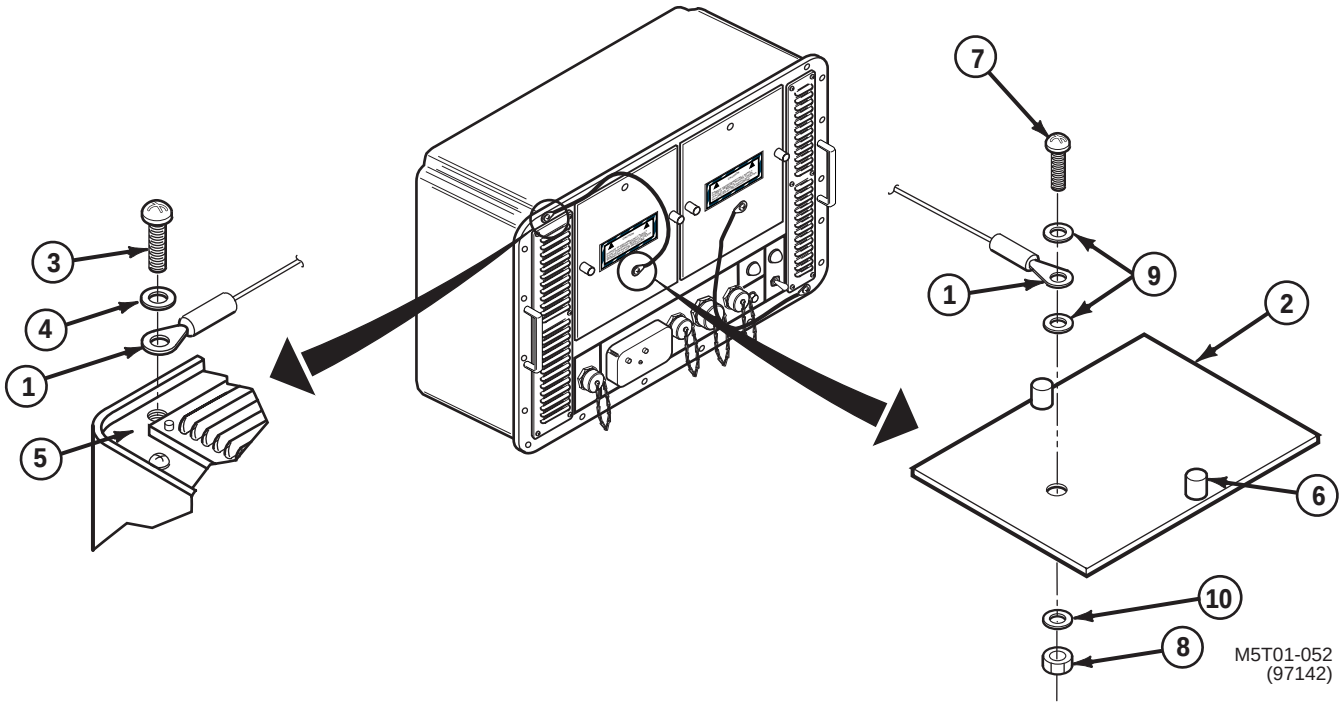


NOTE

Use this task to replace either lanyard on module A or module B cover. Module A cover is shown.

REMOVE

1. REMOVE LANYARD (1) FROM MODULE CAVITY COVER (2).
   a. Remove screw (3) and washer (4) securing lanyard (1) to operator panel (5). Set screw and washer aside.
   b. Unscrew captive screws (6) on module cavity cover (2). Place cover on workbench.
   c. Remove screw (7), nut (8), two nylon washers (9), and flat washer (10) securing lanyard (1) to cover. Discard lanyard.



INSTALL

2. INSTALL NEW LANYARD (1) ON MODULE CAVITY COVER (2).
   a. Lightly coat the threads of screw (7) with antiseize compound.
   b. Secure lanyard (1) to cover (2) with screw (7), two nylon washers (9), flat washer (10), and nut (8).
   c. Secure module cavity cover (2) to GPIA operator panel (5) by screwing in captive screws (6).
   d. Secure lanyard (1) to operator panel with screw (3) and washer (4).

END OF TASK

REPLACE DIODES CR1 AND CR2 0081 00

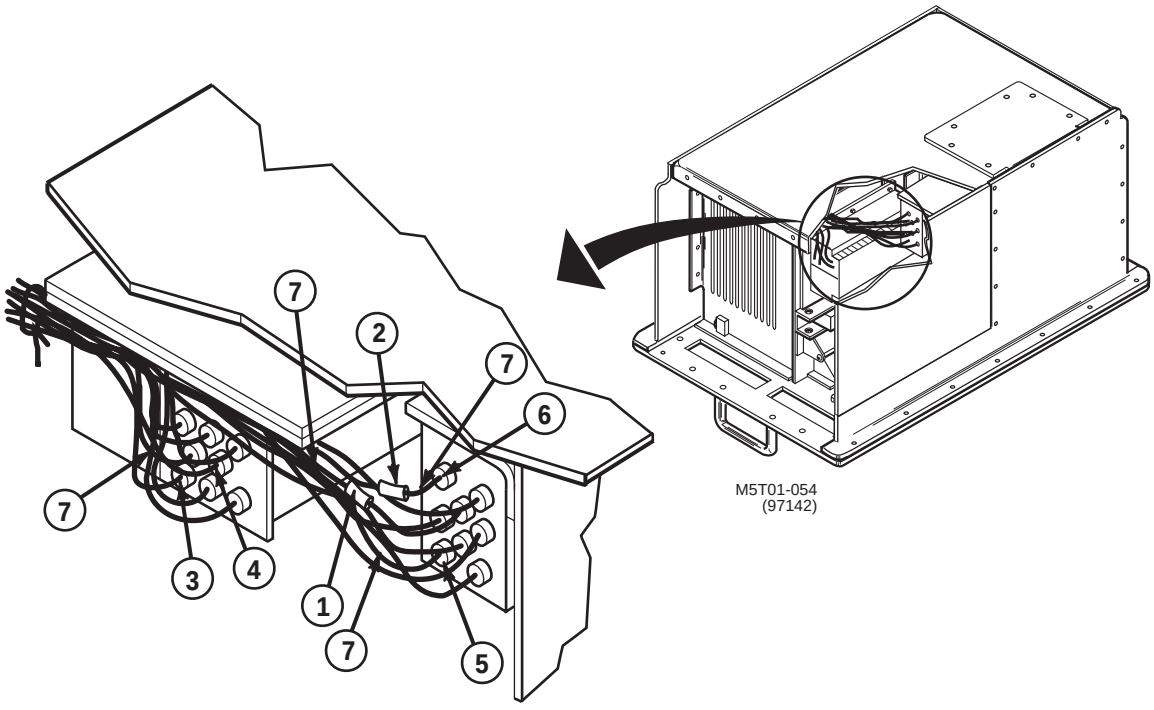
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove filter plate; refer to WP 0061 00.
Remove radial blower assembly end plate; refer to WP 0083 00.

Materials/Parts:
Diodes (2)
Electrical Wire
Insulation Sleeving
Lacing Tape (Item 15, WP 0162 00)

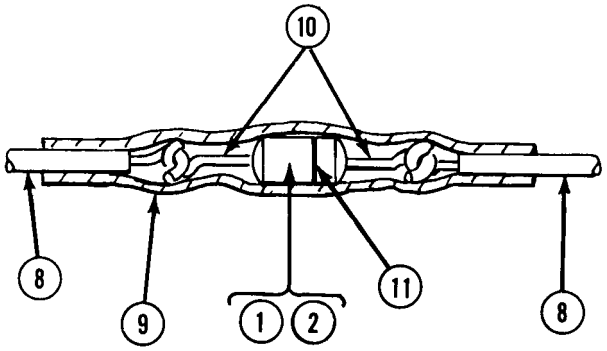


NOTE

Read WP 0042 00, General Maintenance, before doing any work.

REMOVE

1. REMOVE DIODES CR1 (1) AND CR2 (2).
   a. Unsolder wires from power supply PS1 terminals 3 (3) and 4 (4). Discard insulation sleeving.
   b. Unsolder wires from power supply PS2 terminals 1 (5) and 3 (6). Discard insulation sleeving.
   c. Cut lacing tape/straps securing diode lead wires (7) to wire bundle. Discard lacing tape/straps, lead wires, and diodes.



M8T01-127
(1/20/98)

INSTALL

CAUTION

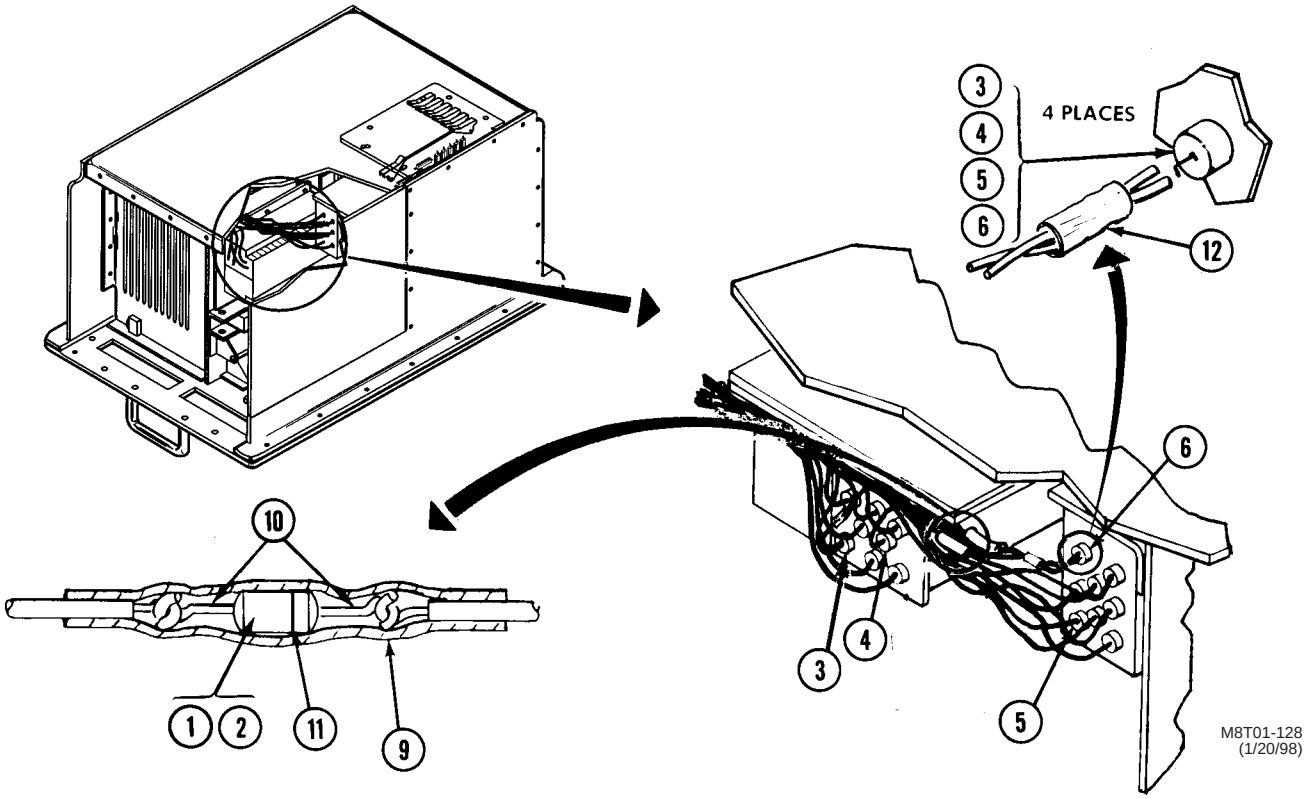
To prevent damage to equipment, diodes must be installed in the correct direction. Make sure the black band on each diode is facing toward the correct power supply terminal.

2. PREPARE NEW DIODES (1, 2) FOR INSTALLATION.
   a. Cut four 4-inch pieces of electrical wire (8) and strip ends of each wire 1/2-inch.
   b. Cut two 2 1/2-inch long pieces of insulation sleeving (9).
   c. Cut diode terminals (10) to 3/4-inch length.
   d. Bend 1/4-inch of one end of each wire (8) and 1/4-inch of diode terminals (10) into hook shape.
   e. Solder wires (8) to diode terminals (10).

NOTE

Do not shrink insulation sleeving (9) on diodes until diodes are installed. Black bands (11) on diodes must be visible to position diodes correctly.

   f. Slide one 2 1/2-inch piece of insulation sleeving (9) over each diode (1, 2). Do not shrink insulation sleeving.



3. INSTALL DIODE CR1 (1).

   a. Cut two 1/2-inch pieces of insulation sleeving (12).
   b. Position diode CR1 (1) so that black band (11) is toward power supply PS1 terminal 3 (3).
   c. Slide one piece of insulation sleeving (12) over diode lead wire and the wire removed from PS1 terminal 3 (3). Slide the other sleeving (12) over diode lead wire and the wire removed from PS2 terminal 1 (5).
   d. Solder wires to PS1 terminal 3 (3). Solder wires to PS2 terminal 1 (5).
   e. Shrink insulation sleeving (12) on PS1 terminal 3 (3) and PS2 terminal 1 (5).
   f. Shrink 2 1/2-inch piece of insulation sleeving (9) on diode CR1 (1). Make sure diode terminals (10) are covered.

4. INSTALL DIODE CR2 (2).

   a. Cut two 1/2-inch pieces of insulation sleeving (12).
   b. Position diode CR2 (2) so that black band (11) is toward power supply PS2 terminal 3 (6).
   c. Slide one piece of insulation sleeving (12) over diode lead wire and the wire removed from PS1 terminal 4 (4). Slide the other sleeving (12) over diode lead wire and the wire removed from PS1 terminal 4 (4). Slide the other sleeving (12) over diode lead wire and the wire removed from PS2 terminal 3 (6).
   d. Solder wires to PS1 terminal 4 (4). Solder wires to PS2 terminal 3 (6).
   e. Shrink insulation sleeving (12) on PS1 terminal 4 (4) and PS2 terminal 3 (6).
   f. Shrink 2 1/2-inch piece of insulation sleeving (9) over diode CR2 (2). Make sure diode terminals (10) are covered.

5. Tie diode lead wires to wire bundle with lacing tape. Install lacing tape at least one inch from diodes (1, 2).

END OF TASK

REPLACE LOAD CONTROLLER ASSEMBLY 0082 00

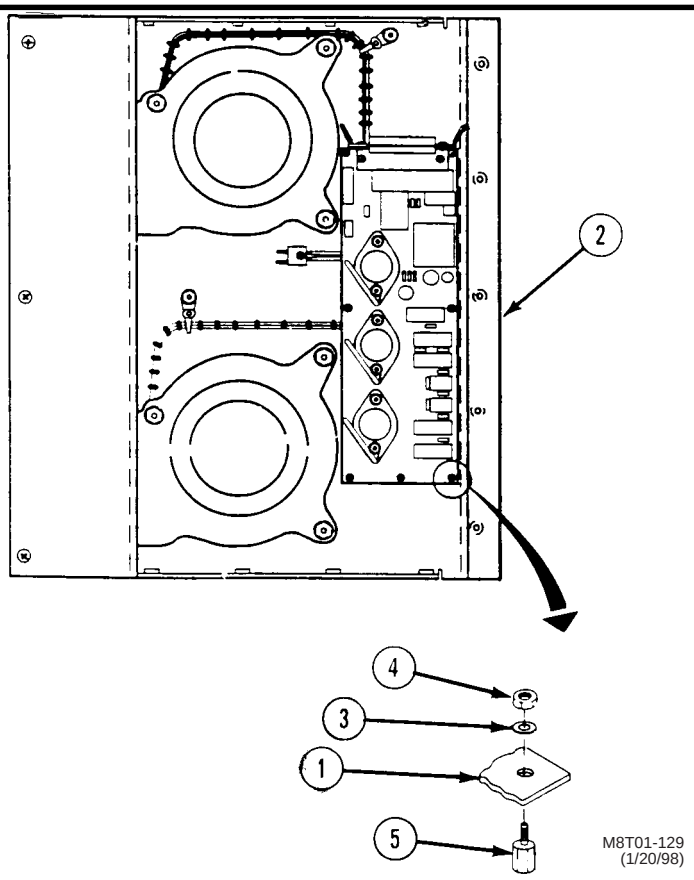
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove radial blower assembly end plate; refer to WP 0083 00.

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Viscous Coating (Item 16, WP 0162 00)



M8T01-129
(1/20/98)

REMOVE

1. REMOVE LOAD CONTROLLER ASSEMBLY (1) FROM RADIAL BLOWER ASSEMBLY END PLATE (2).
   a. Using hex wrench, remove seven lockwashers (3) and nuts (4) securing load controller assembly (1) to standoffs (5). Turn in load controller assembly and discard lockwashers.

INSTALL

2. INSTALL LOAD CONTROLLER ASSEMBLY (1) ON RADIAL BLOWER ASSEMBLY END PLATE (2).
   a. Lightly coat the threads of seven standoffs (5) with viscous coating and antiseize compound.
   b. Using hex wrench, secure load controller assembly (1) to standoffs (5) with seven nuts (4) and new lockwashers (3).

END OF TASK

REMOVE/INSTALL RADIAL BLOWER ASSEMBLY END PLATE 0083 00

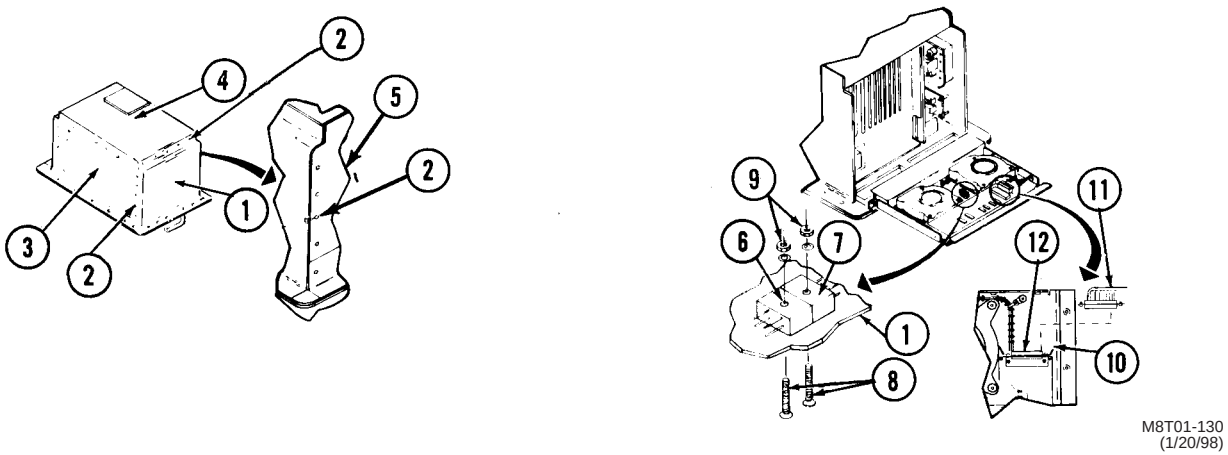
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove GPIA from case assembly; refer to WP 0060 00.

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Viscous Coating (Item 16, WP 0162 00)



M8T01-130
(1/20/98)

NOTE

Use this task to remove end plate from GPIA P/N 12934368. To remove end plate from GPIA P/N 9358192, refer to WP 0086 00.

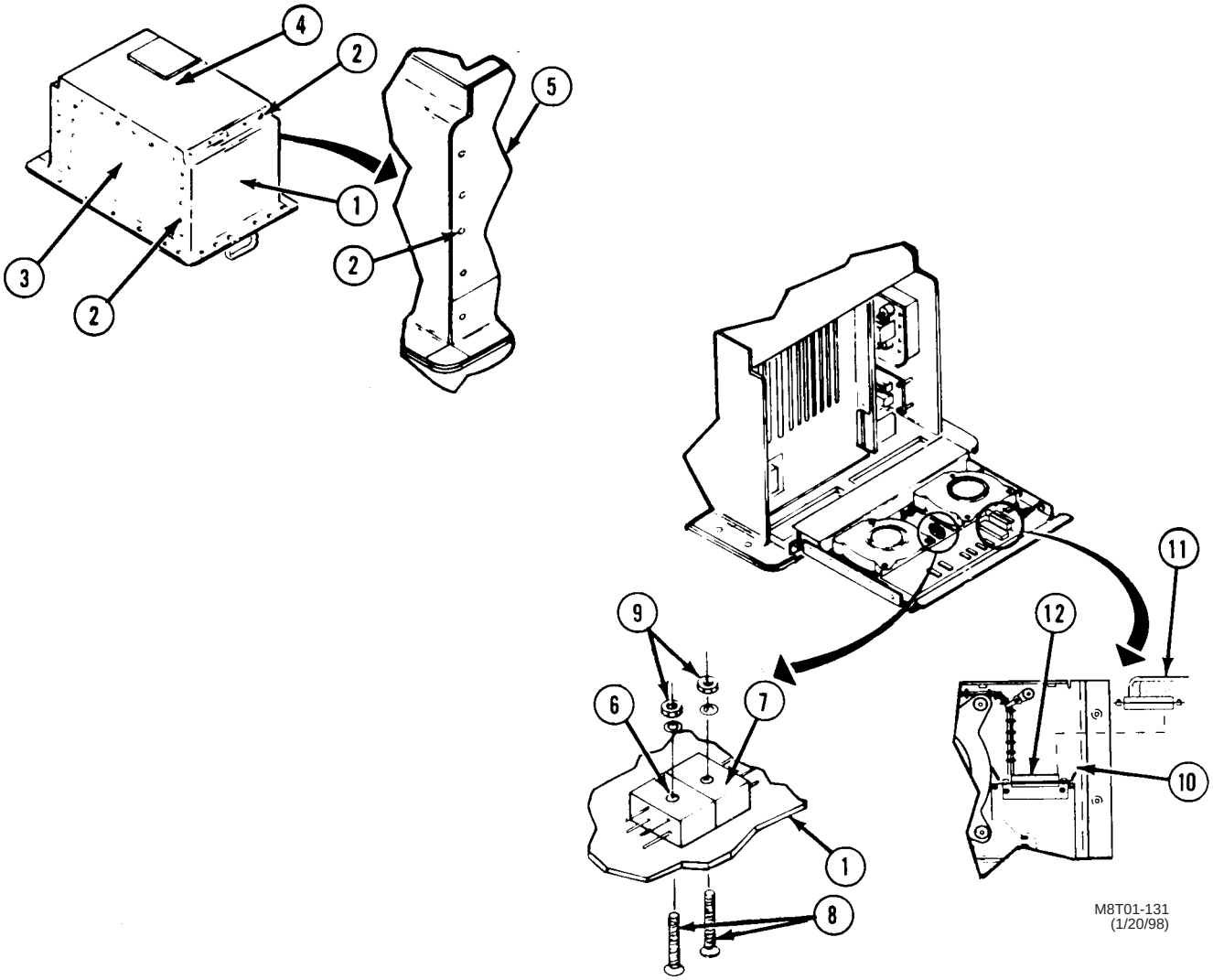
REMOVE

1. REMOVE RADIAL BLOWER ASSEMBLY END PLATE (1).
   a. Remove 15 screws (2) securing blower assembly end plate (1) to rear panel (3), bottom panel (4), and front panel (5).
   b. Lower end plate (1) to gain access to connectors P19 (6) and J19 (7).

NOTE

Lockwashers may or may not be present on screws securing connectors P19 and J19 to end plate. If present, discard lockwashers after removal. Do not reinstall lockwashers.

   c. Remove two screws (8) and nuts (9) securing connectors P19 (6) and J19 (7) to end plate (1) and disconnect connector P19 from J19. Discard lockwashers, if present.
   d. Release latches (10) securing connector P17 (11) to connector P1 (12) and disconnect P17 from P1.
   e. Remove blower assembly end plate (1) and set aside.



INSTALL

2. INSTALL RADIAL BLOWER ASSEMBLY END PLATE (1).

   a. Position blower assembly end plate (1) on operator panel. Lean top of plate out to gain access to P19 (6) and J19 (7).
   b. Plug P19 (6) into J19 (7).
   c. Lightly coat two screws (8) with viscous coating and antiseize compound.
   d. Install two screws (8) and nuts (9) to secure P19 (6) and J19 (7) to end plate (1).
   e. Connect connector P17 (11) to connector P1 (12) and engage two latches (10).
   f. Lightly coat threads of 15 screws (2) with viscous coating and antiseize compound.
   g. Install 15 screws (2) to secure end plate (1) to rear panel (3), bottom panel (4), and front panel (5).

END OF TASK

REPLACE GPIA RADIAL BLOWER B1 OR B2 0084 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove radial blower assembly end plate; refer to WP 0083 00.

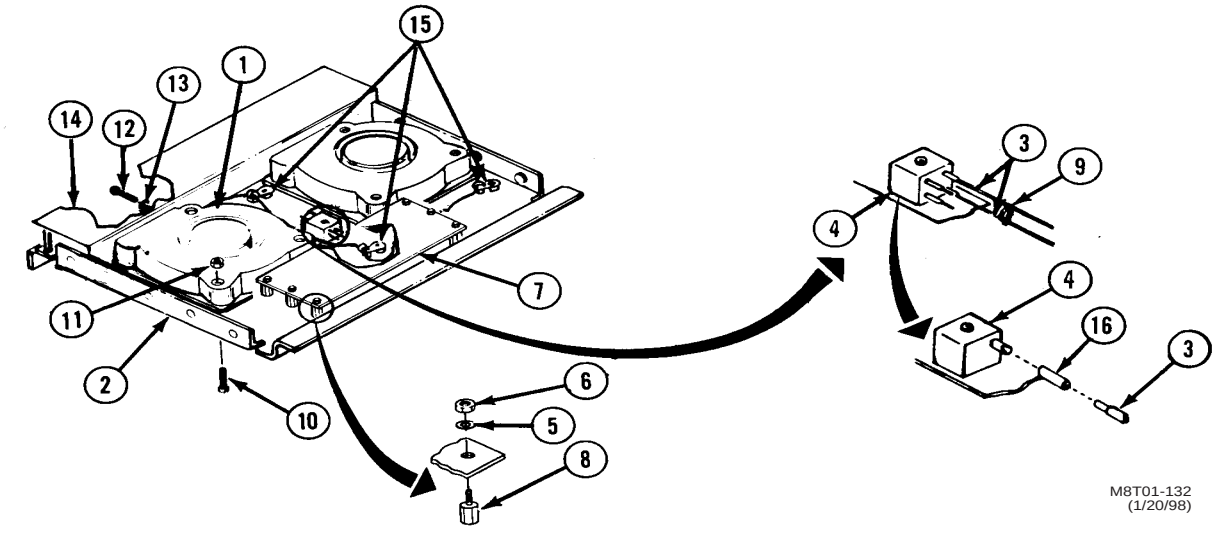
Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Insulation Sleeving
Lacing Tape (Item 15, WP 0162 00)
Viscous Coating (Item 16, WP 0162 00)

NOTE

Read WP 0042 00, General Maintenance, before doing any work.

NOTE

This task is used to replace either radial blower B1 or B2. Blower B2 is shown. This task applies to GPIA P/N 12934368 only. Refer to WP 0087 00 to replace a blower in GPIA P/N 9358192.



REMOVE

1. REMOVE RADIAL BLOWER (1) FROM END PLATE (2).

NOTE

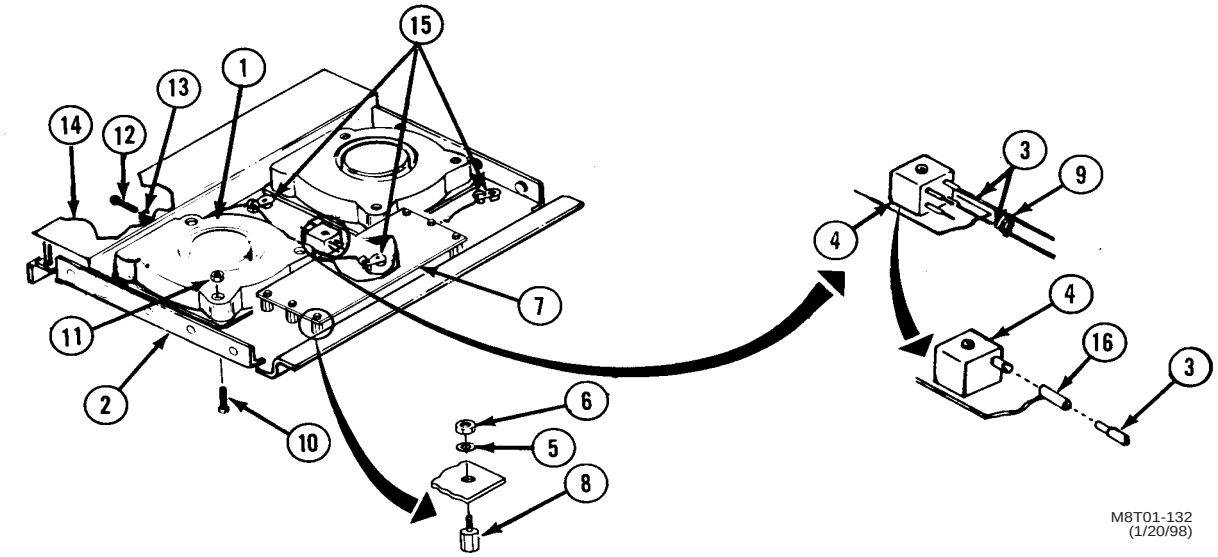
There is one clamp securing blower B1 wires to end plate. There are two clamps securing blower B2 wires to end plate.

a. Using soldering iron, unsolder two wires (3) from connector J19 (4) terminals C and D. Discard insulation sleeving.

NOTE

If replacing radial blower B1, step b is omitted.

b. Using hex wrench, remove seven lockwashers (5) and nuts (6) securing load controller assembly (7) to standoffs (8). Remove load controller assembly and discard lockwashers.
c. Using pocket knife, cut lacing tape (9) on wires (3) and remove lacing tape.
d. Using cross-tip screwdriver and wrench, remove three screws (10) and nuts (11) securing radial blower (1) to end plate (2).
e. Using cross-tip screwdriver, remove two screws (12) and lockwashers (13) securing radial blower (1) to fan duct (14). Discard lockwashers.
f. Slide wires (3) through clamps (15) and remove radial blower (1). Set radial blower aside.



INSTALL

2. INSTALL NEW RADIAL BLOWER (1) ON END PLATE (2).

a. Lightly coat threads of three screws (10) and seven standoffs (8) with viscous coating and antiseize compound.
b. Place blower (1) on end plate (2) and install three screws (10) and nuts (11) to secure blower to end plate. Do not tighten screws at this time.
c. Install two screws (12) and new lockwashers (13) to secure radial blower (1) to fan duct (14).
d. Using cross-tip screwdriver and wrench, tighten the three screws (10) and nuts (11) and two screws (12).
e. Using diagonal cutting pliers, cut wires (3) on new radial blower (1) to the same length as wires on bad radial blower. Discard bad radial blower.
f. Thread wires (3) through clamps (15).
g. Install lacing tape (9) on wires (3).

NOTE

If replacing blower B1, step h is omitted.

h. Using hex wrench, secure load controller assembly (7) to standoffs (8) with seven nuts (6) and new lockwashers (5).
i. Using pocket knife, cut two 1/2-inch pieces of insulation sleeving (16) and put on two wires (3).
j. Using soldering iron, solder two wires (3) to terminals C and D of connector J19 (4).

END OF TASK

REPLACE FILTER PLATE ASSEMBLY CCA A7 IN GPIA P/N 9358192 0085 00

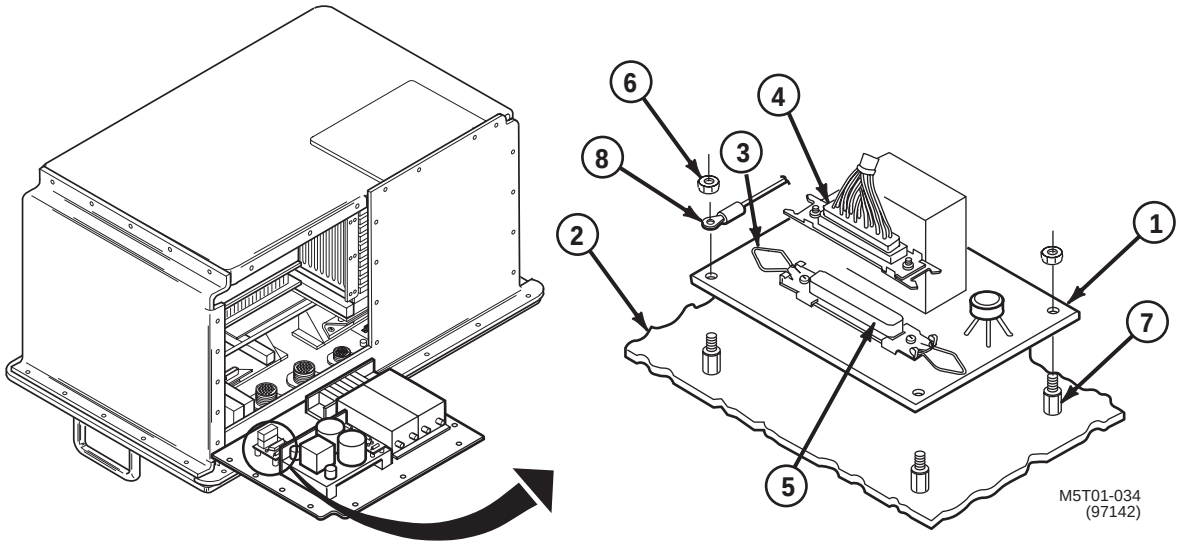
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
CCA A7
Viscous Coating (Item 16, WP 0162 00)

Equipment Conditions:
Remove filter plate; refer to WP 0061 00.



REMOVE

1. REMOVE CCA A7 (1) FROM FILTER PLATE (2).

   a. Release two latches (3) securing connector plug P17 (4) to J1 (5) and pull P17 (4) from J1 (5).
   b. Remove four nuts (6) securing CCA A7 (1) to standoffs (7).
   c. Lift terminal lug (8) off standoff (7).
   d. Lift CCA A7 (1) off standoffs (7) and discard module.

INSTALL

2. INSTALL NEW CCA A7 (1) ON FILTER PLATE (2).

   a. Lightly coat threads of four standoffs (7) with viscous coating and antiseize compound.
   b. Place CCA A7 (1) on four standoffs (7).
   c. Place terminal lug (8) on standoff (7) and secure CCA A7 (1) to standoffs (7) with four nuts (6).
   d. Install connector plug P17 (4) in connector socket J1 (5). Secure with two latches (3).

END OF TASK

REMOVE/INSTALL RADIAL BLOWER ASSEMBLY END PLATE IN GPIA P/N 9358192

0086 00

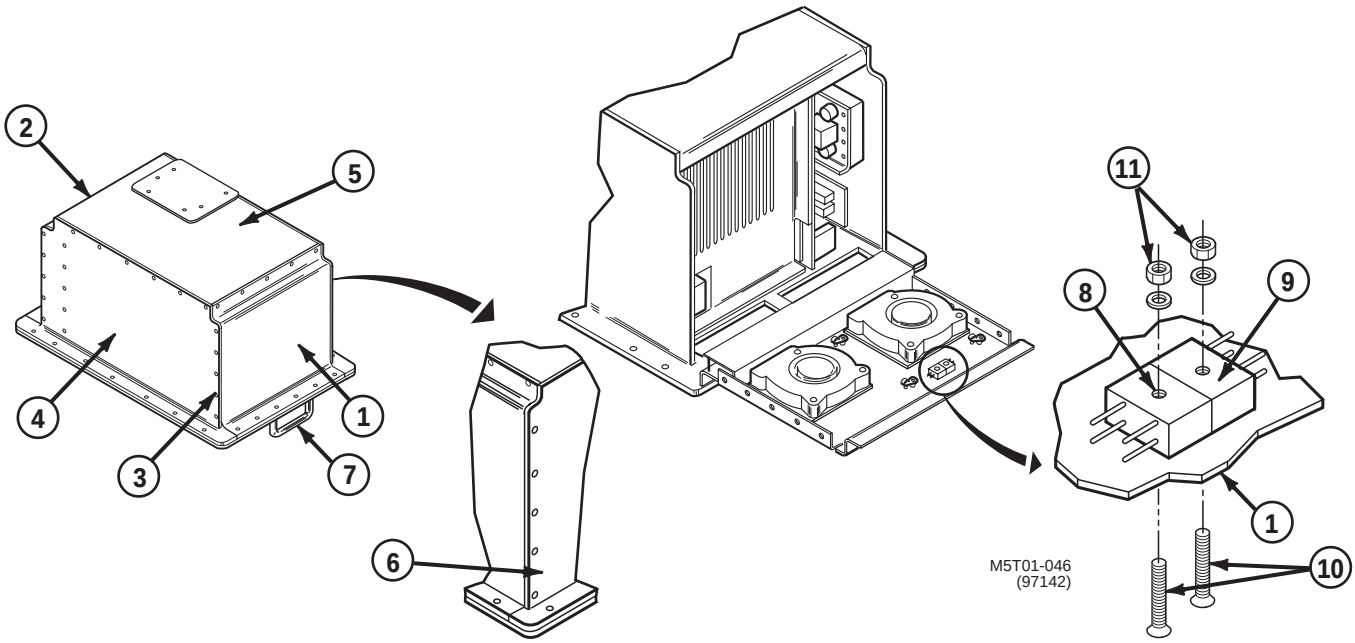
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Sealing Compound (Item 11, WP 0162 00)
Viscous Coating (Item 16, WP 0162 00)

Equipment Conditions:
Remove GPIA from case assembly; refer to WP 0060 00.



NOTE

This task applies to GPIA P/N 9358192. To remove/install radial blower assembly end plate in GPIA P/N 12934368, refer to WP 0083 00.

REMOVE

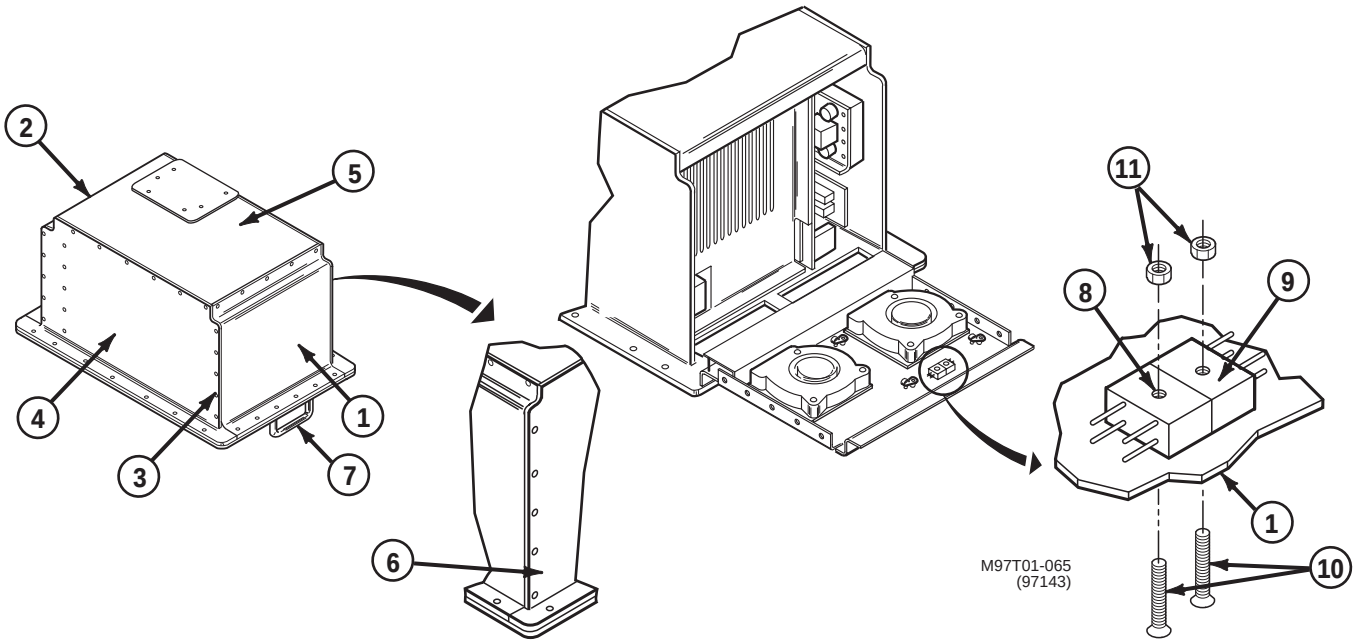
1. REMOVE RADIAL BLOWER END PLATE (1) FROM GPIA (2).

   a. Remove 17 screws (3) securing blower assembly end plate (1) to rear panel (4), bottom panel (5), front panel (6), and handle (7).
   b. Lower end plate (1) to gain access to connectors P19 (8) and J19 (9).

NOTE

Lockwashers may or may not be present on screws attaching connectors P19 and J19 to end plate. If present, discard lockwashers after removal. Do not re-install lockwashers.

REMOVE/INSTALL RADIAL BLOWER ASSEMBLY END PLATE IN GPIA P/N 9358192 – CONTINUED **0086 00**



c. Remove two screws (10) and nuts (11) holding connectors P19 (8) and J19 (9) to end plate (1) and disconnect connector P19 (8) from J19 (9). Discard lockwashers, if present.
d. Remove blower assembly end plate (1) and set aside.

INSTALL

2. INSTALL RADIAL BLOWER ASSEMBLY END PLATE (1) ON GPIA (2).

a. Position blower assembly end plate (1) on operator panel. Lean top of plate out to gain access to P19 (8) and J19 (9).
b. Plug P19 into J19.
c. Lightly coat two screws (10) with viscous coating and antiseize compound.
d. Install two screws (10) and nuts (11) to secure P19 (8) and J19 (9) to end plate (1).
e. Lightly coat threads of 17 screws (3) with sealing compound.
f. Install 17 screws (3) to secure end plate (1) to rear panel (4), bottom panel (5), front panel (6), and handle (7).

END OF TASK

REPLACE RADIAL BLOWER B1 OR B2 IN GPIA 9358192 0087 00

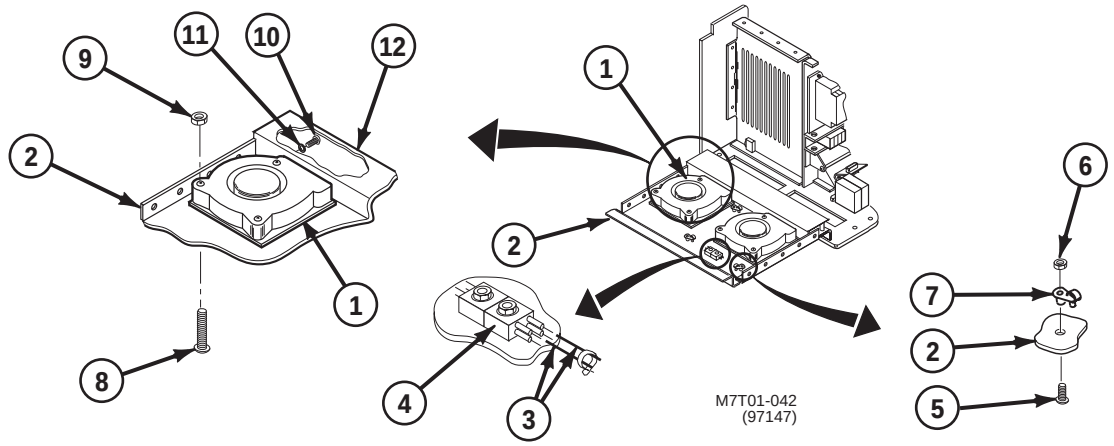
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove radial blower assembly end plate; refer to WP 0086 00.

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Insulation Sleeving
Lacing Tape (Item 15, WP 0162 00)
Lockwasher (2)
Radial Blower
Viscous Coating (Item 16, WP 0162 00)



NOTE

Read WP 0042 00, General Maintenance, before doing any work.

NOTE

This task applies to GPIA P/N 9358192. To replace radial blower B1 or B2 in GPIA P/N 12934368, refer to WP 0084 00. Use this task to replace either radial blower B1 or B2. Blower B1 is shown.

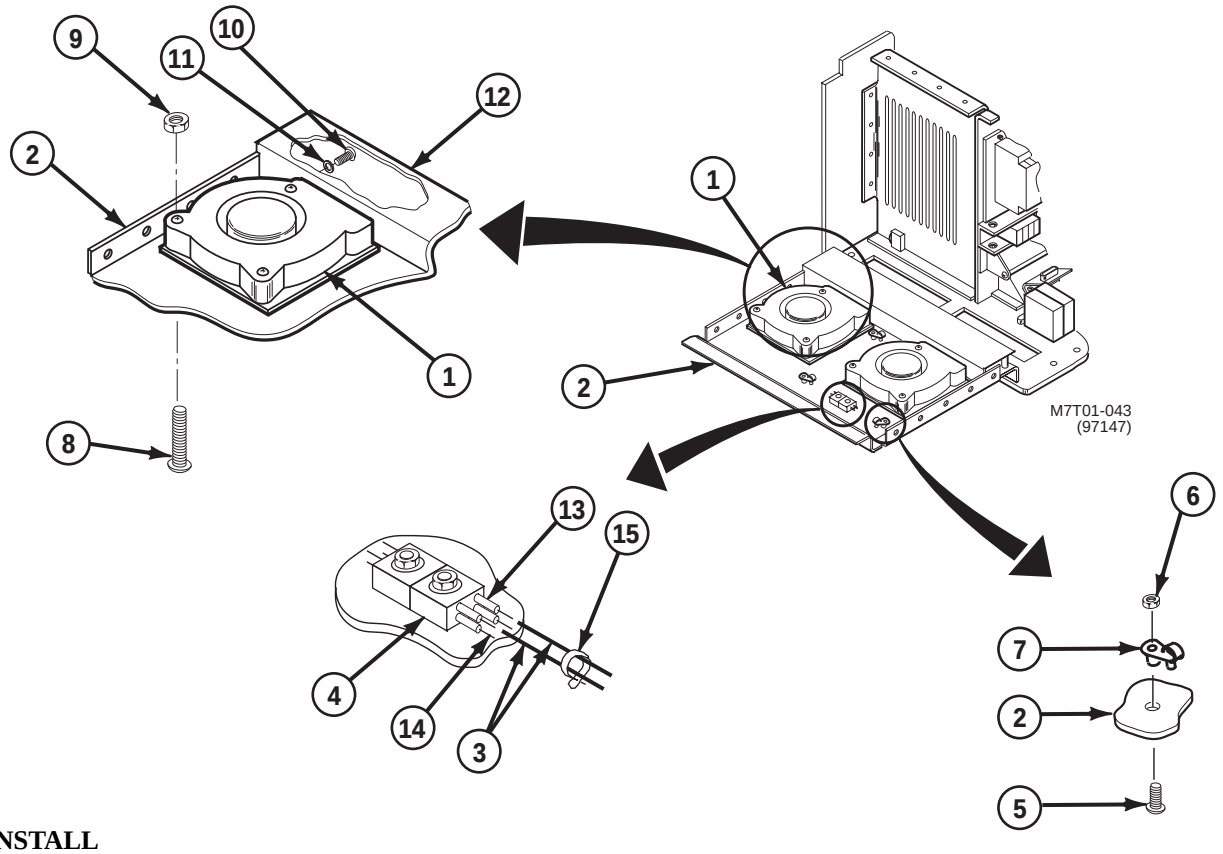
REMOVE

NOTE

There is one clamp securing blower B1 wires to end plate. There are two clamps securing blower B2 wires to end plate.

1. REMOVE RADIAL BLOWER (1) FROM END PLATE (2)

   a. Tag and unsolder two wires (3) from connector J19 (4) pins C and D.
   b. Remove screw (5) and nut (6) holding clamp (7) to end plate (2).
   c. Remove three screws (8) and nuts (9) holding blower (1) to end plate (2).
   d. Remove two screws (10) and lockwashers (11) holding blower (1) to fan duct (12). Discard lockwashers.
   e. Remove radial blower (1) and set aside



INSTALL

2. INSTALL NEW RADIAL BLOWER (1) ON END PLATE (2)

   a. Lightly coat threads of three screws (8) with viscous coating and anti-seize compound.
   b. Place blower (1) on end plate (2) and install three screws (8) and nuts (9) to secure blower to end plate. Do not tighten screws at this time.
   c. Install two screws (10) and new lockwashers (11) to secure blower (1) to fan duct (12).
   d. Tighten three screws (8) and nuts (9) and two screws (10).

3. INSTALL RADIAL BLOWER WIRES (3) ON CONNECTOR (4)

   a. Cut wires (3) on new radial blower (1) to the same length as bad radial blower. Discard bad radial blower.
   b. Cut two 1/2-inch pieces of insulation sleeving (13) and put on two wires (3).
   c. Solder two wires (3) to two connector terminals (14).
   d. Install lacing tape (15) on wires (3).

4. INSTALL RADIAL BLOWER WIRES (3) ON END PLATE (2)

   a. Install clamp (7) on two wires (3).
   b. Lightly coat threads of screw (5) with viscous coating and antiseize compound.
   c. Install screw (5) and nut (6) to secure clamp (7) to end plate (2).

END OF TASK

REPLACE GPIA CASE PADS 0088 00

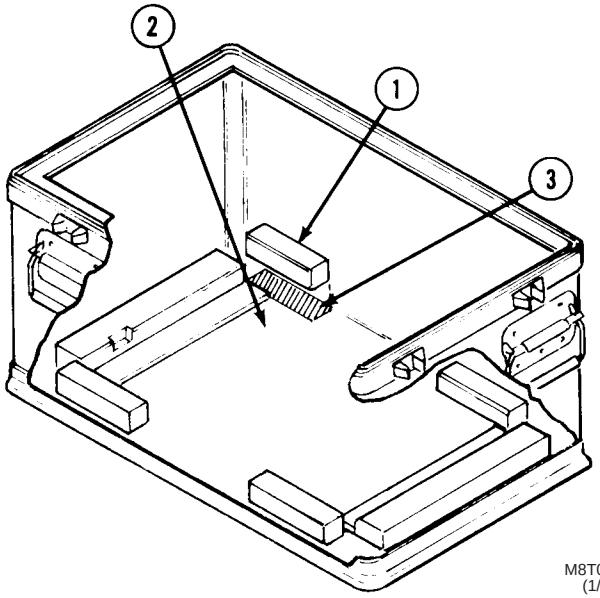
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Remove GPIA from case; refer to WP 0060 00.

Materials/Parts:
Acid Swabbing Brush (Item, 5, WP 0162 00)
Adhesive (Item 3, WP 0162 00)
Pads
Solvent (Item 13, WP 0162 00)
Wiping Rag (Item 10, WP 0162 00)



M8T01-133
(1/20/98)

NOTE

Use this task to remove and install any pad in the GPIA case assembly.

REMOVE

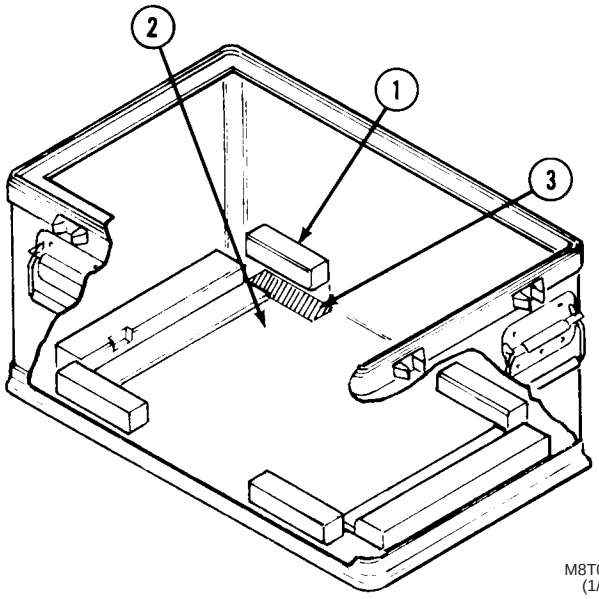
1. REMOVE PAD (1) FROM CASE (2).
   a. Pry up pad (1) with putty knife and pull pad from case (2). Discard pad.

WARNING

Adhesives and solvents burn easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in a well ventilated area.

   b. Clean mounting surface (3) with putty knife, solvent, and rag to take off old adhesive. Dry surface with clean rag.

INSTALL



2. INSTALL NEW PAD (1) ON CASE (2).
   a. Apply a thin coat of adhesive to mounting surface (3) with acid swabbing brush.
   b. Place pad (1) in position on case (2) and press in place.

END OF TASK

REPLACE GPIA CASE GASKET 0089 00

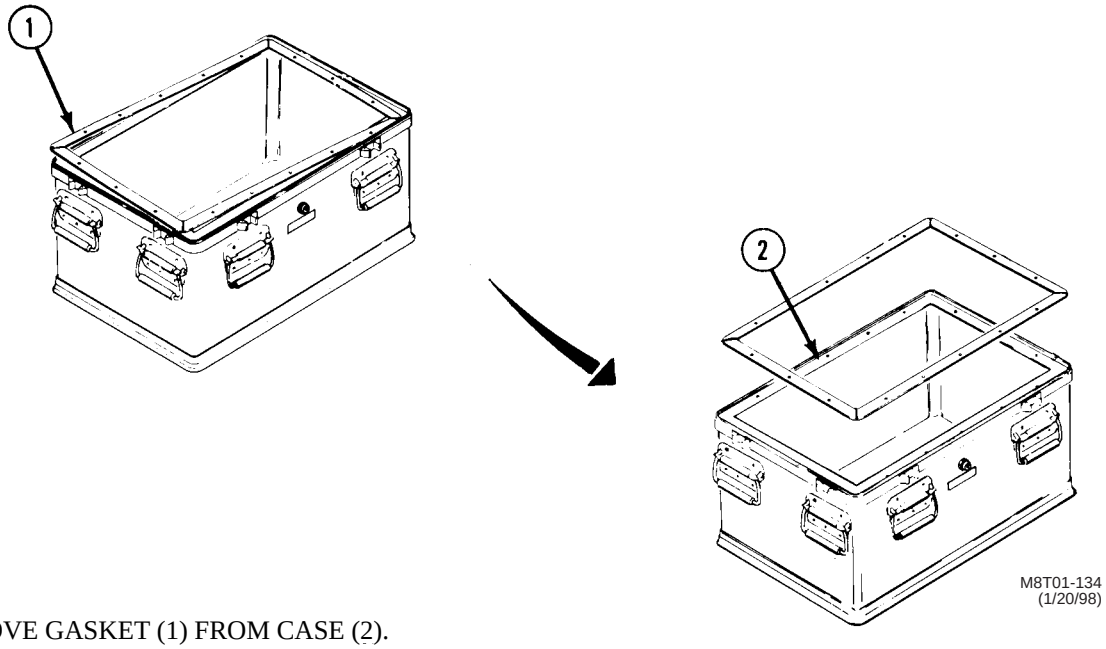
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Acid Swabbing Brush (Item, 5, WP 0162 00)
Adhesive (Item 3, WP 0162 00)
Gasket
Solvent (Item 13, WP 0162 00)
Wiping Rag (Item 10, WP 0162 00)

Equipment Conditions:
Remove GPIA from case; refer to WP 0060 00.



M8T01-134
(1/20/98)

REMOVE

1. REMOVE GASKET (1) FROM CASE (2).
   a. Scrape off gasket (1) and adhesive with knife. Discard gasket (1).

WARNING

Adhesives and solvents burn easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in a well ventilated area.

   b. Clean case surface (2) with solvent and rag. Dry case surface (2) with clean rag.

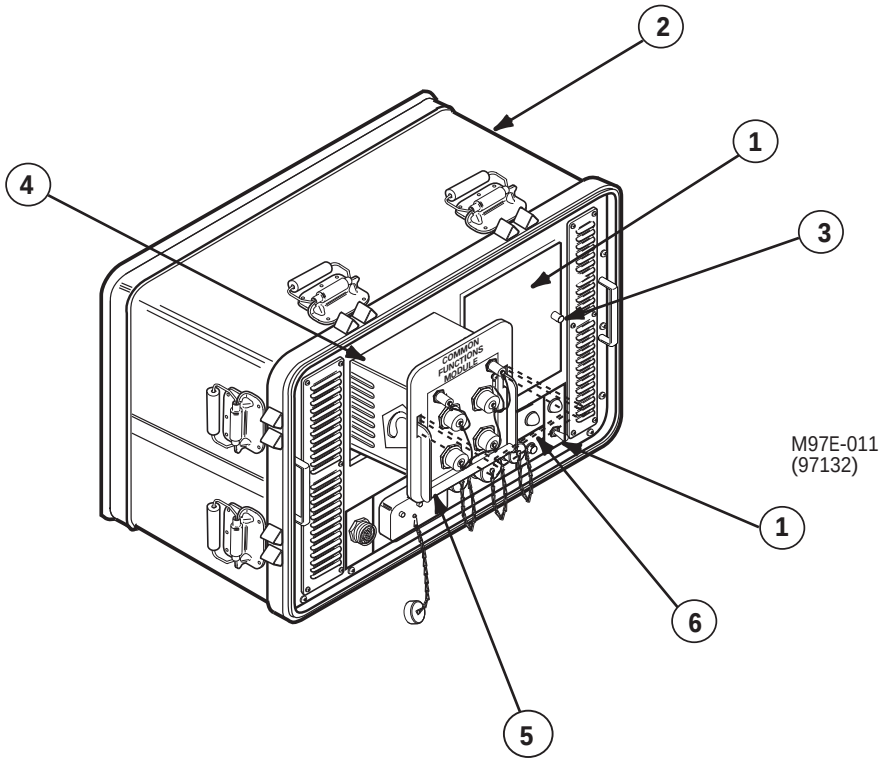
INSTALL

2. INSTALL NEW GASKET (1) ON CASE (2).
   a. Spread thin coat of adhesive on case surface (2) with acid swabbing brush.
   b. Align 24 screw holes in gasket (1) with holes on case surface (2) and press gasket in place.

END OF TASK

INSTALL/REMOVE CFM IN GPIA 0090 00

THIS WORK PACKAGE COVERS:
Installation, Removal



CAUTION

Equipment can be damaged if GPIA is operated without cover plate or module installed. Always operate GPIA with cover plate or module installed.

INSTALL

1. REMOVE COVER PLATE (1) FROM GPIA (2).
   a. Loosen two thumb screws (3) on cover plate (1).
   b. Store cover plate (1) on top of GPIA (2).
2. INSTALL CFM (4) IN GPIA (2).
   a. Lift handle (5) to open position shown (6).
   b. Slide module (4) into GPIA (2) into position designated.
   c. Lower handle (5) to secure module (4).

REMOVE

3. REMOVE MODULE (4) FROM GPIA (2).
   a. Lift handle (5) to open position (6).
   b. Pull module (4) from GPIA (2).
4. INSTALL COVER PLATE (1) ON GPIA (2).
   a. Place cover plate (1) in position on GPIA (2).
   b. Secure cover plate (1) to GPIA (2) with thumbscrews (3).

END OF TASK

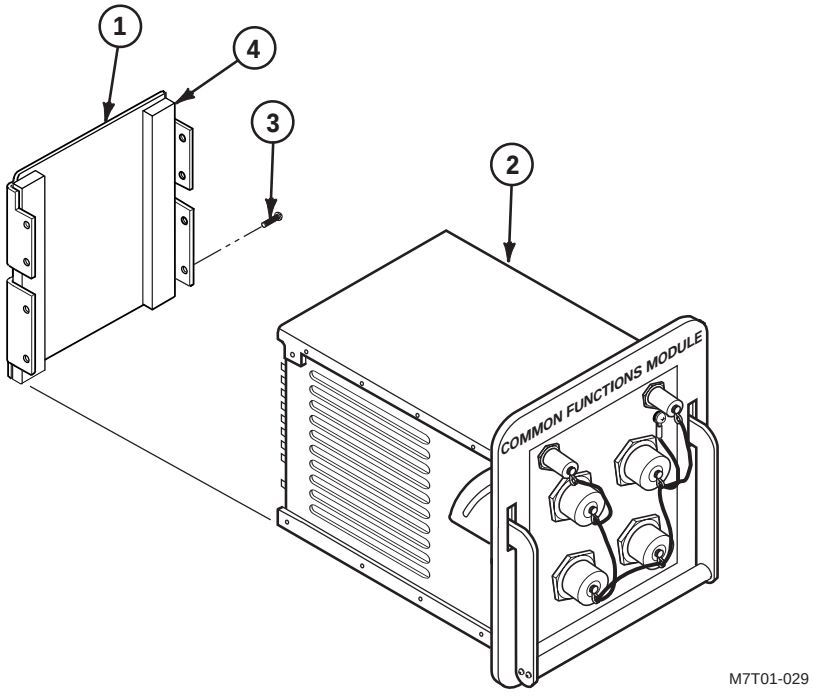
REMOVE/INSTALL CFM OR CSFM REAR COVER 0091 00

THIS WORK PACKAGE COVERS:
Removal, Inspection, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29

Materials/Parts:
Viscous Coating (Item 16, WP 0162 00)
Viscous Compound (Item 19, WP 0162 00)



NOTE

Use this task to remove and install the CFM or CSFM rear cover. The CFM is shown.

REMOVE

1. REMOVE REAR COVER (1) FROM CFM (2).
   a. Remove eight screws (3) from module (2).
   b. Pull rear cover (1) from module (2).

INSPECT

2. INSPECT REAR COVER PADS (4).
   a. Inspect rear cover pads (4). Replace if damaged. Refer to WP 0092 00.

INSTALL3. INSTALL REAR COVER (1) ON CFM (2).
   a. Lightly coat threads of eight screws (3) with viscous coating (Item 16, WP 0162 00 for CFM) or viscous compound (Item 19, WP 0162 00 for CSFM).
   b. Place rear cover (1) on module (2) and secure with eight screws (3).

END OF TASK

REPLACE CFM OR CSFM REAR COVER PAD(S) 0092 00

THIS WORK PACKAGE COVERS:
Removal, Installation

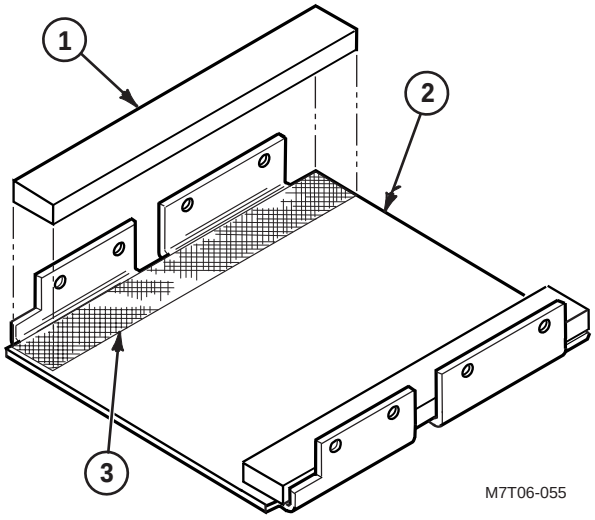
INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance

SC 5180-95-CL-B29

Equipment Conditions:
Remove CFM or CSFM rear cover; refer to WP 0091 00.

Materials/Parts:
Pad(s)
Solvent (Item 13, WP 0162 00)
Wiping Rag (Item 10, WP 0162 00)



REMOVE

1. REMOVE PAD (1) FROM REAR COVER (2).
   a. Scrape off old pad (1) and adhesive from rear cover (2) with pocket knife. Discard old pad.

WARNING

Adhesives and solvents burn easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in a well ventilated area.

   b. Clean surface of cover (3) with solvent and rag. Dry cover surface wth clean rag.

INSTALL

2. INSTALL NEW PAD (1) ON REAR COVER (2).
   a. Remove paper backing from pad (1) to expose adhesive.
   b. Place pad (1) in position on cover (2) with adhesive side down and press in place.

END OF TASK

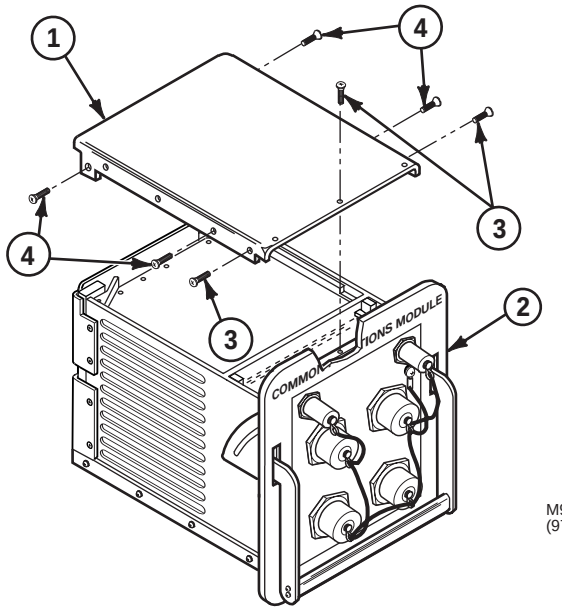
REMOVE/INSTALL CFM OR CSFM TOP COVER 0093 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29

Materials/Parts:
Viscous Coating (Item 16, WP 0162 00)
Viscous Compound (Item 19, WP 0162 00)



NOTE

Use this task to remove and install the CFM or CSFM top cover. The CFM is shown.

REMOVE

1. REMOVE TOP COVER (1) FROM CFM (2).

NOTE

The screws removed in step 1a are longer than the rest of the top cover screws. Install the longer screws only in the holes from which they were removed.

a. Remove five screws (3) from top cover (1).
b. Remove four screws (4) from top cover (1).
c. Lift off top cover (1) and put aside.

INSTALL

2. INSTALL TOP COVER (1) ON CFM (2).

a. Place top cover (1) on CFM (2).
b. Lightly coat threads of five screws (3) with viscous coating (Item 16, WP 0162 00 for CFM) or viscous compound (Item 19, WP 0162 00 for CSFM) and then install screws (3).
c. Lightly coat threads of four screws (4) with viscous coating (Item 16, WP 0162 00 for CFM) or viscous compound (Item 19, WP 0162 00 for CSFM) and then install screws (4).

END OF TASK

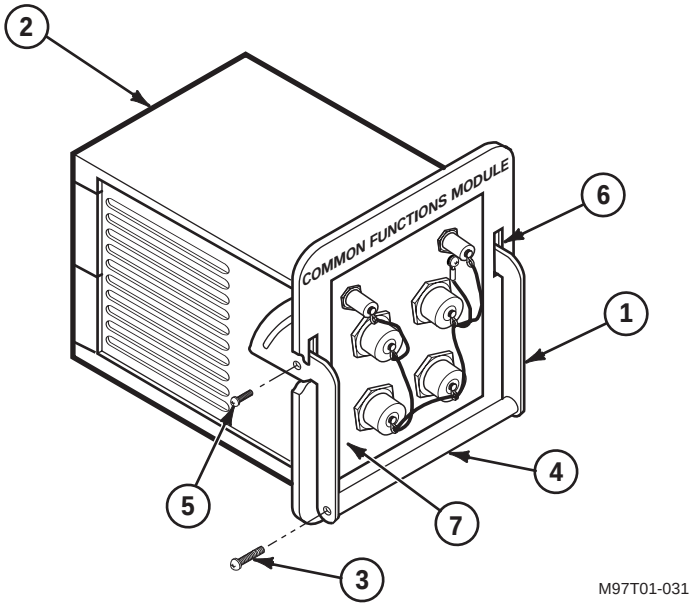
REPLACE CFM OR CSFM HANDLE LATCH 0094 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29

Materials/Parts:
Latch
Viscous Coating (Item 16, WP 0162 00)



NOTE

Use this task to replace the CFM or CSFM handle latch. The CFM is shown.

REMOVE

1. REMOVE LATCH (1) FROM CFM (2).
   a. Remove two screws (3) holding handle (4) to latch (1).
   b. Remove one screw (5) holding latch (1) on module (2).
   c. Slide latch (1) through slot (6) in front panel (7). Discard latch.

INSTALL

NOTE

Perform step 2b for the CFM only.

2. INSTALL NEW LATCH (1) ON CFM (2).
   a. Slide latch (1) through slot (6) in front panel (7).
   b. Lightly coat threads of screws (3) and (5) with viscous coating.
   c. Secure latch (1) on module (2) with one screw (5).
   d. Secure latch (1) on handle (4) with two screws (3).

END OF TASK

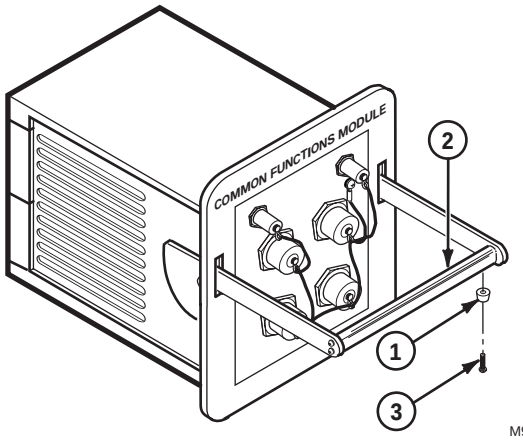
REPLACE CFM OR CSFM HANDLE BUMPER 0095 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29

Materials/Parts:
Bumper
Viscous Coating (Item 16, WP 0162 00)



NOTE

Use this task to replace the CFM or CSFM handle bumpter. The CFM is shown.

REMOVE

1. REMOVE BUMPER (1) FROM CFM HANDLE (2).
   a. Remove one screw (3) from CFM handle (2).
   b. Discard bumper.

INSTALL

NOTE

Perform step 2a for the CFM only.

2. INSTALL NEW BUMPER (1) ON CFM HANDLE (2).
   a. Lightly coat threads of screw (3) with sealing compound.
   b. Secure bumper (1) to handle (2) with screw (3).

END OF TASK

REPLACE CFM PROTECTIVE COVER ASSEMBLY 0096 00

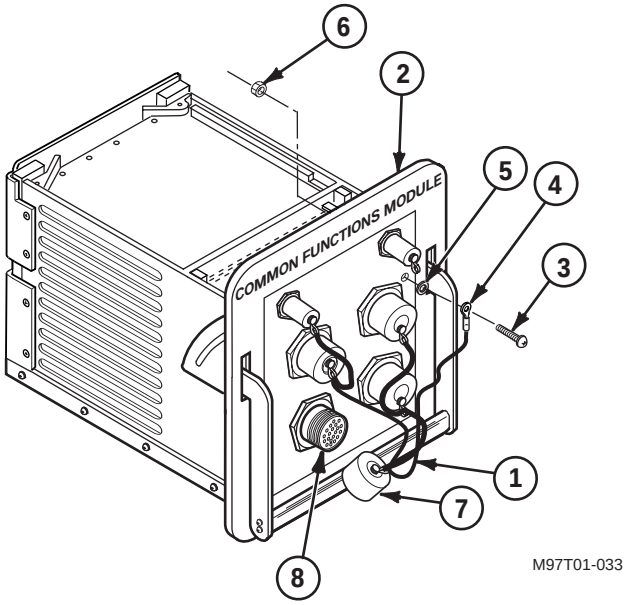
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29

Equipment Conditions:
Remove CFM top cover; refer to WP 0093 00.

Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Protective Cover Assembly



REMOVE

1. REMOVE PROTECTIVE COVER ASSEMBLY (1) FROM CFM (2).
   a. Remove screw (3), terminal lug (4), washer (5), and nut (6), from module (2).
   b. Remove protective covers (7) from connectors (8) and discard protective cover assembly (1).

INSTALL

2. INSTALL NEW PROTECTIVE COVER ASSEMBLY (1) ON CFM (2).
   a. Lightly coat threads of screw (3) with antiseize compound.
   b. Install screw (3), terminal lug (4), and washer (5) to module (2) and secure with nut (6).
   c. Install protective covers (7) on connectors (8).

END OF TASK

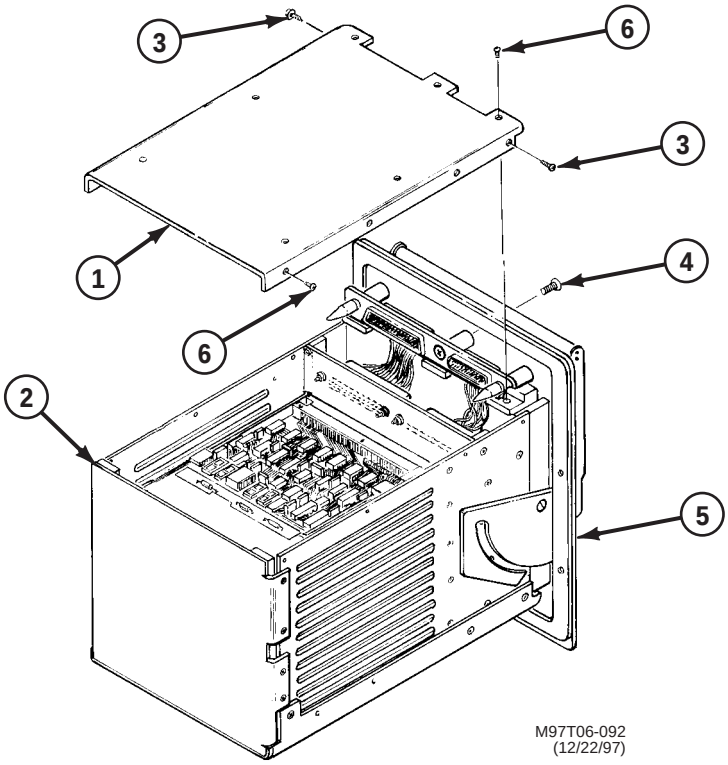
REMOVE/INSTALL CFM OR CSFM BOTTOM COVER 0097 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29

Materials/Parts:
Viscous Compound (Item 19, WP 0162 00)
Viscous Coating (Item 16, WP 0162 00)



NOTE

Use this task to remove and install the CFM or CSFM bottom cover. The CFM is shown.

REMOVE

1. REMOVE BOTTOM COVER (1) FROM CFM (2).

NOTE

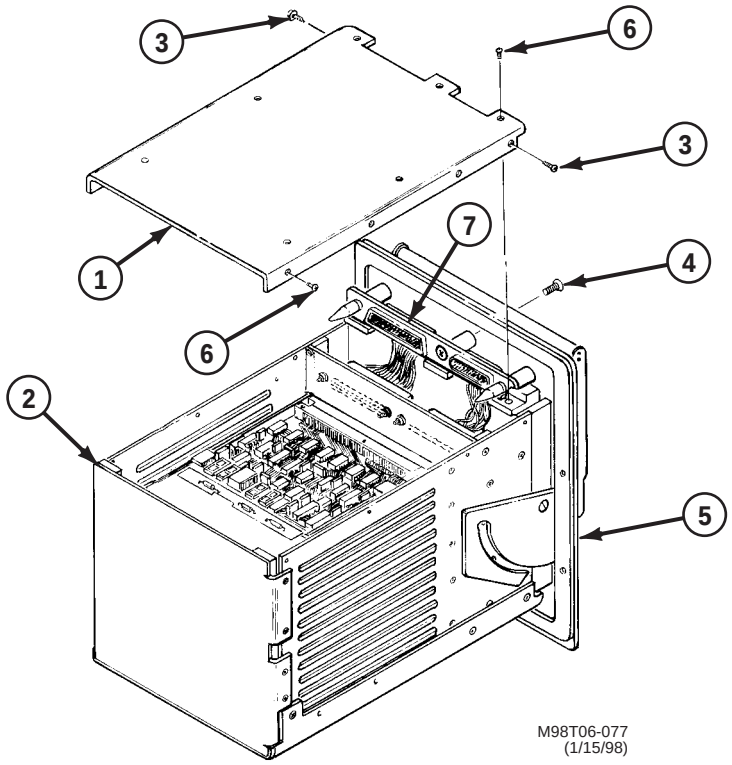
The screws removed in step 1a are longer than the rest of the bottom cover screws. Install the longer screws only in the holes from which they were removed.

a. Remove two screws (3) from bottom cover (1).
b. Remove three screws (4) from front panel (5).

NOTE

The CFM has nine screws (6); the CSFM has only seven screws (6).

c. Remove nine or seven screws (6) from bottom cover (1).



NOTE

Perform step 2 to install cover on CFM; perform step 3 to install cover on CSFM.

INSTALL

2. INSTALL BOTTOM COVER (1) ON CFM (2).
   a. Lightly coat the threads of nine screws (6), three screws (4), and two screws (3) with viscous coating (Item 16, WP 0162 00).
   b. Place bottom cover (1) on module (2) and secure with nine screws (6) and two screws (3).
   c. Place connector plate (7) on front panel (5) and secure with three screws (4).

3. INSTALL BOTTOM COVER (1) ON CSFM (2).

NOTE

The four screws (6) that are inserted in the side of bottom cover (1) are coated with viscous compound. The three screws (6) inserted in the top of bottom cover (1) are not coated.

   a. Lightly coat the threads of four screws (6) and two screws (3) with viscous compound (Item 19, WP 0162 00).
   b. Place bottom cover (1) on module (2) and secure with seven screws (6) and two screws (3).
   c. Place connector plate (7) on front panel (5) and secure with three screws (4).

END OF TASK

REPLACE CFM CCA A2, A3, A4, A6, A7, A8, A9, A10 OR CSFM CCA A2, A4, A5, A7, A8, OR CSFM LOAD PLATE 0098 00

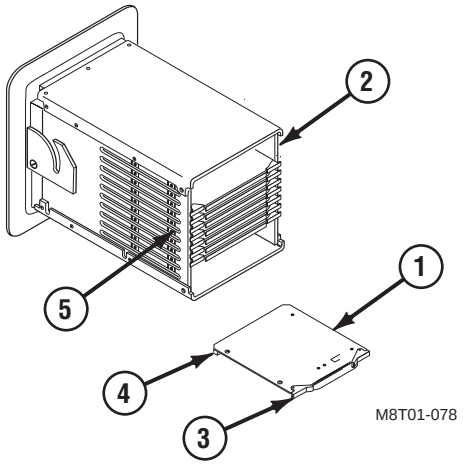
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
Rear cover removed from CFM or CSFM; refer to WP 0091 00

Materials/Parts:
Antistatic Plastic Bag (Item 17, WP 0162 00)



CAUTION

To avoid a possible module malfunction due to incorrectly installed CCAs, make sure a slot-identification tag (A1, A2, etc.) is applied to each removed CCA.

NOTE

Use this task to replace all CFM and CSFM CCAs with the following exceptions:

- CFM PCMCIA/Load Plate Assembly (WP 0105 00)
- CFM CCA A1 (12971975), RS485/RS232 Comm. CCA, 1553B Comm. CCA (WP 0106 00)
- CFM Module Buffer/ Comm. CCA A1 (13014869), WP 0106 12.
- CSFM CCA A10 (WP 0106 05)

NOTE

CFM CCA A9 P/N 13014870 can replace three CCAs (A7, A8, and A10) in CFM P/N 12971974-1. When installing an A9 CCA in a CFM previously equipped with the A7, A8, and A10 CCAs, remove all three CCAs from the CFM. To install an A9 CCA in CFM P/N 12971974, you must first replace interface assembly 12934020 with interface assembly 13006096 (WP 0101 00).

REMOVE

1. REMOVE CFM CCA A2 (1) FROM MODULE CARD CAGE (2).
   a. Lift the inside ends of circuit card ejectors (3) to unplug connector P1 (4) on CCA A2 (1) from backplane connector.
   b. Slide CCA A2 (1) from module card cage (2) on card guides (5) and place in antistatic plastic bag.

REPLACE CFM CCA A2, A3, A4, A6, A7, A8, A9, A10 OR CSFM CCA A2, A4, A5, A7, A8, OR CSFM LOAD PLATE – CONTINUED **0098 00**

INSTALL

CAUTION

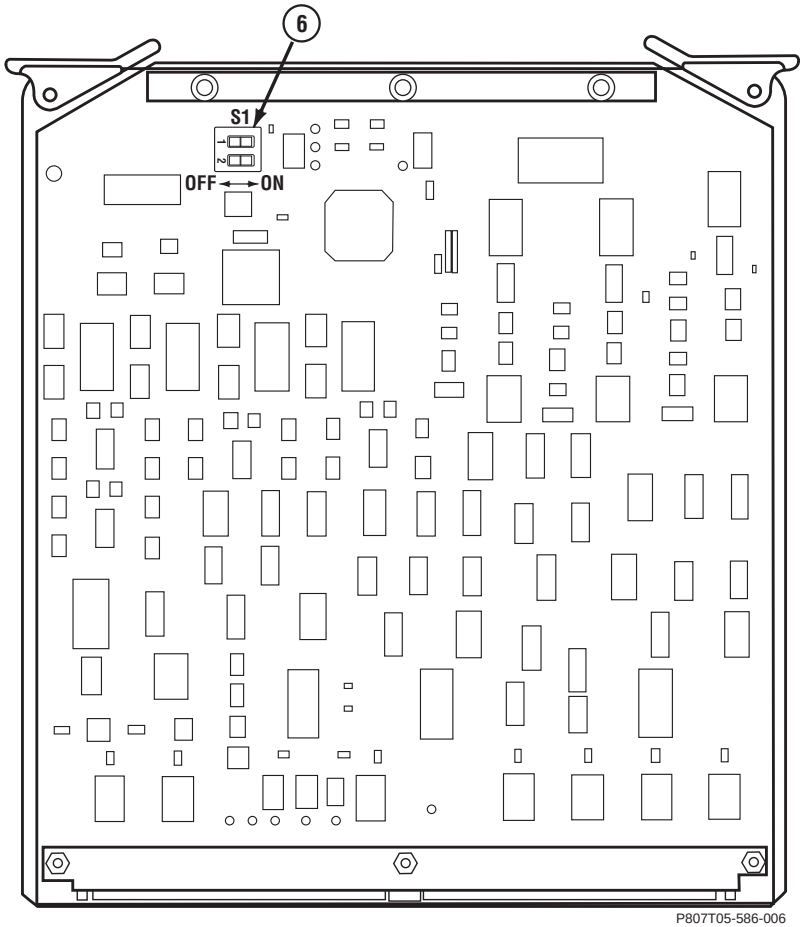
Some circuit cards require switches to be set before installation to prevent possible module malfunction.

NOTE

When installing combination analog CCA (13011952) set switch as indicated in step 2.
If not installing combination analog CCA (13011952) skip to step 3.

2. SET COMBINATION ANALOG CCA (13011952) SWITCH (6).

MODULE	CCA	P/N	MODULE SLOT	SWITCH SETTING 1	SWITCH SETTING 2
CFM	Combination Analog (Function Generator)	13011952	A4	ON	OFF
CFM	Combination Analog (Input/Output)	13011952	A6	OFF	ON



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3. INSTALL CFM CCA A2 (1) IN MODULE CARD CAGE (2).
   a. Lift and place CCA A2 (1) in module card cage (2); aline CCA A2 (1) with card guides (5); and ensure that connector P1 (4) is properly alined with card cage backplane connector.
   b. Push down on circuit card ejectors (3) to fully engage connes.

END OF TASK

REPLACE CFM POWER CABLE ASSEMBLY 0099 00

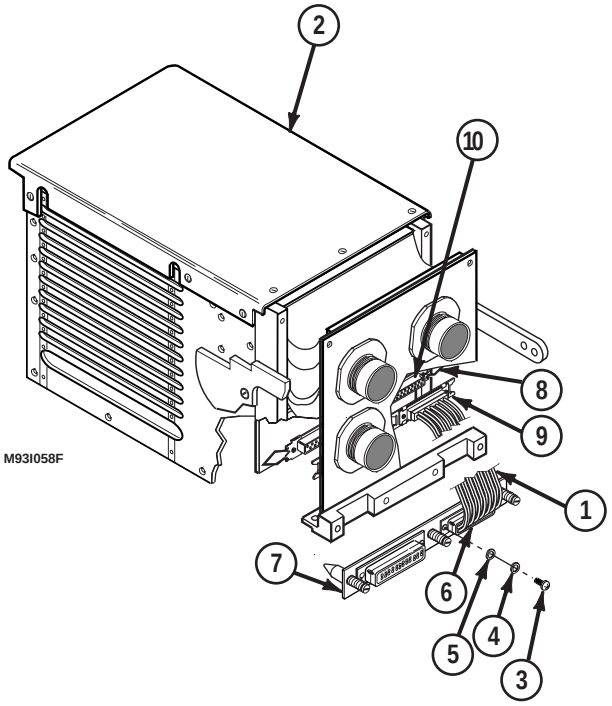
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

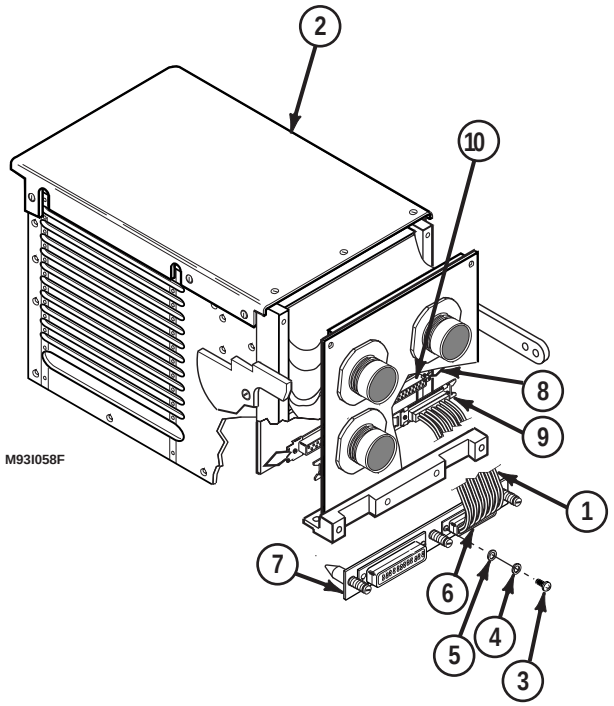
Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Lockwashers (2)
Power Cable Assembly
Viscous Coating (Item 16, WP 0162 00)

Equipment Conditions:
Front panel removed from CFM; refer to WP 0102 00.
Bottom cover removed from CFM; refer to WP 0097 00.
Load plate circuit card assembly removed from CFM; refer to WP 0105 00.



REMOVE

1. REMOVE POWER CABLE ASSEMBLY (1) FROM CFM (2).
   a. Remove two screws (3), washers (4), and lockwashers (5) securing connector P1 (6) to connector plate (7). Discard lockwashers.
   b. Release two latches (8) and remove connector P2 (9) from connector J20 (10) on interface assembly backplane.
   c. Discard power cable assembly (1).



INSTALL

2. INSTALL NEW POWER CABLE ASSEMBLY (1) IN CFM.
   a. Place power cable assembly (1) in module (2); aline connector P2 (9) with connector J20 (10) on interface assembly backplane; and secure with two latches (8).
   b. Lightly coat threads of two screws (3) with antiseize compound.
   c. Using two screws (3), washers (4), and new lockwashers (5), secure connector P1 (6) to connector plate (7).

END OF TASK

REPLACE CFM SIGNAL FLEXIBLE CIRCUIT CABLE ASSEMBLY 0100 00

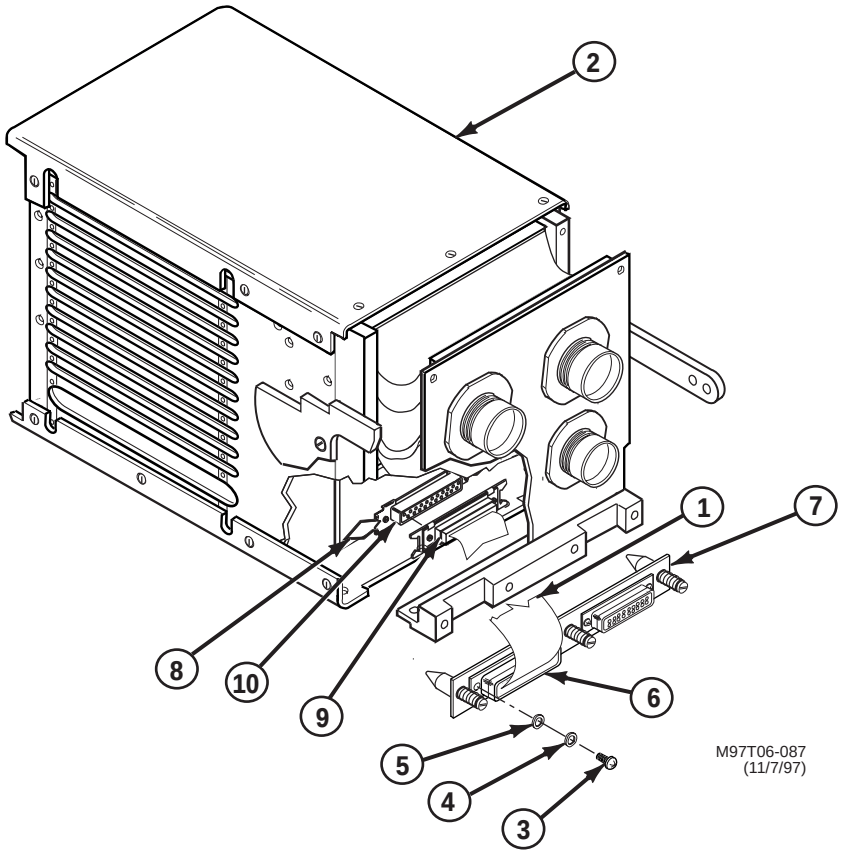
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

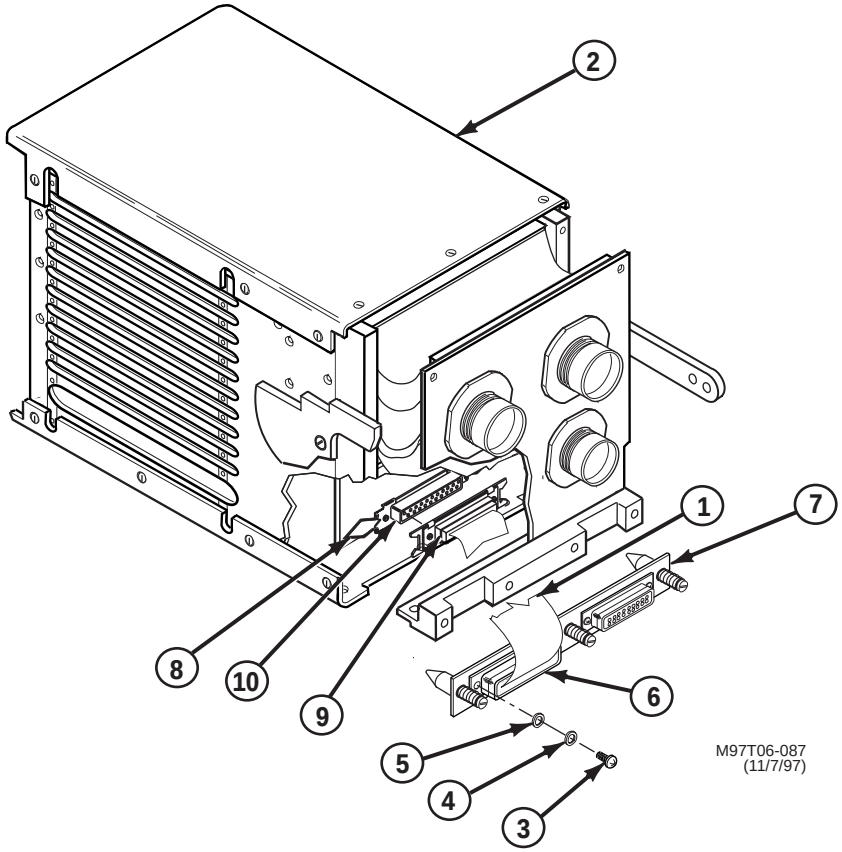
Materials/Parts:
Antiseize Compound (Item 4, WP 0162 00)
Lockwashers (2)
Signal Flexible Circuit Cable Assembly
Viscous Coating (Item 16, WP 0162 00)

Equipment Conditions:
Front panel removed from CFM; refer to WP 0102 00.
Bottom cover removed from CFM; refer to WP 0097 00.
Load plate circuit card assembly removed from CFM; refer to WP 0105 00.



REMOVE

1. REMOVE SIGNAL FLEXIBLE CIRCUIT CABLE ASSEMBLY (1) FROM CFM (2).
   a. Remove two screws (3), washers (4), and lockwashers (5) securing connector P1 (6) to connector plate (7). Discard lockwashers.
   b. Release two latches (8) and remove connector P2 (9) from connector J19 (10) on interface assembly backplane.
   c. Discard signal flexible circuit card assembly (1).



INSTALL

2. INSTALL NEW SIGNAL FLEXIBLE CIRCUIT CABLE ASSEMBLY (1) IN CFM (2).
   a. Place cable assembly (1) in module (2); align connector P2 (9) with connector J19 (10) on interface assembly backplane; and secure with two latches (8).
   b. Lightly coat threads of two screws (3) with antiseize compound.

CAUTION

Exercise care to ensure that excessive tension is not applied when folding cable assembly to mate on connector plate. The flexible circuit of cable assembly, if folded correctly, will be properly positioned in the slot of lower panel bar and on connector plate.

   c. Using two screws (3), washers (4), and new lockwashers (5), secure connector P1 (6) to connector plate (7).

END OF TASK

REPLACE CFM INTERFACE ASSEMBLY 0101 00

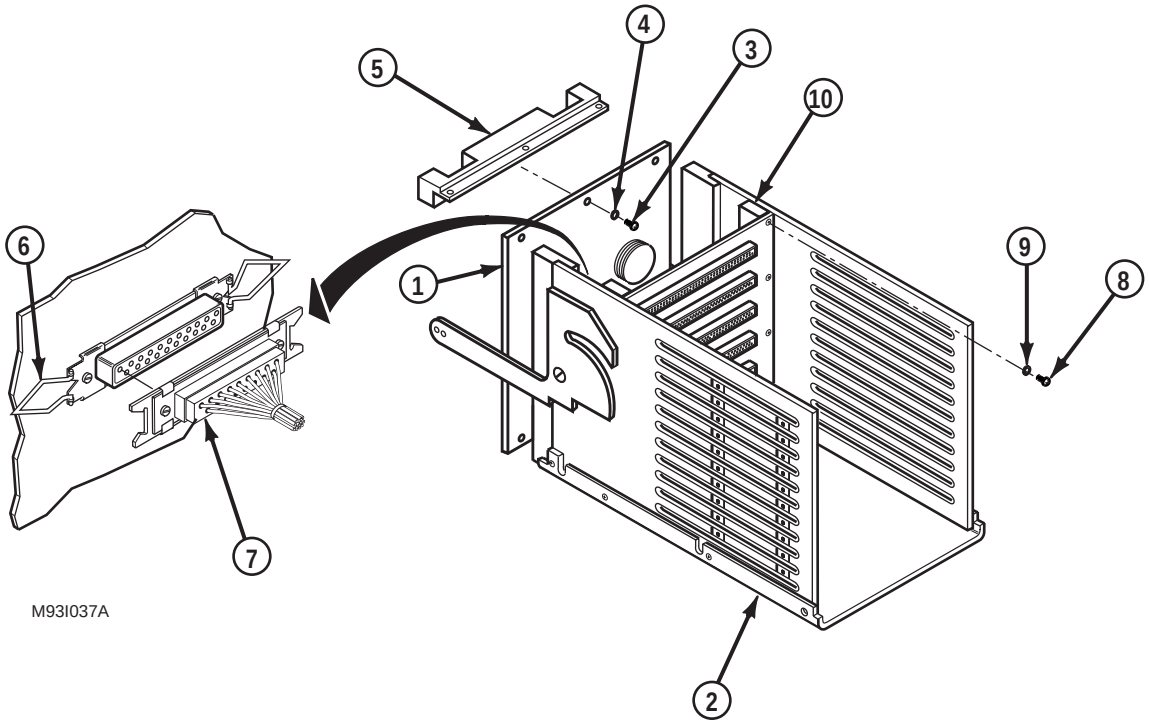
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic Systems Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

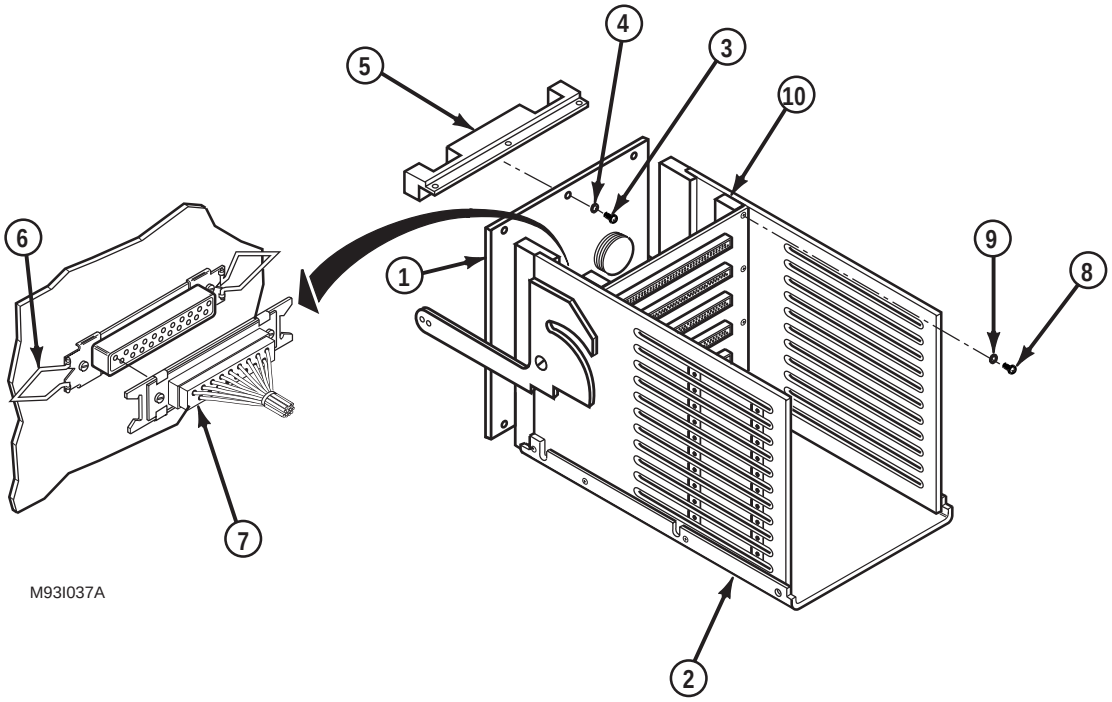
Materials/Parts:
Interface Assembly
Lockwashers (3)
Viscous Coating (Item 16, WP 0162 00)

Equipment Conditions:
CCA's removed from CFM; refer to WP 0098 00 and WP 0106 00.
Bottom cover removed from CFM; refer to WP 0097 00.
Front panel removed from CFM; refer to WP 0102 00.



