TM 11-6625-3081-23-4

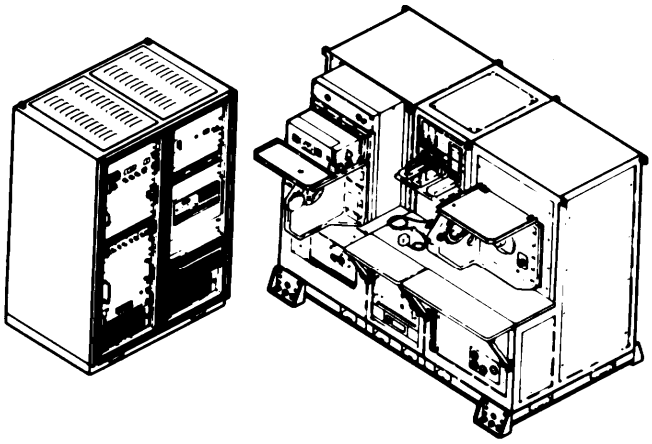
TECHNICAL MANUAL

ORGANIZATIONAL AND DIRECT SUPPORT MAINTENANCE MANUAL FOR

ELECTRONIC EQUIPMENT TEST FACILITY TADS/PNVS AUGMENTATION EQUIPMENT

13082808-39, 13231600, 13231650 AND 13231800

DIRECT SUPPORT MAINTENANCE



This copy is a reprint which includes current pages from Changes 1 through 10.

HEADQUARTERS, DEPARTMENT OF THE ARMY

1 FEBRUARY 1986

Change)
)
No. 21)

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., 31 July 1996

ORGANIZATIONAL AND DIRECT SUPPORT MAINTENANCE MANUAL

ELECTRONIC EQUIPMENT TEST FACILITY TADS/PNVS AUGMENTATION EQUIPMENT 13082808-39, 13231600,13231650 AND 13231800

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List of Effective Pages	A and C/(D blank)	A and C/(D blank)
Appendix E	E-11 and E-12	E-11 and E-12
Appendix F	F-1 through F-8	F-1 through F-8

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ORGANIZATIONAL AND DIRECT SUPPORT MAINTENANCE MANUAL FOR ELECTRONIC EQUIPMENT TEST FACILITY TADS/PNVS AUGMENTATION EQUIPMENT

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F-1 through F-4	F-1 through F-4

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ORGANIZATIONAL AND DIRECT SUPPORT MAINTENANCE MANUAL FOR ELECTRONIC EQUIPMENT TEST FACILITY TADS/PNVS AUGMENTATION EQUIPMENT

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Remove pages	Insert pages
A through C/(D blank)	A through C/(D blank)
F-1 through F-4	F-1 through F-4
F-5 and F-6	F-5
F-7 and F-8	F-8

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A through C/(D blank)	A through C/(D blank)
F-1 and F-2	F-1 and F-2
F-5 and F-6	F-5
F-7 and F-8	F-8

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Remove pages	Insert pages
A through C/(D blank)	A through C/(D blank)
i and ii	i and ii
F-1 through F-8	F-1 through F-8

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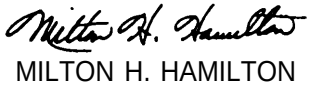

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Remove pages	Insert pages
A through L	A through C/(D blank)
F-1 and F-2	F-1 and F-2
F-7 and F-8	F-7 and F-8

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Remove pages	Insert pages
A and B	A and B
F-1 through F-6	F-1 through F-6

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ORGANIZATIONAL AND DIRECT SUPPORT
MAINTENANCE MANUAL FOR ELECTRONIC EQUIPMENT
TEST FACILITY TADS/PNVS AUGMENTATION EQUIPMENT

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Remove pages	Insert pages
A and B	A and B
F-1 and F-2	F-1 and F-2
F-3 and F-4	F-3 and F-4
F-5 and F-6	F-5 and F-6

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ORGANIZATIONAL AND DIRECT SUPPORT
MAINTENANCE MANUAL FOR ELECTRONIC EQUIPMENT
TEST FACILITY TADS/PNVS AUGMENTATION EQUIPMENT

TM 11-6625-3081-23-4, 1 February 1986, is changed as follows:

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Remove pages	Insert pages
A and B	A and B
F-1 through F-4	F-1 through F-4