REMOVE

1. REMOVE INTERFACE ASSEMBLY (1) FROM CFM (2).
   a. Remove three screws (3) and lockwashers (4) securing interface assembly (1) to lower panel bar (5). Discard lockwashers.
   b. Release four latches (6) and remove power and signal cable connectors (7) from interface assembly (1).
   c. Remove eight screws (8) and washers (9) securing interface assembly (1) to two backplane bars (10).
   d. Remove interface assembly (1) from module (2) and turn in interface asembly (1).



CAUTION

When installing CFM interface asembly, ensure flex cable and harnesses are not pinched, crushed or damaged during installation.

NOTE

There are two different replacement interface assemblies: P/N 12934020 and P/N 13006096. New interface assembly part number 13006096 includes a metal shipping plate. Use this plate to turn in the bad interface part number 13006096 only.

INSTALL

2. NOTE P/N OF THE NEW INTERFACE ASSEMBLY.
3. INSTALL NEW INTERFACE ASSEMBLY (1) IN CFM (2).
   a. Lightly coat threads of eight screws (8) with viscous coating.
   b. Place interface assembly (1) in module (2); aline mounting holes in interface assembly (1) with holes in two backplane bars (10).
   c. Using eight screws (8) and washers (9), secure interface assembly (1) to backplane bars (10).
   d. Secure power and signal cable connectors (7) to interface assembly (1) with four latches (6).
   e. Using three screws (3) and new lockwashers (4), secure lower panel bar (5) to interface assembly (1).
4. INSTALL FRONT PANEL ON CFM (WP 0102 00).
5. INSTALL BOTTOM COVER ON CFM (WP 0097 00).
6. INSTALL CCAs IN CFM (WP 0098 00 AND 0106 00).

NOTE

If new interface assembly P/N 13006096 was installed in CFM P/N 12971974, the P/N on the CFM identification plate must be changed.

7. CHECK THE IDENTIFICATION PLATE LOCATED ON CFM BOTTOM COVER.
   a. If the P/N on identification plate is not 12971974, no further action is required.
   b. If the CFM P/N is 12971974 and the new interface assembly P/N is 13006096, change the P/N on CFM identification plate to 12971974-1.

END OF TASK

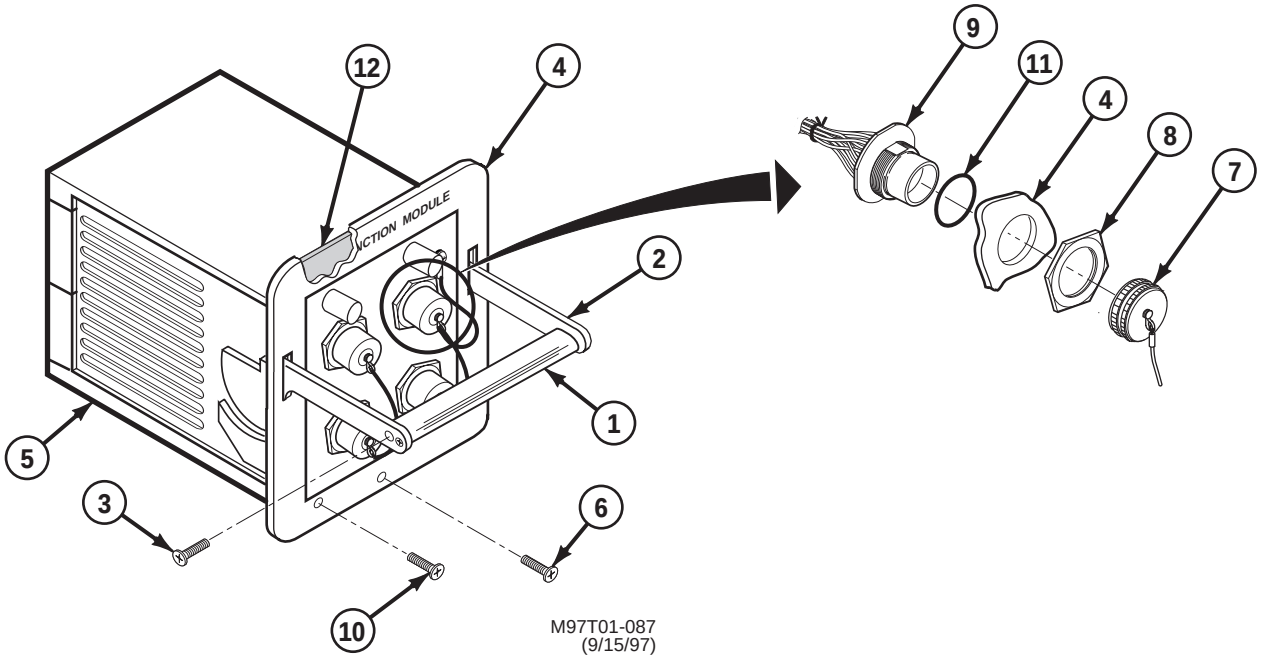
REMOVE/INSTALL CFM FRONT PANEL 0102 00

THIS WORK PACKAGE COVERS:
Removal, Inspection, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic Systems Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
Viscous Coating (Item 16, WP 0162 00)



REMOVE

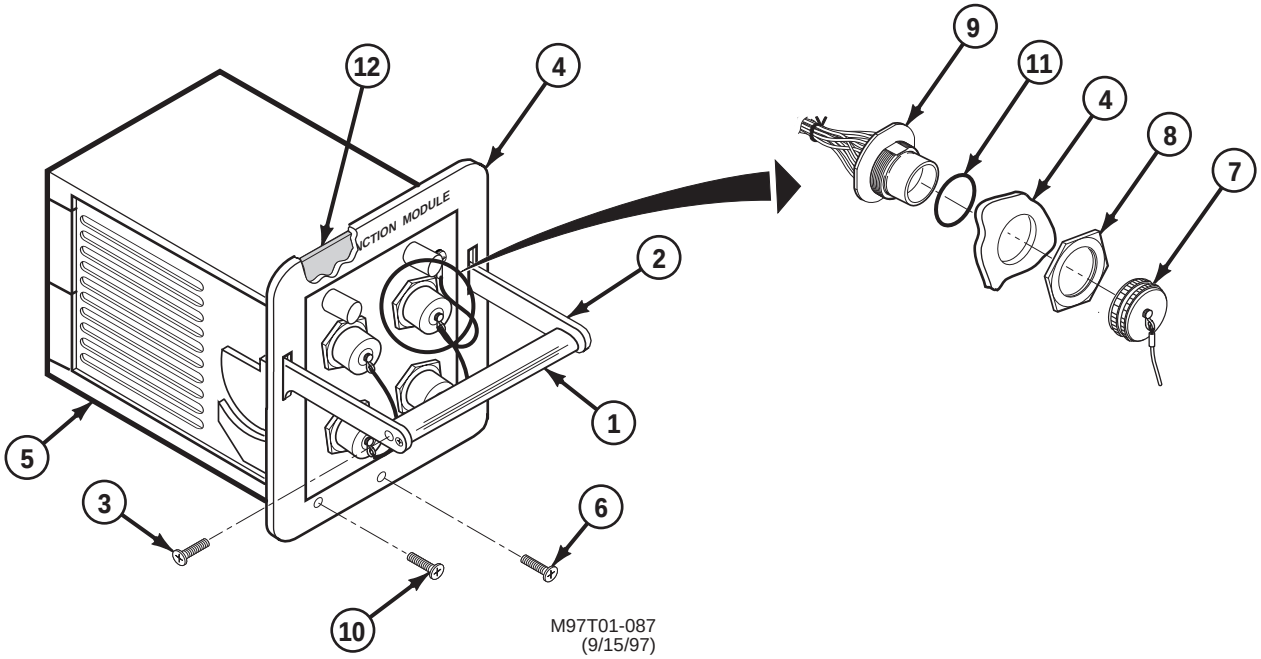
1. REMOVE HANDLE (1) FROM HANDLE LATCHES (2) BY REMOVING FOUR SCREWS (3).

2. REMOVE FRONT PANEL (4) FROM CFM (5).
   a. Remove three screws (6) from bottom of front panel (4).
   b. Remove protective covers (7) and jam nuts (8) from six front panel connectors (9).
   c. Remove 15 screws (10) from front panel (4).
   d. Push front panel connectors (9) and packing (11) through front panel (4) while lifting off the front panel.

INSPECT

1. INSPECT FRONT PANEL EMI/RFI GASKET (12) FOR CRACKS AND BREAKS.

2. IF DAMAGED, REPLACE EMI/RFI GASKET (12); REFER TO WP 0103 00.



INSTALL

2. INSTALL FRONT PANEL (4) ON CFM (5).
   a. Place front panel (4) on module (5); insert the six front panel connectors (9) and packing (11) through holes in front panel (4); and secure with jam nuts (8). Install protective covers (7).
   b. Lightly coat threads of 15 screws (10) with viscous coating; using screws (10), secure front panel (4) to module (5).
   c. Lightly coat threads of three screws (6) with viscous coating; install screws (6) at bottom of front panel (4).
   d. Lightly coat threads of four screws (3) with viscous coating; using screws (3), secure handle (1) to latches (2).

END OF TASK

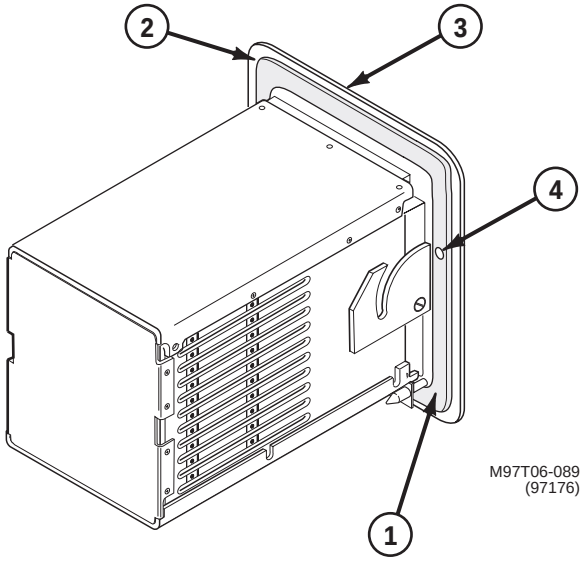
REPLACE CFM EMI/RFI GASKET 0103 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic Systems Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Materials/Parts:
EMI/RFI Gasket
Isopropyl Alcohol (Item 6, WP 0162 00)
Wiping Rag (Item 10, WP 0162 00)



REMOVE

1. REMOVE GASKET (1) FROM CFM (2).
   a. Scrape old gasket (1) from back of CFM front panel (3).

WARNING

Isopropyl alcohol burns easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in a well-ventilated area.

   b. Clean rear surface of CFM front panel (3) with isopropyl alcohol. Dry with clean rag.

INSTALL

2. INSTALL NEW EMI/RFI GASKET (1) ON FRONT PANEL (3).
   a. Obtain EMI/RFI gasket (1) and remove tape from the flat surface to expose adhesive.
   b. Carefully place gasket (1) on back side of module front panel (3) so that holes (4) are located as shown.
   c. Firmly press gasket (1) against front panel (3).

END OF TASK

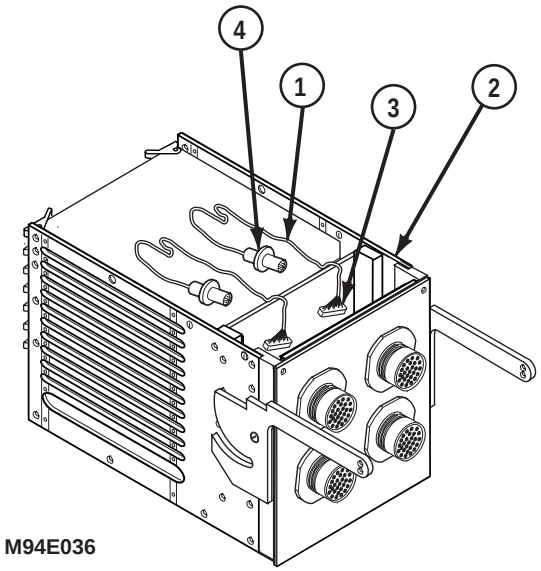
REPLACE CFM COMMUNICATION CABLE HARNESS ASSEMBLY 0104 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic Systems Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
CFM top cover removed; refer to WP 0093 00.
Load plate circuit card assembly removed; refer to WP 0105 00.
CFM front panel removed; refer to WP 0102 00.
CFM bottom cover removed; refer to WP 0097 00.
Module buffer/comm circuit card assembly A1 removed; refer to WP 0106 00.



M94E036

NOTE

Use this task to replace the CFM 1553 communication cable harness assembly (1) or the RS485 cable harness assembly. The 1553 communication cable harness assembly is shown.

REMOVE

1. PULL CABLE HARNESS ASSEMBLY (1) FREE OF MODULE (2).

INSTALL

2. POSITION CABLE HARNESS ASSEMBLY (1) IN MODULE (2) SO THAT CONNECTOR P2 (3) IS LOCATED AT BOTTOM, REAR OF MODULE AND CONNECTOR J1 (4) IS LOCATED AT TOP, FRONT OF MODULE.

END OF TASK

REPLACE CFM PCMCIA/LOAD PLATE ASSEMBLY 0105 00

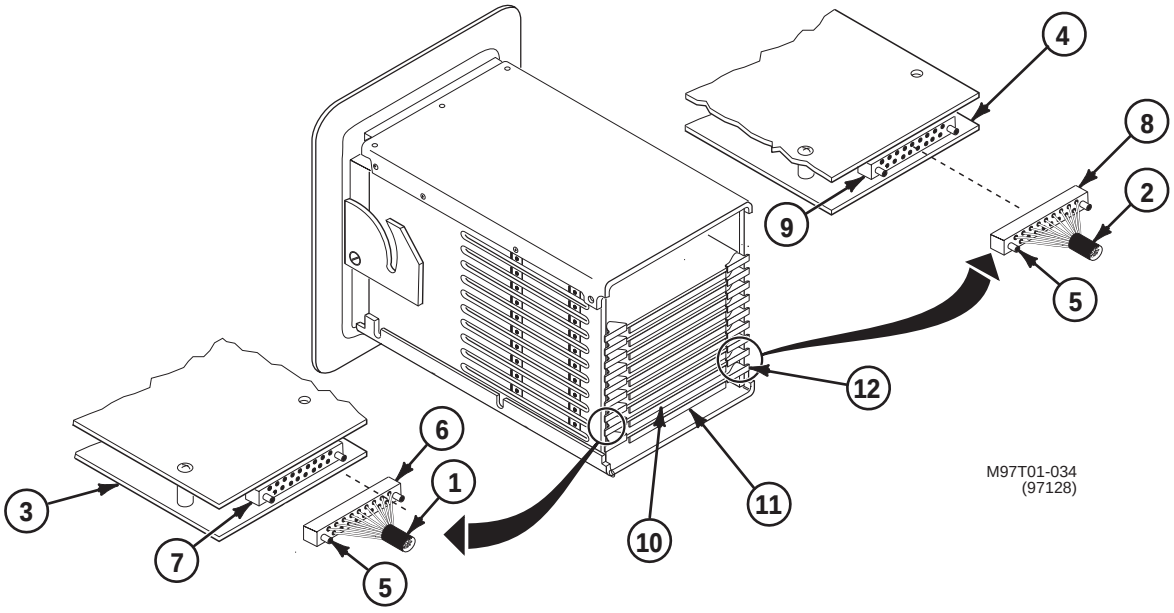
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic Systems Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
CFM rear cover removed; refer to WP 0091 00.
If replacing PCMCIA load plate assembly, PCMCIA card removed; refer to TM 9-4931-586-12-5&P.

Materials/Parts:
Antistatic bag, (Item 17, WP 0162 00)

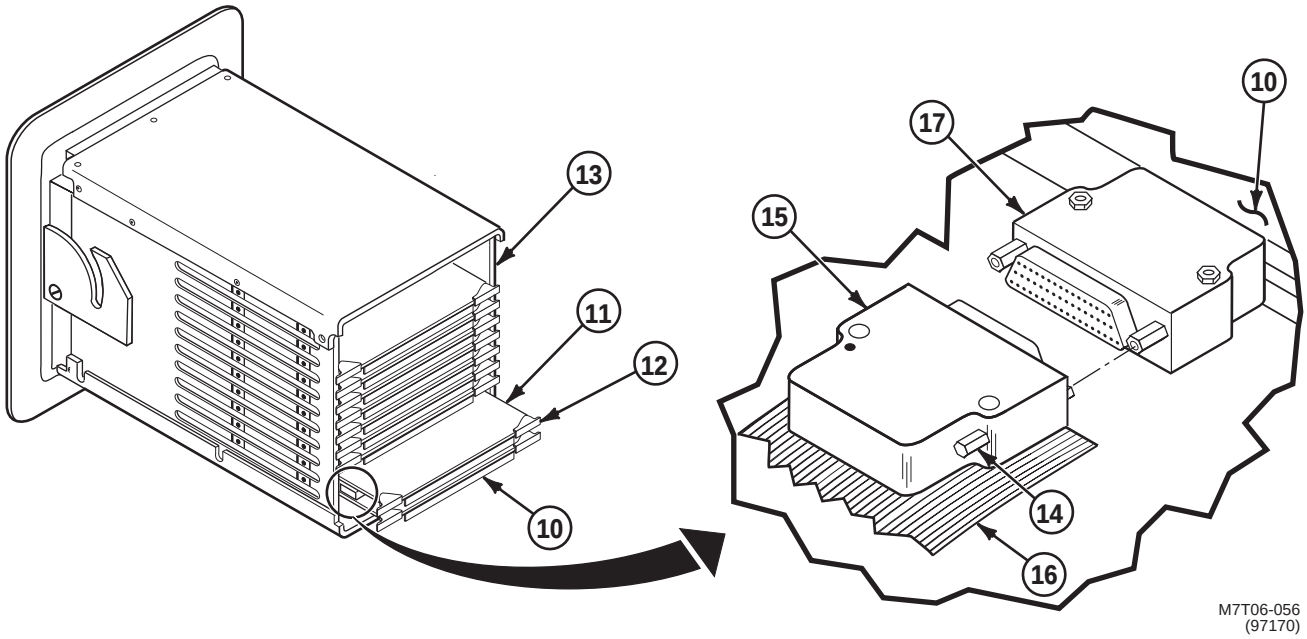


CAUTION

Circuit card assemblies are electrostatically sensitive. Only handle a circuit card assembly by the frame while working at an antistatic workstation and wearing a ground strap. Avoid bending or twisting a circuit card assembly or touching components of the circuit card assembly. Store and transport circuit card assemblies in static proof bags. Do not stack static proof bags containing circuit card assemblies.

REMOVE

1. REMOVE CABLE ASSEMBLIES (1) AND (2) FROM COMMUNICATION CCAs (3) AND (4).
   a. Alternately loosen jackscrews (5) 1/2 turn at a time on connector P2 (6) of RS485 cable assembly (1) attached to connector J2 (7) on RS485/RS232 CCA (3) until connectors (6) and (7) are disconnected.
   b. Alternately loosen jackscrews (5) 1/2 turn at a time on connector P2 (8) of 1553 communication cable assembly (2) attached to connector J1 (9) of 1553B CCA (4) until connectors (8) and (9) are disconnected.



2. REMOVE CFM PCMCIA LOAD PLATE ASSEMBLY (10).

CAUTION

A flexible cable assembly is connected between module buffer/com CCA A1 and the PCMCIA/load plate CCA. Both CCAs must be removed together to avoid stress to the flex cable. Also, make sure that flex cable does not become entangled with the RS485 communications cable inside the card cage.

a. Unseat module buffer/com CCA (11) and load plate CCA (10) by lifting the inside ends of circuit card ejectors (12).
b. Keeping both CCAs (10) and (11) together, pull CCAs out of the card cage (13) until jackscrews (14) on P1 (15) of PCMCIA flexible cable assembly (16) can be accessed.
c. Alternately loosen jackscrews (14) 1/2 turn at a time on connector P1 (15) of PCMCIA flexible cable assembly (16) attached to connector J3 (17) of load plate CCA (10) until connectors (15) and (17) are disconnected.
d. Holding flexible cable P1 (15) away from load plate components, carefully pull load plate CCA (10) from module card cage (13).
e. Place load plate (10) into plastic antistatic bag.

INSTALL

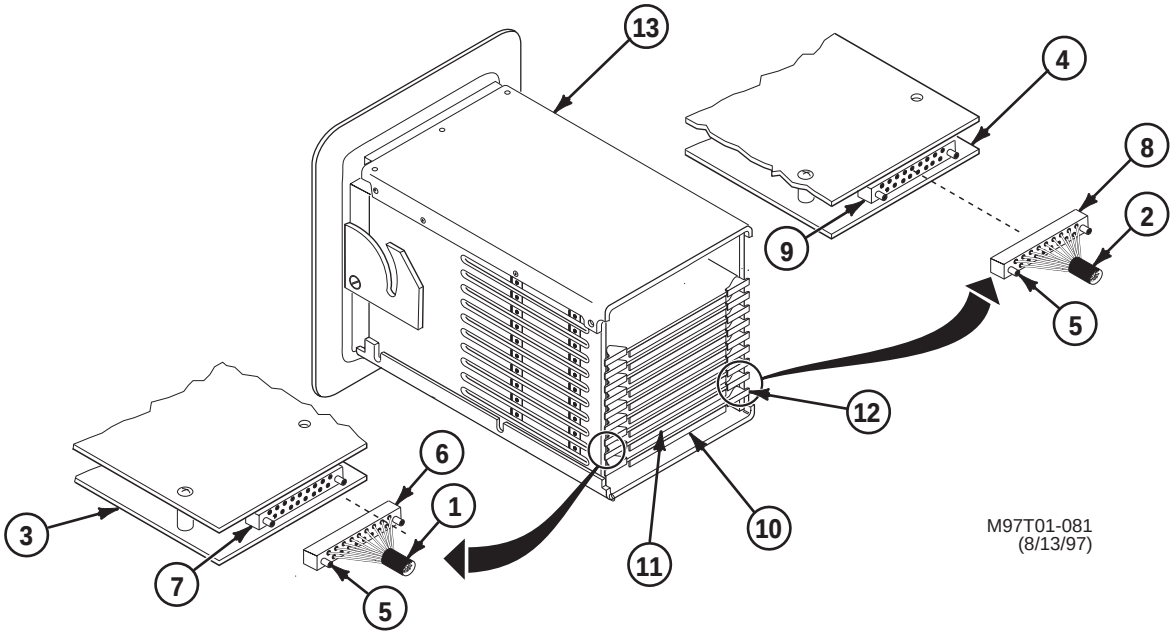
3. INSTALL CFM PCMCIA LOAD PLATE (10).

a. Make sure that module buffer/com CCA (11) is pulled out far enough to allow access for connecting P1 (15) of PCMCIA flexible cable assembly (16).
b. While holding flexible cable P1 (15) away from load plate card slot, carefully insert load plate CCA (10) in module card cage (13) far enough to align load plate connector J3 (17) with P1 (15) of the flexible cable assembly (16).
c. Align connector P1 (15) of flexible cable assembly (16) on connector J3 (17) of load plate CCA (10).
d. Alternately tighten jackscrews (14) l/2 turn at a time to secure connector P1 (15) to connector J3 (17).

CAUTION

A flexible cable assembly is connected between module buffer/com CCA A1 and the PCMCIA/load plate CCA. Both CCAs must be removed together to avoid stress to the flex cable. Also, make sure that flex cable does not become entangled with the RS485 communications cable inside the card cage.

e. Keeping both CCAs (10) and (11) together, carefully push CCAs into the card cage (13).
f. Seat module buffer/comm CCA (11) and load plate CCA (10) by pushing on the card ejectors (12).



4. INSTALL CABLE ASSEMBLES (1) AND (2) ON COMMUNICATION CCAs (3) AND (4).

a. Locate and align connector P2 (6) on RS485 cable assembly (1) with connector J2 (7) on RS485/RS232 CCA (3).
b. Alternately tighten jackscrews (5) 1/2 turn at a time to secure connector P2 (6) to connector J2 (7).
c. Locate and align connector P2 (8) on 1553 communication cable assembly (2) with connector J1 (9) on 1553B CCA (4).
d. Alternately tighten jackscrews (5) 1/2 turn at a time to secure connector P2 (8) to connector J1 (9).

END OF TASK

REPLACE CFM MODULE BUFFER/COMMUNICATION CCA A1 (12971975), RS485/RS232 COMMUNICATION CCA, 1553B COMMUNICATION CCA, OR PCMCIA SIGNAL FLEXIBLE CABLE ASSEMBLY

0106 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic Systems Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
CFM rear cover removed; refer to WP 0091 00.
CFM PCMCIA load plate assembly removed; refer to WP 0105 00.

Materials/Parts:
Antistatic bag (Item 17, WP 0162 00)

REMOVE

CAUTION

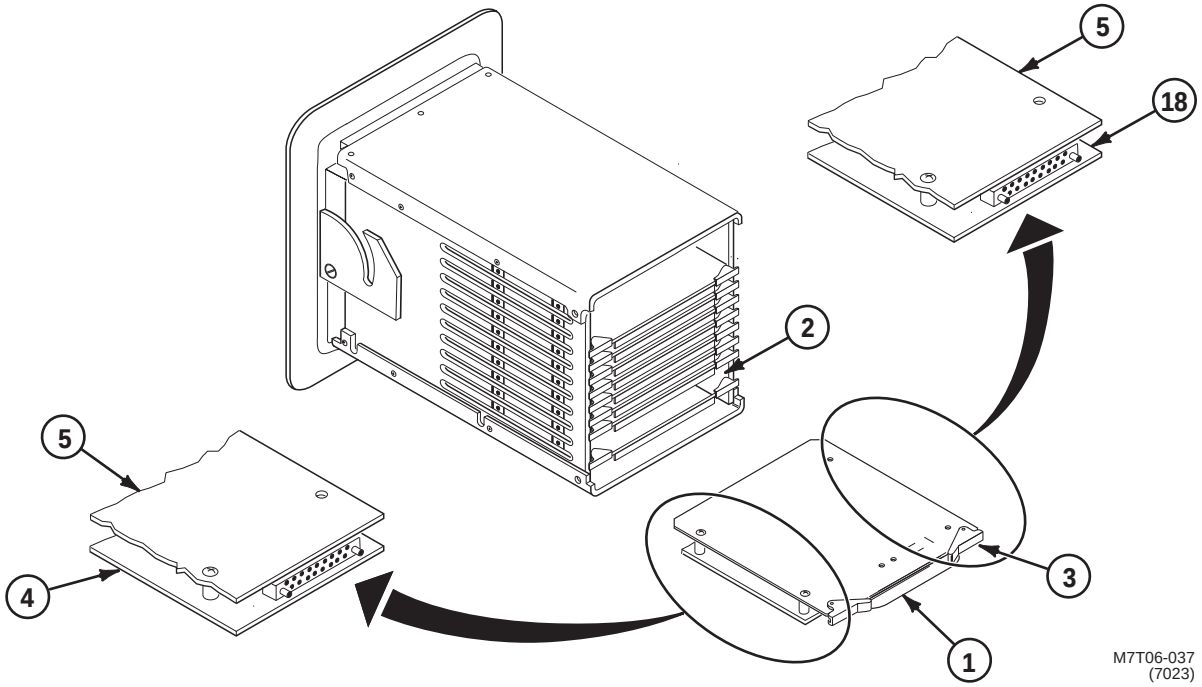
Circuit card assemblies are electrostatically sensitive. Only handle a circuit card assembly by the frame while working at an antistatic workstation and wearing a ground strap. Avoid bending or twisting a circuit card assembly or touching components of the circuit card assembly. Store and transport circuit card assemblies in static proof bags. Do not stack static proof bags containing circuit card assemblies.

NOTE

To remove module buffer/communication CCA A1 (12971975) from CFM, perform step 1. To remove RS485/RS232 CCA, perform steps 1 and 2. To remove PCMCIA flexible cable assembly, perform steps 1, 2, and 3. To remove 1553B CCA, perform steps 1 and 4. To remove module buffer CCA, performs steps 1 through 5.

REPLACE CFM MODULE BUFFER/COMMUNICATION CCA A1 (12971975), RS485/RS232 COMMUNICATION CCA, 1553B COMMUNICATION CCA, OR PCMCIA SIGNAL FLEXIBLE CABLE ASSEMBLY - CONTINUED

0106 00



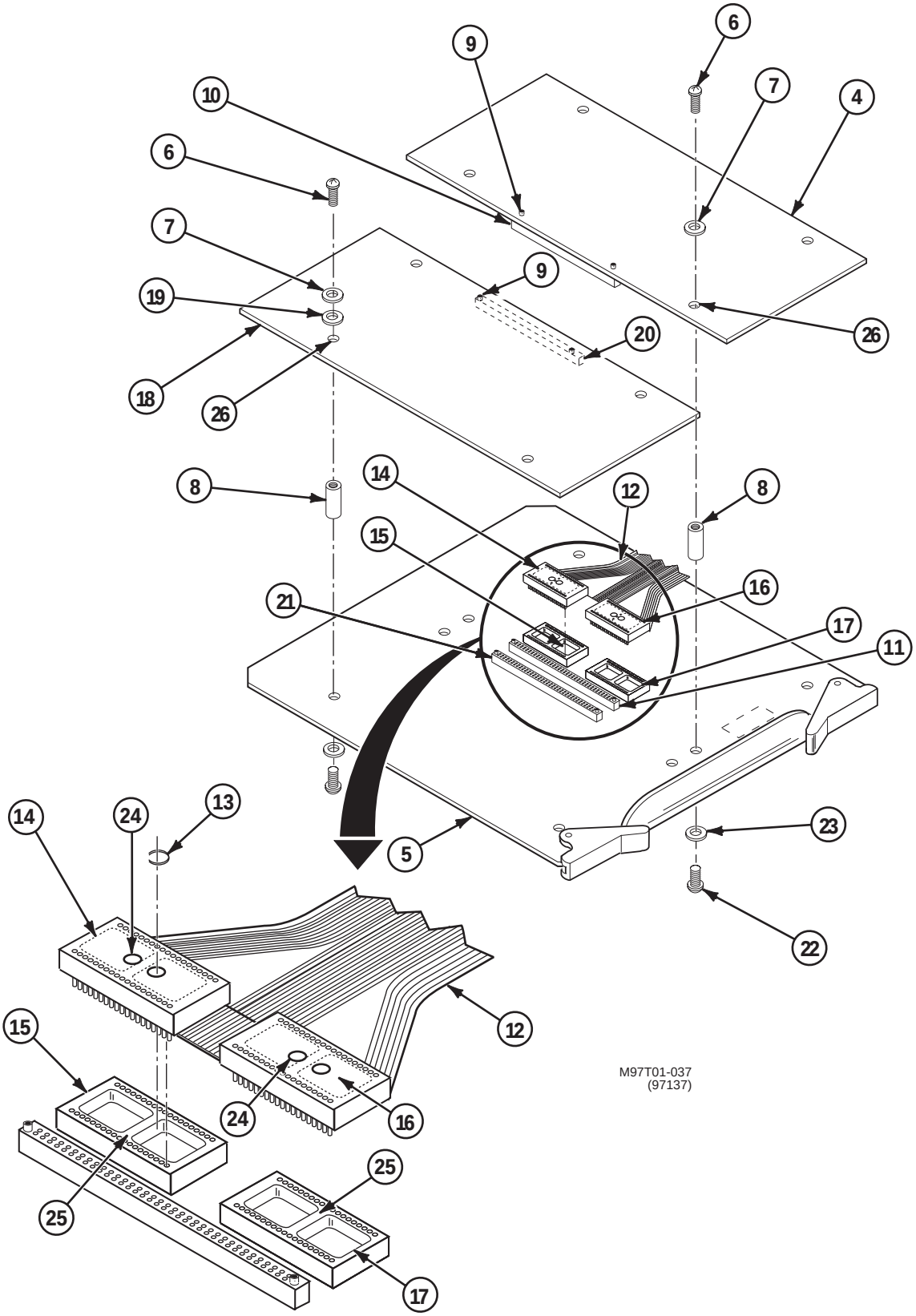
1. REMOVE MODULE BUFFER/COMM. CCA A1 (1) FROM (CFM) CARD CAGE (2).
   a. Lift the ends of ejectors (3) and slide module buffer/communication CCA A1 (1) from card cage (2).
2. REMOVE RS485/RS232 CCA (4) FROM MODULE BUFFER CCA (5).
   a. Remove four screws (6) and lockwashers (7) to release RS485/RS232 CCA (4) from module buffer CCA (5). Leave standoffs (8) attached to module buffer CCA. Discard lockwashers.
   b. Alternately loosen jackscrews (9) 1/2 turn at a time and carefully separate connector P1 (10) from connector J1 (11) on module buffer CCA (5).
   c. Lift and remove RS485/RS232 CCA (4) from module buffer CCA (5) and place into plastic antistatic bag.
3. REMOVE PCMCIA FLEXIBLE CABLE ASSEMBLY (12) FROM MODULE BUFFER CCA (5).
   a. Cut and remove cable tie (13) from adapter plug U1 (14) on PCMCIA flexible cable assembly (12) and socket U29 (15) on module buffer CCA (5). Discard cable tie.
   b. Cut and remove cable tie (13) from adapter plug U2 (16) on PCMCIA flexible cable assembly (12) and socket U28 (17) on module buffer CCA (5). Discard cable tie.

CAUTION

To avoid bending pins, pull flex cable connectors straight up when disconnecting from circuit card.

   c. Carefully disconnect and remove adapter plugs U1 (14) and U2 (16) from sockets U29 (15) and U28 (17). Remove PCMCIA flexible cable assembly (12).

REPLACE CFM MODULE BUFFER/COMMUNICATION CCA A1 (12971975), RS485/RS232 COMMUNICATION CCA, 1553B COMMUNICATION CCA, OR PCMCIA SIGNAL FLEXIBLE CABLE ASSEMBLY - CONTINUED **0106 00**



4. REMOVE 1553B CCA (18) FROM MODULE BUFFER CCA (5).
   a. Using cross tip screwdriver, remove four screws (6), lockwashers (7), and two nylon washers (19) to release 1553B CCA (18) from module buffer CCA (5). Leave standoffs (8) attached to module buffer CCA. Discard lockwashers and nylon washers.
   b. Using 5/64 inch hex key wrench, alternately loosen jackscrews (9) and carefully separate connector P1 (20) from connector J2 (21) on module buffer CCA (5).
   c. Lift and remove 1553B CCA (18) from module buffer CCA (5) and place into plastic antistatic bag.

NOTE

Perform step 5 only if replacing module buffer CCA.

5. REMOVE MODULE BUFFER CCA (5).
   a. Remove eight screws (22), lockwashers (23), and standoffs (8) from module buffer CCA (5). Discard lockwashers.
   b. Place module buffer CCA (5) into plastic antistatic bag.

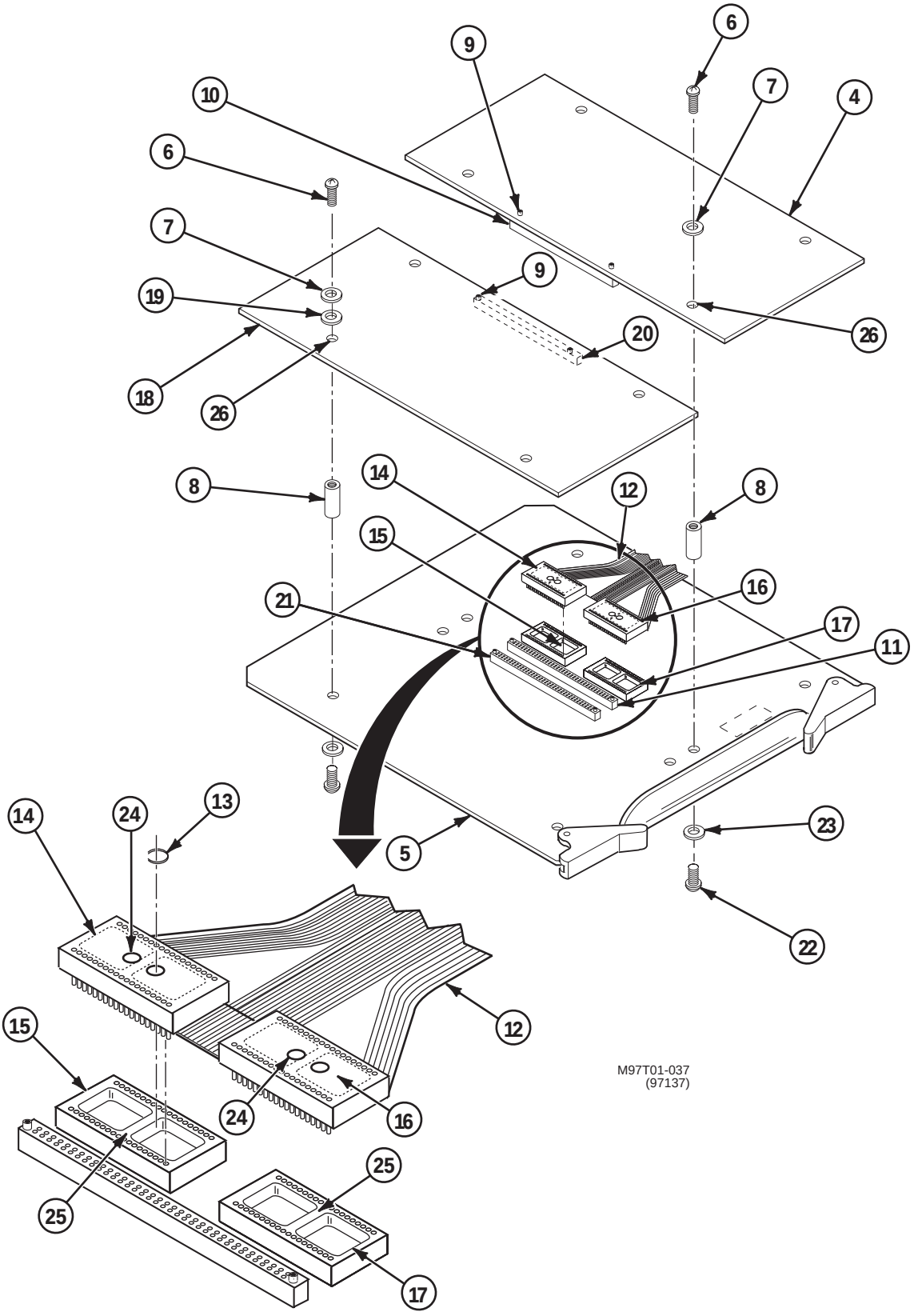
INSTALL

NOTE

Perform step 6 only if replacing module buffer CCA (5).

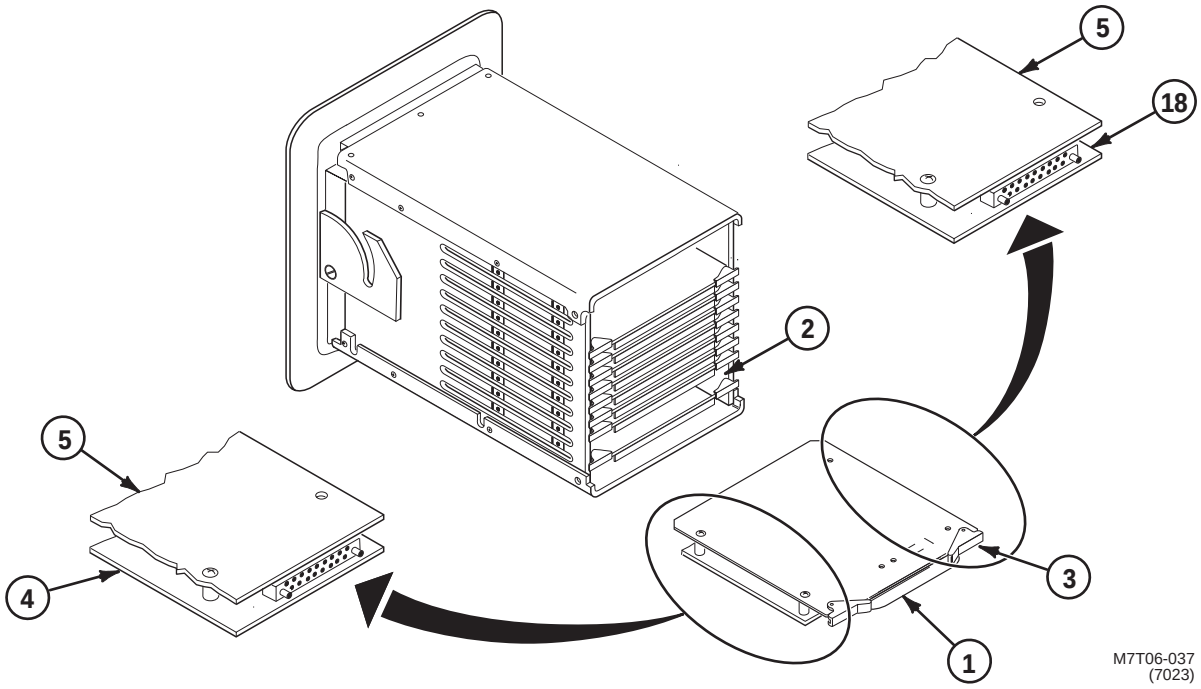
6. INSTALL MODULE BUFFER CCA (5).
   a. Install eight screws (22) and lockwashers (23) to secure standoffs (8) to module buffer CCA (5).
7. INSTALL 1553B CCA (18) ON MODULE BUFFER CCA (5).
   a. Place 1553B CCA (18) on module buffer CCA (5) and carefully align connectors (20) and (21); ensure that standoffs (8) are aligned with holes (26) in 1553B CCA.
   b. Alternately tighten two jackscrews (9) 1/2 turn at a time to attach connectors (20, 21).
   c. Install four screws (6), new lockwashers (7), and two new nylon washers (19) to secure 1553B CCA (18) to module buffer CCA (5).
8. INSTALL PCMCIA FLEXIBLE ASSEMBLY (12) ON MODULE BUFFER CCA (5).
   a. Place PCMCIA flexible cable assembly (12) on module buffer CCA (5); align pins of adapter plug U1 (14) with socket U29 (15) and adapter plug U2 (16) with socket U28 (17).
   b. Carefully press down on adapter plug (14) and (16) to insert contact pins into sockets (15) and (17).
   c. Insert cable tie (13) through holes (24) in adapter plug U1 (14) and tie bar (25) on socket U29 (15); tighten cable tie to secure adapter plug U1 to socket U29. Cut off excess cable tie.
   d. Insert cable tie (13) through holes (24) in adapter plug U2 (16) and tie bar (25) on socket U28 (17); tighten cable tie to secure adapter plug U2 to socket U28. Cut off excess cable tie.

REPLACE CFM MODULE BUFFER/COMMUNICATION CCA A1 (12971975), RS485/RS232 COMMUNICATION CCA, 1553B COMMUNICATION CCA, OR PCMCIA SIGNAL FLEXIBLE CABLE ASSEMBLY - CONTINUED **0106 00**



REPLACE CFM MODULE BUFFER/COMMUNICATION CCA A1 (12971975), RS485/RS232 COMMUNICATION CCA, 1553B COMMUNICATION CCA, OR PCMCIA SIGNAL FLEXIBLE CABLE ASSEMBLY - CONTINUED

0106 00



9. INSTALL RS485/RS232 CCA (4) ON MODULE BUFFER CCA (5).
   a. Place RS485/RS232 CCA (4) on module buffer CCA (5) and carefully align connectors (10) and (11); ensure that standoffs (8) are aligned with holes (26) in RS485/RS232 CCA.
   b. Using 5/64 inch hex head wrench, alternately tighten two jackscrews (9) 1/2 turn at a time to attach connectors (10, 11).
   c. Using cross tip screwdriver, install four screws (6) and new lockwashers (7) to secure RS485/RS232 CCA (4) to module buffer CCA (5).

10. INSTALL MODULE BUFFER/COMMUNICATION CCA (1) IN CFM CARD CAGE (2).
   a. Place module buffer/communication CCA (1) in card guides of CFM card cage (2) so that CCA blackplane connector is aligned with backplane connector.
   b. Install CFM PCMCIA/load plate assembly. Refer to WP 0105 00.

END OF TASK

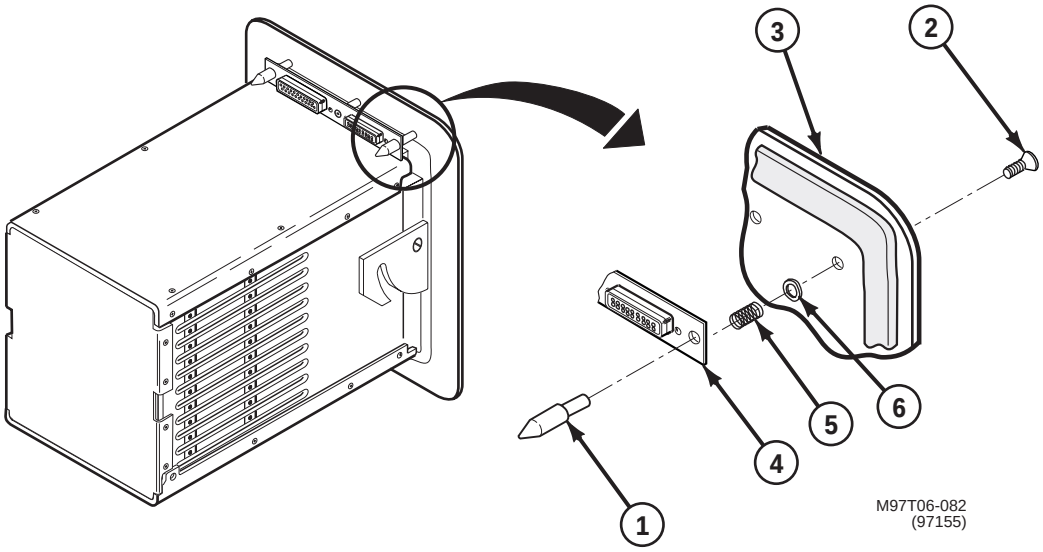
REPLACE CONNECTOR GUIDE PIN IN CFM OR CSFM 0106 01

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29

Materials/Parts:
Guide Pin
Viscous Coating (Item 16, WP 0162 00)



REMOVE

1. REMOVE GUIDE PIN (1).
   a. Remove screw (2) from front panel (3).
   b. Pull guide pin (1) from connector plate (4). Retain spring (5) and retainer (6).

INSTALL

2. INSTALL NEW GUIDE PIN (1).

NOTE

Perform step 2a for the CFM only:

   a. Apply viscous coating to threads of screws (2).
   b. Insert guide pin (1) through connector plate (4), spring (5) and retainer (6).
   c. Attach guide pin (1) to front panel (3) with screw (2).

END OF TASK

REPLACE CSFM DIGITAL SIGNAL PROCESSOR (DSP) CCA 0106 03

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic Systems Maintenance
SC 5180-95-CL-B29
or
SC 4931-95-CL-A22

Equipment Conditions:
CSFM A10 CCA removed; refer to WP 0106 05

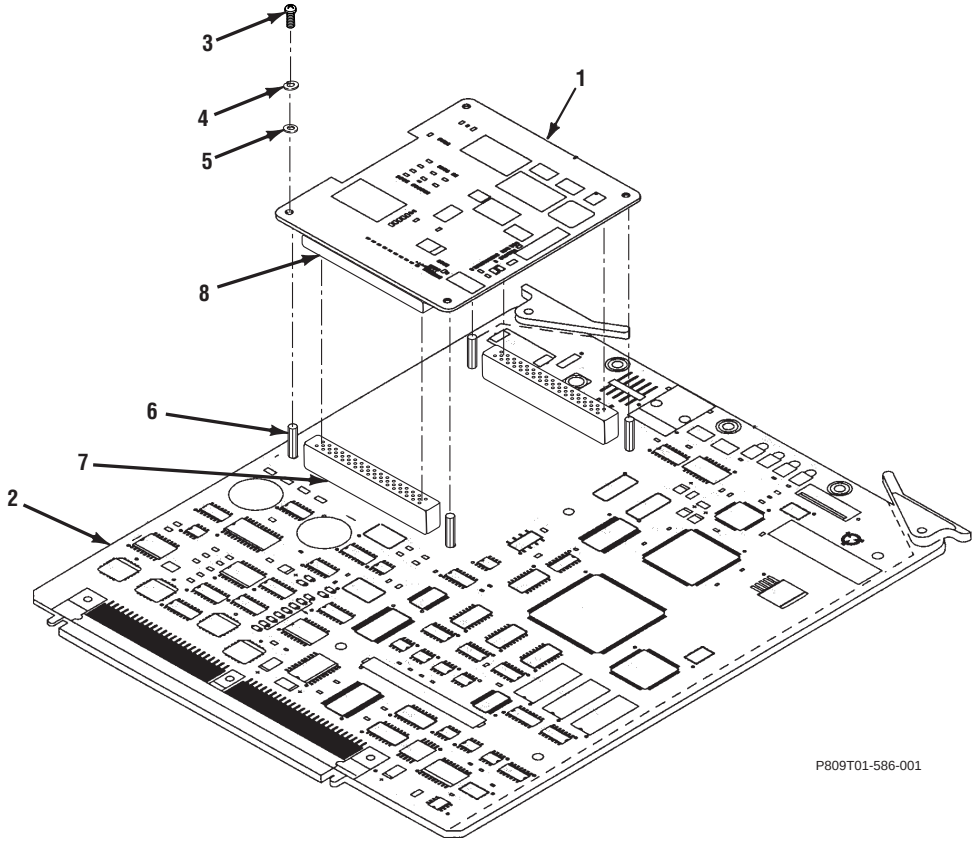
Materials/Parts:
Antistatic bag (Item 17, WP 0162 00)
Lockwashers (4)

REMOVE

CAUTION

Circuit card assemblies are electrostatically sensitive. Only handle a circuit card assembly by the frame while working at an antistatic workstation and wearing a ground strap. Avoid bending or twisting a circuit card assembly or touching components of the circuit card assembly. Store and transport circuit card assemblies in static proof bags. To prevent damage to digital signal processor or module buffer connectors remove CCA carefully.

1. REMOVE DIGITAL SIGNAL PROCESSOR (DSP) CCA (1) FROM MODULE BUFFER CCA (2).
   a. Place module buffer CCA (2) on anti static surface with digital signal processor CCA (1) facing upward.
   b. Remove four screws (3), lockwashers (4), and washers (5), to release digital signal processor CCA from module buffer CCA (2). Discard lockwashers.
   c. Gently lift and remove digital signal processor CCA (1) from standoffs (6) and connectors (7).
   d. Place digital signal processor CCA (1) into plastic antistatic bag.

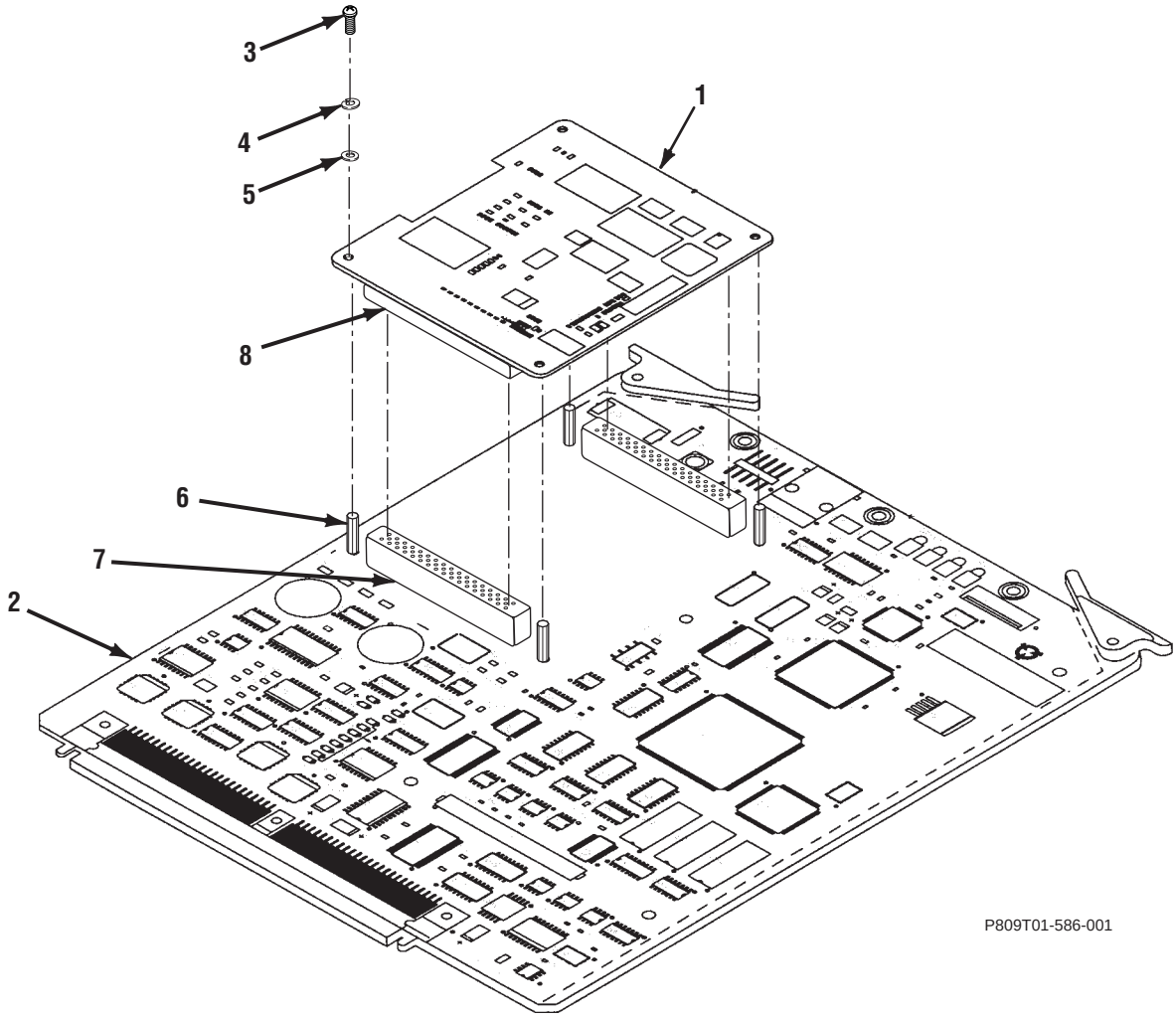


INSTALL

CAUTION

Digital signal processor CCA and module buffer CCA connector pins are easily bent. Use caution when connecting to prevent damage.

2. INSTALL DIGITAL SIGNAL PROCESSOR (DSP) CCA (1) ON MODULE BUFFER CCA (2).
   a. Place digital signal processor CCA (1) on stand-offs (6) with holes in CCA aligned with stand-offs.
   b. Gently connect digital signal processor CCA connectors (8) to module buffer CCA connectors (7).
   c. Install four washers (5), new lockwashers (4) and screws (3) on digital signal processor CCA (1).



.

END OF TASK

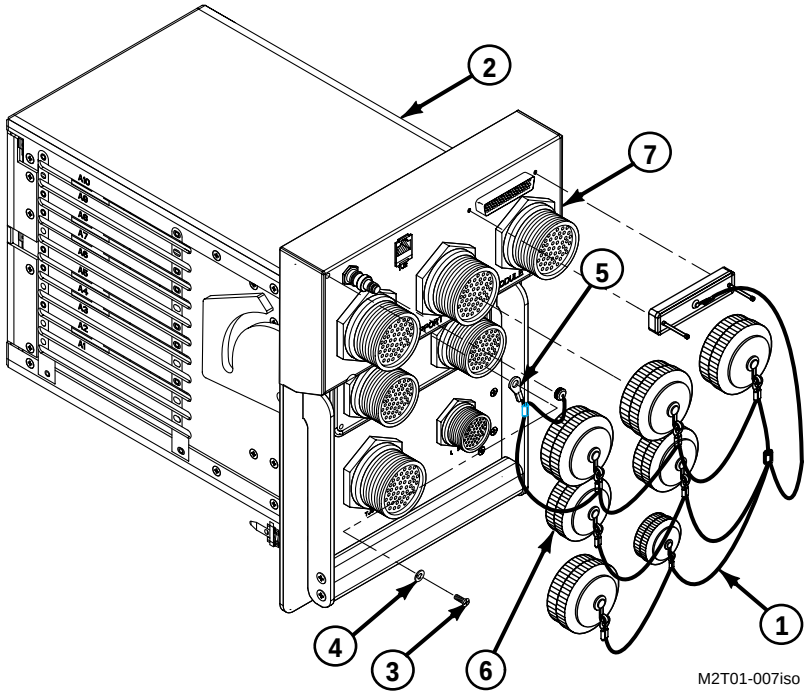
REPLACE CSFM DUST COVER ASSEMBLY 0106 04

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29

Materials/Parts:
Lockwasher
Dust Cover Assembly



REMOVE

1. REMOVE DUST COVER ASSEMBLY (1) FROM CSFM (2).
   a. Remove screw (3), lockwasher (4), and terminal lug (5) from CSFM (2). Discard lockwasher.
   b. Remove nine dust covers (6) from connectors (7).

INSTALL

2. INSTALL NEW DUST COVER ASSEMBLY (1) ON CSFM (2).
   a. Install screw (3), new lockwasher (4), and terminal lug (5) on CSFM (2).
   b. Install nine dust covers (6) on connectors (7).

END OF TASK

REPLACE CSFM CCA A10 0106 05

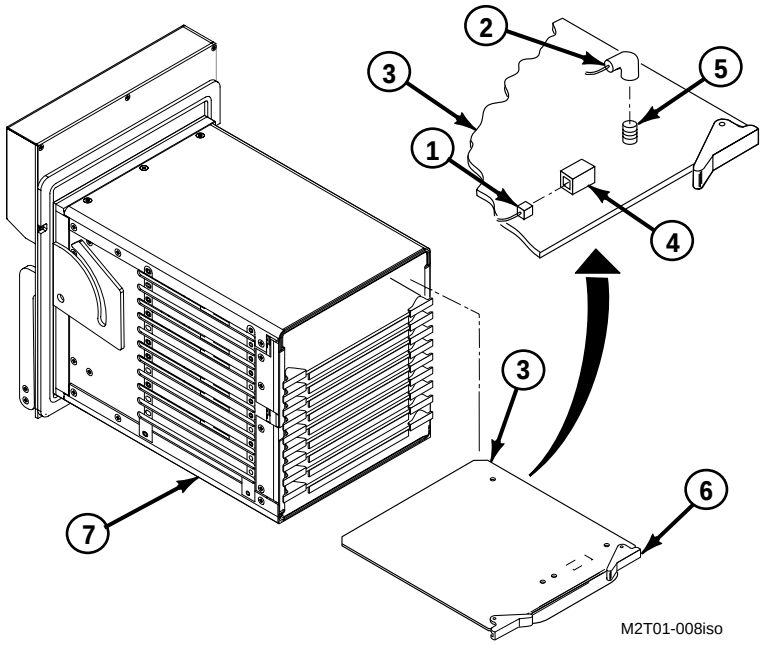
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29

Equipment Conditions:
CCAs A7 and A8 removed from CSFM; refer to WP 0098 00.

Materials/Parts:
Antistatic plastic bag (Item 17, WP 0162 00)



REMOVE

1. DISCONNECT CABLES (1,2) FROM CCA A10 (3).
   a. Disconnect ethernet cable (1) from CCA A10 connector P3 (4).
   b. Disconnect coax cable (2) from CCA A10 connector J6 (5).
2. LIFTING CIRCUIT CARD EJECTORS (6), SLIDE CCA A10 (3) FROM CSFM (7).
3. PLACE CCA A10 (30 IN ANTISTATIC PLASTIC BAG.

INSTALL

4. SLIDE CCA A10 (3) INTO CSFM (7) AND PRESS DOWN ON CIRCUIT CARD EJECTORS (6) TO FULLY SEAT CCA.
5. CONNECT CABLES (1, 2) TO CCA A10 (3).
   a. Connect ethernet cable (1) to CCA A10 connector P3 (4).
   b. Conenct coax cable (2) to CCA A10 connector J6 (5).

END OF TASK

REPLACE CSFM SIGNAL FLEXIBLE CIRCUIT ASSEMBLY 0106 06

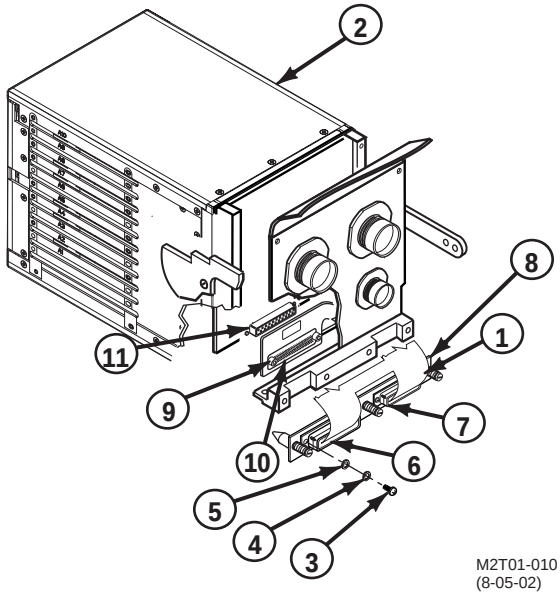
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29

Equipment Conditions:
Front panel assembly removed from CSFM; refer to WP 0106 08.
Bottom cover removed from CSFM; refer to WP 0097 00.
Load plate CCA removed from CSFM; refer to WP 0098 00.

Materials/Parts:
Lockwashers (4)
Signal Flexible Circuit Assembly



M2T01-010
(8-05-02)

REMOVE

1. REMOVE SIGNAL FLEXIBLE CIRCUIT ASSEMBLY (1) FROM CSFM (2).
   a. Remove four screws (3), lockwashers (4), and flat washers (5) securing connectors P1 (6) and P2 (7) to connector plate (8). Discard lockwashers.
   b. Alternately loosen two jackscrews (9) to disconnect flexible circuit connector J1 (10) from interface assembly connector P1 (11).

INSTALL

2. INSTALL NEW SIGNAL FLEXIBLE CIRCUIT ASSEMBLY (1) ON CSFM (2).
   a. Alternately tighten two jackscrews (9) to connect flexible circuit connector J1 (10) to interface assembly connector P1 (11).
   b. Install four screws (3), new lockwashers (4), and flat washers (5) to secure connectors P1 (6) and P2 (7) to connector plate (8).

END OF TASK

REPLACE CSFM INTERFACE ASSEMBLY 0106 07

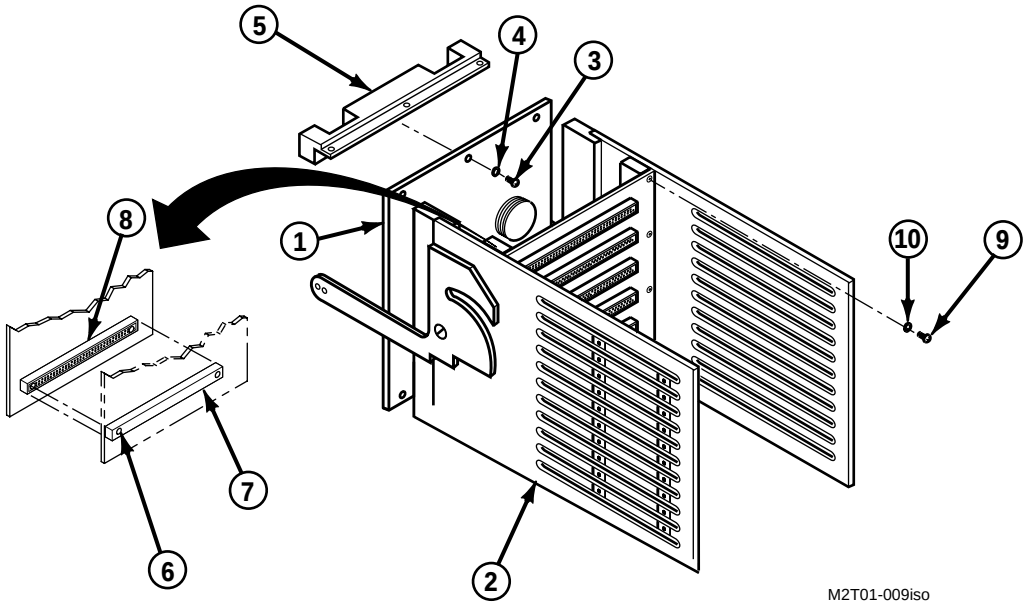
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29

Equipment Conditions:
Front panel assembly removed from CSFM; refer to WP 0106 08.
Bottom cover removed from CSFM; refer to WP 0097 00.
Top cover removed from CSFM; refer to WP 0093 00.
All CCAs and load plate assembly removed from CSFM; refer to WP 0098 00 and WP 0106 05.

Materials/Parts:
Lockwashers (3)
Interface Assembly
Nylon Washers (9)



REMOVE

1. REMOVE INTERFACE ASSEMBLY (1) FROM CSFM (2).
   a. Remove three screws (3), lockwashers (4), and lower panel bar (5) from interface assembly (1). Discard lockwashers.
   b. Alternately loosen two jackscrews (6) to disconnect flexible circuit connector J1 (7) from interface assembly connector P1 (8).
   c. Remove nine screws (9), nylon washers (10), and interface assembly (11) from CSFM (2). Discard lockwashers.

INSTALL

2. INSTALL NEW INTERFACE ASSEMBLY (1) ON CSFM (2).
   a. Install nine screws (9), new nylon washers (10), and interface assembly (11) on CSFM (2).
   b. Alternately tighten two jackscrews (6) to connect flexible circuit connector J1 (7) to interface assembly connector P1 (8).
   c. Install three screws (3), new lockwashers (4), and lower panel bar (5) on interface assembly (1).

END OF TASK

REMOVE/INSTALL CSFM FRONT PANEL ASSEMBLY 0106 08

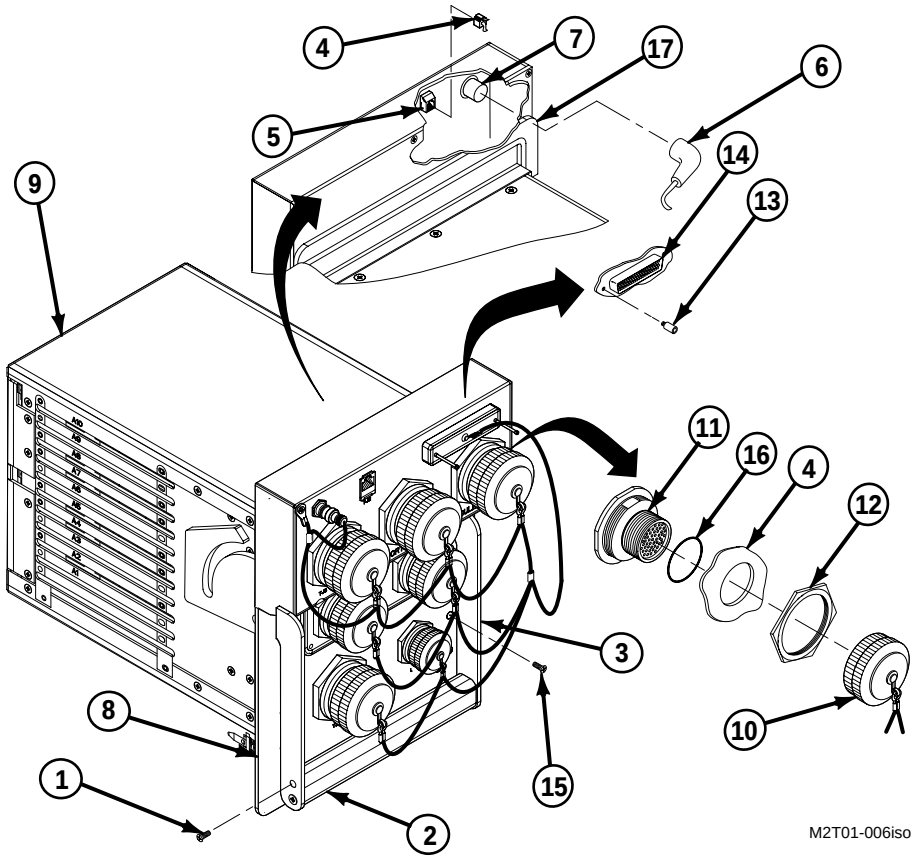
THIS WORK PACKAGE COVERS:
Removal, Inspection, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29
Electrical Maintenance Tool Kit 5705498

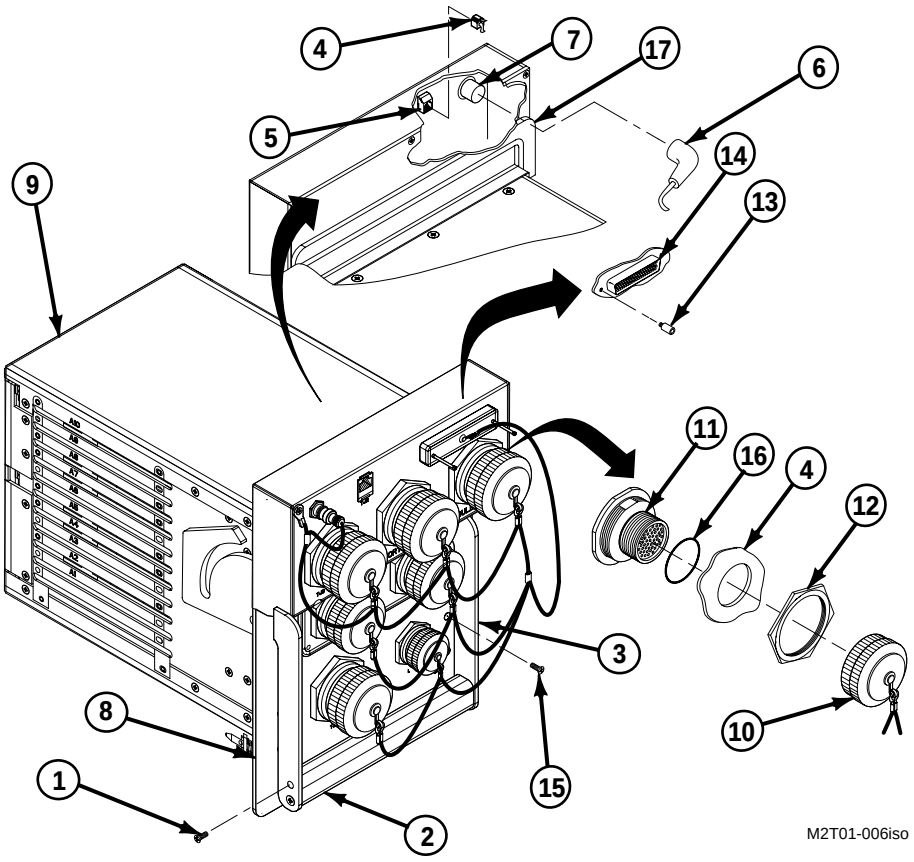
Equipment Conditions:
Connector housing cover removed;
refer to WP 0106 11.

Materials/Parts:
Viscous compound (Item 19, WP 0162 00)



REMOVE

1. REMOVE FOUR SCREWS (1) AND HANDLE (2) FROM HANDLE LATCHES (3).
2. DISCONNECT ETHERNET CABLE (4) FROM PANEL CONNECTOR TJ2 (5).
3. DISCONNECT COAX CABLE (6) FROM PANEL CONNECTOR TJ1 (7).
4. REMOVE FRONT PANEL (8) FROM CSFM (9).
   a. Remove nine dust covers (10) from connectors (11).
   b. Remove eight jam nuts (12) from connectors (11).
   c. Remove the two posts (13) securing connector TJ3 (14).
   d. Remove 13 screws (15) securing front panel (8).
   e. Push connectors (11) and packing (16) through front panel (8) while removing front panel.



INSPECT

5. INSPECT FRONT PANEL GASKET (17) FOR CRACKS AND BREAKS.
6. REPLACE GASKET IF DAMAGED. REFER TO WP 0106 09.

INSTALL

7. INSTALL FRONT PANEL (8) ON CSFM (9).
   a. Insert connectors (11) with packing (12) through holes in front panel (8).
   b. Install eight jam nuts (12) on connectors (11).
   c. Lightly coat the threads of two posts (13) with viscous compound.
   d. Install two posts (13) to secure connector TJ3 (14).
   e. Install 13 screws (15) to secure front panel (8).
   f. Install nine dust covers (10) on connectors (11).

8. CONNECT COAX CABLE (6) TO PANEL CONNECTOR TJ1 (7).
9. CONNECT ETHERNET CABLE (4) TO PANEL CONNECTOR TJ2 (5).
10. INSTALL FOUR SCREWS (1) AND HANDLE (2) ON HANDLE LATCHES (3).

END OF TASK

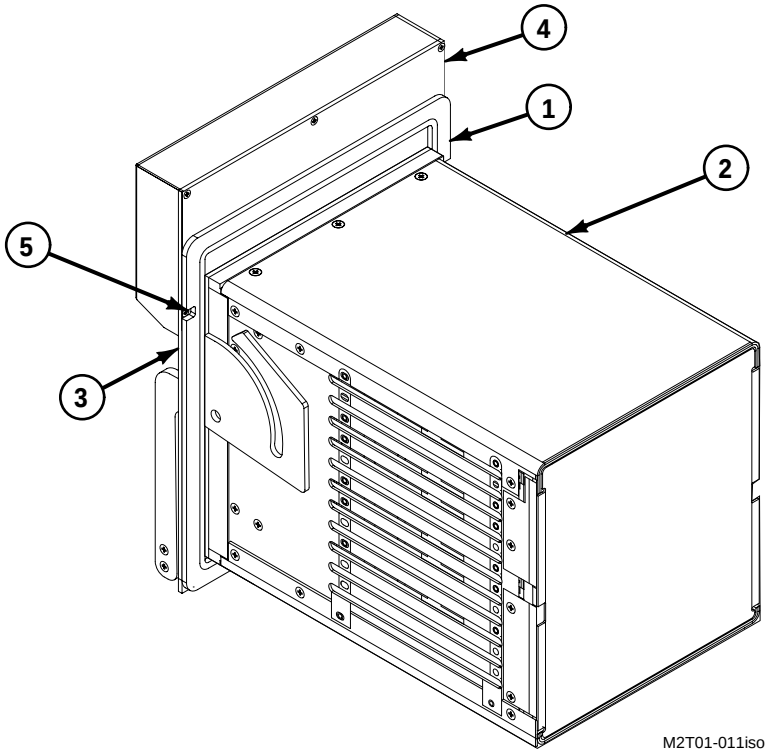
REPLACE CSFM EMI/RFI GASKET 0106 09

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29

Materials/Parts:
Gasket
Isopropyl Alcohol (Item 6, WP 0162 00)
Wiping Rag (Item 10, WP 0162 00)



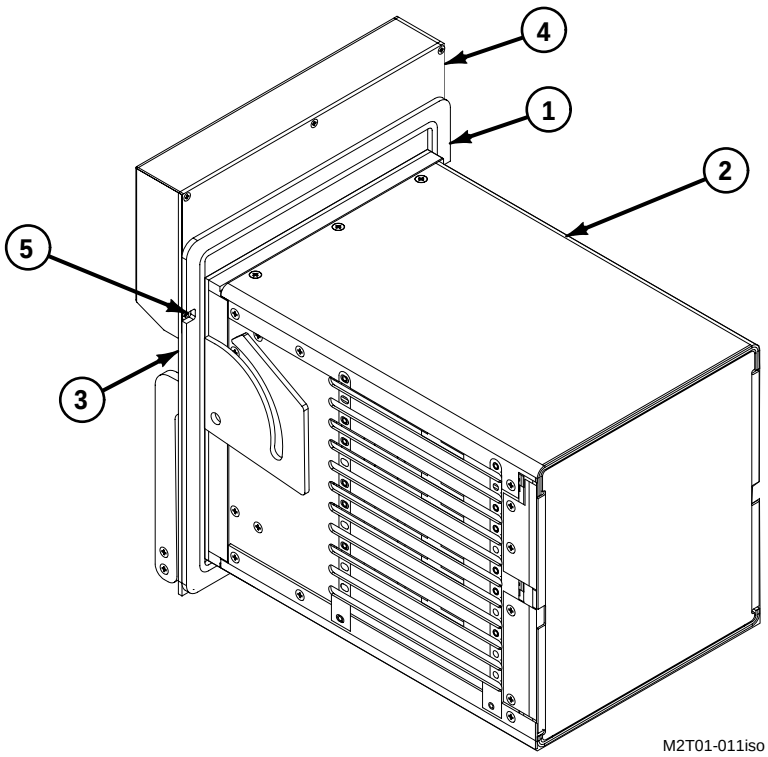
REMOVE

1. REMOVE GASKET (1) FROM CSFM (2).
   a. Scrape off old gasket (1) from back of CSFM (2) front panel (3) and connector housing cover (4).

WARNING

Isopropyl alcohol burns easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in a well-ventilated area.

   b. Clean rear surface of CSFM front panel (3) and connector housing cover (4) using isopropyl alcohol. Dry with clean rag.



INSTALL

2. INSTALL NEW GASKET (1) ON FRONT PANEL (3) AND CONNECTOR HOUSING COVER (4).
   a. Remove tape from flat surface on gasket (1) to expose adhesive.
   b. Carefully position gasket (1) so that bottom of gasket (1) is aligned with bottom of front panel (3) and the two cutouts (5) in gasket 91) are aligned with the screws at the bottom of connector housing cover (4).
   c. Firmly press gasket (1) against front panel (3) and connector housing cover (4).
   d. Using knife, cut gasket on both sides at the interface of front panel (3) and connector housing cover (4).

END OF TASK

REPLACE CSFM ETHERNET CABLE OR COAX CABLE 0106 10

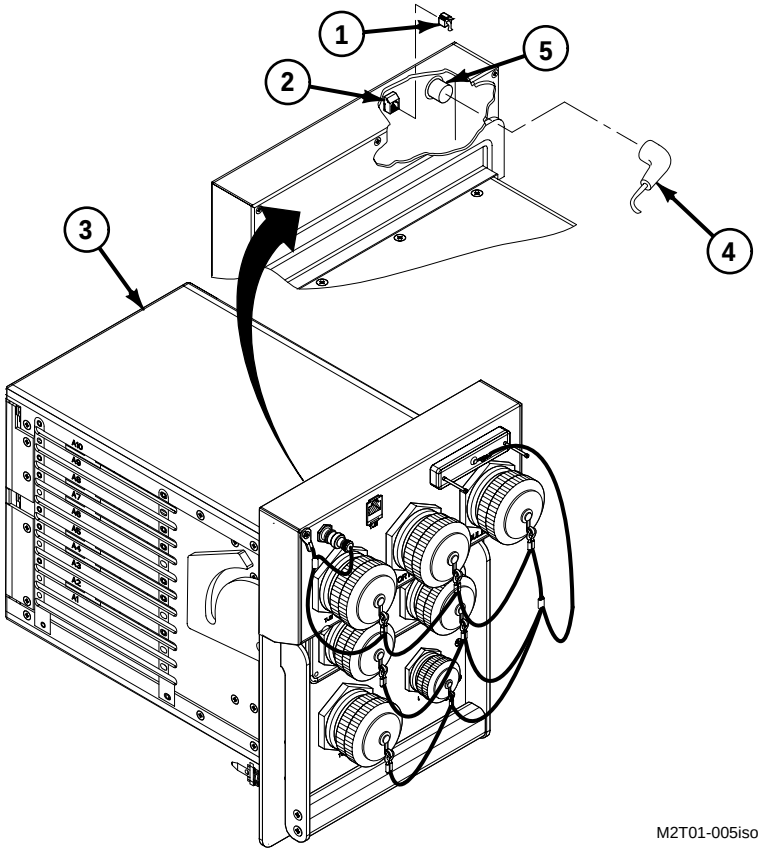
THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29

Equipment Conditions:
Connector housing cover removed from CSFM; refer to WP 0106 11 00.
CCA A10 removed from CSFM; refer to WP 0106 05.

Materials/Parts:
Ethernet Cable or Coax Cable

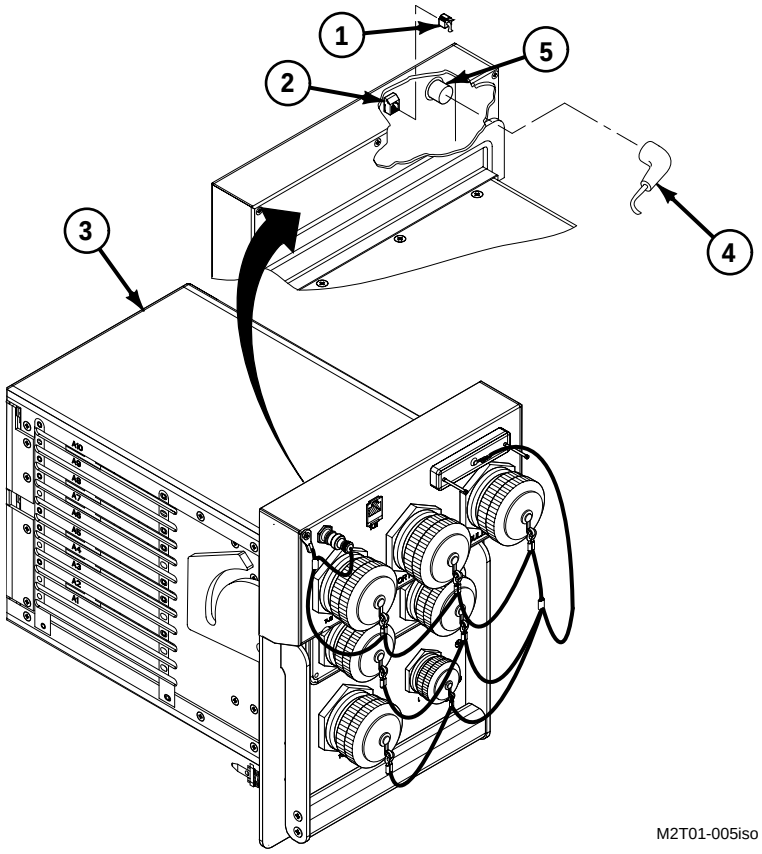


NOTE

To replace ethernet cable, perform steps 1 and 3.
To replace coax cable, perform steps 2 and 4.

REMOVE

1. DISCONNECT ETHERNET CABLE (1) FROM CONNECTOR TJ2 (2) AND REMOVE CABLE FROM CSFM (3).
2. DISCONNECT COAX CABLE (4) FROM CONNECTOR TJ1 (5) AND REMOVE CABLE FROM CSFM (3).



INSTALL

3. CONNECT NEW ETHERNET CABLE (1) TO CONNECTOR TJ2 (2).
4. CONNECT NEW COAX CABLE (4) TO CONNECTOR TJ1 (5).

END OF TASK

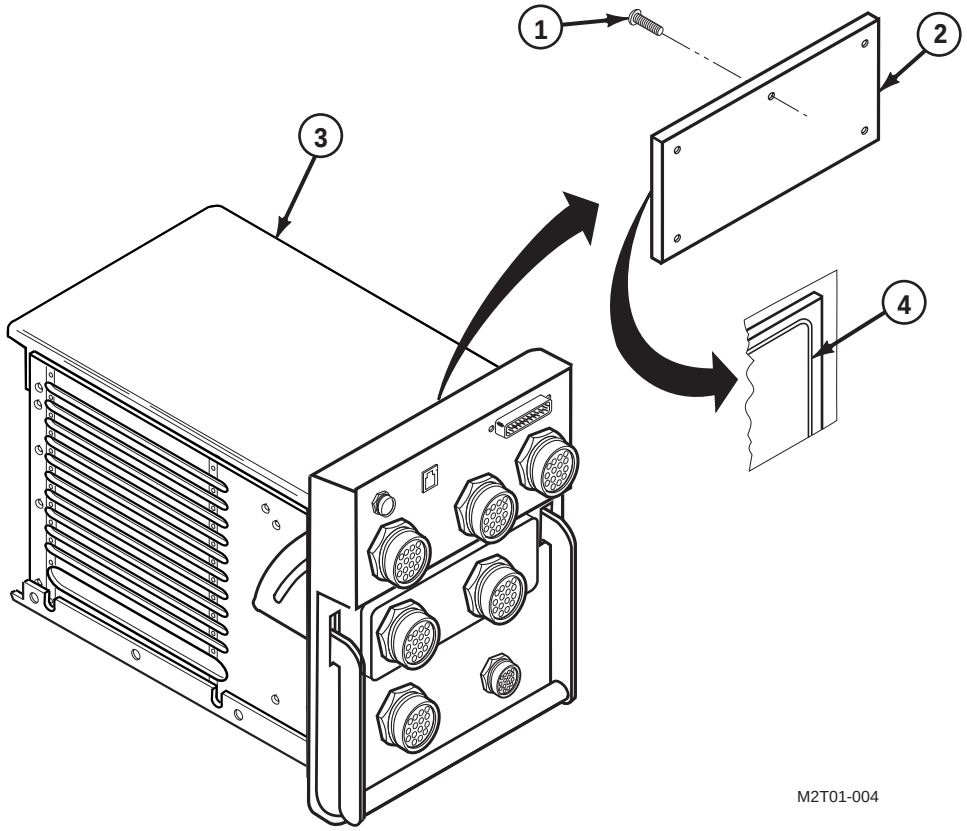
REMOVE/INSTALL CSFM CONNECTOR HOUSING COVER 0106 11

THIS WORK PACKAGE COVERS:
Removal, Inspection, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic System Maintenance
SC 5180-95-CL-B29

Materials/Parts:
Viscous compound (Item 19, WP 0162 00)



REMOVE

1. REMOVE FIVE SCREWS (1) AND CONNECTOR HOUSING COVER (2) FROM CSFM (3).

INSPECT

2. INSPECT GASKET (4) FOR CRACKS AND BREAKS.
3. REPLACE GASKET IF DAMAGED. REFER TO WP 0106 09.

INSTALL

4. INSTALL CONNECTOR HOUSING COVER (2) ON CSFM (3).
   a. Lightly coat the threads of five screws (1) with viscous compound.
   b. Install five screws (1) and connector housing cover (2) on CSFM (3).

END OF TASK

REPLACE CFM MODULE BUFFER/COMMUNICATION CCA A1 (13014869) OR PCMCIA SIGNAL FLEXIBLE CABLE ASSEMBLY

0106 12

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP

Tools:
Tool Kit, Electronic Systems Maintenance
SC 5180-95-CL-B29
or
Turret Mechanic's Tool Kit
SC 4931-95-CL-A22

Equipment Conditions:
CFM rear cover removed; refer to WP 0091 00.
CFM PCMCIA load plate assembly removed; refer to WP 0105 00.

Materials/Parts:
Antistatic bag (Item 17, WP 0162 00)
Lockwashers (8)

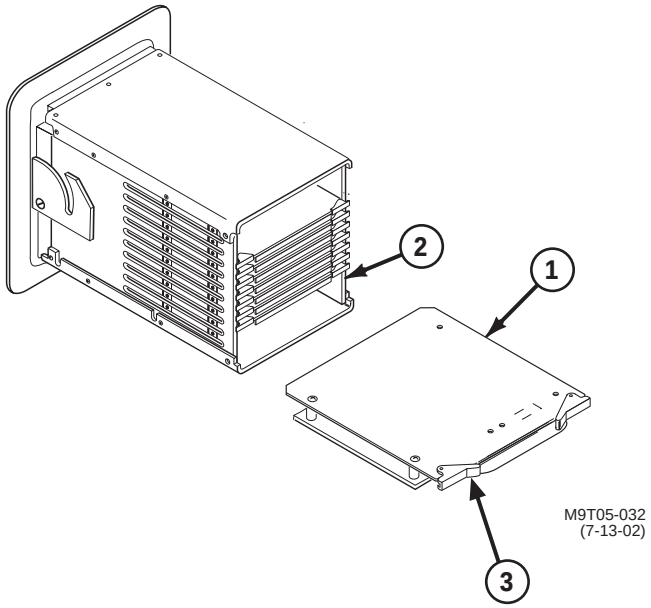
REMOVE

CAUTION

Circuit card assemblies are electrostatically sensitive. Only handle a circuit card assembly by the frame while working at an antistatic workstation and wearing a ground strap. Avoid bending or twisting a circuit card assembly or touching components of the circuit card assembly. Store and transport circuit card assemblies in static proof bags. Do not stack static proof bags containing circuit card assemblies.

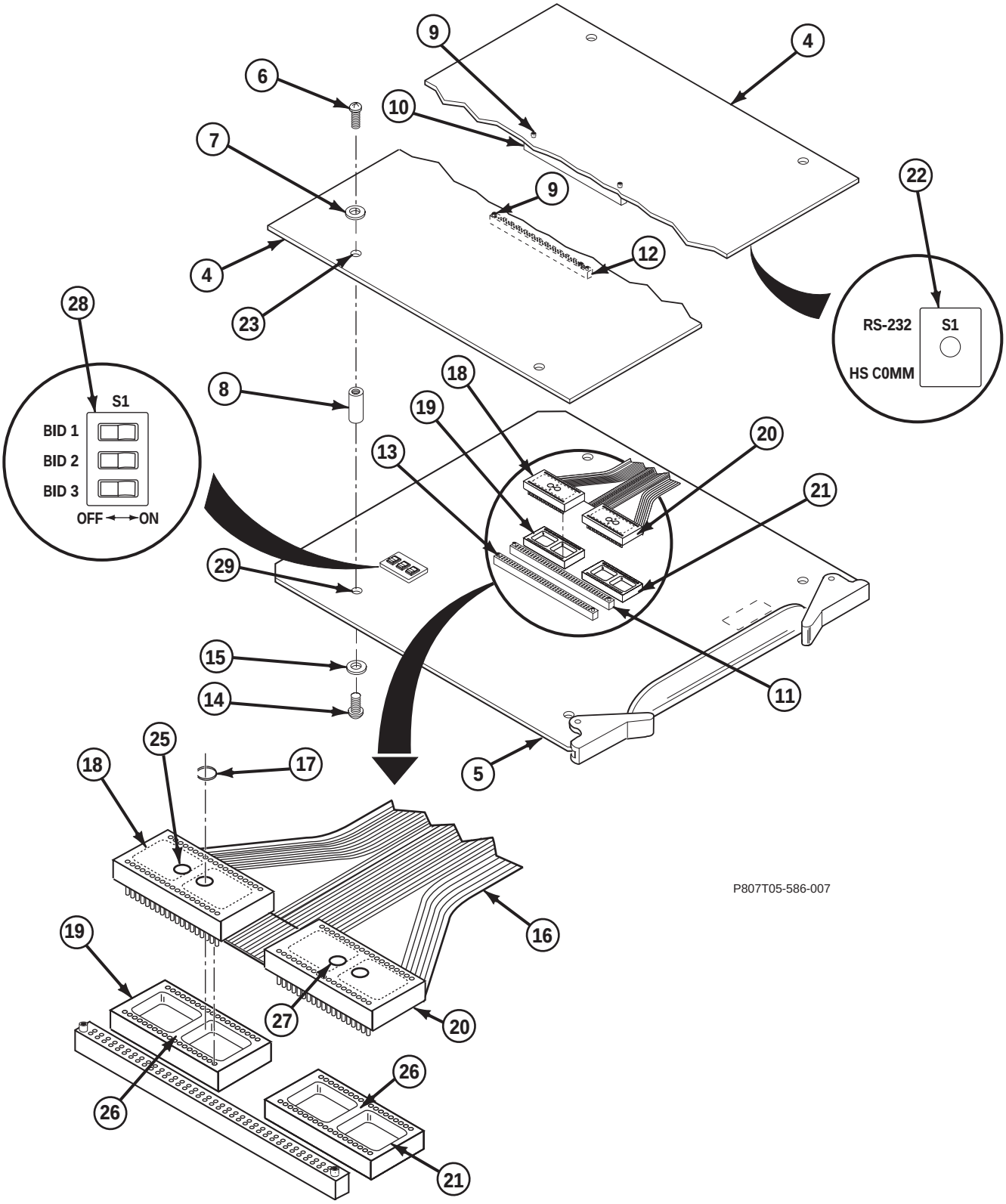
NOTE

Perform removal steps 1 and 2 if replacing communication CCA.
Perform removal steps 1, 3 and 4 if replacing module buffer CCA.



1. REMOVE MODULE BUFFER/COMM. CCA A1 (1) FROM CARD CAGE (2).
   a. Lift the ends of ejectors (3) and slide module buffer/communication CCA A1 (1) from card cage (2).

REPLACE CFM MODULE BUFFER/COMMUNICATION CCA A1 (13014869) OR PCMCIA SIGNAL FLEXIBLE CABLE ASSEMBLY - CONTINUED **0106 12**



2. REMOVE COMMUNICATION CCA (4) FROM MODULE BUFFER CCA (5).
   a. Remove four screws (6) and lockwashers (7) to release high speed communication CCA (4) from module buffer CCA (5). Leave standoffs (8) attached to module buffer CCA. Discard lockwashers.
   b. Alternately loosen jackscrews (9) 1/2 turn at a time and carefully separate connectors P1 (10) from connector J1 (11) and P2 (12) from J2 (13) on module buffer CCA (5).
   c. Lift and remove high speed communication CCA (4) from module buffer CCA (5) and place into plastic antistatic bag.

3. REMOVE MODULE BUFFER CCA (5) FROM COMMUNICATION CCA (4).
   a. Remove four screws (14) and lockwashers (15) to release module buffer CCA (5) from communication CCA (4). Leave standoffs (8) attached to communication CCA. Discard lockwashers.
   b. Alternately loosen jackscrews (9) 1/2 turn at a time and carefully separate connectors P1 (10) from connector J1 (11) and P2 (12) from J2 (13) on module buffer CCA (5).
   c. Lift and remove communication CCA (4) and place into plastic antistatic bag.

4. REMOVE PCMCIA FLEXIBLE CABLE ASSEMBLY (16) FROM MODULE BUFFER CCA (5).
   a. Cut and remove cable tie (17) from adapter plug U1 (18) on PCMCIA flexible cable assembly (16) and socket J4 (19) on module buffer CCA (5). Discard cable tie.
   b. Cut and remove cable tie (17) from adapter plug U2 (20) on PCMCIA flexible cable assembly (16) and socket J3 (21) on module buffer CCA (5). Discard cable tie.

CAUTION

To avoid bending pins, pull flex cable connectors straight up when disconnecting from Circuit card.

   c. Carefully disconnect and remove adapter plugs U1 (18) and U2 (20) from sockets J4 (19) and J3 (21). Remove PCMCIA flexible cable assembly (16).
   d. Place module buffer CCA (5) into plastic antistatic bag.

INSTALL

CAUTION

Switches on CCA's must be set before installation to prevent possible module malfunction.

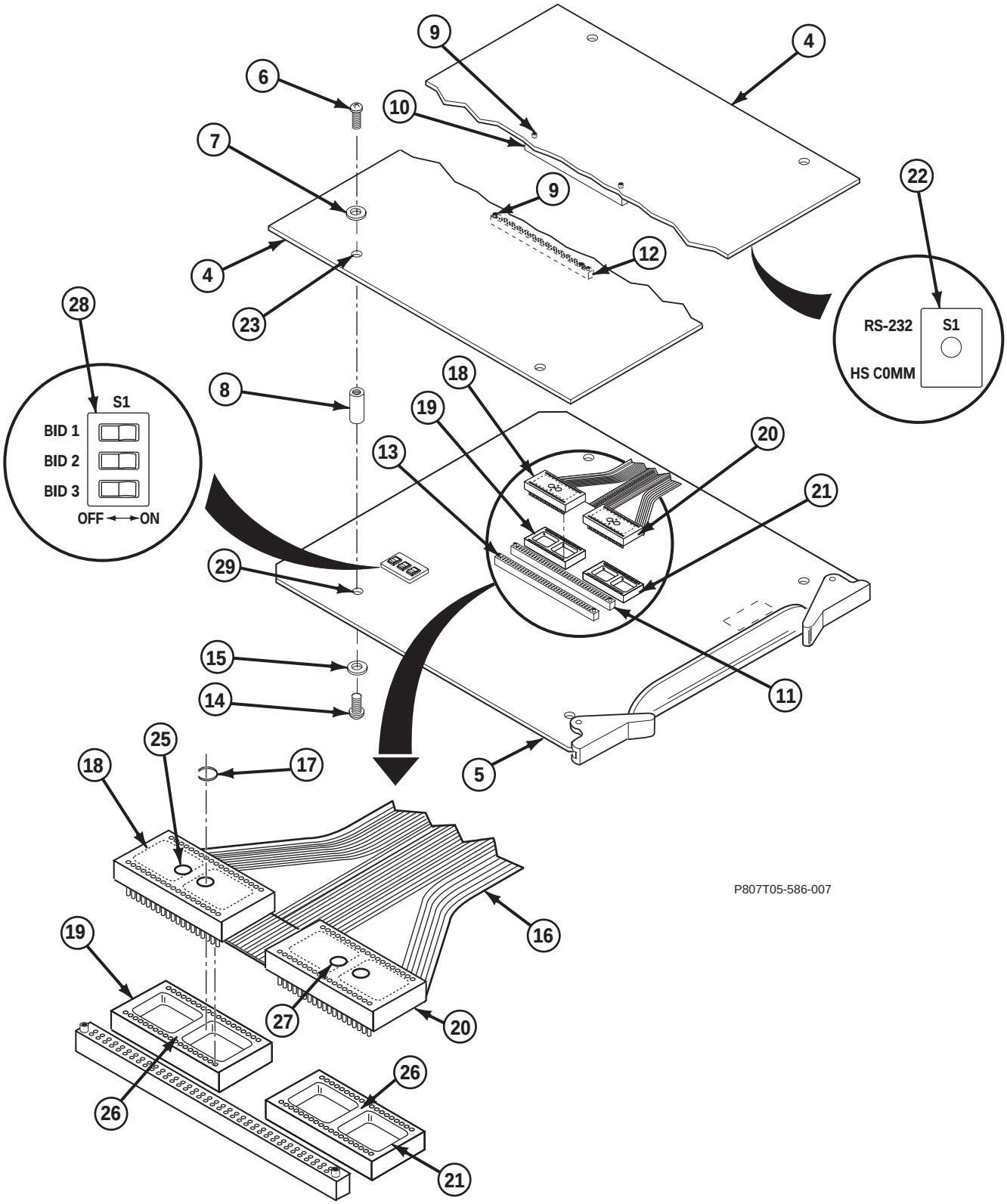
NOTE

Perform installation steps 5 and 8 if replacing communication CCA.
Perform installation steps 6, 7 and 8 if replacing module buffer CCA.

Table 1

Switch Settings Module Buffer CCA 13011507			**Switch Setting Comm. CCA 13011506**
BID 3 S3 ON	BID 2 S2 OFF	BID 1 S1 ON	S1 RS-232

REPLACE CFM MODULE BUFFER/COMMUNICATION CCA A1 (13014869) OR PCMCIA SIGNAL FLEXIBLE CABLE ASSEMBLY - CONTINUED **0106 12**



5. INSTALL COMMUNICATION CCA (4) ON MODULE BUFFER CCA (5).
   a. Set communication S1 switch (22) to RS-232.
   b. Place communication CCA (4) on module Buffer CCA (5) and carefully align connectors (10,11) and (12,13); ensure that standoffs (8) are aligned with holes (23) in communication CCA (4).
   c. Alternately tighten two jackscrews (9) 1/2 turn at a time to attach connectors (10,11) and (12,13).
   d. Install four screws (6), new lockwashers (7) to secure communication CCA (4) to module buffer CCA (5).
6. INSTALL PCMCIA FLEXIBLE ASSEMBLY (16) ON MODULE BUFFER CCA (5).
   a. Place PCMCIA flexible cable assembly (16) on module buffer CCA (5); align pins of adapter plug U1 (18) with socket J4 (19) and adapter plug U2 (20) with socket J3 (21).
   b. Carefully press down on adapter plug (18) and (20) to insert contact pins into sockets (19) and (21).
   c. Insert cable tie (17) through holes (25) in adapter plug U1 (18) and tie bar (26) on socket J4 (19); tighten cable tie to secure adapter plug U1 to socket J4. Cut off excess cable tie.
   d. Insert cable tie (17) through holes (27) in adapter plug U2 (20) and tie bar (26) on socket J3 (21); tighten cable tie to secure adapter plug U2 to socket J3. Cut off excess cable tie.
7. INSTALL MODULE BUFFER CCA (5) ON COMMUNICATION CCA (4).
   a. Set module buffer S1 switch (28) to settings in table 1.
   b. Place module buffer CCA (5) on communication CCA (4) and carefully align connectors (10,11) and (12,13); ensure that standoffs (8) are aligned with holes (29) in module buffer CCA (5).
   c. Alternately tighten two jackscrews (9) 1/2 turn at a time to attach connectors (10,11) and (12,13).
   d. Install four screws (14), new lockwashers (15) to secure module buffer CCA (5) to communication CCA (4).
8. INSTALL MODULE BUFFER/COMM. CCA (1) IN CARD CAGE (2).
   a. Place module buffer/communication CCA (1) in card guides of card cage (2) so that CCA backplane connector is aligned with backplane connector.
   b. Slide module buffer/communication CCA (1) into card cage (2) pressing firmly on ejectors (3) to seat CCA.

END OF TASK

CHAPTER 5

SUPPORTING INFORMATION

REFERENCES 0107 00

SCOPE

This work package lists all field manuals, forms, technical manuals and miscellaneous publications referenced in this manual.

Field Manuals

First Aid for Soldiers	FM 21-11

Forms

Recommended Changes to Publications and Blank Forms	DA Form 2028
Recommended Changes to Equipment Technical Publications	DA Form 2028-2
Report of Discrepancy (ROD)	SF 364
Product Quality Deficiency Report (Category II)	SF 368
Equipment Inspection and Maintenance Worksheet	DA Form 2404
Material Condition Status Report (MCSR)	DA Form 2406
Maintenance Management Update	DA Form 12

Technical Manuals

Painting Instructions for Field Use	TM 43-0139
Procedures for Destruction of Electronics Material to Prevent Enemy Use (Electronics Command)	TM 750-244-2
Operator's and Unit Maintenance Manual Including Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts): Test Set, Electronic, AN/USM 615 (DSESTS-M1/FVS) (4931-01-120-0764) M1 Equipment Support Group	TM 9-4931-586-12-2&P
Operator's and Unit Maintenance Manual Including Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts): Test Set, Electronic, AN/USM 615 (DSESTS-M1/FVS) (4931-01-120-0764) M2/M3 (FVS) Equipment Support Group	TM 9-4931-586-12-3&P
Operator's and Unit Maintenance Manual Including Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts): Test Set, Electronic, AN/USM 615 (DSESTS-M1/FVS) (4931-01-120-0764) Thermal Imaging System Equipment Support Group	TM 9-4931-586-12-4&P
Operator's and Unit Maintenance Manual Including Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts): Test Set, Electronic, AN/USM 615 (DSESTS-M1/FVS) (4931-02-120-0764) M1A2 Equipment Support Group	TM 9-4931-586-12-5&P
Operator's and Unit Maintenance Manual Including Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts): Test Set, Electronic, AN/USM 615 (DSESTS-M1/FVS) (4931-02-120-0764) TOW Equipment Support Group	TM 9-4931-586-12-6&P
Intermediate Direct Support Maintenance Manual Including Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts): Test Set, Electronic, AN/USM 615 (DSESTS-M1/FVS) (4931-01-120-0764)	TM 9-4931-586-30&P

REFERENCES - CONTINUED 0107 00

Miscellaneous Publications

The Army Maintenance Management System (TAMMS)	DA PAM 738-750
Printing, Camouflage Painting and Marking of Army Material	AR750-58
Army Medical Department Expendable/Durable Items	CTA 8-100
Expendable Items (Except Medical, Class V, Repair Parts and Heraldic Items)	CTA 50-970
Equipment Improvement Report and Maintenance Digest	TB 43-0001-36-1
Electrostatic Discharge Control Program For Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices)	MIL-STD-1686

MAINTENANCE ALLOCATION CHART (MAC), PART ONE 0108 00

INTRODUCTION

The Army Maintenance System MAC

This introduction provides a general explanation of all maintenance and repair functions authorized at various maintenance levels under the standard Army Maintenance System concept.

The MAC (immediately following the introduction) designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component shall be consistent with the capacities and capabilities of the designated maintenance levels, which are shown on the MAC in column (4) as:

Unit – includes two subcolumns, C (operator/crew) and O (unit) maintenance.

Direct Support – includes an F subcolumn.

General Support – includes an H subcolumn.

Depot – includes a D subcolumn.

The tools and test equipment requirements (immediately following the MAC) list the tools and test equipment (both special tools and common tools sets) required for each maintenance function as referenced from the MAC.

The remarks (immediately following the tools and test equipment requirements) contain supplemental instructions and explanatory notes for a particular maintenance function.

Maintenance Functions

Maintenance functions are limited to and defined as follows:

1. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g., by sight, sound, or feel). This includes scheduled inspection and gagings and evaluation of cannon tubes.

2. Test. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards on a scheduled basis, i.e., load testing of lift devices and hydrostatic testing of pressure hoses.

3. Service. Operations required periodically to keep an item in proper operating condition; e.g., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases. This includes scheduled exercising and purging of recoil mechanisms.

4. Adjust. To maintain or regulate, within prescribed limits, by bringing into proper position, or by setting the operating characteristics to specified parameters.

5. Align. To adjust specified variable elements to an item to bring about optimum or desired performance.

6. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments of test, measuring, and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instruments being compared.

Maintenance Functions – Continued

7. Remove/Install. To remove and install the same item when required to perform service or other maintenance functions. Install may be the act of emplacing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.

8. Replace. To remove an unserviceable item and install a serviceable counterpart in its place. "Replace" is authorized by the MAC and assigned maintenance level is shown as the third position code of the Source, Maintenance and Recoverability (SMR) code.

9. Repair. The application of maintenance services, including fault location/troubleshooting, removal/installation, disassembly/assembly procedures, and maintenance actions to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

NOTE

The following definitions are applicable to the "repair" maintenance function:

Services – Inspection, test, service, adjust, align, calibrate, and/or replace.

Fault location/troubleshooting – The process of investigating and detecting the cause of equipment malfunctioning; the act of isolating a fault within a system or Unit Under Test (UUT).

Disassembly/assembly – The step-by-step breakdown (taking apart) of a spare/functional group coded item to the level of its least component, that is assigned an SMR code for the level of maintenance under consideration (i.e., identified as maintenance significant).

Actions – Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing.

10. Overhaul. That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

11. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (e.g., hours/miles) considered in classifying Army equipment/components.

Explanation of Columns in the MAC

Column (1) – Group Number. Column (1) lists FGC numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the Next Higher Assembly (NHA).

Column (2) – Component/Assembly. Column (2) contains the item names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

Column (3) – Maintenance Function. Column (3) lists the functions to be performed on the item listed in column (2). (For a detailed explanation of these functions refer to "Maintenance Functions" outlined above.)

Column (4) – Maintenance Level. Column (4) specifies each level of maintenance authorized to perform each function listed in column (3), by indicating work time required (expressed as manhours in whole hours or decimals) in the appropriate subcolumn.

This work time figure represents the active time required to perform that maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function varies at different maintenance levels, appropriate work time figures are to be shown for each level. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the MAC. The symbol designations for the various maintenance levels are as follows:

C – Operator or crew maintenance

O – Unit maintenance

F – Direct support maintenance

L – Specialized repair activity (SRA)

H – General support maintenance

D – Depot maintenance

NOTE

The "L" maintenance level is not included in column (4) of the MAC. Functions to this level of maintenance are identified by a work time figure in the "H" column of column (4), and an associated reference code is used in the REMARKS column (6). This code is keyed to the remarks and the SRA complete repair application is explained there.

Column (5) – Tools and Equipment Reference Code. Column (5) specifies, by code, those common tool sets (not individual tools), common Test, Measurement and Diagnostic Equipment (TDME), and special tools, special TMDE and special support equipment required to perform the designated function. Codes are keyed to the entries in the tools and test equipment table.

Column (6) – Remarks Code. When applicable, this column contains a letter code, in alphabetical order, which is keyed to the remarks table entries.

Explanation of Columns in the Tools and Test Equipment Requirements

Column (1) – Tool or Test Equipment Reference Code. The tool or test equipment reference code correlates with a code used in column (5) of the MAC.

Column (2) – Maintenance Level. The lowest level of maintenance authorized to use the tool or test equipment.

Column (3) – Nomenclature. Name or identification of the tool or test equipment.

Column (4) – National Stock Number (NSN). The NSN of the tool or test equipment.

Column (5) – Tool Number. The manufacturer's part number, model number, or type number.

Explanation of Columns in the Remarks

Column (1) – Remarks Code. The code recorded in column (6) of the MAC.

Column (2) – Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC.

Table 1. MAC for Test Set, Electronic

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
00	TEST SET, ELECTRONIC (DSESTS)	INSPECT TEST							
01	ELECTRONICS SYSTEM TEST SET	INSPECT		2.4					
01A	OPERATOR INTERFACE UNIT (OIU)	TEST REPLACE REPAIR		.7 .2 .1	.5			3, 8 7, 10, 11 7, 10, 11	 J A, J
0A01	CONTROL ASSEMBLY, OPERATOR	REPAIR		.2				7, 10, 11	A, J
01A0101	ELECTRONICS ASSEMBLY (OIU)	REPAIR TEST INSTALL TEST		.1	1.4 .2 1.5 .2			1, 3, 5, 6, 7 8, 9, 10, 11	A, B J
01A010101	DELETED								
01A010102	DELETED								
01A010103	CIRCUIT CARD ASSEMBLY, MEMORY (A5)	REPLACE REPAIR			.9		 1.0	8	
01A010104	CIRCUIT CARD ASSEMBLY, PROCESSOR (A6)	REPLACE REPAIR			.9		 1.0	8	
01A010105	CIRCUIT CARD ASSEMBLY, COMMUNICATIONS REGISTER UNIT (CRU) CONTROL (A7)	REPLACE REPAIR			.9		 1.0	8	
01A010106	CIRCUIT CARD ASSEMBLY, ANALOG TO DIGITAL CONVERTER (A8)	REPLACE REPAIR			.9		 1.0	8	
01A010107	CIRCUIT CARD ASSEMBLY ANALOG PREPROCESSOR (A9)	REPLACE REPAIR			.9		 1.0	8	
01A010108	CIRCUIT CARD ASSEMBLY, LOGIC INPUT (A10)	REPLACE REPAIR			.9		 1.0	8	
01A010109	CIRCUIT CARD ASSEMBLY, RELAY DRIVER (A12, A13, A14)	REPLACE REPAIR			.9		 1.0	8	
01A010110	CIRCUIT CARD ASSEMBLY, RELAY MULTIPLEXER (A15)	REPLACE REPAIR			.9		 1.0	8	
01A010111	CIRCUIT CARD ASSEMBLY, DIGITAL DRIVER (A16)	REPLACE REPAIR			.9		 1.0	8	
01A010112	CIRCUIT CARD ASSEMBLY, SERIAL DIGITAL INPUT OUTPUT (A17)	REPLACE REPAIR			.9		 1.0	8	
01A010113	CIRCUIT CARD ASSEMBLY, 16 CHANNEL LINEAR OUTPUT (A18)	REPLACE REPAIR			.9		 1.0	8	
01A010114	CIRCUIT CARD ASSEMBLY, CRU BUFFER (A19)	REPLACE REPAIR			.9		 1.0	8	
01A010115	CIRCUIT CARD ASSEMBLY, ACTIVE TERMINATOR (A20, A21, A35, A36)	REPLACE REPAIR			.7		 1.0	8	F
01A010116	CIRCUIT CARD ASSSEMBLY, SIGNAL CONDITIONER NO. 1 (A22)	REPLACE REPAIR			.9		 1.0	8	

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
01A010117	CIRCUIT CARD ASSEMBLY, SIGNAL CONDITIONER NO. 2 (A23)	REPLACE REPAIR			.9		 1.0	8	
01A010118	CIRCUIT CARD ASSEMBLY, SIGNAL CONDITIONER NO. 3 (A24)	REPLACE REPAIR			.9		 1.0	8	
01A010119	CIRCUIT CARD ASSEMBLY, HIGH LEVEL MULTIPLEXER (A25-A30)	REPLACE REPAIR			.9		 1.0	8	
01A010120	CIRCUIT CARD ASSEMBLY, SIGNAL CONDITIONER NO. 4 (A31)	REPLACE REPAIR			.9		 1.0	8	
01A010121	CIRCUIT CARD ASSEMBLY, SIGNAL CONDITIONER NO. 5 (A32)	REPLACE REPAIR			.9		 1.0	8	
01A010122	CIRCUIT CARD ASSEMBLY, SIGNAL CONDITIONER NO. 6 (A33)	REPLACE REPAIR			.9		 1.0	8	
01A010123	CIRCUIT CARD ASSEMBLY, CRU DISTRIBUTOR (A34)	REPLACE REPAIR			.6		 1.0	8	
01A010124	CIRCUIT CARD ASSEMBLY, SIGNAL CONDITIONER NO. 7 (A38)	REPLACE REPAIR			.6		 1.0	8	
01A010125	TERMINAL BOARD, I/O	REPLACE REPAIR			.8		 1.0	8	
01A010126	DISPLAY ASSEMBLY	REPLACE REPAIR			1.0		 1.0	8	
01A01012601	CIRCUIT CARD ASSEMBLY, DISPLAY	REPLACE REPAIR					.5 1.0		
01A01012602	CIRCUIT CARD ASSEMBLY, DISPLAY CONTROL	REPLACE REPAIR					.5 1.0		
01A01012603	CIRCUIT CARD ASSEMBLY, DISPLAY POWER SUPPLY	REPLACE REPAIR					.5 1.0		
01A010128	CARD CAGE ASSEMBLY	REPAIR			.5		1.0		
01A01012801	TERMINAL BOARD, BACKPLANE	REPLACE REPAIR			11.0		 1.0	8	
01A010129	MINI CARD CAGE ASSEMBLY, (OIU)	INSTALL REPAIR			1.6		 1.0		
01A01012901	TERMINAL BOARD, BACKPLANE	REPLACE REPAIR			2.0		 1.0	8	
01A010130	LOAD PLATE ASSEMBLY	TEST REPLACE REPAIR			.1 .8 .4			8 8 8	
01A0102	CASE ASSEMBLY, OPERATOR INTERFACE UNIT	INSTALL REPAIR REPLACE		.2	.1 1.1 .7		.2	8 7, 8, 10, 11	J
01A02	PROBE, TEST (TPC-W50)	TEST REPLACE REPAIR		.1 .1	.2 1.0 1.2			1 2, 7, 8, 9, 10, 11	 J
01A0201	CABLE ASSEMBLY, PROBE	REPLACE REPAIR TEST			1.0 .7 .2			 2,8 1	

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
01A03	CABLE ASSEMBLY, MEMORY (MEM-W60)	REPLACE REPAIR		.1 .8			.8	2, 7, 10, 11	C, J
01A04	CABLE ASSEMBLY, POWER (M1/FVS PWR-W1)	TEST REPLACE REPAIR		.1 .1 .3			.8	1 2, 7, 10, 11	C, J
01A05	CABLE ASSEMBLY, FUNCTIONAL SELF TEST (FST-W86)	TEST REPLACE REPAIR		.2 .1 .9			.9	1 2, 7, 10, 11	C, J
01A06	CABLE ASSEMBLY, FUNCTIONAL SELF TEST (FST-W87)	TEST REPLACE REPAIR		.6 .1 1.7			1.7	1 2, 7, 10, 11	C, J
01A07	CABLE ASSEMBLY, FUNCTIONAL SELF TEST (FST-W88)	TEST REPLACE REPAIR		1.3 .1 1.8			1.8	1 2, 7, 10, 11	C, J
01A08	ACCESSORY MODULE ASSEMBLY (FST ADAPTERS)	REPLACE REPAIR		.1 .3				 11, 7, 10	J
01A09	ACCESSORY MODULE ASSEMBLY	REPLACE REPAIR		.1 .3				 7, 10, 11	J
01B	DSESTS, GENERAL PURPOSE INTERFACE ASSEMBLY (GPIA)	INSPECT REPLACE REPAIR		.5 1.0 .1					
01B01	CASE ASSEMBLY, GPIA	INSTALL REPLACE REPAIR		.1 .7 .8				 12, 7, 10, 11	J
01B02	ELECTRONICS ASSEMBLY, GPIA	SERVICE INSTALL REPAIR		.3 .5 .4				 7, 10, 11	J
01B0201	POWER SUPPLY ASSEMBLY, UUT	REPLACE REPAIR		.8 1.0			1.0	11 7, 10, 11	J
01B0202	BLOWER ASSEMBLY	REPAIR		1.0				11, 7, 10	J
01B020201	CIRCUIT CARD ASSEMBLY, LOAD CONTROLLER	REPLACE REPAIR		.5			 1.0	7, 10, 11	J
01B0205	CIRCUIT CARD ASSEMBLY BACKPLANE	REPLACE REPAIR					3.0 3.0		
01B0206	CIRCUIT CARD ASSEMBLY, CPU (A5)	REPLACE REPAIR		.5			 1.0	11, 7, 10	J
01B0207	CIRCUIT CARD ASSEMBLY, OIU INTERFACE (A1)	REPLACE REPAIR		.5			 1.0	11, 7, 10	J
01B0208	CIRCUIT CARD ASSEMBLY, MEMORY, (A4)	REPLACE REPAIR		.5			 1.0	11, 7, 10	J
01B0209	CIRCUIT CARD ASSEMBLY, CORE BUFFER INTERFACE (A6)	REPLACE REPAIR		.5			 1.0	11, 7, 10	J
01B0210	CIRCUIT CARD ASSEMBLY, SYSTEM MEAS/CAL (A3)	REPLACE REPAIR		.5			 1.0	11, 7, 10	J
01B0211	CIRCUIT CARD ASSEMBLY, COMMUNICATIONS (A2)	REPLACE REPAIR		.5			 1.0	11, 7, 10	J

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP		
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	TOOLS AND EQPT.	REMARKS
01B0212	COVER, ACCESS ASSEMBLY	REPLACE		.1					
		REPAIR		.5				11, 7, 10	J
01B0213	CIRCUIT CARD ASSEMBLY, PROTECTION MODULE (A9)	REPLACE					1.0		
		REPAIR					1.0		
01B021301	CIRCUIT CARD ASSEMBLY	REPLACE					1.0		
		REPAIR					1.0		
01B03	CABLE ASSEMBLY, GPIA POWER (W21)	REPLACE		.1				11, 7, 10	J
		REPAIR		.4			.8	2	
		TEST		.1				1	
01B04	CABLE ASSEMBLY, GPIA/OIU INTERFACE (W23)	REPLACE		.1				11, 7, 10	J
		REPAIR		.8			.8	2	
01B05	STORAGE MODULE ASSEMBLY, GPIA (FST ADAPTERS)	REPLACE		.1					
		REPAIR		.3				7, 10, 11	J
01B06	STORAGE MODULE ASSEMBLY, GPIA	REPLACE		.1				11, 7, 10	J
		REPAIR		.3				11, 7, 10	J
01B07	CABLE ASSEMBLY, GPIA FUNCTIONAL SELF TEST (W34)	REPLACE		.1				11, 7, 10	J
		REPAIR		.9			1.0	2	
01B08	CABLE ASSEMBLY, DIGITAL LINE REPLACEABLE UNIT (DLRU-W93)	TEST		.5				1	
		REPLACE		.1					
		REPAIR		.4			.9	2, 7, 11	C
01C	COMBINED SUPPORT FUNCTIONS MODULE (CSFM) SYSTEM	INSPECT		2.0					
01C01	COMBINED SUPPORT FUNCTIONS MODULE (CSFM) ASSEMBLY	INSTALL		.2					
		REPLACE		.1					
		REPAIR		.3				1, 11	
01C0101	COVER ASSEMBLY	REPAIR		.5				11	
01C0102	CIRCUIT CARD ASSEMBLY, MODULE BUFFER/DSP (A10)	REPLACE		.1				11	
		REPAIR					1.0		
01C0103	CIRCUIT CARD ASSEMBLY, DIGITAL I/O (A8)	REPLACE		.1				11	
		REPAIR					1.0		
01C0104	CIRCUIT CARD ASSEMBLY, HIGH LEVEL MEASUREMENT (A4, A7)	REPLACE		.1				11	
		REPAIR					1.0		
01C0105	CIRCUIT CARD ASSEMBLY, SIGNAL CONDITIONER (A5)	REPLACE		.1				11	
		REPAIR					1.0		
01C0106	CIRCUIT CARD ASSEMBLY, ACTIVE TERMINATOR (A2)	REPLACE		.1				11	
		REPAIR					1.0		
01C0107	LOAD PLATE ASSEMBLY	REPLACE		.1				11	
		REPAIR							
01C02	CABLE ASSEMBLY POWER/RS232-W330	REPLACE		.1					
		REPAIR		.5			1.0	2, 7, 10	
		TEST		1.0				1	
01C0201	W330 ADAPTER ASSEMBLY	REPLACE		.1					
		REPAIR		.3			1.0	2, 7, 10	
		TEST		.3				1	
01C03	CABLE ASSEMBLY POWER-W331	REPLACE		.1					
		REPAIR		.5			1.0	2, 7, 10	
		TEST		1.0				1	

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
01C05	VIDEO CONVERTER AND TRANSFER UNIT (VCTU)	REPLACE REPAIR TEST		.1 .3 .3				2, 7, 10	
01C0501	VCTU COVER ASSEMBLY	REPLACE REPAIR		.1 .2				11	
01C0502	CIRCUIT CARD ASSEMBLY, VCTU	REPLACE REPAIR		.1			1.0	11	
01C0503	CIRCUIT CARD ASSEMBLY, POWER SUPPLY	REPLACE REPAIR		.1			1.0	11	
01C05A	ENHANCED CONVERTER AND TRANSFER UNIT (EVCTU)	REPLACE REPAIR TEST		.1 .3 .3				2, 7, 10	
01C05A01	EVCTU COVER ASSEMBLY	REPLACE REPAIR		.1 .2				11	
01C05A02	CIRCUIT CARD ASSEMBLY, EVCTU	REPLACE REPAIR		.1			1.0		
01C05A03	CIRCUIT CARD ASSEMBLY, POWER SUPPLY	REPLACE REPAIR		.1			1.0	11	
01C06	CABLE ASSEMBLY, (EVCTU FST-W668)	REPLACE REPAIR TEST		.1 .4 .1			1.0	2, 7, 10	C
01C07	CABLE ASSEMBLY VCTU FST-W338	REPLACE REPAIR TEST		.1 .5 1.0			1.0	2, 7, 10 1	
01C08	ADAPTER ASSEMBLY VCTU FST-J3	REPLACE REPAIR TEST		.1 .3 .3			1.0	2, 7, 10 1	
01C09	CABLE ASSEMBLY FST-W87	REPLACE REPAIR TEST		.1 .7 .6			1.0	2, 7, 10 1	
01C10	CABLE ASSEMBLY FST-W88	REPLACE REPAIR TEST		.1 .8 1.3			1.0	2, 7, 10 1	
01C11	CABLE ASSEMBLY GROUND-W36	REPLACE REPAIR TEST		.1 .1 .1				2, 7, 10 1	
02	ELECTRONICS SUPPORT SYSTEM, M1								
02A	ACCESSORY STOWAGE UNIT, M1 NO. 1	REPAIR		.1				7, 10	
02A01	ACCESSORY CASE ASSEMBLY, M1 NO. 1	REPLACE REPAIR		.4 .7				7, 10	
02A02	CABLE ASSEMBLY, HULL NETWORKS BOX TEST (HNB-W9)	TEST REPLACE REPAIR		.9 .1 1.8			1.8	1 2, 7, 10	C, G
02A03	CABLE ASSEMBLY, DRIVER'S INSTRUMENT PANEL TEST (DIP-W11)	TEST REPLACE REPAIR		.8 .1 1.2			1.2	1 2, 7, 10	C, G
02A04	CABLE ASSEMBLY, DRIVER'S MASTER PANEL TEST (DMP-W12)	TEST REPLACE REPAIR		.7 .1 1.2			1.2	1 2, 7, 10	C, G

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
02A05	CABLE ASSEMBLY, HULL POWER DISTRIBUTION BOX TEST (HDB-W10)	TEST		.3				1	
		REPLACE		.1					
		REPAIR		1.2			1.2	2, 7, 10	C, G
02A06	CABLE ASSEMBLY, HULL POWER DISTRIBUTION BOX TEST (HDB-J4/J6)	TEST		.1				1	
		REPLACE		.1					
		REPAIR		.7			.7	2, 7, 10	C, G
02A07	CABLE ASSEMBLY, ELECTRONIC CONTROL UNIT TEST (ECU-W13)	TEST		.7				1	
		REPLACE		.1					
		REPAIR		1.0			1.0	2, 7, 10	C, G
02A08	MEMORY MODULE, M1	REPLACE		.1					
		REPAIR		.2				7, 10	
02A0801	ELECTRONICS ASSEMBLY, M1	TEST		1.4				3, 1	
		REPAIR		1.0				7, 10	
02A080101	CIRCUIT CARD ASSEMBLY, MEMORY INTERFACE (A1)	REPLACE		.3				7, 10	
		REPAIR					1.0		
02A080102	CIRCUIT CARD ASSEMBLY, PROGRAMMABLE READ ONLY MEMORY (A2)	REPLACE		.3				7, 10	
		REPAIR					1.0		
02A080103	CIRCUIT CARD ASSEMBLY, PROGRAMMABLE READ ONLY MEMORY (A3)	REPLACE		.3				7, 10	
		REPAIR					1.0		
02A080104	CIRCUIT CARD ASSEMBLY, BACKPLANE	REPLACE		.5				7, 10	
		REPAIR					1.0		
02A0802	COVER ASSEMBLY	REPLACE		.5					
		REPAIR		.2				7, 10	J
02A09	CABLE ADAPTER ASSEMBLY (DECU-W38)	TEST		.7				1	
		REPLACE		.1					
		REPAIR		1.0			1.0	2, 7, 10	C, G
02A10	TRAY ASSEMBLY	REPLACE		.1					
		REPAIR		.2				7, 10	J
02B	ACCESSORY STOWAGE UNIT, M1 NO. 2	REPAIR		.1				7, 10	
02B01	CABLE CASE ASSEMBLY, M1 NO. 2	REPLACE		.2					
		REPAIR		.8				7, 10	
02B02	CABLE ASSEMBLY, LINE OF SIGHT ELECTRONICS UNIT TEST (LOS-EU-W7)	TEST		.9				1	
		REPLACE		.1					
		REPAIR		1.4			1.4	2, 7, 10	C, G
02B03	CABLE ASSEMBLY, LASER RANGE FINDER TEST (LRF-W8)	TEST		.1				1	
		REPLACE		.1					
		REPAIR		.9			.9	2, 7, 10	C, G
02B04	CABLE ASSEMBLY, COMMANDER'S WEAPON STATION TEST (CWS-W3)	TEST		.3				1	
		REPLACE		.1					
		REPAIR		.9			.9	2, 7, 10	C, G
02B05	CABLE ASSEMBLY, GUN TURRET DRIVE ELECTRONICS UNIT TEST (GTD-W4)	TEST		.2				1	
		REPLACE		.1					
		REPAIR		.1			1.0	2, 7, 10	C, G
02B06	CABLE ASSEMBLY, TURRET NETWORKS BOX TEST (TNB-W2)	TEST		1.2				1	
		REPLACE		.1					
		REPAIR		1.4			1.4	2, 7, 10	C, G
02B07	CABLE ASSEMBLY, COMPUTER CONTROL PANEL TEST (CCP-W6)	TEST		.2				1	
		REPLACE		.1					
		REPAIR		.9			.9	2, 7, 10	C, G

Table 1. MAC for Test Set, Electronic – Continued

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL UNIT C	UNIT O	DIR SUP F	GEN SUP H	DEP D	(5) TOOLS AND EQPT.	(6) REMARKS
02B08	CABLE ASSEMBLY, COMMANDER'S ALERT PANEL TEST (CAP-124)	TEST REPLACE REPAIR		.25 .1 .13			 1.0	1 2, 7, 10	 C, G
02C	ACCESSORY STOWAGE UNIT, M1 NO. 3	REPAIR		.1				7, 10	
02C01	CABLE CASE ASSEMBLY, M1 NO. 3	REPLACE REPAIR		.2 .5				 7, 10	
02C0201	CIRCUIT CARD ASSEMBLY, COMPUTER ELECTRONICS UNIT/ TEMPERATURE CONTROL UNIT (CEU/TCU) INTERFACE	REPLACE REPAIR		1.2			 1.0	7, 10	
02C0202	LOAD PLATE ASSEMBLY, M1A1	REPAIR		1.3			1.0	7, 10	
02C0203	CARD CAGE ASSY, M1A1	REPLACE					1.0		
02C020301	MINI CARD CAGE ASSY	REPLACE REPAIR					1.4 1.0		
02C02030101	BACKPLANE CCA	REPLACE REPAIR					1.4 1.0		
02C0205	INTERFACE ADAPTER COVER ASSEMBLY	REPLACE REPAIR		1.5 1.4				7, 10	
02C0207	SERVO AMPLIFIER	REPAIR		.9				7, 10	
02C0208	CIRCUIT CARD ASSEMBLY, GPS INTERFACE	REPLACE REPAIR		1.2			 1.0	7, 10	
02C03	CABLE ASSEMBLY (IA-W17)	TEST REPLACE REPAIR		.3 .1 .5			 1.0	1 2, 7, 10	 C, G
02C04	CABLE ASSEMBLY (TCP-W18)	TEST REPLACE REPAIR		.3 .1 .5			 1.0	1 2, 7, 10	 C, G
02C05	CABLE ASSEMBLY (TCU-W19)	TEST REPLACE REPAIR		.2 .1 .6			 1.0	1 2, 7, 10	 C, G
02C06	CABLE ASSEMBLY (CEU-W5)	TEST REPLACE REPAIR		1.0 .1 1.2			 1.2	1 2, 7, 10	 C, G
02C07	CABLE ASSEMBLY, EXTERNAL AUXILIARY POWER UNIT ELECTRONIC CONTROL UNIT (EAPU-ECU W123)	TEST REPLACE REPAIR		.2 .1 .6			 1.0	1 2, 7, 10	 C
02C08	DELETED								
02C09	ADAPTER ASSEMBLY (CEU-W657)	REPLACE REPAIR TEST		.3 .1 .5			 1.0	 2, 7, 10 1	 C,G
02D	ACCESSORY STOWAGE UNIT, M1 ASU NO. 4	REPAIR		.1				7, 10, 11	
02D01	TRAY ASSEMBLY	REPAIR		.3				7, 10, 11	
02D02	CABLE CASE ASSEMBLY, M1 NO. 4	REPLACE REPAIR		.2			 .5		
02D03	RETICLE SIMULATOR	REPLACE REPAIR		.1 .1				 7, 10, 11	
02D04	TEST FIXTURE, GPS	REPLACE REPAIR		.1 .6				 11, 7, 10	 K

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	AND EQPT.	REMARKS
02D05	CABLE ASSEMBLY GPS-W14	TEST		.7				1	
		REPLACE		.1					
		REPAIR		.3			1.0	2, 7, 10, 11	C
02D0501	ELBOW ASSEMBLY GPS-W14	TEST		.7				1	
		REPLACE		.1					
		REPAIR		.4			1.0	2, 7, 10, 11	C
02C02	INTERFACE ADAPTER ASSEMBLY	TEST		.1					
		REPLACE		.3					
		REPAIR		.2			1.0	2, 7, 1	
002D06	CABLE ASSEMBLY GPS-W15	TEST		.3				1	
		REPLACE		.1					
		REPAIR		.3			1.0	2, 7, 10, 11	C
02D07	CABLE ASSEMBLY GPS-W16	TEST		.3				1	
		REPLACE		.1					
		REPAIR		.3			1.0	2, 7, 10, 11	C
02E	DSESTS SRU TEST FIXTURES								
02E01	M1A2 DECU/SRU TEST SYSTEM	INSPECT		.1					
02E0101	SRU TESTER	REPLACE		.1					
		REPAIR		.3				2, 7, 10	
		TEST		.3					
02E0102	CABLE ASSEMBLY, DECU/SRU-W442	REPLACE		.1					
		REPAIR		.4			1.0	2, 7, 10	C
		TEST		.1				1	
02E0103	CABLE ASSEMBLY, DECU/SRU-W443	REPLACE		.1					
		REPAIR		.4			1.0	2, 7, 10	C
		TEST		.1				1	
02E0104	CABLE ASSEMBLY, DECU/SRU/ FST-W444	REPLACE		.1					
		REPAIR		.4			1.0	2, 7, 10	C
		TEST		.1				1	
02E0105	BATTERY CHARGER	REPLACE		.1					
		REPAIR		.3				2, 7, 10	
02E02	M1A1 DECU/SRU TEST SYSTEM	INSPECT		.1					
02E0201	SRU TESTER	REPLACE		.1					
		REPAIR		.3				2, 7, 10	
		TEST		.3					
02E0202	CABLE ASSEMBLY, DECU/SRU-W347	REPLACE		.1					
		REPAIR		.4				2, 7, 10	C
		TEST		.1				1	
02E0203	CABLE ASSEMBLY, DECU/SRU-W348	REPLACE		.1					
		REPAIR		.4				2, 7, 10	C
		TEST		.1				1	
02E0204	BATTERY CHARGER	REPLACE		.1					
		REPAIR		.3				2, 7, 10	
02F	M1 CSFM SYSTEM	INSPECT		.1					
02F01	CABLE ASSEMBLY, TRU/MEU-W334	REPLACE		.1					
		REPAIR		.4				2, 7, 10	C
		TEST		.1				1	
02F02	CABLE ASSEMBLY, RHNB/RTNB-W337	REPLACE		.1					
		REPAIR		.4				2, 7, 10	C
		TEST		.1				1	

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
02G	ABRAMS M1 BLOCK 1 EQUIPMENT GROUP	INSPECT		.1					
02G01	CABLE ASSEMBLY, (TIS-TRU-W678)	REPLACE REPAIR TEST		.03 .40 .10			1.0	2, 7, 10	C, J
02G0101	ADAPTER ASSEMBLY, (RS422/RS485-TJ3)	REPLACE REPAIR TEST		.03 .40 .10			1.0	2, 7, 10	C, J
03	ELECTRONIC SUPPORT SYSTEM, FVS								
03A	ACCESSORY STOWAGE UNIT, FVS NO. 1	REPAIR		.1				7, 10	
03A01	ACCESSORY CASE ASSEMBLY, FVS NO. 1	REPLACE REPAIR		.4 .5				7, 10	
03A02	CABLE ASSEMBLY, RELAY ASSEMBLY TEST (RYA-W53)	TEST REPLACE REPAIR		.2 .1 1.1			1.1	1 2, 7, 10	C
03A03	CABLE ASSEMBLY, TURRET CONTROL BOX TEST (TCB-W55)	TEST REPLACE REPAIR		.2 .1 .8			.8	1 2, 7, 10	C
03A04	CABLE ASSEMBLY, COMMANDER'S/ GUNNER'S HAND-STATION TEST (CHS/GHS-W51)	TEST REPLACE REPAIR		.2 .1 1.0			1.0	1 2, 7, 10	C C
03A05	CABLE ASSEMBLY, TOW CONTROL BOX TEST (TWB-W54)	TEST REPLACE REPAIR		.2 .1 1.1			1.0	1 2, 7, 10	C
03A06	CABLE ASSEMBLY, FAN CONTROL BOX TEST (FCB-W56)	TEST REPLACE REPAIR		.1 .1 .8			.8	1 2, 7, 10	C
03A07	CABLE ASSEMBLY, HEATER CONTROL BOX TEST (HCB-W59)	TEST REPLACE REPAIR		.1 .1 .8			.8	1 2, 7, 10	C
03A08	CABLE ASSEMBLY, ANNUNCIATOR PANEL TEST (ANP-W52)	TEST REPLACE REPAIR		.1 .1 .8			.8	1 2, 7, 10	C
03A09	CABLE ASSEMBLY, TURRET POSITION INDICATOR TEST (TPI-W57)	TEST REPLACE REPAIR		.1 .1 .8			.8	1 2, 7, 10	C
03A10	CABLE ASSEMBLY, WEAPON CONTROL BOX TEST (WCB-W58)	TEST REPLACE REPAIR		.3 .1 .9			.9	1 2, 7, 10	C
03A11	CABLE ASSEMBLY, VEHICLE DISTRIBUTION BOX TEST (VDB-W85)	TEST REPLACE REPAIR		.2 .1 .8			.8	1 2, 7, 10	C
03A12	CABLE ASSEMBLY, VEHICLE DISTRIBUTION BOX TEST (VDB-W61)	TEST REPLACE REPAIR		.2 .1 .9			.9	1 2, 7, 10	C
03A13	CABLE ASSEMBLY, VEHICLE DISTRIBUTION BOX TEST (VDB-W62)	TEST REPLACE REPAIR		.5 .1 1.2			1.2	1 2, 7, 10	C
03A14	CABLE ASSEMBLY, VEHICLE DISTRIBUTION BOX TEST (VDB-W63)	TEST REPLACE REPAIR		.6 .1 1.9			1.9	1 2, 7, 10	C

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP		
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	TOOLS AND EQPT.	REMARKS
03A15	CABLE ASSEMBLY, VEHICLE DISTRIBUTION BOX TEST (VDB-W64)	TEST REPLACE REPAIR		.3 .1 .9			.9	1 2, 7, 10	C
03A16	CABLE ASSEMBLY, TURRET DISTRIBUTION BOX TEST (TDB-W65)	TEST REPLACE REPAIR		.2 .1 1.4			1.4	1 2, 7, 10	C
03A17	CABLE ASSEMBLY, TURRET DISTRIBUTION BOX TEST (TDB-W66)	TEST REPLACE REPAIR		.4 .1 1.0			1.0	1 2, 7, 10	C
03A18	CABLE ASSEMBLY, TURRET DISTRIBUTION BOX TEST (TDB-W67)	TEST REPLACE REPAIR		1.1 .1 2.1			2.1	1 2, 7, 10	C
03A19	CABLE ASSEMBLY, TURRET DISTRIBUTION BOX TEST (TDB-W68)	TEST REPLACE REPAIR		.6 .1 1.1			1.1	1 2, 7, 10	C
03A20	CABLE ASSEMBLY, VEHICLE DISTRIBUTION BOX TEST (VDB-W95)	TEST REPLACE REPAIR		 .1 .9			.9	1 2, 7, 10	C
03A21	CABLE ASSEMBLY, TOW CONTROL BOX TEST (TWB-W99)	TEST REPLACE REPAIR		 .1 .6			1.6	1 2, 7, 10	C
03A22	CABLE ASSEMBLY, TURRET DISTRIBUTION BOX TEST (TDB-W89)	TEST REPLACE REPAIR		 .1 .9			2.5	1 2, 7, 10	C
03A23	CABLE ASSEMBLY, TURRET DISTRIBUTION BOX TEST (TDB-W91)	TEST REPLACE REPAIR		 .1 .5			1.2	1 2, 7, 10	C
03A24	CABLE ASSEMBLY, RYJ-W119	TEST REPLACE REPAIR		.2 .1 .5			1.0	1 2, 7, 10	
03B	ACCESSORY STOWAGE UNIT, FVS NO. 2	REPAIR		.1				7, 10	
03B01	ACCESSORY CASE ASSEMBLY, FVS NO. 2	REPLACE REPAIR		.4 .4				7, 10	
03B02	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W84)	TEST REPLACE REPAIR		.1 .1 .8			.8	1 2, 7, 10	C
03B03	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W69)	TEST REPLACE REPAIR		.2 .1 1.7			1.7	1 2, 7, 10	C
03B04	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W70)	TEST REPLACE REPAIR		.4 .1 2.5			2.5	1 2, 7, 10	C
03B05	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W71)	TEST REPLACE REPAIR		.2 .1 2.4			2.4	1 2, 7, 10	C
03B06	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W72)	TEST REPLACE REPAIR		.5 .1 2.8			2.8	1 2, 7, 10	C

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
03B07	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W75)	TEST REPLACE REPAIR		.2 .1 1.3			 1.3	1 2, 7, 10	 C
03B08	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W73)	TEST REPLACE REPAIR		.1 .1 .9			 .9	1 2, 7, 10	 C
03B09	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W74)	TEST REPLACE REPAIR		.1 .1 .9			 .9	1 2, 7, 10	 C
03B10	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W76)	TEST REPLACE REPAIR		.1 .1 1.3			 1.3	1 2, 7, 10	 C
03B11	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W77)	TEST REPLACE REPAIR		.1 .1 .7			 .7	1 2, 7, 10	 C
03B12	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W78)	TEST REPLACE REPAIR		.1 .1 1.2			 1.2	1 2, 7, 10	 C
03B13	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W79)	TEST REPLACE REPAIR		.5 .1 .7			 1.5	1 2, 7, 10	 C
03B14	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W80)	TEST REPLACE REPAIR		.6 .1 1.7			 1.7	1 2, 7, 10	 C
03B15	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W81)	TEST REPLACE REPAIR		.8 .1 2.1			 2.1	1 2, 7, 10	 C
03B16	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W82)	TEST REPLACE REPAIR		.3 .1 1.1			 1.1	1 2, 7, 10	 C
03B17	CABLE ASSEMBLY, ELECTRONIC CONTROL ASSEMBLY TEST (ECA-W83)	TEST REPLACE REPAIR		.1 .1 .9			 .9	1 2, 7, 10	 C
03B18	MEMORY MODULE, FVS	REPLACE REPAIR		.1 .2			 	 7, 10	
03B1801	ELECTRONICS ASSEMBLY, FVS	TEST REPAIR		1.4 1.2			 	3, 5 7, 10	
03B180101	CIRCUIT CARD ASSEMBLY, MEMORY INTERFACE (A1)	REPLACE REPAIR		.3			 1.0	7, 10	
03B180102	CIRCUIT CARD ASSEDMBLY, PROGRAMMABLE READ ONLY MEMORY (A2)	REPLACE REPAIR		.3			 1.0	7, 10	
03B180103	CIRCUIT CARD ASSEMBLY, PROGRAMMABLE READ ONLY MEMORY (A3)	REPLACE REPAIR		.3			 1.0	7, 10	
03B180104	CIRCUIT CARD ASSEMBLY, BACKPLANE	REPLACE REPAIR		.5			 1.0	7, 10	
03B19	DELETED								

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
03B20	CABLE ASSEMBLY, DIGITAL	TEST		.6				1	
	ELECTRONIC CONTROL ASSEMBLY	REPLACE		.1					
	(DECA-W94)	REPAIR		.4			1.0	2, 7, 10	C
03B21	CABLE ASSEMBLY,	TEST		.6				1	
	ECA INTERFACE ASSEMBLY	REPLACE		.1					
	(EIA-W92)	REPAIR		2.8			1.0	2, 7, 10	
03B22	TRAY ASSEMBLY	REPLACE		.1					
		REPAIR		.2				7, 10	J
03C	ECA INTERFACE ASSEMBLY (EIA)	REPLACE		.2					
		REPAIR		.2				2, 7, 10, 4	
03C01	CASE ASSEMBLY OPERATOR (EIA)	REPAIR		1.0				7, 10	
03C02	ELECTRONICS ASSEMBLY (EIA)	REPAIR		.2			.7	2, 7, 10	E
		INSTALL		.9				7, 10	
03C0201	MINI CARD CAGE ASSEMBLY (EIA)	REPAIR		1.3			1.0		
03C020101	CIRCUIT CARD ASSEMBLY,	REPLACE					1.4		
	BACKPLANE	REPAIR					1.0		
03C0202	CIRCUIT CARD ASSEMBLY,	REPLACE		.5				7, 10	
	CRU DISTRIBUTOR (A1)	REPAIR					1.0		
03C0203	CIRCUIT CARD ASSEMBLY,	REPLACE		.5				7, 10	
	RELAY SWITCH (A2)	REPAIR					1.0		
03C0204	CIRCUIT CARD ASSEMBLY,	REPLACE		.5				7, 10	
	ACTIVE TERMINATOR (A3)	REPAIR					1.0		
03C0205	CIRCUIT CARD ASSEMBLY,	REPLACE		.5				7, 10	
	SIGNAL CONDITIONER NO. 8 (A4, A5)	REPAIR					1.0		
03C0206	CIRCUIT CARD ASSEMBLY,	REPLACE		.5				7, 10	
	HIGH LEVEL MULTIPLEXER (A6)	REPAIR					1.0		
03C0207	PC ASSEMBLY	REPLACE					.5		
		REPAIR					1.0		
03D	ECA MOTOR ASSEMBLY (EMA)	REPLACE		.4				7, 10	
		REPAIR		.2				7, 10, 4	E
03D01	CASE ASSEMBLY, TRANSIT	REPAIR		.3				7, 10	
03D02	MOTOR MOUNT ASSEMBLY	REPAIR		.6			.5	7, 10	E
		INSTALL		.2				7, 10	
03D0201	CIRCUIT CARD ASSEMBLY,	REPLACE		.9				7, 10	
	OPTO COUPLER	REPAIR					1.0		
03D0202	CABLE ASSEMBLY (EMA-J13)	REPLACE		.8				7, 10	
		REPAIR		1.9			.5	2, 7, 10	
03D0203	MOTOR, DC	REPLACE		2.3					
03D0204	COVER ASSEMBLY	INSTALL		.7					
		REPAIR		.2					
03E	FVS DSTAI STOWAGE UNIT	REPAIR		.1				7, 10	
03E01	SYSTEM INTERFACE ASSEMBLY,								
	DSTAI	REPAIR		.1			1.0	7, 10	
03E0101	CIRCUIT CARD ASSEMBLY,	REPLACE		.5				7, 10	
	SYSTEM INTERFACE	REPAIR					1.0		
03E02	DELETED								

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
03E03	CIRCUIT CARD ASSEMBLY, SIGNAL CONDITIONER NO. 1 (A4)	REPLACE REPAIR		.1			1.0		
03E04	CIRCUIT CARD ASSEMBLY, SIGNAL CONDITIONER NO. 2 (A5)	REPLACE REPAIR		.1			1.0		
03E05	LOAD PLATE ASSEMBLY, LP1	REPLACE REPAIR		.1 .4			.5	7, 10	
03E06	LOAD PLATE ASSEMBLY, LP2	REPLACE REPAIR		.1 .4			.5	7, 10	
03E07	ADAPTER ASSEMBLY, COMPONENT CARD	REPLACE REPAIR		.1			1.0		
03E08	CABLE ASSEMBLY, DSTA-W117	REPLACE REPAIR		.1			1.0		
03E28	CASE ASSEMBLY, SYSTEM INTERFACE	REPLACE REPAIR		.2 .6				7, 10	
03F	DSESTS SHOP REPLACEABLE UNIT TEST ASSEMBLY (DSTA)	REPLACE REPAIR		.1 .1				7, 10	I
03F01	CASE ASSEMBLY, DSTA	INSTALL REPLACE REPAIR		.1 .7 .6					
03F02	TEST PLATE ASSEMBLY	INSTALL REPAIR		.1 .1				7, 10	
03F03	CABLE ASSEMBLY, DSTA-W96	REPLACE REPAIR		.1 .3			.9	1, 2, 7, 10	C
03F04	CABLE ASSEMBLY, DSTA-W97	REPLACE REPAIR		.1 .3			.9	1, 2, 7, 10	C
03F05	CABLE ASSEMBLY, DSTA-W98	REPLACE REPAIR		.1 .3			.9	1, 2, 7, 10	C
03F06	ELECTRONICS ASSEMBLY (DSTA)	INSTALL REPAIR		.5 .5			1.0	1, 3, 2, 7, 10	I
03F0601	TERMINAL BOARD, BACKPLANE	REPLACE REPAIR		1.0			1.0	7, 10	
03F0602	TERMINAL BOARD	REPLACE REPAIR		1.1			1.0	7, 10	
03F0603	CIRCUIT CARD ASSEMBLY, SIGNAL CONDITIONER NO. 3 (A8)	REPLACE REPAIR		.5			1.0	7, 10	
03F0604	CABLE ASSEMBLY, W21	REPLACE REPAIR		1.0 1.0				2, 7, 10 2	C
03F0605	CABLE ASSEMBLY, W23	REPLACE REPAIR		1.0 1.0				2, 7, 10 2	C
03F0606	CABLE ASSEMBLY, W24	REPLACE REPAIR		1.0 1.0				2, 7, 10 2	
03F0607	CABLE ASSEMBLY, W25	REPLACE REPAIR		1.0 1.0				2, 7, 10 2	C
03F0608	CABLE ASSEMBLY, W26	REPLACE REPAIR		1.0 1.0				2, 7, 10 2	C
03F0609	CABLE ASSEMBLY, W27	REPLACE REPAIR		1.0 1.0				2, 7, 10 2	C

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
03G	FVS ASU NO. 3	REPAIR		.15				7, 10	J
03G01	CASE ASSEMBLY, FVS ASU NO. 3	REPLACE REPAIR		.07			1.0	7, 10	
03G03	BRADLEY RESOURCE MODULE (BRM)	REPLACE REPAIR		.04 .3				7, 10, 11	J
03G0308	BRM COMMUNICATIONS ASSEMBLY	REPLACE		.29				11	
03G04	LOAD SWITCHING BOX ASSEMBLY (LSB)	INSTALL REPLACE REPAIR		.38 .03 .24				7, 10, 11	J
03G0404	LSB WIRING HARNESS ASSEMBLY	REPLACE REPAIR		.81			1.0	7, 10, 11	J
03G0405	LSB HEATSINK ASSEMBLY	REPAIR		.57			1.0	7, 10	J
03G05	1553 CABLE ASSEMBLY (1553-W500)	REPLACE REPAIR TEST		.03 .25 .29			1.0	2, 7, 10 1	C, J
03G06	CABLE ASSEMBLY, LOAD SWITCHING BOX (LSB/FST-W508)	REPLACE REPAIR TEST		.03 .25 1.0			1.0	2, 7, 10, 1	C, J
03G07	CABLE ASSEMBLY, BRADLEY RESOURCE MODULE (BRM/FST-W512)	REPLACE REPAIR TEST		.03 .25 1.0			1.0	2, 7, 10 1	C, J
03G08	CABLE ASSEMBLY, BRADLEY RESOURCE MODULE (BRM/FST-W596)	REPLACE REPAIR TEST		.03 .25 1.0			1.0	2, 7, 10 1	C, J
03G09	CABLE ASSEMBLY, BRADLEY RESOURCE MODULE (BRM/FST-W597)	REPLACE REPAIR TEST		.03 .25 1.0			1.0	2, 7, 10 1	C, J
03G10	CABLE ASSEMBLY, LOAD SWITCHING BOX (LSB/FST-W598)	REPLACE REPAIR		.03 .25 .29			1.0	2, 7, 10 1	C, J
03G11	J2 ADAPTER ASSEMBLY, LOAD SWITCHING BOX (LSB-J2)	REPLACE REPAIR TEST		.03 .25 .29			1.0	2, 7, 10 1	J
03G12	PROBE ADAPTER ASSEMBLY	REPLACE REPAIR TEST		.03 .25 .29			1.0	2,7, 10 1	J
03H	DELETED								
03J	BRADLEY REHOST SYSTEM	INSPECT		.1					
03J01	CABLE ASSEMBLY, CSFM TJ9-W339	REPLACE REPAIR TEST		.1 .4 .1				2, 7, 10 1	C
03J02	CABLE ASSEMBLY, (DECA-W645)	REPLACE REPAIR TEST		.03 .25 1.0			1.0	2, 7, 10	C, J
03J03	CABLE ASSEMBLY, (DECA-W646)	REPLACE REPAIR TEST		.03 .25 1.0			1.0	2, 7, 10	C, J
03K	BRADLEY REHOST SUPPORT EQUIPMENT	INSPECT		.1					

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
03K01	LOAD SWITCHING BOX ASSEMBLY (LSB)	INSTALL REPLACE REPAIR		.38 .03 .24				 7, 10, 11	 J
03K02	CABLE ASSEMBLY, LOAD SWITCHING BOX (LSB/FST-W508)	REPLACE REPAIR TEST		.03 .25 1.0			1.0	 2, 7, 10	 C, J
03K03	J2 ADAPTER ASSEMBLY, LOAD SWITCHING BOX (LSB-J2)	REPLACE REPAIR TEST		.03 .25 .29			1.0	 2, 7, 10 1	 J
03K04	CABLE ASSEMBLY, TURRET DRIVE CONTROL UNIT (TDCU-W520)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	11 2, 7, 10	 C, J
04	DSESTS-TIS								
04A	THERMAL IMAGING SYSTEM (TIS)	INSPECT		.5					
04A01	ACCESSORY STOWAGE UNIT NO. 1 (TIS)	REPAIR		.2				11	
04A0101	POWER SUPPLY ASSEMBLY, LRU	INSTALL REPLACE REPAIR		.2 .3 .3			 1.0	 11	
04A010101	CIRCUIT CARD ASSEMBLY, LRU POWER SUPPLY	REPLACE REPAIR		.3			 1.0	11	
04A0102	ELECTRONICS, PROGRAMMABLE LOAD MODULE (PLM)	INSTALL REPLACE REPAIR		.2 .3 .4				 1, 11	
04A010201	CIRCUIT CARD ASSEMBLY. BUFFER INTERFACE MODULE (A1)	REPLACE REPAIR		.3			 1.0		
04A010202	CIRCUIT CARD ASSEMBLY, AC LOAD CONTROL (A2)	REPLACE REPAIR		.3			 1.0	11	
04A010203	ELECTRONIC LOAD MODULE ASSEMBLY (A4, A6, A8, A10)	REPLACE REPAIR		.3			 1.0	11	
04A010204	LOAD PLATE ASSEMBLY, PROGRAMMABLE	REPLACE REPAIR		.8			 1.0	11	
04A010205	CIRCUIT CARD ASSEMBLY, BACKPLANE (MOTHER BOARD)	REPLACE REPAIR		1.0			 1.0	11	
04A010206	WIRING HARNESS ASSEMBLY (PLM)	REPLACE REPAIR		.5 1.0			 1.5	11 11, 2	
04A010207	COVER ASSEMBLY	REPAIR		.5					
04A0103	CABLE ASSEMBLY, LRU INTERFACE (PWR-W22)	TEST REPLACE REPAIR		1.0 .1 1.0			 1.0	1 2, 11	
04A0104	CABLE ASSEMBLY, PCU SIGNAL/ POWER (W24)	TEST REPLACE REPAIR		.9 .1 .9			 1.0	1 2, 11	
04A0105	CABLE ASSEMBLY, PCU SIGNAL (W25)	TEST REPLACE REPAIR		1.4 .1 1.4			 1.4	1 2, 7, 10	
04A0106	CABLE ASSEMBLY, PLM-FST (W32)	TEST REPLACE REPAIR		.2 .1 .9			 .9	1 2, 11	

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
04A0107	TEST SET CASE, TIS	REPLACE REPAIR		.4 .7				 11	
04A0108	TRAY ASSEMBLY, TIS	REPAIR		.5				11	
04A0109	CABLE ASSEMBLY, TRU SIGNAL/ POWER (W27)	TEST REPLACE REPAIR		1.2 .1 1.0			 1.0	1 2, 11	
04A0110	CABLE ASSEMBLY, TRU DC POWER (W29)	TEST REPLACE REPAIR		1.4 .1 1.4			 1.4	1 2, 11	
04A0111	CABLE ASSEMBLY, TRU AC POWER (W30)	TEST REPLACE REPLAIR		.9 .1 .9			 1.0	1 2, 11	
04A02	ACCESSORY STOWAGE UNIT NO. 2 (TIS)	REPAIR		.1				11	
04A0201	TRAY ASSEMBLY	REPAIR		.5				11	
04A0202	ELECTRONIC SIGNAL MODULE, TIS	INSTALL REPLACE REPAIR		.2 .1 .2				 1, 11	
04A020201	CIRCUIT CARD ASSEMBLY, BACKPLANE	REPLACE REPAIR		.3			 1.0	11	
04A020202	CIRCUIT CARD ASSEMBLY, TIMING AND CONTROL NO. 2 (A5)	REPLACE REPAIR		.3			 1.0	11	
04A020203	CIRCUIT CARD ASSEMBLY, FUNCTION GENERATOR, DIGITAL/ ANALOG (FG, D/A) HORIZONTAL (A7, A9)	REPLACE REPAIR		.3			 1.0	11	
04A020204	CIRCUIT CARD ASSEMBLY, HIGH SPEED DIGITAL (A4)	REPLACE REPAIR		.3			 1.0	11	
04A020205	CIRCUIT CARD ASSEMBLY, MODULE BUFFER INTERFACE (A1)	REPLACE REPAIR		.3			 1.0	11	
04A020206	CIRCUIT CARD ASSEMBLY, TIMING & CONTROL NO. 1 (A6)	REPLACE REPAIR		.3			 1.0	11	
04A020207	CIRCUIT CARD ASSEMBLY FG D/A VERTICAL (A8)	REPLACE REPAIR		.3			 1.0	11	
04A020208	CIRCUIT CARD ASSEMBLY, VIDEO MIXER (A3)	REPLACE REPAIR		.3			 1.0	11	
04A020209	CIRCUIT CARD ASSEMBLY, HIGH SPEED A/D CONVERTER (A10)	REPLACE REPAIR		.3			 1.0	11	
04A020210	WIRING HARNESS, SIGNAL MODULE	REPLACE REPAIR		.5 .5			 1.0	11 11,2	
04A020211	COVER ASSEMBLY	REPAIR		.5				11	
04A0203	DISPLAY ASSEMBLY, THERMAL IMAGING	INSTALL REPLACE REPAIR		.2 .2 .5				 1, 11	
04A020301	CIRCUIT CARD ASSEMBLY, CRT INTERFACE	REPLACE REPAIR		1.0			 1.0	11	
04A020302	CIRCUIT CARD ASSEMBLY, CRT DRIVER	REPLACE REPAIR		1.0			 1.0	11	

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
04A020303	CIRCUIT CARD ASSEMBLY, BACKPLANE	REPLACE REPAIR		1.2			 1.0	11	
04A020304	WIRING HARNESS ASSEMBLY, THERMAL DISPLAY MODULE (TDM)	REPLACE REPAIR		.5 .5			 1.0	11 11, 2	
04A020305	EYEPIECE ASSEMBLY	REPLACE REPAIR		.5			 1.0		
04A020306	COVER ASSEMBLY	REPAIR		.5				11	
04A0204	CASE, TEST SET	REPLACE REPAIR		.4 .7			1.0	 11	
04A0205	CABLE ASSEMBLY, TDM POWER (W28)	TEST REPLACE REPAIR		.9 .1 .9			 1.0	1 2, 11	
04A0206	CABLE ASSEMBLY, EU SIGNAL/ POWER (W31)	TEST REPLACE REPAIR		1.2 .1 1.2			 1.2	1 2, 11	
04A0207	CABLE ASSEMBLY, TDM TSM FUNCTIONAL SELF TEST (W33)	TEST REPLACE REPAIR		.9 .1 .2			 .2	1 2, 11	
04A0208	CABLE ASSEMBLY, ICU SIGNAL/ POWER (W26)	TEST REPLACE REPAIR		.9 .1 .9			 1.0	1 2, 11	
04A0209	CABLE ASSEMBLY, EU SIGNAL/ POWER (W35)	TEST REPLACE REPAIR		1.2 .1 .9			 1.0 	1 2, 11	
04A0210	CELL ASSEMBLY, OPTIC	REPLACE REPAIR		.2			 1.0		
04A021001	RETICLE ASSEMBLY, OPTICAL	INSPECT SERVICE REPLACE REPAIR					.1 .1 .3 .5		
04A02100101	RETICLE	REPLACE REPAIR					.1 .2		
04A021002	MIRROR ASSEMBLY	INSPECT SERVICE REPLACE REPAIR					.1 .1 .3 .5		
04A0211	PROBE, CASE ASSEMBLY	REPLACE REPAIR		.1			 .2		
04A0212	ADAPTER ASSEMBLY, TIS	REPLACE REPAIR		.1			 1.0		
04B	HOLDING FIXTURE ASSEMBLY	REPAIR		.4				11	
04B01	ELEVATION ADJUSTMENT ASSEMBLY	REPLACE REPAIR		.1 .1				11 11	
04B02	ELEVATION PLUNGER	REPLACE REPAIR		.1 .1				11 11	
04B03	PLATE ASSEMBLY, TRU HOLDING	INSPECT SERVICE REPLACE REPAIR		.1 .2 .1 .3				 11 11	

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
04C	COLLIMATOR, THERMAL SIGHT	INSPECT		.2					
		SERVICE		.2					
		CALIBRATE			1.0				H
		REPLACE		.1				13	
		REPAIR		.2				13	
04C01	COLLIMATOR ASSEMBLY	REPAIR		.1				13	
04C0101	TEMPERATURE CONTROLLER ASSEMBLY	INSTALL			.1			13	
		TEST		.1	.2			13	
04C010101	SPINDLE & DRUM ASSEMBLY	REPLACE			.3			13	
		REPAIR			.2		1.0		
04C01010101	CABLE ASSEMBLY, W1	REPAIR					1.0		
04C010102	CABLE ASSEMBLY, W2	REPLACE			.8				
		REPAIR			.3			13	
04C010103	CIRCUIT CARD ASSEMBLY, LOGIC CONTROL	REPLACE			.3			13	
		REPAIR					.8		
04C010104	CIRCUIT CARD ASSEMBLY, POWER SUPPLY	REPLACE			.3			13	
		REPAIR					.8		
04C102	MIRROR ASSEMBLY, FOLDING	REPLACE					1.0		
		REPAIR					1.0		
04C0103	MIRROR ASSEMBLY, COLLIMATING	REPLACE					1.0		
		REPAIR					1.0		
04C02	POWER CABLE ASSEMBLY	REPLACE		.1					
		REPAIR			.1			2, 8	
04D	THERMAL SIGHT COLLIMATOR	INSPECT		.1					
		TEST			.1			1, 8	
		SERVICE		.2					
		ADJUST			.3			5, 8	
		ALIGN			.2		.5	8	
		REPAIR			.5		.3	1, 5, 8	
		CALIBRATE			4.0			5, 8	H
04D01	COLLIMATOR ASSEMBLY	INSPECT		.1					
		TEST			.3			1, 8	
		SERVICE		.1					
		ADJUST			.3			5, 8	
		ALIGN					.5	8	
		REPAIR			.5		.5	8	
04D0101	TEMPERATURE CONTROLLER ASSEMBLY	INSPECT		.3			.1		
		TEST			.3		.2	1, 8	
		ALIGN			.5		.5	8	
		REPAIR			.5		1.0	8	
04D010101	CIRCUIT CARD ASSEMBLY TEMPERATURE COMPARATOR	INSPECT			.1				
		TEST			.3			1, 8	
		REPLACE			.1		.2	8	
		REPAIR					1.0		
04D010102	SPINDLE AND DRUM ASSEMBLY	INSPECT			.1				
		TEST			.3			1, 8	
		REPLACE			.5			8	
		REPAIR			.5		1.0	8	
04D01010201	WINDOW, OPTICAL	INSPECT			.1				
		REPLACE			.4			8	
		REPAIR			.5				
04D01010202	TARGET, THERMAL	INSPECT			.1				
		REPLACE			.4			8	
		REPAIR			.5				

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
04D010103	VISIBLE LAMP ASSEMBLY	INSPECT			.1				
		TEST			.1			1, 8	
		REPAIR			.3			8	
		REPLACE			.1			8	
04D010104	WIRING HARNESS	INSPECT			.1				
		TEST			.1			1, 8	
		REPAIR			.2			8	
		REPLACE			.2			8	
04D0102	FOLDING MIRROR ASSEMBLY	INSPECT		.1					
		SERVICE		.1					
		ADJUST					.5		
		REPAIR					1.0		
04D0103	COLLIMATOR MIRROR ASSEMBLY	INSPECT		.1					
		SERVICE		.1					
		ADJUST					.5		
		REPAIR					1.0		
04D02	CABLE ASSEMBLY, TEMPERATURE CONTROLLER POWER	INSPECT		.1					
		TEST			.1			1	
		REPAIR			.5			8	
05	DELETED								
06	DSESTS TOW	INSPECT	.3						
06B	TOW ASU NO. 2	INSPECT	.3						
		REPAIR		.2				11	
06B01	CASE ASSEMBLY	REPLACE		.1					
		REPAIR					.4		
06B02	TRAY ASSEMBLY	REPLACE		.1					
		REPAIR		.3				11	
06B03	TOW ELECTRONICS MODULE	REPLACE		.1					
		REPAIR		.3				11	
		TEST							
06B0301	MODULE BUFFER	REPLACE		.1				11	
		REPAIR					1.0		
		TEST					1.0		
06B0302	ANALOG SAMPLER	REPLACE		.1				11	
		REPAIR					1.0		
		TEST					1.0		
06B0303	TRACKER TIMING	REPLACE		.1				11	
		REPAIR					1.0		
		TEST					1.0		
06B0304	ANALOG FUNCTION GENERATOR	REPLACE		.1				11	
		REPAIR					1.0		
		TEST					1.0		
06B0305	DCGE INTERFACE	REPLACE		.1				11	
		REPAIR					1.0		
		TEST					1.0		
06B0306	ANALOG I/O	REPLACE		.1				11	
		REPAIR					1.0		
		TEST					1.0		
06B0307	PROCESSOR I/O	REPLACE		.1				11	
		REPAIR					1.0		
		TEST					1.0		

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
06B0308	EVENT MONITOR	REPLACE		.1				11	
		REPAIR					1.0		
		TEST					1.0		
06B0309	STIM/SIG CONDITIONER	REPLACE		.1				11	
		REPAIR					1.0		
		TEST					1.0		
06B0310	LOAD PLATE ASSEMBLY	REPLACE		.1				11	
		REPAIR					1.0		
		TEST					1.0		
06B0311	TEM INTERFACE ASSEMBLY	REPLACE		.8				11	
		REPAIR					1.0		
		TEST		1.0				1	
06B0312	COVER ASSEMBLY	REPAIR		.4				11	
06B04	LRU PWR SUPPLY ASSEMBLY	REPLACE		.1					
		REPAIR		.4				11	
06B0401	LRU P/S CCA ASSEMBLY	REPLACE		.5				11	
		REPAIR					1.0		
		TEST					1.0		
06B04A	MODIFIED POWER SUPPLY, LRU	INSTALL		.2					
		REPLACE		.3					
		REPAIR		.3			1.0	11	
06B04A01	HEAT SINK ASSEMBLY	REPAIR		.2					
06B04A0101	CIRCUIT CARD ASSEMBLY, 55 HZ POWER SUPPLY	REPLACE		.7				11	
		REPAIR					1.0		
06B04A0102	POWER SUPPLY ASSEMBLY, PS3	REPLACE		.8				11	
		REPAIR					1.0		
06B04A02	FILTER ASSEMBLY	REPLACE		.7				11	
06B04A03	MODIFIED CIRCUIT CARD ASSEMBLY, LRU POWER SUPPLY	REPLACE		.7				11	
		REPAIR					1.0		
06B05	LRU P/S INTERFACE-W22	REPLACE		.1					
		REPAIR		.4			1.0	2, 11	C
		TEST		1.0				1	
06B06	CABLE ASSEMBLY TEM/FST-W157	REPLACE		.1					
		REPAIR		.6			1.0	2, 11	C
		TEST		1.0				1	
06B07	CABLE ASSEMBLY TEM/FST-W158	REPLACE		.1					
		REPAIR		.6			1.0	2, 11	C
		TEST		1.0				1	
06B08	PCMCIA POUCH ASSEMBLY	REPLACE		.1					
		REPAIR		.4					
06B0801	PCMCIA FLASH CARD	REPLACE		.1					
		REPAIR					1.0		
06B09	PROBE CASE ASSEMBLY	REPLACE		.1					
		REPAIR					.1		
06B10	ADAPTER ASSEMBLY, FST	REPLACE		.1					
		REPAIR		.3			.1	2, 11	
		TEST		.2				1	

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
06B11	ADAPTER ASSEMBLY, LPS	REPLACE		.1					
		REPAIR		.3			.1	2, 11	
		TEST		.1				1	
06C	TOW ASU NO. 3	INSPECT	.1						
		REPLACE		.1					
		REPAIR		.3				11	
06C01	CASE ASSEMBLY	REPLACE		.1					
		REPAIR					.4		
06C02	TRAY ASSEMBLY	REPLACE		.1					
		REPAIR		.3					
06C03	DELETED								
06C04	DCGE TEST FIXTURE	REPLACE		.1					
		REPAIR		.2				11	
		TEST		.3					
06C0401	MOTHERBOARD	REPLACE		.7				11	
		REPAIR					1.0		
		TEST					1.0		
06C0402	SIGNAL CONDITIONER CCA	REPLACE		.6				11	
		REPAIR					1.0		
		TEST					1.0		
06C0403	WIRING HARNESS	REPLACE		.5				2, 11	
		REPAIR		.2			1.0	2, 11	
		TEST		1.0				1	
06C05	ISU/TML/LHR TEST FIXTURE	REPAIR		.2				11	
		TEST		.3					
06C0501	MOTHERBOARD	REPLACE		.4				11	
		REPAIR					1.0		
		TEST					1.0		
06C0502	SIGNAL CONDITIONER CCA	REPLACE		.4				11	
		REPAIR					1.0		
		TEST					1.0		
06C0503	WIRING HARNESS	REPLACE		.4				2, 11	
		REPAIR		.2			1.0	2, 11	
		TEST		1.0				1	
06C06	DELETED								
06C07	CABLE ASSEMBLY ISU/LHR-W165	REPLACE		.1					
		REPAIR		.4			1.0	2, 11	C
		TEST		.1				1	
06C08	CABLE ASSEMBLY DCGESRU-W166	REPLACE		.1					
		REPAIR		.4			1.0	2, 11	C
		TEST		.1				1	
06C09	CABLE ASSEMBLY DCGESRU-W167	REPLACE		.1					
		REPAIR		.4			1.0	2, 11	C
		TEST		.1				1	
06C10	DELETED								
06D	TOW ASU NO. 4	INSPECT	.1						
		REPLACE		.1					
		REPAIR		.3				11	
06D01	CASE ASSEMBLY	REPLACE		.1					
		REPAIR					.4		

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
06D02	CABLE ASSEMBLY ISU-W152	REPLACE		.1					
		REPAIR		.4			1.0	2, 11	C
		TEST		.1				1	
06D03	DELETED								
06D04	CABLE ASSEMBLY TVM/BSA-W161	REPLACE		.1					
		REPAIR		.4			1.0	2, 11	C
		TEST		.1				1	
06D05	CABLE ASSEMBLY ISU2-W163	REPLACE		.1					
		REPAIR		.4			1.0	2, 11	C
		TEST		.1				1	
06D06	CABLE ASSEMBLY IUC-W169	REPLACE		.1					
		REPAIR		.4			1.0	2, 11	C
		TEST		.1				1	
06D07	DELETED								
06D08	CABLE ASSEMBLY LHR/TML-W156	REPLACE		.1					
		REPAIR		.4			1.0	2, 11	C
		TEST		.1				1	
06D09	CABLE ASSEMBLY DCGE-W159	REPLACE		.1					
		REPAIR		.4			1.0	2, 11	C
		TEST		.1				1	
06D10	CABLE ASSEMBLY DCGE-W160	REPLACE		.1					
		REPAIR		.4			1.0	2, 11	C
		TEST		.1				1	
06E	TOW ASU NO. 5 (TVM/BSA TEST FIXTURE ASSEMBLY)	INSPECT		.3					
		REPAIR		.2				11	
06E01	CASE ASSEMBLY	REPLACE		.1					
		REPAIR		.2				11	
06E02	TVM/BSA TEST FIXTURE	REPLACE		.1					
		REPAIR		.2				11	
06E0201	TVM/BSA INTERFACE CCA	REPLACE		.3				11	
		REPAIR					1.0		
06E0202	COVER ASSEMBLY	REPLACE		.3					
		REPAIR		.3				11	
06E0203	MICROSCOPE ASSEMBLY	REPLACE		.3					
		REPAIR					1.0		
06E0204	TEST FIXTURE ASSEMBLY	REPLACE					1.0		
		REPAIR					1.0		
06E0205	EYEPIECE, MODIFIED	REPLACE		.3					
		REPAIR					1.0		
06E020501	EYEPIECE ASSEMBLY	REPLACE					1.0		
		REPAIR					1.0		
06F	TOW ASU NO. 6 (TILT STAGE FIXTURE ASSEMBLY)	INSPECT	.3						
		REPAIR		.2				11	
06F01	TILT STAGE ASSEMBLY	REPLACE		.3					
		REPAIR		.2				11	
06F0101	ROLLER BLOCK ASSEMBLY	REPLACE		.8				11	

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
06F02	TILT STAGE CASE ASSEMBLY	REPLACE REPAIR		.1 .2				 11	
06G	ISU/TILT STAGE ADAPTER	REPLACE REPAIR		.3 .2				 11	
06H	ISU/GPS STAND ADAPTER	REPLACE REPAIR		.3 .2				 11	

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
07	DSESTS-CFT								
07A	THERMAL IMAGING SYSTEM (CFT)	INSPECT		.5					
07A01	ACCESSORY STOWAGE UNIT NO. 1 (CFT)	REPAIR		.2				11	
07A0101	POWER SUPPLY ASSEMBLY, LRU	INSTALL		.2					
		REPLACE		.3					
		REPAIR		.3			1.0	11	
07A010101	CIRCUIT CARD ASSEMBLY, LRU POWER SUPPLY	REPLACE		.3				11	
		REPAIR					1.0		
07A010102	FILTER ASSEMBLY	REPLACE		.7				11	
07A010103	HEATSINK ASSEMBLY	REPAIR		.2					
07A01010301	POWER SUPPLY ASSEMBLY, PS3	REPLACE		.8				11	
		REPAIR					1.0		
07A01010302	CIRCUIT CARD ASSEMBLY, 55 HZ POWER SUPPLY	REPLACE		.7				11	
		REPAIR					1.0		
07A0102	ELECTRONICS, PROGRAMMABLE LOAD MODULE (PLM)	INSTALL		.2					
		REPLACE		.3					
		REPAIR		.4				1, 11	
07A010201	CIRCUIT CARD ASSEMBLY, BUFFER INTERFACE MODULE (A1)	REPLACE		.3					
		REPAIR					1.0		
07A010202	CIRCUIT CARD ASSEMBLY, AC LOAD CONTROL (A2)	REPLACE		.3				11	
		REPAIR					1.0		
07A010203	ELECTRONIC LOAD MODULE ASSEMBLY (A4, A6, A8, A10)	REPLACE		.3				11	
		REPAIR					1.0		
07A010204	LOAD PLATE ASSEMBLY, PROGRAMMABLE	REPLACE		.8				11	
		REPAIR					1.0		
07A010205	CIRCUIT CARD ASSEMBLY, BACKPLANE (MOTHER BOARD)	REPLACE		1.0				11	
		REPAIR					1.0		
07A010206	WIRING HARNESS ASSEMBLY (PLM)	REPLACE		.5				11	
		REPAIR		1.0			1.5	11, 2	
07A010207	COVER ASSEMBLY	REPAIR		.5					
07A0103	CABLE ASSEMBLY, LRU INTERFACE (PWR-W22)	TEST		1.0				1	
		REPLACE		.1					
		REPAIR		1.0			1.0	2, 11	
07A0104	CABLE ASSEMBLY, PCU SIGNAL/ POWER (W24)	TEST		.9				1	
		REPLACE		.1					
		REPAIR		.9			1.0	2, 11	
07A0105	CABLE ASSEMBLY, PCU SIGNAL (W25)	TEST		1.4				1	
		REPLACE		.1					
		REPAIR		1.4			1.4	2, 7, 10	
07A0106	CABLE ASSEMBLY, PLM-FST (W32)	TEST		.2				1	
		REPLACE		.1					
		REPAIR		.9			.9	2, 11	
07A0107	TEST SET CASE, CFT	REPLACE		.4					
		REPAIR		.7				11	
07A0108	TRAY ASSEMBLY, CFT	REPAIR		.5				11	
07A0109	CABLE ASSEMBLY, TRU SIGNAL/ POWER (W27)	TEST		1.2				1	
		REPLACE		.1					
		REPAIR		1.0			1.0	2, 11	

Table 1. MAC for Test Set, Electronics– Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
07A0110	CABLE ASSEMBLY, TRU DC POWER (W29)	TEST		1.4				1	
		REPLACE		.1					
		REPAIR		1.4			1.4	2, 11	
A07A0111	CABLE ASSEMBLY, TRU AC POWER (W30)	TEST		.9				1	
		REPLACE		.1					
		REPAIR		.9			1.0	2, 11	
07A02	ACCESSORY STOWAGE UNIT NO. 2 (CFT)	REPAIR		.1				11	
07A0201	TRAY ASSEMBLY	REPAIR		.5				11	
07A0202	ELECTRONIC SIGNAL MODULE, TIS	INSTALL		.2					
		REPLACE		.1					
		REPAIR		.2				1, 11	
07A020201	CIRCUIT CARD ASSEMBLY, BACKPLANE	REPLACE		.3				11	
		REPAIR					1.0		
07A020202	CIRCUIT CARD ASSEMBLY, TIMING AND CONTROL NO. 2 (A5)	REPLACE		.3				11	
		REPAIR					1.0		
07A020203	CIRCUIT CARD ASSEMBLY, FUNCTION GENERATOR, DIGITAL/ ANALOG (FG, D/A) HORIZONTAL (A7, A9)	REPLACE		.3				11	
		REPAIR					1.0		
07A020204	CIRCUIT CARD ASSEMBLY, HIGH SPEED DIGITAL (A4)	REPLACE		.3				11	
		REPAIR					1.0		
07A020205	CIRCUIT CARD ASSEMBLY, MODULE BUFFER INTERFACE (A1)	REPLACE		.3				11	
		REPAIR					1.0		
07A020206	CIRCUIT CARD ASSEMBLY, TIMING & CONTROL NO. 1 (A6)	REPLACE		.3				11	
		REPAIR					1.0		
07A020207	CIRCUIT CARD ASSEMBLY FG D/A VERTICAL (A8)	REPLACE		.3				11	
		REPAIR					1.0		
07A020208	CIRCUIT CARD ASSEMBLY, VIDEO MIXER (A3)	REPLACE		.3				11	
		REPAIR					1.0		
07A020209	CIRCUIT CARD ASSEMBLY, HIGH SPEED A/D CONVERTER (A10)	REPLACE		.3				11	
		REPAIR					1.0		
07A020210	WIRING HARNESS, SIGNAL MODULE	REPLACE		.5				11	
		REPAIR		.5			1.0	11, 2	
07A020211	COVER ASSEMBLY	REPAIR		.5				11	
07A0203	DISPLAY ASSEMBLY, THERMAL IMAGING	INSTALL		.2					
		REPLACE		.2					
		REPAIR		.5				1, 11	
07A020301	CIRCUIT CARD ASSEMBLY, CRT INTERFACE	REPLACE		1.0				11	
		REPAIR					1.0		
07A020302	CIRCUIT CARD ASSEMBLY, CRT DRIVER	REPLACE		1.0				11	
		REPAIR					1.0		
07A020303	CIRCUIT CARD ASSEMBLY, BACKPLANE	REPLACE		1.2				11	
		REPAIR					1.0		
07A020304	WIRING HARNESS ASSEMBLY, THERMAL DISPLAY MODULE (TDM)	REPLACE		.5				11	
		REPAIR		.5			1.0	11, 2	

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
07A020305	EYEPIECE ASSEMBLY	REPLACE		.5					
		REPAIR					1.0		
07A020306	COVER ASSEMBLY	REPAIR		.5				11	
07A0204	CASE, TEST SET	REPLACE		.4			1.0		
		REPAIR		.7				11	
07A0205	CABLE ASSEMBLY, TDM POWER (W28)	TEST		.9				1	
		REPLACE		.1					
		REPAIR		.9			1.0	2, 11	
07A0206	CABLE ASSEMBLY, EU SIGNAL/ POWER (W31)	TEST		1.2				1	
		REPLACE		.1					
		REPAIR		1.2			1.2	2, 11	
07A0207	CABLE ASSEMBLY, TDM TSM FUNCTIONAL SELF TEST (W33)	TEST		.9				1	
		REPLACE		.1					
		REPAIR		.2			.2	2, 11	
07A0208	CABLE ASSEMBLY, ICU SIGNAL/ POWER (W26)	TEST		.9				1	
		REPLACE		.1					
		REPAIR		.9			1.0	2, 11	
07A0209	CABLE ASSEMBLY, EU SIGNAL/ POWER (W35)	TEST		1.2				1	
		REPLACE		.1			1.0		
		REPAIR		.9				2, 11	
07A0210	CELL ASSEMBLY, OPTIC	REPLACE		.2					
		REPAIR					1.0		
07A021001	RETICLE ASSEMBLY, OPTICAL	INSPECT					.1		
		SERVICE					.1		
		REPLACE					.3		
		REPAIR					.5		
07A02100101	RETICLE	REPLACE					.1		
		REPAIR					.2		
07A021002	MIRROR ASSEMBLY	INSPECT					.1		
		SERVICE					.1		
		REPLACE					.3		
		REPAIR					.5		
07A0211	PROBE, CASE ASSEMBLY	REPLACE		.1					
		REPAIR					.2		
07A0212	ADAPTER ASSEMBLY, TIS	REPLACE		.1					
		REPAIR					1.0		
07A03	CFT ASU UNIT NO. 3	REPAIR		.10				11	
07A0301	CASE ASEMBLY, CFT ASU UNIT NO. 3	REPLACE		.18					
		REPAIR					1.0	7, 10	J
07A0302	TRAY ASSEMBLY, CFT ASU UNIT NO. 3	REPLACE		.18					
		REPAIR		.29				7, 10	J
07A0303	HTI FLIR MODULE (HFM)	REPLACE		.04					
		REPAIR		.23				7, 10, 11	J
		TEST		.25					
07A030304	HTI FLIR INTERFACE ASSEMBLY	REPLACE		.10					
		REPAIR					1.0	2, 10, 11	J
		TEST					1.0		
07A0304	SRU TEST FIXTURE ASSEMBLY	REPLACE		.01					
		REPAIR					1.0	11	

Table 1. MAC for Test Set, Electronic – Continued

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL UNIT C	UNIT O	DIR SUP F	GEN SUP H	DEP D	(5) TOOLS AND EQPT.	(6) REMARKS
07A030401	WIRING HARNESS ASSEMBLY SRU TEST FIXTURE	REPLACE REPAIR TEST		.48 .16 .50					
07A0305	CABLE ASSEMBLY, (SGCEU-W460)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
07A306	CABLE ASSEMBLY, (SGCEU-W461)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
07A0307	CABLE ASSEMBLY, (CITV/SGSA-W462)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
07A0308	CABLE ASSEMBLY, (CITV/SEU-W464)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
07A0309	CABLE ASSEMBLY, (CITV/SEU-W465)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
07A0310	CABLE ASSEMBLY, (TIS/SGTRU-W466)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
07A0311	CABLE ASSEMBLY, (TIS/BICU-W468)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
07A0312	CABLE ASSEMBLY, (HFM/FST-W469)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
07A0313	CABLE ASSEMBLY, (HFM/FST-W470)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
07A0314	CABLE ASSEMBLY, (HFM/FST-W471)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
07A0315	CABLE ASSEMBLY, (SRU-W474)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
07A0316	CABLE ASSEMBLY, (SGCEU-W475)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
07A0317	CABLE ASSEMBLY, (HFM/FST-W477)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
07A0318	HTI ADAPTER ASSEMBLY (CFM/TJ2)	REPLACE REPAIR TEST		.03 .08 .29			1.0	2, 11 1	C
07A0319	SRU ADAPTER ASSEMBLY (TJ1/W474)	REPLACE REPAIR TEST		.03 .14 .07			.50	2, 11 1	C
07A0320	DISPLAY CABLE ASSEMBLY, W245	REPLACE REPAIR TEST		.1 .4 .1			1.0	2, 11 1	C

Table 1. MAC for Test Set, Electronic – Continued

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND EQPT.	(6) REMARKS
			UNIT		DIR SUP	GEN SUP	DEP		
			C	O	F	H	D		
07B	HOLDING FIXTURE ASSEMBLY	REPAIR		.4				11	
07B01	ELEVATION ADJUSTMENT ASSEMBLY	REPLACE		.1				11	
		REPAIR		.1				11	
07B02	ELEVATION PLUNGER	REPLACE		.1				11	
		REPAIR		.1				11	
07B03	PLATE ASSEMBLY, TRU HOLDING	INSPECT		.1					
		SERVICE		.2					
		REPLACE		.1				11	
		REPAIR		.3				11	
07C	COLLIMATOR, THERMAL SIGHT	INSPECT		.2					
		SERVICE		.2					
		CALIBRATE			1.0				H
		REPLACE		.1				13	
		REPAIR		.2				13	
07C01	COLLIMATOR ASSEMBLY	REPAIR		.1				13	
07C0101	TEMPERATURE CONTROLLER ASSEMBLY	INSTALL			.1			13	
		TEST		.1	.2			13	
07C010101	SPINDLE & DRUM ASSEMBLY	REPLACE			.3			13	
		REPAIR			.2		1.0		
07C01010101	CABLE ASSEMBLY, W1	REPAIR					1.0		
07C010102	CABLE ASSEMBLY, W2	REPLACE			.8				
		REPAIR			.3			13	
07C010103	CIRCUIT CARD ASSEMBLY, LOGIC CONTROL	REPLACE			.3			13	
		REPAIR					.8		
07C010104	CIRCUIT CARD ASSEMBLY, POWER SUPPLY	REPLACE			.3			13	
		REPAIR					.8		
07C0102	MIRROR ASSEMBLY, FOLDING	REPLACE					1.0		
		REPAIR					1.0		
07C0103	MIRROR ASSEMBLY, COLLIMATING	REPLACE					1.0		
		REPAIR					1.0		
07C02	POWER CABLE ASSEMBLY	REPLACE		.1					
		REPAIR			.1			2, 8	
07D	GPEOH SYSTEM	INSPECT	.6						
		REPLACE		.1					
		REPAIR					1.0		
07E	CITV HOLDING FIXTURE ASSEMBLY	REPAIR		.10				11	
		DISASSEMBLE/ ASSEMBLE		.25				11	
08	DSESTS COMMON RESOURCES								
08A	DCR ASU NO. 1	INSPECT	.3						
		REPAIR		.1				7, 10	J
08A01	CASE ASSEMBLY	REPLACE		.1					
08A02	TRAY ASSEMBLY	REPLACE		.1					
		REPAIR		.3				7, 10	J
08A03	COMMON FUNCTION MODULE	INSTALL		.2					
		REPLACE		.1					
		REPAIR		.3				1, 11	
08A0301	CFM BUFFER/COMMUNICATIONS	REPLACE		.1				11	
		REPAIR		.5					

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
08A030101	MODULE BUFFER	REPLACE		.3				11	
		REPAIR					1.0		
08A030102	COMMUNICATIONS 1553	REPLACE		.3				11	
		REPAIR					1.0		
08A030103	CCA RS485/RS232	REPLACE		.3				11	
		REPAIR					1.0		
08A0302	DIGITAL I/O	REPLACE		.1				11	
		REPAIR					1.0		
08A0303	ANALOG FUNCTION GENERATOR	REPLACE		.1				11	
		REPAIR					1.0		
08A0304	ANALOG I/O	REPLACE		.1				11	
		REPAIR					1.0		
08A0305	SWITCHING TERMINATOR	REPLACE		.1				11	
		REPAIR					1.0		
08A0306	LOAD DRIVER/TERMINATOR	REPLACE		.1				11	
		REPAIR					1.0		
08A0307	ANALOG PREPROCESSOR	REPLACE		.1				11	
		REPAIR					1.0		
08A0308	RESOLVER FUNCTION	REPLACE		.1				11	
		REPAIR					1.0		
08A0309	CFM INTERFACE ASSEMBLY	REPLACE		.7				11	
		REPAIR					1.0		
		TEST		1.7				1	
08A0310	LOAD PLATE ASSEMBLY	REPLACE		.1				11	
		REPAIR					1.0		
08A0311	COVER ASSEMBLY	REPAIR		.5				11	
08A04	DISPLAY SUBSYSTEM	REPLACE		.1					
		REPAIR					1.0		
08A0401	COLOR DISPLAY SUBSYSTEM	REPLACE		.1					
08A040101	DELETED								
08A040102	VIDEO ADAPTER, COLOR DISPLAY	REPLACE		.1					
		REPAIR		.3			1.0	2, 7, 10	J
		TEST		.1					
08A05	DISPLAY ADAPTER ASSEMBLY	REPLACE		.1					
		REPAIR		.1			1.0	2, 7, 10	J
		TEST		.1					
08A06	ADAPTER CFM FST TJ1	REPLACE		.1					
		REPAIR		.3			1.0	2, 7, 10	J
		TEST		.3				1	

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
08A07	ADAPTER CFM FST TJ2-1	REPLACE		.1					
		REPAIR		.3			1.0	2, 7, 10	J
		TEST		.3				1	
08A08	ADAPTER CFM FST TJ2-2	REPLACE		.1					
		REPAIR		.3			1.0	2, 7, 10	J
		TEST		.3				1	
08A09	CABLE ASSEMBLY, GROUND	REPLACE		.1					
		REPAIR		.1				2, 7, 10	J
		TEST		.1				1	
08A10	CABLE ASSEMBLY CFM/FST-W200	REPLACE		.1					
		REPAIR		.5			1.0	2, 7, 10	C, J
		TEST		1.0				1	
08A11	CABLE ASSEMBLY CFM/FST-W201	REPLACE		.1					
		REPAIR		.5			1.0	2, 7, 10	C, J
		TEST		1.0				1	
08A12	CABLE ASSEMBLY DISPLAY-W228	REPLACE		.1					
		REPAIR		.3			1.0	2, 7, 10	C, J
		TEST		.1				1	
08A13	CABLE ASSEMBLY CFM/FST-W385	REPLACE		.1					
		REPAIR		.4			1.0	2, 7, 10	C, J
		TEST		.1				1	
08A14	CABLE ASSEMBLY POWER/RS232-W330	REPLACE		.1					
		REPAIR		.5			1.0	2, 7, 10	C
		TEST		.1				1	
09	DSESTS M1A2/M1A2 SEP EQUIPMENT SUPPORT GROUP								
09A	M1A2/M1A2SEP ASU NO. 1			.11				11	
09A01	CASE ASSEMBLY, M1A2/M1A2SEP ASU NO. 1	REPLACE		.13					
		REPAIR					.38		
09A02	CABLE TRAY ASSEMBLY, M1A2/M1A2SEP	REPLACE		.06					
		REPAIR		.24				11	
09A03	ADAPTER TRAY ASSEMBLY M1A2/M1A2SEP	REPLACE		.06					
		REPAIR		.24				11	
09A04	RETICLE SIMULATOR	REPLACE		.06					
		REPAIR		.09			.68	7, 10, 11	J
09A05	RMC HOLDING FIXTURE	REPLACE		.03					
		REPAIR		.03				7, 10, 11	J
09A0501	RMC HARNESS ASSY.	REPLACE		.21					
		REPAIR		.12				2, 11	J
		TEST		.50					
09A06	MHA TEST FIXTURE	REPLACE		.03					
		REPAIR		.03				7, 10, 11	J
09A0601	MH HARNESS ASSY	REPLACE		.11					
		REPAIR		.19				2, 11	J
		TEST		.50					
09A07	VME TEST FIXTURE ASSY.	REPLACE		.02					
		REPAIR		.12			1.0	7, 10, 11	J

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP		
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	TOOLS AND EQPT.	REMARKS
09A08	CABLE ASSEMBLY, (GCDP/DID/CID-W214)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	J
09A09	CABLE ASSEMBLY, HULL POWER DISTRIBUTION UNIT (HPDU-W224)	REPLACE REPAIR TEST		.03 .14 .17			1.0	2, 7, 10 1	J
09A10	CABLE ASSEMBLY GUNNER'S PRIMARY SIGHT (GPS-W237)	REPLACE REPAIR TEST		.03 .14 .50			1.0	2, 7, 10 1	J
09A11	CABLE ASSEMBLY GUNNER'S PRIMARY SIGHT (GPS-W238)	REPLACE REPAIR TEST		.03 .14 .50			1.0	2, 7, 10 1	J
09A12	CABLE ASSEMBLY, MOUNTING HOUSING ASSY. (MHA-536)	REPLACE REPAIR TEST		.03 .14 .50			1.0	2,7, 10 1	J
09A13	CABLE ASSEMBLY, MOUNTING HOUSING ASSY. (MHA-W537)	REPLACE REPAIR TEST		.03 .14 .17			1.0	2, 7, 10 1	C, J
09A14	CABLE ASSEMBLY, HULL POWER DISTRIBUTION UNIT (HPDU-W548)	REPLACE REPAIR TEST		.03 .14 .17			1.0	2, 7, 10 1	C, J
09A15	CABLE ASSEMBLY HULL POWER DISTRIBUTION UNIT (HPDU-W549)	REPLACE REPAIR TEST		.03 .94 .17			1.0	2, 7, 10 1	C, J
09A16	CABLE ASSEMBLY, REMOVABLE MEMORY CARTRIDGE (RMC-W550)	REPLACE REPAIR TEST		.03 .14 .17			1.0	2, 7, 10 1	C, J
09A17	CABLE ASSEMBLY, ARMY EMBEDDED GPS RECEIVER (AEGR-W552)	REPLACE REPAIR TEST		.03 .14 .17			1.0	2, 7, 10 1	C, J
09A18	ADAPTER ASSEMBLY, (CID/GCDP)	REPLACE REPAIR TEST		.03 .14 .07			.50	2, 7, 10 1	J
09A19	ADAPTER ASSEMBLY HPDU NO. 1	REPLACE REPAIR TEST		.03 .14 .07			.50	2, 7, 10 1	J
09A20	ADAPTER ASSEMBLY, EYESAFE LASER RANGEFINDER (ELRF ADAPTER)	REPLACE REPAIR TEST		.03 .14 .08				2,7,10 1	J
09A21	DELETED	REPAIR					1.0		
09A22	MMU-MHA PCMCIA CARD								
09A23	DELETED	REPLACE REPAIR		.02			1.0		
09A24	ADAPTER ASSEMBLY, SSI/CEU	REPLACE REPAIR TEST		.03 .14 .07			.50	2, 11 1	C, J
09A25	CABLE ASSEMBLY, SCSI-W349	REPLACE REPAIR TEST		.1 .4 .1			1.0	2, 11 1	C, J

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP		
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	TOOLS AND EQPT.	REMARKS
09A26	SSI/CEU ASSEMBLY	REPLACE REPAIR TEST		.1 .7 .3				2, 11	J
09B	SEP ASU NO. 2	REPAIR		.11				11	
09B01	CASE ASSEMBLY, SEP ASU NO. 2	REPLACE REPAIR		.13			.38		
09B02	CABLE ASSEMBLY, POSITION NAVIGATOR UNIT (POS/NAV-W215)	REPLACE REPAIR FAULT		.03 .14 .50			1.0	2, 7, 10 1	C, J
09B03	CABLE ASSEMBLY, GUNNERS CONTROL HANDLE ASSY. (GCHA-W216)	REPLACE REPAIR FAULT		.03 .14 .50			1.0	2, 7, 10 1	C, J
09B04	CABLE ASSEMBLY, (T/H RSM-W221)	REPLACE REPAIR FAULT		.03 .14 .17			1.0	2, 7, 10 1	C, J
09B05	CABLE ASSEMBLY, FIRE CONTROL ELECTRONICS UNIT (FCEU-W232)	REPLACE REPAIR FAULT		.03 .14 1.0			1.0	2, 7, 10 1	C, J
09B06	CABLE ASSEMBLY, FIRE CONTROL ELECTRONICS UNIT (FCEU-W233)	REPLACE REPAIR FAULT		.03 .14 .25			1.0	2, 7, 10 1	C, J
09B07	CABLE ASSEMBLY, FIRE CONTROL ELECTRONICS UNIT (FCEU-W234)	REPLACE REPAIR FAULT		.03 .14 1.0			1.0	2, 7, 10 1	C, J
09B08	CABLE ASSEMBLY, FIRE CONTROL ELECTRONICS UNIT (FCEU-W235)	REPLACE REPAIR FAULT		.03 .14 .08			1.0	2, 7, 10 1	C, J
09B09	CABLE ASSEMBLY, (CEU/HMPU/TMPU-W530)	REPLACE REPAIR FAULT		.03 .14 .17			1.0	2, 7, 10	C, J
09B10	CABLE ASSEMBLY, COMMANDERS ELECTRONIC UNIT (CEU-W531)	REPLACE REPAIR FAULT		.03 .14 .17			1.0	2, 7, 10 1	C, J
09B11	CABLE ASSEMBLY, COMMANDERS ELECTRONIC UNIT (CEU-W532)	REPLACE REPAIR FAULT		.03 .14 .17			1.0	2, 7, 10 1	C, J
09B12	CABLE ASSEMBLY, TURRET MISSION PROCESSOR UNIT (TMPU-W533)	REPLACE REPAIR FAULT		.03 .14 .10			1.0	2, 7, 10 1	C, J
09B13	CABLE ASSEMBLY, COMMANDER'S DISPLAY UNIT (CDU-W534)	REPLACE REPAIR FAULT		.03 .14 .10			1.0	2, 7, 10 1	C, J
09B1301	ADAPTER ASSEMBLY (CDU)	REPLACE REPAIR TEST		.03 .14 .07			1.0	2, 7, 10	J
09B14	CABLE ASSEMBLY, COMMANDER'S DISPLAY UNIT (CDU-W535)	REPLACE REPAIR FAULT		.03 .14 1.0			1.0	2, 7, 10 1	C, J