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Chief of Staff

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Brigadier General, United States Army
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ORGANIZATIONAL AND DIRECT SUPPORT
MAINTENANCE MANUAL FOR ELECTRONIC EQUIPMENT
TEST FACILITY TADS/PNVS AUGMENTATION EQUIPMENT

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Remove pages	Insert pages
A and B	A and B
F-1 through F-6	F-1 through F-8
Glossary -1 and Glossary -2	Glossary -1 and Glossary -2

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WASHINGTON, D.C., 1 October 1990

ORGANIZATIONAL AND DIRECT SUPPORT MAINTENANCE MANUAL FOR ELECTRONIC EQUIPMENT TEST FACILITY TADS/PNVS AUGMENTATION EQUIPMENT

TM 11-6625-3081-23-4, 1 February 1986, is changed as follows:

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Remove pages	Insert pages
A and B	A and B
A-1 and A-2	A-1 and A-2
B-5 through B-34	B-5 through B-34
C-1 and C-2	C-1 and C-2
F-3 and F-4	F-3 and F-4
Index - 1 and Index - 2	Index - 1 and Index - 2
Index - 2.1/Index - 2.2	Index - 2.1/Index - 2.2
Index - 3 through Index - 18	Index - 3 through Index - 18

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ORGANIZATIONAL AND DIRECT SUPPORT
MAINTENANCE MANUAL FOR ELECTRONIC EQUIPMENT
TEST FACILITY TADS/PNVS AUGMENTATION EQUIPMENT

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Remove pages	Insert pages
A and B (Warning page)	----
----	A and B
F-1 through F-6	F-1 through F-6
Index 17 and Index 18	Index 17 and Index 18

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	Remove pages	Insert pages
Table of Contents	i and ii	i and ii
Chapter 4	4-3 through 4-8	4-3 through 4-8
Chapter 5	5-45 and 5-46 5-119 through 5-124	5-45 and 5-46 5-119 through 5-124
Appendix B	B-5 through B-68	B-5 through B-64
Appendix C	C-1 through C-4	C-1 through C-4
Appendix F	F-1 through F-6 F-7 and F-8	F-1 through F-6 ----
Index	Index-1 and Index-2 ---- Index-7 and Index-8 Index-15 and Index-16 Old 2028's	Index-1 and Index-2 Index-2.1/Index-2. 2 Index-7 and Index-8 Index-15 and Index-16 New 2028's
Cover	Cover	Cover

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MAINTENANCE MANUAL FOR ELECTRONIC EQUIPMENT
TEST FACILITY TADS/PNVS AUGMENTATION EQUIPMENT

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	Remove pages	Insert pages
Appendix F	F-1 and F-2	F-1 and F-2
	F-5 and F-6	F-5 and F-6
	F-7 and F-8	- - - -

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ORGANIZATIONAL AND DIRECT SUPPORT MAINTENANCE MANUAL FOR ELECTRONIC EQUIPMENT TEST FACILITY TADS/PNVS AUGMENTATION EQUIPMENT 13082808-39, 13231600, 13231650 AND 13231800

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Remove pages	*Insert pages*
6-13/(6-14 blank)	6-13 /(6-14 blank)
6-15 through 6-22	6-15 and 6-22
F-l through F-6	F-l through F-6

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Remove pages	*Insert pages*
5-137 through 5-150	5-137 through 5-150
6-27 and 6-28	6-27 and 6-28
F-l through F-4	F-l through F-4

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Remove pages	*Insert pages*
B-5 through B-68	B-5 through B-68
E-1 through E-15/(E-16 blank)	E-l through E-15/(E-16 blank)
F-l through F-8	F-l through F-6

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TM 11-6625-3081-23-1, 1 February 1986 is changed as follows:

1. Remove and insert pages as indicated below.

Remove Pages	Insert pages
5-45 and 5-46	5-45 and 5-46
5-51 and 5-52	5-51 and 5-52
5-55 and 5-56	5-55 and 5-56
5-59 and 5-60	5-59 and 5-60
5-66.1 and 5-66.2	5-66.1 and 5-66.2
5-67 and 5-68	5-67 and 5-68
5-73 and 5-74	5-73 and 5-74
5-85 and 5-86	5-85 and 5-86
5-89 thru 5-94	5-89 thru 5-94
--	5-96.1/(5-96.2 blank)
5-97 thru 5-102	5-97 thru 5-102
F-1 and F-2	F-1 and F-2