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
09B15	CABLE ASSEMBLY, TURRET REMOTE SWITCHING MOD. (TRSM-W538)	REPLACE REPAIR FAULT		.03 .14 1.0			1.0	2, 7, 10 1	C, J
09B16	CABLE ASSEMBLY, ANALOG INPUT MODULE (AIM-539)	REPLACE REPAIR FAULT		.03 .14 1.0			1.0	2, 7, 10 1	C, J
09B17	CABLE ASSEMBLY, ANALOG INPUT MODULE (AIM-W545)	REPLACE REPAIR FAULT		.03 .14 1.0			1.0	2, 7, 10 1	C, J
09B18	CABLE ASSEMBLY, HULL REMOTE SWITCHING MODULE (HRSM-W546)	REPLACE REPAIR FAULT		.03 .14 1.0			1.0	2, 7, 10 1	C, J
09B19	CABLE ASSEMBLY, COMMANDER'S CONTROL HANDLE ASSY. (CCHA-W551)	REPLACE REPAIR FAULT		.03 .14 .17			1.0	2, 7, 10 1	C, J
09B20	ADAPTER ASSEMBLY (FCEU/IFCEU)	REPLACE REPAIR TEST		.03 .14 .07			1.0	2, 7, 10	J
09C	SEP ASU NO. 3	REPAIR		.11				11	
09C01	CASE ASSEMBLY, SEP ASU NO. 3	REPLACE REPAIR		.13			.38		
09C02	TRAY ASSEMBLY, SEP ASU NO. 3	REPAIR		.24				11	
09C03	M1A2 FUNCTION MODULE/ENHANCED MFM/E	REPLACE REPAIR		.04 .36				7, 10, 11	J
09C0301	MFM MODULE BUFFER	REPLACE REPAIR		.16			1.0	2, 11	J
09C030101	MODULE BUFFER	REPLACE REPAIR		.16			1.0	2, 11	J
09C030102	CCA, RS485/RS232	REPLACE REPAIR		.16			1.0	2, 11	J
09C0302	CCA, RESOLVER FUNCTIONS A2	REPLACE REPAIR		.10			1.0	2,11	J
09C0303	CCA, HIGH SPEED SAMPLER	REPLACE REPAIR		.10			1.0	2, 11	J
09C0304	CCA, ANALOG I/O	REPLACE REPAIR		.10			1.0	2, 11	J
09C0305	ELECTRONIC LOAD MODULE ASSEMBLY	REPLACE REPAIR		.30			1.0	11	J
09C0306	CCA, ISOLATED SWITCH	REPLACE REPAIR		.10			1.0	2, 11	J
09C0307	CCA, FCEU SIGNAL COND.	REPLACE REPAIR		.10			1.0	2, 11	J
09C0308	CCA, LOAD PLATE ASSY.	REPLACE REPAIAR		.10			1.0	2, 11	J
09C0309	CCA, INTERFACE ASSY.	REPLACE REPAIR		.80			1.0	2, 11	J
09C0311	CCA, HIGH CURRENT RELAY	REPLACE REPAIR		.10			1.0	11	J

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP		
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	TOOLS AND EQPT.	REMARKS
09C04	GPS FUNCTION MODULE (GFM-E)	REPLACE REPAIR		.04 .28				7, 10, 11	J
09C0401	GFM-E INTERFACE ASSY.	REPLACE REPAIR		.80			1.0	7, 10, 11	J
09C0402	CCA, MODULE BUFFER ASSY.	REPLACE REPAIR		.10			1.0	2, 11	J
09C0403	CCA, SCSI	REPLACE REPAIR		.10			1.0	2, 11	J
09C0404	GFM-E LOAD PLATE ASSY.	REPLACE REPAIR		.10			1.0	2, 11	J
09C0405	CCA, DAHA INTERFACE	REPLACE REPAIR		.10			1.0	2, 11	J
09C0406	CCA, VGA VIDEO GENERATOR	REPLACE REPAIR		.10			1.0	2, 11	J
09C0407	CCA, GPS/TCU INTERFACE	REPLACE REPAIR		.10			1.0	2, 11	J
09C0408	CCA, HIGH SPEED SAMPLER	REPLACE REPAIR		.10			1.0	2, 11	J
09C0409	COVER ASSEMBLY	REPAIR		.25				11	
09C05	CABLE ASSEMBLY, (1553-W204)	REPLACE REPAIR TEST		.03 .14 .08			1.0	2, 7, 10	c, j
09C06	CABLE ASSEMBLY, (RS485-W207)	REPLACE REPAIR TEST		.03 .14 .08			1.0	2, 7, 10 1	C, J
09C07	CABLE ASEMBLY, (MFM/CFM FST-W227)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
09C08	CABLE ASSEMBLY, CONTACT TEST SET INTERFACE (CTS-W295)	REPLACE REPAIR TEST		.03 .14 .10			1.0	2, 7, 10 1	C, J
09C09	CABLE ASSEMBLY, (MFM/CFM FST-W485)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
09C10	CABLE ASSEMBLY, (CFM/GFM FST-W540)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
09C11	CABLE ASSEMBLY, (CFM/GFM FST-W541)	REPLACE REPAIR TEST		.03 .14 1.0			1.0	2, 7, 10 1	C, J
09C12	CABLE ASSEMBLY, (CFM/GFM FST-W542)	REPLACE REPAIR TEST		.03 .14 .10			1.0	2, 7, 10 1	C, J
09C13	CABLE ASSEMBLY, (GFM/DISPLAY FST-W543)	REPLACE REPAIR TEST		.03 .14 .08			1.0	2, 7, 10 1	C, J
09C14	CABLE ASSEMBLY, (GFM/DISPLAY FST-W544)	REPLACE REPAIR TEST		.03 .14 .08			1.0	2, 7, 10 1	C, J

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP		
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	TOOLS AND EQPT.	REMARKS
09D	DELETED								
09E	IMPROVED FIRE CONTROL ELECTRONICS UNIT (IFCEU) TEST SYSTEM	INSPECT		2.0					
09E01	LOAD BOX ASSEMBLY	REPLACE REPAIR		.1 .5				11	
09E0101	CIRCUIT CARD ASSEMBLY, LOAD BOX	REPLACE REPAIR		.1			1.0	11	
09E02	CABLE ASSEMBLY IFCEU-W650	REPLACE REPAIR TEST		.1 .5 1.0			1.0	2, 7, 10 1	
09E03	CABLE ASSEMBLY IFCEU-W651	REPLACE REPAIR TEST		.1 .5 1.0			1.0	2, 7, 10 1	
09E04	CABLE ASSEMBLY IFCEU-W652	REPLACE REPAIR TEST		.1 .5 1.0			1.0	2, 7, 10	
09E05	CABLE ASSEMBLY LOAD BOX FST-W653	REPLACE REPAIR TEST		.1 .5 1.0			1.0	2, 7,10 1	
09F	M1A2 EQUIPMENT GROUP, BLOCK 1	INSPECT		.1					
09F01	CABLE ASSEMBLY, (CITVSA-W677)	REPLACE REPAIR TEST		.03 .40 .10			1.0	2, 7, 10	C, J
09F02	CABLE ASSEMBLY, (TIS-TRU-W678)	REPLACE REPAIR TEST		.03 .40 .10			1.0	2, 7, 10	C, J
09F0201	ADAPTER ASSEMBLY (RS422/RS485 TJ3)	REPLACE REPAIR TEST		.03 .14 .07			1.0	2, 7, 10	J
09G	CEEP TPS KIT	INSPECT		.1					
09G01	CABLE ASSEMBLY, (ICDU/DVI-W665)	REPLACE REPAIR TEST		.03 .40 .10			1.0	2, 7, 10	C, J
09G02	CABLE ASSEMBLY, (ICEU/DVI-W667)	REPLACE REPAIR TEST		.03 .40 .10			1.0	2, 7, 10	C, J
09G03	ADAPTER ASSEMBLY, (CFM/IMPU/ICEU TJ-4)	REPLACE REPAIR TEST		.03 .14 .07			1.0	2, 7, 10	J
09G04	ADAPTER ASSEMBLY, (IDID/IGCDP)	REPLACE REPAIR TEST		.03 .14 .07			1.0	2, 7, 10	J
09G05	DELETED								
09G06	ENHANCED VIDEO CONVERTER AND TRANSFER UNIT (EVCTU)	REPLACE REPAIR TEST	.1 .3 .3					2, 7, 10	

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
09G07	CABLE ASSEMBLY, (EVCTU FST-W668)	REPLACE REPAIR TEST	.03 .40 .10				1.0	2, 7, 10	C, J
09G08	CABLE ASSEMBLY, (VCTU FST-W338)	REPLACE REPAIR TEST	.03 .40 .10				1.0	2, 7, 10	C, J
09G09	ADAPTER ASSEMBLY, (FST J3)	REPLACE REPAIR TEST	.03 .14 .10				1.0	2, 7, 10	J
09G10	CABLE ASSEMBLY, POWER-RS232	REPLACE REPAIR TEST	.03 .14 .07				1.0	2, 7, 10	J
11	BRADLEY A3 SUPPORT SYSTEM								
11A	BRADLEY A3 ASU NO. 1	REPAIR		.15				7, 10	
11A01	ACCESSORY CASE ASSEMBLY BRADLEY A3 ASU NO. 1	REPLACE REPAIR		.07			.38	7, 10	
11A02	TRAY ASSEMBLY	REPLACE REPAIR		.07 .10				11	
11A03	DELETED								
11A04	HANDSET TEST FIXTURE	REPLACE REPAIR		.07 0.1				11	
11A05	CABLE ASSEMBLY, MISSILE CONTROL SET (MCS-W501)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2., 7, 10 1	C, J
11A06	CABLE ASSEMBLY, MISSILE CONTROL SET (MC5-W509)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11A07	CABLE ASSEMBLY, MISSILE CONTROL SET (MC5-W510)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11A08	CABLE ASSEMBLY, COMMANDER'S HAND STATION/ GUNNER'S HAND STATION (CHS/GHS-W513)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11A09	CABLE ASSEMBLY, GUN CONTROL UNIT (GCU-W514)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11A10	CABLE ASSEMBLY, POWER CONTROL MODULE (PCM-W515)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11A11	CABLE ASSEMBLY, POSITION INTERFACE BOX (PIB-W516)_	REPLACE REPAAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11A12	CABLE ASSEMBLY, HULL POWER BOX (HPB-W517)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11A13	CABLE ASSEMBLY, SYSTEM CONTROL BOX (SCB-W518)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
11A14	CABLE ASSEMBLY, TURRET POWER BOX (TPB-W519)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11B	BRADLEY A3 ASU NO. 2	REPAIR		.15				7, 10	
11B01	ACCESSORY CASE ASSEMBLY BRADLEY A3 ASU NO. 2	REPLACE REPAIR		.07			.38	7, 10	
11B02	CABLE ASSEMBLY, TURRET PROCESSOR UNIT/HULL PROCESSOR UNIT (TPU/HPU-W502)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11B03	DELETED								
11B04	CABLE ASSEMBLY, COLOR FLAT PANEL DISPLAY (CFPD-W507)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11B05	CABLE ASSEMBLY, ARMAMENT CONTROL UNIT (ACU-W511)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11B06	CABLE ASSEMBLY, TURRET DRIVE CONTROL UNIT (TDCU-W520)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11B07	CABLE ASSEMBLY, REMOTE BIOCULAR DISPLAY (RBD-W521)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11B08	CABLE ASSEMBLY, COMMANDER'S INTERFACE UNIT (CIU-W522)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11B09	CABLE ASSEMBLY, COMMANDER'S INTERFACE UNIT (CIU-W523)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11B10	CABLE ASSEMBLY, COMMANDER'S INTERFACE UNIT (CIU-W524)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11B11	CABLE ASSEMBLY, SERVO ELECTRONICS UNIT (SEU-W525)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11B12	CABLE ASSEMBLY, TURRET DRIVE CONTROL UNIT (TDCU-W526)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11B13	CABLE ASSEMBLY, TURRET DRIVE CONTROL UNIT (TDCU-W527)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11B14	CABLE ASSEMBLY, COMMANDER'S SIGHT CONTROL PANEL/GUNNER'S SIGHT CONTROL PANEL (CSCP/GSCP-W528)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11B15	CABLE ASSEMBLY, TURRET DRIVE CONTROL UNIT (TDCU-W529)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11B16	ADAPTER ASSEMBLY TURRET DRIVE CONTROL UNIT (TDCU J1)	REPLACE REPAIR TEST		.04 .13 .14			1.0	2, 7, 10 1	J

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
11B17	CABLE ASSEMBLY TPUII/HPUII-W599	REPLACE REPAIR TEST		.1 .5 1.0			1.0	2, 7, 10 1	
11B18	CABLE ASSEMBLY, INU-W143	REPLACE REPAIR TEST		.1 .4 .1				2, 7, 10 1	C
11B20	CABLE ASSEMBLY, (SAU-W637)	REPLACE REPAIR TEST		.1 .4 .1			1.0	2, 7, 10	C
11C	BRADLEY A3 ASU NO. 3	REPAIR		.15				7, 10	
11C01	ACCESSORY CASE ASSEMBLY BRADLEY A3 ASU NO. 3	REPLACE REPAIR		.07			.38	7, 10	
11C02	TRAY ASSEMBLY	REPLACE REPAIR		.07 .22				11	
11C03	CABLE ASSEMBLY, P-HEAD TARGET ACQUISITION SUBSYSTEM (P-HEAD-W592)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11C04	CABLE ASSEMBLY, TARGET ACQUISITION SUBSYSTEM/ LOWER TARGET ACQUISITION SUBSYSTEM (TAS/LTAS-W593)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11C05	CABLE ASSEMBLY, TARGET ACQUISITION SUBSYSTEM/ LOWER TARGET ACQUISITION SUBSYSTEM (TAS/LTAS-W594)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11C06	CABLE ASSEMBLY, POWER SUPPLY ASSEMBLY (PSA-W595)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J
11C0601	ADAPTER ASSEMBLY BELRF POWER SUPPLY	REPLACE REPAIR TEST		.1 .3 .3			1.0	2, 7, 10 1	
11C07	CABLE ASSEMBLY, (TAS-W675)	REPLACE REPAIR TEST		.03 .40 .10			1.0	2, 7, 10	C, J
11C08	CABLE ASSEMBLY, (TAS-W676)	REPLACE REPAIR TEST		.03 .40 .10			1.0	2, 7, 10	C, J
11D	BRADLEY A3 ASU NO. 4	REPAIR		.15				7, 10	
11D01	ACCESSORY CASE ASSEMBLY BRADLEY A3 ASU NO. 4	REPLACE REPAIR		.07			.38	7, 10	
11D02	TRAY ASSEMBLY	REPLACE REPAIR		.07 .22				11	
11D03	IBAS PERISCOPE ASSY.	REPLACE REPAIR		.07 .10				2, 7, 10	
11D04	CORNER CUBE ASSY.	REPLACE REPAIR		.07			1.0	2, 7, 10	
11D05	CABLE ASSEMBLY, VEHICLE DISTRIBUTION BOX (VDB-W553)	REPLACE REPAIR TEST		.03 .40 1.0			1.0	2, 7, 10 1	C, J

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP	TOOLS AND	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	EQPT.	REMARKS
11D06	CABLE ASSEMBLY,	REPLACE		.03					
	VEHICLE DISTRIBUTION BOX	REPAIR		.30			1.0	2, 7, 10	C, J
	(VDB-W554)	TEST		1.0				1	
11D07	CABLE ASSEMBLY,	REPLACE		.03					
	VEHICLE DISTRIBUTION BOX	REPAIR		.40			1.0	2, 7, 10	C, J
	(VDB-W555)	TEST		1.0				1	
11D08	CABLE ASSEMBLY,	REPLACE		.03					
	VEHICLE DISTRIBUTION BOX	REPAIR		.40			1.0	2, 7, 10	C, J
	(VDB-W556)	TEST		1.0				1	
11D09	CABLE ASSEMBLY,	REPLACE		.03					
	VEHICLE DISTRIBUTION BOX	REPAIR		.40			1.0	2, 7, 10	C, J
	(VDB-W557)	TEST		1.0				1	
11D10	CABLE ASSEMBLY,	REPLACE		.03					
	VEHICLE DISTRIBUTION BOX	REPAIR		.40			1.0	2, 7, 10	C, J
	(VDB-W558)	TEST		1.0				1	
11D11	CABLE ASSEMBLY,	REPLACE		.03					
	VEHICLE DISTRIBUTION BOX	REPAIR		.40			1.0	2, 7, 10	C, J
	(VDB-W559)	TEST		1.0				1	
11E	OPTICAL TEST FIXTURE	REPLACE		.07					
	(GPEOH SUPPORT ASSY.)	REPAIR		.10				11	
11F	ELECTRICAL TEST FIXTURE	REPLACE		.07					
	(SAU HOLDING FIXTURE)	REPAIR		.20				11	J
11G	PHEAD MOUNTING PLATE	REPLACE		.02					
		REPAIR		.02			1.0	11	
12	WOLVERINE TEST PROGRAM SET	INSPECT		2.0					
12A	WOLVERINE STOWAGE BAG ASSEMBLY	REPAIR		.1					
12A02	CABLE ASSEMBLY ILECU-W147	REPLACE		.1					
		REPAIR		.5			1.0	2, 7, 10	
		TEST		1.0				1	
12A03	CABLE ASSEMBLY ILECU-W148	REPLACE		.1					
		REPAIR		.5			1.0	2, 7, 10	
		TEST		1.0				1	
12A04	CABLE ASSEMBLY CCP-W150	REPLACE		.1					
		REPAIR		.5			1.0	2, 7, 10	
		TEST		1.0				1	
12A05	ADAPTER ASSEMBLY ILECU	REPLACE		.1					
		REPAIR		.3			1.0	2, 7, 10	
		TEST		.3				1	
960003	TSA ASU	INSPECT		.1					D
		REPAIR		.2				7, 10	J
96000301	TRANSIT CASE, TSA	REPAIR					1.0		
96000302	TRANSFER STANDARDS ADAPTER	INSPECT		.4					
		REPAIR			.5			8	D
		CALIBRATE			1.0			8	H
9600030201	CIRCUIT CARD ASSEMBLY	REPLACE			.6		8		
		REPAIR					1.0		
9600030202	FREQUENCY COUNTER	REPLACE			.7			8	
		REPAIR			.5		1.0		

Table 1. MAC for Test Set, Electronic – Continued

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DIR SUP	GEN SUP	DEP		
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	TOOLS AND EQPT.	REMARKS
96000303	ADAPTER ASSEMBLY, FST	REPAIR TEST		.2 .3				2, 7, 10 1	J
96000304	CABLE ASSEMBLY TSA-W457	REPAIR TEST		.2 .3				2, 7, 10 1	C, J
96000305	CABLE ASSEMBLY TSA-W458	REPAIR TEST		.2 1.0				2, 7, 10 1	C, J

Table 2. Tools and Test Equipment for Test Set, Electronic

Tool or Test Equipment Ref. Code	Maintenance Level	Nomenclature	National NATO Stock Number	Tool Number
1	O	Multimeter, Digital AN/USM-486 or equivalent	6625-01-145-2430	AN/USM-486
2	O	Maintenance Kit, Electrical	5935-01-344-1073	5705498
3	O	Power Supply, HP/6269B or equivalent	6130-00-148-1796	—
4	O	Power Supply, Christie, IC36-500KZ234S or equivalent	4940-01-174-3365	—
5	F	Digital Voltmeter, AN/GSM-64 or equivalent	6635-00-022-7894	AN/GSM-64
6	F	Electronic Counter, CP-772-A/U or equivalent	6625-00-973-4837	CP-772-A/U
7	O	Tool Kit, Artillery and Turret Mechanic	5180-00-357-7727	SC5180-95-CL-A12
8	F	Tool Kit, Calibration Specialist	6695-01-081-0960	SC6695-92-A05
9	F	Maintenance Kit, Electrical Connector	5935-01-350-8391	13440042
10	O	Tool Kit, Turret Mechanic's Supplement	4931-01-115-5307	SC4931-95-CL-A22
11	O	Tool Kit, Electronic System Maintenance	5180-01-168-0487	SC5180-95-CL-B29
12		Deleted		
13	F	Tool Kit, TK-17	5180-00-195-0855	—

Table 3. Remarks for Test Set, Electronic

REFERENCE CODE	REMARKS
A	Repair of the OIU at the unit level (MOS 45K, 45G) consists of replacing desiccant in the humidity desiccators and replacing parts that do not require removing the electronics assemblies from their cases. These tasks include identification plates, decals, lens/lamps, connector caps, the memory modules, pressure relief valves, case cover seals, and cable case decals.
B	Repair of the OIU at the intermediate direct support level (MOS 35H) consists of replacing circuit card assemblies, power supply, display assembly, panel/chassis mounted subassemblies/components and internal wiring.
C	Cable repair at the unit level (MOS 45K, 45G) consists of replacing connectors and contacts.
D	The Transfer Standards Adapter (TSA) is a special tool used to verify calibration of GPIA and CFM test resources. The TSA electronics assembly is repaired by MOS 35H.
E	Repair of the EIA and the EMA at the unit level (MOS 45K, 45G) includes full repair of the EMA and partial repair of the EIA. The EIA repair consists of replacement of all items identified during EIA functional self test.
F	The work time for replacing circuit card A20 or A21, located in main card cage and A35 or A36 in the mini card cage is the average time required to replace one of these cards.
G	The work time for repairing M1 LRU test cables represents the average time to repair the new style cable and the optional old style cable.
H	Refer to TB 43-180 for the calibration interval of the thermal sight collimators and TSA. Calibration is performed by MOS 35H.
I	Repair of the DSTA at the unit level (MOS 45K, 45G) consists of the replacement of all items identified during DSTA functional self test and found faulty by follow-on troubleshooting. These items include circuit card assemblies, load plate, backplanes, cable assemblies, power supply, relay and circuit breaker.
J	For OIU and GPIA maintenance, tank turret repairer, MOS 45K, uses tool kits code-numbered 7 and 10. Fire control system repairer, MOS 45G, uses tool kit number 11 and shop set number 12.
K	The GPS test fixture is actually a modified M1A1 line-of-sight electronics unit. Troubleshooting and repair instructions for this unit are included in TM 9-1200-206-40-1 and TM 9-1200-206-40-3.

INTRODUCTION 0109 00

SCOPE

This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of operator's, unit, and depot maintenance of the DSESTS (OIU/GPIA/DCR Subsystem). It authorizes the requisitioning, issue, and disposition of spares, repair parts, and special tools as indicated by the source, maintenance, and recoverability (SMR) codes. Spares and repair parts required for depot maintenance of circuit card assemblies are not contained in this RPSTL.

GENERAL

In addition to the Introduction work package, this RPSTL is divided into the following work packages.

1). Repair Parts List Work Packages. Work packages containing lists of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. These work packages also include parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Sending units, brackets, filters, and bolts are listed with the component they mount on. Bulk materials are listed by item name in FIG. BULK at the end of the work packages. Repair parts kits are listed separately in their own functional group and work package. Repair parts for reparable special tools are also listed in a separate work package. Items listed are shown on the associated illustrations.

2). Special Tools List Work Packages. Work packages containing lists of special tools, special TMDE, and special support equipment authorized by this RPSTL. Tools that are components of common tool sets and/or Class VII are not listed.

3). Cross-Reference Indexes Work Packages. There are two cross-reference indexes work packages in this RPSTL: The National Stock Number (NSN) Index work package and the Part Number (P/N) Index work package. The National Stock Number Index work package refers you to the figure and item number. The Part Number Index work package refers you to the figure and item number.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES

ITEM NO. (Column (1)). Indicates the number used to identify items called out in the illustration.

SMR CODE (Column (2)). The SMR code containing supply/requisitioning information, maintenance level authorization criteria, and disposition instruction, as shown in the following breakout:

Source Code	**Maintenance Code**		**Recoverability Code**
xx	xx		x
1st two positions: How to get an item.	3rd position: Who can install, replace, or use the item.	4th position: Who can do complete repair* on the item.	5th position: Who determines disposition action on unserviceable items.

*Complete Repair: Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

SOURCE CODE. The source code tells you how you get an item needed for maintenance, repair, or overhaul of an end item/ equipment. Explanations of source codes follow:

Source Code	Application/Explanation
PA PB PC PD PE PF PG	Stock items; use the applicable NSN to requisition/request items with these source codes. They are authorized to the level indicated by the code entered in the 3rd position of the SMR code. **NOTE** Items coded PC are subject to deterioration.
KD KF KB	Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance level indicated in the 3rd position of the SMR code. The complete kit must be requisitioned and applied.
MO-Made at unit/ AVUM level MF-Made at DS/ AVIM level MH-Made at GS level MD-Made at depot	Items with these codes are not to be requisitioned/requested individually. They must be made from bulk material which is identified by the P/N in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the bulk material group work package of the RPSTL. If the item is authorized to you by the 3rd position code of the SMR code, but the source code indicates it is made at higher level, order the item from the higher level of maintenance.
AO-Assembled by unit/ AVUM level AF-Assembled by DS/ AVIM level AH-Assembled by GS level AD-Assembled by depot	Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the 3rd position of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the highter level of maintenance.
XA	Do not requisition an "XA" coded item. Order the next higher assembly. (Refer to NOTE below.)
XB	If an item is not available from salvage, order it using the CAGEC and P/N.
XC	Installation drawings, diagrams, instruction sheets, field service drawings; identified by manufacturer's P/N.
XD	Item is not stocked. Order an XD-coded item through normal supply channels using the CAGEC and P/N given, if no NSN is available.

NOTE

Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes except for those items source coded "XA" or those aircraft support items restricted by requirements of AR 750-1.

Maintenance Code. Maintenance codes tell you the level(s) of maintenance authorized to use and repair support items. The maintenance codes are entered in the third and fourth positions of the SMR codes as follows:

Third Position. The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to the following levels of maintenance:

Maintenance Code		Application/Explanation
C	–	Crew or operator maintenance done within unit/AVUM maintenance.
O	–	Unit level/AVUM maintenance can remove, replace, and use the item.
F	–	Direct support/AVIM maintenance can remove, replace, and use the item.
H	–	General support maintenance can remove, replace, and use the item.
D	–	Depot can remove, replace, and use the item.

Fourth Position. The maintenance code entered in the fourth position tells you whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (perform all authorized repair functions).

NOTE

Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.

Maintenance Code		Application/Explanation
O	–	Unit/AVUM is the lowest level that can do complete repair of the item.
F	–	Direct support/AVIM is the lowest level that can do complete repair of the item.
H	–	General support is the lowest level that can do complete repair of the item.
D	–	Depot is the lowest level that can do complete repair of the item.
Z	–	Nonreparable. No repair is authorized.
B	–	No repair is authorized. No parts or special tools are authorized for maintenance of "B" coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

Recoverability Code. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is shown in the fifth position of the SMR code as follows:

Recoverability Code		Application/Explanation
Z	–	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the third position of the SMR code.
O	–	Reparable item. When uneconomically reparable, condemn and dispose of the item at the unit level.
F	–	Reparable item. When uneconomically reparable, condemn and dispose of the item at the direct support level.
H	–	Reparable item. When uneconomically reparable, condemn and dispose of the item at the general support level.
D	–	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item are not authorized below depot level.
A	–	Item requires special handling or condemnation procedures because of specific reasons (such as precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

NSN (Column (3)). The NSN for the item is listed in this column.

CAGEC (Column (4)). The Commercial and Government Entity Code (CAGEC) is a five-digit code which is used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.

PART NUMBER (Column (5)). Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

NOTE

When you use an NSN to requisition an item, the item you receive may have a different P/N from the number listed.

DESCRIPTION AND USABLE ON CODE (UOC) (Column (6)). This column includes the following information:

1). The federal item name, and when required, a minimum description to identify the item.

2). P/Ns of bulk materials are referenced in this column in the line entry to be manufactured or fabricated.

3). Hardness Critical Item (HCI). A support item that provides the equipment with special protection from electromagnetic pulse (EMP) damage during a nuclear attack.

4). The statement END OF FIGURE appears just below the last item description in column (6) for a given figure in both the repair parts list and special tools list work packages.

QTY (Column 7)). The QTY (quantity per figure) column indicates the quantity of the item used in the breakout shown on the illustration/figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column instead of a quantity indicates that the quantity is variable and quantity may change from application to application.

EXPLANATION OF CROSS-REFERENCE INDEXES WORK PACKAGES FORMAT AND COLUMNS

1. National Stock Number (NSN) Index Work Package.

STOCK NUMBER Column. This column lists the NSN in National item identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN.

NSN (e.g., 5385-01-574-1476) NIIN	When using this column to locate an item, ignore the first four digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

FIG. Column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in the repair parts list and special tools list work packages.

ITEM Column. The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.

2. Part Number (P/N) Index Work Package. P/Ns in this index are listed in ascending alphanumeric sequence (vertical arrangement of letter and number combinations which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

PART NUMBER Column. Indicates the P/N assigned to the item.

FIG. Column. This column lists the number of the figure where the item is identified/located in the repair parts list and special tools list work packages.

ITEM Column. The item number is the number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

SPECIAL INFORMATION

Fabrication Instructions. Bulk materials required to manufacture items are listed in the bulk material functional group of this RPSTL. Part numbers for bulk material are also referenced in the Description Column of the line item entry for the item to be manufactured/fabricated. Detailed fabrication instructions for items source coded to be manufactured or fabricated are found in the maintenance section of this manual.

Index Numbers. Items which have the word BULK in the figure column will have an index number shown in the item number column. This index number is a cross-reference between the NSN / P/N index work packages and the bulk material list in the repair parts list work package.

Illustration List. The illustrations in this RPSTL contain unit and depot authorized items. Illustrations published in TM 9-4931-586-30&P that contain unit authorized items also appear in this RPSTL. The tabular list in the repair parts list work package contains only those parts coded "O" or "D" in the third position of the SMR code, therefore, there may be a break in the item number sequence.

HOW TO LOCATE REPAIR PARTS

1. When NSNs or P/Ns are Not Known.

First. Using the table of contents, determine the assembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and lists are divided into the same groups.

Second. Find the figure covering the functional group or the subfunctional group to which the item belongs.

Third. Identify the item on the figure and note the number(s).

Fourth. Look in the repair parts list work packages for the figure and item numbers. The NSNs and part numbers are on the same line as the associated item numbers.

2. When NSN Is Known.

First. If you have the NSN, look in the STOCK NUMBER column of the NSN index work package. The NSN is arranged in NIIN sequence. Note the figure and item number next to the NSN.

Second. Turn to the figure and locate the item number. Verify that the item is the one you are looking for.

3. When P/N Is Known.

First. If you have the P/N and not the NSN, look in the PART NUMBER column of the P/N index work package. Identify the figure and item number.

Second. Look up the item on the figure in the applicable repair parts list work package.

ABBREVIATIONS

Refer to work package 0001 00 for abbreviations used in this manual.

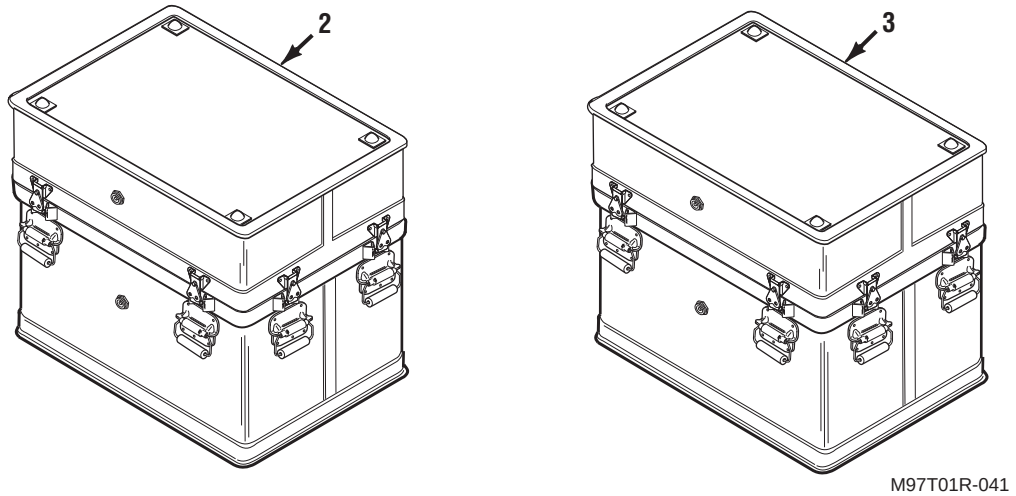


Figure 1. Group 01 Electronic System Test Set 12354500

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01 ELECTRONIC SYSTEM TEST SET	
						FIG. 1 ELECTRONIC SYSTEM TEST SET 12354500	
	1	XCODD		19200	12997734	TEST SYSTEMS (NOT SHOWN)	1
	2	PG0DD	6625-01-225-8342	19207	12354501	OPERATOR INTERFACE SEE FIG. 2 FOR BREAKDOWN	1
	2	PE0DD	6625-01-559-2662	19200	12993994	COMBINED SUPPORT FUNCTIONS MODULE (CSFM) SYSTEM (WITH VCTU) - COMMON COMPONENTS (NOT SHOWN) SEE FIG. 25A FOR BREAKDOWN	1
*	2	PE0DD	6625-01-569-3614	19200	13010053	COMBINED/SUPPORT FUNCTIONS MODULE (CSFM) SYSTEM (WITH ENHANCED VCTU) - COMMON COMPONENTS (NOT SHOWN) SEE FIG. 25A FOR BREAKDOWN	1
	3	PB0DD	5998-01-382-7282	24290	12934368	INTERFACE ASSEMBLY SEE FIG. 14 FOR BREAKDOWN	1
	3	PB0DD	5998-01-245-7143	19200	9358192	INTERFACE ASSEMBLY SEE FIG. 14 FOR BREAKDOWN	1
						END OF FIGURE	

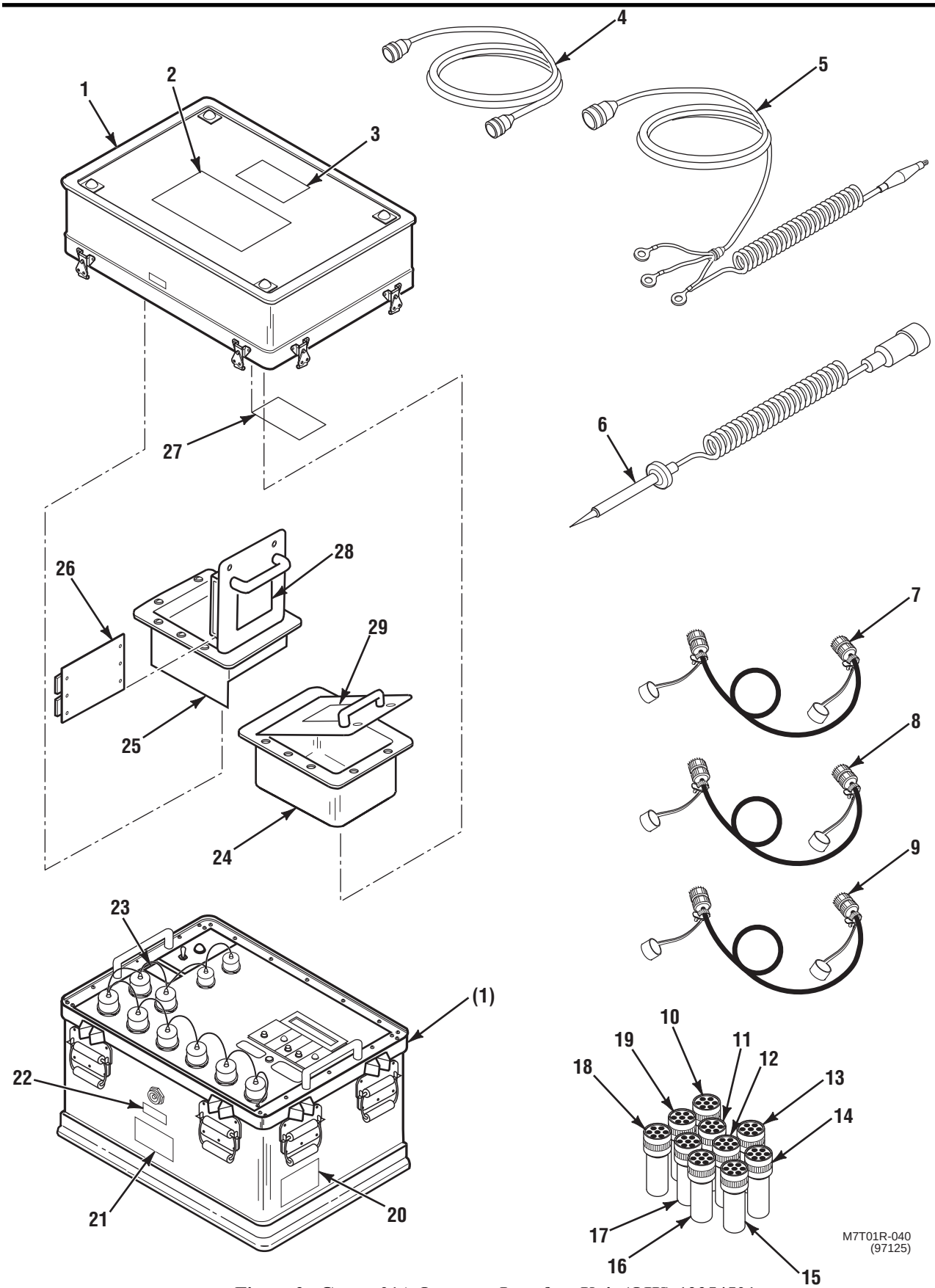


Figure 2. Group 01A Operator Interface Unit (OIU) 12354501

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01A OPERATOR INTERFACE UNIT (OIU)	
						FIG. 2 OPERATOR INTERFACE UNIT 12354501	
	1	XAOFD		19207	12309817	CONTROL ASSEMBLY OPERATOR'S SEE FIG. 3 FOR BREAKDOWN	1
	2	PAOZZ	7690-01-207-5731	19207	12354496	DECAL	1
	3	XDOZZ	7690-01-173-9940	19207	12323290-5	DECAL	1
	4	PGODD	6150-01-118-8651	19207	12309914	CABLE AND CONDUIT ASSY MEMORY SEE FIG. 7 FOR BREAKDOWN	1
	5	PGODD	6150-01-118-8843	19207	12309919	CABLE ASSY PWR W1 SEE FIG. 8 FOR BREAKDOWN	1
	6	PGOFF	6625-01-118-8661	19207	12309939	PROBE SUBASSEMBLY (TPC-W50) SEE FIG. 6 FOR BREAKDOWN	1
	7	PGODD	6150-01-142-5585	19207	12309042	CABLE AND CONDUIT ASSY FST W86 SEE FIG. 9 FOR BREAKDOWN	1
	8	PAODD	6150-01-142-5586	19207	12309043	CABLE AND CONDUIT ASSY FST W87 SEE FIG. 10 FOR BREAKDOWN	1
	9	PGODD	6150-01-142-5587	19207	12309044	CABLE ASSY FST W88 SEE FIG. 11 FOR BREAKDOWN	1
	10	PGOZZ	5935-01-154-0924	19207	12309038-1	DUMMY CONNECTOR,PLU FST-TJ7-1	1
	11	PAOZZ	5935-01-207-5633	19207	12309038-3	ADAPTER,CONNECTOR FST-TJ7-2	1
	12	PGOZA	5935-01-153-7513	19207	12309040-2	CONNECTOR,PLUG,ELEC FST-TJ9-2	1
	13	PGOZA	5935-01-153-7510	19207	12309041	CONNECTOR,PLUG,ELEC FST-TJ10	1
	14	PGOZA	5935-01-153-7512	19207	12309040-1	CONNECTOR,PLUG,ELEC FST-TJ9-1	1
	15	PGOZZ	6625-01-421-9775	19200	12309037-2	ADAPTER,TEST FST-TJ6	1
	16	PGOZZ	5935-01-207-5632	19207	12309036-3	ADAPTER,CONNECTOR FST-TJ5-2	1
	17	PGOZA	5935-01-153-7511	19207	12309039	CONNECTOR,PLUG,ELEC FST-TJ8	1
	18	PGOZZ	6625-01-310-0379	19200	12309036-4	ADAPTER,TEST FST-TJ5-1	1
	19	PGOZZ	5935-01-153-8301	19207	12309035	DUMMY CONNECTOR,PLU FST-TJ4	1
	20	XDOZZ		19200	12596621-5	DECAL	2
	21	XDOZZ		19200	12596622	DECAL	1
*	22	PAOZZ	9905-01-073-9737	19207	12285280	PLATE,IDENTIFICATION	1
	23	XDOZZ		19207	12596796	DECAL	1
	24	PGOOO	4931-01-207-5635	19207	12354535-1	STORAGE MODULE ASSE SEE FIG. 12 FOR BREAKDOWN	1
	25	PGOOO	4931-01-207-5668	19207	12354535-2	STORAGE MODULE ASSE SEE FIG. 13 FOR BREAKDOWN	1
	26	PAOZZ	5998-01-146-7700	19207	12309060	PRINTED WIRING BOAR (EXTENDER BOARD)	1
	27	XDOZZ		19207	12359978	DECAL	1
	28	XDOZZ		19200	12596795	DECAL	1
	29	XDOZZ		19207	12354532	DECAL	1
						END OF FIGURE	

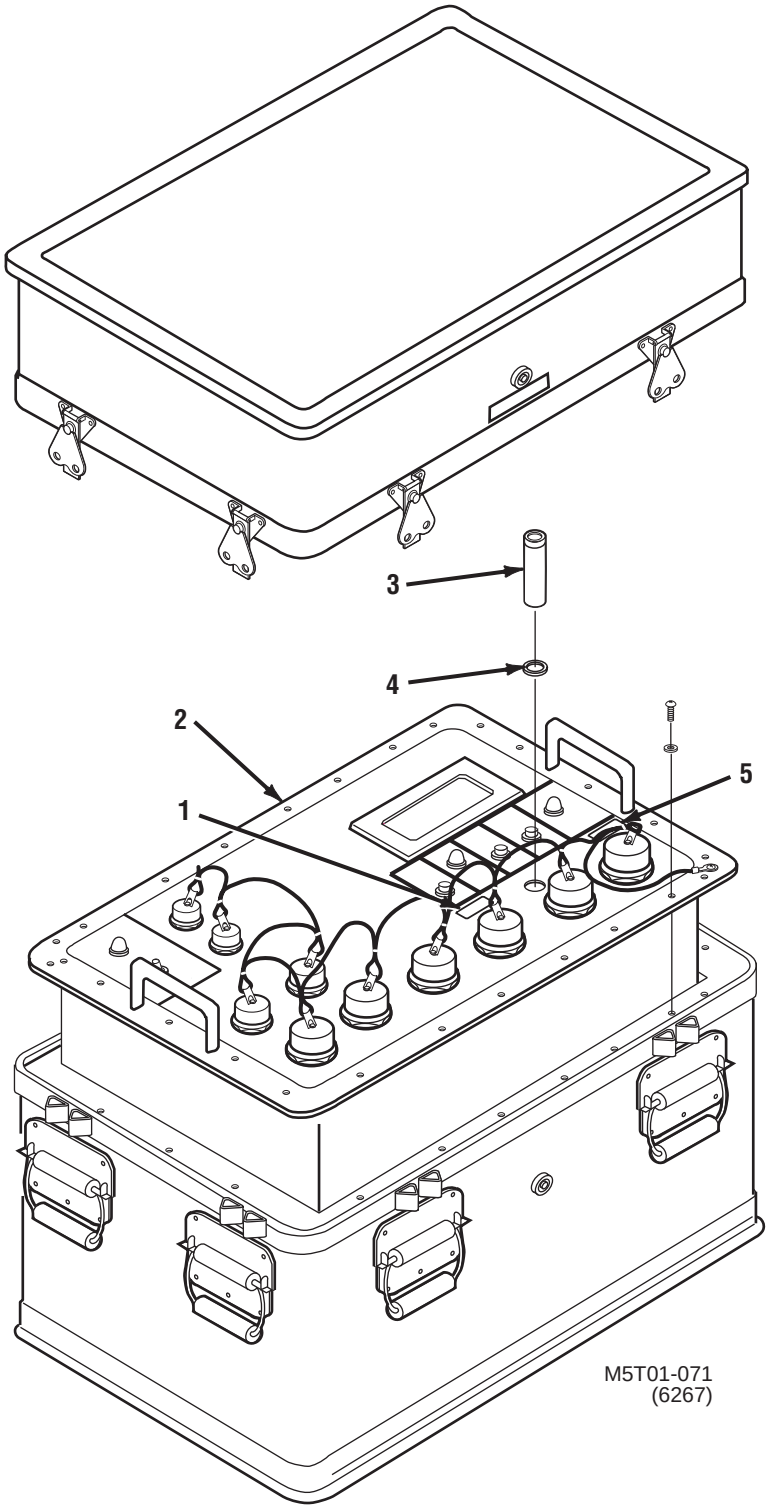


Figure 3. Group 01A01 Operator Control Assembly 12309817

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01A01 OPERATOR CONTROL ASSEMBLY	
						FIG. 3 OPERATOR CONTROL ASSEMBLY 12309817	
	1	PBOZZ	9905-01-146-6461	19207	12309106	PLATE, IDENTIFICATION	1
	2	XAFFD		19207	12309754	ELECTRONICS ASSEMBLY SEE FIG. 4 FOR BREAKDOWN	1
	3	PAOOO	6640-01-136-7362	19207	12309118	DESICCATOR, LABORATORY	1
*	4	PAOZZ	5331-00-250-0225	81343	MS29513-118	O-RING	1
	5	PAOZZ	9905-01-073-9737	19207	12285280	PLATE, IDENTIFICATION	1
						END OF FIGURE	

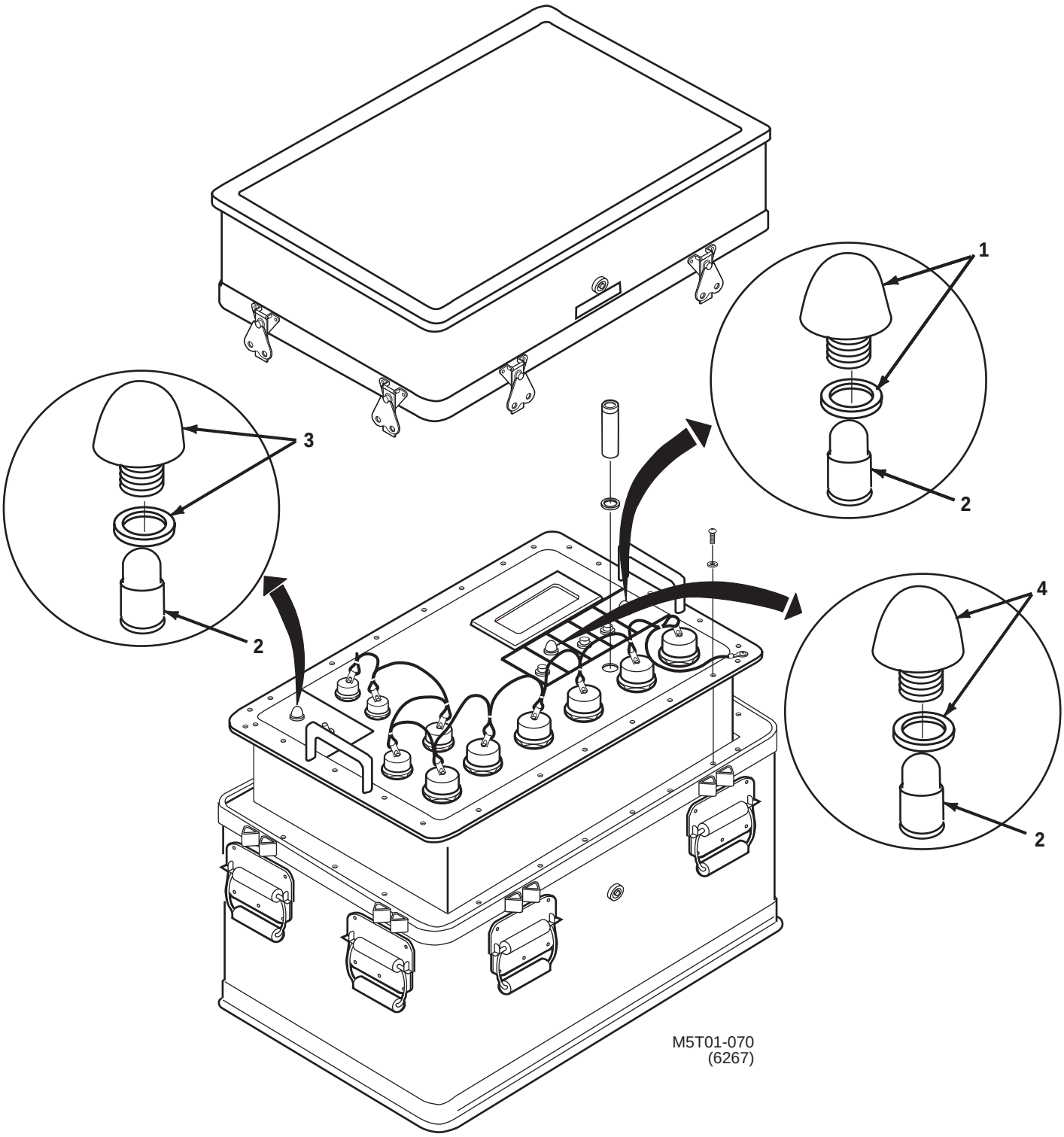


Figure 4. Group 01A0101 Operator Interface Unit Electronics Assembly 12309754

GROUP 01A0101 OPERATOR INTERFACE UNIT ELECTRONICS ASSEMBLY 12309754 - CONTINUED

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 01A0101 OIU ELECTRONICS ASSEMBLY	
					FIG. 4 OIU ELECTRONICS ASSEMBLY 12309754	
1	PAOZZ	6210-00-176-4954	81349	LC35RT2	LENS, LIGHT	1
2	PAOZZ	6240-01-093-7323	96906	MS25237-8918	LAMP, INCANDESCENT	3
3	PAOZZ	6210-00-176-4955	81349	LC35GT2	LENS, LIGHT	1
4	PAOZZ	6210-00-176-4956	81349	LC35WT2	LENS, LIGHT	1
					END OF FIGURE	

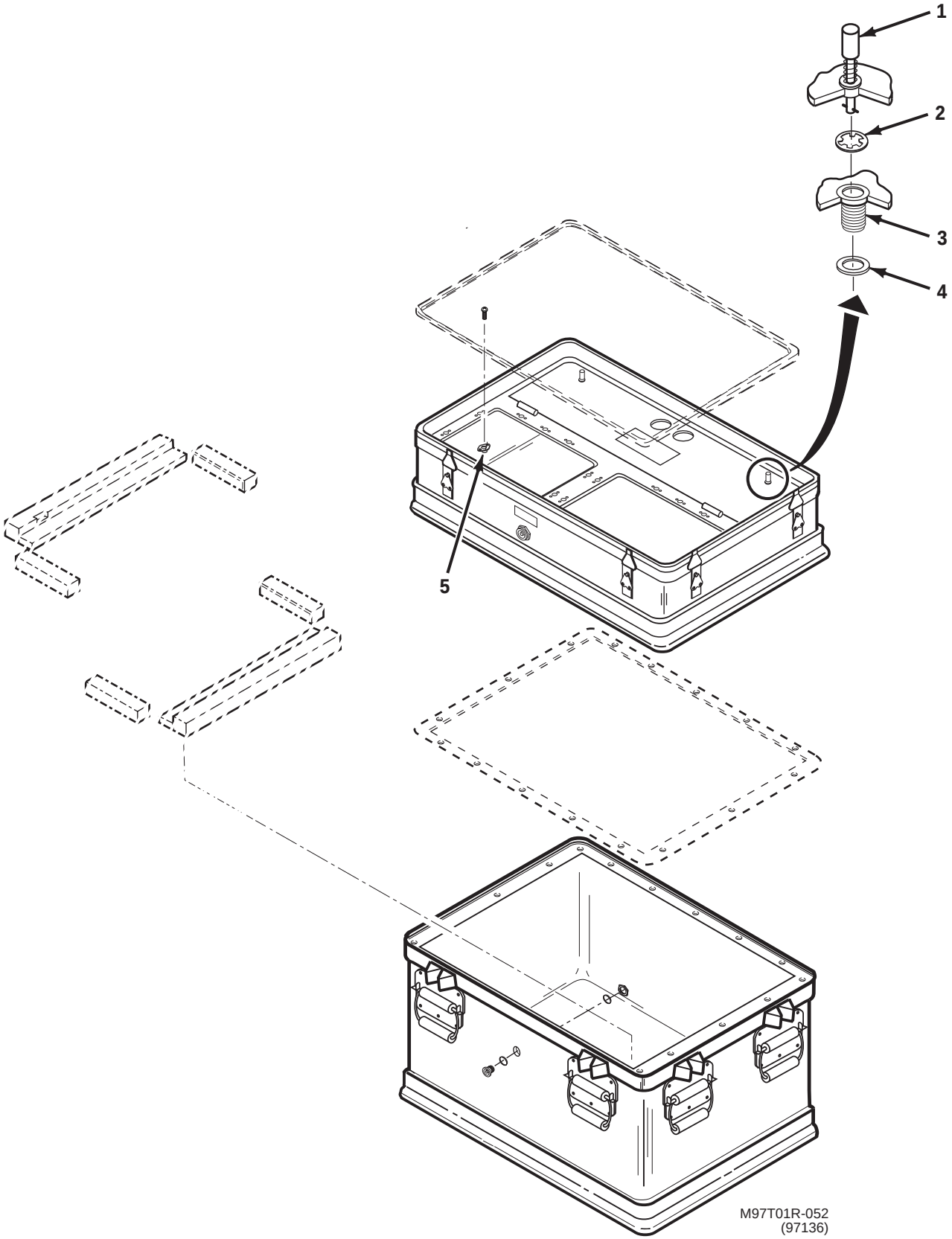


Figure 5. Group 01A0102 Operator Interface Unit Case Assembly 12309074

GROUP 01A0102 OPERATOR INTERFACE UNIT CASE ASSEMBLY 0114 00
12309074 - CONTINUED

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01A0102 OIU CASE ASSEMBLY	
						FIG. 5 OIU CASE ASSEMBLY 12309074	
*	1	PAOZZ	5325-00-980-2555	19207	12309109-1	STUD ASSEMBLY,TURNLOCK	2
	2	PAOZZ	5310-00-942-5139	34860	11019315-1	PUSH ON NUT	2
	3	PAOZZ	5325-01-158-6752	19207	12309110-1	SOCKET,PUSH BUTTON	2
	4	PAOZZ	5310-01-156-7514	19207	12309110-2	NUT,PLAIN,HEXAGON	2
	5	XDOZZ	5325-00-298-7027	72794	RF3 1-2	RECEPTACLE,TURNLOCK	20
						END OF FIGURE	

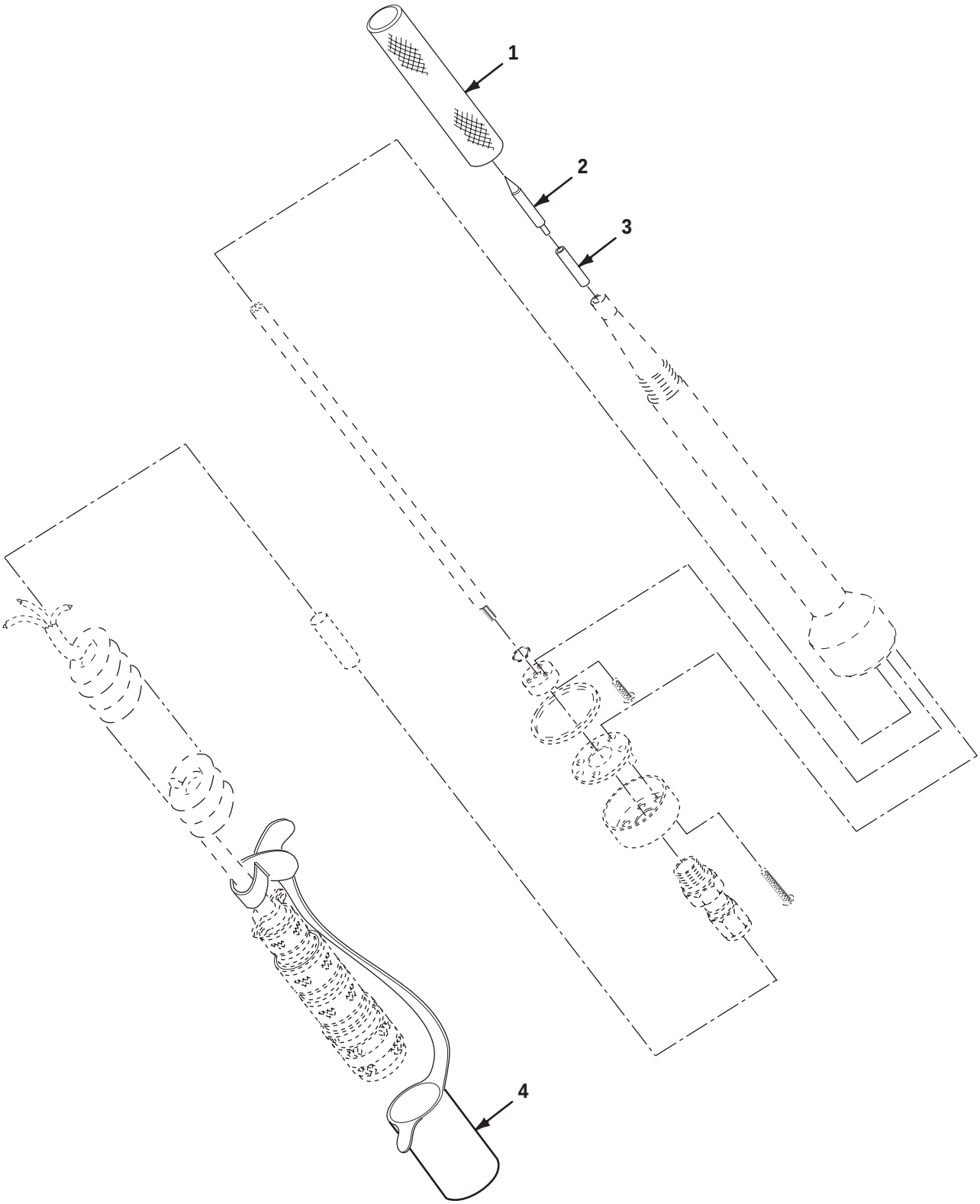


Figure 6. Group 01A02 Subassembly Probe (TPC-W50) 12309939

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 01A02 SUBASSEMBLY PROBE (TPC-W50)	
					FIG. 6 SUBASSEMBLY PROBE (TPC-W50) 12309939	
1	PAOZZ	5340-01-121-1405	19207	12309882	CAP, PROTECTIVE, DUST	1
2	PAOZZ	6625-01-121-1404	19207	12309940	TIP, TEST PROD	1
3	MOOZZ	5970-00-814-2878	81349	M23053/5-106-9	INSULATION SLEEVING MAKE FROM NSN 5970-00-814-2878	V
4	PBOZZ	5340-01-224-6380	19207	12354499-10	CAP, PROTECTIVE, DUST	1
					END OF FIGURE	

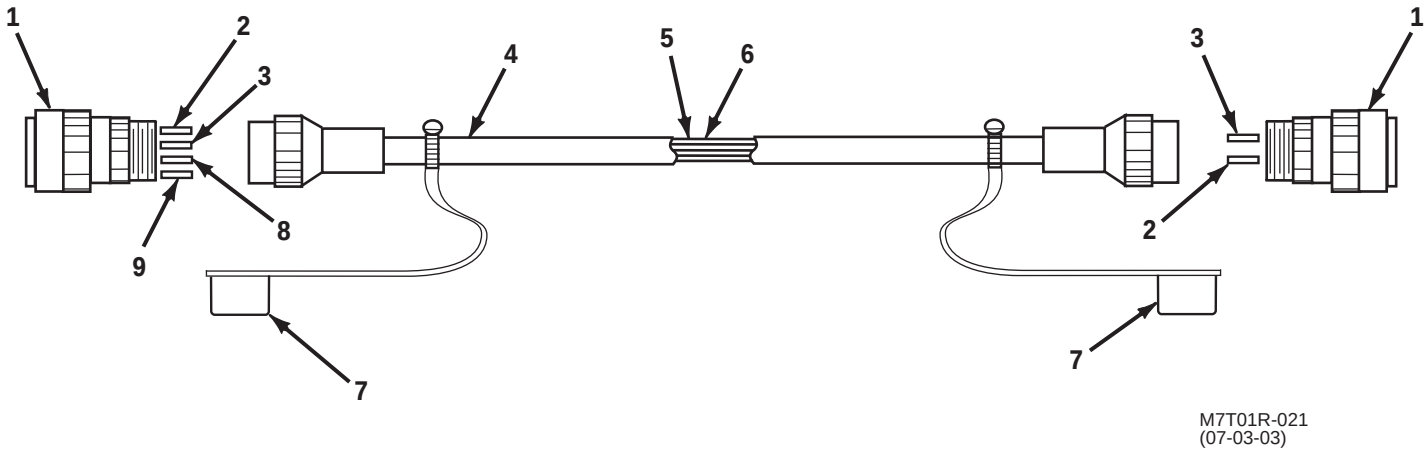


Figure 7. Group 01A03 Memory Cable And Conduit Assembly (MEM-W60) 12309914

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01AO3 MEMORY CABLE AND CONDUIT ASSEMBLY (MEM-W60)	
						FIG. 7 MEMORY CABLE AND CONDUIT ASSEMBLY (MEM-W60) 12309914	
	1	PAOZZ	5935-01-108-4488	96906	MS3476W16-26PW	CONNECTOR, PLUG, ELEC P1,P2	2
	2	PAOZZ	5999-00-146-8592	81349	M39029/4-110	CONTACT, ELECTRICAL	34
	3	PAOZZ	5935-00-496-7171	96906	MS27488-20-1	PLUG, END SEAL, ELECT	18
	4	XDDZZ		05593	250626	CONDUIT ASSEMBLY	1
*	5	MDDZZ	6145-01-170-4658	81343	M22759/32-24-9	WIRE, ELECTRICAL MAKE FROM NSN 6145-01-170-4658	V
	6	MDDZZ	6145-01-181-0868	1P787	M27500-24SBIT23	CABLE, SPECIAL PURPO MAKE FROM NSN 6145-01-181-0868	V
	7	PBOZZ	5340-01-224-6381	19207	12354499-11	CAP, PROTECTIVE, DUST	2
*	8	XDDZZ	5940-01-136-2540	81343	M83519/1-2	SPLICE, CONDUCTOR	1
	9	XDDZZ		81349	M83519/2-12	SHIELD TERMINATION	16
						END OF FIGURE	

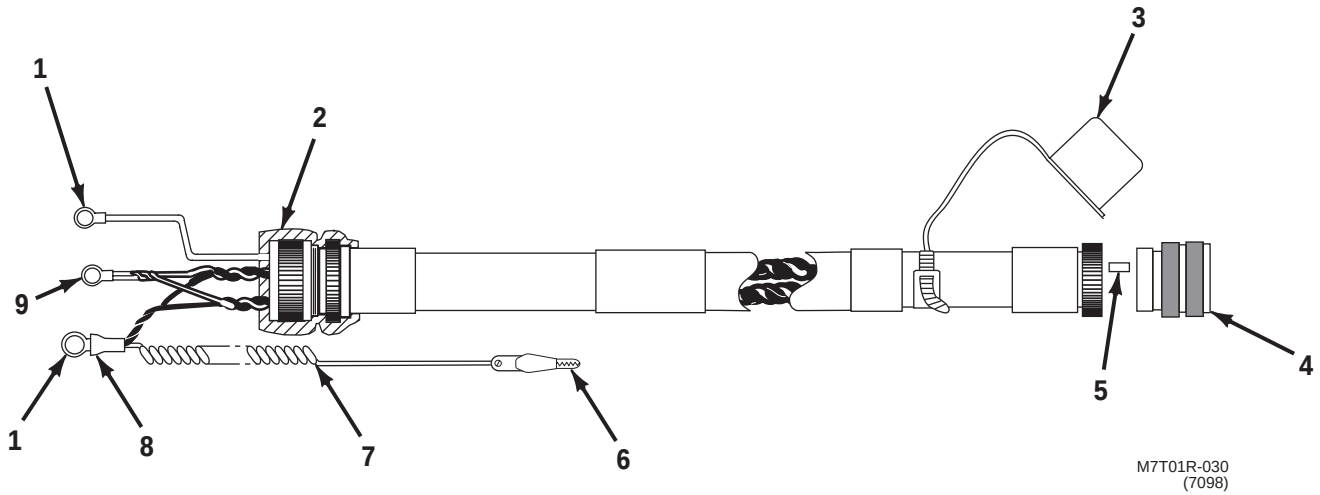


Figure 8. Group 01A04 Power Cable Assembly (M1/FVS PWR-W1) 12309919

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 01A04 POWER CABLE ASSEMBLY (M1/FVS PWR-W1)	
					FIG. 8 POWER CABLE ASSEMBLY (M1/FVS PWR-W1) 12309919	
1	PAOZZ	5940-00-143-4777	96906	MS25036-157	TERMINAL, LUG	2
2	MOOZZ	5970-00-990-9911	81349	M23053/5-210-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-990-9911	V
3	PBOZZ	5340-01-224-6382	19207	12354499-09	CAP, PROTECTIVE, DUST	1
4	PAOZZ	5935-01-092-9698	96906	MS27467T13B4S	CONNECTOR, PLUG, ELEC P1	1
5	PAOZZ	5999-01-034-0716	81349	M39029/56-352	CONTACT, ELECTRICAL	4
6	PAOZZ	5999-01-127-5022	19207	12280174	CLIP, ELECTRICAL	1
7	XDOZZ		19200	12596414	CORD, RETRACTILE	1
8	MOOZZ	5970-00-871-5779	81343	M23053/5-208-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-871-5779	V
* 9	PAOZZ	5940-01-507-0329	81343	MS25036-154	TERMINAL, LUG	1
					END OF FIGURE	

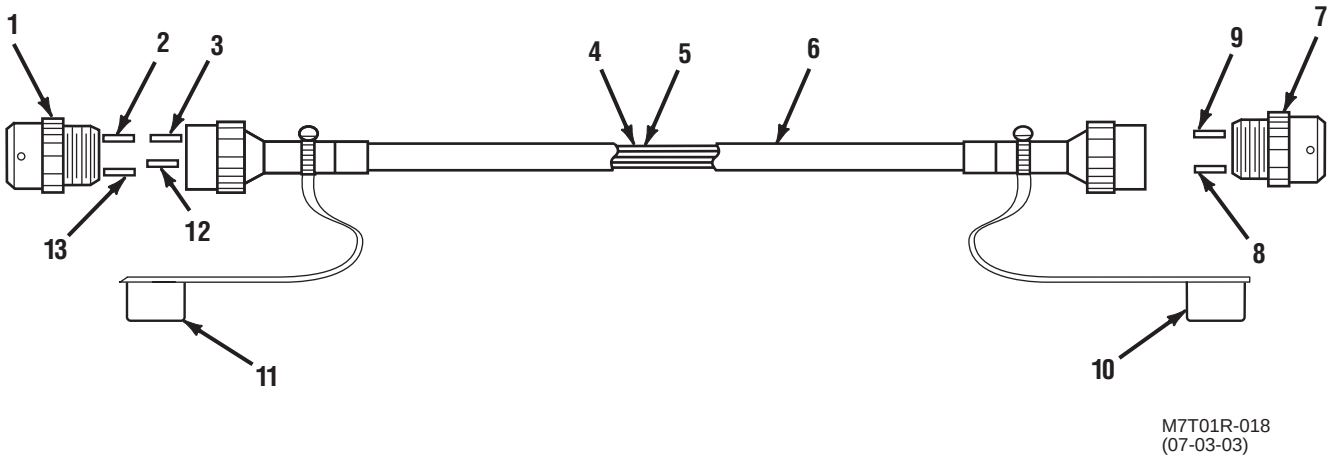


Figure 9. Group 01A05 Functional Self Test Cable And Conduit Assembly (FST-W86) 12309042

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01A05 FST CABLE AND CONDUIT ASSEMBLY (FST-W86)	
						FIG. 9 FST CABLE AND CONDUIT ASSEMBLY (FST-W86) 12309042	
	1	PAOZZ	5935-01-094-9922	96906	MS27467T15F35P	CONNECTOR, PLUG, ELEC P2	1
	2	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT, ELECTRICAL	37
	3	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG, END SEAL, ELECT	19
	4	MDDZZ	6145-01-170-4658	81343	M22759/32-24-9	WIRE, ELECTRICAL MAKE FROM NSN 6145-01-170-4658	V
	5	MDDZZ	6145-01-181-0868	1P787	M27500-24SB1T23	CABLE, SPECIAL PURPO MAKE FROM NSN 6145-01-181-0868	V
	6	XDDZZ		05593	251023	CONDUIT ASSEMBLY	1
	7	PAOZZ	5935-01-108-4488	96906	MS3476W16-26PW	CONNECTOR, PLUG, ELEC P1	1
	8	PAOZZ	5999-00-146-8592	81349	M39029/4-110	CONTACT, ELECTRICAL	26
	9	PAOZZ	5935-00-496-7171	96906	MS27488-20-1	PLUG, END SEAL, ELECT	9
	10	PBOZZ	5340-01-224-6381	19207	12354499-11	CAP, PROTECTIVE, DUST	1
	11	PBOZZ	5340-01-224-6380	19207	12354499-10	CAP, PROTECTIVE, DUST	1
*	12	PAOZZ	5940-01-135-7091	81349	M83519/2-13	SPLICE, CONDUCTOR	16
*	13	PADZZ	5940-01-135-7076	81343	M83519/1-1	SPLICE, CONDUCTOR	2
						END OF FIGURE	

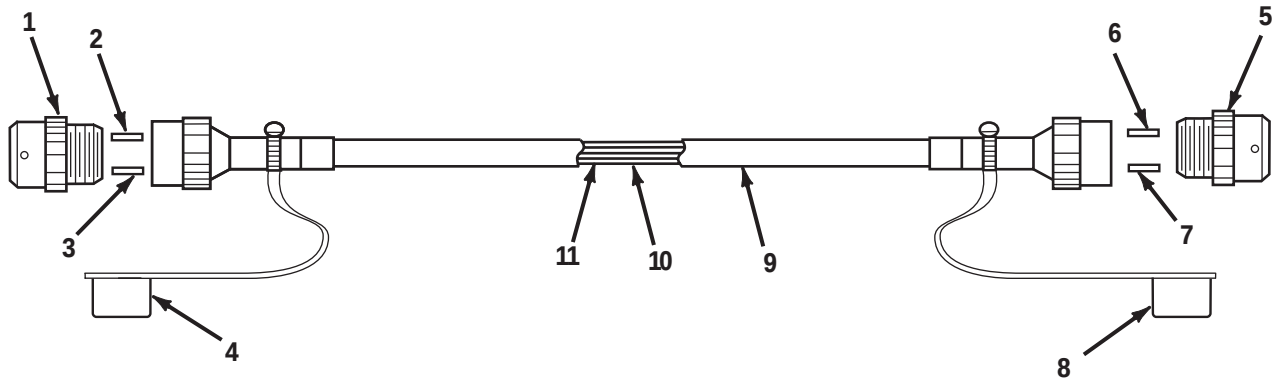


Figure 10. Group 01A06 And 01C09 Functional Self Test Cable And Conduit Assembly (FST-W87) 12309043 And 12309043-1

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01A06 AND 01C09 FST CABLE AND CONDUIT ASSEMBLY (FST-W87)	
						FIG. 10 FST CABLE AND CONDUIT ASSEMBLY (FST-W87) 12309043 AND 12309043-1	
	1	PAOZZ	5935-01-098-9998	96906	MS3476W24-61P	CONNECTOR, PLUG, ELEC P2	1
	2	PAOZZ	5999-00-146-8592	81349	M39029/4-110	CONTACT, ELECTRICAL	61
	3	PAOZZ	5935-00-496-7171	96906	MS27488-20-1	PLUG, END SEAL, ELECT (QTY OF 15 FOR 12309043-1)	16
	4	PBOZZ	5340-01-224-6384	19207	12354499-17	CAP,PROTECTIVE, DUST	1
	5	PAOZZ	5935-01-077-5176	96906	MS27467E25F35PB	CONNECTOR, PLUG, ELEC P1	1
	6	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT, ELECTRICAL	128
*	7	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG, END SEAL, ELECT (QTY OF 42 FOR 12309043-1)	43
	8	PBOZZ	5340-01-224-6383	19207	12354499-18	CAP, PROTECTIVE, DUST	1
	9	XADZZ		19200	13014841	CONDUIT ASSEMBLY	1
*	10	MDDZZ	6145-01-170-4658	81343	M22759/32-24-9	WIRE,ELECTRICAL, MAKE FROM NSN 6145-01-170-4658	V
	11	MDDZZ	6145-01-162-6049	81349	M22759/32-26-9	WIRE,ELECTRICAL, MAKE FROM NSN 6145-01-162-6049	V
						END OF FIGURE	

GROUP 01A07 AND 01C10 FUNCTIONAL SELF TEST CABLE AND CONDUIT ASSEMBLY (FST-W88) 12309044 AND 12309044-1

0120 00

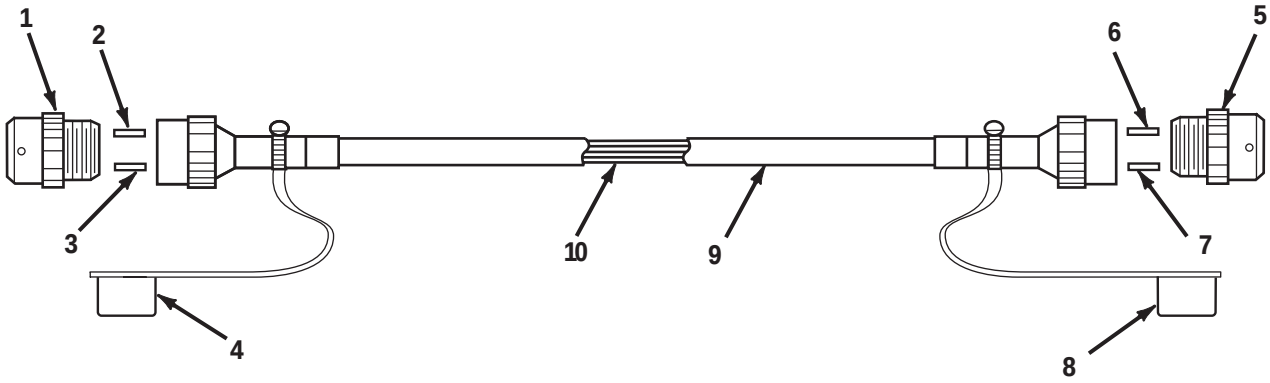


Figure 11. Group 01A07 And 01C10 Functional Self Test Cable And Conduit Assembly (FST-W88) 12309044 And 12309044-1

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01A07 AND 01C10 FST CABLE AND CONDUIT ASSEMBLY (FST-W88)	
						FIG. 11 FST CABLE AND CONDUIT ASSEMBLY (FST-W88) 12309044 AND 12309044-1	
	1	PAOZZ	5935-01-074-8627	96906	MS27467E25F35PC	CONNECTOR, PLUG, ELEC P2	1
	2	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT, ELECTRICAL	128
*	3	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG, END SEAL, ELECT	36
	4	PBOZZ	5340-01-224-6384	19207	12354499-17	CAP, PROTECTIVE, DUST	1
	5	PAOZZ	5935-01-107-7294	96906	MS3476W24-61PW	CONNECTOR, PLUG, ELEC P1	1
	6	PAOZZ	5999-00-146-8592	81349	M39029/4-110	CONTACT, ELECTRICAL	61
	7	PAOZZ	5935-00-496-7171	96906	MS27488-20-1	PLUG, END SEAL, ELECT	10
	8	PBOZZ	5340-01-224-6383	19207	12354499-18	CAP, PROTECTIVE, DUST	1
	9	XADZZ		19200	12999709	CONDUIT ASSEMBLY	1
*	10	MDDZZ	6145-01-170-4658	81343	M22759/32-24-9	WIRE, ELECTRICAL MAKE FROM NSN 6145-01-170-4658	V
						END OF FIGURE	

GROUP 01A08 FUNCTIONAL SELF TEST ADAPTERS STORAGE MODULE ASSEMBLY 12354535-1 0121 00

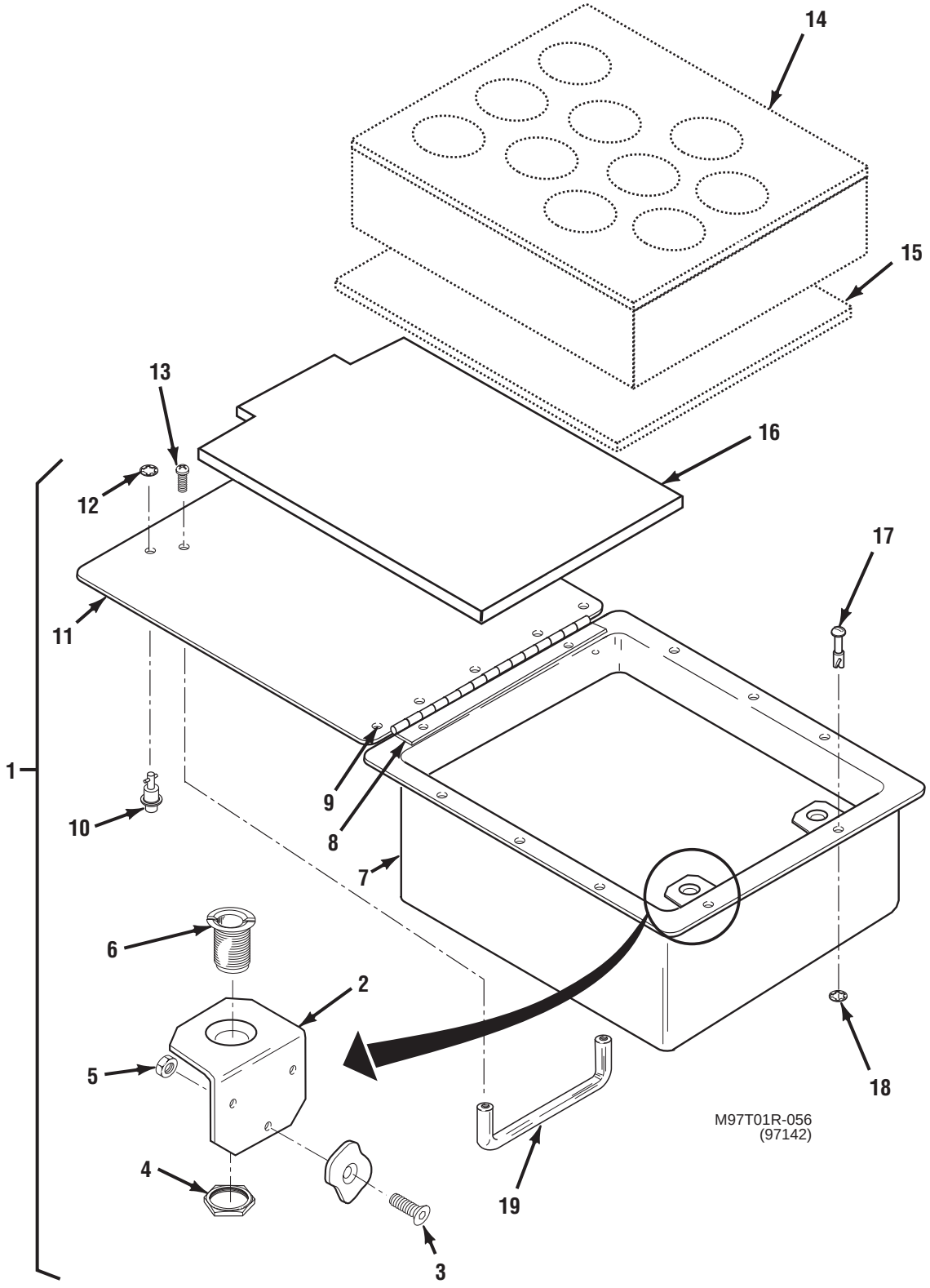


Figure 12. Group 01A08 Functional Self Test Adapters Storage Module Assembly 12354535-1

GROUP 01A08 FUNCTIONAL SELF TEST ADAPTERS STORAGE MODULE ASSEMBLY 12354535-1 - CONTINUED

0121 00

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01A08 FST ADAPTERS STORAGE MODULE ASSEMBLY	
						FIG. 12 FST ADAPTERS STORAGE MODULE ASSEMBLY 12354535-1	
	1	XA000		19207	12354505-1	STOWAGE MODULE	1
	2	XDOZZ		19207	12354508	BRACKET	2
	3	XDOZZ	5305-00-828-9490	80205	NAS514P440-6P	SCREW, MACHINE	6
	4	PAOZZ	5310-01-156-7514	19207	12309110-2	NUT, PLAIN, HEXAGON	2
	5	XDOZZ	5310-00-811-6419	80205	MS21042-04	NUT, SELF-LOCKING, EX	6
	6	PAOZZ	5325-01-158-6752	19207	12309110-1	SOCKET, PUSH BUTTON	2
	7	XAOZZ		19207	12354506-1	BOX (STOWAGE MODULE VOID OF ALL HARDWARE AND ATTACHMENTS)	1
	8	XAOZZ		96906	MS20257-4-800	HINGE, CONTINUOUS	1
	9	XAOZZ		96906	MS20426D3-4	RIVET, SOLID	10
	10	PAOZZ	5325-00-980-2555	19207	12309109-1	STUD ASSEMBLY, TURNL	2
	11	XAOZZ		19207	12354507-2	COVER	1
	12	PAOZZ	5310-00-942-5139	34860	11019315-1	PUSH ON NUT	2
	13	PAOZZ	5305-01-224-9128	96906	MS24693-70B	SCREW, MACHINE	2
	14	PBOZZ	2590-01-207-5666	19207	12354509	PAD, CUSHIONING	1
	15	PBOZZ	2590-01-207-5665	19207	12354515-1	PAD, CUSHIONING	1
	16	PBOZZ	2590-01-207-5667	19207	12354515-2	PAD, CUSHIONING	1
*	17	PAOZZ	5325-01-569-3036	19200	13018968-1	STUD, TURNLOCK FASTENER	8
	18	PAOZZ	5325-01-397-8145	19200	12951617	EYELET, TURNLOCK FAS	8
	19	PAOZZ	5340-01-094-9589	51506	9314-4.562-10-24-A-5	HANDLE, BOW	1
						END OF FIGURE	

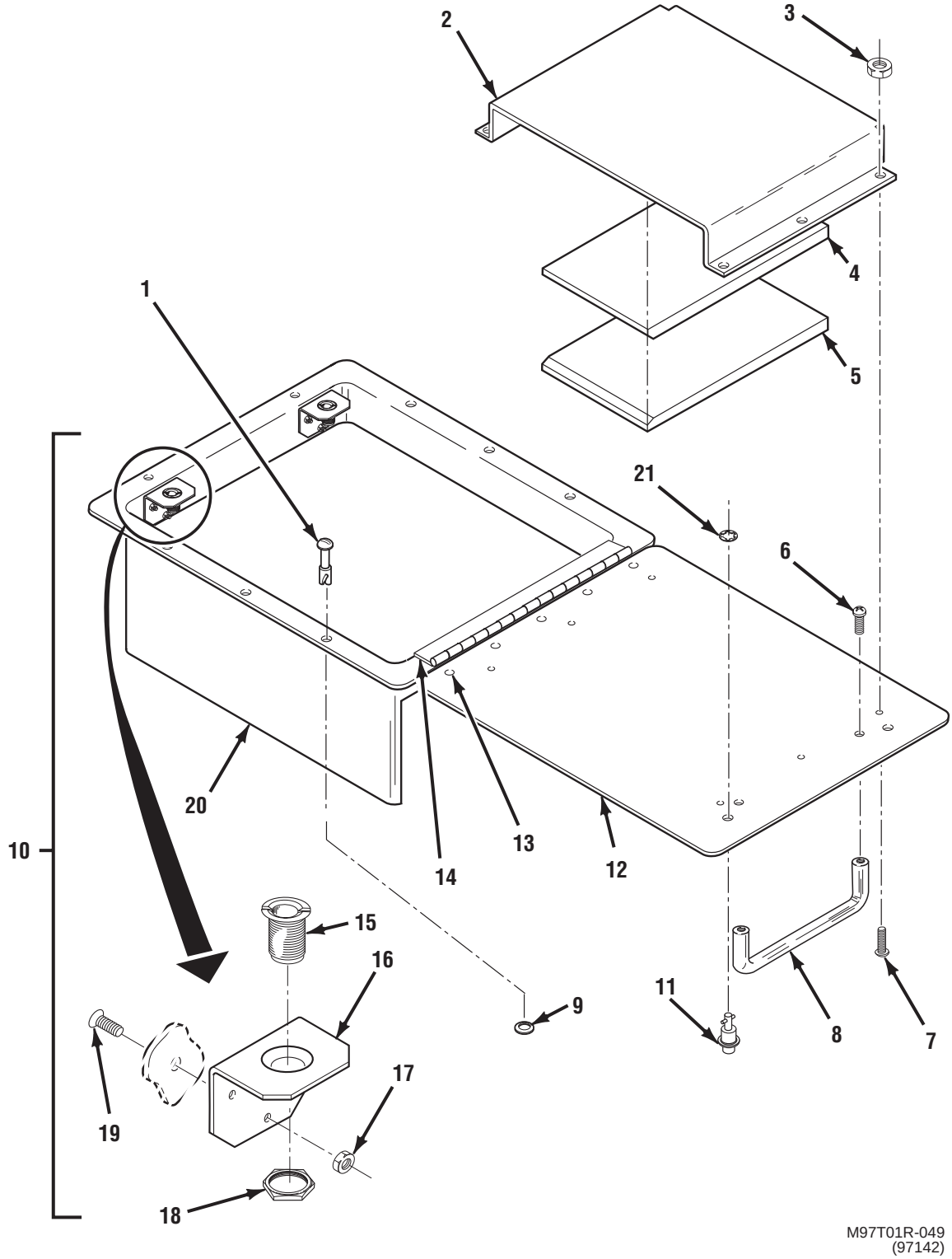


Figure 13. Group 01A09 Storage Module Assembly 12354535-2

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01A09 STORAGE MODULE ASSEMBLY	
						FIG. 13 STORAGE MODULE ASSEMBLY 12354535-2	
*	1	PAOZZ	5325-01-569-3036	19200	13018968-1	STUD, TURNLOCK FASTENER	8
	2	PAOZZ	5340-01-207-5672	19207	12354503	BRACKET, MOUNTING	1
	3	XDOZZ	5310-00-811-6419	80205	MS21042-04	NUT, SELF-LOCKING, EX	9
	4	PBOZZ	2590-01-207-5670	19207	12354504-1	PAD, CUSHIONING	1
	5	XDOZZ	2590-01-207-5671	19207	12354504-2	PAD, CUSHIONING	1
	6	PAOZZ	5305-01-224-9128	96906	MS24693-70B	SCREW, MACHINE	2
	7	XDOZZ	5305-00-828-9490	80205	NAS514P440-6P	SCREW, MACHINE	9
	8	PAOZZ	5340-01-094-9589	51506	9314-4.562-10-24-A-5	HANDLE, BOW	1
	9	PAOZZ	5325-01-397-8145	19200	12951617	EYELET, TURNLOCK FAS	8
	10	XAOOO		19207	12354505-2	STOWAGE MODULE	1
	11	PAOZZ	5325-00-980-2555	19207	12309109-1	STUD ASSEMBLY, TURNL	2
	12	XAOZZ		19207	12354507-1	COVER	1
	13	XAOZZ		96906	MS20426D3-4	RIVET, SOLID	10
	14	XAOZZ		96906	MS20257-4-800	HINGE, CONTINUOUS	1
	15	PAOZZ	5325-01-158-6752	19207	12309110-1	SOCKET, PUSH BUTTON	2
	16	XDOZZ		19207	12354508	BRACKET	2
	17	XDOZZ	5310-00-811-6419	80205	MS21042-04	NUT, SELF-LOCKING, EX	6
	18	PAOZZ	5310-01-156-7514	19207	12309110-2	NUT, PLAIN, HEXAGON	2
	19	XDOZZ	5305-00-828-9490	80205	NAS514P440-6P	SCREW, MACHINE	6
	20	XAOZZ		19207	12354506-2	BOX (STOWAGE MODULE VOID OF ALL HARDWARE AND ATTACHMENTS)	1
	21	PAOZZ	5310-00-942-5139	34860	11019315-1	PUSH ON NUT	2
						END OF FIGURE	

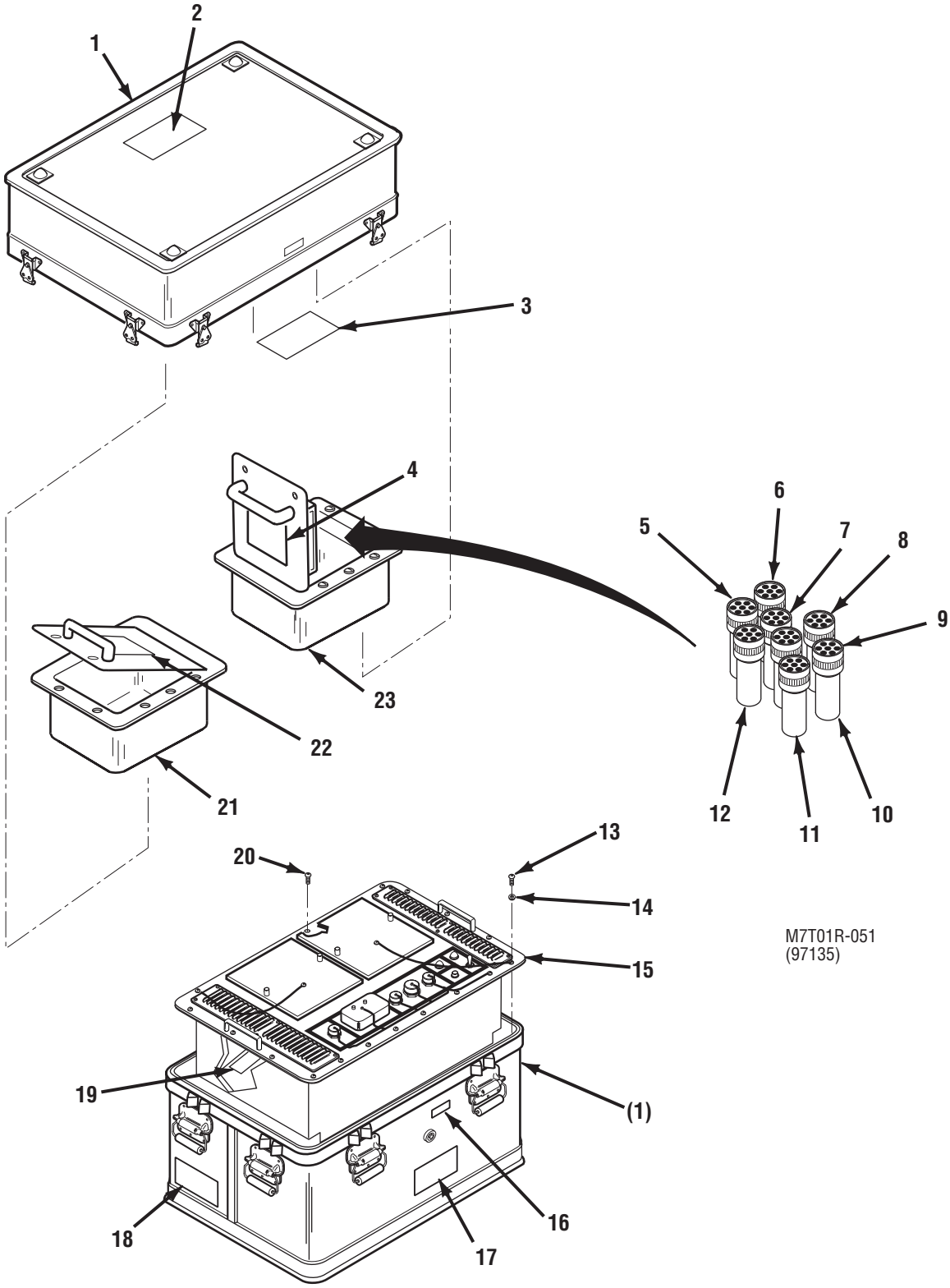


Figure 14. Group 01B DSESTS General Purpose Interface Assembly (GPIA) 9358192 or 12934368 (Sheet 1 of 2)

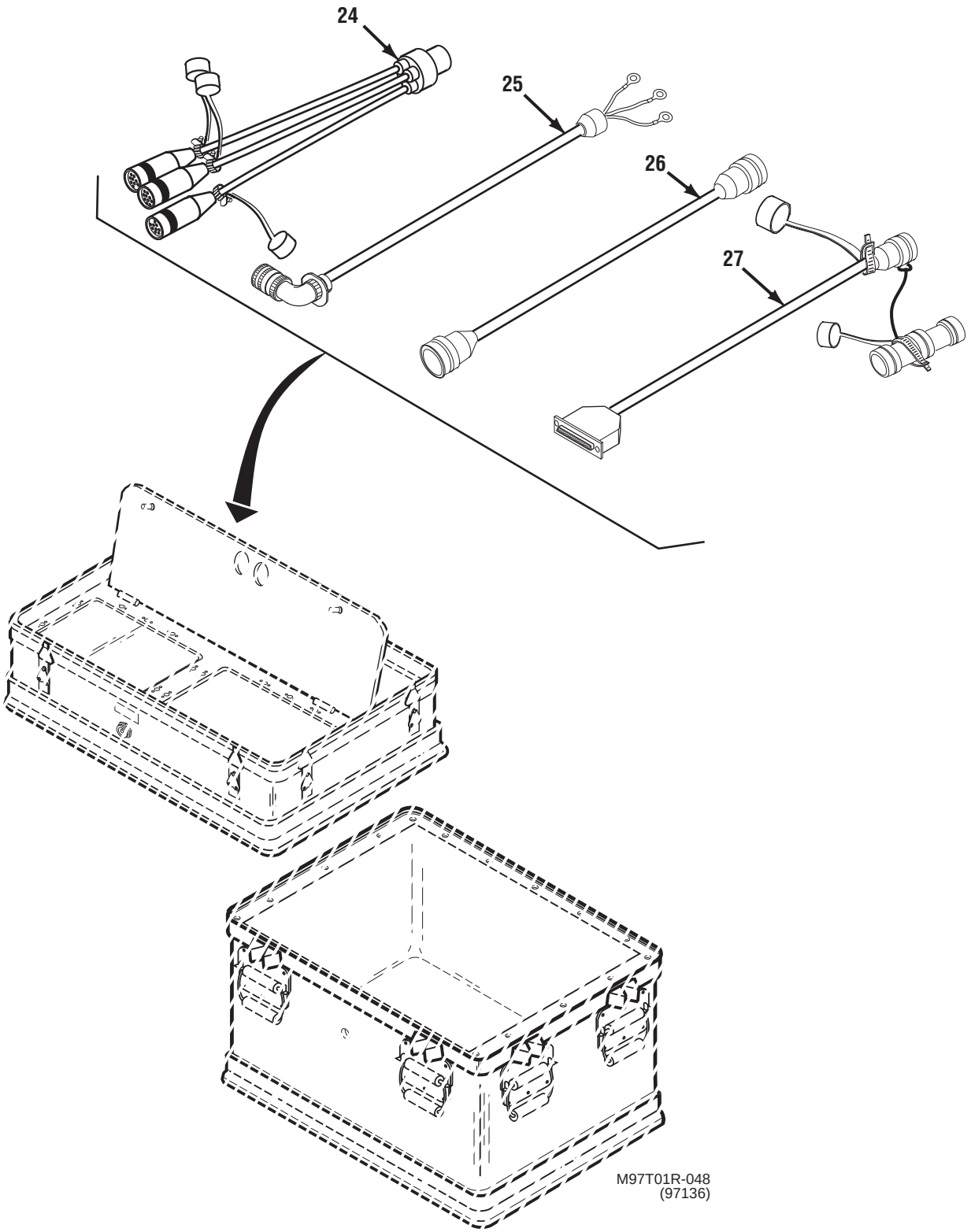


Figure 14. Group 01B DSESTS General Purpose Interface Assembly (GPIA) 9358192 or 12934368 (Sheet 2 of 2)

GROUP 01B DSESTS GENERAL PURPOSE INTERFACE ASSEMBLY (GPIA) 0123 00
9358192 or 12934368 - CONTINUED

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B DSESTS GENERAL PURPOSE INTERFACE ASSEMBLY (GPIA)	
						FIG. 14 DSESTS GENERAL PURPOSE INTERFACE ASSEMBLY 9358192 OR 12934368	
	1	PBODD	6625-01-146-6241	19207	12309074	CASE ASSEMBLY SEE FIG. 15 FOR BREAKDOWN	1
	2	XDOZZ	7690-01-174-1060	24290	12323290-4	DECAL	1
	3	XDOZZ		19200	12596871	DECAL, CONTENTS	1
	4	XDOZZ		19200	9358147	DECAL, CONTENTS	1
	5	PAOZZ	6625-01-242-2494	19200	9358421	ADAPTER, TEST UJ2	1
	6	PAOZZ	6625-01-242-2495	19200	9358422	ADAPTER, TEST UJ5-1	1
	7	PAOZZ	6625-01-242-2496	19200	9358423	ADAPTER, TEST UJ5-2	1
	8	PAOZZ	6625-01-242-2497	19200	9358424	ADAPTER, TEST UJ6-1	1
	9	PAOZZ	6625-01-242-2498	19200	9358425	ADAPTER, TEST UJ6-2	1
	10	PAOZZ	6625-01-242-2499	19200	9358426	ADAPTER, TEST UJ6-3	1
	11	PAOZZ	6625-01-242-2500	19200	9358427	ADAPTER, TEST UJ6-4	1
	12	PAOZZ	6625-01-242-2501	19200	9358428	ADAPTER, TEST UJ6-5	1
	13	PAOZZ	5305-00-855-2991	80205	MS3212-36	SCREW, MACHINE	17
	14	PAOZZ	5970-01-119-5707	19207	12301865	INSULATOR, WASHER	17
	15	XAOOD		19200	12933993	ELECTRONICS ASSY (USED WITH P/N 12934368 ONLY) SEE FIG. 16 FOR BREAKDOWN	1
	15	XAOOD		19200	9358193	ELECTRONICS ASSY (USED WITH P/N 9358192 ONLY) SEE FIG. 16 FOR BREAKDOWN	1
*	16	PAOZZ	9905-01-073-9737	19207	12285280	PLATE, IDENTIFICATION	1
	17	XDOZZ		19200	12596870	DECAL, CONTENTS	1
	18	XDOZZ		19200	12596621-4	DECAL, WARNING	2
	19	PBOZZ	9905-01-146-6461	19207	12309106	PLATE, IDENTIFICATIO	1
	20	PAOZZ	5305-00-071-1324	96906	MS51960-67	SCREW, MACHINE	5
	21	PBOOO	8145-01-277-0476	19200	9358375-2	SHIPPING AND STORAGE SEE FIG. 23 FOR BREAKDOWN	1
	22	XDOZZ	7690-01-174-1058	24290	12322211	DECAL	1
	23	PBOOO	8145-01-277-0475	19200	9358375-1	SHIPPING AND STORAGE SEE FIG. 22 FOR BREAKDOWN	1
	24	PAODD	6150-01-247-1175	19200	9358420	CABLE ASSEMBLY W-34 SEE FIG. 24 FOR BREAKDOWN	1
	25	PAODD	6150-01-247-1059	19200	9358396	CABLE ASSEMBLY W-21 SEE FIG. 20 FOR BREAKDOWN	1
	26	PAODD	6150-01-240-7084	19200	9358398	CABLE ASSEMBLY W-23 SEE FIG. 21 FOR BREAKDOWN	1
	27	PAODD	6150-01-517-6125	19200	12596332-1	CABLE ASSY,DLRU-W93 SEE FIG. 25 FOR BREAKDOWN	1
						END OF FIGURE	

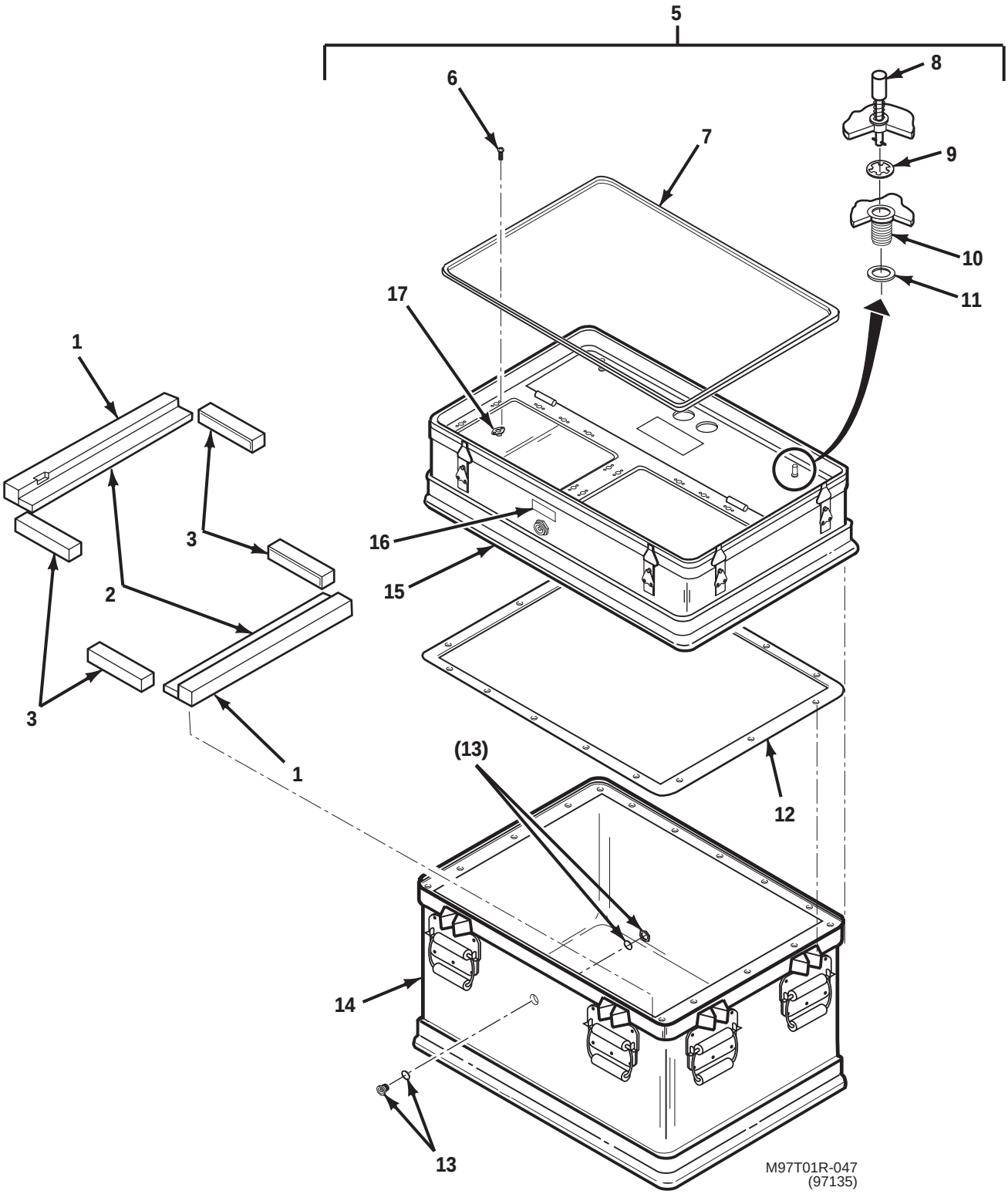


Figure 15. Group 01B01 GPIA Case Assembly 12309074

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B01 GPIA CASE ASSEMBLY	
						FIG. 15 GPIA CASE ASSEMBLY 12309074	
	1	PBOZZ	5340-01-153-8249	24290	12301904	PAD, CUSHIONING	2
	2	PBOZZ	5340-01-144-5535	24290	12301906	PAD, CUSHIONING	2
	3	PBOZZ	5340-01-144-5534	24290	12301905	PAD, CUSHIONING	4
	4	XADDD		24290	226/02-0374	CASE ASSEMBLY (NOT SHOWN)	1
	5	XADDD		19207	12309776	CASE (INTERCHANGEABLE WITH P/N 12323316)	1
	5	XADDD	6625-01-237-3640	19207	12323316	CASE, TEST SET (INTERCHANGEABLE WITH P/N 12309776)	1
	6	XDDZZ	5320-00-234-1557	80205	MS20426A3-6	RIVET, SOLID (USED WITH 12323316 ONLY)	40
	6	XDDZZ	5320-00-117-6939	80205	MS20426AD3-5	RIVET, SOLID (USED WITH 12309776 ONLY)	40
	7	MDDZZ	5330-01-217-2024	74284	SKM2000	GASKET (USED WITH 12309776 ONLY) MAKE FROM NSN 5330-01-217-2024	V
	7	MDDZZ	5330-01-254-5201	53031	XTC20R07	SEAL, PLAIN MAKE FROM NSN 5330-01-254-5201 (USED WITH 12323316 ONLY)	V
*	8	PAOZZ	5325-00-980-2555	19207	12309109-1	STUD ASSEMBLY, TURNLOCK	2
	9	PAOZZ	5310-00-942-5139	34860	11019315-1	PUSH ON NUT	2
	10	PAOZZ	5325-01-158-6752	19207	12309110-1	SOCKET, PUSH BUTTON	2
	11	PAOZZ	5310-01-156-7514	19207	12309110-2	NUT, PLAIN, HEXAGON	2
*	12	PGOZZ	5999-01-120-2898	19207	12280245	SHIELDING GASKET, EL	1
	13	XDDZZ		19207	12312039	VALVE, PRESSURE EQUA	2
	14	XADZZ		19207	12309776-1	BASE	1
	15	XADZZ		19207	12309776-2	LID	1
	16	XDDZZ	7690-01-146-6473	24290	12312040	DECAL	1
	17	XDOZZ	5325-00-298-7027	72794	RF3 1-2	RECEPTACLE, TURNLOCK	20
						END OF FIGURE	

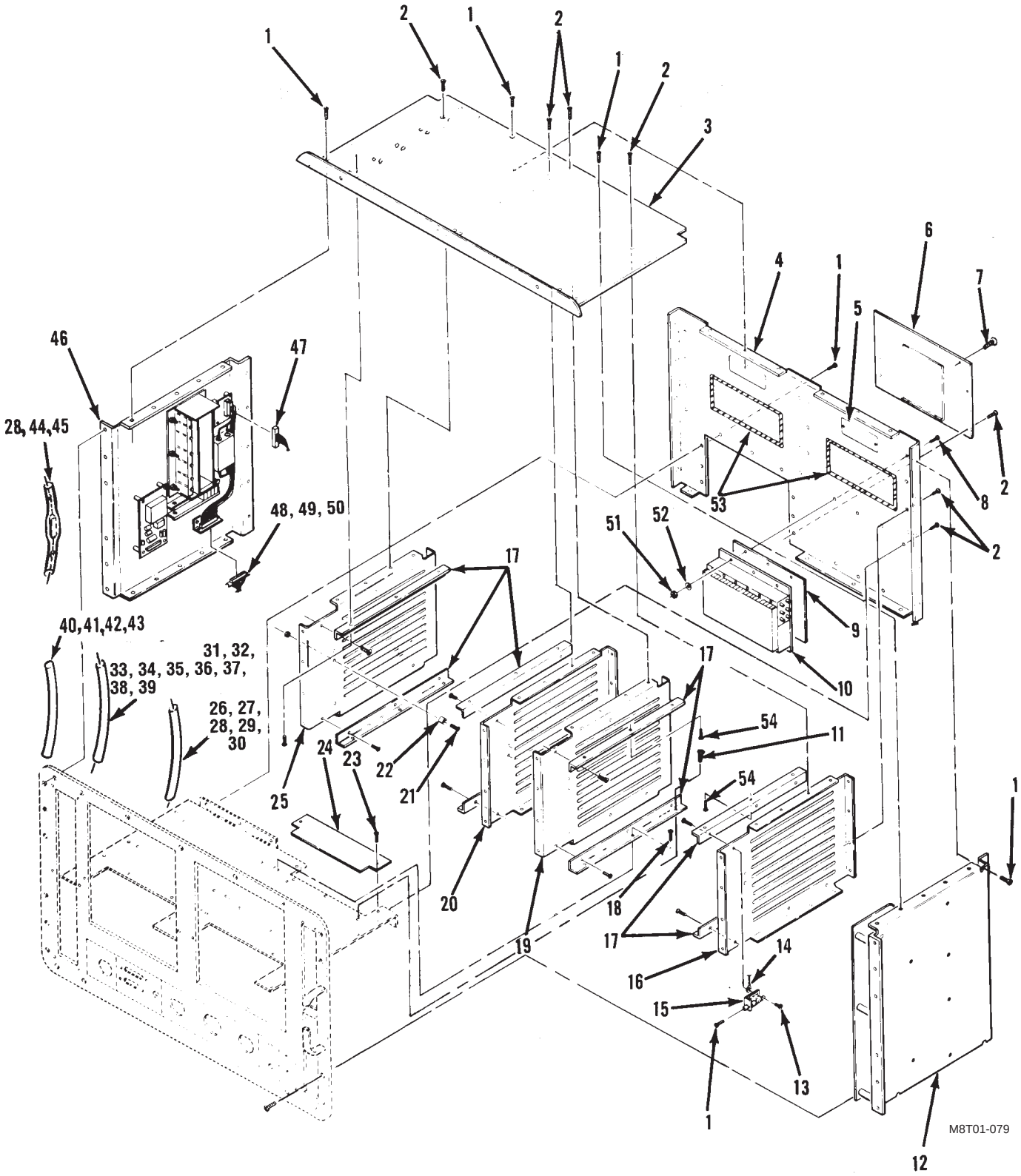


Figure 16. Group 01B02 GPIA Electronics Assembly 9358193 or 12933993 (Sheet 1 of 3)

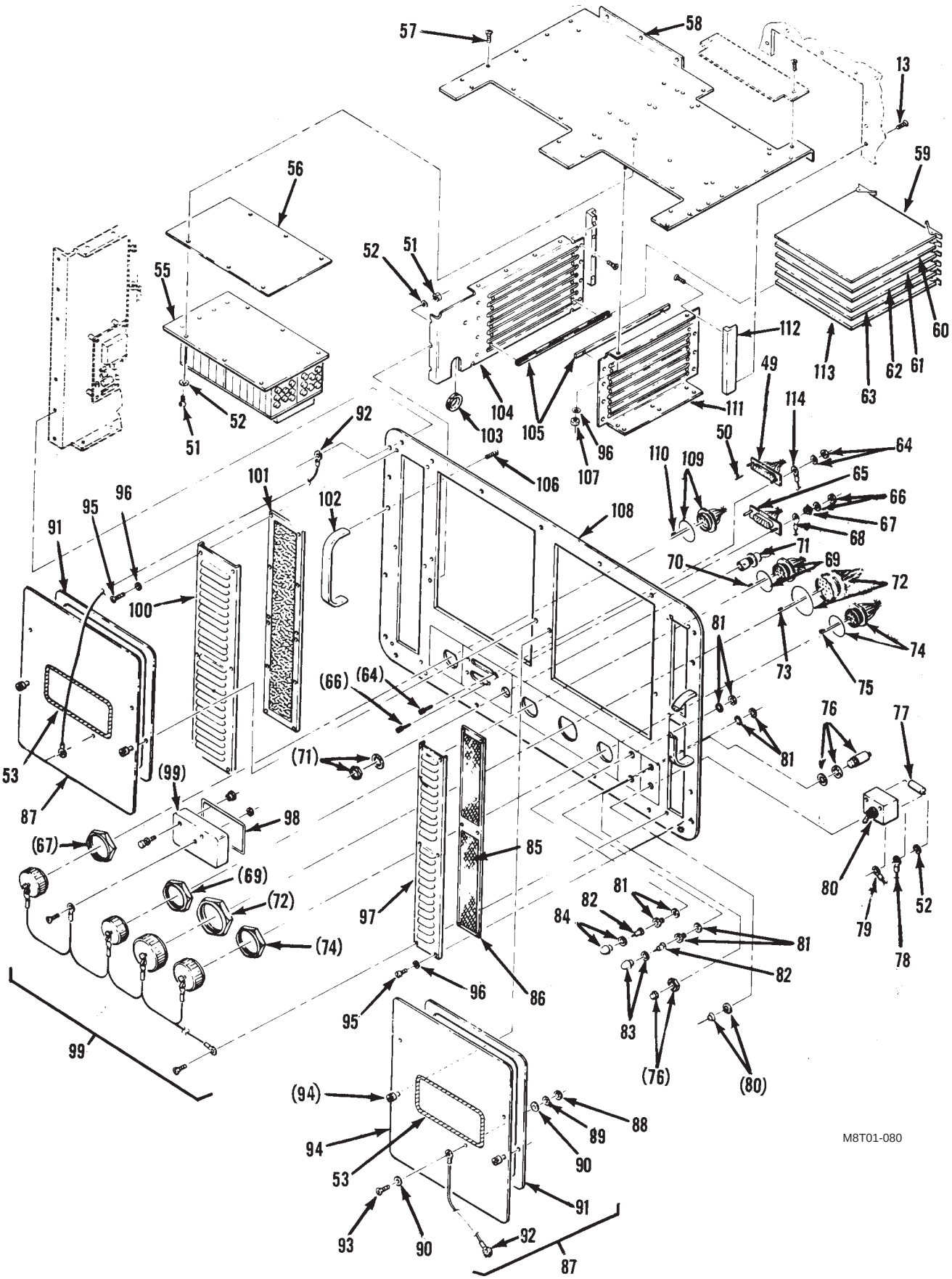


Figure 16. Group 01B02 GPIA Electronics Assembly 9358193 or 12933993 (Sheet 2 of 3)

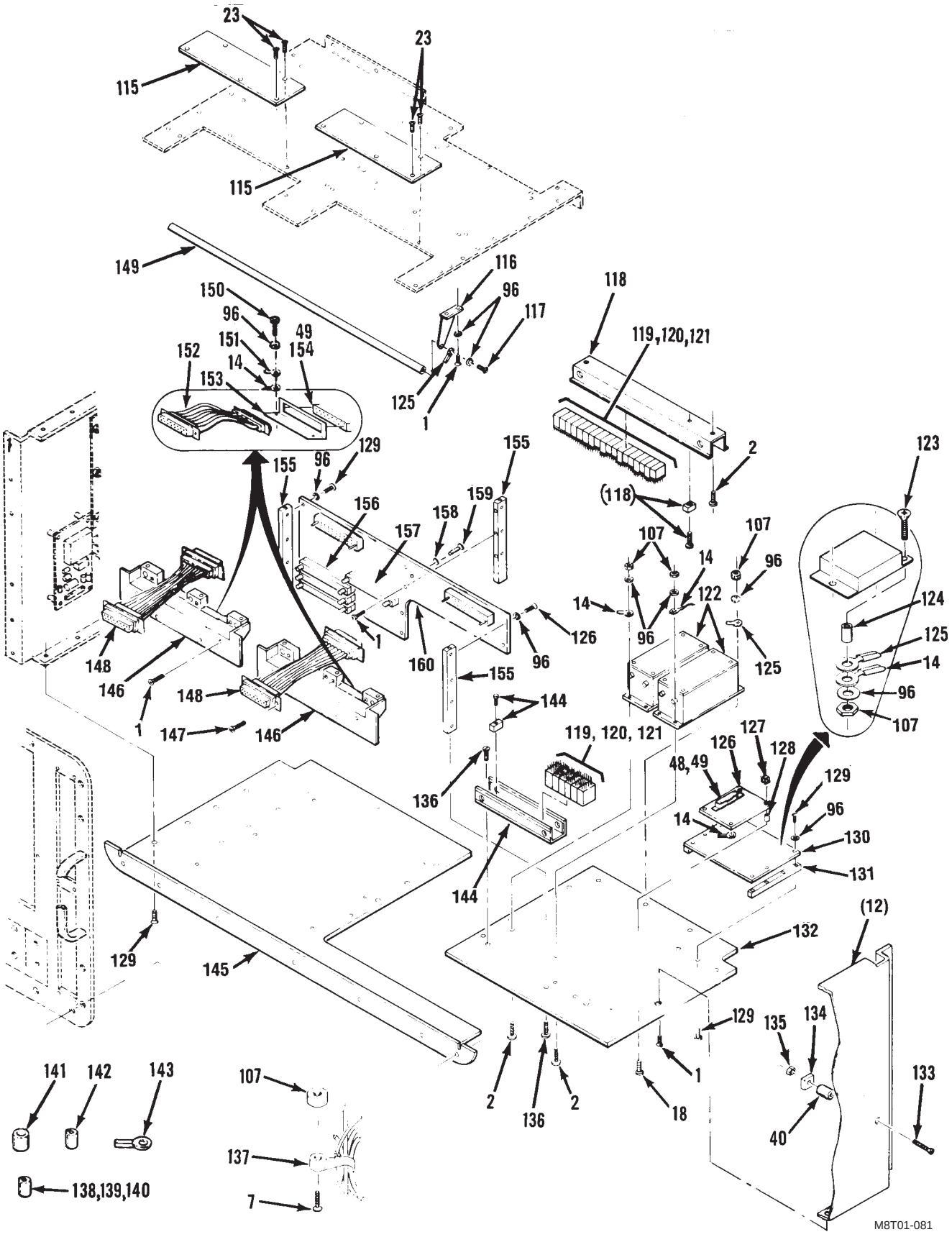


Figure 16. Group 01B02 GPIA Electronics Assembly 9358193 or 12933993 (Sheet 3 of 3)

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B02 GPIA ELECTRONICS ASSEMBLY	
						FIG. 16 GPIA ELECTRONICS ASSEMBLY 9358193 OR 12933993	
	1	PAOZZ	5305-00-763-6963	96906	MS51959-28	SCREW,MACHINE	75
	2	PAOZZ	5305-00-727-8832	96906	MS51959-29	SCREW,MACHINE	69
	3	XDOZZ		19200	9358240	COVER,REAR	1
	4	XDOZZ		19200	9358244	COVER,BOTTOM	1
	5	PAOZZ	9905-01-073-9737	19207	12285280	PLATE,IDENTIFICATIO	1
	6	XDOZZ		19200	9358245	COVER ASSY	1
*	7	PAOZZ	5305-00-719-5064	80205	MS51959-30	SCREW,MACHINE	7
	8	PAOZZ	5305-00-764-0066	96906	MS51959-44	SCREW,MACHINE	6
	9	PAOZZ	5340-01-240-6932	19200	9358272	PAD,CUSHIONING	1
	10	PAOZZ	6130-01-353-6593	19200	12596799	POWER SUPPLY	1
	10					DELETED	
*	11	XDOZZ	5305-00-777-6039	80205	MS51959-12	SCREW,MACHINE	4
	12	XDOOO		19200	12933985	BLOWER ASSEMBLY (USED WITH P/N 12933993 ONLY) SEE FIG. 19 FOR BREAKDOWN	1
	12	XDOOO		19200	9358576	BLOWER ASSEMBLY (USED WITH P/N 9358193 ONLY) SEE FIG. 18 FOR BREAKDOWN	1
*	13	PAOZZ	5305-00-763-6962	80205	MS51959-27	SCREW,MACHINE	14
	14	XDOZZ	5940-00-204-8990	81343	MS25036-111	TERMINAL,LUG	7
	15	PAOZZ	5930-00-519-8144	96906	MS16106-1	SWITCH,SENSITIVE SW2,SW3	2
	16	XDOZZ		19200	9358230-4	BRACKET,MODULE	1
	17	XDOZZ		19200	9358242	ANGLE,MODULE	8
*	18	PAOZZ	5305-00-770-2533	80205	MS51959-13	SCREW,MACHINE (36 Used on P/N 9358193)	32
	19	XDDZZ		19200	9358230-3	BRACKET,MODULE	1
	20	XDOZZ		19200	9358230-2	BRACKET,MODULE	1
	21	PAOZZ	5305-01-240-7285	19200	9358254	SCREW,SHOULDER	4
	22	PAOZZ	5365-01-240-7204	24290	9358253	SPACER,SLEEVE	4
	23	PAOZZ	5305-00-993-9189	80205	MS24693-C2	SCREW,MACHINE	12
	24	XDOZZ		19200	9358271	COVER,POWER SUPPLY	1
	25	XDOZZ		19200	9358230-1	BRACKET,MODULE	1
	26	MDDZZ	6145-01-241-5184	81349	M16878/14BEE9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-241-5184	V
	27	MDDZZ	6145-01-241-6545	81349	M16878/14BHE9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-241-6545	V
	28	MOOZZ	6145-01-240-7522	81349	M16878/14BGE9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-240-7522	V
	29	MDDZZ	6145-01-241-0959	81349	M16878/14BFE9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-241-0959	V
	30	MDDZZ	6145-01-231-7624	81349	M16878/15BLE9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-231-7624	V
	31	MDDZZ	6145-01-131-2403	81349	M27500-18TE1T14	CABLE,POWER,ELECTRI MAKE FROM NSN 6145-01-131-2403	V
	32	MDDZZ	6145-01-128-4162	81349	M27500-18TE2T14	CABLE,POWER,ELECTRI MAKE FROM NSN 6145-01-128-4162	V
	33	MDDZZ	6145-01-057-6106	81349	M27500-22TE1T14	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-057-6106	V
	34	MDDZZ	6145-01-075-1041	81349	M27500-22TE2T14	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-075-1041	V
	35	MDDZZ	6145-01-131-2417	81349	M27500-20TE1T14	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-131-2417	V
	36	MDDZZ		81349	M27500-12TE1T14	CABLE,ELECTRICAL MAKE FROM P/N M27500-12TE1T14	V
	37	MDDZZ		81349	M27500-14TE1T14	CABLE,ELECTRICAL MAKE FROM P/N M27500-14TE1T14	V
	38	MDDZZ		81349	M27500-14TE2T14	CABLE,ELECTRICAL MAKE FROM P/N M27500-14TE2T14	V
	39	MDDZZ	6145-01-129-9955	81349	M27500-20TE2T14	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-129-9955	V

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B02 GPIA ELECTRONICS ASSEMBLY	
						FIG. 16 GPIA ELECTRONICS ASSEMBLY 9358193 OR 12933993	
*	40	MDDZZ	5970-00-916-2679	81343	M23053/5-202-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-916-2679	V
*	41	MOOZZ	5970-00-767-0524	81343	M23053/5-206-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-767-0524	V
	42	MOOZZ	5970-00-990-9912	81343	M23053/5-204-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-990-9912	V
	43	MDDZZ	5970-00-990-9911	81349	M23053/5-210-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-990-9911	V
	44	PAOZZ	5961-01-085-4002	81349	JAN1N5811	SEMICONDUCTOR DEVIC CR1,CR2	2
	45	MOOZZ	5970-00-767-0515	81343	M23053/5-205-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-767-0515	V
	46	PAODD	6130-01-240-7074	19200	9358273	POWER SUPPLY SEE FIG. 17 FOR BREAKDOWN	1
	47	XDDZZ	5935-01-203-3258	81349	M55302/55-A20H	CONNECTOR,PLUG,ELEC P16	1
	48	PBOZZ	5340-01-118-8672	19207	12301886-2	PLATE,MOUNTING	4
*	49	PAOZA	5935-01-284-2870	81349	M24308/2-3F	CONNECTOR,RECEPTACL	5
*	50	PAOZZ	5999-00-239-3338	81343	M39029/63-368	CONTACT,ELECTRICAL	37
	51	PAOZZ	5310-00-934-9759	80205	MS35649-284	NUT,PLAIN,HEXAGON	15
	52	PAOZZ	5310-00-543-2739	80205	MS35333-72	WASHER,LOCK	20
	53	XDOZZ		19200	9358592	DECAL,WARNING	4
	54	XDOZZ		19200	12596819	SCREW	12
	55	PAOZZ	6130-01-350-2132	19200	12596797	POWER SUPPLY PS1	1
	55					DELETED	
	56	PAOZZ	5999-01-120-4165	19207	12301888	MOUNTING PAD,ELECTR	1
	57	PAOZZ	5305-00-054-6655	96906	MS51957-31	SCREW,MACHINE	4
	58	XAOZZ		19200	9358234	PLATE,DIVIDER	1
	59	PAODD	5999-01-240-7353	19200	9358214	CIRCUIT CARD ASSEMB A6 (FGC 01B0209)	1
	60	PAODD	5999-01-240-7350	19200	9358202	CIRCUIT CARD ASSEMB A5 (FGC 01B0206)	1
	61	PAODD	5999-01-344-8741	19200	9358210-1	CIRCUIT CARD ASSEMB A4 (FGC 01B0208)	1
	62	PAODD	5998-01-382-0187	19200	12933977	CIRCUIT CARD ASSEMB A3 (FGC 01B0210) (INTERCHANGEABLE WITH P/N 12933977-1 AND 13008950)	1
	62	PAODD	5998-01-525-3985	19200	12933977 -1	CIRCUIT CARD ASSEMB A3 (FGC 01B0210) (INTERCHANGEABLE WITH P/N 12933977 AND 13008950)	1
	62	PAODD	5998-01-532-1716	19200	13008950	CIRCUIT CARD ASSEMB A3 (FGC 01B0211) (INTERCHANGEABLE WITH P/N 12933977 AND 12933977-1)	1
	63	PAODD	5999-01-240-7355	19200	9358222	CIRCUIT CARD ASSEMB A2 (FGC 01B0211) (INTERCHANGEABLE WITH P/N 13008915)	1
	63	PAODD	5998-01-546-5217	19200	13008915	CIRCUIT CARD ASSEMB A2 (FGC 01B0211) (INTERCHANGEABLE WITH P/N 9358222)	1
	64	PAOZZ	5935-01-052-9436	81349	M24308/26-1	JACKSCREW,ELECTRICA	2
	65	PAOZZ	5935-01-085-6512	19200	9358547	CONNECTOR UJ3	1
	66	XDDZZ		19200	9358590	KIT,SCREW,LOCK	1
	67	PADZZ	5310-00-933-8120	80205	MS35338-138	WASHER,LOCK	2
	68	PAOZZ	5940-00-113-9828	96906	MS25036-148	TERMINAL,LUG	5
	69	PBOZZ	5935-01-100-4857	96906	MS27468T15B35SA	CONNECTOR,RECEPTACL UJ5	1
*	70	PAOZZ	5999-00-320-7459	81343	AS39029/56-348	CONTACT,ELECTRICAL	37
	71	PAOZA	5935-01-268-1284	14949	BJ71	CONNECTOR UJ4	1
	72	PAOZZ	5935-01-157-9563	96906	MS3474W24-61SW	CONNECTOR,RECEPTACL UJ6	1
	73	PAOZZ	5999-00-172-8253	81343	M39029/5-115	CONTACT,ELECTRICAL	61
	74	PBOZZ	5935-01-081-0844	96906	MS27468T17B6P	CONNECTOR,RECEPTACL UJ7	1
	75	PAOZZ	5999-01-123-7941	81349	M39029/58-365	CONTACT,ELECTRICAL	6
	76	PAOZA	5930-01-049-5779	81349	M8805/99-009	SWITCH,PUSH SW1	1
	77	XDOZZ	5961-00-433-7220	81349	JAN1N5417	SEMICONDUCTOR DEVIC CR8	1
	78	PAOZZ	5940-00-143-4775	96906	MS25036-156	TERMINAL,LUG	4
	79	XDOZZ	5940-00-557-1629	96906	MS25036-149	TERMINAL,LUG	3
	80	PAOZZ	5925-01-278-7747	19200	9358545	CIRCUIT BREAKER CB1	1
	81	PAOZZ	6210-00-176-4928	81349	LH89/1	HOUSING,LIGHT XDS1,XDS2	2
	82	PAOZZ	6240-01-093-7323	96906	MS25237-8918	LAMP,INCANDESCENT	2
	83	PAOZZ	6210-00-176-4955	81349	LC35GT2	LENS,LIGHT	1
	84	PAOZZ	6210-00-176-4954	81349	LC35RT2	LENS,LIGHT	1
	85	XDOZZ		19200	9358269	SCREEN	1

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B02 GPIA ELECTRONICS ASSEMBLY	
						FIG. 16 GPIA ELECTRONICS ASSEMBLY 9358193 OR 12933993	
	86	XDOZZ		19200	9358270	SCREEN ASSEMBLY	1
	87	PAOOO	5340-01-240-7307	19200	9358249	COVER,ACCESS (FGC 01B0212)	2
	88	PAOZZ	5310-00-208-9255	80205	MS21044C3	NUT,SELF-LOCKING,HE	1
	89	PAOZZ	5310-00-167-0801	88044	AN960C10	WASHER,FLAT	1
	90	PAOZZ	5970-01-119-5707	19207	12301865	INSULATOR,WASHER	2
	91	PAOZA	5999-01-385-7842	19200	12934320	SHIELDING GASKET,EL	1
	92	PAOZZ	4010-01-278-1169	19200	9358251	WIRE ROPE ASSEMBLY,	1
	93	PAOZZ	5305-00-855-2991	80205	MS3212-36	SCREW,MACHINE	1
	94	XDOZZ		19200	9358250	COVER	1
	95	PAOZZ	5305-00-054-6654	96906	MS51957-30	SCREW,MACHINE	17
	96	PAOZZ	5310-00-616-3555	80205	MS35333-71	WASHER,LOCK	50
	97	XDOZZ		19200	9358437	PLATE,LOUVER	1
	98	PCOZZ	5330-01-277-2691	19200	9358594	GASKET	1
	99	PAOZZ	4931-01-240-6931	19200	9358252	COVER ASSEMBLY,ELEC	1
	100	PAOZZ	4130-01-276-1932	24290	9358239	BAFFLE,AIRFLOW,ELEC	1
	101	PAOZZ	4130-01-240-7143	19200	9358267	FILTER ELEMENT,AIR	1
	102	PAOZZ	5340-01-094-9589	51506	9314-4.562-10-24-A-5	HANDLE,BOW	2
	103	XDDZZ	5325-00-926-1394	96906	MS21266-3N	GROMMET,NONMETALLIC	1
	104	XDDZZ		19200	9358235	BRACKET CARD CAGE	1
	105	PAOZZ	5998-00-506-6746	19207	12301887-2	HOLDER,ELECTRICAL C	12
	106	PAOZZ	5305-00-701-5071	96906	MS51959-61	SCREW,MACHINE	4
	107	PAOZZ	5310-00-934-9761	96906	MS35649-264	NUT,PLAIN,HEXAGON	17
	108	XDDZZ		19200	9358231	PANEL	1
	109	PAOZZ	5935-01-047-4723	96906	MS27468E15B35S	CONNECTOR,RECEPTACL UJ1	1
	110	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	37
	111	XDOZZ		19200	9358236	BRACKET,CARD	1
	112	XDDZZ		19200	9358265	ANGLE,CARD CAGE	2
	113	PAODD	5999-01-240-7351	19200	9358206	CIRCUIT CARD ASSEMB A1 (FGC 01B0207)	1
	114	PAOZZ	5940-00-615-6073	96906	MS25036-152	TERMINAL,LUG	1
	115	XDOZZ		19200	9358248	COVER,PROTECTIVE	2
	116	XDDZZ		19200	9358262	BRACKET,LACING BAR	1
	117	XDDZZ	5305-00-054-6653	96906	MS51957-29	SCREW,MACHINE	1
	118	XDDZZ		19200	9358591	TRACK ASSEMBLY TB1	1
*	119	PADZA	5940-01-243-6938	81343	M81714/2-DA1	TERMINAL JUNCTION B (TB1 POSITIONS 1,3,5,6,8,9,11,17), (TB3 POSITIONS 2,3)	10
	120	PADZA	5940-01-243-6949	81349	M81714/3-DA1	TERMINAL JUNCTION B (TB1 POSITIONS 2,4,7,10,12-16), (TB3 POSITIONS 1,4,5)	12
	121	XDDZZ		81349	M81714/4-DA1	MODULE,FEEDBACK (TB1 POSITION 18) (TB3 POSITION 6)	2
	122	PAOZZ	5915-01-459-4137	19200	12981891	FILTER ASSEMBLY ELEC FL1,FL2	2
	123	XDDZZ	5305-00-054-6656	96906	MS51957-32	SCREW,MACHINE	1
	124	PAOZZ	5365-01-119-5750	19207	12301903	SPACER,SLEEVE	1
	125	XDDZZ	5940-00-113-8179	96906	MS25036-107	TERMINAL,LUG	4
	126	PAOZZ	5998-01-532-7955	19200	13006073	CIRCUIT CARD ASSEMBLY A7 (USED WITH P/N 9358193) (INTERCHANGEABLE WITH P/N 9358226)	1
	126	PAOZZ	5999-01-240-7349	19200	9358226	CIRCUIT CARD ASSEMBLY A7 (USED WITH P/N 9358193) (INTERCHANGEABLE WITH P/N 13006073)	1
	127	PAOZZ	5310-00-208-3786	80205	NAS671C4	NUT,PLAIN,HEXAGON (USED WITH P/N 9358193)	4
	128	PAOZZ	5340-01-283-1336	19200	9358417-2	POST,ELECTRICAL-MEC (USED WITH P/N 9358193)	4
	129	PAOZZ	5305-00-054-6652	96906	MS51957-28	SCREW,MACHINE	16
	130	XDDDD		19200	12596142	PROTECTION MODULE (FGC 01B0213)	1
	131	XDOZZ		19200	12596144	BLOCK,MOUNTING	2
	132	XDOZZ		19200	12951480	FILTER PLATE ASSY (USED WITH P/N 12933993)	1
	132	XDOZZ		19200	9358261	FILTER PLATE ASSY (USED WITH P/N 9358193)	1
	133	PAOZZ	5305-00-725-4191	96906	MS51959-7	SCREW,MACHINE	1
	134	PAOZA	5935-00-489-1959	19207	12301899-2	CONNECTOR,RECEPTACL P19	1
	135	PAOZZ	5310-00-938-2013	80205	MS35649-224	NUT,PLAIN,HEXAGON	1

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B02 GPIA ELECTRONICS ASSEMBLY	
						FIG. 16 GPIA ELECTRONICS ASSEMBLY 9358193 OR 12933993	
*	136	PADZZ	5305-00-763-6961	80205	MS51959-26	SCREW,MACHINE	3
	137	PADZZ	5340-01-095-2138	19207	12280055	STRAP,LINE SUPPORTING	6
	138	PAOZZ	5940-01-135-7085	81343	M83519/2-7	SPLICE,CONDUCTOR	2
	139	PAOZZ	5940-01-135-7086	81343	M83519/2-8	SPLICE,CONDUCTOR	5
	140	PAOZZ	5940-01-135-7087	81343	M83519/2-9	SPLICE,CONDUCTOR	1
	141	XDDZZ		19200	12596136-3	REDUCTION SLEEVE	7
	142	XDOZZ		19200	12596136-2	REDUCTION SLEEVE	4
*	143	PAOZZ	5940-00-143-4774	81343	MS25036-153	TERMINAL,LUG	1
	144	XDDZZ		81349	M81714/16-1	TERMINAL JUNCTION	1
	145	XDOZZ		19200	9358238	COVER,FRONT	1
	146	XAOZZ		19200	9358237	BLOCK,CONNECTOR	2
	147	PAOZZ	5305-00-054-5637	96906	MS51957-3	SCREW,MACHINE	8
	148	PAOZZ	6150-01-240-7083	19200	9358257	WIRING HARNESS	2
	149	XDOZZ		19200	9358241	BAR,LACING	1
	150	PADZZ	5305-00-054-6651	96906	MS51957-27	SCREW,MACHINE	2
	151	XDOZZ	5940-00-204-8966	96906	MS25036-102	TERMINAL,LUG	1
*	152	PAOZZ	6150-01-240-7063	19200	9358258	CABLE ASSEMBLY,POWE (REPLACE CABLE ASSEMBLY IF J13 OR J14 ARE DAMAGED)	2
	153	XDDZZ		19200	9358263	ANGLE,CONNECTOR	2
	154	PAOZZ	5325-01-118-8671	19207	12301886-1	LOCKSPRING, TURNLOCK	4
	155	XDDZZ		19200	9358243	BAR,MOTHERBOARD	3
	156	XDDZZ		81349	M55302/63-A54H	CONNECTOR,PLUG,ELEC P7-P9	3
	157	XDDZZ		81349	M55302/55-A54H	CONNECTOR,PLUG,ELEC P10	1
	158	XDDZZ	5310-01-037-1236	19200	9358439	WASHER,FLAT	10
	159	XDDZZ	5305-00-054-5648	96906	MS51957-14	SCREW,MACHINE	10
	160	XDDDD	5999-01-240-7328	19200	9358198	BACKPLANE ASSEMBLY (FGC 01B0205)	1
						END OF FIGURE	

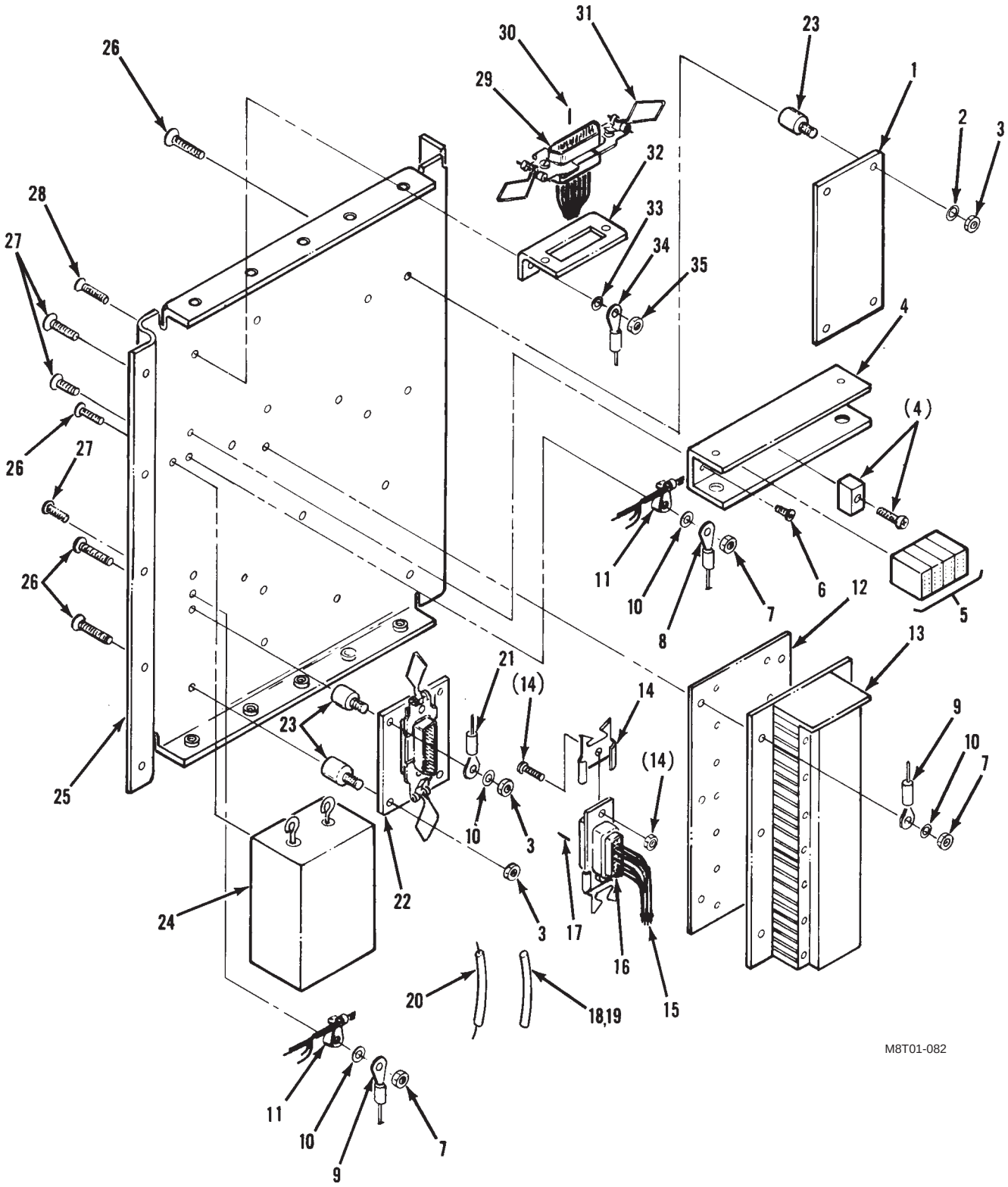


Figure 17. Group 01B0201 Unit Under Test (UUT) Power Supply Assembly 9358273

GROUP 01B0201 UNIT UNDER TEST (UUT) POWER SUPPLY ASSEMBLY 9358273 - CONTINUED

0126 00

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B0201 UNIT UNDER TEST (UUT) POWER SUPPLY ASSEMBLY	
						FIG. 17 UNIT UNDER TEST (UUT) POWER SUPPLY ASSEMBLY 9358273	
*	1	PAODD	5999-01-242-2619	19200	9358277	CIRCUIT CARD ASSEMB	1
	2	PAOZZ	5310-00-716-5612	96906	MS51859-2	WASHER,FLAT	4
	3	PAOZZ	5310-00-208-3786	80205	NAS671C4	NUT,PLAIN,HEXAGON	8
	4	PAOZZ	5975-00-009-0173	81349	M81714/5-1	RACK,ELECTRONIC JUN TB4	1
*	5	PAOZA	5940-01-243-6938	81343	M81714/2-DA1	TERMINAL JUNCTION B	4
*	6	PAOZZ	5305-00-763-6961	80205	MS51959-26	SCREW,MACHINE	2
	7	PAOZZ	5310-00-934-9759	80205	MS35649-284	NUT,PLAIN,HEXAGON	8
*	8	PAOZZ	5940-00-143-4774	81343	MS25036-153	TERMINAL,LUG E15	1
*	9	PAOZZ	5940-00-557-1629	81343	MS25036-149	TERMINAL,LUG E14,E17	2
	10	PAOZZ	5310-00-543-2739	80205	MS35333-72	WASHER,LOCK	8
	11	XDDZZ	5340-01-095-2138	19207	12280055	STRAP,LINE SUPPORTI NG	2
	12	PAOZZ	5999-01-146-6441	19207	12309045	MOUNTING PAD,ELECTRICAL	1
	13					DELETED	
	13	PAOZZ	6130-01-350-5812	19200	12596800	POWER SUPPLY	1
	14	PBOZZ	5340-01-118-8672	19207	12301886-2	PLATE,MOUNTING	2
	15	MDDZZ	6145-01-129-9955	81349	M27500-20TE2T14	CABLE,SPECIAL PURPOSE MAKE FROM NSN 6145-01-129-9955	V
	16	PADZA	5935-01-284-2870	81349	M24308/2-3F	CONNECTOR,RECEPTACL P18	1
*	17	PADZZ	5999-00-239-3338	81343	M39029/63-368	CONTACT,ELECTRICAL	25
	18	MOOZZ	5970-00-990-9912	81343	M23053/5-204-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-990-9912	V
*	19	MOOZZ	5970-00-767-0524	81343	M23053/5-206-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-767-0524	V
	20	MDDZZ	6145-01-240-7522	81349	M16878/14BGE9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-240-7522	V
	21	PAOZZ	5940-00-615-6073	96906	MS25036-152	TERMINAL,LUG (E13)	1
	22	PAOZZ	5998-01-532-7955	19200	13006073	CIRCUIT CARD ASSEMB A8 (INTERCHANGEABLE WITH P/N 9358226)	1
	22	PAOZZ	5999-01-240-7349	19200	9358226	CIRCUIT CARD ASSEMB A8 (INTERCHANGEABLE WITH P/N 13006073	1
	23	PAOZZ	5340-01-283-1336	19200	9358417-2	POST,ELECTRICAL-MEC	8
	24	PAOZZ	4330-01-119-5748	19207	12280224-2	FILTER,LINE FL4	1
	25	XAOZZ		19200	9358274	PLATE	1
*	26	PAOZZ	5305-00-770-2533	80205	MS51959-13	SCREW,MACHINE	12
*	27	PAOZZ	5305-00-764-0068	80205	MS51959-45	SCREW,MACHINE	8
	28	PAOZZ	5305-00-763-6963	96906	MS51959-28	SCREW,MACHINE	2
	29	PAOZA	5935-01-282-3114	81349	M24308/4-3F	CONNECTOR,RECEPTACL J15	1
*	30	PADZA	5999-00-411-7645	81343	M39029/64-369	CONTACT,ELECTRICAL	25
	31	PAOZZ	5325-01-118-8671	19207	12301886-1	LOCKSPRING, TURNLOCK	2
	32	XDOZZ		19200	9358263	ANGLE,CONNECTOR	1
	33	PAOZZ	5310-00-616-3555	80205	MS35333-71	WASHER,LOCK	2
*	34	XDDZZ	5940-00-113-8179	81343	MS25036-107	TERMINAL,LUG E16	1
*	35	PAOZZ	5310-00-934-9761	80205	MS35649-264	NUT,PLAIN,HEXAGON	2
						END OF FIGURE	

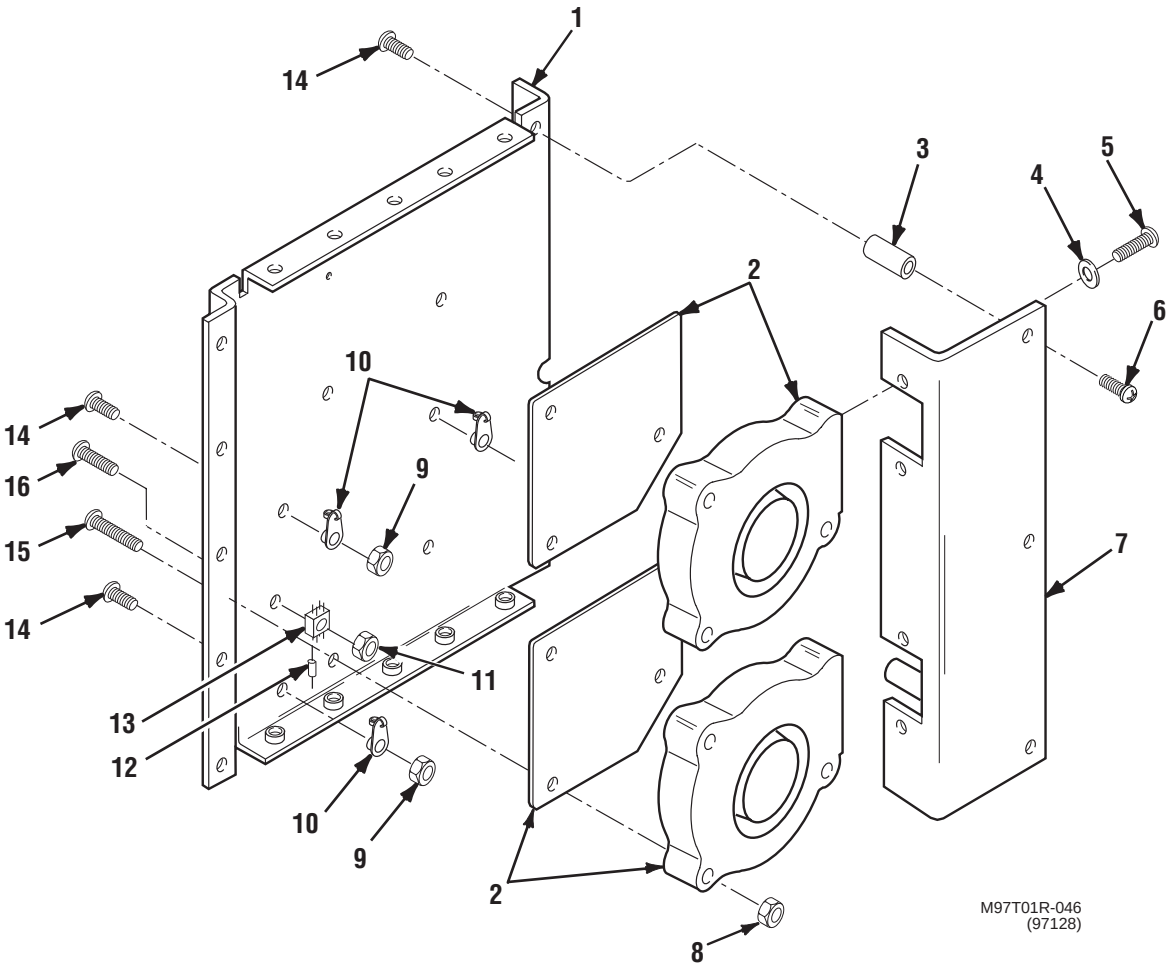


Figure 18. Group 01B0202 Blower Assembly 9358576

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B0202 BLOWER ASSEMBLY	
						FIG. 18 BLOWER ASSEMBLY 9358576	
	1	XDOZZ		19200	9358233	PLATE END	1
	2	PAOZZ	4140-01-276-6621	19200	9358549	FAN,CENTRIFUGAL	2
	3	XDOZZ		19200	9358264	SPACER,FAN DUCT	3
	4	PAOZZ	5310-00-543-2739	80205	MS35333-72	WASHER,LOCK	4
	5	PAOZZ	5305-00-054-6670	96906	MS51957-45	SCREW,MACHINE	4
	6	PAOZZ	5305-00-958-2918	80205	MS24693-C26	SCREW,MACHINE	3
	7	XDOZZ		19200	9358266	DUCT,FAN	1
	8	PAOZZ	5310-00-837-1381	80205	NAS671C8	NUT,PLAIN,HEXAGON	6
*	9	PAOZZ	5310-00-934-9761	80205	MS35649-264	NUT,PLAIN,HEXAGON	3
	10	PAOZZ	5340-01-095-2138	19207	12280055	STRAP,LINE SUPPORTI	3
	11	PAOZZ	5310-00-938-2013	80205	MS35649-224	NUT,PLAIN,HEXAGON	1
	12	MOOZZ	5970-01-327-1155	81343	M23053/5-203-C	INSULATION SLEEVING MAKE FROM NSN 5970-01-327-1155	V
	13	PAOZZ	5940-01-130-5697	19207	12301899-1	TERMINAL JUNCTION B	1
*	14	PAOZZ	5305-00-719-5064	80205	MS51959-30	SCREW,MACHINE	6
*	15	PAOZZ	5305-00-902-2138	80205	MS24693-C56	SCREW,MACHINE	6
	16	PAOZZ	5305-00-725-4191	96906	MS51959-7	SCREW,MACHINE	1
						END OF FIGURE	

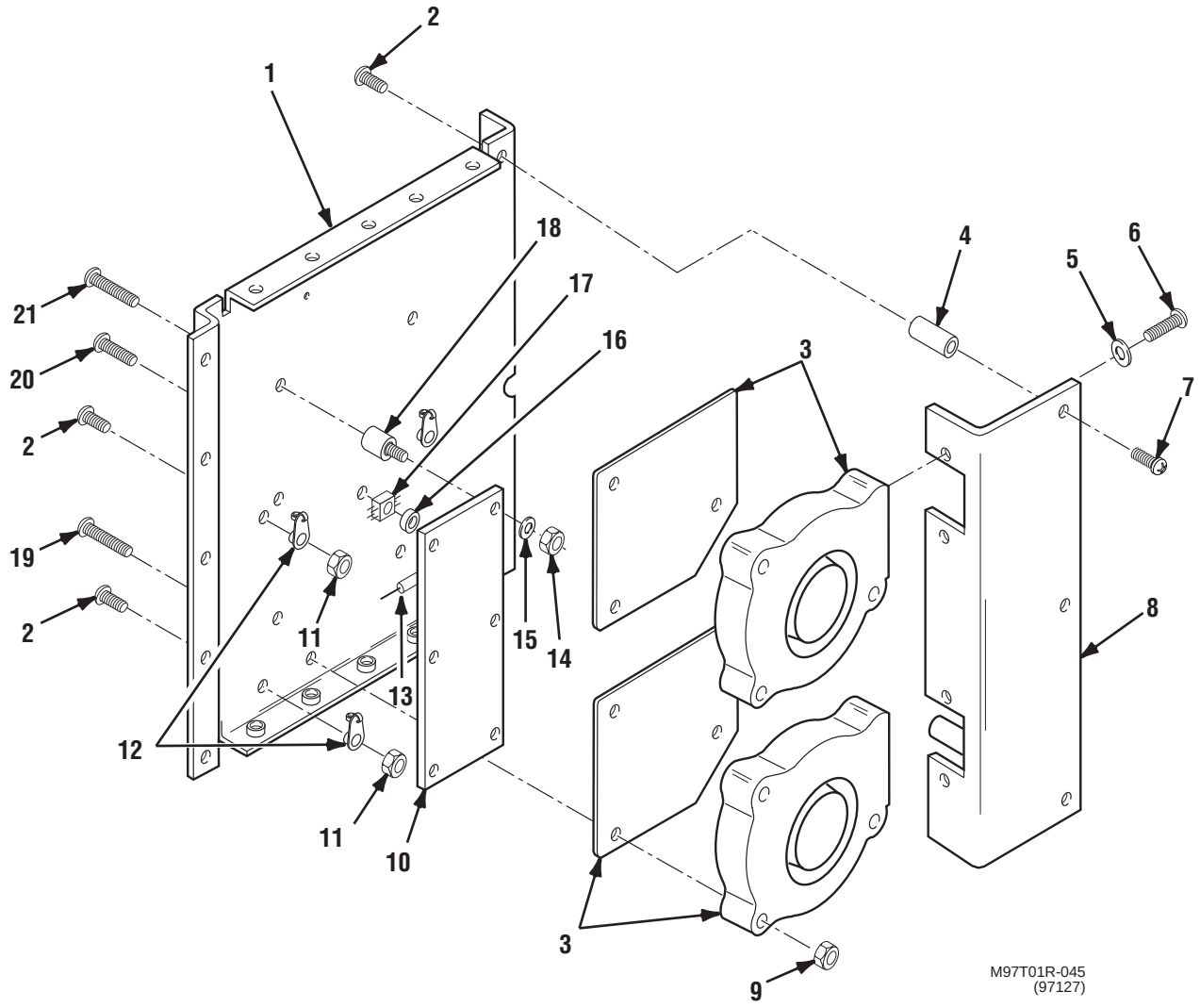


Figure 19. Group 01B0202 Blower Assembly 12933985

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B0202 BLOWER ASSEMBLY	
						FIG. 19 BLOWER ASSEMBLY 12933985	
	1	XDOZZ		19200	12933989	PLATE END	1
*	2	PAOZZ	5305-00-719-5064	80205	MS51959-30	SCREW,MACHINE	6
	3	PAOZZ	4140-01-276-6621	19200	9358549	FAN,CENTRIFUGAL	2
	4	XDOZZ		19200	9358264	SPACER,FAN DUCT	3
	5	PAOZZ	5310-00-543-2739	80205	MS35333-72	WASHER,LOCK	4
	6	PAOZZ	5305-00-054-6670	96906	MS51957-45	SCREW,MACHINE	4
	7	PAOZZ	5305-00-958-2918	80205	MS24693-C26	SCREW,MACHINE	3
	8	XDOZZ		19200	9358266	DUCT,FAN	1
	9	PAOZZ	5310-00-837-1381	80205	NAS671C8	NUT,PLAIN,HEXAGON	6
*	10	PAODD	5998-01-380-8959	19200	12596878	CIRCUIT CARD ASSY LOAD CONTROLLER	1
*	11	PAOZZ	5310-00-934-9761	80205	MS35649-264	NUT,PLAIN,HEXAGON	3
	12	PAOZZ	5340-01-095-2138	19207	12280055	STRAP,LINE SUPPORTING	3
	13	MOOZZ	5970-01-327-1155	81343	M23053/5-203-C	INSULATION SLEEVING MAKE FROM NSN 5970-01-327-1155	V
	14	PAOZZ	5310-00-208-3786	80205	NAS671C4	NUT,PLAIN,HEXAGON	7
	15	PAOZZ	5310-00-550-3715	80205	MS35333-70	WASHER,LOCK	7
	16	PAOZZ	5310-00-938-2013	80205	MS35649-224	NUT,PLAIN,HEXAGON	1
	17	PAOZZ	5940-01-130-5697	19207	12301899-1	TERMINAL JUNCTION B	1
	18	XDOZZ		19200	9358417-4	POST,ELECTRICAL-MEC	7
*	19	PAOZZ	5305-00-902-2138	80205	MS24693-C56	SCREW,MACHINE	6
	20	PAOZZ	5305-00-725-4191	96906	MS51959-7	SCREW,MACHINE	1
*	21	PAOZZ	5305-00-770-2533	80205	MS51959-13	SCREW,MACHINE	7
						END OF FIGURE	

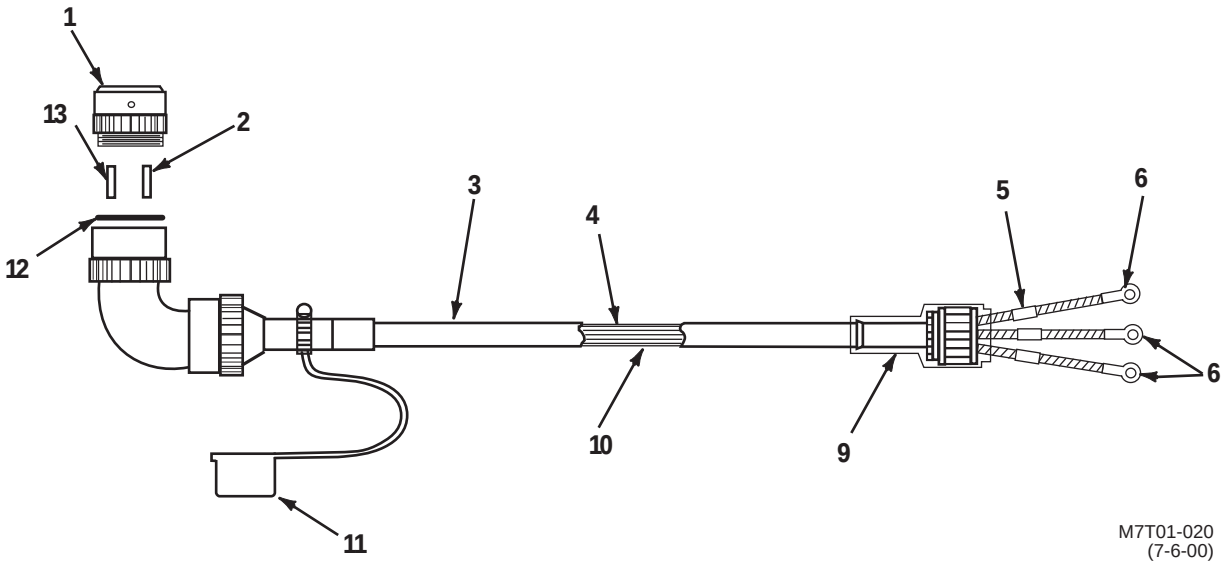


Figure 20. Group 01B03 GPIA Power Cable And Conduit Assembly (W21) 9358396

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B03 GPIA POWER CABLE AND CONDUIT ASSEMBLY (W21)	
						FIG. 20 GPIA POWER CABLE AND CONDUIT ASSEMBLY (W21) 9358396	
	1	PBOZZ	5935-01-069-2562	96906	MS27467T17F6SN	CONNECTOR,PLUG,ELEC P1	1
	2	PAOZA	5999-00-378-0206	81349	M39029/56-353	CONTACT,ELECTRICAL	6
	3	XDDZZ		19200	12983371	CONDUIT ASSEMBLY	1
	4	MDDZZ	6145-01-284-4810	81349	M22759/32-12-5	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-284-4810	V
	5	XDDZZ		19200	12981826-2	MARKER,WIRE	1
	6	PAOZZ	5940-00-114-1305	96906	MS25036-116	TERMINAL,LUG	3
	7					DELETED	
	8					DELETED	
	9	MDDZZ	5970-00-815-1300	81349	M23053/5-110-0	INSULATION SLEEVING MAKE FROM NSN5970-00-815-1300	V
	10	MDDZZ		81349	M27500-003-01	CABLE,ELECTRICAL MAKE FROM P/N M27500-003-01	V
	11	PBOZZ	5340-01-224-7515	19207	12354499-12	CAP,PROTECTIVE,DUST	1
*	12	XDOZZ		81343	AS3209-020	O-RING	1
	13	PAOZZ	5935-01-097-0399	96906	MS27488-12-1	PLUG,END SEAL,ELECT	1
						END OF FIGURE	

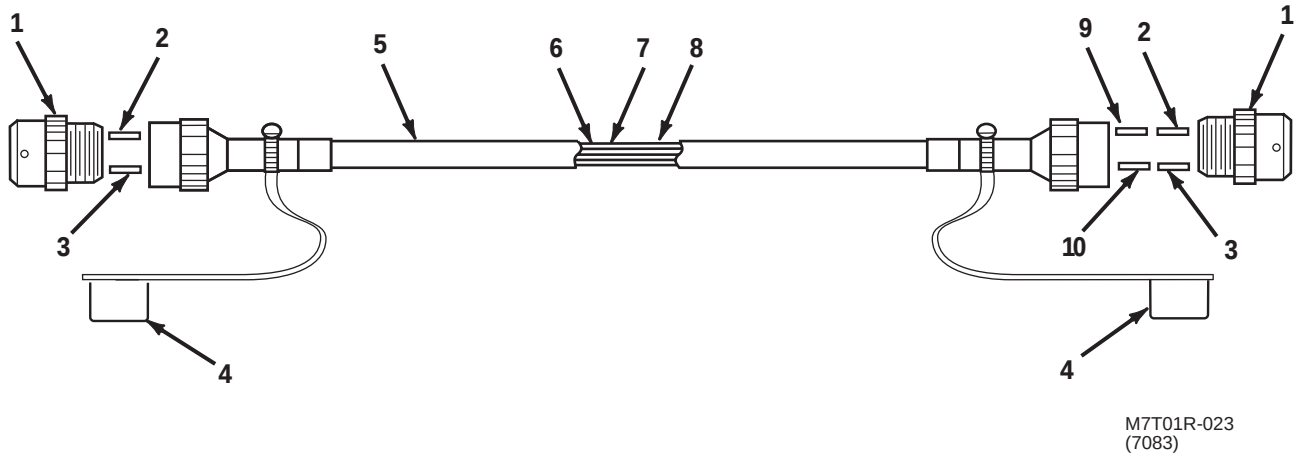


Figure 21. Group 01B04 GPIA/OIU Interface Cable And Conduit Assembly (W23) 9358398

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B04 GPIA/OIU INTERFACE CABLE AND CONDUIT ASSEMBLY (W23)	
						FIG. 21 GPIA/OIU INTERFACE CABLE AND CONDUIT ASSEMBLY (W23) 9358398	
	1	PAOZZ	5935-01-094-9922	96906	MS27467T15F35P	CONNECTOR,PLUG,ELEC P1,P2	2
	2	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	37
*	3	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	20
	4	PBOZZ	5340-01-224-6380	19207	12354499-10	CAP,PROTECTIVE,DUST	2
	5	XDDZZ		05593	253052	CONDUIT ASSEMBLY	1
*	6	MDDZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-099-9118	V
	7	MDDZZ	6145-01-255-4713	1P787	M27500-22SB1T23	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-255-4713	V
	8	MDDZZ	6145-01-135-6836	1P787	M27500-22SB2T23	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-135-6836	V
	9	PAOZZ	5940-01-135-7086	81343	M83519/2-8	SPLICE,CONDUCTOR	2
	10	PAOZZ	5940-01-135-7085	81343	M83519/2-7	SPLICE,CONDUCTOR	20
						END OF FIGURE	

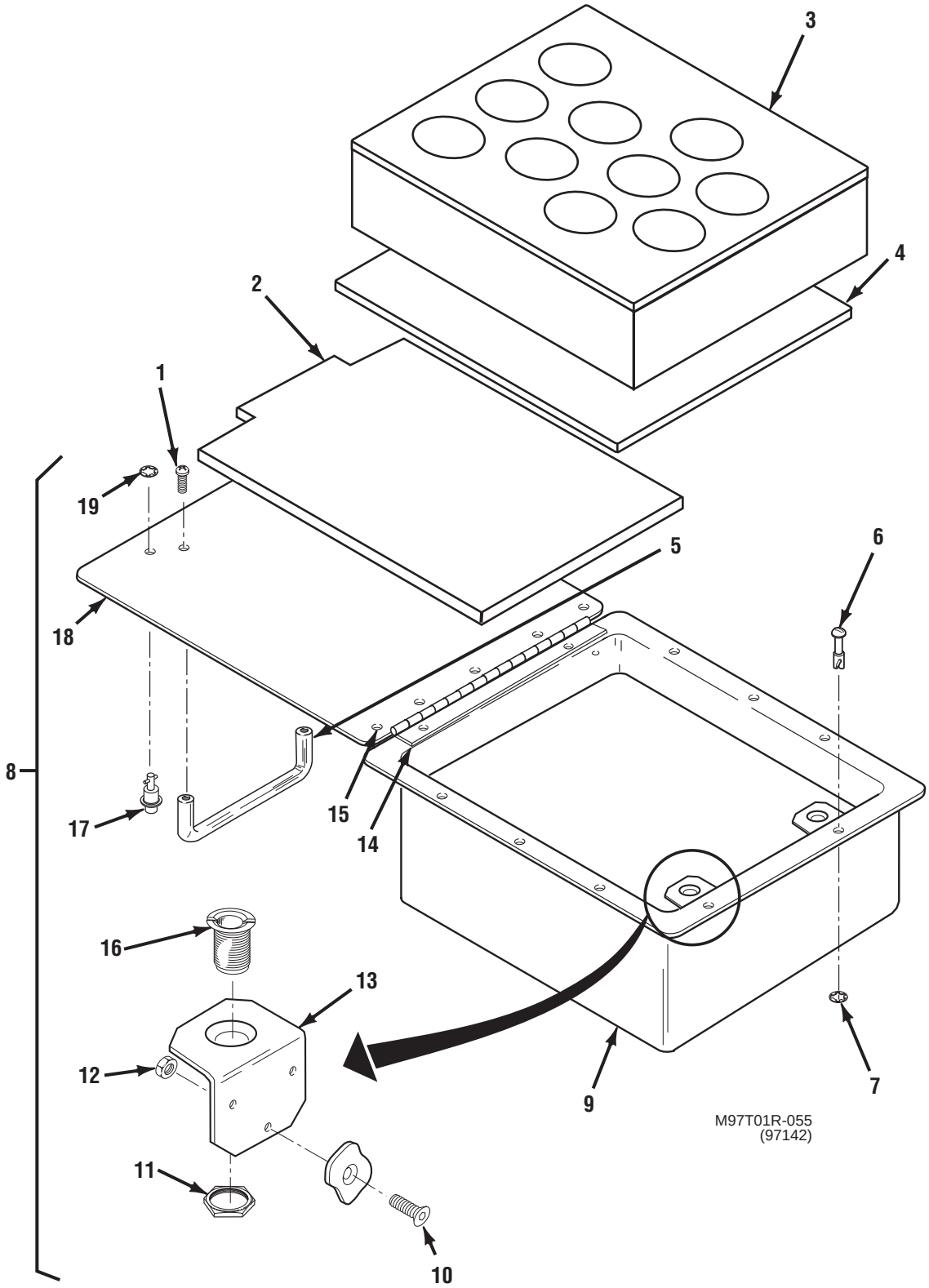


Figure 22. Group 01B05 GPIA FST Adapters Shipping and Storage Module Assembly 9358375-1

GROUP 01B05 GPIA FST ADAPTERS SHIPPING AND STORAGE MODULE ASSEMBLY 9358375-1 - CONTINUED

0131 00

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B05 GPIA FST ADAPTERS SHIPPING AND STORAGE MODULE ASSEMBLY	
						FIG. 22 GPIA FST ADAPTERS SHIPPING AND STORAGE MODULE ASSEMBLY 9358375-1	
	1	PAOZZ	5305-01-224-9128	96906	MS24693-70B	SCREW,MACHINE	2
	2	PBOZZ	2590-01-207-5667	19207	12354515-2	PAD,CUSHIONING	1
	3	PBOZZ	2590-01-207-5666	19207	12354509	PAD,CUSHIONING	1
	4	PBOZZ	2590-01-207-5665	19207	12354515-1	PAD,CUSHIONING	1
	5	PAOZZ	5340-01-322-3206	19207	12280004-1	HANDLE,BOW	1
*	6	PAOZZ	5325-01-569-3036	19200	13018968-1	STUD,TURNLOCK FASTENER	8
	7	PAOZZ	5325-01-397-8145	19200	12951617	EYELET,TURNLOCK FASENER	8
	8	XAOOO		19207	12354505-1	STOWAGE MODULE	1
	9	XAOZZ		19207	12354506-1	BOX (STOWAGE MODULE VOID OF ALL HARDWARE AND ATTACHMENTS)	1
	10	PAOZZ	5305-00-828-9490	80205	NAS514P440-6P	SCREW,MACHINE	6
	11	PAOZZ	5310-01-156-7514	19207	12309110-2	NUT,PLAIN,HEXAGON	2
	12	PAOZZ	5310-00-811-6419	80205	MS21042-04	NUT,SELF-LOCKING,EX	6
	13	XDOZZ		19207	12354508	BRACKET	2
	14	XAOZZ		96906	MS20257-4-800	HINGE,CONTINUOUS	1
	15	XAOZZ		96906	MS20426D3-4	RIVET,SOLID	10
	16	PAOZZ	5325-01-158-6752	19207	12309110-1	SOCKET,PUSH BUTTON	2
	17	PAOZZ	5325-00-980-2555	19207	12309109-1	STUD ASSEMBLY,TURNLOCK	2
	18	XAOZZ		19207	12354507-2	COVER	1
	19	PAOZZ	5310-00-942-5139	34860	11019315-1	PUSH ON NUT	2
						END OF FIGURE	

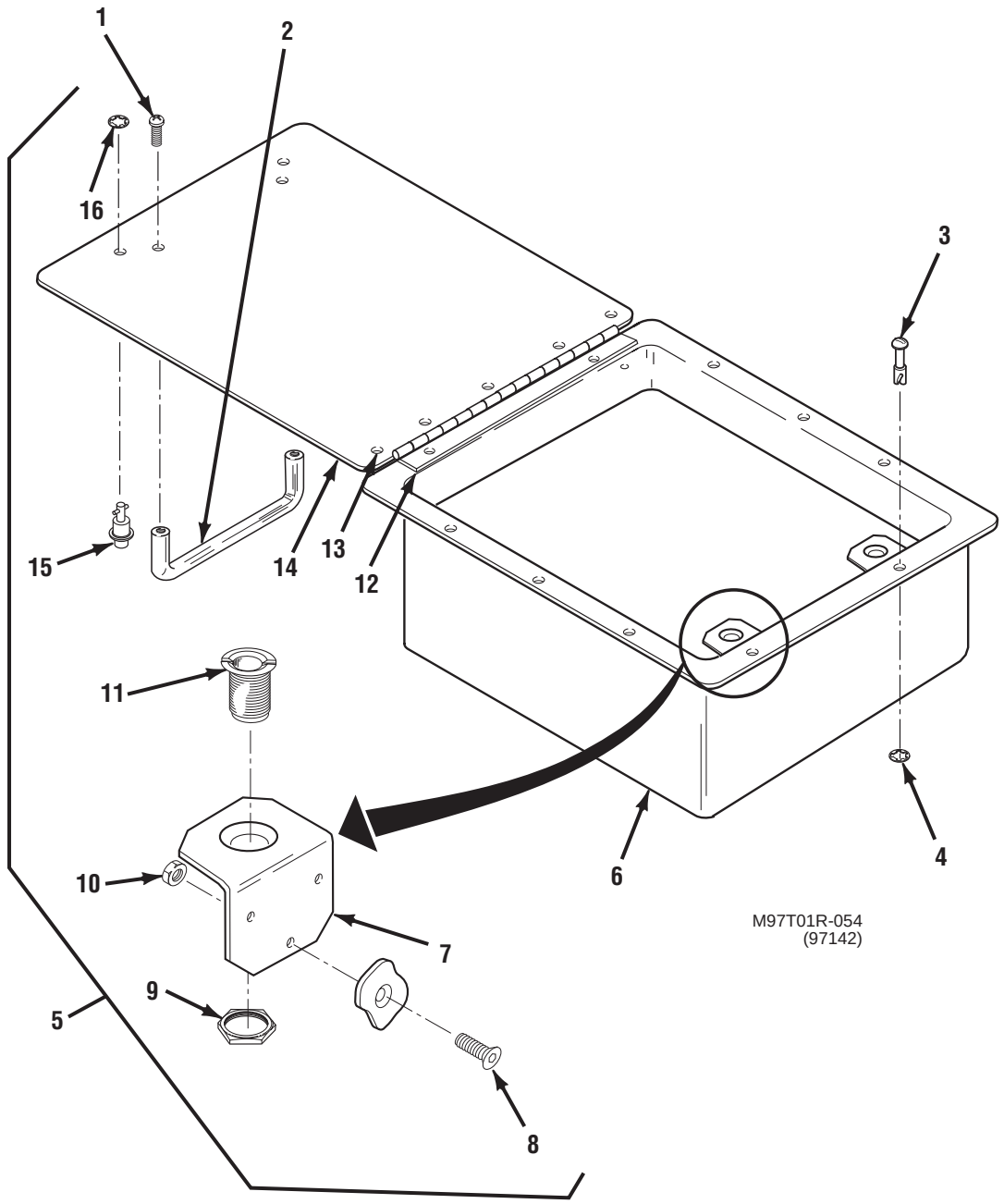


Figure 23. Group 01B06 GPIA Shipping and Storage Module Assembly 9358375-2

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B06 GPIA SHIPPING AND STORAGE MODULE ASSEMBLY	
						FIG. 23 GPIA SHIPPING AND STORAGE MODULE ASSEMBLY 9358375-2	
	1	PAOZZ	5305-01-224-9128	96906	MS24693-70B	SCREW,MACHINE	2
	2	PAOZZ	5340-01-322-3206	19207	12280004-1	HANDLE,BOW	1
*	3	PAOZZ	5325-01-569-3036	19200	13018968-1	STUD,TURNLOCK FASTENER	8
	4	PAOZZ	5325-01-397-8145	19200	12951617	EYELET,TURNLOCK FASENER	8
	5	XAOOO		19207	12354505-1	STOWAGE MODULE	1
	6	XAOZZ		19207	12354506-1	BOX	2
	7	XDOZZ		19207	12354508	BRACKET	2
	8	PAOZZ	5305-00-828-9490	80205	NAS514P440-6P	SCREW,MACHINE	6
	9	PAOZZ	5310-01-156-7514	19207	12309110-2	NUT,PLAIN,HEXAGON	2
	10	PAOZZ	5310-00-811-6419	80205	MS21042-04	NUT,SELF-LOCKING,EX	6
	11	PAOZZ	5325-01-158-6752	19207	12309110-1	SOCKET,PUSH BUTTON	2
	12	XAOZZ		96906	MS20257-4-800	HINGE,CONTINUOUS	1
	13	XAOZZ		96906	MS20426D3-4	RIVET,SOLID	10
	14	XAOZZ		19207	12354507-2	COVER	1
	15	PAOZZ	5325-00-980-2555	19207	12309109-1	STUD ASSEMBLY,TURNLOCK	2
	16	PAOZZ	5310-00-942-5139	34860	11019315-1	PUSH ON NUT	2
						END OF FIGURE	

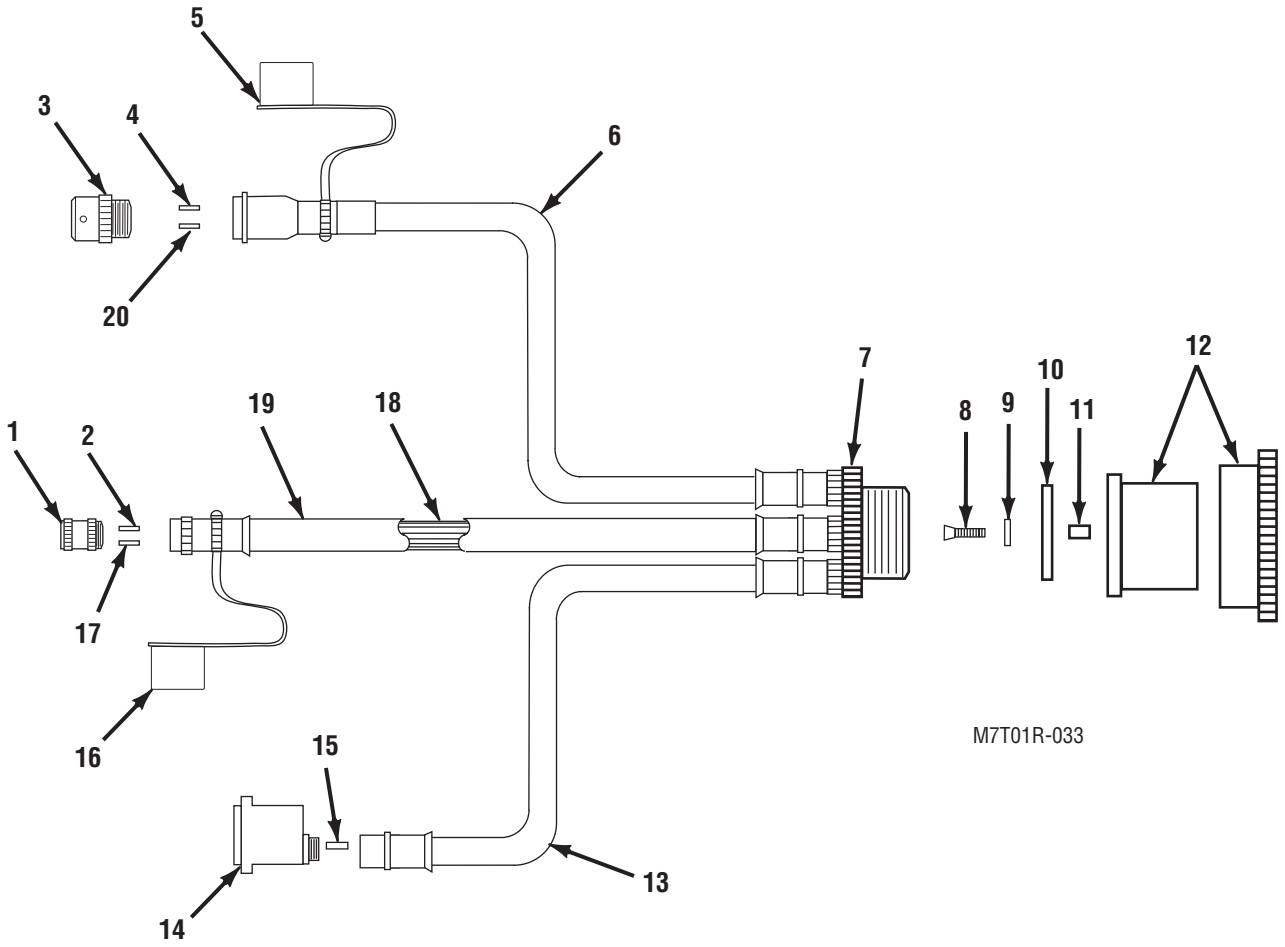


Figure 24. Group 01B07 GPIA Functional Self Test Cable Assembly (W34) 9358420

GROUP 01B07 GPIA FUNCTIONAL SELF TEST CABLE ASSEMBLY (W34) 9358420 - CONTINUED

0133 00

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B07 GPIA FST CABLE ASSEMBLY (W34)	
						FIG. 24 GPIA FST CABLE ASSEMBLY (W34) 9358420	
	1	PBOZZ	5935-01-092-3424	96906	MS3475L24-61PW	CONNECTOR,PLUG,ELEC P3	1
	2	PAOZZ	5999-00-146-8592	81349	M39029/4-110	CONTACT,ELECTRICAL	61
	3	PBOZZ	5935-01-080-6231	96906	MS27467E15B35PA	CONNECTOR,PLUG,ELEC P2	1
*	4	PAOZZ	5999-00-473-3551	81343	M39029/58-360	CONTACT,ELECTRICAL	37
	5	PBOZZ	5340-01-224-6380	19207	12354499-10	CAP,PROTECTIVE,DUST	1
	6	XDDZZ		05593	253091	CONDUIT ASSEMBLY	1
	7	XDDZZ		05593	151168	ADAPTER PLATE ASSY	1
	8	XDDZZ	5305-00-054-5640	96906	MS51957-6	SCREW,MACHINE	3
*	9	PADZZ	5310-00-543-4652	80205	MS35333-69	WASHER,LOCK	3
	10	XDDZZ		19200	9358452	CIRCUIT CARD ASSY	1
	11	XDDZZ		19207	12301903-2	SPACER	3
	12	XDDZZ		05593	151172-0003	ADAPTER CAP ASSY	1
	13	XDDZZ		05593	253090	CONDUIT ASSEMBLY	1
	14	PAOZA	5935-01-282-3114	81349	M24308/4-3F	CONNECTOR,RECEPTACLE P1	1
*	15	PAOZA	5999-00-411-7645	81343	M39029/64-369	CONTACT,ELECTRICAL	25
	16	PBOZZ	5340-01-224-6384	19207	12354499-17	CAP,PROTECTIVE,DUST	1
	17	PAOZZ	5935-00-496-7171	96906	MS27488-20-1	PLUG,END SEAL,ELECT	52
	18	MDDZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-099-9118	V
	19	XDDZZ		05593	253092	CONDUIT ASSEMBLY	1
	20	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	28
						END OF FIGURE	

GROUP 01B08 DIGITAL LINE REPLACEMENT UNIT CABLE AND CONDUIT ASSEMBLY (DLRU-W93) 12596332-1 0134 00

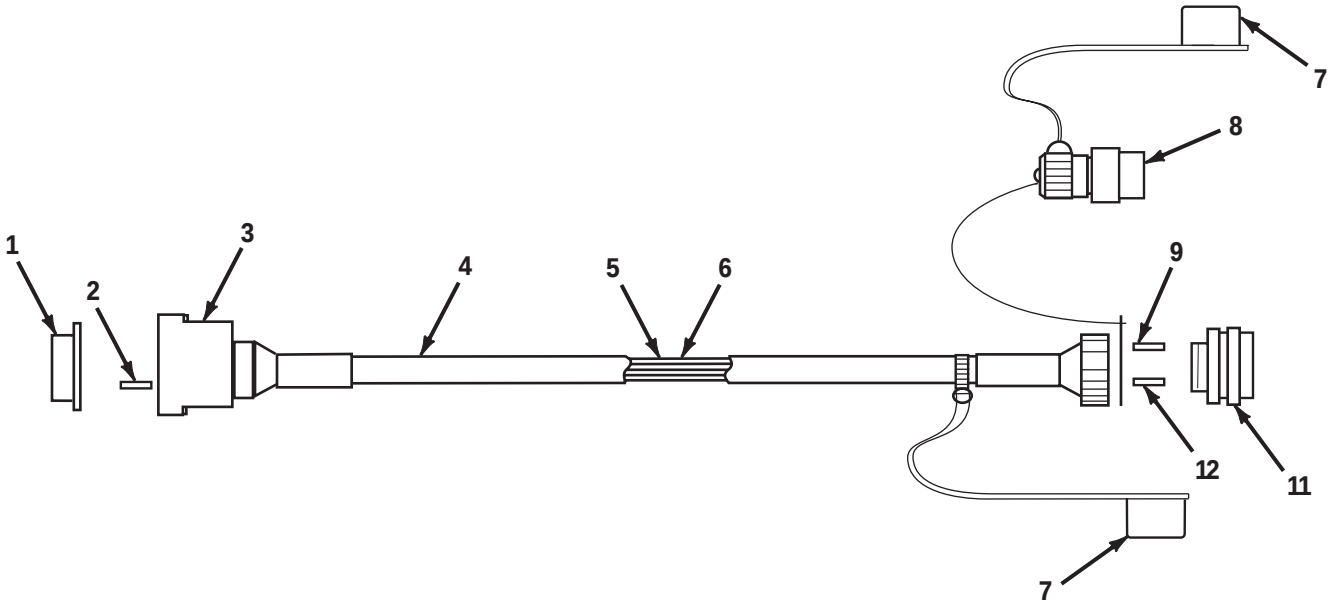


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Figure 25. Group 01B08 Digital Line Replacement Unit Cable And Conduit Assembly (DLRU-W93) 12596332-1

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01B08 DLRU CABLE AND CONDUIT ASSEMBLY (DLRU-W93)	
						FIG. 25 DLRU CABLE AND CONDUIT ASSEMBLY 12596332-1	
	1	PAOZA	5935-01-282-3114	81349	M24308/4-3F	CONNECTOR,RECEPTACL P1	1
	2	PAOZA	5999-00-411-7645	81349	M39029/64-369	CONTACT,ELECTRICAL	25
*	3	PAOZZ	5935-01-535-6950	19200	12596485	BACKSHELL	1
	4	XDDZZ		19200	12596484	CONDUIT ASSEMBLY	1
*	5	MDDZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-099-9118	V
	6	MDDZZ	6145-01-255-4713	1P787	M27500-22SB1T23	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-255-4713	V
	7	PBOZZ	5340-01-224-6382	19207	12354499-09	CAP,PROTECTIVE,DUST	2
	8	XDDZZ		19200	12596665	ADAPTER ASSEMBLY	1
	9	PAOZZ	5935-00-496-7171	96906	MS27488-20-1	PLUG,END SEAL,ELECT	7
	10					DELETED	
	11	PAOOA	5935-01-132-4419	81349	D38999/26FC98SN	CONNECTOR,PLUG,ELEC P2	1
	12	PAOZZ	5999-00-152-9574	81349	M39029/56-351	CONTACT,ELECTRICAL	10
						END OF FIGURE	

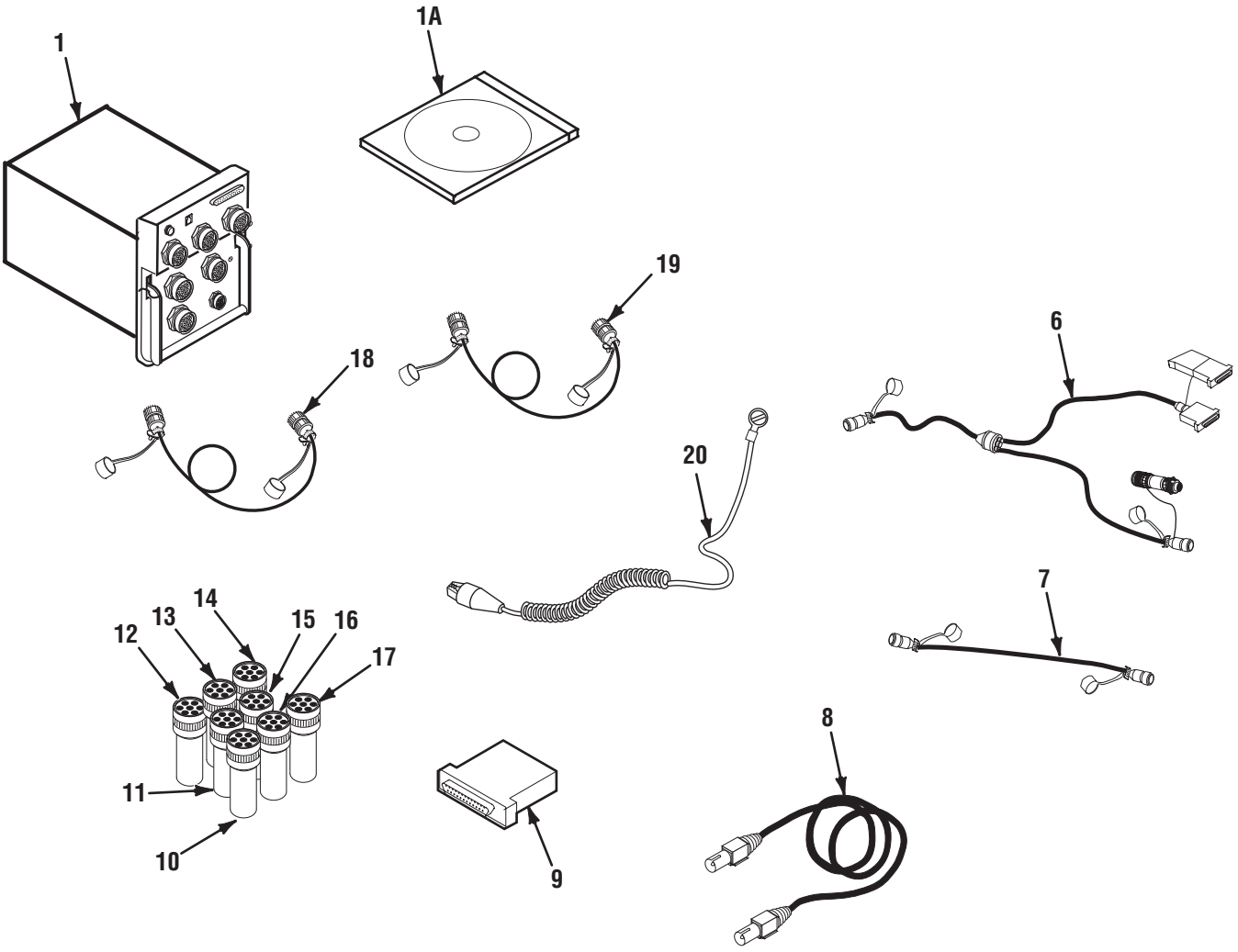

Figure 25A. Group 01C Combined Support Functions Module (CSFM) System - Common Components 12993994 and 13010053

GROUP 01C COMBINED SUPPORT FUNCTIONS MODULE (CSFM) SYSTEM - COMMON COMPONENTS 12993994 AND 13010053 - CONTINUED

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01C COMBINED SUPPORT FUNCTIONS MODULE (CSFM) SYSTEM - COMMON COMPONENTS	
						FIG. 25A COMBINED SUPPORT FUNCTIONS MODULE (CSFM) SYSTEM - COMMON COMPONENTS 12993994 AND 13010053	
	1	PAODD	6625-01-505-5108	19200	12994000	CSFM MODULE ASSEMBL SEE FIG. 25B FOR BREAKDOWN	1
*	1A	PAOZZ	7030-01-519-5632	19200	13002171	DISK PROGRAM,AUTO (USED WITH P/N 13010053 ONLY)	1
	2					DELETED	
	3					DELETED	
	4					DELETED	
	5					DELETED	
	6	PAODD	6150-01-555-8442	19200	12994130-1	CABLE AND CONDUIT ASSEMBLY,POWER-RS232 W330 SEE FIG. 25D FOR BREAKDOWN	1
	7	PAODD	6150-01-505-2904	19200	12994136	CABLE AND CONDUIT ASSEMBLY,POWER-W331 SEE FIG. 25E FOR BREAKDOWN	1
	8	PAOZZ	5995-01-506-5784	19200	12994139	CABLE ASSEMBLY,SPEC CSFM-W332	1
	9	PAOZZ	5935-01-506-6860	19200	12997688	ADAPTER,CONNECTOR CSFM FST TJ3	1
*	10	PAOZZ	5935-01-506-6827	19207	12309035-1	ADAPTER,TEST FST-TJ4	1
*	11	PGOZZ	5935-01-207-5632	19207	12309036-3	ADAPTER,TEST FST-TJ5-2	1
	12	PAOZZ	6625-01-532-5641	19200	12309036-6	ADAPTER,TEST FST-TJ5-1	1
*	13	PAOZZ		19200	12309037-4	ADAPTER,TEST FST-TJ6	1
*	14	PAOZZ	5931-01-506-6831	19207	12309038-4	ADAPTER,TEST FST-TJ7-1	1
	15	PAOZZ	5935-01-506-6841	19207	12309038-5	ADAPTER,CONNECTOR FST-TJ7-2	1
*	16	PGOZA	5935-01-153-7511	19207	12309039	ADAPTER,TEST FST-TJ8	1
*	17	PAOZA		19207	12309041-3	ADAPTER,TEST FST-TJ10	1
	18	PAODD	6150-01-505-5111	19207	12309043-1	CABLE AND CONDUIT A FST W87 SEE FIG. 10 FOR BREAKDOWN	1
	19	PAODD	6150-01-505-2889	19207	12309044-1	CABLE AND CONDUIT A FST W88 SEE FIG. 11 FOR BREAKDOWN	1
	20	PAODD	6150-01-382-3204	19200	12596415	CABLE AND CONDUIT ASSEMBLY, GROUND-W36 SEE FIG. 38 FOR BREAKDOWN	1
						END OF FIGURE	

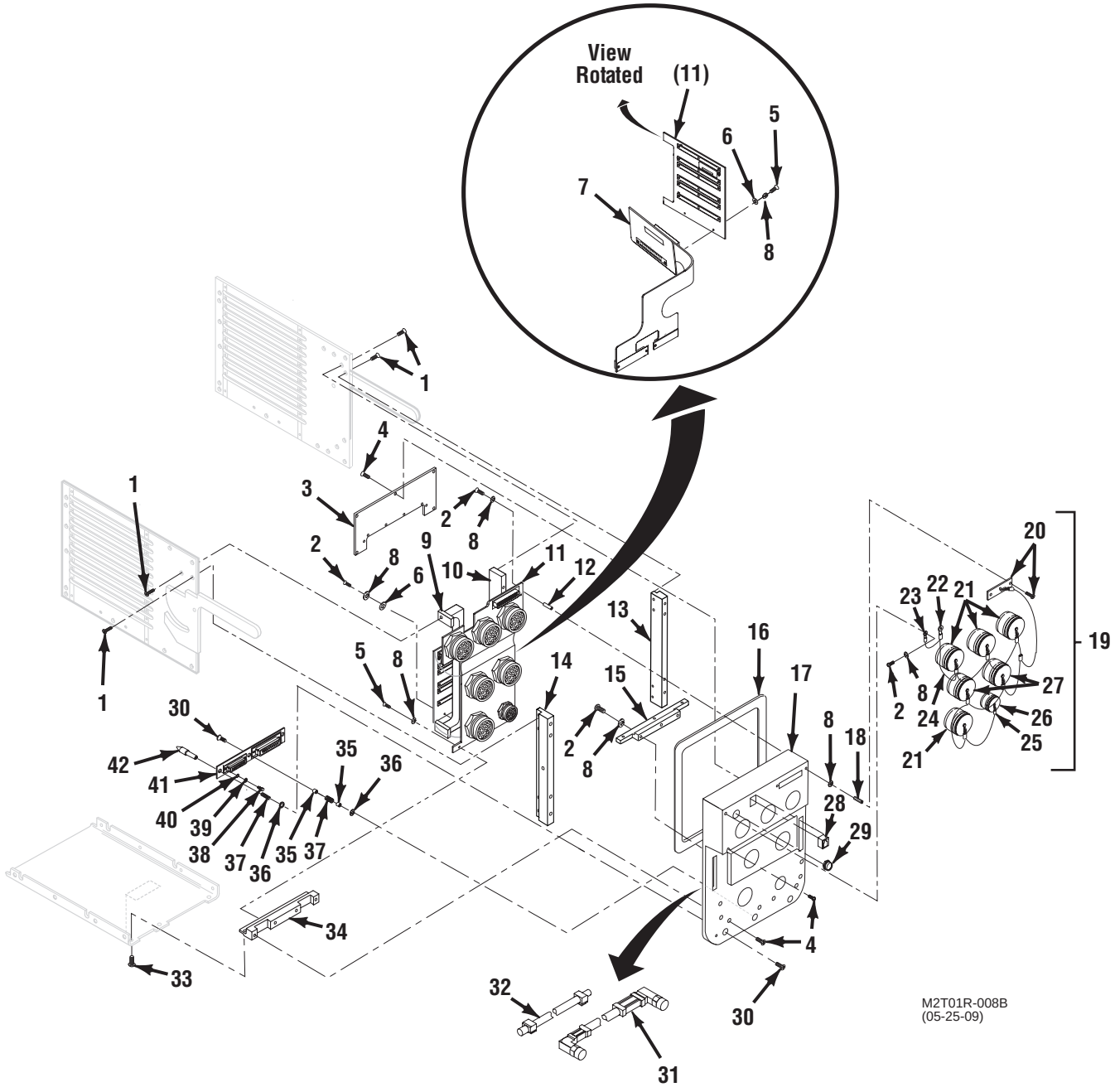

Figure 25B. Group 01C01 Combined Support Functions Module (CSFM) Assembly 12994000 (Page 1 of 2)