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ORGANIZATIONAL AND DIRECT SUPPORT
MAINTENANCE MANUAL FOR ELECTRONIC EQUIPMENT
TEST FACILITY TADS/PNVS AUGMENTATION EQUIPMENT

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Remove pages	Insert pages
5-66.5 and 5-66.6	5-66.5 and 5-66.6
5-167 and 5-168	5-167 and 5-168
F-1 and F-2	F-1 and F-2
Index-13 and Index-14	Index-13 and Index-14

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Remove pages	Insert pages
4-3 and 4-4	4-3 and 4-4
4-7 and 4-8	4-7 and 4-8
4-15 and 4-16	4-15 and 4-16
5-3 and 5-4	5-3 and 5-4
5-7 and 5-8	5-7 and 5-8
5-41 and 5-42	5-41 and 5-42
5-45 and 5-46	5-45 and 5-46
5-49 through 5-52	5-49 through 5-52
5-55 and 5-56	5-55 and 5-56
5-59 and 5-60	5-59 and 5-60
5-66.1 and 5-66.2	5-66.1 and 5-66.2
5-67 and 5-68	5-67 and 5-68
5-73 and 5-74	5-73 and 5-74
5-85 and 5-86	5-85 and 5-86
5-89 through 5-94	5-89 through 5-94
5-97 and 5-98	5-97 and 5-98
5-101 and 5-102	5-100.1 through 5-102
5-105 through 5-110	5-105 through 5-110
5-119 through 5-126	5-119 through 5-126
5-131 and 5-132	5-131 and 5-132

Remove pages	Insert pages
5-135 through 5-138	5-135 through 5-138
5-149 through 5-156	5-149 through 5-156
5-159 through 5-162	5-159 through 5-162
5-167 and 5-168	5-167 and 5-168
5-181 and 5-182	5-181 and 5-182
5-189 and 5-190	5-189 and 5-190
6-3 and 6-4	6-3 and 6-4
6-13 through 6-16	6-13 through 6-16
6-19 through 6-22	6-19 through 6-22
B-5 through B-62	B-5 through B-60
E-9 and E-10	E-9 and E-10
F-1 through F-8	F-1 through F-6
Index-1 and Index-2	Index-1 and Index-2

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Change

No. 1

HEADQUARTERS,
DEPARTMENT OF THE ARMY
Washington, DC, 15 August 1987

ORGANIZATIONAL AND DIRECT SUPPORT MAINTENANCE MANUAL ELECTRONIC EQUIPMENT TEST FACILITY TADS/PNVS AUGMENTATION EQUIPMENT

TM 11-6625-3081-23-4, 1 February 1986, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page. Added or revised illustrations are indicated by a vertical bar adjacent to the identification number or by a miniature pointing hand. Changes in wiring diagrams are indicated by shaded areas.

Remove pages	Insert pages
5-45 and 5-46	5-45 and 5-46
5-55 through 5-66	5-55 through 5-66
5-85 through 5-92	5-85 through 5-92
5-101 through 5-106	5-101 through 5-106
5-109 and 5-110	5-109 and 5-110
E-5 through E-15/(E-16 blank)	E-5 through E-15/(E-16 blank)
Index-9 and Index-10	Index-9 and Index-10

2. File this change sheet in front of the publication for reference purposes.

By Order of the Secretary of the Army:

CARL E. VUONO
General, United States Army
Chief of Staff

Official:

R.L. DILWORTH
Brigadier General, United States Army
The Adjutant General

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LIST OF EFFECTIVE PAGES

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Dates of issue for original and change pages are:

Original . . ..0 ....01 February 1986
Change . . . . . 1 ....15 August 1987
Change . . . ..2.... 15 September 1987
Change . . . . . 3 . . . .l5 January 1988
Change . . . ..4 . ...01 July 1988
Change . . . . .5. . . . . 01 August 1988
Change . . . ...6 ....01 January 1989
Change . . . ...7 ....30 September 1988
Change . . . ...8....20 February 1990
Change . . . . . .9 ....28 February 1990
Change . . . ..10 ....06 June 1990
Change . . . ..11 ....01 October 1990
Change . . . ..12 ....06 March 1991
Change . . . ..13 ....15 April 1991
Change . . . ..14 ....30 August 1991
Change . . . ..15 ....30 June 1992
Change . . . ..16 . ...26 February 1993
Change . . . ..17 . ...30 July 1993
Change . . . . . 18....30 November 1993
Change . . . ..19 . . ..15 July 1995
Change . . . ..20 . . ..31 January 1996
Change . . . ..21 . ...31 July 1996