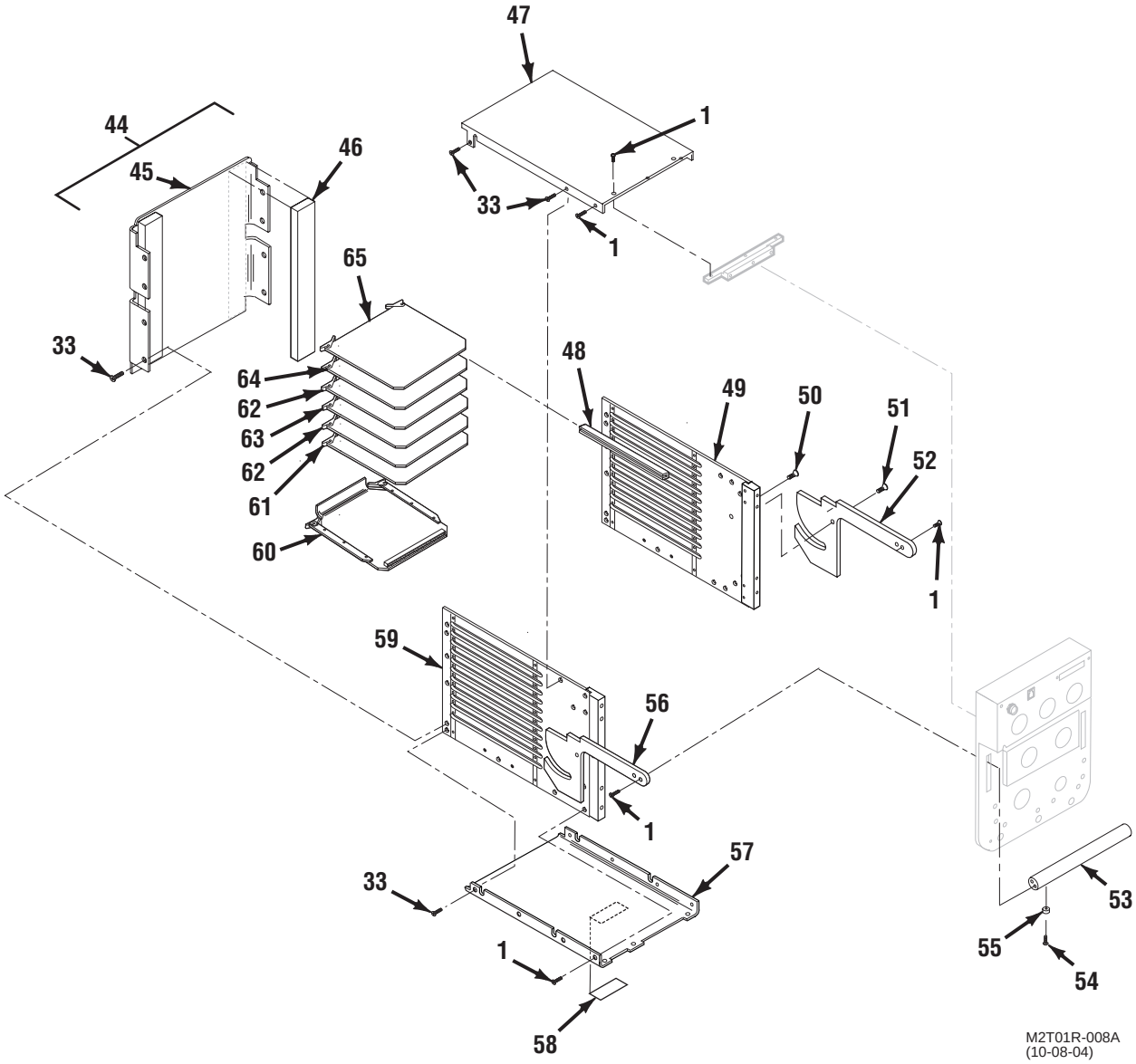

Figure 25B. Group 01C01 Combined Support Functions Module (CSFM) Assembly 12994000 (Page 2 of 2)

GROUP 01C01 COMBINED SUPPORT FUNCTIONS MODULE (CSFM) ASSEMBLY 12994000 - CONTINUED

0134 02

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01C01 COMBINED SUPPORT FUNCTIONS MODULE (CSFM) ASSEMBLY	
						FIG. 25B COMBINED SUPPORT FUNCTIONS MODULE (CSFM) ASSEMBLY 12994000	
	1	PAOZZ	5305-00-763-6963	96906	MS51959-28	SCREW,MACHINE	22
	2	PAOZZ	5305-00-054-5648	96906	MS51957-14	SCREW,MACHINE	16
	3	XDOZZ		19200	12994108	COVER,PROTECTIVE	1
*	4	PAOZZ	5305-00-770-2533	80205	MS51959-13	SCREW,MACHINE	15
*	5	PAOZZ	5305-00-054-5652	96906	MS51957-18	SCREW,MACHINE	5
	6	PAOZZ	5310-00-716-5612	96906	MS51859-2	WASHER,FLAT	11
	7	PAOZZ	5998-01-506-4678	19200	12994106	CABLE ASSEMB, SIGNAL FLEX	1
	8	PAOZZ	5310-00-933-8118	80205	MS35338-135	WASHER,LOCK	14
	9	XDOZZ		19200	12994104	STIFFENER	1
	10	XDOZZ		19200	12994004	BAR,RIGHT	1
	11	PAODD	5998-01-505-2900	19200	12994001	INTERFACE ASSEMBLY,	1
	12	PAOZZ	5310-01-291-2110	80205	NAS1831A4B07	NUT,PLAIN,HEXAGON	2
	13	XDOZZ		19207	12360017-2	BAR,HANDLE	1
	14	XDOZZ		19207	12360017-1	BAR,HANDLE	1
	15	XDOZZ		19207	12360019	BAR,PANEL	1
	16	PCOZZ	5999-01-506-8718	19200	12997697	SHIELDING GASKET,EL	1
	17	XDOZZ		19200	12994122	FRONT PANEL	1
	18	PAOZZ	5935-01-052-9436	81349	M24308/26-1	JACKSCREW,ELECTRICA (DISCARD ATTACHING HARDWARE SUPPLIED WITH JACKSCREW)	2
	19	PAODD	5340-01-506-0822	19200	12997731	CAP,PROTECTIVE,DUST FGC 01C0101	1
	20	XDDZZ		19200	12997732	COVER,PROTECTIVE	1
	20A					DELETED	
	21	PADZZ	5935-01-108-9518	96906	MS27502B25N	COVER,ELECTRICAL CO	4
	22	XDDZZ		19200	12997707	COVER,BNC	1
	23	XDDZZ		19200	12997735	TERMINAL,WIRE ROPE	1
	24	MDDZZ	1640-00-929-0041	81349	M83420/4-001	ROPE,WIRE MAKE FROM NSN 4010-00-929-0041	V
	25	PAOZZ	4030-00-431-5536	26512	GS531B2P	SWAGING SLEEVE,WIRE	9
	26	PADZZ	5935-01-079-9091	96906	MS27502B15N	COVER,ELECTRICAL CO	1
	27	PADZZ	5935-01-183-6481	96906	MS3181-24CA	COVER,ELECTRICAL CO	2
	28	PAOZZ	7025-01-497-6655	19200	12997706	COUPLER,DIGITAL DAT	1
	29	PAOZZ	5935-01-506-9990	19200	12994123	ADAPTER,CONNECTOR	1
*	30	PAOZZ	5305-00-781-5662	80205	MS24693-C269	SCREW,MACHINE	4
	31	PAOZZ	5995-01-506-8066	19200	12994124	CABLE ASSEMBLY,SPEC	1
	32	PAOZZ	5995-01-506-8092	19200	12997687	CABLE ASSEMBLY,SPEC	1
*	33	PAOZZ	5305-00-763-6961	80205	MS51959-26	SCREW,MACHINE	19
	34	XDOZZ		19200	12994005	BAR,LOWER	1
	35	PAOZZ	5310-01-352-4235	19200	12596807	NUT,SLEEVE	2
	36	PAOZZ	5310-00-461-4825	10001	1170229-2	WASHER,FLAT	3
	37	PAOZZ	5360-01-369-1402	19200	12596808	SPRING,HELICAL,COMP	3
	38	PAOZZ	5305-00-054-5637	96906	MS51957-3	SCREW,MACHINE	4
	39	PAOZZ	5310-00-928-2690	80205	NAS1640-2	WASHER,LOCK	4
	40	PAOZZ	5310-00-043-4708	80205	NAS620C2	WASHER,FLAT	4
	41	XDOZZ		19200	12596806	PLATE,CONNECTOR	1
	42	PAOZZ	5935-01-350-9533	19200	12596805	GUIDE,ELECTRICAL CO	2
*	43					DELETED	
	44	XDOOO		19207	12360042	COVER ASSY	1
	45	XDOZZ		19207	12360043	COVER	1
	46	PCOZZ	5340-01-495-3036	19200	12998215	PAD,CUSHIONING	2

GROUP 01C01 COMBINED SUPPORT FUNCTIONS MODULE (CSFM) ASSEMBLY 12994000 - CONTINUED

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01C01 COMBINED SUPPORT FUNCTIONS MODULE (CSFM) ASSEMBLY	
						FIG. 25B COMBINED SUPPORT FUNCTIONS MODULE (CSFM) ASSEMBLY 12994000	
	47	XDOZZ		19200	12934323	COVER,TOP	1
*	48	PAOZZ	5998-01-108-8728	19207	12301887-1	RETAINER-EJECTOR,EL	14
	49	XDOZZ		19200	12994094	PLATE,RIGHT	1
	50	PAOZZ	5340-01-257-6368	19207	12360022	BUMPER,NONMETALLIC	2
	51	PAOZZ	5305-01-383-4182	19200	12934329	SCREW,SHOULDER	2
	52	PAOZZ	5340-01-240-7144	19207	12360134-1	LATCH,RIM	1
	53	PAOZZ	5340-01-242-2552	19207	12360135	HANDLE,BOW	1
	54	PAOZZ	5305-00-054-6652	96906	MS51957-28	SCREW,MACHINE	6
*	55	PCOZZ	5340-01-059-7950	1TGB8	1321BW	BUMPER,NONMETALLIC	2
	56	PAOZZ	5340-01-241-5040	19207	12360134-2	LATCH,RIM	1
	57	XDOZZ		19200	12994103	COVER,BOTTOM	1
	58	PAOZZ	9905-01-073-9737	19207	12285280	PLATE,IDENTIFICATIO	1
	59	XDOZZ		19200	12994093	PLATE,LEFT	1
	60	PAODD	5998-01-555-3331	19200	12994029-3	CIRCUIT CARD ASSEMBLY,LOAD PLATE FGC 01C0107	1
	61	PAODD	5998-01-517-6130	19200	12994028-1	CIRCUIT CARD ASSEMBLY,ACTIVE TERMINATOR (A2) FGC 01C0106	1
	62	PAODD	5998-01-555-8438	19200	12994024-1	CIRCUIT CARD ASSEMBLY,HIGH LEVEL MEASUREMENT (A4,A7) FGC 01C0104	2
	63	PAODD	5998-01-555-9359	19200	12994026-2	CIRCUIT CARD ASSEMBLY,SIGNAL CONDITIONER (A5) FGC 01C0105	1
	64	PAODD	5998-01-505-2910	19200	12994025	CIRCUIT CARD ASSEMLY,DIGITAL I/O (A8) FGC 01C0103	1
	65	PAODD	5998-01-546-5215	19200	12994134	MODULE BUFFER/DSP (A10) SEE FIG. 25C FOR BREAKDOWN	1
						END OF FIGURE	

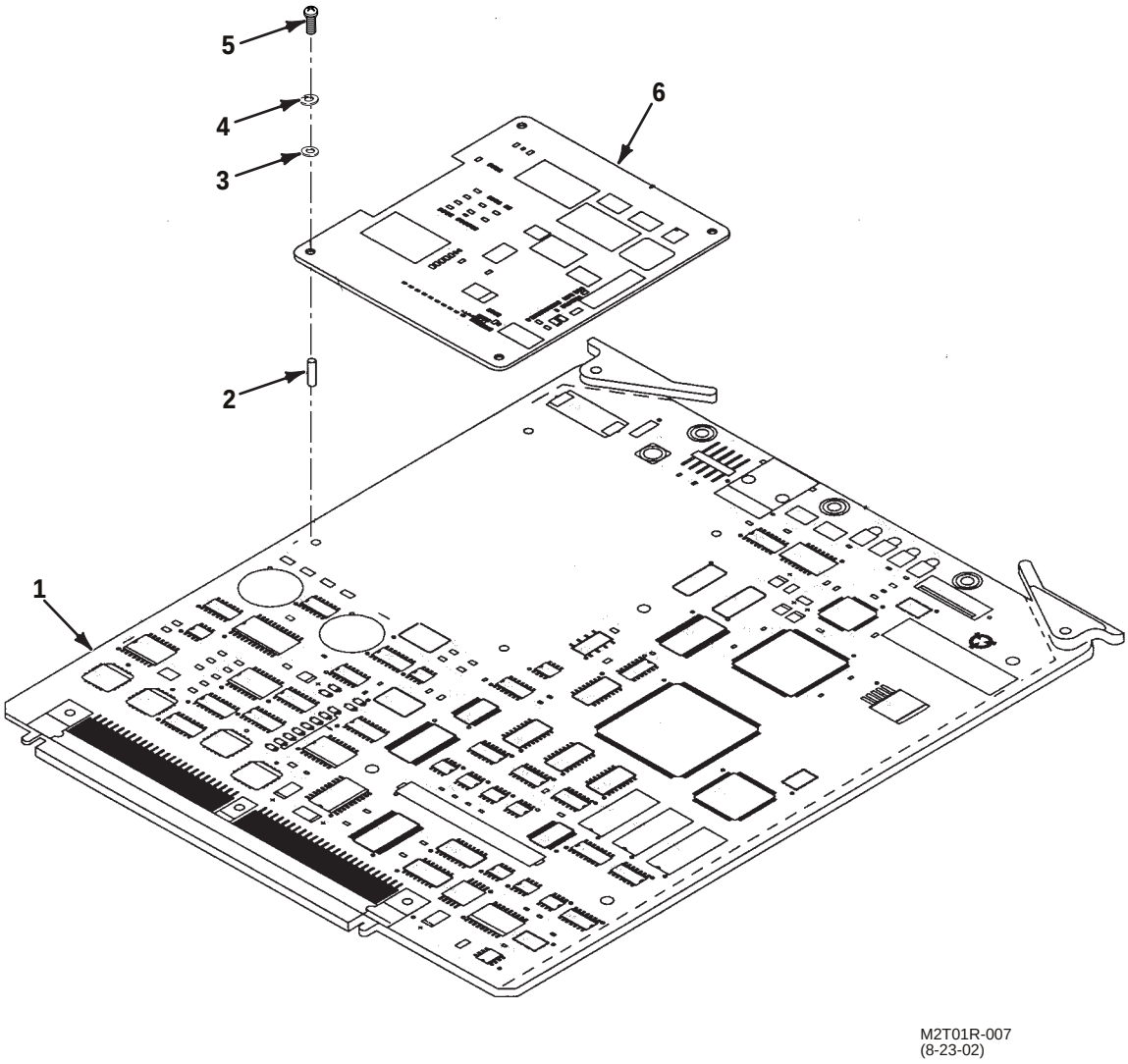

Figure 25C. Group 01C0102 Module Buffer/DSP Assembly 12994134

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01C0102 MODULE BUFFER/DSP ASSEMBLY	
						FIG. 25C MODULE BUFFER/DSP ASSEMBLY 12994134	
*	1	PAODD	5998-01-523-9136	19200	12994023-1	CIRCUIT CARD ASSEMBLY,MODULE BUFFER	1
	2	PAOZZ	5310-01-177-9747	80205	NAS1831C3B04	NUT,PLAIN,HEXAGON	4
	3	PAOZZ	5310-00-616-3648	80205	NAS620-4L	WASHER,FLAT	8
	4	PAOZZ	5310-00-933-8118	80205	MS35338-135	WASHER,LOCK	8
	5	PAOZZ	5305-00-054-5647	96906	MS51957-13	SCREW,MACHINE	8
	6	PAODD	5998-01-505-5110	19200	12994135	CIRCUIT CARD ASSEMBLY,DSP	1
						END OF FIGURE	

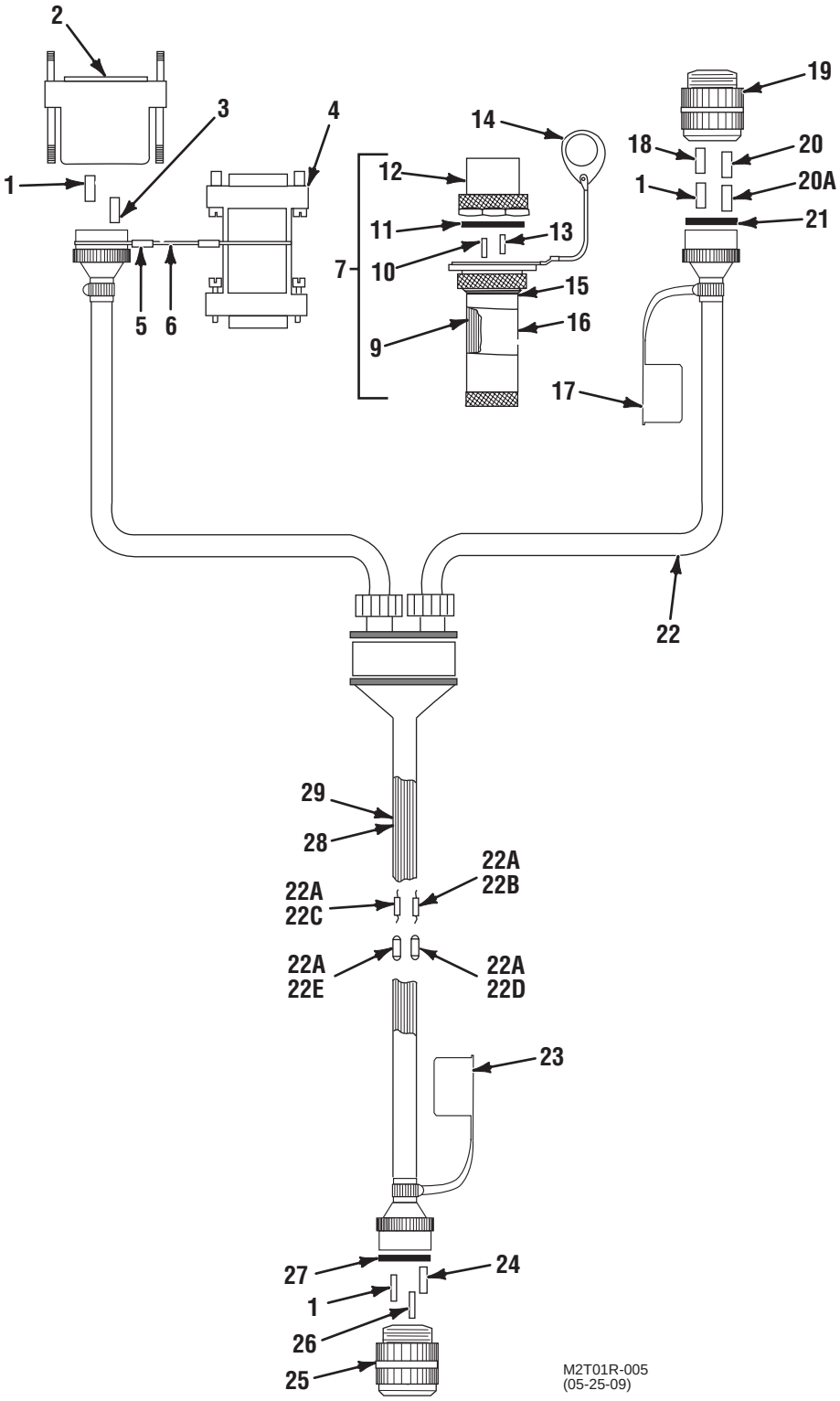

Figure 25D. Group 01C02, 08A14, And 09G10 Power-RS232 Cable And Conduit Assembly (Power-RS232-W330) 12994130-1

GROUP 01C02, 08A14, AND 09G10 POWER-RS232 CABLE AND CONDUIT ASSEMBLY (POWER-RS232-W330) 12994130-1 - CONTINUED

0134 04

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01C02, 08A14, AND 09G10 POWER-RS232 CABLE AND CONDUIT ASSEMBLY (W330)	
						FIG. 25D POWER-RS232 CABLE AND CONDUIT ASSEMBLY (W330) 12994130-1	
	1	PAOZZ	5940-01-135-7085	81343	M83519/2-7	SPLICE,CONDUCTOR	9
	2	PAOOA	5935-01-282-2054	81349	M24308/2-1F	CONNECTOR,RECEPTACL P2	1
*	3	PAOZZ	5999-00-239-3338	81343	M39029/63-368	CONTACT,ELECTRICAL	9
	4	PAOZZ	6625-01-548-7632	19200	12997699	OPTO-ISOLATOR	1
	5	PAOZZ	4030-00-431-5536	26512	GS531B2P	SWAGING SLEEVE,WIRE	2
	6	MDDZZ	4010-00-929-0041	81349	M83420/4-001	ROPE,WIRE, MAKE FROM NSN 4010-00-929-0041	V
	7	PAODD	5905-01-505-2885	19200	12997696	ADAPTER,CONNECTOR	1
*	8					DELETED	
*	9	MDDZZ	6145-01-169-5661	81343	M22759/32-20-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-169-5661	V
*	10	PAOZZ		96906	MS27488-20-2	PLUG,END SEAL,ELECT	8
	11	XDDZZ		81343	AS3209-026	O-RING	1
	12	PAOZZ	5935-01-096-8045	96906	MS27468T13F98P	CONNECTOR,RECEPTACL P1	1
	13	PAOZZ	5999-00-243-6500	81349	M39029/58-363	CONTACT,ELECTRICAL	10
	14	XDOZZ		19200	12990558-0308-12	LANYARD ASSEMBLY	1
	15	XDDZZ		19200	12983308-3	SHORTING CAN	1
*	16	XDOZZ		19200	13014867	LABEL	1
	17	PAOZZ	5340-01-224-6382	19207	12354499-09	CAP,PROTECTIVE,DUST	1
*	18	PAOZZ		96906	MS27488-20-2	PLUG,END SEAL,ELECT	3
	19	PAOZZ	5935-01-072-3884	96906	MS27467T13F98S	CONNECTOR,PLUG,ELEC P3	1
	20	PAOZZ	5999-00-152-9574	81349	M39029/56-351	CONTACT,ELECTRICAL	10
*	20A	PADZZ	5940-01-135-7076	81343	M83519/1-1	SPLICE, CONDUCTOR	4
	21	XDOZZ		81343	AS3209-016	O-RING	1
	22	XADZZ		19200	12994131	CONDUIT ASSEMBLY	1
	22A	MDDZZ	5970-01-327-1155	81343	M23053/5-203-C	INSULATION SLEEVING, MAKE FROM NSN 5970-01-327-1155	5
	22B	XDDZZ		81349	RWR80S4020FS	RESISTOR, FIXED WIRE	1
	22C	XDDZZ		81349	RWR81S2870FS	RESISTOR, FIXED WIRE	1
	22D	XDDZZ		81349	JAN1N4465	SEMICONDUCTOR DEVICE	1
	22E	XDDZZ	5961-01-070-8942	81349	JANTX1N758A-1	SEMICONDUCTOR DEVICE	1
	23	PAOZZ	5340-01-224-6380	19207	12354499-10	CAP,PROTECTIVE,DUST	1
*	24	PAOZZ		96906	MS27488-22-2	PLUG,END SEAL,ELECT	31
	25	PAOZZ	5935-01-094-9922	96906	MS27467T15F35P	CONNECTOR,PLUG,ELEC P1	1
*	26	PAOZZ	5999-00-473-3551	81343	M39029/58-360	CONTACT,ELECTRICAL	37
	27	XDOZZ		81343	AS3209-018	O-RING	1
	28	MDDZZ	6145-01-255-4713	1P787	M27500-22SB1T23	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-255-4713	V
	29	MDDZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE, ELECTRICAL MAKE FROM NSN 6145-01-099-9118	V
						END OF FIGURE	

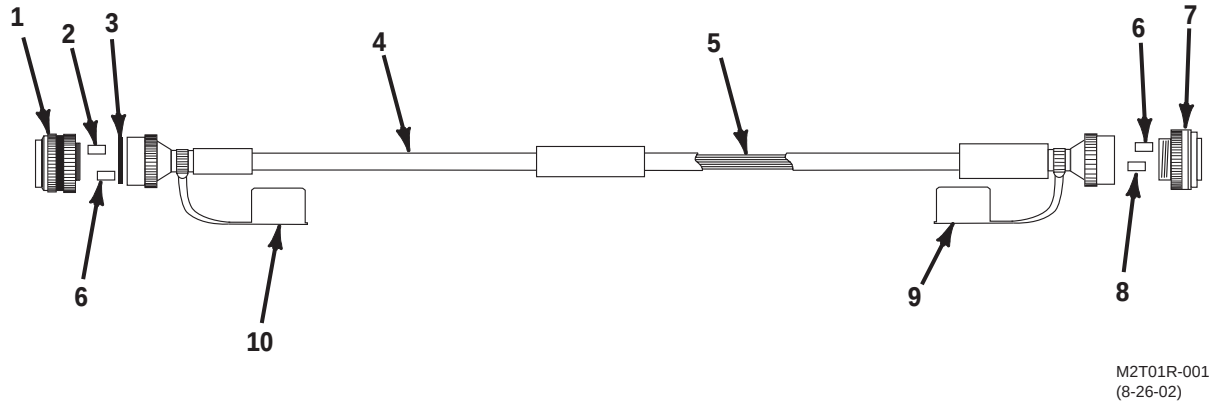

Figure 25E. Group 01C03 Power Cable And Conduit Assembly (Power-W331) 12994136

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01C03 POWER CABLE & CONDUIT ASSEMBLY (W-331)	
						FIG. 25E POWER CABLE AND CONDUIT ASSEMBLY (W331) 12994136	
	1	PAOZZ	5935-01-383-7228	96906	MS27467T15F19S	CONNECTOR,PLUG,ELEC P1	1
	2	PAOZZ	5999-00-152-9574	81349	M39029/56-351	CONTACT,ELECTRICAL	19
*	3	XDOZZ		81343	AS3209-018	O-RING	1
	4	XADZZ		19200	12994137	CONDUIT	1
	5	MDDZZ	6145-01-169-5661	81349	M22759/32-20-9	WIRE,ELECTRICAL	
						MAKE FROM NSN 6145-01-169-5661	V
	6	PAOZZ	5935-00-496-7171	96906	MS27488-20-1	PLUG,END SEAL,ELECT	48
	7	PAOZZ	5935-01-092-3424	96906	MS3475L24-61PW	CONNECTOR,PLUG,ELEC P2	1
	8	PAOZZ	5999-00-146-8592	81349	M39029/4-110	CONTACT,ELECTRICAL	61
	9	PAOZZ	5340-01-224-6384	19207	12354499-17	CAP,PROTECTIVE,DUST	1
	10	PAOZZ	5340-01-224-6380	19207	12354499-10	CAP,PROTECTIVE,DUST	1
						END OF FIGURE	

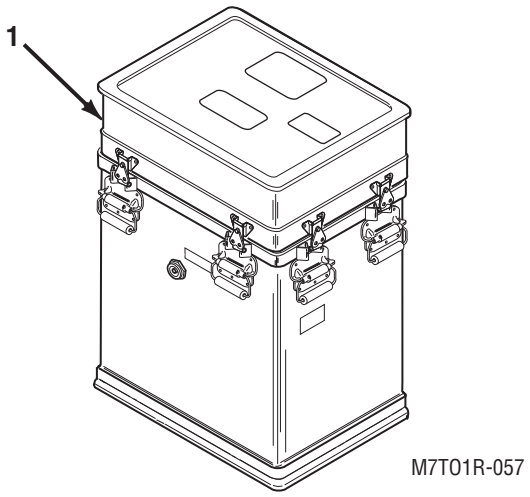

Figure 26. Group 08 DSESTS Common Resource (DCR) 12972149

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08 DSESTS COMMON RESOURCE (DCR)	
						FIG. 26 DSESTS COMMON RESOURC (DCR) 12972149	
	1	PEODD	6625-01-552-9879	19200	12981915	ACCESSORY STOWAGE UNIT DCR NO.1 (WITH DISPLAY) SEE FIG. 27 FOR BREAKDOWN	1
*	1	PEODD		19200	12998198-1	ACCESSORY STOWAGE UNIT DCR NO. 1 (WITHOUT DISPLAY) SEE FIG. 27 FOR BREAKDOWN	1
						END OF FIGURE	

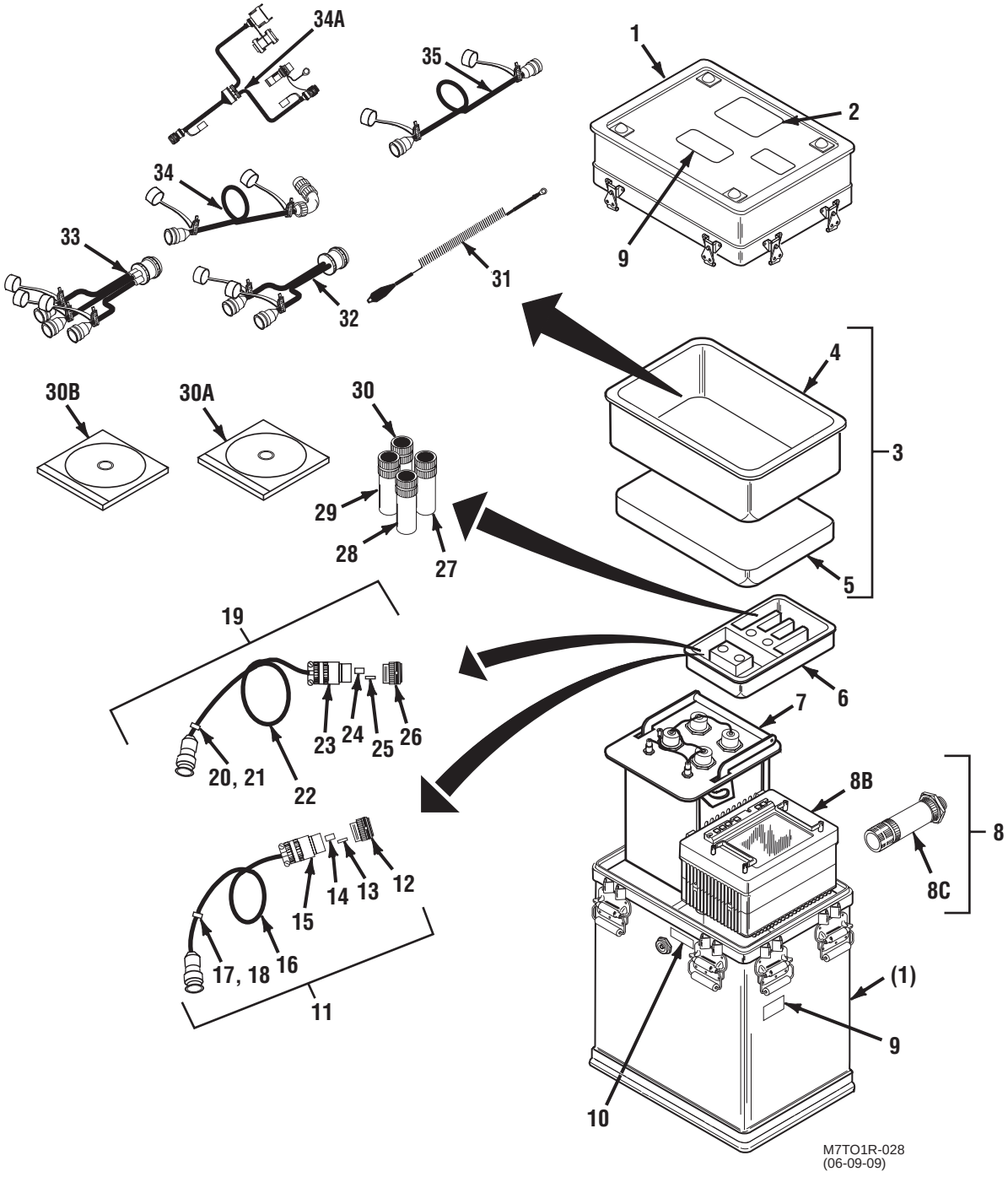

Figure 27. Group 08A DSESTS Common Resource (DCR) Accessory Stowage Unit No. 1 12981915 And 12998198-1

GROUP 08A DSESTS COMMON RESOURCE (DCR) ACCESSORY STOWAGE UNIT NO. 1 12981915 AND 12998198-1 - CONTINUED

0136 00

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A DCR ACCESSORY STOWAGE UNIT NO. 1	
*						FIG. 27 DCR ACCESSORY STOWAGE UNIT NO. 12981915 AND 12998198-1	
	1	PBODD	6150-01-448-8899	19200	12972198	CASE ASSEMBLY,CABLE SEE FIG. 28 FOR BREAKDOWN	1
	2	XDOZZ		19200	12983109	DECAL,CONTENTS (USE WITH P/N 12981915 ONLY)	1
*	2	XDOZZ		19200	12994528	DECAL,CONTENTS (USE WITH P/N 12998198-1)	1
	3	PAODD	8145-01-454-4642	19200	12981769	TRAY,SHIPPING AND S(FGC 08A02)	1
	4	XADZZ		19200	12934302	TRAY	1
	5	PBOZA	8145-01-469-2916	19200	12981770	MOUNTING,PAD	1
	6	PAOZZ	5340-01-455-4103	19200	12981702	PAD,CUSHIONING	1
	7	PBODD	5998-01-421-9782	19200	12971974	COMMON FUNCTION (INTERCHANGEABLE WITH P/N 13014865 AND 12971974-1) SEE FIG. 29 FOR BREAKDOWN	1
*	7	PBODD	5998-01-557-7440	19200	13014865	COMMON FUNCTION (INTERCHANGEABLE WITH P/N 12971974 AND 12971974-1) SEE FIG. 29 FOR BREAKDOWN	1
	7	PBODD		19200	12971974-1	COMMON FUNCTION (INTERCHANGEABLE WITH P/N 12971974 AND 13014865) SEE FIG. 29 FOR BREAKDOWN	1
	8	XCODD		19200	12983104	DISPLAY SUBSYSTEM (USED WITH P/N 12981915 ONLY) FGC 08A04	1
	8A	PAODD	7025-01-451-8466	19200	12983105	DISPLAY SUBSYSTEM COLOR (NOT SHOWN)	1
	8B	PBODD	7025-01-467-0145	19200	12983306	DISPLAY,COLOR (ALTERNATE WITH P/N PR60153)	1
	8C	PBODD	5935-01-451-6760	19200	12981913	VIDEO ADAPTER,COLOR SEE FIG. 33 FOR BREAKDOWN	1
	9	XDOZZ		24290	12323290-4	DECAL (USED WITH P/N 12981915 ONLY)	3
	9	XDOZZ		19200	12994578-6	DECAL (USED WITH P/N 12998198-1 ONLY)	3
*	10	PAOZZ	9905-01-073-9737	19200	12285280	PLATE,IDENTIFICATION (USED WITH P/N 12981915)	1
*	10	PAOZZ		19200	13019004	PLATE,IDENTIFICATION (USED WITH P/N 12998198-1)	1
	11	PAODD	5995-01-382-0937	19200	12951347	CABLE ASSY FST-203	1
	12	PADDA	5935-01-117-8182	81349	D38999/26FA35PN	CONNECTOR,PLUG,ELEC P1	1
	13	PADZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	3
	14	XDDZZ		81349	M83519/2-12	SHIELD TERMINATION	1
	15	XDDZZ		19200	12951348	STRAIN RELIEF	1
	16	XDDZZ		19200	12934375	CABLE	1
	17	MDDZZ	5970-00-767-0515	81343	M23053/5-205-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-767-0515	V
	18	MDDZZ	5970-00-954-1622	81343	M23053/5-105-0	INSULATION SLEEVING MAKE FROM NSN 5970-00-954-1622	V
	19	PAODD	6150-01-380-8966	19200	12934312	CABLE ASSEMBLY,SPEC	1
	20	MDDZZ	5970-00-954-1622	81343	M23053/5-105-0	INSULATION SLEEVING MAKE FROM NSN 5970-00-954-1622	V
	21	MDDZZ	5970-00-767-0515	81343	M23053/5-205-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-767-0515	V
	22	XDDZZ		19200	12934375	CABLE	1
	23	XDDZZ		19200	12951348	STRAIN RELIEF	1
	24	XDDZZ		81349	M83519/2-12	SHIELD TERMINATION	1
	25	PADZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	3
	26	PADDA	5935-01-117-8182	81349	D38999/26FA35PN	CONNECTOR,PLUG,ELEC P1	1
	27	PAODD	5935-01-380-1491	19200	12934303	ADAPTER,CONNECTOR SEE FIG. 34 FOR BREAKDOWN	1
	28	PAODD	5935-01-380-1395	19200	12934407	ADAPTER,CONNECTOR CFM FST-TJ1 SEE FIG. 35 FOR BREAKDOWN	1
	29	PAODD	5935-01-381-3311	19200	12934408	ADAPTER,CONNECTOR CFM FST-TJ2-1 SEE FIG. 36 FOR BREAKDOWN	1
	30	PAODD	5935-01-382-4374	19200	12934409	ADAPTER,CONNECTOR CFM FST-TJ2-2 SEE FIG. 37 FOR BREAKDOWN	1
*	30A	PAOZZ		19200	13018975	CD-ROM (USED WITH P/N 12998198-1)	1
*	30B	PAODD	7030-01-519-5632	19200	13002171	CD-ROM (USED WITH P/N 12998198-1)	1

GROUP 08A DSESTS COMMON RESOURCE (DCR) ACCESSORY STOWAGE UNIT NO. 1 12981915 AND 12998198-1

0136 00

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 08A DCR ACCESSORY STOWAGE UNIT NO. 1	
					FIG. 27 DCR ACCESSORY STOWAGE UNIT NO. 12981915 AND 12998198-1	
31	PAODD	6150-01-382-3204	19200	12596415	CABLE ASSY GROUND W36 SEE FIG. 38 FOR BREAKDOWN	1
32	PAODD	6150-01-383-2680	24290	12934309	CABLE ASSY FST-W200 SEE FIG. 39 FOR BREAKDOWN	1
33	PAODD	6150-01-382-6800	19200	12934310	CABLE ASSY FST-W201 SEE FIG. 40 FOR BREAKDOWN	1
34	PAODD	6150-01-382-4365	19200	12934360	CABLE ASSY, W228 (USED WITH P/N 12981915 ONLY) SEE FIG. 41 FOR BREAKDOWN	1
34A	PAODD	6150-01-555-8442	19200	12994130-1	CABLE AND CONDUIT ASSY, POWER - RS232 W330 (USED WITH P/N 12998198-1) SEE FIG. 25DFOR BREAKDOWN	1
35	PAODD	6150-01-449-1508	19200	12967266	CABLE ASSEMBLY, W385 SEE FIG. 42 FOR BREAKDOWN	1
					END OF FIGURE	

GROUP 08A01 DSESTS COMMON RESOURCE (DCR) ACCESSORY STOWAGE UNIT NO. 1 CASE ASSEMBLY 12972198 0137 00

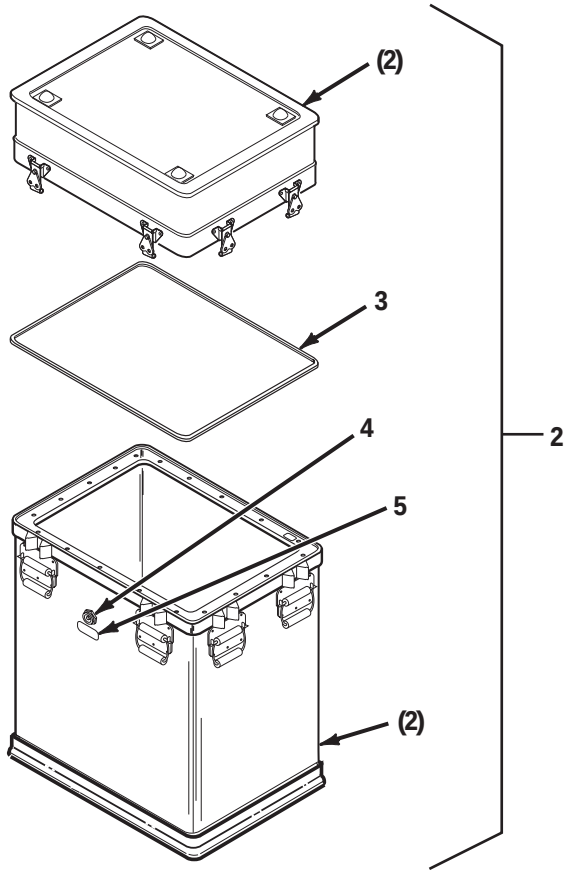

Figure 28. Group 08A01 DSESTS Common Resource (DCR) Accessory Stowage Unit No. 1 Case Assembly 12972198

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A01 DCR ACCESSORY STOWAGE UNIT NO. 1 CASE ASSEMBLY	
						FIG. 28 DCR ACCESSORY STOWAGE UNIT NO. 1 CASE ASSEMBLY 12972198	
	1	XADDD		24290	226/01-0373	CABLE CASE (NOT SHOWN)	1
	2	XADDD		19207	12280204	CABLE CASE (INTERCHANGEABLE WITH P/N 12323318)	1
	2	XADDD		19207	12323318	CABLE CASE (INTERCHANGEABLE WITH P/N 12280204)	1
	3	MDDZZ	5330-01-217-2024	74284	SKM2000	GASKET MAKE FROM NSN 5330-01-217-2024 (USED WITH 12280204 ONLY)	V
	3	MDDZZ	5330-01-254-5201	53031	XTC20R07	SEAL,PLAIN MAKE FROM (USED WITH 12323318 ONLY) ..	V
	4	XDDZZ		19207	12312039	VALVE,PRESSURE EQUA	1
*	5	XDDZZ	7690-01-146-6473	24290	12312040	DECAL	1
						END OF FIGURE	

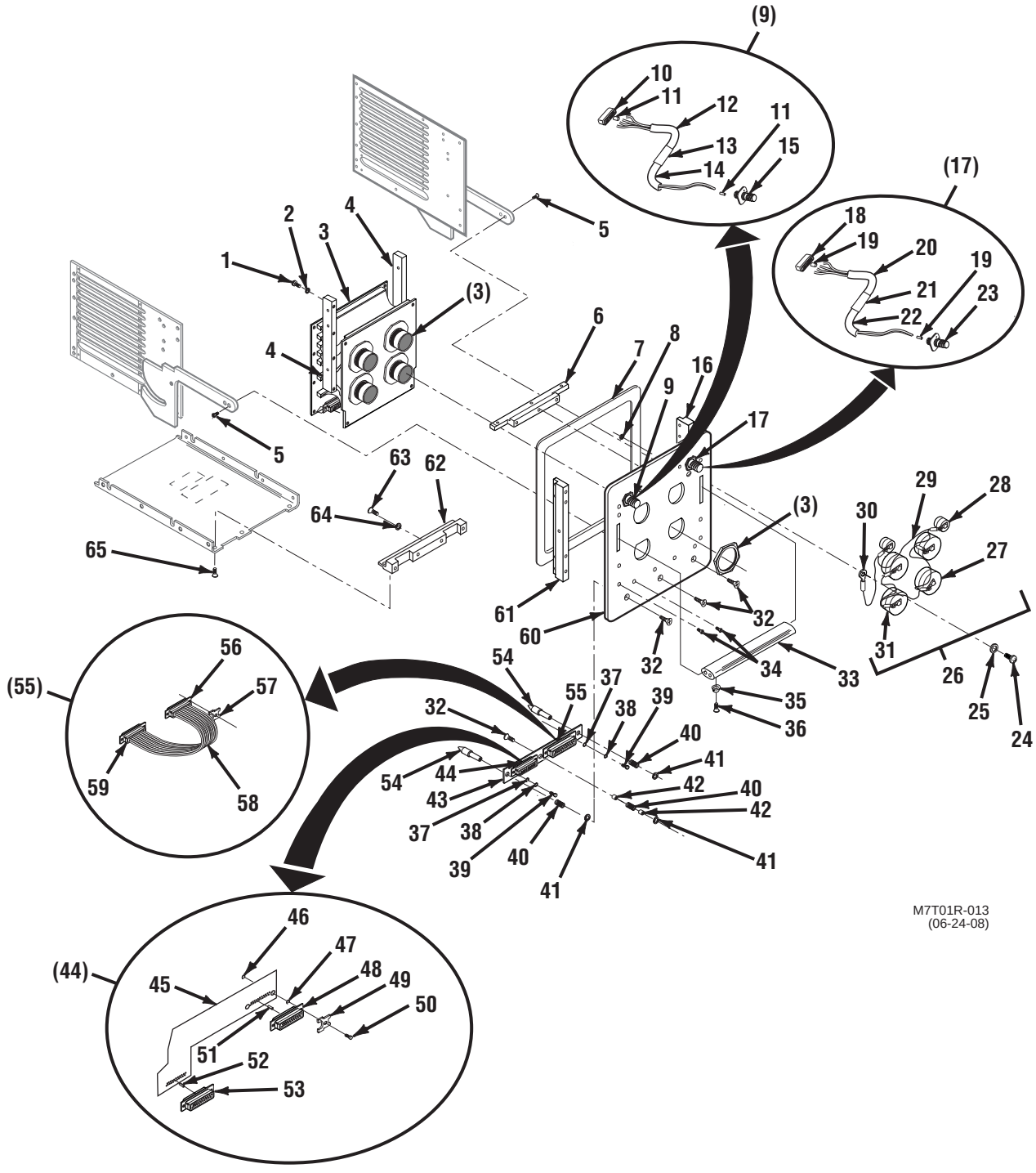

Figure 29. Group 08A03 Common Functions Module (CFM) 12971974, 12971974-1 And 13014865 (Sheet 1 of 2)

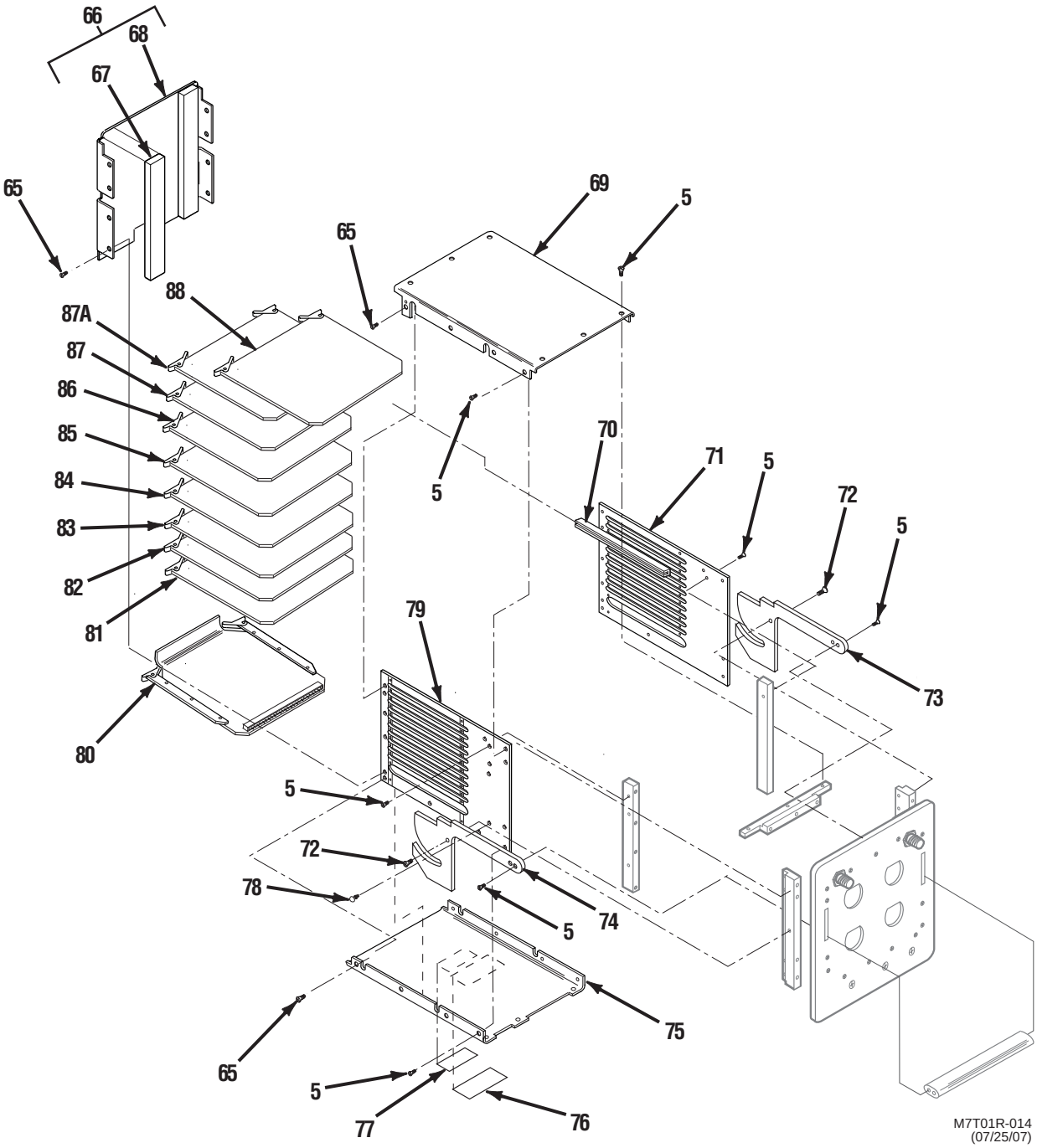

Figure 29. Group 08A03 Common Functions Module (CFM) 12971974, 12971974-1 And 13014865 (Sheet 2 of 2)

GROUP 08A03 COMMON FUNCTIONS MODULE (CFM) 12971974, 12971974-1 AND 13014865 - CONTINUED

0138 00

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A03 COMMON FUNCTIONS MODULE (CFM)	
						FIG. 29 COMMON FUNCTIONS MODULE (CFM) 12971974, 12971974-1 AND 13014865	
	1	PAOZZ	5305-00-054-5648	96906	MS51957-14	SCREW,MACHINE	8
	2	PAOZZ	5310-01-037-1236	19200	9358439	WASHER,FLAT	8
	3	PAODD	5998-01-376-3308	19200	12934020	CFM INTERFACE ASSY FGC 08A0309 (USED WITH CFM 12971974)	1
	3	PAODD	5998-01-546-5206	19200	13006096	CFM INTERFACE ASSY FGC 08A0309 (IUSED WITH CFM 12971974-1 AND 13014865)	1
	4	XDOZZ		19200	12934318	BAR,BACKPLANE	2
	5	PAOZZ	5305-00-763-6963	96906	MS51959-28	SCREW,MACHINE	17
	6	XDOZZ		19200	12934325	BAR,PANEL	1
	7	PAOZA	5999-01-385-7842	19200	12934320	SHIELDING GASKET,EL	1
	8	PAOZZ	5310-00-208-9255	80205	MS21044C3	NUT,SELF-LOCKING,HE	1
	9	PAODD	6150-01-382-4360	19200	12934108	CABLE HARNESS ASSY 1553-COMM	1
	10	XDDZZ		81349	M55302/62LA14H	CONNECTOR, P2	1
	11	PADZZ	5940-01-135-7086	81343	M83519/2-8	SPLICE,CONDUCTOR	4
*	12	MDDZZ	5970-00-916-2679	81343	M23053/5-202-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-916-2679	V
*	13	MDDZZ	5970-00-954-1624	81343	M23053/5-107-0	INSULATION SLEEVING MAKE FROM NSN 5970-00-954-1624	V
	14	MDDZZ	6145-01-194-8544	81349	M27500-24SB2T23	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-194-8544	V
	15	XDDZA	5935-01-426-3200	81349	D38999/24FA35SN	CONNECTOR,RECEPTACL J1	1
	16	XDOZZ		19207	12360017-2	BAR,HANDLE	1
	17	PAODD	6150-01-384-5745	19200	12934109	CABLE HARNESS ASSY RS485	1
	18	XDDZZ		81349	M55302/62LA10H	CONNECTOR, P2	1
	19	PADZZ	5940-01-135-7086	81343	M83519/2-8	SPLICE,CONDUCTOR	4
*	20	MDDZZ	5970-00-916-2679	81343	M23053/5-202-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-916-2679	V
*	21	MDDZZ	5970-00-954-1624	81343	M23053/5-107-0	INSULATION SLEEVING MAKE FROM NSN 5970-00-954-1624	V
	22	MDDZZ	6145-01-194-8544	81349	M27500-24SB2T23	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-194-8544	V
	23	XDDZZ		81349	D38999/24FA35SA	CONNECTOR, J2	1
	24	PAOZZ	5305-00-059-3659	80205	MS51958-63	SCREW,MACHINE	1
	25	PAOZZ	5970-01-119-5707	19207	12301865	INSULATOR,WASHER	1
	26	PAODD	5935-01-384-2564	19200	12934335	COVER,SOCKET PLUG-I	1
	27	XDDZZ		19200	12934334-1	COVER	4
	28	XDDZZ		19200	12934410-1	COVER	2
	29	MDDZZ		81349	MIL-W-83420	WIRE ROPE MAKE FROM P/N MIL-W-83420	V
	30	XDDZZ		19207	12354581	TERMINAL,WIRE ROPE	1
	31	PAOZZ	4030-00-431-5536	26512	GS531B2P	SWAGING SLEEVE,WIRE	6
	32	PAOZZ	5305-00-059-5433	96906	MS51960-62	SCREW,MACHINE	4
	33	PAOZZ	5340-01-242-2552	19207	12360135	HANDLE,BOW	1
*	34	PAOZZ	5305-00-770-2533	80205	MS51959-13	SCREW,MACHINE	15
*	35	PCOZZ	5340-01-059-7950	1TGB8	1321BW	BUMPER,NONMETALLIC	2
	36	PAOZZ	5305-00-054-6650	96906	MS51957-26	SCREW,MACHINE	2
	37	PAOZZ	5310-00-043-4708	80205	NAS620C2	WASHER,FLAT	4
*	38	PAOZZ	5310-00-928-2690	80205	MS35338-134	WASHER,LOCK	4
	39	PAOZZ	5305-00-054-5637	96906	MS51957-3	SCREW,MACHINE	4
	40	PAOZZ	5360-01-369-1402	19200	12596808	SPRING,HELICAL,COMP	3
	41	PAOZZ	5310-00-461-4825	10001	1170229-2	WASHER,FLAT	3
	42	PAOZZ	5310-01-352-4235	19200	12596807	NUT,SLEEVE	2
	43	XDOZZ		19200	12596806	PLATE,CONNECTOR	1

GROUP 08A03 COMMON FUNCTIONS MODULE (CFM) 12971974, 12971974-1 AND 13014865 - CONTINUED

0138 00

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A03 COMMON FUNCTIONS MODULE (CFM)	
						FIG. 29 COMMON FUNCTIONS MODULE (CFM) 12971974, 12971974-1 AND 13014865	
	44	PAODD	6150-01-485-8708	19200	12990037	CABLE ASSEMBLY,PRIN	1
	45	XDDZZ		19200	12990038	FLEXIBLE CIRCUIT	1
	46	XDDZZ	5310-00-208-3786	80205	NAS671C4	NUT,PLAIN,HEXAGON	2
	47	XDDZZ	5365-00-826-9762	19200	12951330	SPACER,SLEEVE	2
	48	PADZA	5935-01-298-6501	81349	M24308/2-290F	CONNECTOR,RECEPTACL	1
	49	XDDZZ		19207	12301886-4	LATCH ASSEMBLY	2
	50	XDDZZ	5305-00-054-5654	96906	MS51957-20	SCREW,MACHINE	2
	51	XDDZZ		19200	9358485-1	CONTACT,ELECTRICAL	78
	52	XDDZZ		19200	9358485-2	CONNECTOR PIN	78
	53	XDDZZ		19207	12360039	CONNECTOR ASSEMBLY	1
	54	PAOZZ	5935-01-350-9533	19200	12596805	GUIDE,ELECTRICAL CO	2
	55	PAODD	6150-01-382-8039	19200	12934332	CABLE ASSEMBLY,POWE	1
	56	XDDZZ	5935-00-410-9250	81349	M24308/2-3	CONNECTOR,RECEPTACL	1
	57	XDDZZ	5340-01-118-8672	19207	12301886-2	PLATE,MOUNTING	2
	58	MDDZZ	6145-01-169-5661	81349	M22759/32-20-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-169-5661	V
	59	XDDZZ		19207	12360036	CONNECTOR ASSEMBLY	1
	60	XDOZZ		19200	12934308	PANEL	1
	61	XDOZZ		19207	12360017-1	BAR,HANDLE	1
	62	XDOZZ		19200	12934328	BAR,LOWER,PANEL	1
*	63	PAOZZ	5305-00-054-5651	96906	MS51957-17	SCREW,MACHINE	3
	64	PAOZZ	5310-00-933-8118	80205	MS35338-135	WASHER,LOCK	3
*	65	PAOZZ	5305-00-763-6961	80205	MS51959-26	SCREW,MACHINE	25
	66	XDOOO		19207	12971988	COVER ASSY (FGC 08A0311)	1
	67	PCOZZ	5340-01-495-3036	19200	12998215	PAD,MOLDED	2
	68	XDOZZ		19207	12971983	COVER	1
	69	XDOZZ		19200	12934323	COVER,TOP	1
	70	PAOZZ	5998-01-108-8728	19207	12301887-1	RETAINER-EJECTOR,EL (QTY OF 14 USED ON 13014865)	22
	71	XDOZZ		19200	12934324-2	PLATE,SIDE	1
	72	PAOZZ	5305-01-383-4182	19200	12934329	SCREW,SHOULDER	2
	73	PAOZZ	5340-01-240-7144	19207	12360134-1	LATCH,RIM	1
	74	PAOZZ	5340-01-241-5040	19207	12360134-2	LATCH,RIM	1
	75	XDOZZ		19200	12934322	COVER,BOTTOM	1
	76	PAOZZ	9905-01-073-9737	19200	12285280	PLATE,IDENTIFICATION	1
*	76	PAOZZ		19200	13019004	PLATE,IDENTIFICATION (USED WITH CFM 13014865 ONLY)	1
	77	PBOZZ	9905-01-146-6461	19207	12309106	PLATE,IDENTIFICATION	1
	78	PAOZZ	5340-01-257-6368	19207	12360022	BUMPER,NONMETALLIC	2
	79	XDOZZ		19200	12934324-1	PLATE, SIDE	1
	80	PAODD	5998-01-422-3071	19200	12971980	LOAD PLATE ASSEMBLY (FGC 08A0310) (INTERCHANGEABLE WITH P/N 13011533)	1
	80	PAODD	5998-01-555-0359	19200	13011533	LOAD PLATE ASSEMBLY (FGC 08A0310) (INTERCHANGEABLE WITH P/N 12971980)	1
	81	PAODD	5998-01-422-3075	19200	12971975	BUFFER/COMM ASSY A1 (INTERCHANGEABLE WITH P/N 13014869) SEE FIG. 30 FOR BREAKDOWN	1
	81	PAODD	5998-01-558-3563	19200	13014869	BUFFER/COMM ASSY A1 (INTERCHANGEABLE WITH P/N 12971975) SEE FIG. 31 FOR BREAKDOWN	1
	82	PAODD	5998-01-376-5532	19200	12934006	CIRCUIT CARD ASSEMBLY A2 (FGC 08A0308) (INTERCHANGEABLE WITH P/N 13011539)	1
	82	PAODD	5998-01-555-8471	19200	13011539	CIRCUIT CARD ASSEMBLY A2 (FGC 08A0308) (INTERCHANGEABLE WITH P/N 12934006)	1
	83	PAODD	5998-01-487-2113	19200	12933998-1	CIRCUIT CARD ASSY A3 (FGC 08A0307) (INTERCHANGEABLE WITH P/N 12933998 AND 13014831)	1
	83	PAODD	5998-01-555-8472	19200	13014831	CIRCUIT CARD ASSY A3 (FGC 08A0307) (INTERCHANGEABLE WITH P/N 12933998 AND 12933998-1)	1
	84	PAODD	5998-01-376-0464	19200	12933982	CIRCUIT CARD ASSEMBLY A4 (FGC 08A0303) (INTERCHANGEABLE WITH P/N 13011952)	1

GROUP 08A03 COMMON FUNCTIONS MODULE (CFM) 12971974, 12971974-1 AND 13014865 - CONTINUED

0138 00

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 08A03 COMMON FUNCTIONS MODULE (CFM)	
					FIG. 29 COMMON FUNCTIONS MODULE (CFM) 12971974, 12971974-1 AND 13014865	
85	PAODD	5998-01-375-8870	19200	12933986	CIRCUIT CARD ASSEMBLY A6 (FGC 08A0304) (INTERCHANGEABLE WITH P/N 13011952)	1
85	PAODD	5998-01-555-8457	19200	13011952	CIRCUIT CARD ASSEMBLY A4 AND A6 (INTERCHANGEABLE WITH P/N 12933982 AND 12933986)	2
86	PAODD	5998-01-376-3337	19200	12933978	CIRCUIT CARD ASSEMBLY A7 (FGC 08A0302) USED WITH CFM 12971974 AND 12971974-1. NOT USED IN CFM 12971974-1 WHEN A9 CCA 13014870-1 IS USED	1
87	PAODD	5998-01-380-1450	19200	12933990	CIRCUIT CARD ASSEMBLY A8 (FGC 08A0305) USED WITH CFM 12971974 AND 12971974-1. NOT USED IN CFM 12971974-1 WHEN A9 CCA 13014870-1 IS USED	1
87A	PAODD	5998-01-563-9814	19200	13014870-1	CIRCUIT CARD ASSEMBLY A9 (FGC 08A0311) USED WITH CFM 13014865 AND 12971974-1. NOT USED IN CFM 12971974-1 IF A7 CCA 12933978, A8 CCA 12933990, AND A10 CCA 12933994-1 ARE USED	1
88	PAODD	5998-01-487-2111	19200	12933994-1	CIRCUIT CARD ASSEMBLY A10 (FGC 08A0306) USED WITH CFM 12971974 AND 12971974-1. NOT USED IN CFM 12971974-1 WHEN A9 CCA 13014870-1 IS USED	1
					END OF FIGURE	

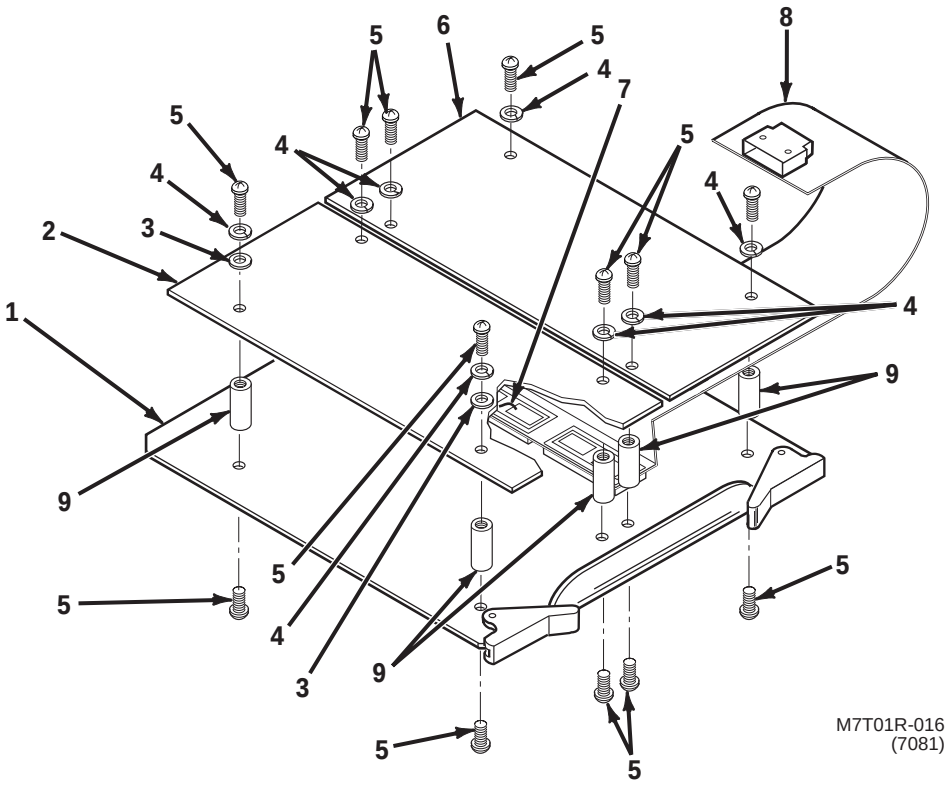

Figure 30. Group 08A0301 Common Functions Module (CFM) Buffer Communications Assembly 12971975

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A0301 CFM BUFFER COMMUNICATIONS ASSEMBLY	
						FIG. 30 CFM BUFFER COMMUNICATIONS ASSEMBLY 12971975	
	1	PAODD	5998-01-421-9780	19200	12933974-1	CIRCUIT CARD ASSEMB (FGC 08A030101)	1
	2	PAODD	5998-01-493-1670	19200	12990007-1	CIRCUIT CARD ASSEMB (FGC 08A030102)	1
	3	PAOZZ	5310-01-037-1236	19200	9358439	WASHER,FLAT	2
*	4	PAOZZ	5310-00-933-8118	80205	MS35338-135	WASHER,LOCK	16
	5	PAOZZ	5305-00-054-5648	96906	MS51957-14	SCREW,MACHINE	16
	6	PAODD	5998-01-421-9785	19200	12933966-1	CIRCUIT CARD ASSEMB (FGC 08A030103)	1
*	7	PAOZZ	5975-00-727-5153	81343	MS3367-4-9	STRAP,TIEDOWN,ELECT	2
	8	PAOZZ	6150-01-423-6318	19200	12971990	CABLE ASSEMBLY,FLEX	1
	9	PAOZZ	5340-01-166-2685	19200	12934074-5	STANDOFF,THREADED,S	8
						END OF FIGURE	

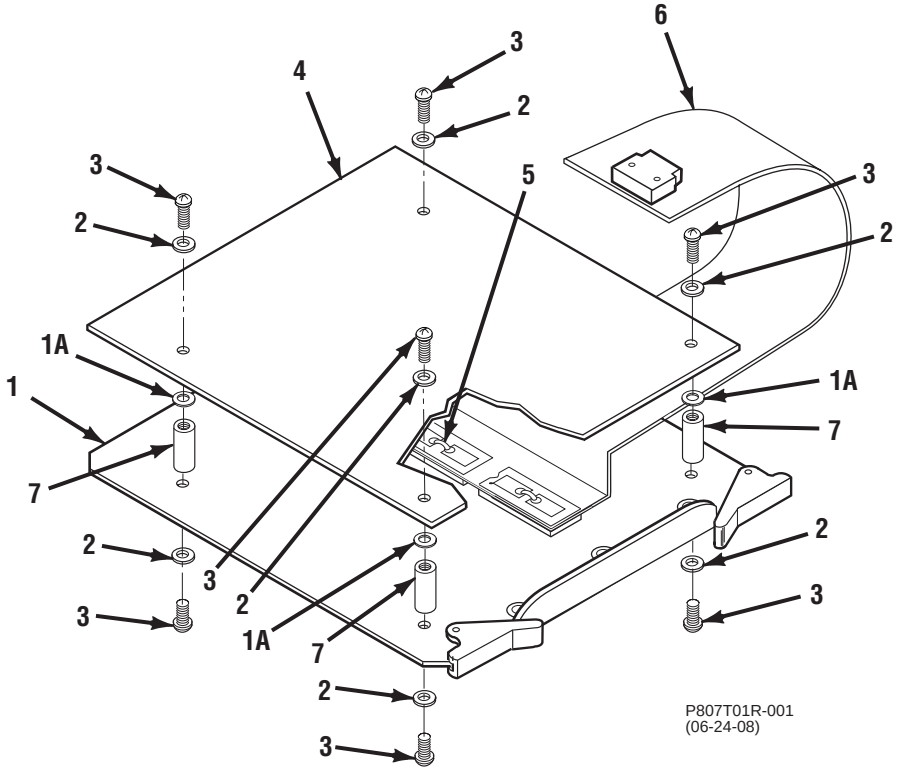

Figure 31. Group 08A0301 Common Functions Module (CFM) Buffer Communications Assembly 13014869

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A0301 CFM BUFFER COMMUNICATIONS ASSEMBLY	
						FIG. 31 CFM BUFFER COMMUNICATIONS ASSEMBLY 13014869	
	1	PAODD	5998-01-555-8450	19200	13011507	CIRCUIT CARD ASSEMB (FGC 08A030101)	1
	1A	PAOZZ	5310-00-716-5612	96906	MS51859-2	WASHER,NYLON	4
*	2	PAOZZ	5310-00-595-6211	79807	G302439-5	WASHER,FLAT	8
	3	PAOZZ	5305-00-054-5648	96906	MS51957-14	SCREW,MACHINE	8
	4	PAODD	5998-01-555-9361	19200	13011506	CIRCUIT CARD ASSEMB (FGC 08A030102)	1
	5	PAOZZ	5975-00-727-5153	81343	MS3367-4-9	STRAP,TIEDOWN,ELECT	2
	6	PAOZZ	6150-01-423-6318	19200	12971990	CABLE ASSEMBLY,FLEX	1
*	7	PAOZZ	5340-01-567-6579	19200	12934074-11	STANDOFF,THREADED,S	4
						END OF FIGURE	

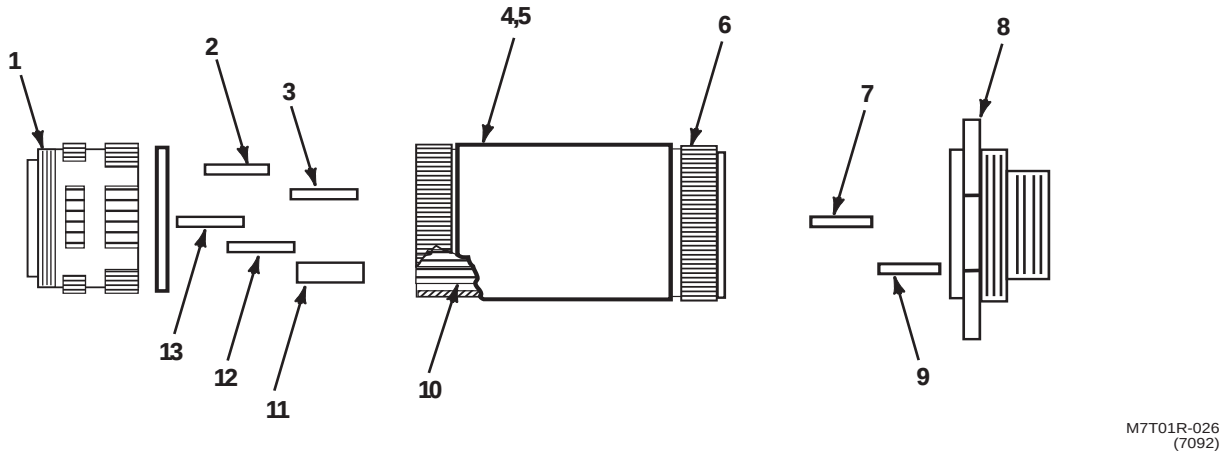

Figure 33. Group 08A040102 CFPD Video Adapter 12981913

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A040102 CFPD VIDEO ADAPTER	
						FIG. 33 CFPD VIDEO ADAPTER 12981913	
	1	PAOOA	5935-01-254-0903	81349	D38999/26WJ4SN	CONNECTOR,PLUG,ELEC P2	1
	2	PAOZZ	5999-01-034-0716	81349	M39029/56-352	CONTACT,ELECTRICAL	8
	3	PAOZZ	5999-00-152-9574	81349	M39029/56-351	CONTACT,ELECTRICAL	48
	4	XDOZZ		19200	12981914	LABEL	1
	5	MDDZZ	5970-00-089-1454	81349	M23053/5-212-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-089-1454	V
	6	XDDZZ		19200	12934383-2722	ADAPTER,SPLIT SHELL	1
*	7	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	13
	8	PAOOA	5935-01-147-5743	81349	D38999/24WD35PN	CONNECTOR,RECEPTACLE P1	1
	9	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	37
*	10	MDDZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE,ELECTRICAL MAKE FRON NSN 6145-01-099-9118	V
	11	PAOZZ	5940-01-135-7085	81343	M83519/2-7	SPLICE,CONDUCTOR	1
	12	PAOZZ	5935-00-235-8970	96906	MS27488-16-1	PLUG,END SEAL,ELECT	8
	13	PAOZZ	5935-00-496-7171	96906	MS27488-20-1	PLUG,END SEAL,ELECT	26
						END OF FIGURE	

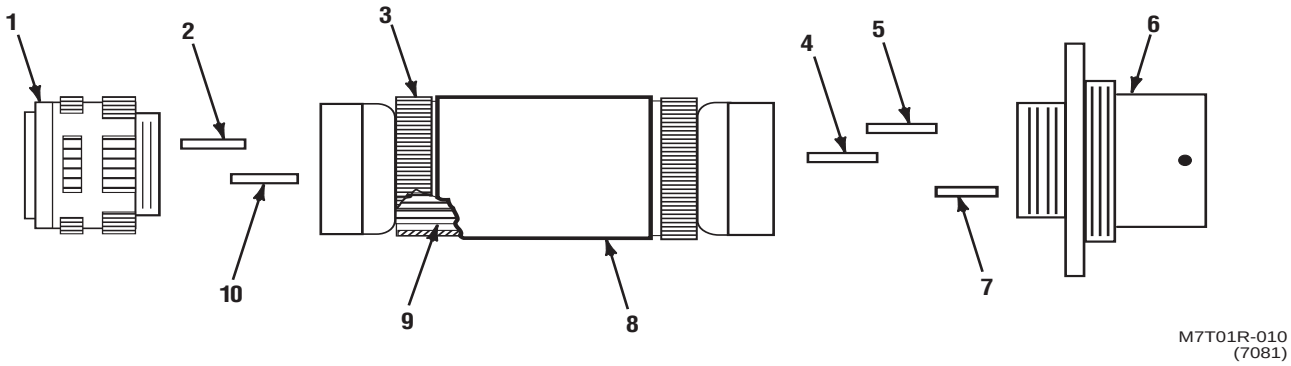

Figure 34. Group 08A05 Color Display Functional Self Test Adapter Assembly 12934303

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A05 COLOR DISPLAY FST ADAPTER ASSEMBLY	
						FIG. 34 COLOR DISPLAY FST ADAPTER ASSEMBLY 12934303	
	1	PAOOA	5935-01-149-9363	81349	D38999/26FE35SN	CONNECTOR,PLUG,ELEC P2	1
*	2	PAOZZ	5999-00-320-7459	81343	AS39029/56-348	CONTACT,ELECTRICAL	55
	3	XDOZZ		19200	12934383-2314	ADAPTER	1
	4	PAOZZ	5935-01-097-0399	96906	MS27488-12-1	PLUG,END SEAL,ELECT	4
	5	XDOZZ		19200	12596136-3	REDUCTION SLEEVE	2
	6	PAOZZ	5935-01-067-2961	96906	MS27468T17F6P	CONNECTOR,RECEPTACL	1
*	7	PAOZZ	5999-00-473-3551	81343	M39029/58-360	CONTACT,ELECTRICAL	6
	8	XDOZZ		19200	12934301-4	LABEL,ADAPTER	2
	9	MOOZZ	6145-01-115-2036	81349	M27500-22SB2U00	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-115-2036	V
	10	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	53
						END OF FIGURE	

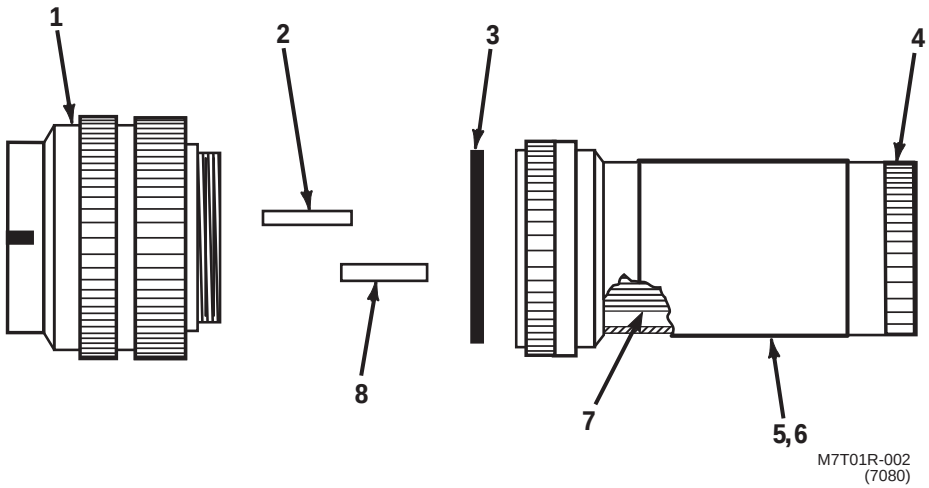

Figure 35. Group 08A06 Common Functions Module Functional Self Test Adapter Assembly (CFM-FST TJ1) 12934407

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A06 CFM FST ADAPTER ASSEMBLY (CFM-FST TJ1)	
						FIG. 35 CFM FST ADAPTER ASSEMBLY (CFM-FST TJ1) 12934407	
	1	PAOOA	5935-01-229-8678	81349	D38999/46FJ35PN	CONNECTOR,PLUG,ELEC P1	1
	2	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	128
*	3	XDOZZ		81343	AS3209-028	O-RING	1
	4	XDDZZ		19200	12934344-9	SHORTING CAN	1
*	5	XDDZZ		24290	6004335-1	LABEL (INTERCHANGEABLE WITN P/N M23053/5-111-0)	1
	5	MDDZZ	5970-00-812-1356	81349	M23053/5-111-0	INSULATION SLEEVING (INTERCHANGEABLE WITH P/N 6004335-1) MAKE FROM NSN 5970-00-812-1356	V
	6	MDDZZ	5970-00-717-1474	81343	M23053/5-211-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-717-1474	V
*	7	MOOZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-099-9118	V
*	8	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	58
						END OF FIGURE	

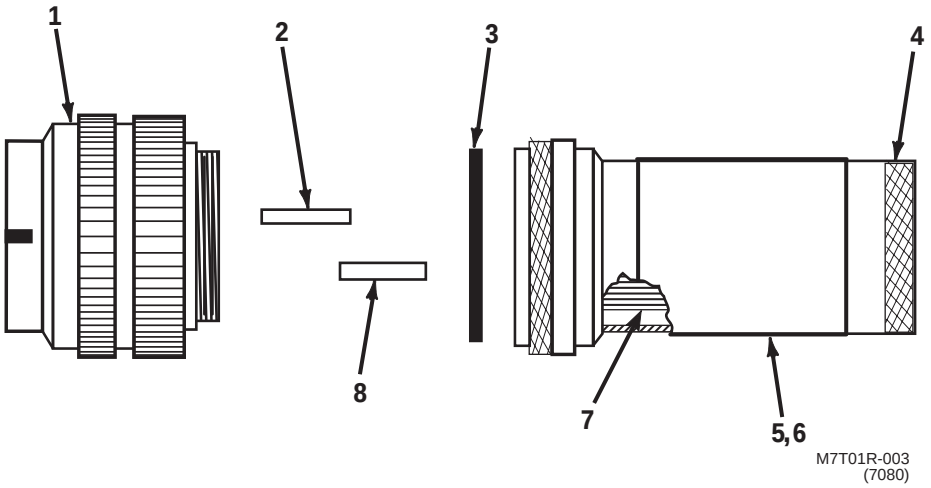

Figure 36. Group 08A07 Common Functions Module Functional Self Test Adapter Assembly (CFM-FST TJ2-1) 12934408

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A07 CFM FST ADAPTER ASSEMBLY (CFM-FST TJ2-1)	
						FIG. 36 CFM FST ADAPTER ASSEMBLY (CFM-FST TJ2-1) 12934408	
	1	PAOOA	5935-01-250-5882	81349	D38999/46FJ35PA	CONNECTOR,PLUG,ELEC P1	1
	2	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	128
*	3	XDOZZ		81343	AS3209-028	O-RING	1
	4	XDDZZ		19200	12934344-9	SHORTING CAN	1
	5	MDDZZ	5970-00-812-1356	81349	M23053/5-111-0	INSULATION SLEEVING MAKE FROM NSN 5970-00-812-1356 ..	V
	6	MDDZZ	5970-00-717-1474	81343	M23053/5-211-C	INSULATION SLEEVING MAKE FORM NSN 5970-00-717-1474 ..	V
*	7	MOOZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-099-9118	V
*	8	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	66
						END OF FIGURE	

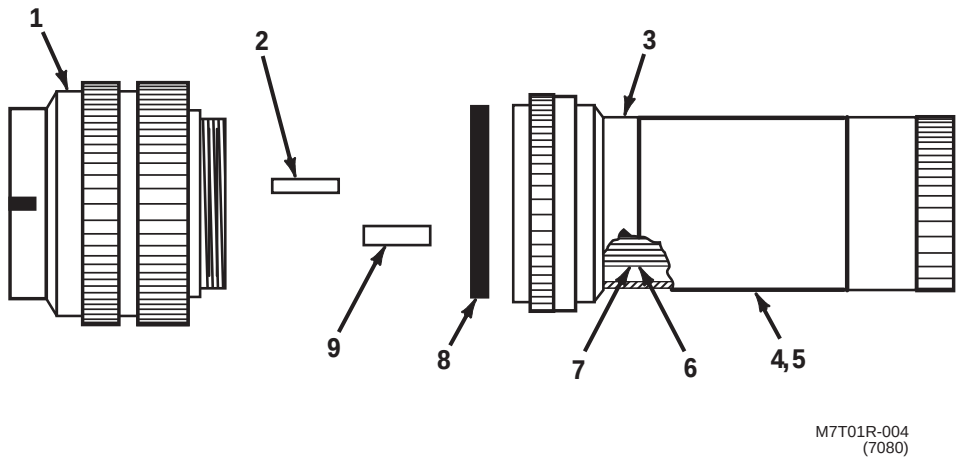

Figure 37. Group 08A08 Common Functions Module Functional Self Test Adapter Assembly (CFM-FST TJ2-2) 12934409

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A08 CFM FST ADAPTER ASSEMBLY (CFM-FST TJ2-2)	
						FIG. 37 CFM MFM FST CABLE ASSEMBLY (CFM-FST TJ2-2) 12934409	
	1	PAOOA	5935-01-250-5882	81349	D38999/46FJ35PA	CONNECTOR,PLUG,ELEC P1	1
	2	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	128
	3	XDOZZ		19200	12934344-9	SHORTING CAN	1
	4	MOOZZ	5970-00-812-1356	81349	M23053/5-111-0	INSULATION SLEEVING MAKE FROM NSN 5970-00-812-1356	V
	5	MDDZZ	5970-00-717-1474	81343	M23053/5-211-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-717-1474	V
*	6	MOOZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-099-9118	V
	7	MOOZZ	6145-01-162-6049	81349	M22759/32-26-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-162-6049	V
*	8	XDOZZ		81343	AS3209-028	O-RING	1
*	9	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	51
						END OF FIGURE	

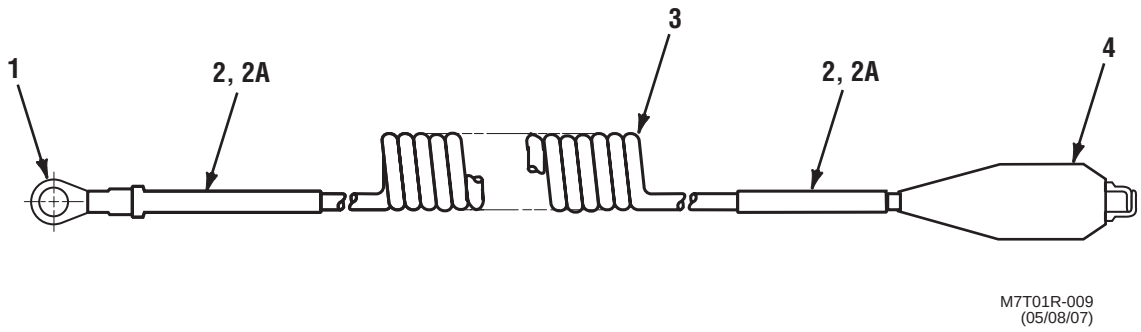

Figure 38. Group 01C11 And 08A09 Ground Cable Assembly (W36) 12596415

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 01C11 AND 08A09 GROUND CABLE ASSEMBLY (W36)	
						FIG. 38 GROUND CABLE ASSEMBLY (W36) 12596415	
	1	PAOZA	5940-00-349-9282	81349	M7928/1-52	TERMINAL,LUG	1
	2	MOOZZ	5970-00-954-1624	81349	M23053/5-107-0	INSULATION SLEEVING MAKE FROM 5970-00-954-1624	V
*	2A	MDDZZ	5970-00-727-6728	81349	M23053/5-207-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-727-6728 ..	V
	3	XDOZZ		19200	12596414	CORD,RETRACTILE	1
	4	PAOZZ	5999-01-127-5022	19207	12280174	CLIP,ELECTRICAL	1
						END OF FIGURE	

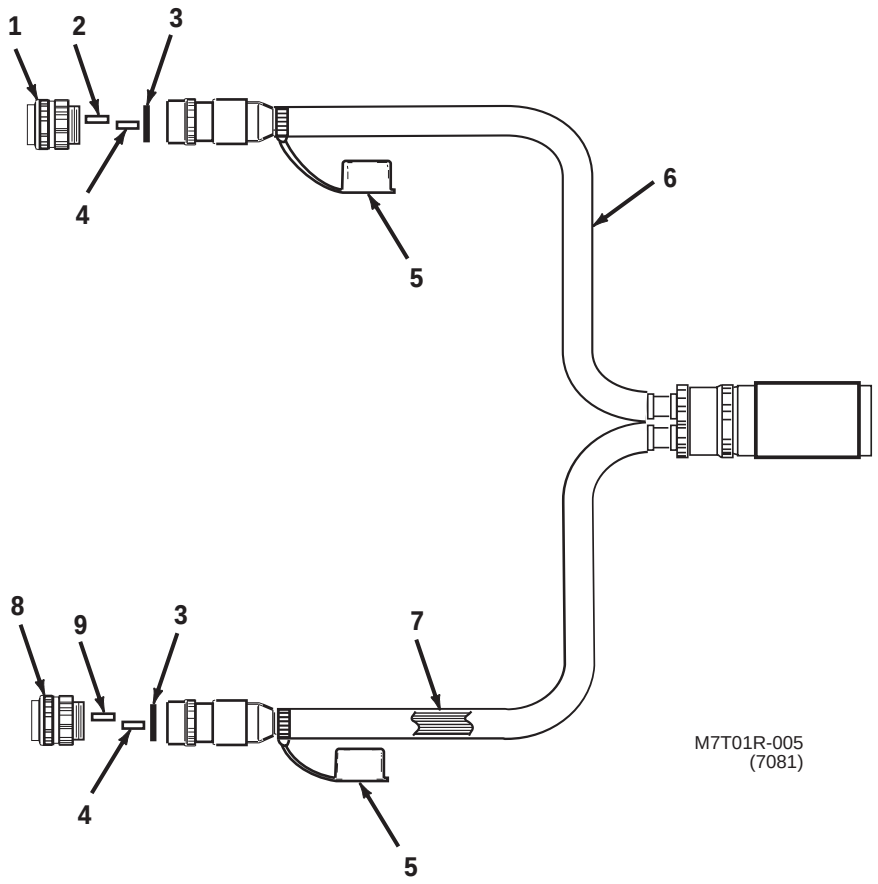

Figure 39. Group 08A10 CFM MFM Functional Self Test Cable And Conduit Assembly (CFM/MFM/FST-W200) 12934309

GROUP 08A10 CFM MFM FUNCTIONAL SELF TEST CABLE AND CONDUIT ASSEMBLY (CFM/MFM/FST-W200) 12934309 - CONTINUED

0148 00

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A10 CFM MFM FST CABLE AND CONDUIT ASSEMBLY (CFM/MFM/FST-W200)	
						FIG. 39 CFM MFM FST CABLE AND CONDUIT ASSEMBLY (CFM/MFM/FST-W200) 12934309	
	1	PAOOA	5935-01-250-5883	81349	D38999/46FJ35PC	CONNECTOR,PLUG,ELEC P2	1
	2	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	128
*	3	XDOZZ		81343	AS3209-028	O-RING	2
*	4	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	96
	5	PAOZZ	5340-01-224-7517	19207	12354499-19	CAP,PROTECTIVE,DUST	2
	6	XDDZZ		19200	12934372	CONDUIT ASSEMBLY	1
*	7	MDDZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-099-9118	V
	8	PAOOA	5935-01-230-4095	81349	D38999/46FJ35PB	CONNECTOR,PLUG,ELEC P1	1
	9	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	128
						END OF FIGURE	

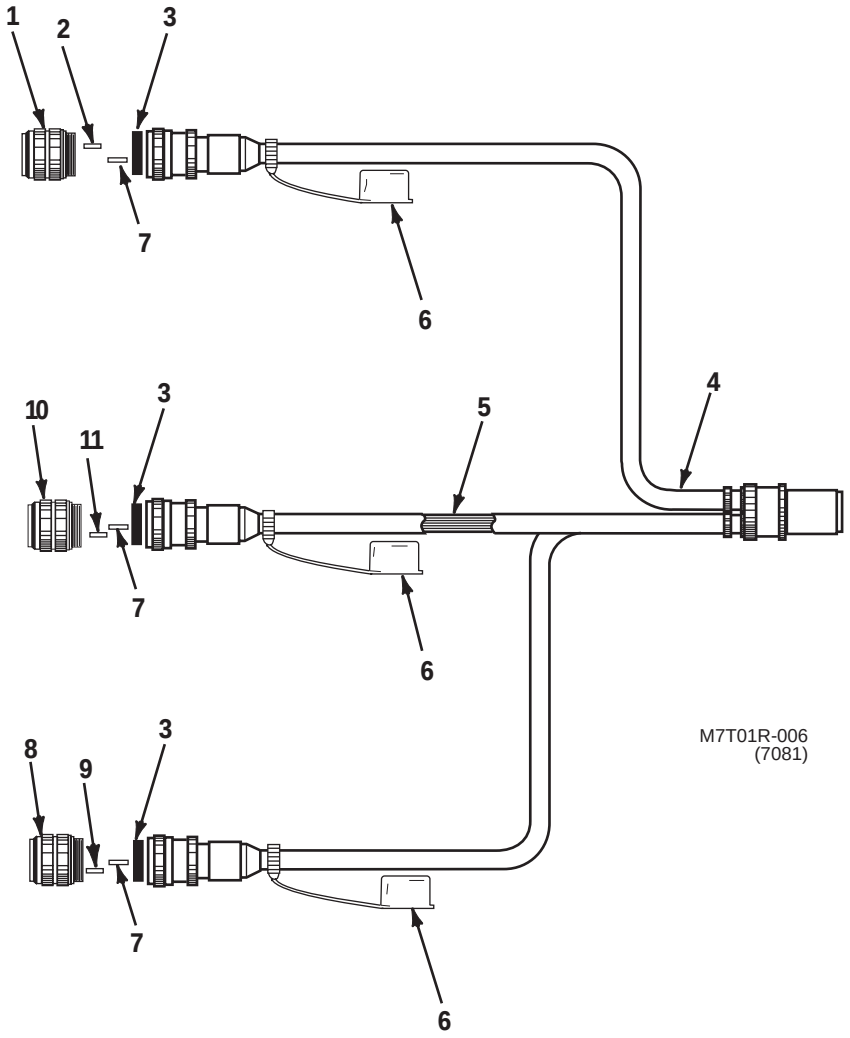

Figure 40. Group 08A11 CFM MFM Functional Self Test Cable And Conduit Assembly (CFM/MFM/FST-W201) 12934310

GROUP 08A11 CFM MFM FUNCTIONAL SELF TEST CABLE AND CONDUIT ASSEMBLY (CFM/MFM/FST-W201) 12934310 - CONTINUED

0149 00

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A11 CFM MFM FST CABLE AND CONDUIT ASSEMBLY (CFM/MFM/FST-W201)	
						FIG. 40 CFM MFM FST CABLE AND CONDUIT ASSEMBLY (CFM/MFM/FST-W201) 12934310	
	1	PAOOA	5935-01-250-5883	81349	D38999/46FJ35PC	CONNECTOR,PLUG,ELEC P3	1
	2	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	128
	3	XDOZZ		81343	AS3209-028	O-RING	3
	4	XDDZZ		19200	12934373	CONDUIT ASSEMBLY	1
*	5	MDDZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-099-9118	V
	6	PAOZZ	5340-01-224-7517	19207	12354499-19	CAP,PROTECTIVE,DUST	3
*	7	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	190
	8	PAOOA	5935-01-230-4095	81349	D38999/46FJ35PB	CONNECTOR,PLUG,ELEC P2	1
	9	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	128
	10	PAOOA	5935-01-229-8678	81349	D38999/46FJ35PN	CONNECTOR,PLUG,ELEC P1	1
	11	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	128
						END OF FIGURE	

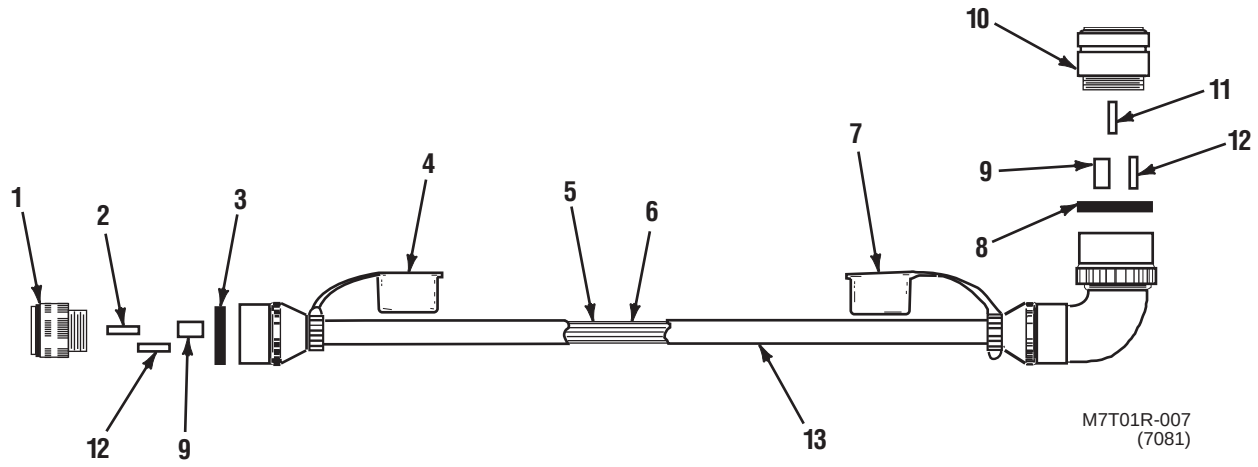

Figure 41. Group 08A12 Display Cable And Conduit Assembly (W228) 12934360

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A12 DISPLAY CABLE AND CONDUIT ASSEMBLY (W228)	
						FIG. 41 DISPLAY CABLE AND CONDUIT ASSEMBLY (W228) 12934360	
	1	PAOOA	5935-01-149-9363	81349	D38999/26FE35SN	CONNECTOR,PLUG,ELEC P2	1
*	2	PAOZZ	5999-00-320-7459	81343	AS39029/56-348	CONTACT,ELECTRICAL	55
	3	XDOZZ		81343	AS3209-020	O-RING	1
	4	PAOZZ	5340-01-224-7515	19207	12354499-12	CAP,PROTECTIVE,DUST	1
	5	MDDZZ	6145-01-194-8544	81349	M27500-24SB2T23	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-194-8544	V
	6	MDDZZ	6145-01-115-2036	81349	M27500-22SB2U00	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-115-2036	V
	7	PAOZZ	5340-01-224-6380	19207	12354499-10	CAP,PROTECTIVE,DUST	1
	8	XDOZZ		81343	AS3209-018	O-RING	1
	9	XDOZZ		81349	M83519/2-12	SHIELD TERMINATION	2
	10	PAOZZ	5935-01-094-9922	96906	MS27467T15F35P	CONNECTOR,PLUG,ELEC P1	1
*	11	PAOZZ	5999-00-473-3551	81343	M39029/58-360	CONTACT,ELECTRICAL	37
	12	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	82
	13	XDDZZ		19200	12934399	CONDUIT ASSEMBLY	1
						END OF FIGURE	

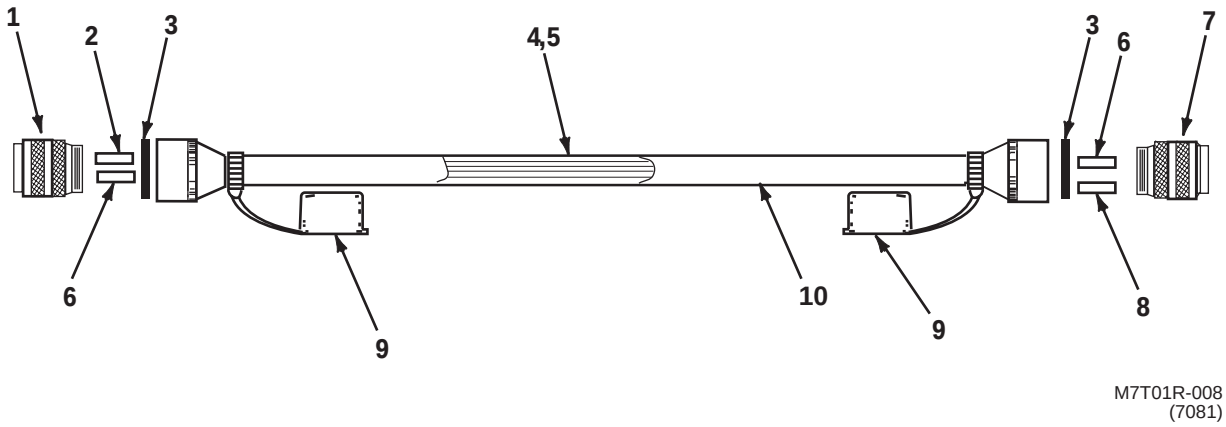

Figure 42. Group 08A13 Common Functions Module Functional Self Test Cable And Conduit Assembly (CFM-FST-W385) 12967266

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 08A13 CFM FST CABLE AND CONDUIT ASSEMBLY (CFM-FST-W385)	
						FIG. 42 CFM FST CABLE AND CONDUIT ASSEMBLY (CFM-FST-W385) 12967266	
	1	PAOOA	5935-01-229-8678	81349	D38999/46FJ35PN	CONNECTOR,PLUG,ELEC P1	1
	2	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	128
*	3	XDOZZ		81343	AS3209-028	O-RING	2
*	4	MDDZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-099-9118	V
	5	MDDZZ	6145-01-162-6049	81349	M22759/32-26-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-162-6049	V
*	6	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	235
	7	PAOOA	5935-01-230-4095	81349	D38999/46FJ35PB	CONNECTOR,PLUG,ELEC P2	1
	8	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	128
	9	PAOZZ	5340-01-224-7517	19207	12354499-19	CAP,PROTECTIVE,DUST	2
	10	XDDZZ		19200	12967267	CONDUIT ASSEMBLY	1
						END OF FIGURE	

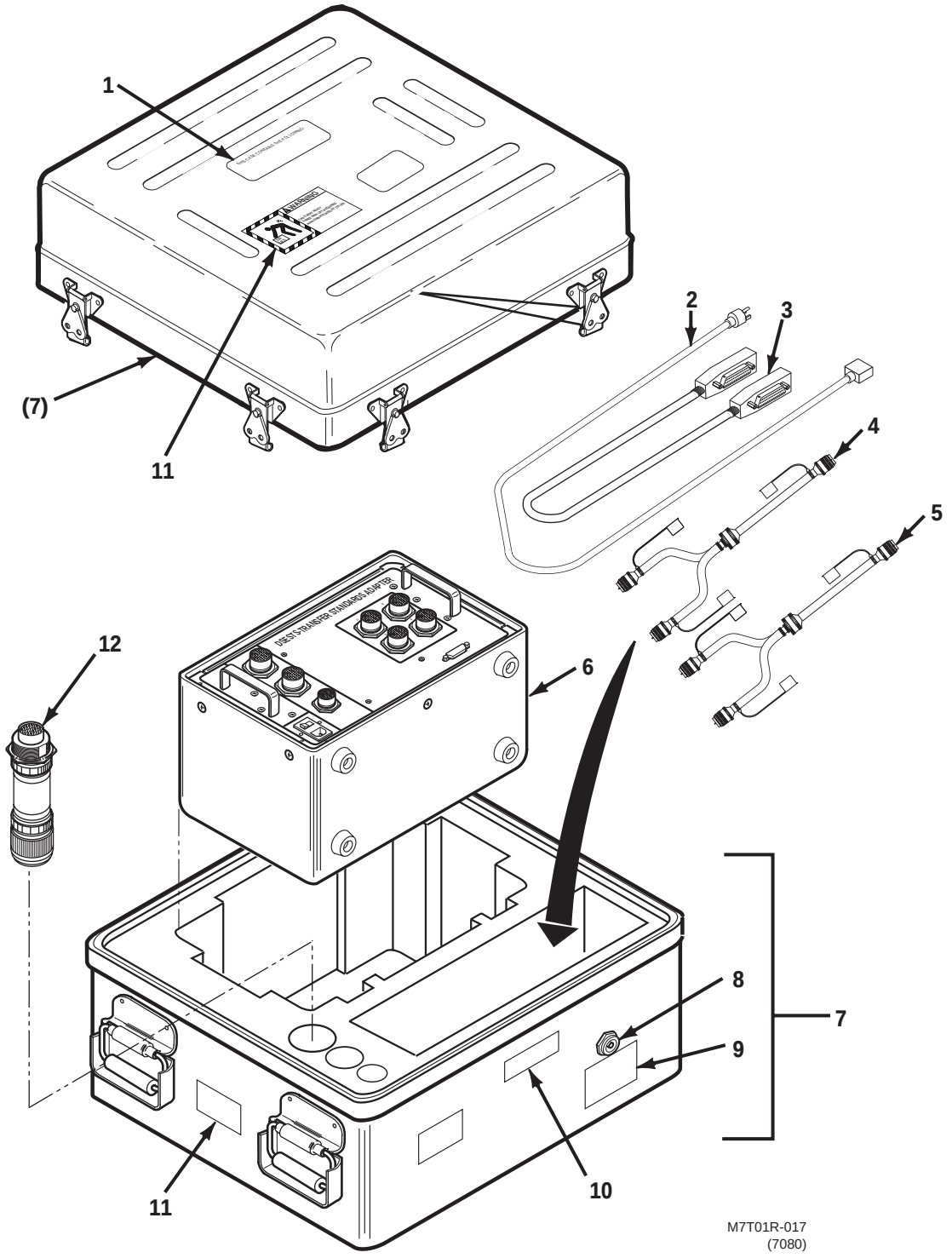

Figure 43. Group 960003 Special Tools (Repair Parts) Transfer Standards Adapter (TSA) Accessory Stowage Unit 12972150

GROUP 960003 SPECIAL TOOLS (REPAIR PARTS) TRANSFER STANDARDS ADAPTER (TSA) ACCESSORY STOWAGE UNIT 12972150 - CONTINUED

0152 00

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 96003 TRANSFER STANDARDS ADAPTER (TSA) ACCESSORY STOWAGE UNIT	
						FIG. 43 TRANSFER STANDARDS ADAPTER (TSA) ACCESSORY . STOWAGE UNIT 12972150	
	1	XDOZZ		19200	12972144	DECAL,CONTENTS	1
	2	PBOZA	6150-01-461-6190	19200	12972124	CABLE ASSEMBLY,ELECT,W455	1
	3	PBOZZ	6150-01-451-0328	19200	12972141	CABLE ASSEMBLY, POWER,W456	1
	4	PBODD	6150-01-449-4178	19200	12972089	CABLE AND CONDUIT ASSEMBLY,W457 SEE FIG. 45 FOR BREAKDOWN	1
	5	PBODD	6150-01-449-1519	19200	12972091	CABLE AND CONDUIT ASSEMBLY,W458 SEE FIG. 46 FOR BREAKDOWN	1
	6	PBFDD	6625-01-448-9831	19200	12972100	TRANSFER STANDARDS ADAPTER ASSEMBLY (FGC 96000302)	1
	7	PBODD	6625-01-449-1521	19200	12972151	CASE TEST (FGC 96000301)	1
	8	XDDZZ		19207	12312039	VALVE,PRESSURE EQUA	1
*	9	XDDZZ	7690-01-146-6473	24290	12312040	DECAL	1
	10	PAOZZ	9905-01-073-9737	19200	12285280	PLATE,IDENTIFICATION	1
	11	XDOZZ		19200	12983120-1	DECAL,LIFT WARNING	3
	12	PAODD	6625-01-448-7576	19200	12972112	ADAPTER SET,TEST SEE FIG. 44 FOR BREAKDOWN	1
						END OF FIGURE	

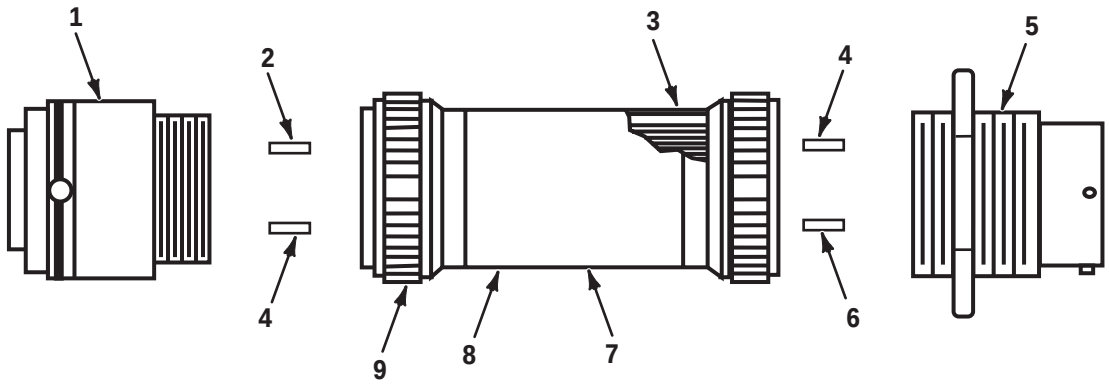

Figure 44. Group 96000303 Special Tools (Repair Parts) Transfer Standards Adapter Assembly (UJ6/W457) 12972112

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 96000303 TSA ADAPTER ASSEMBLY (UJ6/W457)	
						FIG. 44 TSA ADAPTER ASSEMBLY (UJ6/W457) 12972112	
	1	PAOZZ	5935-01-092-3424	96906	MS3475L24-61PW	CONNECTOR,PLUG,ELEC P2	1
	2	PAOZZ	5999-00-146-8592	81349	M39029/4-110	CONTACT,ELECTRICAL	61
*	3	MDDZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-099-9118	V
	4	PAOZZ	5935-00-496-7171	96906	MS27488-20-1	PLUG,END SEAL,ELECT	88
	5	PAOZZ	5935-01-157-9563	96906	MS3474W24-61SW	CONNECTOR,RECEPTACL P1	1
*	6	PAOZZ	5999-00-172-8253	81343	M39029/5-115	CONTACT,ELECTRICAL	61
	7	XDOZZ		19200	12972114	LABEL	1
	8	MDDZZ	5970-00-089-1454	81349	M23053/5-212-C	INSULATION SLEEVING MAKE FROM NSN 5970-00-089-1454	V
	9	XDOZZ		19200	12934383-0909	ADAPATER,SPLIT SHEL	1
						END OF FIGURE	

GROUP 96000304 SPECIAL TOOLS (REPAIR PARTS) TRANSFER STANDARDS ADAPTER CABLE AND CONDUIT ASSEMBLY (TSA-W457) 12972089

0154 00

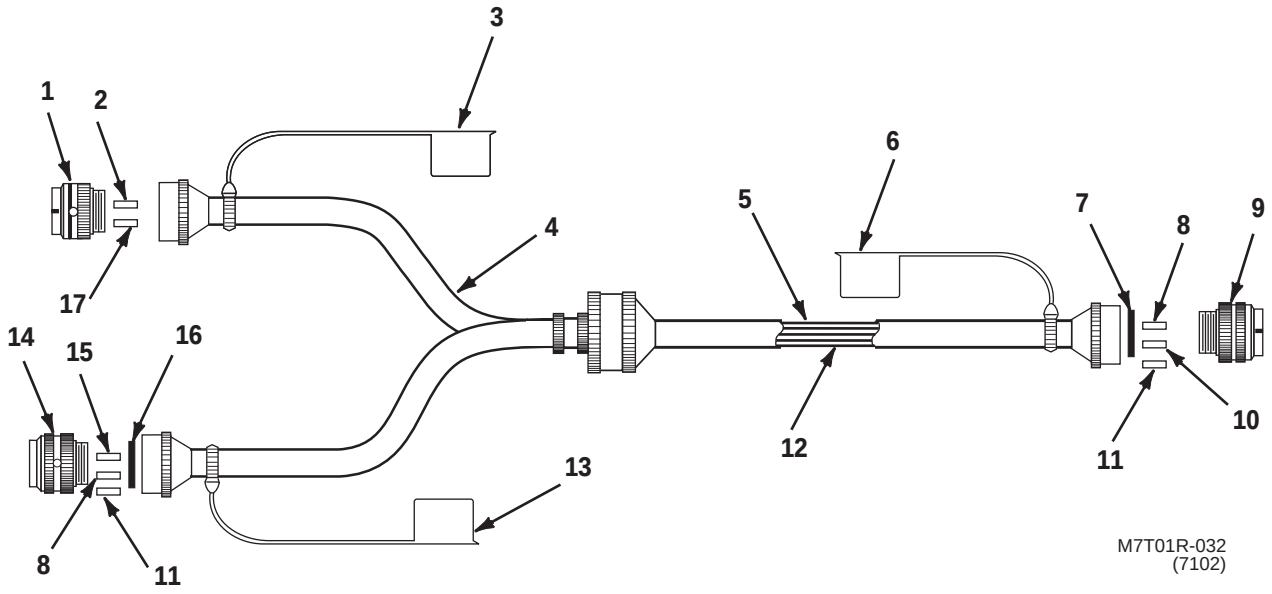

Figure 45. Group 96000304 Special Tools (Repair Parts) Transfer Standards Adapter Cable And Conduit Assembly (TSA-W457) 12972089

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 96000304 TSA CABLE AND CONDUIT ASSEMBLY (TSA-W457)	
						FIG. 45 TSA CABLE AND CONDUIT ASSEMBLY (TSA-W457) 12972089	
	1	PAOZZ	5935-01-092-3424	96906	MS3475L24-61PW	CONNECTOR,PLUG,ELEC P2	1
	2	PAOZZ	5999-00-146-8592	81349	M39029/4-110	CONTACT,ELECTRICAL	61
	3	PAOZZ	5340-01-224-6384	19207	12354499-17	CAP,PROTECTIVE,DUST	1
	4	XDDZZ		19200	12972090	CONDUIT ASSEMBLY	1
*	5	MDDZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-099-9118	V
	6	PAOZZ	5340-01-224-7514	19207	12354499-14	CAP,PROTECTIVE,DUST	1
*	7	XDOZZ		81343	AS3209-024	O-RING	1
*	8	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	93
	9	PAOZZ	5935-01-451-3032	96906	MS27467E15F35PA	CONNECTOR,PLUG,ELEC P3	1
	10	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	66
	11	PAOZZ	5940-01-135-7084	81349	M83519/2-6	SPLICE,CONDUCTOR	2
	12	MDDZZ	6145-01-255-4713	1P787	M27500-22SB1T23	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-255-4713	V
	13	PAOZZ	5340-01-224-6380	19207	12354499-10	CAP,PROTECTIVE,DUST	1
	14	PAOOA	5935-01-230-9669	81349	D38999/46FG35PA	CONNECTOR, PLUG, ELEC P1	1
	15	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	79
	16	XDOZZ		81343	AS3209-018	O-RING	1
	17	PAOZZ	5935-00-496-7171	96906	MS27488-20-1	PLUG,END SEAL,ELECT	35
						END OF FIGURE	

GROUP 96000305 SPECIAL TOOLS (REPAIR PARTS) TRANSFER STANDARDS ADAPTER CABLE AND CONDUIT ASSEMBLY (TSA-W458) 12972091

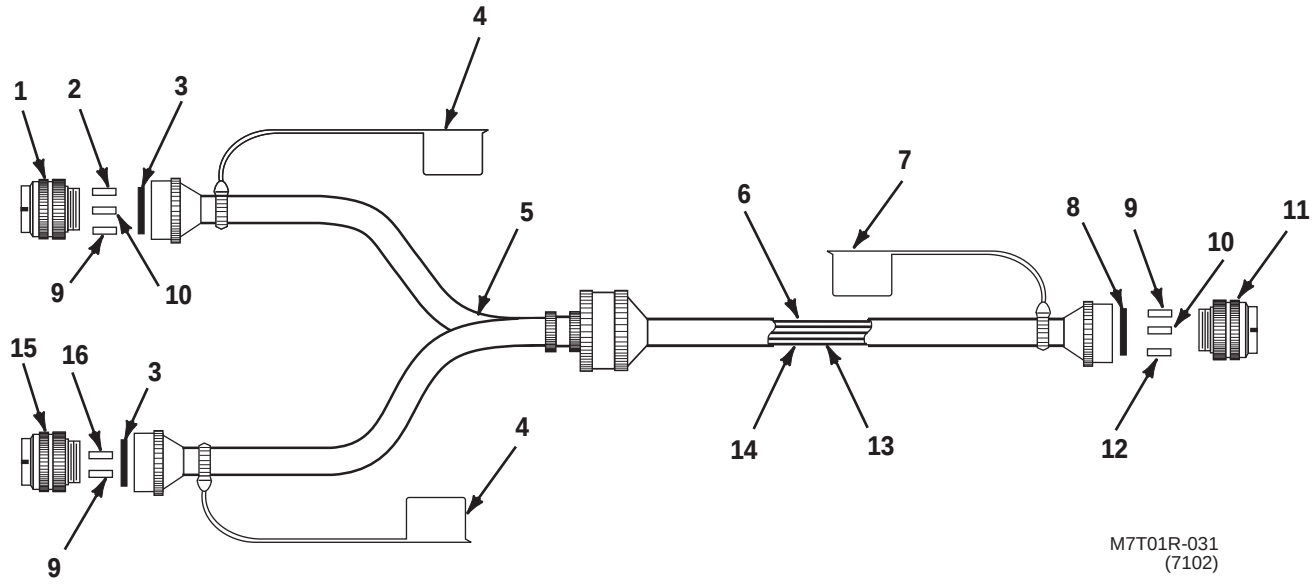

Figure 46. Group 96000305 Special Tools (Repair Parts) Transfer Standards Adapter Cable And Conduit Assembly (TSA-W458) 12972091

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 96000305 TSA CABLE AND CONDUIT ASSEMBLY (TSA-W457)	
						FIG. 46 TSA CABLE AND CONDUIT ASSEMBLY (TSA-W458) 12972091	
	1	PAOOO	5935-01-454-2587	19200	12983123	CONNECTOR,PLUG,ELEC P2	1
	2	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	128
*	3	XDOZZ		81343	AS3209-028	O-RING	2
	4	PAOZZ	5340-01-224-7517	19207	12354499-19	CAP,PROTECTIVE,DUST	2
	5	XDDZZ		19200	12972092	CONDUIT ASSEMBLY	1
*	6	MDDZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-099-9118	V
	7	PAOZZ	5340-01-224-7514	19207	12354499-14	CAP,PROTECTIVE,DUST	1
*	8	XDOZZ		81343	AS3209-024	O-RING	1
*	9	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	180
	10	PAOZZ	5940-01-135-7084	81349	M83519/2-6	SPLICE,CONDUCTOR	4
	11	PAOOA	5935-01-230-5470	81349	D38999/46FG35PN	CONNECTOR, PLUG, ELEC P1	1
	12	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	79
	13	MDDZZ	6145-01-162-6049	81349	M22759/32-26-9	WIRE,ELECTRICAL MAKE FROM NSN 6145-01-162-6049	V
	14	MDDZZ	6145-01-181-0868	1P787	M27500-24SB1T23	CABLE,SPECIAL PURPO MAKE FROM NSN 6145-01-181-0868	V
	15	PAOOA	5935-01-250-5883	81349	D38999/46FJ35PC	CONNECTOR,PLUG,ELEC P3	1
	16	PAOZZ	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	128
						END OF FIGURE	

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 9999 BULK MATERIALS	
						FIG. BULK MATERIALS	
	1	XDDZZ		81349	M27500-12TE1T14	CABLE,ELECTRICAL	V
	2	XDDZZ		81349	M27500-14TE1T14	CABLE,ELECTRICAL	V
	3	XDDZZ		81349	M27500-14TE2T14	CABLE,ELECTRICAL	V
	4	XDDZZ		81349	M27500-003-01	CABLE,ELECTRICAL	V
	5	PADZZ	6145-01-131-2403	81349	M27500-18TE1T14	CABLE,POWER,ELECTRICAL	V
	6	PADZZ	6145-01-128-4162	81349	M27500-18TE2T14	CABLE,POWER,ELECTRICAL	V
	7	PADZZ	6145-01-135-6836	1P787	M27500-22SB2T23	CABLE,SPECIAL PURPOSE	V
	8	PADZZ	6145-01-131-2417	81349	M27500-20TE1T14	CABLE,SPECIAL PURPOSE	V
	9	PADZZ	6145-01-129-9955	81349	M27500-20TE2T14	CABLE,SPECIAL PURPOSE	V
	10	PADZZ	6145-01-255-4713	1P787	M27500-22SB1T23	CABLE,SPECIAL PURPOSE	V
	11	PADZZ	6145-01-057-6106	81349	M27500-22TE1T14	CABLE,SPECIAL PURPOSE	V
	12	PADZZ	6145-01-075-1041	81349	M27500-22TE2T14	CABLE,SPECIAL PURPOSE	V
	13	PADZZ	6145-01-115-2036	81349	M27500-22SB2U00	CABLE,SPECIAL PURPOSE	V
	14	PADZZ	6145-01-181-0868	1P787	M27500-24SB1T23	CABLE,SPECIAL PURPOSE	V
	15	PADZZ	6145-01-194-8544	81349	M27500-24SB2T23	CABLE,SPECIAL PURPOSE	V
	16	PCOZZ	5970-00-814-2878	81349	M23053/5-106-9	INSULATION SLEEVING	V
	17	PCOZZ	5970-00-815-1300	81349	M23053/5-110-0	INSULATION SLEEVING	V
*	18	PAOZZ	5970-00-916-2679	81343	M23053/5-202-C	INSULATION SLEEVING	V
	19	PAOZZ	5970-01-327-1155	81343	M23053/5-203-C	INSULATION SLEEVING	V
*	20	PCOZZ	5970-00-990-9912	81343	M23053/5-204-C	INSULATION SLEEVING	V
*	21	PCOZZ	5970-00-767-0515	81343	M23053/5-205-C	INSULATION SLEEVING	V
*	22	PAOZZ	5970-00-767-0524	81343	M23053/5-206-C	INSULATION SLEEVING	V
	23	PAOZZ	5970-00-871-5779	81343	M23053/5-208-C	INSULATION SLEEVING	V
	24	PAOZZ	5970-00-990-9911	81349	M23053/5-210-C	INSULATION SLEEVING	V
	25	PCDZZ	5970-00-954-1622	81343	M23053/5-105-0	INSULATION SLEEVING	V
*	26	PCOZZ	5970-00-954-1624	81343	M23053/5-107-0	INSULATION SLEEVING	V
*	27	PAOZZ	5970-00-812-1356	81343	M23053/5-111-0	INSULATION SLEEVING	V
*	28	PADZZ	5970-00-717-1474	81343	M23053/5-211-C	INSULATION SLEEVING	V
	29	PAOZZ	5970-00-089-1454	81349	M23053/5-212-C	INSULATION SLEEVING	V
	30	XDDZZ	5330-01-217-2024	74284	SKM2000	GASKET	V
	31					DELETED	
	31A	PADZZ	4010-00-929-0041	81349	M83420/4-001	ROPE,WIRE	V
	32	XDDZZ	5330-01-254-5201	53031	XTC20R07	SEAL,PLAIN	V
	33	PADZZ	6145-01-241-5184	81349	M16878/14BEE9	WIRE,ELECTRICAL	V
	34	PADZZ	6145-01-241-0959	81349	M16878/14BFE9	WIRE,ELECTRICAL	V
	35	PAOZZ	6145-01-240-7522	81349	M16878/14BGE9	WIRE,ELECTRICAL	V
	36	PADZZ	6145-01-241-6545	81349	M16878/14BHE9	WIRE,ELECTRICAL	V
	37	PADZZ	6145-01-231-7624	81349	M16878/15BLE9	WIRE,ELECTRICAL	V
	38	PADZZ	6145-01-284-4810	81349	M22759/32-12-5	WIRE,ELECTRICAL	V
	39	PADZZ	6145-01-099-9118	81343	M22759/32-22-9	WIRE,ELECTRICAL	V
	39A	PADZZ	6145-01-170-4658	81343	M22759/32-24-9	WIRE,ELECTRICAL	V
	40	PADZZ	6145-01-162-6049	81349	M22759/32-26-9	WIRE,ELECTRICAL	V
	41	PADZZ	6145-01-169-5661	81349	M22759/32-20-9	WIRE,ELECTRICAL	V
	42	XDDZZ		81349	MIL-W-83420	WIRE ROPE	V
						END OF FIGURE	

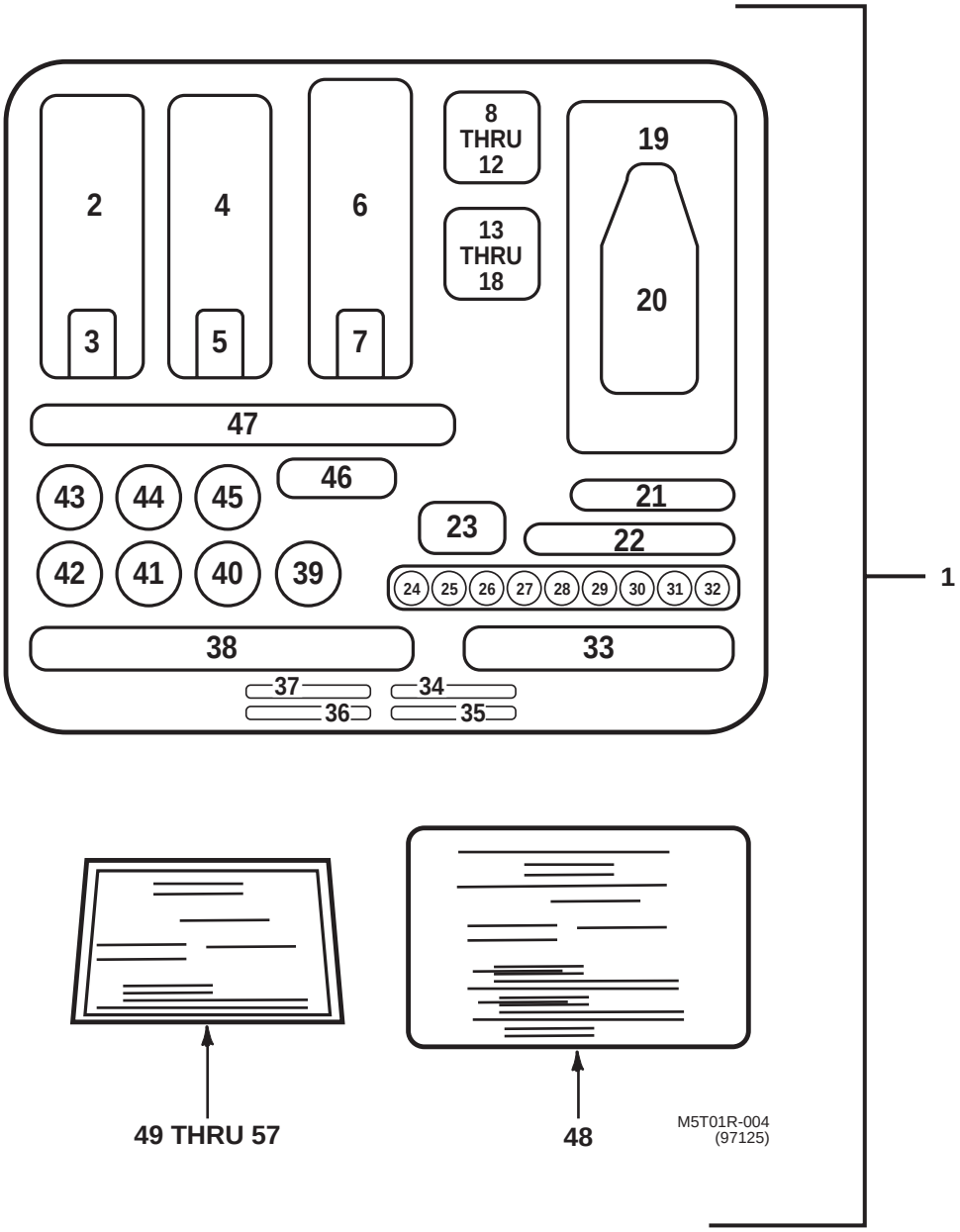

Figure 47. Group 9600 Special Tools (Sheet 1 of 4)

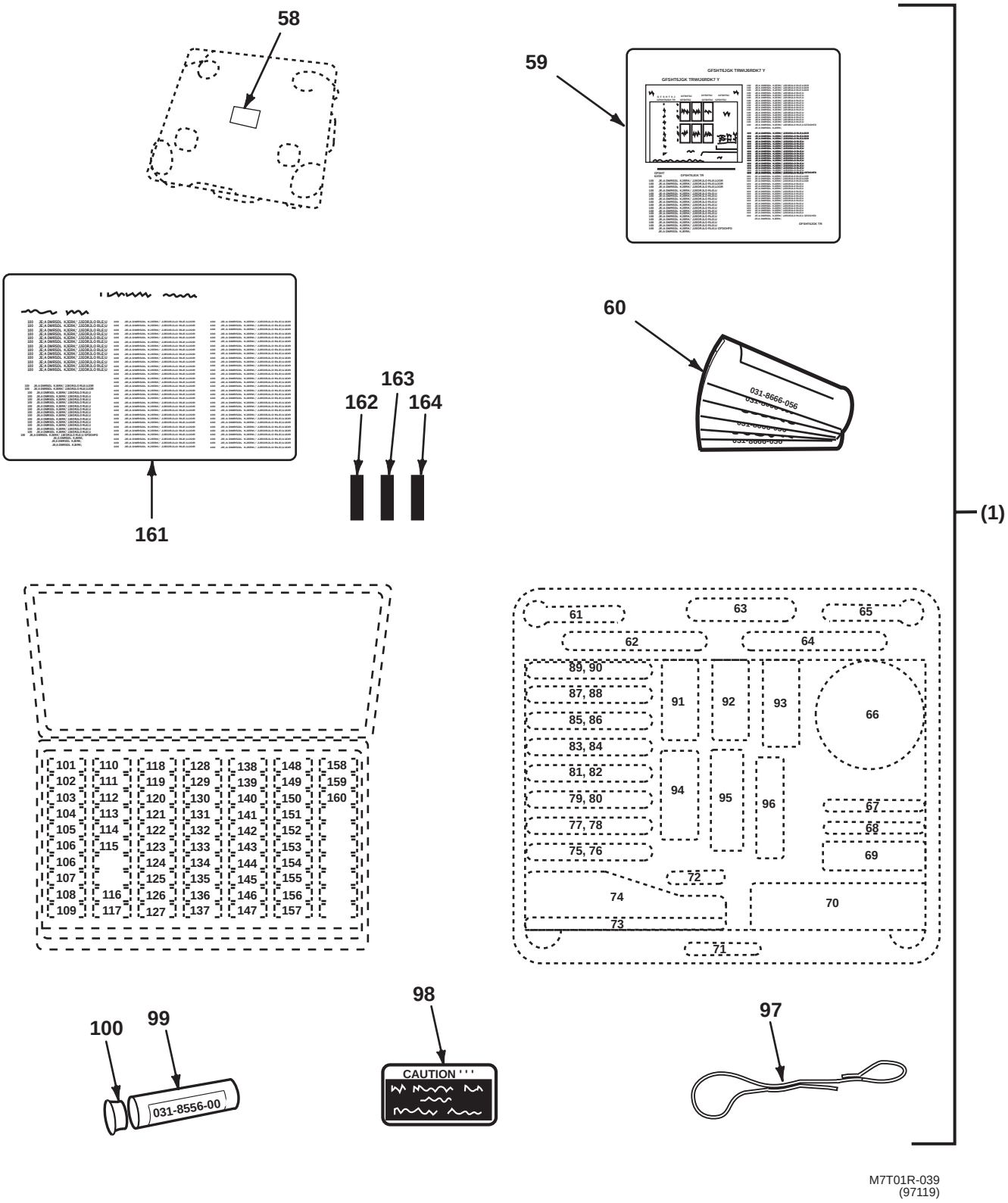

Figure 47. Group 9600 Special Tools (Sheet 2 of 4)

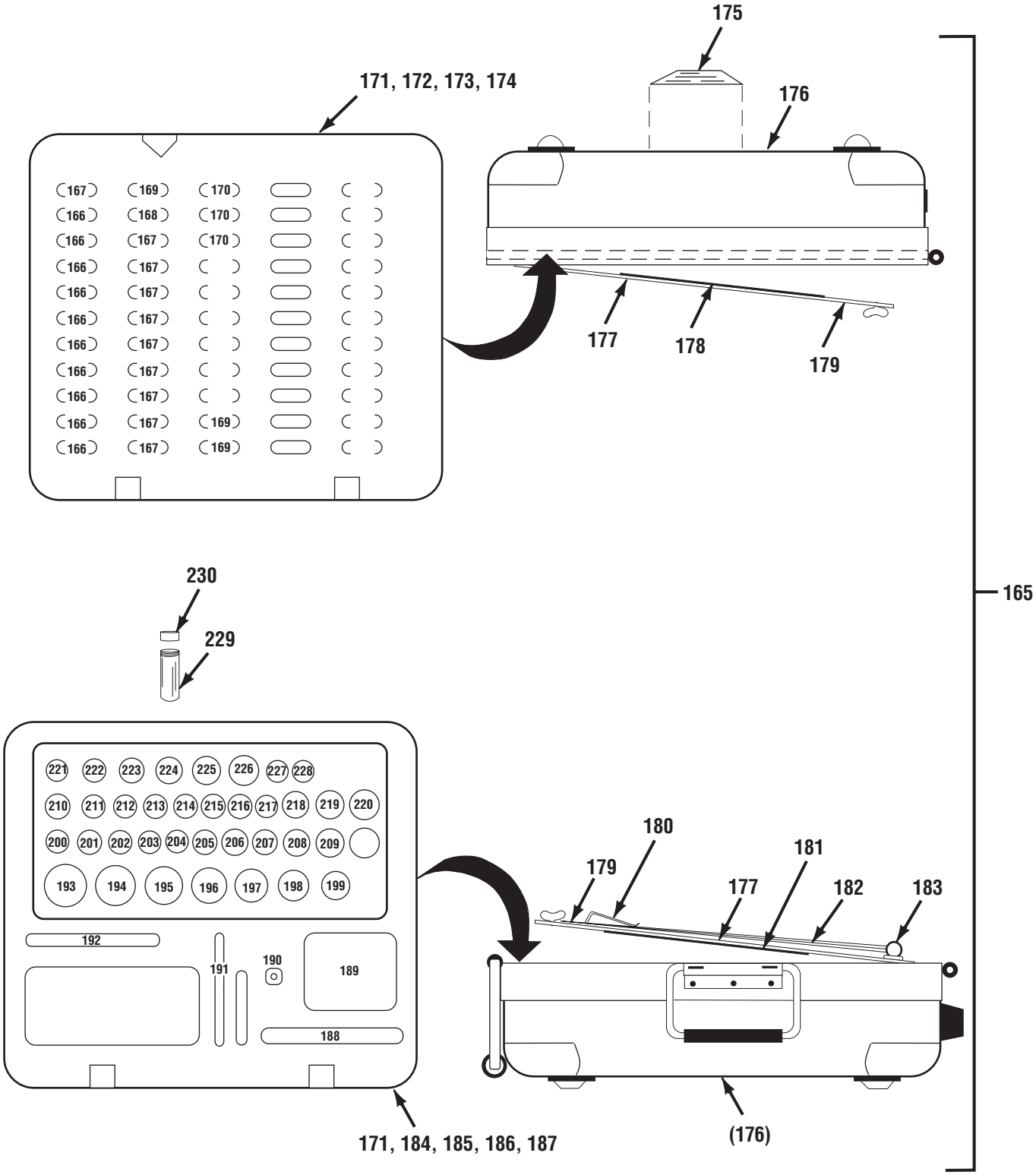

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Figure 47. Group 9600 Special Tools (Sheet 3 of 4)

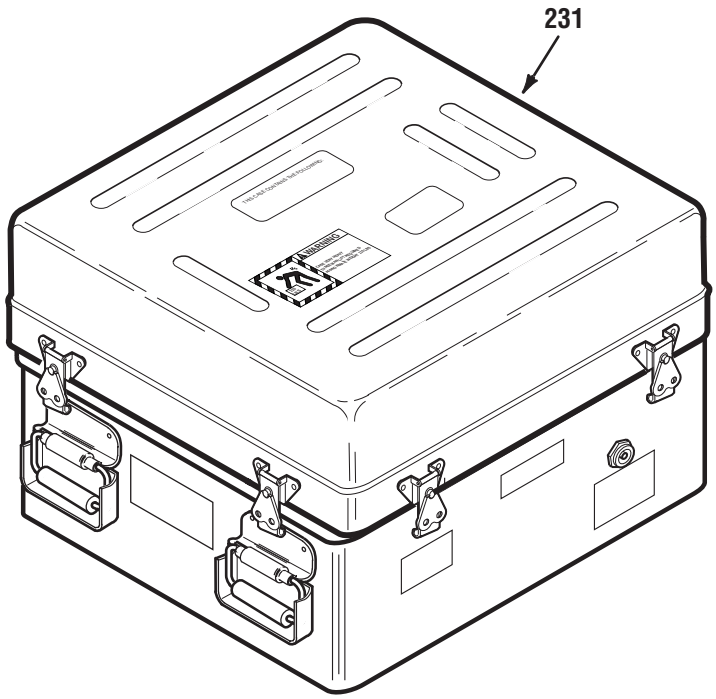

Figure 47. Group 9600 Special Tools (Sheet 4 of 4)

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 9600 SPECIAL TOOLS	
						FIG. 47 SPECIAL TOOLS	
	1	PEOFF	5935-01-344-1073	19207	5705498	MAINTENANCE KIT,ELECTRICAL (FGC 960001)	1
	2	PAOZZ	4931-01-146-6454	11851	CW100-1	PLIERS CONN HOLDING	1
	3	PAOZZ	4931-01-146-6457	11851	CW100-2	PLIERS CONN HOLDING	1
	4	PAOZZ	4931-01-146-6448	11851	CW100-3	PLIERS CONN HOLDING	1
	5	PAOZZ	4931-01-146-6453	11851	CW100-4	PLIERS CONN HOLDING	1
	6	PAOZZ	4931-01-146-6452	11851	CW100-5	PLIERS CONN HOLDING	1
	7	PAOZZ	4931-01-146-6451	11851	CW100-6	PLIERS CONN HOLDING	1
	8	PAOZZ	5120-01-117-3222	11851	CS22-1	SOCKET,SOCKET WRENCH	1
	9	PAOZZ	5120-01-117-3219	11851	CS22	SOCKET,SOCKET WRENCH	1
	10	PAOZZ	5120-01-117-3217	11851	CS18	SOCKET,SOCKET WRENCH	1
	11	PAOZZ	5120-01-117-3215	11851	CS14	SOCKET,SOCKET WRENCH	1
	12	PAOZZ	5120-01-117-3213	11851	CS10	SOCKET,SOCKET WRENCH	1
	13	PAOZZ	5120-01-117-3221	11851	CS24-1	SOCKET,SOCKET WRENCH	1
	14	PAOZZ	5120-01-117-3220	11851	CS24	SOCKET,SOCKET WRENCH	1
	15	PAOZZ	5120-01-117-3218	11851	CS20	SOCKET,SOCKET WRENCH	1
	16	PAOZZ	5120-01-117-3216	11851	CS16	SOCKET,SOCKET WRENCH	1
	17	PAOZZ	5120-01-117-3214	11851	CS12	SOCKET,SOCKET WRENCH	1
	18	PAOZZ	5120-01-117-3212	11851	CS8	SOCKET,SOCKET WRENCH	1
	19	PAOZZ	5130-00-176-3991	06928	TW-1	STRIPPER,WIRE,THERM	1
	20	PAOZZ	5110-01-037-1408	30119	45-123	CUTTER,CABLE-WIRE	1
	21	PAOZZ	5220-00-090-6722	81349	M22520/3-1	GAGE,PLUG,PLAIN CYL	1
	22	PAOZZ	5120-00-177-7341	11851	74008	KEY,SOCKET HEAD SCR	1
	23	PAOZZ	5120-00-126-0860	81349	M22520/5-100	DIE,CRIMPING TOOL	1
	24	PAOZZ	5120-00-165-3913	81349	M22520/2-02	CONTACT POSITIONER,	1
	25	PAOZZ	5120-00-017-3809	81349	M22520/2-06	CONTACT POSITIONER	1
	26	PAOZZ	5120-00-017-3827	81349	M22520/2-07	CONTACT POSITIONER,	1
	27	PAOZZ	5120-00-017-3921	81349	M22520/2-08	CRIMPING TOOL,TERMI	1
	28	PAOZZ	5120-00-017-3927	81349	M22520/2-09	CONTACT POSITIONER,	1
	29	PAOZZ	5120-00-017-3932	81349	M22520/2-10	CONTACT POSITIONER,	1
*	30	XDOZZ	5120-01-361-9642	11851	K280	CONTACT POSITIONER,	1
	31	PAOZZ	5120-01-361-9646	11851	K330-3	CONTACT POSITIONER,	1
*	32	XDOZZ	5120-01-361-9656	11851	K503	CONTACT POSITIONER	1
	33	PAOZZ	5120-00-165-3910	81349	M22520/2-01	CRIMPING TOOL,TERMI	1
	34	PAOZZ	5220-01-116-3022	11851	CG20	GAGE,CONTACT,ELECTR	1
	35	PAOZZ	5220-01-116-3023	11851	CG22	GAGE,CONTACT,ELECTR	1
	36	PAOZZ	5220-01-116-3021	11851	CG16	GAGE,CONTACT,ELECTR	1
	37	PAOZZ	5220-01-116-3020	11851	CG12	GAGE,CONTACT,ELECTR	1
	38	PAOZZ	5120-00-165-3912	81349	M22520/1-01	CRIMPING TOOL,TERMI	1
	39	XDOZZ	5120-01-361-9498	11851	TP580	CONTACT POSITIONER,	1
*	40	XDOZZ	5120-01-361-9454	11851	TH514	TURRET HEAD,CRIMPIN	1
*	41	XDOZZ	5120-01-361-9452	11851	TH452	TURRET HEAD,CRIMPIN	1
	42	PAOZZ	5120-01-361-9709	11851	TH378	POSITIONER,CONTACT	1
	43	PAOZZ	5120-00-016-6382	81349	M22520/1-02	CRIMPING TOOL,TERMI	1
	44	PAOZZ	5120-00-016-7582	81349	M22520/1-04	TURRET HEAD ASSEMBL	1
	45	XDOZZ	5120-01-361-9708	11851	TH369	TURRET HEAD, CRIMPIN	1
	46	PAOZZ	5120-01-037-1407	11851	HX3-82	DIE REMOVAL PIN	1
	47	PAOZZ	5120-00-132-6913	81349	M22520/5-01	CRIMPING TOOL,TERMI	1
	48	XDOZZ		11851	DMC63-CS/N-1	COVER SHEET W/N-1	1
	49	XDOZZ		11851	DMC63-CCA	CONTENTS CHART	1
	50	XDOZZ		11851	DMC63-WS/N-3	WARNING SHEET	1
	51	XDOZZ		11851	IS-1A/IS-1B	INSTRUCTION SHEET	1
	52	XDOZZ		11851	IS-2A/IS-2B	INSTRUCTION SHEET	1
	53	XDOZZ		11851	IS-3A/IS-3B	INSTRUCTION SHEET	1

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 9600 SPECIAL TOOLS	
						FIG. 47 SPECIAL TOOLS	
	54	XDOZZ		11851	IS0087/IS0106	INSTRUCTION SHEET	1
	55	XDOZZ		11851	IS0132/IS0033	INSTRUCTION SHEET	1
	56	XDOZZ		11851	TSC63-1/2	TOOL SELECTION CHART	1
	57	XDOZZ		11851	TSC63-3/4	TOOL SELECTION CHART	1
	58	XDOZZ		11851	DMC63-NP	NAMEPLATE	1
	59	XDOZZ		11851	DMC63-CCB	CONTENTS CHART	1
	60	PAOZZ	7690-01-342-5896	11851	DMC63-VLS	DECAL SET PREPRINTED	1
*	61	XDOZZ	5120-01-361-9362	11851	DRK105	REMOVER,ELECTRICAL (WITH 5 TIPS)	1
*	62	XDOZZ	5120-01-361-9593	11851	DAK96-12	INSERTER,ELECTRICAL	1
	63	PAOZZ	4931-01-146-6456	11851	46151-0T1	TOOL INSERTION	1
*	64	XDOZZ	5120-01-361-9594	11851	DAK96-16	INSERTER,ELECTRICAL	1
*	65	XDOZZ	5120-01-335-8675	11851	DRK110	REMOVER,ELECTRICAL	1
*	66	XDOZZ	5970-00-101-4669	20999	INSULTAPETYPE1 3-4IN	TAPE,INSULATION,ELE	2
	67	PAOZZ	4931-01-146-6450	11851	11-7370-5T1	TIP REMOVAL	1
	68	PAOZZ	4931-01-146-6455	11851	11-7674-3T1	TOOL REMOVAL	1
	69	PAOZZ	4931-01-193-4731	11851	46150T1	HANDLE,REMOVAL TOOL	1
	70	PAOZZ	5120-01-335-8842	11851	BT-BS-609	WRENCH,STRAP	1
	71	PAOZZ	5120-01-344-3774	81349	M81714/69-01	REMOVER,ELECTRICAL	2
	72	PAOZZ	5120-01-131-6022	30106	12830-05	INSERT,JAW,CONNECTO	2
	73	PAOZZ	5120-01-117-3310	11851	DW75	EXTENSION,SOCKET WR	1
*	74	PAOZZ	5120-00-624-8065	05047	B107.27	PLIERS,SLIP JOINT	1
	75	PAOZZ	5120-01-227-3173	81349	M81969/18-02	INSERTER,ELECTRICAL	1
	76	PAOZZ	5120-01-338-2697	81349	M81969/20-02	REMOVER,ELECTRICAL	1
	77	PAOZZ	5120-00-018-0531	81349	M81969/8-09	INSERTER,ELECTRICAL	1
	78	PAOZZ	5120-00-103-9708	81349	M81969/8-10	REMOVER,ELECTRICAL	1
	79	PAOZZ	5120-00-018-0529	81349	M81969/8-07	INSERTER,ELECTRICAL	1
	80	PAOZZ	5120-00-409-5206	81349	M81969/8-08	REMOVER,ELECTRICAL	1
	81	PAOZZ	5120-00-177-6967	81349	M81969/8-05	INSERTER,ELECTRICAL	1
	82	PAOZZ	5120-00-177-6966	81349	M81969/8-06	REMOVER,ELECTRICAL	1
	83	PAOZZ	5120-00-251-9503	81349	M81969/8-01	INSERTER,ELECTRICAL	1
	84	PAOZZ	5120-00-146-6558	81349	M81969/8-02	REMOVER,ELECTRICAL	3
	85	PAOZZ	5120-01-335-8674	11851	DAK83-20B	INSERTER,ELECTRICAL	1
	86	PAOZZ	5120-01-335-8716	11851	DRK83-20B	REMOVER,ELECTRICAL	1
*	87	XDOZZ	5120-01-430-8601	81349	M81969/8-207	INSERTER,ELECTRICAL	1
*	88	XDOZZ	5120-01-430-8597	81349	M81969/8-208	INSERTER,ELECTRICAL	1
	89	PAOZZ	5120-01-335-8672	11851	DAK83-12B	INSERTER,ELECTRICAL	1
	90	PAOZZ	5120-01-335-8714	11851	DRK83-12	REMOVAL,TOOL,CONNEC	1
	91	PAOZZ	5120-00-018-0575	81349	M81969/14-01	INSERTER AND REMOVE	10
	92	PAOZZ	5120-00-915-4587	81349	M81969/14-11	INSERTER AND REMOVE	10
	93	PAOZZ	5120-00-132-5739	81349	M81969/1-02	INSTALLING AND REMO TOOL	1
	94	PAOZZ	5120-00-915-4588	81349	M81969/14-03	INSERTER AND REMOVE	10
	95	PAOZZ	5120-00-157-3138	81349	M81969/14-04	INSERTER AND REMOVE	5
	96	PAOZZ	5120-01-361-9451	11851	DRK96	REMOVER,ELECTRICAL	1
	97	PAOZZ	5120-01-231-5725	11851	BT-A-6010	STRAP,STRAP WRENCH (1/2 INCH)	1
	98	XDOZZ		11851	DMC179-WL	WARNING LABEL	6
	99	XDOZZ	8125-01-347-5348	11851	4-1254	BOTTLE,SNAP-ON CAP	70
	100	PAOZZ	5340-01-342-4898	11851	4-1249	PLUG,PROTECTIVE,DUS	70
*	101	PAOZA	5940-01-128-4437	55561	27911-T9	TERMINAL,STUD	10
*	102	PAOZA	5940-01-128-4438	55561	27913-T9	TERMINAL,STUD	10
	103	PAOZZ	5999-01-131-7437	55561	27961-T9	CONTACT,ELECTRICAL	10
	104	PAOZZ	5999-01-131-7438	55561	27963-T9	CONTACT,ELECTRICAL	10
	105	PAOZZ	5999-01-131-7436	55561	27914-26T9	CONTACT,ELECTRICAL	10

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 9600 SPECIAL TOOLS	
						FIG. 47 SPECIAL TOOLS	
	106	PAOZZ	5999-01-131-7439	55561	27964-26T9	CONTACT,ELECTRICAL	10
	107	PAOZZ	5935-01-342-4914	55561	27977-12T50	GUIDE,ELECTRICAL CO	10
	108	PAOZZ	5935-01-342-4915	55561	27977-16T50	GUIDE,ELECTRICAL CO	10
	109	PAOZZ	5999-01-146-6466	81312	27917-T9	CONTACT,ELECTRICAL I/O PIN	1
	110	PAOZA	5999-01-130-6262	77820	10-581808	CONTACT,ELECTRICAL I/O SOCKET	1
	111	PAOZA	5999-01-130-6261	55561	46239-T9	CONTACT,ELECTRICAL I/O PIN WITH NYLON TIP	1
	112	XDOZZ		55561	27901/A	CONTACT,ELECTRICAL (16S)ALUMEL PIN	2
	113	XDOZZ	5999-00-310-4325	55561	27951/A	CONTACT,ELECTRICAL (16S) ALUMEL SOCKET	2
	114	XDOZZ	5999-00-058-9439	55561	27901/CH	CONTACT,ELECTRICAL (16S) CHROMEL PIN	2
	115	XDOZZ	5999-00-201-3970	55561	27951/CH	CONTACT,ELECTRICAL (16S) CHROMEL SOCKET	2
	116	PAOZZ	5999-00-146-8592	81349	M39029/4-110	CONTACT,ELECTRICAL	35
	117	PAOZZ	5999-00-172-8254	81349	M39029/4-111	CONTACT,ELECTRICAL	20
	118	PAOZZ	5999-01-044-4099	81349	M39029/4-112	CONTACT,ELECTRICAL	20
	119	PAOZZ	5999-00-408-5585	81349	M39029/4-113	CONTACT,ELECTRICAL	10
	120	PAOZZ	5999-01-068-2587	81349	M39029/4-114	CONTACT,ELECTRICAL	10
	121	PAOZZ	5999-00-172-8253	81343	M39029/5-115	CONTACT,ELECTRICAL	35
*	122	PAOZZ	5999-01-045-3132	81343	AS39029/5-116	CONTACT,ELECTRICAL	20
	123	PAOZZ	5999-01-065-3076	81349	M39029/5-117	CONTACT,ELECTRICAL	20
	124	PAOZZ	5999-01-070-3057	81349	M39029/5-118	CONTACT,ELECTRICAL	10
	125	PAOZZ	5999-01-068-9542	81349	M39029/5-119	CONTACT,ELECTRICAL	10
	126	PAOZZ	5999-01-068-9548	81349	M39029/22-191	CONTACT,ELECTRICAL	40
	127	PAOZA	5999-01-063-1868	81349	M39029/22-192	CONTACT,ELECTRICAL	40
	128	PAOZZ	5999-01-068-5196	81349	M39029/22-193	CONTACT,ELECTRICAL	40
	129	PAOZZ	5999-01-068-2590	81349	M39029/29-212	CONTACT,ELECTRICAL	10
	130	PAOZA	5999-01-119-6239	81349	M39029/29-213	CONTACT,ELECTRICAL	10
	131	PAOZZ	5999-01-041-3754	81349	M39029/30-217	CONTACT,ELECTRICAL	20
	132	XDOZZ	5999-01-089-0801	81349	M39029/30-218	CONTACT,ELECTRICAL	10
	133	PAOZA	5999-00-190-1887	81349	M39029/30-219	CONTACT,ELECTRICAL	10
	134	PAOZA	5999-01-183-6522	81349	M39029/35-441	CONTACT,ELECTRICAL	20
*	135	PAOZZ	5999-00-320-7459	81343	AS39029/56-348	CONTACT,ELECTRICAL	10
	136	PAOZZ	5999-00-152-9574	81349	M39029/56-351	CONTACT,ELECTRICAL	50
	137	PAOZZ	5999-01-034-0716	81349	M39029/56-352	CONTACT,ELECTRICAL	20
	138	PAOZA	5999-00-378-0206	81349	M39029/56-353	CONTACT,ELECTRICAL	10
	139	PAOZA	5999-00-478-4402	81349	M39029/57-354	CONTACT,ELECTRICAL	40
	140	PAOZA	5999-00-402-2539	81349	M39029/57-359	CONTACT,ELECTRICAL	10
*	141	PAOZA	5999-00-473-3551	81349	M39029/58-360	CONTACT,ELECTRICAL	40
	142	PAOZZ	5999-00-243-6500	81349	M39029/58-363	CONTACT,ELECTRICAL	50
	143	PAOZZ	5999-00-402-2545	81349	M39029/58-364	CONTACT,ELECTRICAL	20
	144	PAOZZ	5999-01-123-7941	81349	M39029/58-365	CONTACT,ELECTRICAL	10
*	145	PAOZZ	5999-00-239-3338	81343	M39029/63-368	CONTACT,ELECTRICAL	25
	146	PAOZA	5999-00-411-7645	81349	M39029/64-369	CONTACT,ELECTRICAL	25
	147	PAOZZ	5999-01-343-8908	71468	031-8555-051	CONTACT,ELECTRICAL 16S CHROMEL SOCKET	2
	148	PAOZZ	5999-01-344-8758	71468	030-8586-000	CONTACT,ELECTRICAL 16S PIN	10
	149	PAOZZ	5999-01-343-8903	71468	030-8586-050	CONTACT,ELECTRICAL 16S ALUMEL PIN	2
	150	PAOZZ	5999-01-343-8904	71468	030-8586-051	CONTACT,ELECTRICAL 16S CHROMEL PIN	2
	151	PAOZZ	5999-01-279-3055	71468	030-8587-000	CONTACT,ELECTRICAL	10
	152	PAOZZ	5999-01-344-8759	71468	030-8588-000	CONTACT,ELECTRICAL 12 PIN	10
	153	PAOZZ	5999-01-343-8906	71468	031-8555-000	CONTACT,ELECTRICAL 16S SOCKET	10
	154	PAOZZ	5999-01-343-8907	71468	031-8555-050	CONTACT,ELECTRICAL 16S ALUMEL SOCKET	2
	155	PAOZA	5999-01-158-8887	71468	031-8556-000	CONTACT,ELECTRICAL 16 SOCKET	10
	156	XDOZZ		71468	030-8557-000	CONTACT,ELECTRICAL 12 SOCKET	10
	157	PAOZZ	5935-01-097-0399	96906	MS27488-12-1	PLUG,END SEAL,ELECT	10
	158	PAOZZ	5935-00-235-8970	96906	MS27488-16-1	PLUG,END SEAL,ELECT	40

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 9600 SPECIAL TOOLS	
						FIG. 47 SPECIAL TOOLS	
	159	PAOZZ	5935-00-496-7171	96906	MS27488-20-1	PLUG,END SEAL,ELECT	50
	160	PAOZZ	5935-00-351-5944	96906	MS27488-22-1	PLUG,END SEAL,ELECT	50
	161	XDOZZ		11851	DMC63-CCC	CONTENTS CHART	1
	162	PAOZZ	5999-01-344-8760	71468	030-8614-000	CONTACT,ELECTRICAL I/O PIN	1
	163	XDOZZ		71468	031-8714-050	CONTACT,ELECTRICAL 16S CHROMEL SOCKET	1
	164	PAOZZ	5999-01-343-8905	71468	031-8521-000	CONTACT,ELECTRICAL 16S CHROMEL SOCKET	1
*	165	PAOOF	5935-01-436-9147	19207	57K2935	MAINTENANCE KIT,ELECTRICAL (FGC 960002)	1
	166	PAOZA	5999-01-138-5637	81349	M39029/29-215	CONTACT,ELECTRICAL	10
	167	PAOZA	5999-01-117-3634	81349	M39029/30-221	CONTACT,ELECTRICAL	10
	168	PAOZA	5999-01-193-0286	81349	M39029/1-507	CONTACT,ELECTRICAL	10
	169	XDOZZ		77820	10-40564	CONTACT,ELECTRICAL	3
	170	PAOZZ	5999-01-460-0654	17549	031-8613-000	CONTACT,ELECTRICAL	3
	171	XDOZZ		11851	DMC730-16FM	FOAM PAD	2
	172	XDOZZ		11851	DMC63SUPP-4FM	FOAM INSERT	1
	173	XDOZZ		11851	DMC63SUPP-5FM	FOAM PAD	1
	174	XDOZZ		11851	DMC730-19FM	FOAM PAD	1
	175	XDOZZ		11851	DMC63SUPP-NP	NAMEPLATE	1
	176	XDOZZ		11851	9-1073-8	CASE,FIBERGLASS	1
	177	XDOZZ		11851	DMC262-5FM	FOAM PAD	2
	178	XDOZZ		11851	DMC63SUPP-CCB	CONTENTS CHART	1
	179	XDOZZ		11851	DMC179-WL	WARNING LABEL	4
	180	PAOZZ	5340-01-228-3413	11851	A18-LT	STRIKE,CATCH	2
	181	XDOZZ		11851	DMC63SUPP-CCA	CONTENTS CHART	1
	182	XDOZZ		11851	DMC63SUPP-HBK	HANDBOOK	1
	183	XDOZZ		11851	M2700-969	BINDER,4-RING	1
	184	XDOZZ		11851	DMC63SUPP-1FM	FOAM INSERT	1
	185	XDOZZ		11851	DMC63SUPP-2FM	FOAM INSERT	1
	186	XDOZZ		11851	DMC63SUPP-3FM	FOAM PAD	1
	187	XDOZZ		11851	DMC730-12FM	FOAM PAD	2
	188	XDOZZ		58164	ATC 2234	REMOVAL TOOL	1
	189	PAOZZ	5120-01-367-0272	11851	M81969/14-07	INSERTER AND REMOVE	5
	190	XDOZZ		11851	K496-1	POSITIONER	1
	191	PAOZZ	5120-00-221-7966	11851	BT-HT-100	HANDLE,SOCKET WRENCH,T-HANDLE,3/8	1
	192	PAOZZ	5120-00-241-3143	11851	BT-HT-107	HANDLE,SOCKET WRENC	1
	193	XDOZZ		11851	BT-J-149 AL	SOCKET,JAM NUT	1
	194	XDOZZ		11851	BT-J-146 AL	SOCKET,JAM NUT	1
	195	XDOZZ		11851	BT-J-142 AL	SOCKET,JAM NUT	1
	196	XDOZZ		11851	BT-J-139 AL	SOCKET,JAM NUT	1
	197	XDOZZ		11851	BT-J-138 AL	SOCKET,JAM NUT	1
	198	XDOZZ		11851	BT-J-133 AL	SOCKET,JAM NUT	1
	199	XDOZZ		11851	BT-J-130 AL	SOCKET,JAM NUT	1
	200	XDOZZ	5120-01-377-4600	11851	CM389TR-9A	ADAPTER TOOL,ELECTR	1
*	201	XDOZZ	5120-01-377-4527	11851	CM389TR-9B	ADAPTER TOOL,ELECTR	1
*	202	XDOZZ	5120-01-377-1288	11851	CM389TR-11A	ADAPTER TOOL,ELECTR	1
*	203	XDOZZ	5120-01-377-1252	11851	CM389TR-13A	ADAPTER TOOL,ELECTR	1
*	204	XDOZZ	5120-01-377-1188	11851	CM389TR-15A	ADAPTER TOOL,ELECTR	1
*	205	XDOZZ	5120-01-379-0140	11851	CM389TR-15B	ADAPTER TOOL,ELECTR	1
*	206	XDOZZ	5120-01-379-0193	11851	CM389TR-17A	ADAPTER TOOL,ELECTR	1
	207	XDOZZ	5120-01-379-0172	11851	CM389TR-19A	ADAPTER TOOL,ELECTR	1
	208	XDOZZ	5120-01-379-0161	11851	CM389TR-19B	ADAPTER TOOL,ELECTR	1
	209	XDOZZ	5120-01-379-0142	11851	CM389TR-21A	ADAPTER TOOL,ELECTR	1

	(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
						GROUP 9600 SPECIAL TOOLS	
						FIG. 47 SPECIAL TOOLS	
	210	XDOZZ	5120-01-379-0146	11851	CM389T-17A	ADAPTER TOOL,ELECTR	1
	211	XDOZZ	5120-01-377-1200	11851	CM389T-15B	ADAPTER TOOL,ELECTR	1
*	212	XDOZZ	5120-01-377-1172	11851	CM389T-15A	ADAPTER TOOL,ELECTR	1
*	213	XDOZZ	5120-01-377-1215	11851	CM389T-13A	ADAPTER TOOL,ELECTR	1
*	214	XDOZZ	5120-01-377-1302	11851	CM389T-11A	ADAPTER TOOL,ELECTR	1
*	215	XDOZZ	5120-01-377-1178	11851	CM389T-11B	ADAPTER TOOL,ELECTR	1
*	216	XDOZZ	5120-01-377-1230	11851	CM389T-9A	ADAPTER TOOL,ELECTR	1
*	217	XDOZZ	5120-01-379-0194	11851	CM389T-9B	ADAPTER TOOL,ELECTR	1
	218	XDOZZ	5120-01-377-4568	11851	CM389TR-25B	ADAPTER TOOL,ELECTR	1
	219	XDOZZ	5120-01-377-4605	11851	CM389TR-25A	ADAPTER TOOL,ELECTR	1
*	220	XDOZZ	5120-01-379-0173	11851	CM389TR-23A	ADAPTER TOOL,ELECTR	1
	221	PAOZZ	5120-01-255-7892	11851	CM389T-19A	ADAPTER TOOL,ELECTR	1
*	222	XDOZZ	5120-01-377-1207	11851	CM389T-21A	ADAPTER TOOL,ELECTR	1
*	223	XDOZZ	5120-01-377-1245	11851	CM389T-23A	ADAPTER TOOL,ELECTR	1
*	224	XDOZZ	5120-01-377-4525	11851	CM389T-25A	ADAPTER TOOL,ELECTR	1
*	225	XDOZZ	5120-01-377-1320	11851	CM389T-25B	ADAPTER TOOL,ELECTR	1
*	226	XDOZZ	5120-01-377-1152	11851	CM389B-25	ADAPTER TOOL,ELECTR	1
*	227	XDOZZ	5120-01-368-4133	11851	CM389B-15	ADAPTER TOOL,ELECTR	1
	228	XDOZZ	5120-01-377-1193	11851	CM387-14B	ADAPTER TOOL,ELECTR	1
	229	XDOZZ	8125-01-347-5348	11851	4-1254	BOTTLE,SNAP-ON CAP	55
	230	PAOZZ	5340-01-342-4898	11851	4-1249	PLUG,PROTECTIVE,DUS	55
	231	PEODD	6625-01-448-9832	19200	12972150	ACCESSORY STOWAGE UNIT, TSA SEE FIG. 43 FOR BREAKDOWN	1
						END OF FIGURE	

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STOCK NUMBER	FIG.	ITEM
5975-00-009-0173	17	4
5120-00-016-6382	47	43
5120-00-016-7582	47	44
5120-00-017-3809	47	25
5120-00-017-3827	47	26
5120-00-017-3921	47	27
5120-00-017-3927	47	28
5120-00-017-3932	47	29
5120-00-018-0529	47	79
5120-00-018-0531	47	77
5120-00-018-0575	47	91
5310-00-043-4708	25B	40
	29	37
5305-00-054-5637	16	147
	25B	38
	29	39
5305-00-054-5640	24	8
5305-00-054-5647	25C	5
5305-00-054-5648	16	159
	25B	2
	29	1
	30	5
	31	3
5305-00-054-5651	29	63
5305-00-054-5652	25B	5
5305-00-054-5654	29	50
5305-00-054-6650	29	36
5305-00-054-6651	16	150
5305-00-054-6652	16	129
	25B	54
5305-00-054-6653	16	117
5305-00-054-6654	16	95
5305-00-054-6655	16	57
5305-00-054-6656	16	123
5305-00-054-6670	18	5
	19	6
5305-00-059-3659	29	24
5305-00-059-5433	29	32
5305-00-071-1324	14	20
5970-00-089-1454	33	5
	44	8
	BULK	29
5220-00-090-6722	47	21
5970-00-101-4669	47	66
5120-00-103-9708	47	78
5940-00-113-8179	16	125
	17	34
5940-00-113-9828	16	68
5940-00-114-1305	20	6
5320-00-117-6939	15	6
5120-00-126-0860	47	23
5120-00-132-5739	47	93
5120-00-132-6913	47	47
5940-00-143-4774	16	143
	17	8
5940-00-143-4775	16	78
5940-00-143-4777	8	1
5120-00-146-6558	47	84
5999-00-146-8592	7	2
	9	8
	10	2
	11	6

STOCK NUMBER	FIG.	ITEM
5999-00-146-8592	24	2
	25E	8
	44	2
	45	2
	47	116
5999-00-152-9574	25	12
	25D	20
	25E	2
	33	3
	47	136
5120-00-157-3138	47	95
5120-00-165-3910	47	33
5120-00-165-3912	47	38
5120-00-165-3913	47	24
5310-00-167-0801	16	89
5999-00-172-8253	16	73
	44	6
	47	121
5999-00-172-8254	47	117
5130-00-176-3991	47	19
6210-00-176-4928	16	81
6210-00-176-4954	4	1
	16	84
6210-00-176-4955	4	3
	16	83
6210-00-176-4956	4	4
5120-00-177-6966	47	82
5120-00-177-6967	47	81
5120-00-177-7341	47	22
5999-00-190-1887	47	133
5999-00-201-3970	47	115
5940-00-204-8966	16	151
5940-00-204-8990	16	14
5310-00-208-3786	16	127
	17	3
	19	14
	29	46
5310-00-208-9255	16	88
	29	8
5120-00-221-7966	47	191
5320-00-234-1557	15	6
5935-00-235-8970	33	12
	47	158
5999-00-239-3338	16	50
	17	17
	25D	3
	47	145
5120-00-241-3143	47	192
5999-00-243-6500	25D	13
	47	142
5331-00-250-0225	3	4
5120-00-251-9503	47	83
5325-00-298-7027	5	5
	15	17
5999-00-310-4325	47	113
5999-00-320-7459	16	70
	34	2
	41	2
	47	135
5940-00-349-9282	38	1
5935-00-351-5944	9	3
	10	7

NATIONAL STOCK NUMBER INDEX– CONTINUED

STOCK NUMBER	FIG.	ITEM
5935-00-351-5944	11	3
	21	3
	24	20
	27	13
	27	25
	33	7
	34	10
	35	8
	36	8
	37	9
	39	4
	40	7
	41	12
	42	6
	5	8
	46	9
	47	160
5961-00-368-2259	25D	22D
5999-00-378-0206	20	2
	47	138
5999-00-402-2539	47	140
5999-00-402-2545	47	143
5999-00-408-5585	47	119
5120-00-409-5206	47	80
5935-00-410-9250	29	56
5999-00-411-7645	17	30
	24	15
	25	2
	47	146
4030-00-431-5536	25B	25
	25D	5
	29	31
5961-00-433-7220	16	77
5310-00-461-4825	25B	36
	29	41
5999-00-473-3551	9	2
	10	6
	11	2
	16	110
	21	2
	24	4
	25D	26
	33	9
	34	7
	35	2
	36	2
	37	2
	39	2
	39	9
	40	2
	40	9
	40	11
	41	11
	42	2
	42	8
	45	10
	45	15
	46	2
	46	12
	46	16
	47	141
5999-00-478-4402	47	139

STOCK NUMBER	FIG.	ITEM
5935-00-489-1959	16	134
5935-00-496-7171	7	3
	9	9
	10	3
	11	7
	24	17
	25	9
	25E	6
	33	13
	44	4
	45	17
	47	159
5998-00-506-6746	16	105
5930-00-519-8144	16	15
5310-00-543-2739	16	52
	17	10
	18	4
	19	5
5310-00-543-4652	24	9
5310-00-550-3715	19	15
5940-00-557-1629	16	79
	17	9
5310-00-595-6211	31	2
5940-00-615-6073	16	114
	17	21
5310-00-616-3555	16	96
	17	33
5310-00-616-3648	25C	3
5120-00-624-8065	47	74
5305-00-701-5071	16	106
5310-00-716-5612	17	2
	25B	6
	31	1A
5970-00-717-1474	35	6
	36	6
	37	5
	BULK	28
5305-00-719-5064	16	7
	18	14
	19	2
5305-00-725-4191	16	133
	18	16
	19	20
5975-00-727-5153	30	7
	31	5
5970-00-727-6728	38	2A
5305-00-727-8832	16	2
5305-00-763-6961	16	136
	17	6
	25B	33
	29	65
5305-00-763-6962	16	13
5305-00-763-6963	16	1
	17	28
	25B	1
	29	5
5305-00-764-0066	16	8
5305-00-764-0068	17	27
5970-00-767-0515	16	45
	27	17
	27	21
	BULK	21

NATIONAL STOCK NUMBER INDEX – CONTINUED

STOCK NUMBER	FIG.	ITEM
5970-00-767-0524	16	41
	17	19
	BULK	22
5305-00-770-2533	16	18
	17	26
	19	21
	25B	4
	29	34
5305-00-777-6039	16	11
5305-00-781-5662	25B	30
5310-00-811-6419	12	5
	13	3
	13	17
	22	12
	23	10
5970-00-812-1356	35	5
	36	5
	37	4
	BULK	27
5970-00-814-2878	6	3
	BULK	16
5970-00-815-1300	20	9
	BULK	17
5365-00-826-9762	29	47
5305-00-828-9490	12	3
	13	7
	13	19
	22	10
	23	8
5310-00-837-1381	18	8
	19	9
5305-00-855-2991	14	13
	16	93
5970-00-871-5779	8	8
	BULK	23
5305-00-902-2138	18	15
	19	19
5970-00-903-8733	18	12
	19	13
	25D	22A
	BULK	19
5120-00-915-4587	47	92
5120-00-915-4588	47	94
5970-00-916-2679	16	40
	29	12
	29	20
	BULK	18
5325-00-926-1394	16	103
5310-00-928-2690	25B	39
	29	38
4010-00-929-0041	25B	24
	25D	6
	BULK	31A
5310-00-933-8118	25B	8
	25C	4
	29	64
	30	4
5310-00-933-8120	16	67
5310-00-934-9759	16	51
	17	7
5310-00-934-9761	16	107
	17	35
5310-00-934-9761	18	9
	19	11
5310-00-938-2013	16	135
	18	11
	19	16
5310-00-942-5139	5	2
	12	12
	13	21
	15	9
	22	19
	23	16
5970-00-954-1622	27	18
	27	20
	BULK	25
5970-00-954-1624	29	13
	29	21
	38	2
	BULK	26
5305-00-958-2918	18	6
	19	7
5325-00-980-2555	5	1
	12	10
	13	11
	15	8
	22	17
	23	15
5970-00-990-9911	8	2
	16	43
	BULK	24
5970-00-990-9912	16	42
	17	18
	BULK	20
5305-00-993-9189	16	23
5999-01-034-0716	8	5
	33	2
	47	137
5310-01-037-1236	16	158
	29	2
	30	3
5120-01-037-1407	47	46
5110-01-037-1408	47	20
5999-01-041-3754	47	131
5999-01-044-4099	47	118
5999-01-045-3132	47	122
5935-01-047-4723	16	109
5930-01-049-5779	16	76
5935-01-052-9436	16	64
	25B	18
6145-01-057-6106	16	33
	BULK	11
5340-01-059-7950	25B	55
	29	35
5999-01-063-1868	47	127
5999-01-065-3076	47	123
5935-01-067-2961	34	6
5999-01-068-2587	47	120
5999-01-068-2590	47	129
5999-01-068-5196	47	128
5999-01-068-9542	47	125
5999-01-068-9548	47	126
5935-01-069-2562	20	1
5999-01-070-3057	47	124

NATIONAL STOCK NUMBER INDEX– CONTINUED 0158 00

STOCK NUMBER	FIG.	ITEM
5961-01-070-8942	25D	22E
5935-01-072-3884	25D	19
9905-01-073-9737	2	22
	3	5
	14	16
	16	5
	25B	58
	27	10
	29	76
	43	10
5935-01-074-8627	11	1
6145-01-075-1041	16	34
	BULK	12
5935-01-077-5176	10	5
5935-01-079-9091	25B	26
5935-01-080-6231	24	3
5935-01-081-0844	16	74
5961-01-085-4002	16	44
5935-01-085-6512	16	65
5999-01-089-0801	47	132
5935-01-092-3424	24	1
	25E	7
	44	1
	45	1
5935-01-092-9698	8	4
6240-01-093-7323	4	2
	16	82
5340-01-094-9589	12	19
	13	8
	16	102
5935-01-094-9922	9	1
	21	1
	25D	25
	41	10
5340-01-095-2138	16	137
	17	11
	18	10
	19	12
5935-01-096-8045	25D	12
5935-01-097-0399	20	13
	34	4
	47	157
5935-01-098-9998	10	1
6145-01-099-9118	21	6
	24	18
	25	5
	25D	29
	33	10
	35	7
	36	7
	37	6
	39	7
	40	5
	42	4
	44	3
	45	5
	46	6
	BULK	39
5935-01-100-4857	16	69
5905-01-106-4465	25D	22C
5935-01-107-7294	11	5
5935-01-108-4488	7	1
5935-01-108-4488	9	7
5998-01-108-8728	25B	48
	29	70
5935-01-108-9518	25B	21
6145-01-115-2036	34	9
	41	6
	BULK	13
5220-01-116-3020	47	37
5220-01-116-3021	47	36
5220-01-116-3022	47	34
5220-01-116-3023	47	35
5120-01-116-6115	47	90
5120-01-117-3212	47	18
5120-01-117-3213	47	12
5120-01-117-3214	47	17
5120-01-117-3215	47	11
5120-01-117-3216	47	16
5120-01-117-3217	47	10
5120-01-117-3218	47	15
5120-01-117-3219	47	9
5120-01-117-3220	47	14
5120-01-117-3221	47	13
5120-01-117-3222	47	8
5120-01-117-3310	47	73
5999-01-117-3634	47	167
5935-01-117-8182	27	12
	27	26
6150-01-118-8651	2	4
6625-01-118-8661	2	6
5325-01-118-8671	16	154
	17	31
5340-01-118-8672	16	48
	17	14
	29	57
6150-01-118-8843	2	5
5970-01-119-5707	14	14
	16	90
	29	25
4330-01-119-5748	17	24
5365-01-119-5750	16	124
5999-01-119-6239	47	130
5999-01-120-2898	15	12
5999-01-120-4165	16	56
6625-01-121-1404	6	2
5340-01-121-1405	6	1
5999-01-123-7941	16	75
	47	144
5905-01-126-4689	25D	22B
5999-01-127-5022	8	6
	38	4
6145-01-128-4162	16	32
	BULK	6
5940-01-128-4437	47	101
5940-01-128-4438	47	102
6145-01-129-9955	16	39
	17	15
	BULK	9
5940-01-130-5697	18	13
	19	17
5999-01-130-6261	47	111
5999-01-130-6262	47	110
6145-01-131-2403	16	31

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STOCK NUMBER	FIG.	ITEM
6145-01-131-2403	BULK	5
6145-01-131-2417	16	35
	BULK	8
5120-01-131-6022	47	72
5999-01-131-7436	47	105
5999-01-131-7437	47	103
5999-01-131-7438	47	104
5999-01-131-7439	47	106
5935-01-132-4419	25	11
6145-01-135-6836	21	8
	BULK	7
5940-01-135-7076	9	13
	25D	20A
5940-01-135-7084	45	11
	46	10
5940-01-135-7085	16	138
	21	10
	25D	1
	33	11
5940-01-135-7086	16	139
	21	9
	29	11
	29	19
5940-01-135-7087	16	140
5940-01-135-7091	9	12
5940-01-136-2540	7	8
6640-01-136-7362	3	3
5999-01-138-5637	47	166
6150-01-142-5585	2	7
6150-01-142-5586	2	8
6150-01-142-5587	2	9
5340-01-144-5534	15	3
5340-01-144-5535	15	2
6625-01-146-6241	14	1
5999-01-146-6441	17	12
4931-01-146-6448	47	4
4931-01-146-6450	47	67
4931-01-146-6451	47	7
4931-01-146-6452	47	6
4931-01-146-6453	47	5
4931-01-146-6454	47	2
4931-01-146-6455	47	68
4931-01-146-6456	47	63
4931-01-146-6457	47	3
9905-01-146-6461	3	1
	14	19
	29	77
5999-01-146-6466	47	109
7690-01-146-6473	15	16
	28	5
	43	9
5998-01-146-7700	2	26
5935-01-147-5743	33	8
5935-01-149-9363	34	1
	41	1
5935-01-153-7510	2	13
5935-01-153-7511	2	17
	25A	16
5935-01-153-7512	2	14
5935-01-153-7513	2	12
5340-01-153-8249	15	1
5935-01-153-8301	2	19
5935-01-154-0924	2	10
5310-01-156-7514	5	4
	12	4
	13	18
	15	11
	22	11
	23	9
5935-01-157-9563	16	72
	44	5
5325-01-158-6752	5	3
	12	6
	13	15
	15	10
	22	16
	23	11
5999-01-158-8887	47	155
6145-01-162-6049	10	11
	37	7
	42	5
	46	13
	BULK	40
5340-01-166-2685	30	9
6145-01-169-5661	25D	9
	25E	5
	29	58
	BULK	41
6145-01-170-4658	7	5
	9	4
	10	10
	11	10
	BULK	39A
7690-01-173-9940	2	3
7690-01-174-1058	14	22
7690-01-174-1060	14	2
	27	9
5310-01-177-9747	25C	2
6145-01-181-0868	7	6
	9	5
	46	14
	BULK	14
5935-01-183-6481	25B	27
5999-01-183-6522	47	134
5999-01-193-0286	47	168
4931-01-193-4731	47	69
6145-01-194-8544	29	14
	29	22
	41	5
	BULK	15
5935-01-203-3258	16	47
5935-01-207-5632	2	16
	25A	11
5935-01-207-5633	2	11
4931-01-207-5635	2	24
2590-01-207-5665	12	15
	22	4
2590-01-207-5666	12	14
	22	3
2590-01-207-5667	12	16
	22	2
4931-01-207-5668	2	25
2590-01-207-5670	13	4
2590-01-207-5671	13	5

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STOCK NUMBER	FIG.	ITEM
5340-01-207-5672	13	2
7690-01-207-5731	2	2
7690-01-207-5735	2	29
5330-01-217-2024	15	7
	28	3
	BULK	30
5340-01-224-6380	6	4
	9	11
	21	4
	24	5
	25D	23
	25E	10
	41	7
	45	13
5340-01-224-6381	7	7
	9	10
5340-01-224-6382	8	3
	25	7
	25D	17
5340-01-224-6383	10	8
	11	8
5340-01-224-6384	10	4
	11	4
	24	16
	25E	9
	45	3
5340-01-224-7514	45	6
	46	7
5340-01-224-7515	20	11
	41	4
5340-01-224-7517	39	5
	40	6
	42	9
	46	4
5305-01-224-9128	12	13
	13	6
	22	1
	23	1
6625-01-225-8342	1	2
5120-01-227-3173	47	75
5340-01-228-3413	47	180
5935-01-229-8678	35	1
	40	10
	42	1
5935-01-230-4095	39	8
	40	8
	42	7
5935-01-230-5470	46	11
5935-01-230-9669	45	14
5120-01-231-5725	47	97
6145-01-231-7624	16	30
	BULK	37
6625-01-237-3640	15	5
4931-01-240-6931	16	99
5340-01-240-6932	16	9
6150-01-240-7063	16	152
6130-01-240-7074	16	46
6150-01-240-7083	16	148
6150-01-240-7084	14	26
4130-01-240-7143	16	101
5340-01-240-7144	25B	52
	29	73
5365-01-240-7204	16	22
5305-01-240-7285	16	21
5340-01-240-7307	16	87
5999-01-240-7328	16	160
5999-01-240-7349	16	126
	17	22
5999-01-240-7350	16	60
5999-01-240-7351	16	113
5999-01-240-7353	16	59
5999-01-240-7355	16	63
6145-01-240-7522	16	28
	17	20
	BULK	35
6145-01-241-0959	16	29
	BULK	34
5340-01-241-5040	25B	56
	29	74
6145-01-241-5184	16	26
	BULK	33
6145-01-241-6545	16	27
	BULK	36
6625-01-242-2494	14	5
6625-01-242-2495	14	6
6625-01-242-2496	14	7
6625-01-242-2497	14	8
6625-01-242-2498	14	9
6625-01-242-2499	14	10
6625-01-242-2500	14	11
6625-01-242-2501	14	12
5340-01-242-2552	25B	53
	29	33
5999-01-242-2619	17	1
5940-01-243-6938	16	119
	17	5
5940-01-243-6949	16	120
5998-01-245-7143	1	3
6150-01-247-1059	14	25
6150-01-247-1175	14	24
5935-01-250-5882	36	1
	37	1
5935-01-250-5883	39	1
	40	1
	46	15
5935-01-254-0903	33	1
5330-01-254-5201	15	7
	28	3
	BULK	32
6145-01-255-4713	21	7
	25	6
	25D	28
	45	12
	BULK	10
5120-01-255-7892	47	221
5340-01-257-6368	25B	50
	29	78
5935-01-268-1284	16	71
4130-01-276-1932	16	100
4140-01-276-6621	18	2
4140-01-276-6621	19	3
8145-01-277-0475	14	23
8145-01-277-0476	14	21
5330-01-277-2691	16	98

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STOCK NUMBER	FIG.	ITEM
4010-01-278-1169	16	92
5925-01-278-7747	16	80
5999-01-279-3055	47	151
5935-01-282-2054	25D	2
5935-01-282-3114	17	29
	24	14
	25	1
5340-01-283-1336	16	128
	17	23
5935-01-284-2870	16	49
	17	16
6145-01-284-4810	20	4
	BULK	38
5310-01-291-2110	25B	12
5935-01-298-6501	29	48
4931-01-310-0379	2	18
5340-01-322-3206	22	5
	23	2
5120-01-335-8672	47	89
5120-01-335-8674	47	85
5120-01-335-8675	47	65
5120-01-335-8716	47	86
5120-01-335-8842	47	70
5120-01-338-2697	47	76
5340-01-342-4898	47	100
	47	230
5935-01-342-4914	47	107
5935-01-342-4915	47	108
7690-01-342-5896	47	60
5999-01-343-8903	47	149
5999-01-343-8904	47	150
5999-01-343-8905	47	164
5999-01-343-8906	47	153
5999-01-343-8907	47	154
5999-01-343-8908	47	147
5935-01-344-1073	47	1
5120-01-344-3774	47	71
5999-01-344-8741	16	61
5999-01-344-8758	47	148
5999-01-344-8759	47	152
5999-01-344-8760	47	162
8125-01-347-5348	47	99
	47	229
6130-01-350-2132	16	55
6130-01-350-5812	17	13
5935-01-350-9533	25B	42
	29	54
5310-01-352-4235	25B	35
	29	42
6130-01-353-6593	16	10
5120-01-361-9362	47	61
5120-01-361-9451	47	96
5120-01-361-9452	47	41
5120-01-361-9498	47	39
5120-01-361-9593	47	62
5120-01-361-9594	47	64
5120-01-361-9642	47	30
5120-01-361-9646	47	31
5120-01-361-9656	47	32
5120-01-361-9708	47	45
5120-01-361-9709	47	42
5120-01-367-0272	47	189
5120-01-368-4133	47	227
5360-01-369-1402	25B	37
	29	40
5998-01-375-8870	29	85
5998-01-376-0464	29	84
5998-01-376-3308	29	3
5998-01-376-3337	29	86
5998-01-376-5532	29	82
5120-01-377-1152	47	226
5120-01-377-1172	47	212
5120-01-377-1178	47	215
5120-01-377-1188	47	204
5120-01-377-1193	47	228
5120-01-377-1200	47	211
5120-01-377-1207	47	222
5120-01-377-1215	47	213
5120-01-377-1230	47	216
5120-01-377-1245	47	223
5120-01-377-1252	47	203
5120-01-377-1288	47	202
5120-01-377-1302	47	214
5120-01-377-1320	47	225
5120-01-377-4525	47	224
5120-01-377-4527	47	201
5120-01-377-4568	47	218
5120-01-377-4600	47	200
5120-01-377-4605	47	219
5120-01-379-0142	47	209
5120-01-379-0146	47	210
5120-01-379-0161	47	208
5120-01-379-0172	47	207
5120-01-379-0173	47	220
5120-01-379-0194	47	217
5935-01-380-1395	27	28
5998-01-380-1450	29	87
5935-01-380-1491	27	27
5998-01-380-8959	19	10
6150-01-380-8966	27	19
5935-01-381-3311	27	29
5998-01-382-0187	16	62
5995-01-382-0937	27	11
6150-01-382-3204	25A	20
	27	31
6150-01-382-4360	29	9
6150-01-382-4365	27	34
5935-01-382-4374	27	30
6150-01-382-6800	27	33
5998-01-382-7282	1	3
6150-01-382-8039	29	55
6150-01-383-2680	27	32
5305-01-383-4182	25B	51
	29	72
5935-01-383-7228	25E	1
5935-01-384-2564	29	26
6150-01-384-5745	29	17
5999-01-385-7842	16	91
	29	7
5325-01-397-8145	12	18
5325-01-397-8145	13	9
	22	7
	23	4
6625-01-421-9775	2	15

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STOCK NUMBER	FIG.	ITEM
5998-01-421-9780	30	1
5998-01-421-9782	27	7
5998-01-421-9785	30	6
5998-01-422-3071	29	80
5998-01-422-3075	29	81
6150-01-423-6318	30	8
	31	6
5935-01-426-3200	29	15
5120-01-430-8597	47	88
5935-01-436-9147	47	165
6625-01-448-7576	43	12
6150-01-448-8899	27	1
6625-01-448-9831	43	6
6625-01-448-9832	47	231
6150-01-449-1508	27	35
6150-01-449-1519	43	5
6625-01-449-1521	43	7
6150-01-449-4178	43	4
6150-01-451-0328	43	3
5935-01-451-3032	45	9
5935-01-451-6760	27	8C
7025-01-451-8466	27	8A
5935-01-454-2587	46	1
8145-01-454-4642	27	3
5340-01-455-4103	27	6
5915-01-459-4137	16	122
5999-01-460-0654	47	170
6150-01-461-6190	43	2
7025-01-467-0145	27	8B
8145-01-469-2916	27	5
6150-01-485-8708	29	44
5998-01-487-2111	29	88
5998-01-487-2113	29	83
5998-01-493-1670	30	2
5340-01-495-3036	25B	46
	29	67
7025-01-497-6655	25B	28
5935-01-505-2885	25D	7
6150-01-505-2889	25A	19
5998-01-505-2900	25B	11
6150-01-505-2904	25A	7
5998-01-505-2910	25B	64
6625-01-505-5108	25A	1
5998-01-505-5110	25C	6
6150-01-505-5111	25A	18
5340-01-506-0822	25B	19
5998-01-506-4678	25B	7
5995-01-506-5784	25A	8
5935-01-506-6827	25A	10
5935-01-506-6831	25A	14
5935-01-506-6841	25A	15
5935-01-506-6860	25A	9
5995-01-506-8066	25B	31
5995-01-506-8092	25B	32
5999-01-506-8718	25B	16
5935-01-506-9990	25B	29
5940-01-507-0329	8	9
6150-01-517-6125	14	27
5998-01-517-6130	25B	61
7030-01-519-5632	25A	1A
	27	30B
5998-01-523-9136	25C	1
5998-01-525-3985	16	62
5998-01-532-1716	16	62
6625-01-532-5641	25A	12
5998-01-532-7955	16	126
	17	22
5935-01-535-6950	25	3
5998-01-546-5206	29	3
5998-01-546-5215	25B	65
5998-01-546-5217	16	63
6625-01-548-7632	25D	4
6625-01-552-9879	26	1
5998-01-555-0359	29	80
5998-01-555-3331	25B	60
5998-01-555-8438	25B	62
6150-01-555-8442	25A	6
	27	34A
5998-01-555-8450	31	1
5998-01-555-8457	29	85
5998-01-555-8471	29	82
5998-01-555-8472	29	83
5998-01-555-9359	25B	63
5998-01-555-9361	31	4
5998-01-557-7440	27	7
5998-01-558-3563	29	81
6625-01-559-2662	1	2
5998-01-563-9814	29	87A
5998-01-565-6687	27	7
5340-01-567-6579	31	7
5325-01-569-3036	12	17
	13	1
	22	6
	23	3
6625-01-569-3614	1	2

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AN960C10	16	89
AS3209-016	25D	21
AS3209-018	25D	27
	25E	3
	41	8
	45	16
AS3209-020	20	12
	41	3
AS3209-024	45	7
	46	8
AS3209-026	25D	11
AS3209-028	35	3
	36	3
	37	8
	39	3
	40	3
	42	3
	46	3
AS39029/5-116	47	122
AS39029/56-348	16	70
	34	2
	41	2
	47	135
ATC 2234	47	188
A18-LT	47	180
BJ71	16	71
BT-A-6010	47	97
BT-BS-609	47	70
BT-HT-100	47	191
BT-HT-107	47	192
BT-J-130 AL	47	199
BT-J-133 AL	47	198
BT-J-138 AL	47	197
BT-J-139 AL	47	196
BT-J-142 AL	47	195
BT-J-146 AL	47	194
BT-J-149 AL	47	193
B107.27	47	74
CG12	47	37
CG16	47	36
CG20	47	34
CG22	47	35
CM387-14B	47	228
CM389B-15	47	227
CM389B-25	47	226
CM389T-11A	47	214
CM389T-11B	47	215
CM389T-13A	47	213
CM389T-15A	47	212
CM389T-15B	47	211
CM389T-17A	47	210
CM389T-19A	47	221
CM389T-21A	47	222
CM389T-23A	47	223
CM389T-25A	47	224
CM389T-25B	47	225
CM389T-9A	47	216
CM389T-9B	47	217
CM389TR-11A	47	202
CM389TR-13A	47	203
CM389TR-15A	47	204
CM389TR-15B	47	205
CM389TR-17A	47	206
CM389TR-19A	47	207
CM389TR-19B	47	208
CM389TR-21A	47	209
CM389TR-23A	47	220
CM389TR-25A	47	219
CM389TR-25B	47	218
CM389TR-9A	47	200
CM389TR-9B	47	201
CS10	47	12
CS12	47	17
CS14	47	11
CS16	47	16
CS18	47	10
CS20	47	15
CS22	47	9
CS22-1	47	8
CS24	47	14
CS24-1	47	13
CS8	47	18
CW100-1	47	2
CW100-2	47	3
CW100-3	47	4
CW100-4	47	5
CW100-5	47	6
CW100-6	47	7
DAK83-12B	47	89
DAK83-20B	47	85
DAK96-12	47	62
DAK96-16	47	64
DMC179-WL	47	98
	47	179
DMC262-5FM	47	177
DMC63-CCA	47	49
DMC63-CCB	47	59
DMC63-CCC	47	161
DMC63-CS/N-1	47	48
DMC63-NP	47	58
DMC63-VLS	47	60
DMC63-WS/N-3	47	50
DMC63SUPP-CCA	47	181
DMC63SUPP-CCB	47	178
DMC63SUPP-HBK	47	182
DMC63SUPP-NP	47	175
DMC63SUPP-1FM	47	184
DMC63SUPP-2FM	47	185
DMC63SUPP-3FM	47	186
DMC63SUPP-4FM	47	172
DMC63SUPP-5FM	47	173
DMC730-12FM	47	187
DMC730-16FM	47	171
DMC730-19FM	47	174
DRK105	47	61
DRK110	47	65
DRK83-12	47	90
DRK83-20B	47	86
DRK96	47	96
DW75	47	73
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D38999/24FA35SN	29	15
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D38999/26FE35SN	34	1
	41	1
D38999/26WJ4SN	33	1
D38999/46FG35PA	45	14
D38999/46FG35PN	46	11
D38999/46FJ35PA	36	1
	37	1
D38999/46FJ35PB	39	8
	40	8
	42	7
D38999/46FJ35PC	39	1
	40	1
	46	15
D38999/46FJ35PN	35	1
	40	10
	42	1
GS531B2P	25B	25
	25D	5
	29	31
G302439-5	31	2
HX3-82	47	46
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IS0132/IS0033	47	55
JANTX1N758A-1	25D	22E
JAN1N4465	25D	22D
JAN1N5417	16	77
JAN1N5811	16	44
K280	47	30
K330-3	47	31
K496-1	47	190
K503	47	32
LC35GT2	4	3
	16	83
LC35RT2	4	1
	16	84
LC35WT2	4	4
LH89/1	16	81
MIL-W-83420	29	29
	BULK	42
MS16106-1	16	15
MS20257-4-800	12	8
	13	14
	22	14
	23	12
MS20426AD3-5	15	6
MS20426A3-6	15	6
MS20426D3-4	12	9
MS20426D3-4	13	13
	22	15
	23	13
MS21042-04	12	5
	13	3
	13	17
	22	12
	23	10
MS21044C3	16	88
MS21044C3	29	8
MS21266-3N	16	103
MS24693-C2	16	23
MS24693-C26	18	6
	19	7
MS24693-C269	25B	30
MS24693-C56	18	15
	19	19
MS24693-70B	12	13
	13	6
	22	1
	23	1
MS25036-102	16	151
MS25036-107	16	125
	17	34
MS25036-111	16	14
MS25036-116	20	6
MS25036-148	16	68
MS25036-149	16	79
	17	9
MS25036-152	16	114
	17	21
MS25036-153	16	143
	17	8
MS25036-154	8	9
MS25036-156	16	78
MS25036-157	8	1
MS25237-8918	4	2
	16	82
MS27467E15B35PA	24	3
MS27467E15F35PA	45	9
MS27467E25F35PB	10	5
MS27467E25F35PC	11	1
MS27467T13B4S	8	4
MS27467T13F98S	25D	19
MS27467T15F19S	25E	1
MS27467T15F35P	9	1
	21	1
	25D	25
	41	10
MS27467T17F6S	20	1
MS27468E15B35S	16	109
MS27468T13F98P	25D	12
MS27468T15B35SA	16	69
MS27468T17B6P	16	74
MS27468T17F6P	34	6
MS27488-12-1	20	13
	34	4
	47	157
MS27488-16-1	33	12
	47	158
MS27488-20-1	7	3
	9	9
	10	3
	11	7
	24	17
	25	9
	25E	6
	33	13
	44	4
	45	17
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	11	3
	21	3
	24	20
	27	13
	27	25
	33	7
	34	10
	35	8
	36	8
	37	9
	39	4
	40	7
	41	12
	42	6
	45	8
	46	9
	47	160
MS27488-22-2	25D	24
MS27502B15N	25B	26
MS27502B25N	25B	21
MS29513-118	3	4
MS3181-24CA	25B	27
MS3212-36	14	13
	16	93
MS3367-4-9	30	7
	31	5
MS3474W24-61SW	16	72
	44	5
MS3475L24-61PW	24	1
	25E	7
	44	1
	45	1
MS3476W16-26PW	7	1
	9	7
MS3476W24-61P	10	1
MS3476W24-61PW	11	5
MS35333-69	24	9
MS35333-70	19	15
MS35333-71	16	96
	17	33
MS35333-72	16	52
	17	10
	18	4
	19	5
MS35338-134	29	38
MS35338-135	25B	8
	25C	4
	29	64
	30	4
MS35338-138	16	67
MS35649-224	16	135
	18	11
	19	16
MS35649-264	16	107
	17	35
	18	9
	19	11
MS35649-284	16	51
MS35649-284	17	7
MS51859-2	17	2
	25B	6
	31	1A
MS51957-13	25C	5
MS51957-14	16	159
	25B	2
	29	1
	30	5
	31	3
MS51957-17	29	63
MS51957-18	25B	5
MS51957-20	29	50
MS51957-26	29	36
MS51957-27	16	150
MS51957-28	16	129
	25B	54
MS51957-29	16	117
MS51957-3	16	147
	25B	38
	29	39
MS51957-30	16	95
MS51957-31	16	57
MS51957-32	16	123
MS51957-45	18	5
	19	6
MS51957-6	24	8
MS51958-63	29	24
MS51959-12	16	11
MS51959-13	16	18
	17	26
	19	21
	25B	4
	29	34
MS51959-26	16	136
	17	6
	25B	33
	29	65
MS51959-27	16	13
MS51959-28	16	1
	17	28
	25B	1
	29	5
MS51959-29	16	2
MS51959-30	16	7
	18	14
	19	2
MS51959-44	16	8
MS51959-45	17	27
MS51959-61	16	106
MS51959-7	16	133
	18	16
	19	20
MS51960-62	29	32
MS51960-67	14	20
M16878/14BEE9	16	26
	BULK	33
M16878/14BFE9	16	29
	BULK	34
M16878/14BGE9	16	28
	17	20
	BULK	35

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M16878/15BLE9	16	30
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M22520/1-02	47	43
M22520/1-04	47	44
M22520/2-01	47	33
M22520/2-02	47	24
M22520/2-06	47	25
M22520/2-07	47	26
M22520/2-08	47	27
M22520/2-09	47	28
M22520/2-10	47	29
M22520/3-1	47	21
M22520/5-01	47	47
M22520/5-100	47	23
M22759/32-12-5	20	4
	BULK	38
M22759/32-20-9	25D	9
	25E	5
	29	58
	BULK	41
M22759/32-22-9	21	6
	24	18
	25	5
	25D	29
	33	10
	35	7
	36	7
	37	6
	39	7
	40	5
	42	4
	44	3
	45	5
	46	6
	BULK	39
M22759/32-24-9	7	5
	9	4
M22759/32-24-9	10	10
	11	10
	BULK	39A
M22759/32-26-9	10	11
	37	7
	42	5
	46	13
	BULK	40
M23053/5-105-0	27	18
	27	20
	BULK	25
M23053/5-106-9	6	3
	BULK	16
M23053/5-107-0	29	13
	29	21
	38	2
	BULK	26
M23053/5-110-0	20	9
	BULK	17
M23053/5-111-0	35	5
	36	5
	37	4

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M23053/5-111-0	BULK	27
M23053/5-202-C	16	40
	29	12
	29	20
	BULK	18
M23053/5-203-C	18	12
	19	13
	25D	22A
	BULK	19
M23053/5-204-C	16	42
	17	18
	BULK	20
M23053/5-205-C	16	45
	27	17
	27	21
	BULK	21
M23053/5-206-C	16	41
	17	19
	BULK	22
M23053/5-207-C	38	2A
M23053/5-208-C	8	8
	BULK	23
M23053/5-210-C8	2	
	16	43
	BULK	24
M23053/5-211-C	35	6
	36	6
	37	5
	BULK	28
M23053/5-212-C	33	5
	44	8
	BULK	29
M24308/2-1F	25D	2
M24308/2-290F	29	48
M24308/2-3	29	56
M24308/2-3F	16	49
	17	16
M24308/26-1	16	64
	25B	18
M24308/4-3F	17	29
	24	14
	25	1
M2700-969	47	183
M27500-003-01	20	10
	BULK	4
M27500-12TE1T14	16	36
	BULK	1
M27500-14TE1T14	16	37
	BULK	2
M27500-14TE2T14	16	38
	BULK	3
M27500-18TE1T14	16	31
	BULK	5
M27500-18TE2T14	16	32
	BULK	6
M27500-20TE1T14	16	35
	BULK	8
M27500-20TE2T14	16	39
	17	15
	BULK	9
M27500-22SB1T23	21	7
	25	6

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M27500-22SB1T23	25D	28
	45	12
	BULK	10
M27500-22SB2T23	21	8
	BULK	7
M27500-22SB2U00	34	9
	41	6
	BULK	13
M27500-22TE1T14	16	33
	BULK	11
M27500-22TE2T14	16	34
	BULK	12
M27500-24SB1T23	7	6
	9	5
	46	14
	BULK	14
M27500-24SB2T23	29	14
	29	22
	41	5
	BULK	15
M39029/1-507	47	168
M39029/22-191	47	126
M39029/22-192	47	127
M39029/22-193	47	128
M39029/29-212	47	129
M39029/29-213	47	130
M39029/29-215	47	166
M39029/30-217	47	131
M39029/30-218	47	132
M39029/30-219	47	133
M39029/30-221	47	167
M39029/35-441	47	134
M39029/4-110	7	2
	9	8
	10	2
	11	6
	24	2
	25E	8
	44	2
	45	2
	47	116
M39029/4-111	47	117
M39029/4-112	47	118
M39029/4-113	47	119
M39029/4-114	47	120
M39029/5-115	16	73
	44	6
	47	121
M39029/5-117	47	123
M39029/5-118	47	124
M39029/5-119	47	125
M39029/56-351	25	12
	25D	20
	25E	2
	33	3
	47	136
M39029/56-352	8	5
	33	2
	47	137
M39029/56-353	20	2
	47	138
M39029/57-354	47	139
M39029/57-359	47	140

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	10	6
	11	2
	16	110
	21	2
	24	4
	25D	26
	33	9
	34	7
	35	2
	36	2
	37	2
	39	2
	39	9
	40	2
	40	9
	40	11
	41	11
	42	2
	42	8
	45	10
	45	15
	46	2
	46	12
	46	16
	47	141
M39029/58-363	25D	13
	47	142
M39029/58-364	47	143
M39029/58-365	16	75
	47	144
M39029/63-368	16	50
	17	17
	25D	3
	47	145
M39029/64-369	17	30
	24	15
	25	2
	47	146
M55302/55-A20H	16	47
M55302/55-A54H	16	157
M55302/62LA10H	29	18
M55302/62LA14H	29	10
M55302/63-A54H	16	156
M7928/1-52	38	1
M81714/16-1	16	144
M81714/2-DA1	16	119
	17	5
M81714/3-DA1	16	120
M81714/4-DA1	16	121
M81714/5-1	17	4
M81714/69-01	47	71
M81969/1-02	47	93
M81969/14-01	47	91
M81969/14-03	47	94
M81969/14-04	47	95
M81969/14-07	47	189
M81969/14-11	47	92
M81969/18-02	47	75
M81969/20-02	47	76
M81969/8-01	47	83
M81969/8-02	47	84
M81969/8-05	47	81

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M81969/8-08	47	80
M81969/8-09	47	77
M81969/8-10	47	78
M81969/8-207	47	87
M81969/8-208	47	88
M83420/4-001	25B	24
	25D	6
	BULK	31A
M83519/1-1	9	13
	25D	20A
M83519/1-2	7	8
M83519/2-12	7	9
	27	14
	27	24
	41	9
M83519/2-13	9	12
M83519/2-6	45	11
	46	10
M83519/2-7	16	138
	21	10
	25D	1
	33	11
M83519/2-8	16	139
	21	9
	29	11
	29	19
M83519/2-9	16	140
M8805/99-009	16	76
NAS1640-2	25B	39
NAS1831A4B07	25B	12
NAS1831C3B04	25C	2
NAS514P440-6P	12	3
	13	7
	13	19
	22	10
	23	8
NAS620-4L	25C	3
NAS620C2	25B	40
	29	37
NAS671C4	16	127
	17	3
	19	14
	29	46
NAS671C8	18	8
	19	9
RF3 1-2	5	5
	15	17
RWR80S4020FS	25D	22B
RWR81S2870FS	25D	22C
SKM2000	15	7
	28	3
	BULK	30
TH369	47	45
TH378	47	42
TH452	47	41
TH514	47	40
TP580	47	39
TSC63-1/2	47	56
TSC63-3/4	47	57
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030-8557-000	47	156
030-8586-000	47	148
030-8586-050	47	149
030-8586-051	47	150
030-8587-000	47	151
030-8588-000	47	152
030-8614-000	47	162
031-8521-000	47	164
031-8555-000	47	153
031-8555-050	47	154
031-8555-051	47	147
031-8556-000	47	155
031-8613-000	47	170
031-8714-050	47	163
10-40564	47	169
10-581808	47	110
11-7370-5T1	47	67
11-7674-3T1	47	68
11019315-1	5	2
	12	12
	13	21
	15	9
	22	19
	23	16
1170229-2	25B	36
	29	41
12280004-1	22	5
	23	2
12280055	16	137
	17	11
	18	10
	19	12
12280174	8	6
	38	4
12280204	28	2
12280224-2	17	24
12280245	15	12
12285280	2	22
	3	5
	14	16
	16	5
	25B	58
	27	10
	29	76
	43	10
12301865	14	14
	16	90
	29	25
12301886-1	16	154
	17	31
12301886-2	16	48
	17	14
	29	57
12301886-4	29	49
12301887-1	25B	48
	29	70
12301887-2	16	105
12301888	16	56
12301899-1	18	13

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12301903	16	124
12301903-2	24	11
12301904	15	1
12301905	15	3
12301906	15	2
12309035	2	19
12309035-1	25A	10
12309036-3	2	16
	25A	11
12309036-4	2	18
12309036-6	25A	12
12309037-2	2	15
12309037-4	25A	13
12309038-1	2	10
12309038-3	2	11
12309038-4	25A	14
12309038-5	25A	15
12309039	2	17
	25A	16
12309040-1	2	14
12309040-2	2	12
12309041	2	13
12309041-3	25A	17
12309042	2	7
12309043	2	8
12309043-1	25A	18
12309044	2	9
12309044-1	25A	19
12309045	17	12
12309060	2	26
12309074	14	1
12309106	3	1
	14	19
	29	77
12309109-1	5	1
	12	10
	13	11
	15	8
	22	17
	23	15
12309110-1	5	3
	12	6
	13	15
	15	10
	22	16
	23	11
12309110-2	5	4
	12	4
	13	18
	15	11
	22	11
	23	9
12309118	3	3
12309754	3	2
12309776	15	5
12309776-1	15	14
12309776-2	15	15
12309817	2	1
12309882	6	1
12309914	2	4
12309919	2	5
12309939	2	6
12309940	6	2
12312039	15	13
	28	4
	43	8
12312040	15	16
	28	5
	43	9
12322211	14	22
12323290-4	14	2
	27	9
12323290-5	2	3
12323316	15	5
12323318	28	2
12354496	2	2
12354499-09	8	3
	25	7
	25D	17
12354499-10	6	4
	9	11
	21	4
	24	5
	25D	23
	25E	10
	41	7
	45	13
12354499-11	7	7
	9	10
12354499-12	20	11
	41	4
12354499-14	45	6
	46	7
12354499-17	10	4
	11	4
	24	16
	25E	9
	45	3
12354499-18	10	8
	11	8
12354499-19	39	5
	40	6
	42	9
	46	4
12354501	1	2
12354503	13	2
12354504-1	13	4
12354504-2	13	5
12354505-1	12	1
	22	8
	23	5
12354505-2	13	10
12354506-1	12	7
	22	9
	23	6
12354506-2	13	20
12354507-1	13	12
12354507-2	12	11
	22	18
	23	14
12354508	12	2
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	23	7
12354509	12	14
	22	3
12354515-1	12	15
	22	4
12354515-2	12	16
	22	2
12354532	2	29
12354535-1	2	24
12354535-2	2	25
12354581	29	30
12359978	2	27
12360017-1	25B	14
	29	61
12360017-2	25B	13
	29	16
12360019	25B	15
12360022	25B	50
	29	78
12360036	29	59
12360039	29	53
12360042	25B	44
12360043	25B	45
12360134-1	25B	52
	29	73
12360134-2	25B	56
	29	74
12360135	25B	53
	29	33
12596136-2	16	142
12596136-3	16	141
	34	5
12596142	16	130
12596144	16	131
12596332-1	14	27
12596414	8	7
	38	3
12596415	25A	20
	27	31
12596484	25	4
12596485	25	3
12596621-4	14	18
12596621-5	2	20
12596622	2	21
12596665	25	8
12596795	2	28
12596796	2	23
12596797	16	55
12596799	16	10
12596800	17	13
12596805	25B	42
	29	54
12596806	25B	41
	29	43
12596807	25B	35
	29	42
12596808	25B	37
	29	40
12596819	16	54
12596870	14	17
12596871	14	3

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12596878	19	10
12830-05	47	72
12933966-1	30	6
12933974-1	30	1
12933977	16	62
12933977-1	16	62
12933978	29	86
12933982	29	84
12933985	16	12
12933986	29	85
12933989	19	1
12933990	29	87
12933993	14	15
12933994-1	29	88
12933998-1	29	83
12934006	29	82
12934020	29	3
12934074-11	31	7
12934074-5	30	9
12934108	29	9
12934109	29	17
12934301-4	34	8
12934302	27	4
12934303	27	27
12934308	29	60
12934309	27	32
12934310	27	33
12934312	27	19
12934318	29	4
12934320	16	91
	29	7
12934322	29	75
12934323	25B	47
	29	69
12934324-1	29	79
12934324-2	29	71
12934325	29	6
12934328	29	62
12934329	25B	51
	29	72
12934332	29	55
12934334-1	29	27
12934335	29	26
12934344-9	35	4
	36	4
	37	3
12934360	27	34
12934368	1	3
12934372	39	6
12934373	40	4
12934375	27	16
	27	22
12934383-0909	44	9
12934383-2314	34	3
12934383-2722	33	6
12934399	41	13
12934407	27	28
12934408	27	29
12934409	27	30
12934410-1	29	28
12951330	29	47
12951347	27	11

PART NUMBER INDEX – CONTINUED 0159 00

PART NUMBER	FIG.	ITEM
12951348	27	15
	27	23
12951480	16	132
12951617	12	18
	13	9
	22	7
	23	4
12967266	27	35
12967267	42	10
12971974	27	7
12971974-1	27	7
12971975	29	81
12971980	29	80
12971983	29	68
12971988	29	66
12971990	30	8
	31	6
12972089	43	4
12972090	45	4
12972091	43	5
12972092	46	5
12972100	43	6
12972112	43	12
12972114	44	7
12972124	43	2
12972141	43	3
12972144	43	1
12972150	47	231
12972151	43	7
12972198	27	1
12981702	27	6
12981769	27	3
12981770	27	5
12981826-2	20	5
12981891	16	122
12981913	27	8C
12981914	33	4
12981915	26	1
12983104	27	8
12983105	27	8A
12983109	27	2
12983120-1	43	11
12983123	46	1
12983306	27	8B
12983308-3	25D	15
12983371	20	3
12990007-1	30	2
12990037	29	44
12990038	29	45
12990558-0308-12	25D	14
12993994	1	2
12994000	25A	1
12994001	25B	11
12994004	25B	10
12994005	25B	34
12994023-1	25C	1
12994024-1	25B	62
12994025	25B	64
12994026-2	25B	63
12994028-1	25B	61
12994029-3	25B	60
12994093	25B	59
12994094	25B	49
12994103	25B	57
12994104	25B	9
12994106	25B	7
12994108	25B	3
12994122	25B	17
12994123	25B	29
12994124	25B	31
12994130-1	25A	6
	27	34A
12994131	25D	22
12994134	25B	65
12994135	25C	6
12994136	25A	7
12994137	25E	4
12994139	25A	8
12994528	27	2
12994578-6	27	9
12997687	25B	32
12997688	25A	9
12997696	25D	7
12997697	25B	16
12997699	25D	4
12997706	25B	28
12997707	25B	22
12997731	25B	19
12997732	25B	20
12997734	1	1
12997735	25B	23
12998198-1	26	1
12998215	25B	46
	29	67
12999709	11	9
13002171	25A	1A
	27	30B
13006073	16	126
	17	22
13006096	29	3
13008915	16	63
13008950	16	62
13010053	1	2
13011506	31	4
13011507	31	1
13011533	29	80
13011539	29	82
13011952	29	85
13014831	29	83
13014841	10	9
13014865	27	7
13014867	25D	16
13014869	29	81
13014870-1	29	87A
13018968-1	12	17
	13	1
	22	6
	23	3
13018975	27	30A
13019004	27	10
	29	76
1321BW	25B	55
321BW	29	35
151168	24	7

PART NUMBER INDEX– CONTINUED 0159 00

PART NUMBER	FIG.	ITEM
151172-0003	24	12
226/01-0373	28	1
226/02-0374	15	4
250626	7	4
251023	12	6
253052	21	5
253090	24	13
253091	24	6
253092	24	19
27901/A	47	112
27901/CH	47	114
27911-T9	47	101
27913-T9	47	102
27914-26T9	47	105
27917-T9	47	109
27951/A	47	113
27951/CH	47	115
27961-T9	47	103
27963-T9	47	104
27964-26T9	47	106
27977-12T50	47	107
27977-16T50	47	108
4-1249	47	100
	47	230
4-1254	47	99
	47	229
45-123	47	20
46150T1	47	69
46151-0T1	47	63
46239-T9	47	111
57K2935	47	165
5705498	47	1
6004335-1	35	5
74008	47	22
9-1073-8	47	176
9314-4.562-10-24-A-5	12	19
	13	8
	16	102
9358147	14	4
9358192	1	3
9358193	14	15
9358198	16	160
9358202	16	60
9358206	16	113
9358210-1	16	61
9358214	16	59
9358222	16	63
9358226	16	126
	17	22
9358230-1	16	25
9358230-2	16	20
9358230-3	16	19
9358230-4	16	16
9358231	16	108
9358233	18	1
9358234	16	58
9358235	16	104
9358236	16	111
9358237	16	146
9358238	16	145
9358239	16	100
9358240	16	3
9358241	16	149
9358242	16	17
9358243	16	155
9358244	16	4
9358245	16	6
9358248	16	115
9358249	16	87
9358250	16	94
9358251	16	92
9358252	16	99
9358253	16	22
9358254	16	21
9358257	16	148
9358258	16	152
9358261	16	132
9358262	16	116
9358263	16	153
	17	32
9358264	18	3
	19	4
9358265	16	112
9358266	18	7
	19	8
9358267	16	101
9358269	16	85
9358270	16	86
9358271	16	24
9358272	16	9
9358273	16	46
9358274	17	25
9358277	17	1
9358375-1	14	23
9358375-2	14	21
9358396	14	25
9358398	14	26
9358417-2	16	128
	17	23
9358417-4	19	18
9358420	14	24
9358421	14	5
9358422	14	6
9358423	14	7
9358424	14	8
9358425	14	9
9358426	14	10
9358427	14	11
9358428	14	12
9358437	16	97
9358439	16	158
	29	2
	30	3
9358452	24	10
9358485-1	29	51
9358485-2	29	52
9358545	16	80
9358547	16	65
9358549	18	2
	19	3
9358576	16	12
9358590	16	66
9358591	16	118
9358592	16	53
9358594	16	98

INTRODUCTION

Scope

This work package lists COEI and BII for the OIU, GPIA, and DSESTS Common Resources support equipment to help you inventory items for safe and efficient operation of the equipment.

General

The COEI and BII information is divided into the following lists:

Components of End Item (COEI). This list is for information purposes only and is not authority to requisition replacements. These items are part of the OIU, GPIA, and DSESTS Common Resources support equipment. As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. Items of COEI are removed and separately packaged for transportation or shipment only when necessary. Illustrations are furnished to help you find and identify the items.

Basic Issue Items (BII). These essential items are required to place the OIU, GPIA, and DSESTS Common Resources support equipment in operation, operate it, and to do emergency repairs. Although shipped separately packaged, BII must be with the OIU, GPIA, and DSESTS Common Resources support equipment during operation and when it is transferred between property accounts. Listing these items is your authority to request/requisition them for replacement based on authorization of the end item by the TOE/MTOE. Illustrations are furnished to help you find and identify the items.

Explanation of Columns in the COEI List and BII List

Column (1), Illus Number, gives you the number of the item illustrated.

Column (2), National Stock Number, identifies the stock number of the item to be used for requisitioning purposes.

Column (3), Description, CAGEC, and Part Number, identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The stowage location of COEI and BII is also included in this column. The last line below the description is the CAGEC (commercial and Government entity code) (in parentheses) and the part number.

Column (4), Usable on Code, gives you a code if the item you need is not the same for different models of equipment.

Column (5), U/M (unit of measure), indicates how the item is issued for the National Stock Number shown in column (2).

Column (6), Qty Rqr, indicates the quantity required.

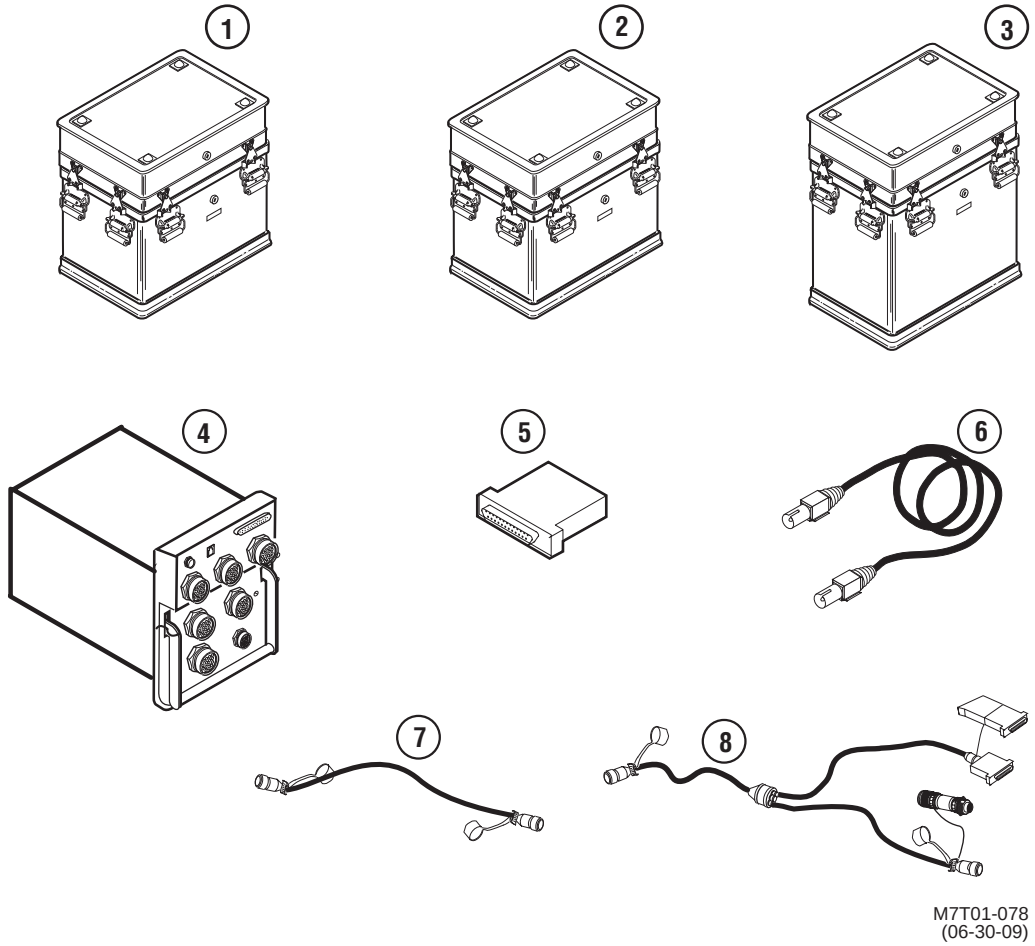

Table 1. Components of End Item List

(1) Illus Number	(2) National Stock Number	(3) Description, CAGEC, and Part Number	(4) Usable On Code	(5) U/M	(6) Qty Rqr
1	6625-01-225-8342	Operator Interface Unit (19207) 12354501		EA	1
2	5998-01-245-7143/ 5998-01-382-7282	General Purpose Interface Assembly (19200) 9358192/12934368		EA	1
3		Accessory Stowage Unit, DSESTS Common Resources (19200) 12981915, 12998198-1		EA	1

Table 1. Components of End Item List (cont.)

(1) Illus Number	(2) National Stock Number	(3) Description, CAGEC, and Part Number	(4) Usable On Code	(5) U/M	(6) Qty Rqr
4		Combined Support Functions Module (19200) 12994000		EA	1
5		Adapter Assembly, CSFM FST J3 (19200) 12997688		EA	1
6		Cable Assembly, CSFM-W332 (19200) 12994139		EA	1
7		Cable Assembly, POWER-W331 (19200) 12994136		EA	1
8		Cable Assembly, POWER/RS232-W330 (19200) 12994130		EA	1

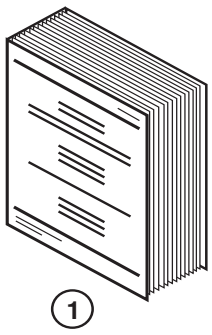

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Table 2. Basic Issue Items List

(1) Illus Number	(2) National Stock Number	(3) Description, CAGEC, and Part Number	(4) Usable On Code	(5) U/M	(6) Qty Rqr
1		OIU, GPIA, and DSESTS Common Resources Technical Manual (19200) TM 9-4931-586-12-1&P		EA	1

ADDITIONAL AUTHORIZATION LIST (AAL) 0161 00

INTRODUCTION

Scope

This work package lists additional items you are authorized for the support of OIU, GPIA, and DSESTS Common Resources support equipment.

General

This list identifies items that do not have to accompany the OIU, GPIA, and DSESTS Common Resources support equipment and that do not have to be turned in with it. These items are all authorized to you by CTA, MTOE, TDA, or JTA.

Explanations of Columns in the AAL

Column (1), National Stock Number, identifies the stock number of the item to be used for requisitioning purposes.

Column (2), Description, CAGEC, and Part Number, identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The last line below the description is the CAGEC (Commercial and Government Entity Code) (in parentheses) and the part number.

Column (3), Usable On Code, when applicable, gives you a code if the item you need is not the same for different models of equipment.

Column (4), U/M (unit of measure), indicates how the item is issued for the National Stock Number shown in column (1).

Column (5), Qty Recm, indicates the quantity recommended.

Additional Authorized List Items

Table 1. Additional Authorization List

(1) National Stock Number	(2) Description, CAGEC, and Part Number	(3) Usable On Code	(4) U/M	(5) Qty Recm
	MTOE AUTHORIZED ITEMS			
6115-00-394-9577	GENERATOR, 15 kW (80058) PU405AM		EA	1
4940-01-174-3365	POWER SUPPLY, CHRISTIE, 26–36 Vdc, 50 A (02294) 1C36-500KZ234S		EA	1
2320-00-077-1636	VAN, SHOP, 2 1/2-ton, (19207) M109A3		EA	1
2320-01-047-8750	VAN, SHOP, 5 ton, (19207) M934A1*		EA	1
2320-01-230-0300	VAN, SHOP, 5 ton, (19207) M934A2*		EA	1
4120-01-219-8759	AIR CONDITIONER, for M934 Series Van (TM 9-4120-389-14)		EA	1
6130-01-477-7093	POWER SUPPLY, DSESTS, 3 kW, 50 A, Sorenson, (19200) 12983394		EA	1
4910-01-142-3144	DUMMY MISSILE SIMULATOR (ELECTRIC CABLE TEST) 12328317		EA	1
6625-01-493-8984	TEST SET, ELECTRONIC SYSTEMS, AN/PSM-95B (MSD) (54418) 713000-3		EA	1

*Prime items

EXPENDABLE AND DURABLE ITEMS LIST 0162 00

INTRODUCTION

Scope

This work package lists expendable and durable items that you will need to operate and maintain OIU, GPIA, and DSESTS Common Resources support equipment. This list is for information only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except Medical, Class V Repair Parts, and Heraldic Items), or CTA 8-100, Army Medical Department Expendable/Durable Items.

Explanations of Columns in the Expendable/Durable Items List

Column (1) - Item Number. This number is assigned to the entry in the list and is referenced in the narrative instructions to identify the item (e.g., "Use viscous coating (Item 16, WP 0162 00).").

Column (2) - Level. This column includes the lowest level of maintenance that requires the listed item (O = Unit Maintenance).

Column (3) - National Stock Number. This is the NSN assigned to the item which you can use to requisition it.

Column (4) - Item Name, Description, Commercial and Government Entity Code (CAGE), and Part Number (P/N). This column provides the other information you need to identify the item.

Column (5) - Unit of Measure (U/M). This code shows the physical measurement or count of an item, such as gallon, dozen, gross, etc.

EXPENDABLE AND DURABLE ITEMS LIST

Table 1. Expendable and Durable Items List

(1) Item Number	(2) Level	(3) National Stock Number	(4) Item Name, Description, CAGE, Part Number	(5) U/M
1	O	8040-00-444-8752	Adhesive, Air Filter, 16-ounce can (82866) 418	oz
2	O	8040-01-009-1562	Adhesive, sealant, Type II, 3-ounce tube (71948) 3140	oz
3	O	8040-01-209-8595	Adhesive, rubber, Type II, 3-ounce bottle (25472) 12354498	oz
4	O	8030-00-059-2761	Antiseize Compound, 4-ounce container (81349) MIL-A-907	oz

Table 1. Expendable and Durable Items List (Continued)

(1) Item Number	(2) Level	(3) National Stock Number	(4) Item Name, Description, CAGE, Part Number	(5) U/M
5	O	7920-00-514-2417	Brush, acid swabbing box of 144 (81348) H-B-643	ea
6	O	6810-01-190-2538	Isopropyl Alcohol, 9-ounce can (81348) TT-I-735	oz
7	O	6850-01-144-3004	Desiccant pellets, one package (19207) 11669602	pk
8	O	6850-00-664-5685	Dry cleaning solvent, Type II, 1-quart can (81348) ASTM D 235	qt
9	O	9150-00-269-8255	Grease, Aircraft, 1.7-pound can (19200) 8643130	lb
10	O	7920-00-205-1711	Rag, wiping, cotton, white, 50-pound bale (58536) A-A-531	lb
11	O	8030-00-148-9833	Sealing Compound, Type II, Grade N, 10-cubic centimeter bottle (05972) 271-21	cc
12	O	3439-00-473-2000	Solder, tin alloy, 1-pound can (81348) SN63WRMAP3	lb
13	O	6810-00-264-8983	Solvent, Methyl Ethyl Ketone, 1-pint can (81348) ASTM D740	pt
14	O	8135-00-239-1648	Tag, Stock Marking, (16956) 34MR	pk

Table 1. Expendable and Durable Items List (Continued)

(1) Item Number	(2) Level	(3) National Stock Number	(4) Item Name, Description, CAGE, Part Number	(5) U/M
15	O	4020-00-753-6555	Tape, lacing, 500-yard spool (88818) 225270-3	yd
16	O	8030-01-163-5792	Viscous Coating, (19207) 11663357	oz
17	O	8105-01-120-3375	Bag, Plastic (antistatic bag), (10 1/2 x 12 in) (52942) MIL-B-117	ea
18			Not Used	
19	O		Compound, Viscous (05972) 12989984	oz

ILLUSTRATED LIST OF MANUFACTURED ITEMS 0163 00

INTRODUCTION

Scope

This work package includes complete instructions for making items authorized to be manufactured or fabricated at the unit maintenance level.

How to Use the Index of Manufactured Items

An index in alphabetic order is provided for cross-referencing the item to be manufactured to the figure which covers fabrication criteria.

Explanation of the Illustrations of Manufactured Items

All instructions needed by maintenance personnel to manufacture the item are included on the illustrations. All bulk materials needed for manufacture of an item are listed by part number or specification number in a tabular list on the illustration.

INDEX OF MANUFACTURED ITEMS

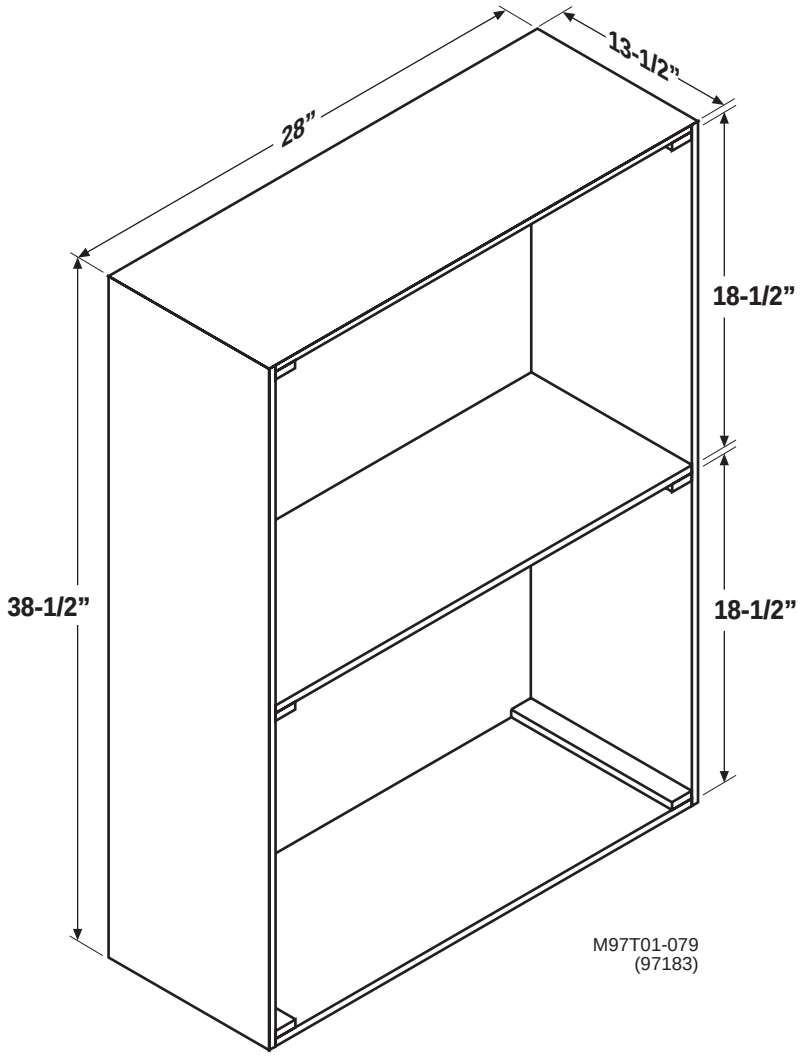
Item	Figure Number
Rack	1
Wrench, combination, 9/16-inch	2
Power Cord	3

ILLUSTRATED LIST OF MANUFACTURED ITEMS - CONTINUED 0163 00

Manufacture Rack (38-1/2 × 28 × 13-1/2 inches)

Materials/Parts:

1. 1/2-inch plywood
   a. 2 pieces – 13-1/2 × 38-1/2 inches
   b. 3 pieces – 13 × 28 inches
   c. 1 piece – 28 × 38 inches
2. 3/4 × 3/4-inch wood stock
   a. 6 pieces – 13 inches



Manufacturing Instructions:

1. Measure and cut materials as specified.
2. Manufacture rack as shown in illustration.

Figure 1. Rack

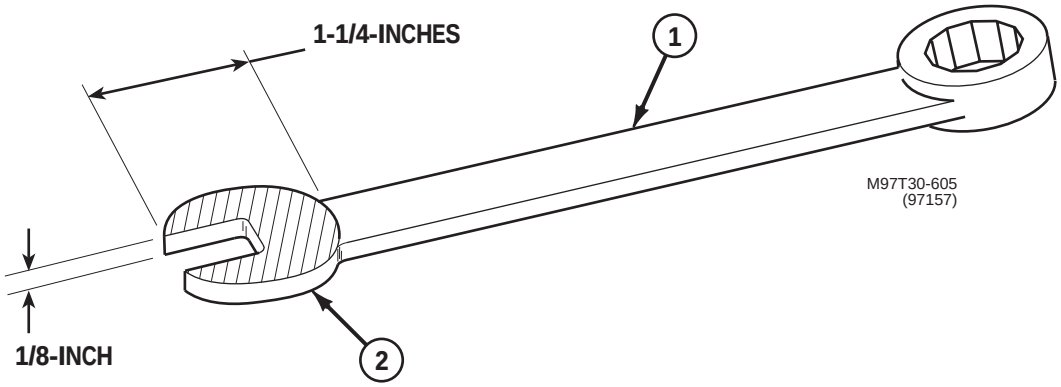
Manufacture Wrench, Combination, 9/16-inch

Tools:

File, hand, double face bastard cut, 8-inch heel
Grinding machine, utility, bench mount
Rule, steel, 6-inch

Materials/Parts:

Wrench, combination, 9/16-inch



Manufacturing Instructions:

1. Grind down open end of combination wrench (1) on one side, until jaw (2) is 1/8-inch thick, 1-1/4-inch from end of wrench (1).
2. Take off all burrs and sharp edges from ground areas of wrench (1) with file.

Figure 2. Wrench, combination, 9/16-inch

Manufacture Power Cord, for Sorensen 50 AMP Power Supply

Tools:

Electrical Maintenance Tool Kit (5705498)

Materials/Parts:

75 inch Cable, 10/3, Type SO-3
3 each Terminal Connector, (MS25036-112)
1 each Plug, NEMA 18-20P

NOTE

The following instructions are to be used as a guide in fabrication of the power cord to connect the Sorensen Power Supply inside the DSESTS Shop Van.

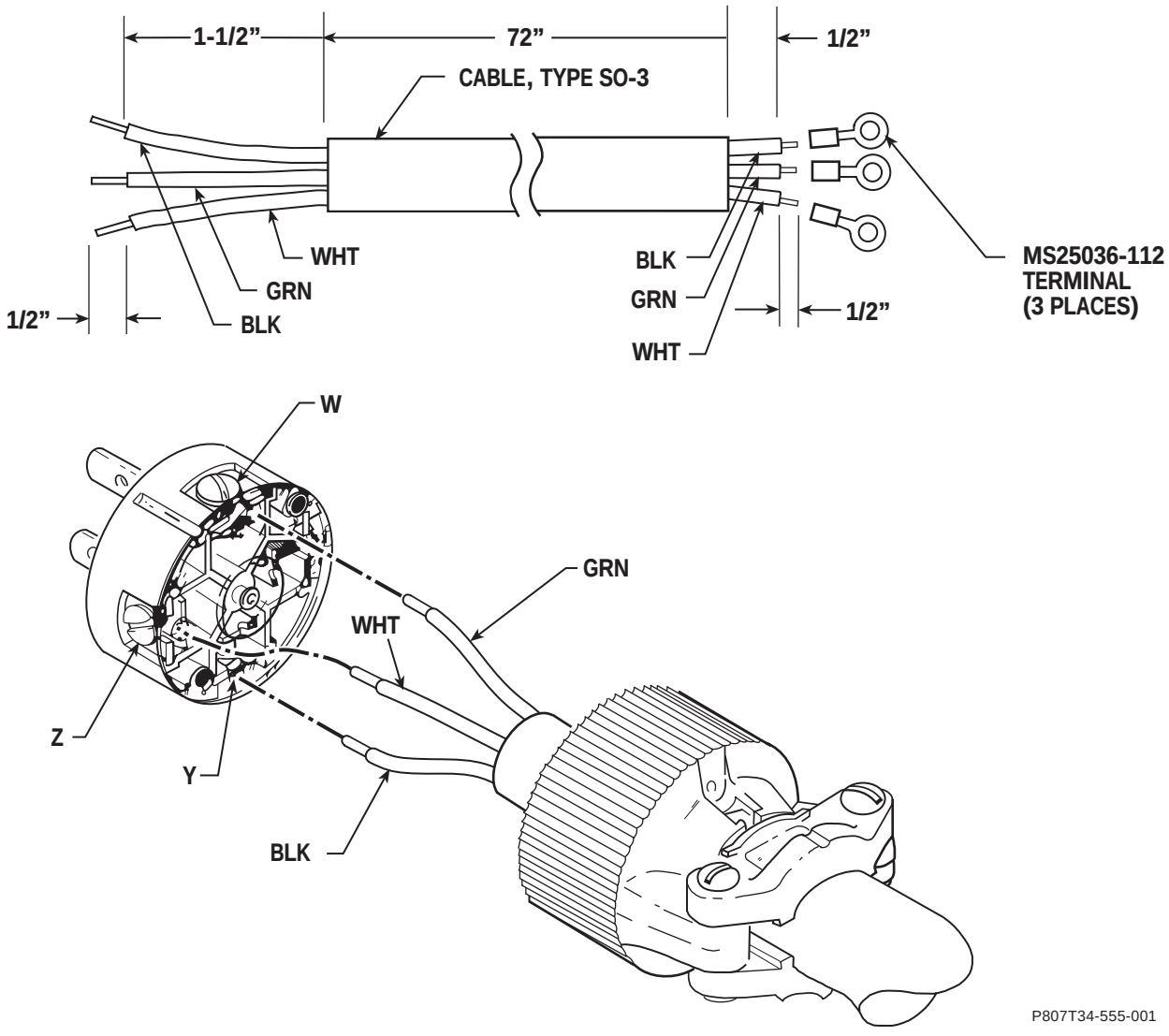


Figure 3. Power Cord

Manufacturing Instructions:

1. Remove approximately 1 inch of the outer cable insulation from one end of the cable.
2. Remove (strip) 1/2 inch of insulation from each of the 3 wires.
3. Crimp a terminal connector, MS25036-112, to each of the 3 stripped wires.
4. Separate the plug and slide the plug backshell onto the other end of the cable.
5. Remove approximately 2.0 inches of the outer cable insulation from the end of the cable.
6. Remove (strip) 1/2 inch of insulation from each of the 3 wires.
7. Make the following connections to the plug:
   a. Attach the GREEN wire to the plug at terminal 'W'.
   b. Attach the BLACK wire to the plug at terminal 'Y'.
   c. Attach the WHITE wire to the plug at terminal 'Z'.
8. Make the following connections to the Sorensen Power Supply at the AC input terminals:
   a. Attach the GREEN wire to the power supply at the 'chassis ground' terminal.
   b. Attach the BLACK wire to the plug at terminal 'X'.
   c. Attach the WHITE wire to the plug at terminal 'Z'.

NOTE

CD installation instructions for each of the following CDs are also located on the CD jacket.

- DSESTS system software CD (P/N 13002171) stored in DCR case.
- DSESTS functional self test CD (P/N 13018975) stored in DCR case.
- M1 CSFM TPS CD (P/N 13002169) stored with CSFM system.
- Abrams M1A2SEP CD (P/N 13019028) stored in SEP ASU No. 1.
- Bradley A3 CD (P/N 13018973) stored in BA3 ASU No. 1.
- Bradley A2ODS CD (P/N 13002166) stored in TOW ASU No. 2.

MSD DSESTS System Software Installation:

1. Power on MSD.
2. If DSESTS System Software is NOT already installed, skip to step 6.
3. From Windows Start Menu, select Settings...Control Panel...Add/Remove instructions.
4. Select the DSESTS System Software Change/Remove Process and follow the Remove instructions.
5. Reboot the computer.
6. Insert the DSESTS System Software CD P/N 13002171 into CD drive.
7. Follow instructions on the screen.
8. From Windows Start Menu, select Settings...Control Panel...Network and Dial-Up Connections...Locals Area Connection or Network Connection for XP.
9. Select Internet Protocol (TCP/IP) and select Properties.
10. Select Use The Following IP Address and type

    IP address: 192.168.100.254
    Subnet mask: 255.255.255.0
11. Select OK.
12. Select OK and close all windows.

Upon completion, the following icons will be installed on your desktop. Double click the DSESTS System Software icon to begin testing.

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NOTE

A patch is required to correct an issue with Windows XP that affect DSESTS System Software video display. If the MSD is running Windows XP with a service pack earlier than SP2, it must be upgraded to Windows XP SP2 before applying this patch. Once the MSD is running Windows XP SP2 go to step 13 to install the patch.

13. If required, install the patch by executing the file "Windows XP-KB885222-v2-x86-ENU.exe" found in the top-level directory of the DSESTS System Software CD.

VCTU Firewire Software Installation:

Install PCMCIA Firewire Software per manufacturer's instructions. (You do not have to be connected to the internet to accomplish this task.)

EVCTU Camera Link Software Installation (MSD with Windows 2000):

1. If DSESTS System Software is not installed on MSD, go to the "MSD DSESTS System Software Installation" in this work package and install software.

2. After having removed a previous version or if a version of FrameLink was NOT previously installed on the computer install the application files.

   a. Insert the FrameLink CD into the CD drive. If it does not start automatically do the following: click on “Start”, “Run”, using “Browse” select the CD drive, double click on “setup.exe”, and click “OK”.
   b. Wait for the “FrameLink - Install Shield Wizard” screen to appear.
   c. Click on “Next” to proceed.
   d. Click on “Yes” to accept the License Agreement.
   e. Click on “Next” to accept the default “User Name:” and “Company Name:”.
   f. Click on “Next” to accept the default installation path.
   g. Click on “Next” to accept the default components to install.
   h. Click on “Next” to accept the default Program Folder.
   i. Click on “Install” to begin installation.
   j. Click on “Yes” to close the “Digital Signature Not Found” pop-up.
   k. Click on “No” to close the “Register on Imperx web site” pop-up.
   l. Remove the FrameLink CD from the CD drive.
   m. Click on “Yes, I want to restart my computer now”.
   n. Click on “Finish” to reboot the computer.

3. After installing the application files configure the hardware for the operating system.

   a. Insert the FrameLink PCMCIA Video Capture Card into one of the computer’s PCMCIA slots.
   b. If the “Digital Signature Not Found” pop-up appears, then click “Yes” to close it.
   c. Eject the Framelink PCMCIA Video Capture Card from the current PCMCIA slot.
   d. Repeat steps a and b for the computer’s second PCMCIA slot.

4. Configure the hardware for operation with DSESTS.

   a. Click on “Start”.
   b. Click on “Run”.
   c. Using “Browse” select “C:\Program Files\ImperX\FrameLink\” and double click on “AMCap.exe”.
   d. Click on “OK”.
   e. Click on “Options” in the “AMCAP” window.
   f. Click on “Video Capture Filter...”.
   g. Under “Video settings”, select a “Bit depth:” of “24 bits (RGB)”.
   h. Under “Camera Resolution”, select a “Height (lines):” in the “Valid” column of “1”.
   i. Under “Camera Resolution”, select a “Width (pixels):” in the “Valid” column of “786432”.
   j. Click on “Set as default”.
   k. Click on “OK” to complete the configuration.
   l. Click on “OK” to close the “Warning” pop-up.
   m. Close the “AMCAP” window.
   n. Reboot the computer.

EVCTU Camera Link Software Installation (MSD with Windows XP):

1. If DSESTS System Software is not installed on MSD, go to the "MSD DSESTS System Software Installation" in this work package and install software.

2. After having removed a previous version or if a version of FrameLink was NOT previously installed on the computer install the application files.

   a. Insert the FrameLink CD into the CD drive. If it does not start automatically do the following: click on “Start”, “Run”, using “Browse” select the CD drive, double click on “setup.exe”, and click “OK”.
   b. Wait for the “FrameLink - InstallShield Wizard” screen to appear.
   c. Click on “Next” to proceed.
   d. Click on “Yes” to accept the License Agreement.
   e. Click on “Next” to accept the default “User Name:” and “Company Name:”.
   f. Click on “Next” to accept the default installation path.
   g. Click on “Next” to accept the default components to install.
   h. Click on “Next” to accept the default Program Folder.
   i. Click on “Install” to begin installation.
   j. Click on “Continue Anyway” to close the “Hardware Installation” pop-up.
   k. Click on “No” to close the “Register on Imperx web site” pop-up.
   l. Remove the FrameLink CD from the CD drive.
   m. Click on “Yes, I want to restart my computer now”.
   n. Click on “Finish” to reboot the computer.

3. After installing the application files configure the hardware with the operating system.

   a. Insert the FrameLink PCMCIA Video Capture Card into one of the computer’s PCMCIA slots.
   b. Wait up to 30 seconds for the “Found New Hardware Wizard” pop-up. If it does not appear then continue with step g.
   c. Under certain conditions, the following message may appear: “Can Windows connect to Windows Update to search for software?” If this message appears, click on “No, not this time”, then “Next”.
   d. When the following message appears: “If your hardware came with an installation CD or floppy disk, insert it now.” Click on “Install the software automatically (Recommended)” then “Next”.
   e. Click on “Continue Anyway” to close the “Hardware Installation” pop-up.
   f. Click on “Finish” to complete the installation for this PCMCIA slot.
   g. Eject the Framelink PCMCIA Video Capture Card from the current PCMCIA slot.
   h. Repeat Steps a through f for the computer’s second PCMCIA slot.

4. Configure the hardware for operation with DSESTS.

   a. Click on “Start”.
   b. Click on “Run”.
   c. Using “Browse” select “C:\Program Files\ImperX\FrameLink\” and double click on “AMCap.exe”.
   d. Click on “OK”.
   e. Click on “Options” in the “AMCAP” window.
   f. Click on “Video Capture Filter...”.
   g. Under “Video settings”, select a “Bit depth:” of “24 bits (RGB)”.
   h. Under “Camera Resolution”, select a “Height (lines):” in the “Valid” column of “1”.
   i. Under “Camera Resolution”, select a “Width (pixels):” in the “Valid” column of “786432”.
   j. Click on “Set as default”.
   k. Click on “OK” to complete the configuration.
   l. Click on “OK” to close the “Warning” pop-up.
   m. Close the “AMCAP” window.
   n. Reboot the computer.

TPS Installation Instructions:

1. Power on the computer.
2. Insert the M1 CSFM TPS CD, DSESTS FST CD, Abrams M1A2 SEP CD, Bradley A3 CD or Bradley A2ODS CD into the CD drive.

DSESTS PROPERTY ACCOUNTABILITY 0165 00

ISSUE:

This information is being reissued in TACOM LCMC Maintenance Action (MA) Control No. 09-047 because some Army and National Guard units are not turning in their serviceable DSESTS equipment for reissue after their mission terminates or transfers, resulting in the gaining unit's inability to carry out its assigned mission. It is extremely important that the non-procurable items listed in paragraph 1 below be turned in for reissue, and NOT turned in to the Defense Reutilization and Marketing Office (DRMO).

USER ACTIONS:

1. Ensure that all items associated with the NSNs/LINs listed below are serviceable by performing assigned functional self-tests on these items in accordance with the TM 9-4931-586 series manuals.

   - NSN 5998-01-382-7282/General Purpose Interface Assembly

   - NSN 6625-01-225-8342/Operator Interface Unit

   - NSN 6625-01-443-2478/DSESTS Common Resources (DCR) (w/the display and common function modules)

   - NSN 6625-01-448-9832/Transfer Standards Adapter

   - NSN 6625-01-120-0764/M1 Tank Legacy & Bradley A2 ODS Legacy, LIN T52849

   - NSN 4931-01-263-7972/M1 Thermal Imagining System Test Program Sets (TPSs), LIN T92250

   - NSN 6625-01-442-7490/Bradley TOW System (TPSs)

   - NSN 6625-01-376-0470/M1A2 & M1A2 SEP (TPSs), LIN T17404

   - NSN 6625-01-453-7394/Bradley A3 (TPSs)

   - NSN 6625-01-443-8390/Common FLIR TIS (TPSs)

   - NSN 6625-01-474-5713/Wolverine (TPSs)

2. Your serviceable, excess Test Program Sets (TPSs) and other DSESTS components must be turned in to your Property Book Officer soon after your mission transfers or is terminated and prior to your departure. The TACOM LCMC will reissue the test equipment to gaining units, as required.

3. Requisitioning Instructions. N/A

4. Disposition of Hazardous Material. N/A

5. Category of Maintenance. Field

6. Technical References. TM 9-4931-586-12-1&P through -12-7&P and TM 9-4931-586-30&P.

UNIT COMMANDERS: Contact your local TACOM LCMC Logistics Assistance Representative (LAR) or your State Surface Maintenance Manager upon receipt of this message for assistance.

1. To find your TACOM LCMC LAR, you must be a registered user in the Army Electronic Product Support (AEPS) database. If you are a registered user, then click on this link: https://aeps2.ria.army.mil/Services/Lars/Tacom/larmap/LARlocate/larmap.cfm. Then select the appropriate region, i.e., CONUS, Europe, Far East, and SWA. Select the location nearest you and click on a name. This will give you a LAR's name, DSN and commercial phone number, email address, and photo.

2. If you are not a registered user, request access at the public page: https://aeps.ria.army.mil/aepspublic.cfm, then click on "Access Request Form" and follow the instructions for obtaining an AEPS userid. If you don't have access to AEPS, you can also obtain this information by contacting the TACOM Senior Command Representative (SCR) for your area.

   a. CONUS-East Region includes all Active Duty, National Guard and Reserve Units in Wisconsin, Illinois, Michigan, Indiana, Ohio, Kentucky, Tennessee, Mississippi, Alabama, Georgia, Florida, Louisiana, South Carolina, North Carolina, Virginia, West Virginia, Maryland, Delaware, Pennsylvania, New Jersey, Connecticut, Rhode Island, Massachusetts, New York, New Hampshire, Vermont, Maine, and FORSCOM. CONUS-East SCR can be reached at DSN 236-6921, Commercial 910-396-6921.

   b. CONUS-West Region includes all Active Duty, National Guard and Reserve Units in North Dakota, South Dakota, Minnesota, Nebraska, Iowa, Missouri, Kansas, Oklahoma, Arkansas, Texas, Colorado, Montana, and Wyoming. CONUS-West SCR can be reached at DSN 737-0263, Commercial 254-287-0263.

   c. Pacific Region includes all Active Duty, National Guard and Reserve Units in Washington, Oregon, Idaho, Nevada, Utah, Arizona, Alaska, Hawaii, California, New Mexico, and Guam. Pacific SCR can be reached at DSN 357-2991, Commercial 253-967-2991.

   d. Europe Region includes all Active Duty, National Guard and Reserve Units in Great Britain, Germany, Belgium, Luxemburg, Italy, Bosnia, Kosovo, and Macedonia. Europe Senior Command Representative (SCR) can be reached a DSN 314-375-3461, Commercial 01149 621-487-3461, in Germany, 0621-487-3461.

   e. Far East Region includes all Active Duty, National Guard and Reserve Units in Korea, Okinawa, Kwajalein, and Japan. Far East SCR can be reached at DSN 315-721-7101, Commercial 011-82-2-2270-7101.

   f. SWA OIF Region (Iraq) SWA, Region OIF includes all Active Duty, National Guard and Reserve Units in Iraq. SWA Region OIF SCR OIF Balad, Iraq can be reached at DSN 312-987-5130, ext 6416, Commercial 732-427-5130 ext 6416. Joint Base Balad is DSN 312-987-5130 ext 6427, Commercial 732-427-5139 ext 6427.

   g. SWA OEF Region (Afghanistan) SWA, Region OEF includes all Active Duty, National Guard and Reserve Units in Afghanistan. SWA Region TF Victory OEF SCR ORF can be reached at DSN 318-481-6836/6834. Alternate is DSN 312-987-5130, Commercial 732-427-5130 ext 3821.

   h. Integrated Readiness Maintenance Team (IRMT) Region (Kuwait) SWA Region includes all Active duty, National Guard and Reserve Units in Kuwait, Qatar, Saudi Arabia, and UAE. IRMT Region IMRT Team Leader can be reached at DSN 318-430-7460, Commercial 011-965-389-7460.

TACOM LCMC/PM ACTIONS: Continue to monitor unit turn in of serviceable components.

SUPPLY STATUS:

1. Parts Required. N/A

2. Requisitioning Instructions. Normal turn-in procedures.

3. Disposition/Availability. Turn in through Property Book Officer.

4. Estimated Cost Impact Of Stock Fund Items. N/A

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RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS For use of this form, see AR 25-30; the proponent agency is ODISC4.	Use Part II *(reverse)* for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE Date you filled out this form.
TO: *(Forward to proponent of publication or form) (Include ZIP Code)* U.S. Army TACOM Life Cycle Management Command ATTN: AMSTA-LCL-MPP/TECH PUBS 1 Rock Island Arsenal, Rock Island, IL 61299-7630	*FROM: (Activity and location) (Include ZIP Code)* Your mailing address	

PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER	DATE	TITLE
TM 9-4931-586-12-1&P	14 April 1998	Test Set, Electronic AN/USM 615 (DSESTS-M1/FVS)

ITEM NO.	PAGE NO.	PARA-GRAPH	LINE NO. *	FIGURE NO.	TABLE NO.	RECOMMENDED CHANGES AND REASON (Provide exact wording of recommended changes, if possible).
						

*Reference to line numbers within the paragraph or subparagraph.

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
Your Name		Your Signature

DA FORM 2028, FEB 74 REPLACES DA FORM 2028, 1 DEC 68, WHICH WILL BE USED. USAPPC V3.00

TO: (*Forward direct to addressee listed in publication*) U.S. Army TACOM Life Cycle Management Command ATTN: AMSTA-LCL-MPP/TECH PUBS 1 Rock Island Arsenal, Rock Island, IL 61299-7630	**FROM:** (*Activity and location) (Include ZIP Code)*	**DATE**

PART II – REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

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PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

SAMPLE

PART III – REMARKS (*Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

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By Order of the Secretary of the Army:

ERIC K. SHINSEKI
General, United States Army
Chief of Staff

Official:

JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army

0012304

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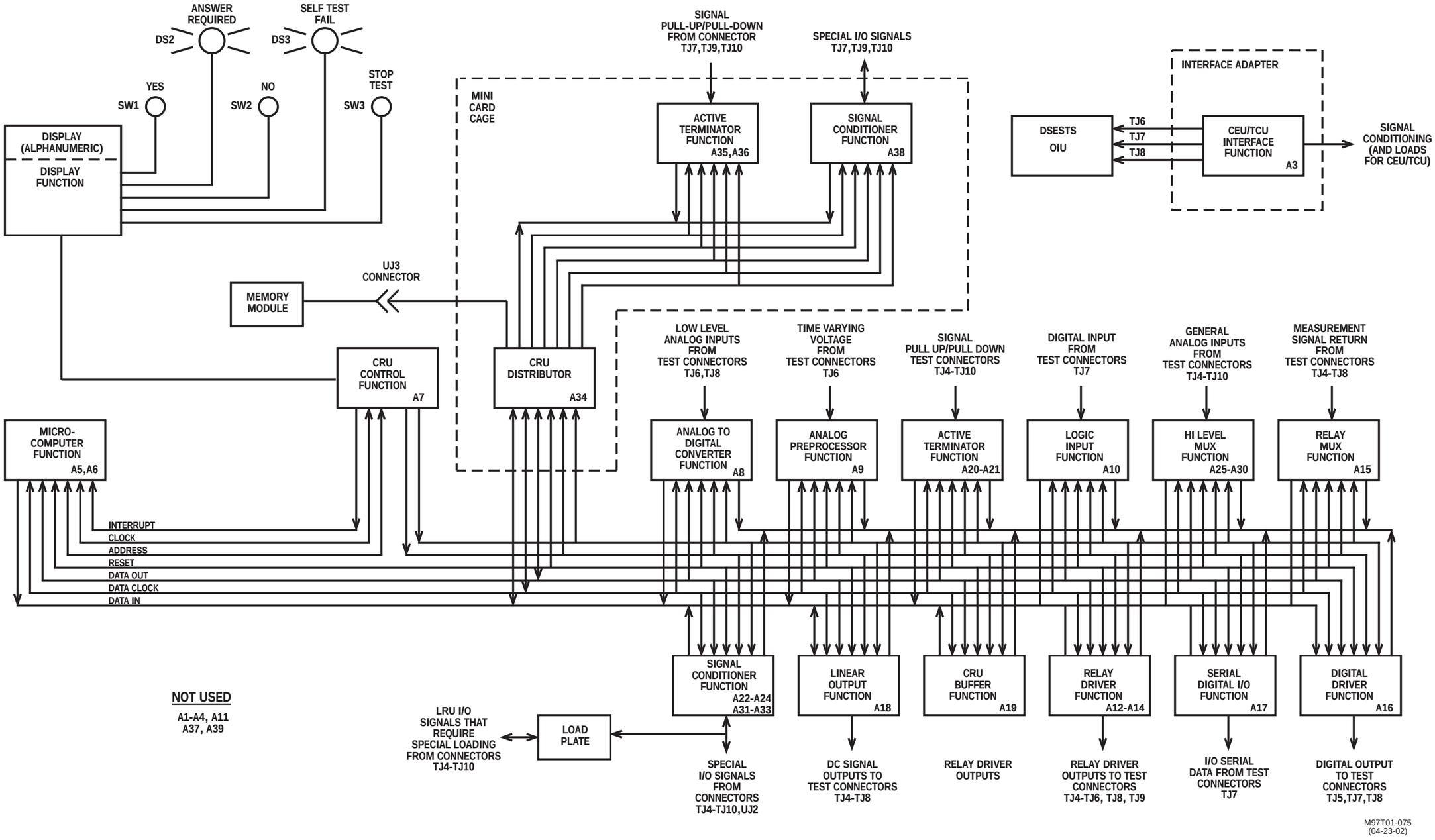

Figure 1. OIU Functional Block Diagram (Sheet 1 of 2)

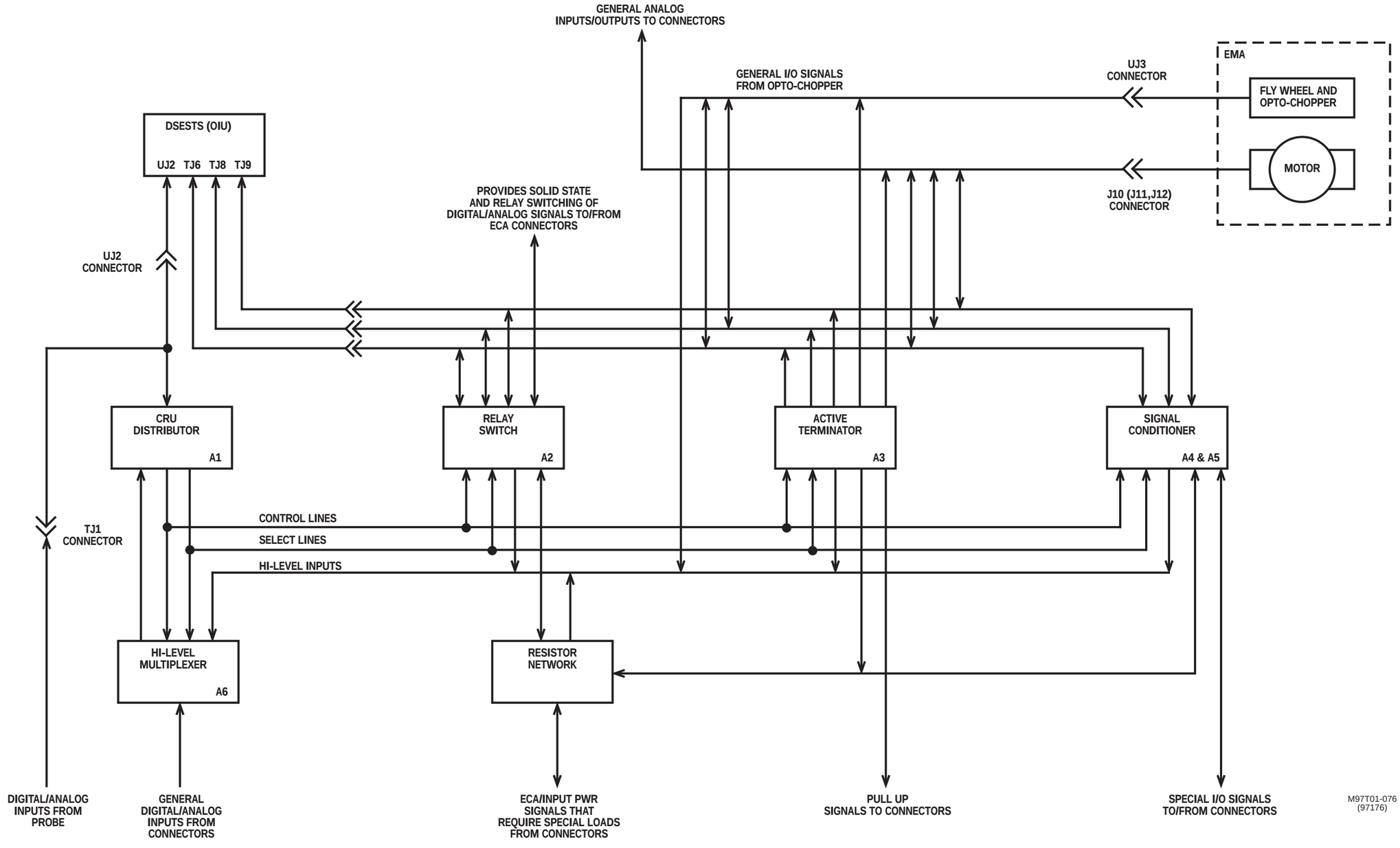

Figure 1. OIU Functional Block Diagram (Sheet 2 of 2)

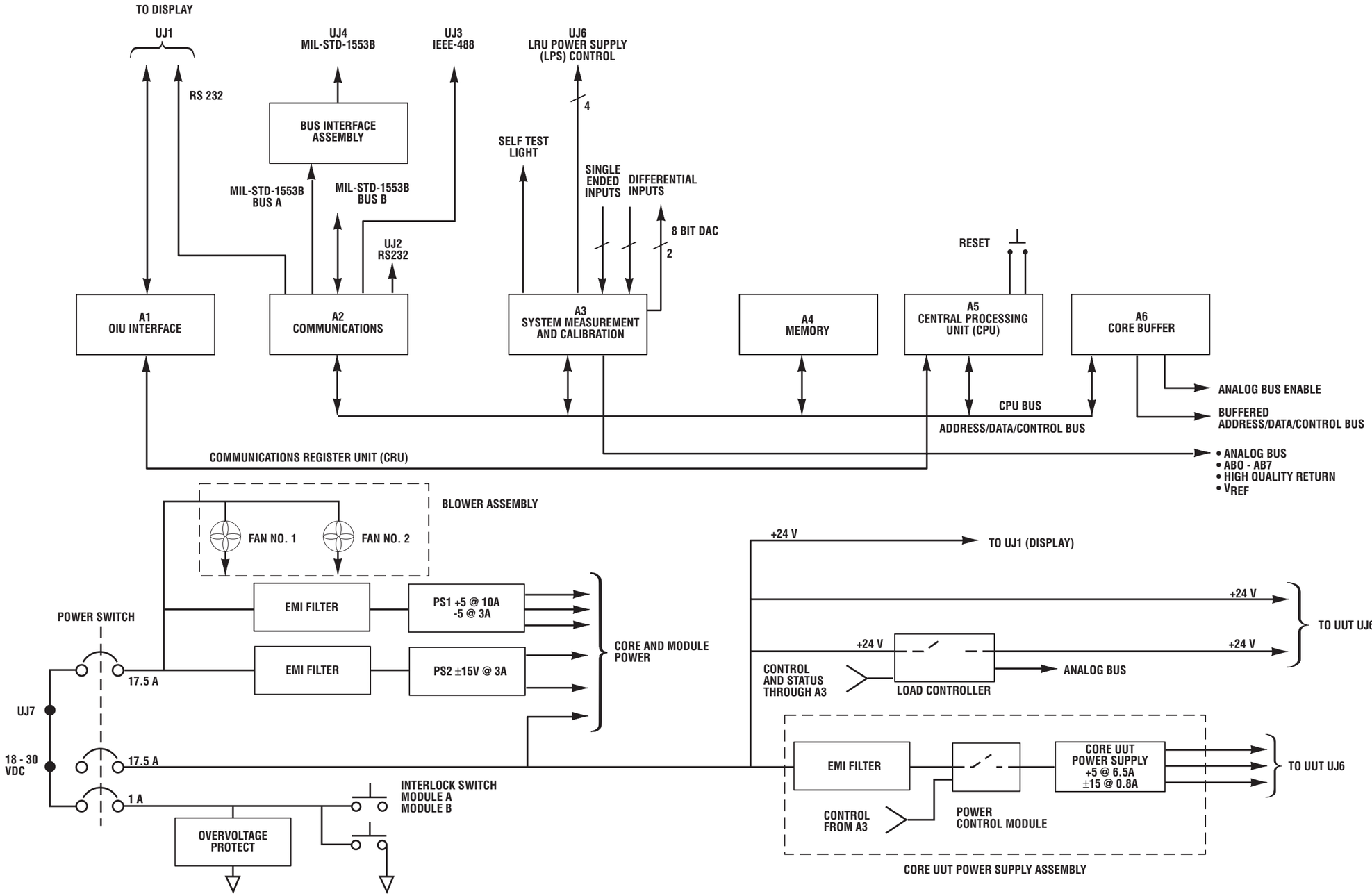

Figure 2. GPIA Functional Block Diagram

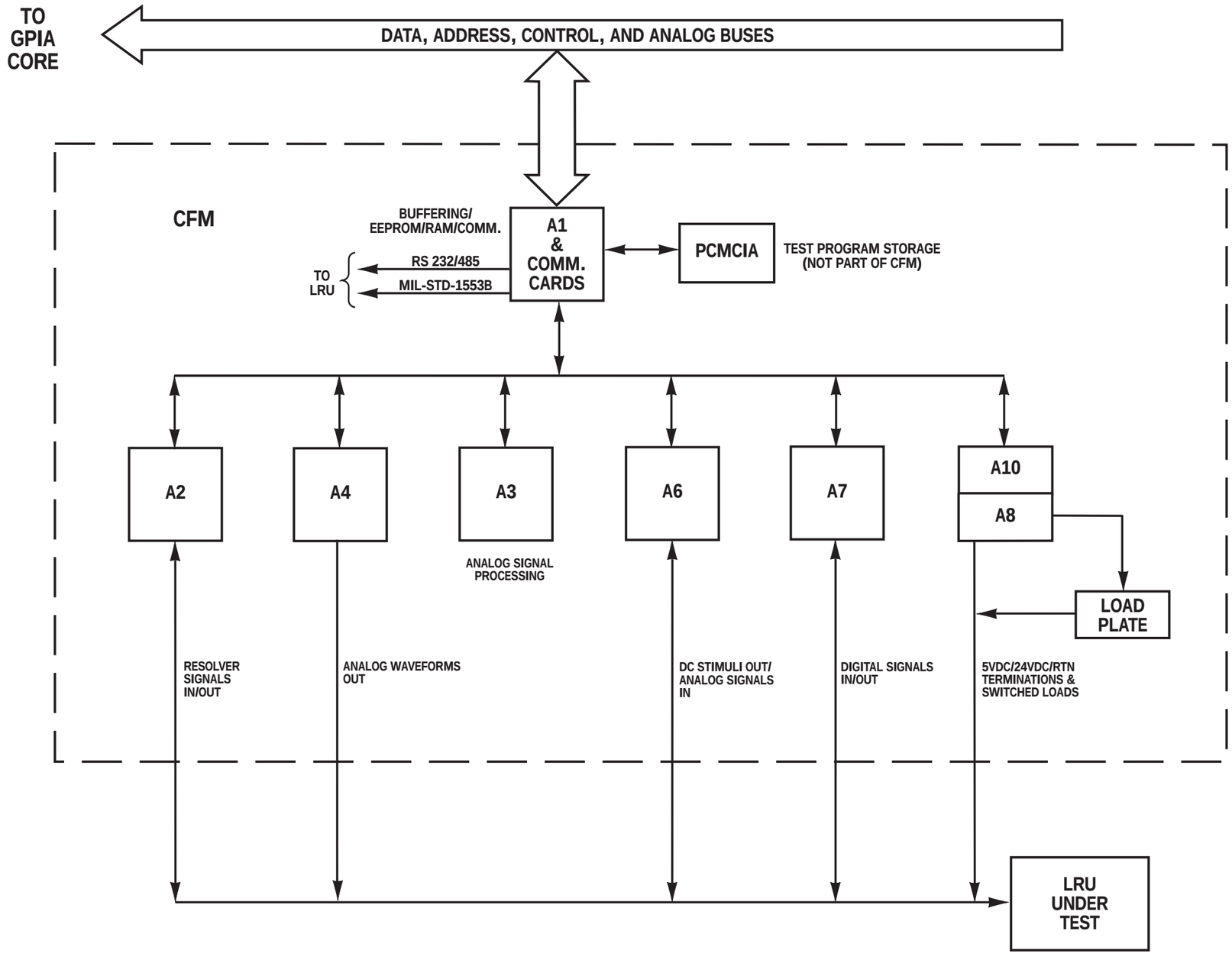

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Figure 3. CFM Functional Block Diagram

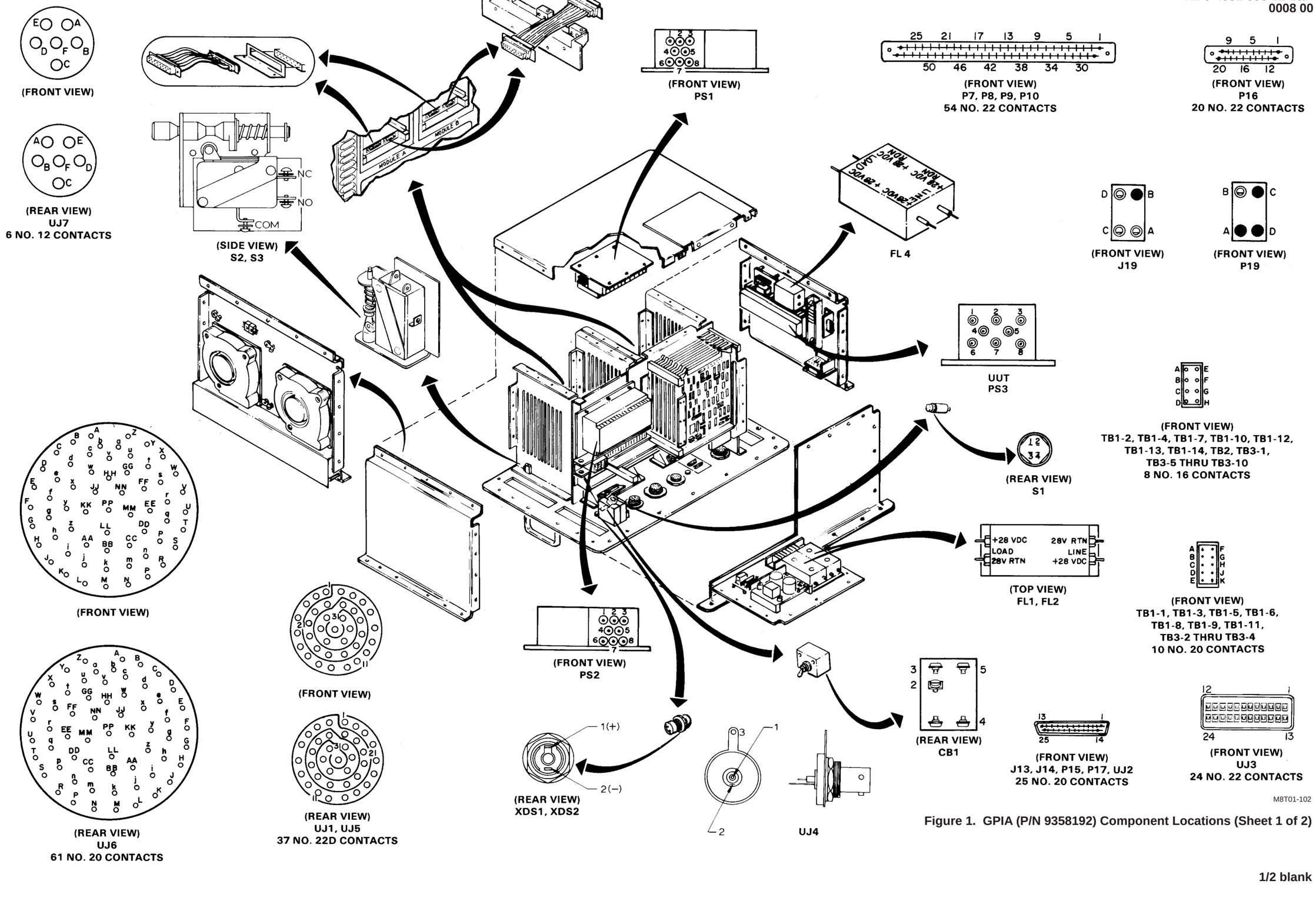
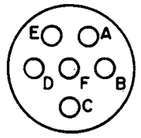


Figure 1. GPIA (P/N 9358192) Component Locations (Sheet 1 of 2)



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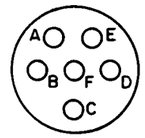

(REAR VIEW)
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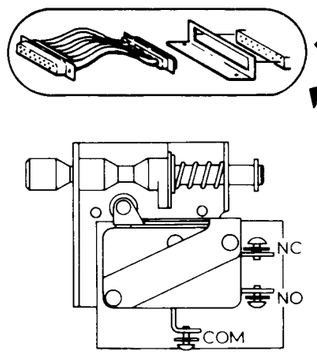
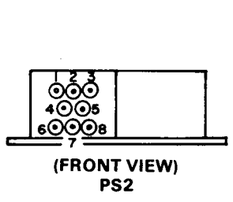


(SIDE VIEW)
S2, S3



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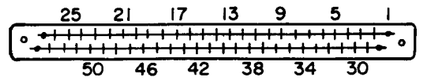

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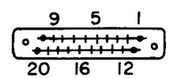

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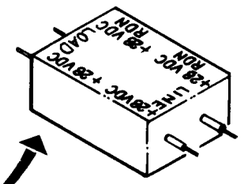

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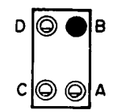

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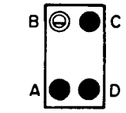

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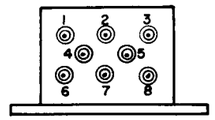

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PS3

(FRONT VIEW)
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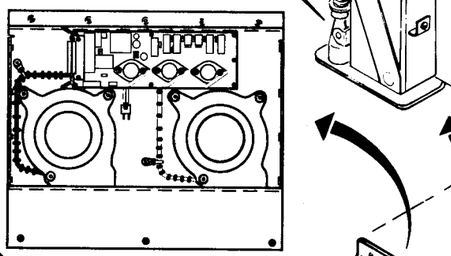

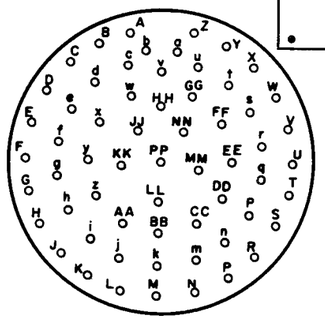

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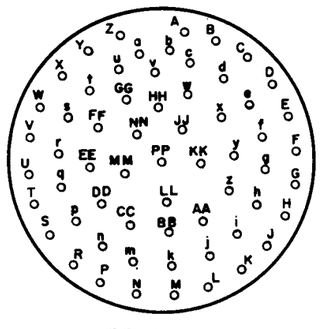
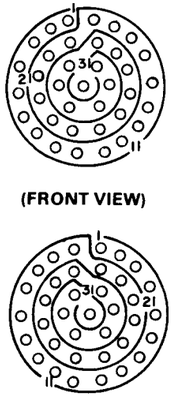
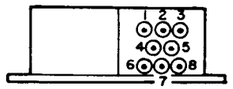


(REAR VIEW)
UJ6
61 NO. 20 CONTACTS

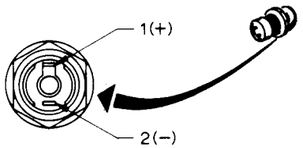


(FRONT VIEW)

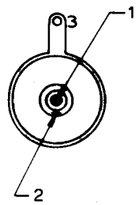
(REAR VIEW)
UJ1, UJ5
37 NO. 22D CONTACTS

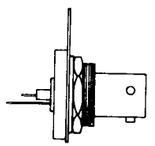


(FRONT VIEW)
PS1

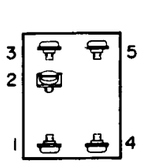


(REAR VIEW)
XDS1, XDS2

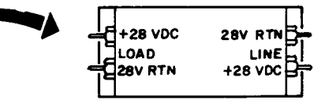




UJ4



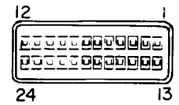
(REAR VIEW)
CB1



(TOP VIEW)
FL1, FL2

(FRONT VIEW)
J13, J14, P15, P17, UJ2
25 NO. 20 CONTACTS

(FRONT VIEW)
TB1-1, TB1-3, TB1-5, TB1-6,
TB1-8, TB1-9, TB1-11,
TB3-2 THRU TB3-4
10 NO. 20 CONTACTS



(FRONT VIEW)
UJ3
24 NO. 22 CONTACTS

Figure 1. GPIA (P/N 12934368) Component Locations (Sheet 2 of 2)

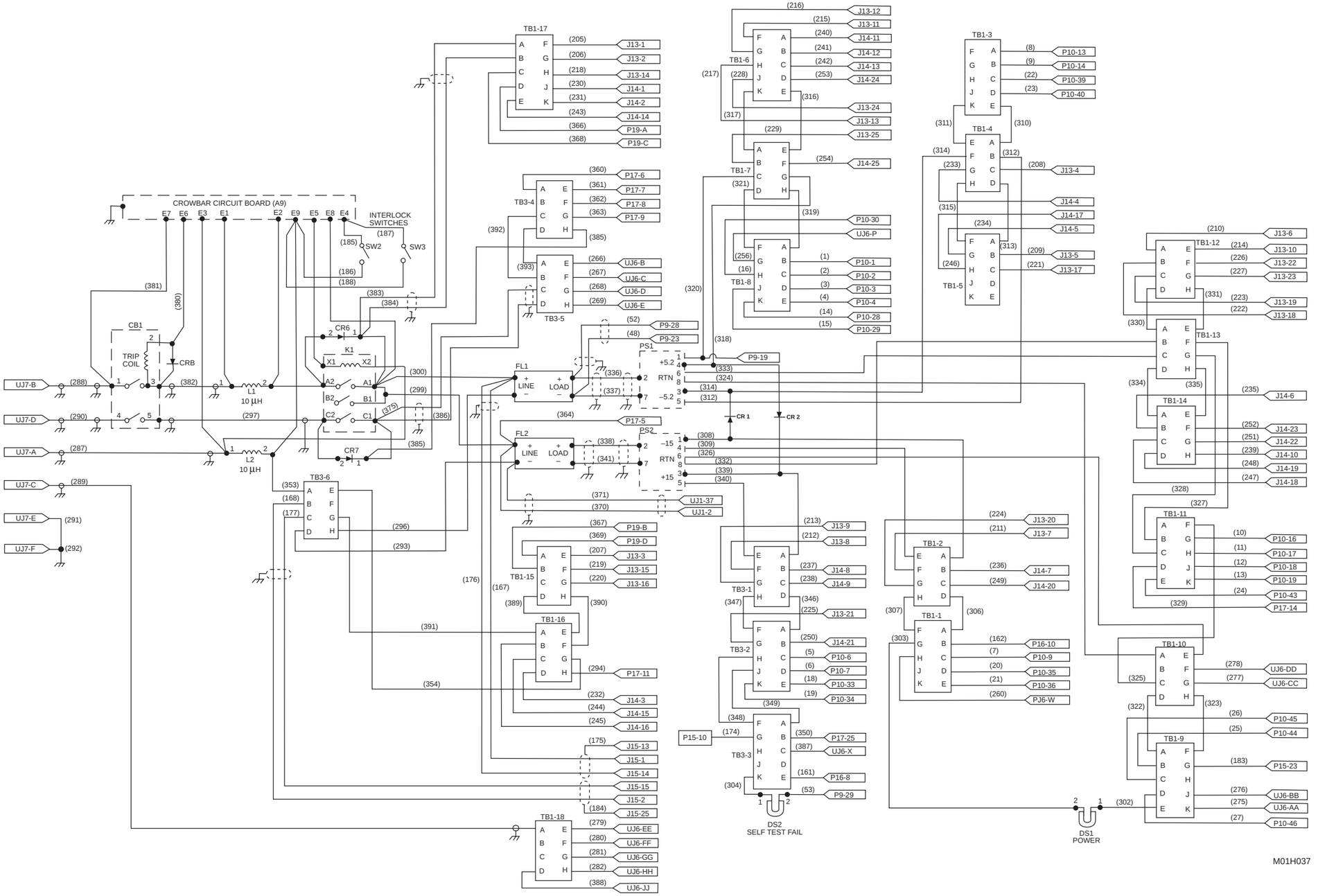


Figure 2. GPIA (P/N 9358192) Power Input Wiring Diagram (Sheet 1 of 2)

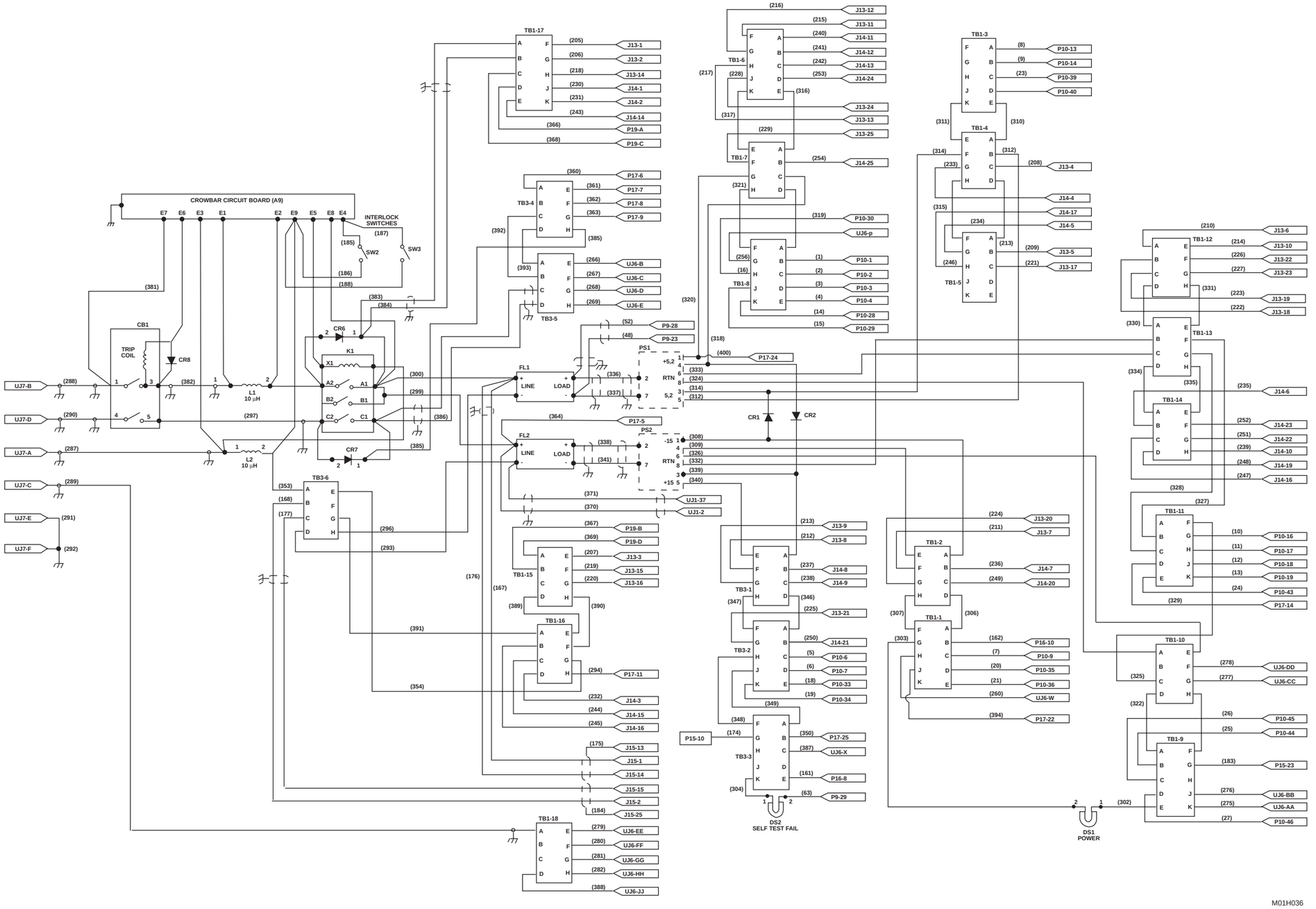
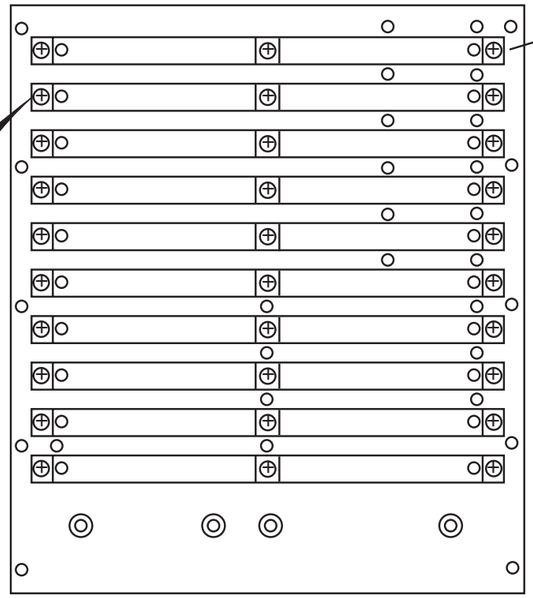
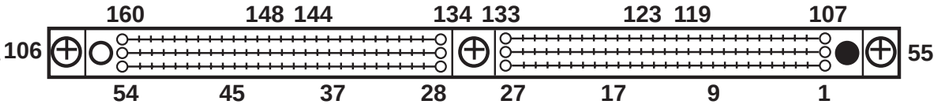


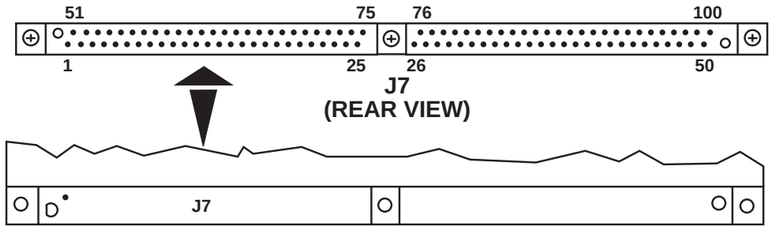
Figure 2. GPIA (P/N 12934368) Power Input Wiring Diagram (Sheet 2 of 2)

CFM BACKPLANE - REAR





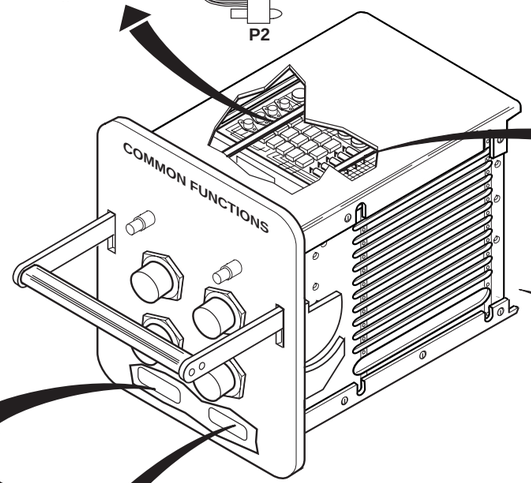
J1-J10 (INTERFACE ASSEMBLY 12934020)
J1-J8, J10 (INTERFACE ASSEMBLY 13006096)
(FRONT VIEW)



J7
(REAR VIEW)

CFM TERMINATION BOARD - REAR

1553B
CABLE ASSEMBLY

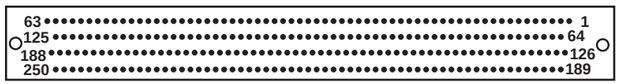


RS485/RS232
CABLE ASSEMBLY

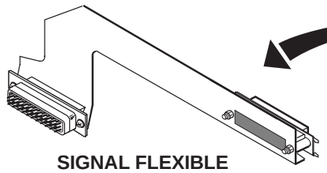
CIRCUIT CARD
CAGE CONTAINS

A1
A2
A3
A4
A6
A7
A8
A9*
A10
LOAD PLATE CCA

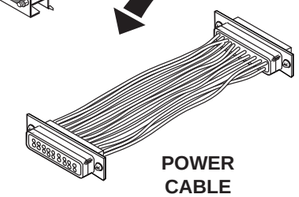
*Circuit Card Used Only With Interface Assembly 13006096 A9 Connector



J9 (INTERFACE ASSEMBLY 13006096)
(FRONT VIEW)

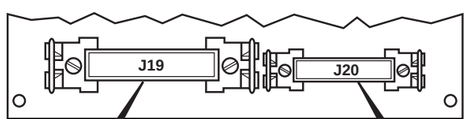


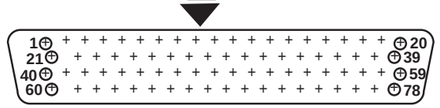
SIGNAL FLEXIBLE
CIRCUIT ASSEMBLY

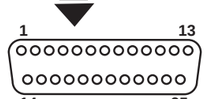


POWER
CABLE

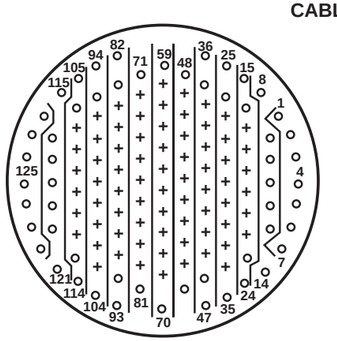
CFM BACKPLANE - FRONT





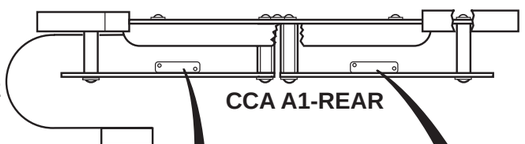


(FRONT VIEW)
J1-J2
NO. 22D CONTACTS

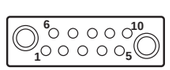


(FRONT VIEW)
TJ1 THRU TJ4
NO. 22D CONTACTS

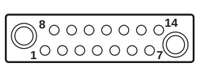
FLEX
CABLE



CCA A1-REAR



(FRONT VIEW)
RS485/RS232 CCA J2

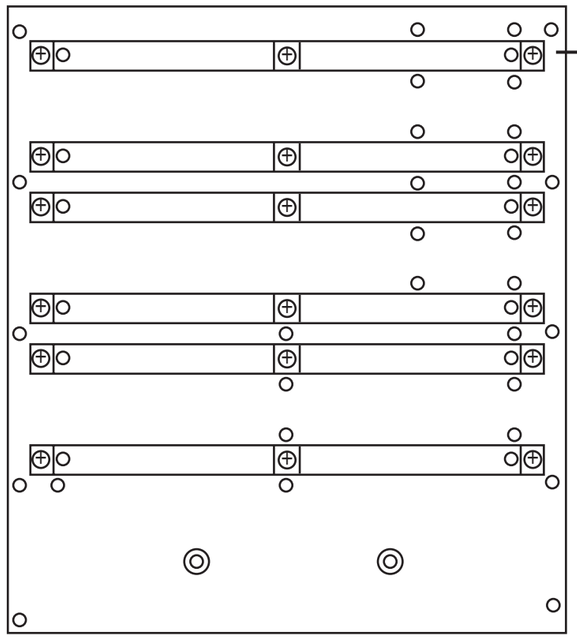


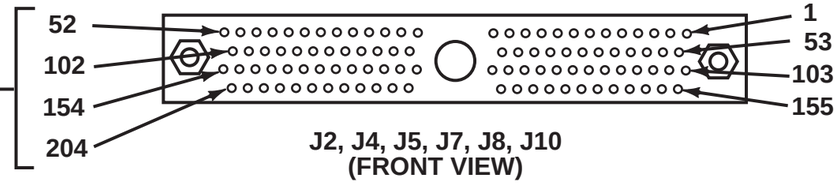
(FRONT VIEW)
1553B CCA J1

M7T01-074
(01/28/08)

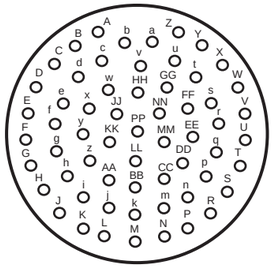
Figure 3. CFM 12971974 Component Locations

CSFM BACKPLANE - REAR

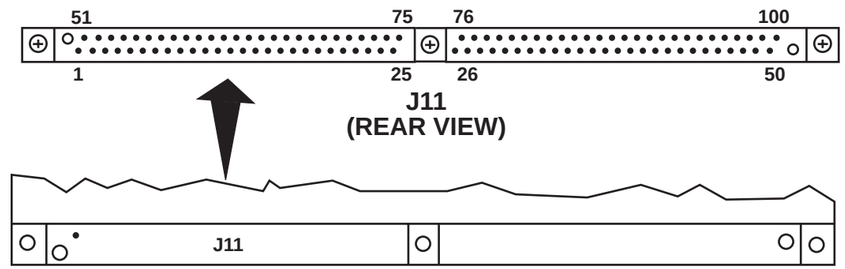




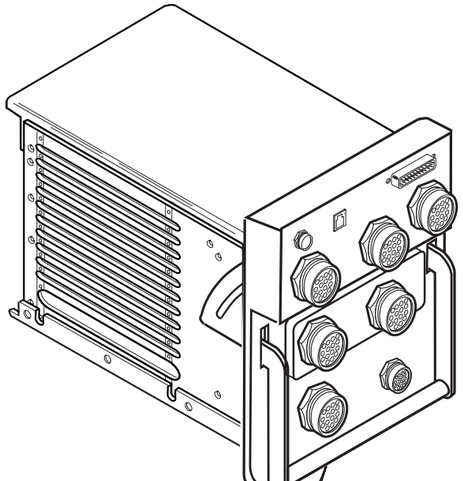
J2, J4, J5, J7, J8, J10
(FRONT VIEW)



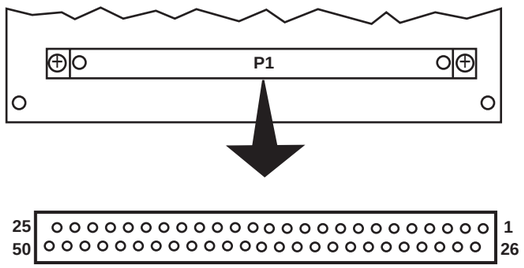
(FRONT VIEW)
TJ4 AND TJ10
NO. 20 CONTACTS

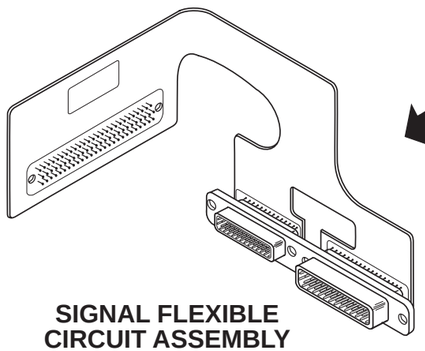


CSFM TERMINATION BOARD - REAR



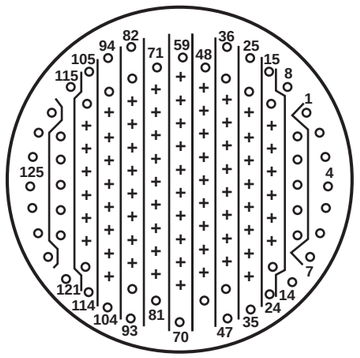
CSFM BACKPLANE - FRONT





SIGNAL FLEXIBLE
CIRCUIT ASSEMBLY

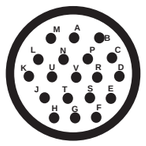
TJ3
(FRONT VIEW)



(FRONT VIEW)
TJ5 THRU TJ8
NO. 22D CONTACTS

CIRCUIT CARD CAGE CONTAINS

A2
A4
A5
A7
A8
A10
LOAD PLATE CCA



(FRONT VIEW)
UJ8
NO.20 CONTACTS

M2T01-003

Figure 4. CSFM Components Locations

CFM BACKPLANE - REAR

160 148 144 134 133 123 119 107
106 55
54 45 37 28 27 17 9 1

J1-J8, J10
(FRONT VIEW)

1553B
CABLE ASSEMBLY

J1 P2

51 75 76 100
1 25 26 50

J11
(REAR VIEW)

J11

CFM TERMINATION BOARD - REAR

COMMON FUNCTIONS

J2 P2

RS485/RS232
CABLE ASSEMBLY

CIRCUIT CARD
CAGE CONTAINS

A1
A2
A3
A4
A6
A9
LOAD PLATE CCA

63 1
125 64
188 126
250 189

J9
(FRONT VIEW)

SIGNAL FLEXIBLE
CIRCUIT ASSEMBLY

POWER
CABLE

FLEX
CABLE

CFM BACKPLANE - FRONT

J13 J12

1 20
21 39
40 59
60 78

1 13
14 25

1 5
2 6 4
3

(FRONT VIEW)
J1-J2
NO. 22D CONTACTS

105 94 82 71 59 48 36 25 15 8 1
115 125 4
121 114 104 93 81 70 47 35 24 14 7

(FRONT VIEW)
TJ1 THRU TJ4
NO. 22D CONTACTS

6 10
1 5

(FRONT VIEW)
RS485/RS232 P4

8 14
1 7

(FRONT VIEW)
1553B P5

P807T01-003

Figure 5. CFM 13014865 Component Locations

THE METRIC SYSTEM AND EQUIVALENTS

LINEAR MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
1 Kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
1 Kilogram = 1000 Grams = 2.2 Lb
1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq Centimeter = 100 Sq Millimeters = 0.155 Sq Inches
1 Sq Meter = 10,000 Sq Centimeters = 10.76 Sq Feet
1 Sq Kilometer = 1,000,000 Sq Meters = 0.386 Sq Miles

CUBIC MEASURE

1 Cu Centimeter = 1000 Cu Millimeters = 0.06 Cu Inches
1 Cu Meter = 1,000 000 Cu Centimeters = 35.31 Cu Feet

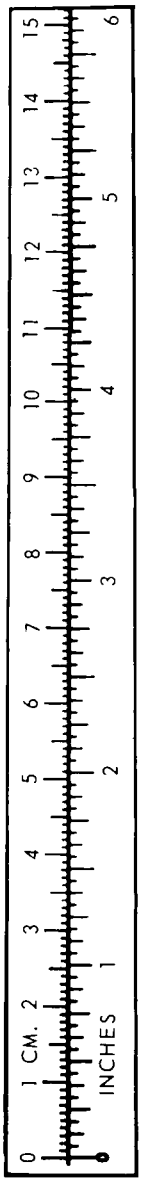
TEMPERATURE

5/9 (°F − 32) = °C
212° Fahrenheit is equivalent to 100° Celsius
90° Fahrenheit is equivalent to 32.2° Celsius
32° Fahrenheit is equivalent to 0° Celsius
9/5 °C + 32 = °F

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
Pints	Liters	0.473
Quarts	Liters	0.946
Gallons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
Liters	Gallons	0.264
Grams	Ounces	0.035
Kilograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pound-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
Kilometers per Liter	Miles per Gallon	2.354
Kilometers per Hour	Miles per Hour	0.621



M97T05-022