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 386, CONSISTING OF THE FOLLOWING:

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D Blank 16		5-9 - 5-41	0
i 1 7		5-42	**2**
ii 0		5-43 - 5-44	0
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A-1 - A-2	11
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LIST OF EFFECTIVE PAGES

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ORGANIZATIONAL AND DIRECT SUPPORT MAINTENANCE MANUAL FOR ELECTRONIC EQUIPMENT TEST FACILITY TADS/PNVS AUGMENTATION EQUIPMENT

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, U.S. Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd, St. Louis, M0 63120-1798. A reply will be furnished to you.

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CHAPTER 4

DIRECT SUPPORT MAINTENANCE INSTRUCTIONS
ELECTRONIC STATION

OVERVIEW

This chapter provides direct support maintenance instructions for the electronic station.

Section I. REPAIR PARTS; SPECIAL TOOLS; TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE); AND SUPPORT EQUIPMENT

4-1. COMMON TOOLS AND EQUIPMENT 4-1

The maintenance tasks described in this chapter use tools contained in Tool Kits, Electronic Equipment TK-100/G and TK-105/G. Other tools required are listed in paragraph 4-2 below and in the INITIAL SETUP of the specific maintenance task.

4-2. SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT 4-2

For authorized special tools and support equipment pertaining to direct support maintenance, refer to TM 11-6625-3081-23P, Repair Parts and Special Tools List (RPSTL). For some work on the Electronic Station, special tools, TMDE, or support equipment are needed. The following is a list of these items. Each item is identified in the INITIAL SETUP of each maintenance task that requires its use.

Item No.	National Stock No. or Part No.	Nomenclature
1	8415-00-082-6108	Apron, rubber
2	4240-00-052-3776 (GGG-531CL1)	Goggles, acid-type safety
3	TBD	Probe, shorting
4	LN-24BP	1/8 inch hex head ball end wrench

4-3. REPAIR PARTS 4-3

Repair parts are listed and illustrated in the RPSTL (TM 11-6625-3081-23P) covering organizational and direct support maintenance for this equipment.

Section II. ELECTRONIC STATION MAINTENANCE PROCEDURES

4-4. AC CONTROL PANEL ASSEMBLY 1A5 REPAIR 4-4

This task covers replacement of:

Para	Item	Para	Item
1.	Circuit breakers 1A5CB1 thru 1A5CB5	2.	Terminal board 1A5TB1

INITIAL SETUP

Personnel Required

396 ATE Repairer

References

TM 11-6625-3085-12

Equipment Condition

Power removed (para 2-24.1)
Electronic station positioned for maintenance (TM 11-6625-3085-12)

FOLLOWUP

Electronic station positioned for operation (TM 11-6625-3085-12)

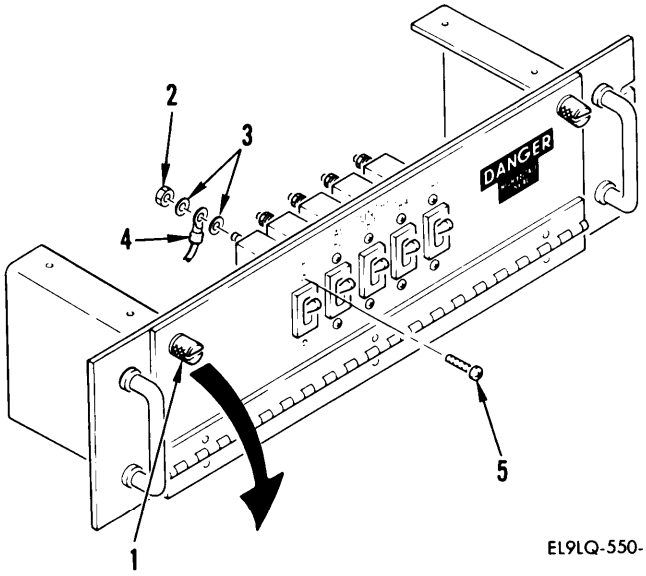
1. CIRCUIT BREAKER CB1 THRU CB5 REPLACEMENT

NOTE

Use this procedure to replace any of five circuit breakers in AC CONTROL panel assembly.

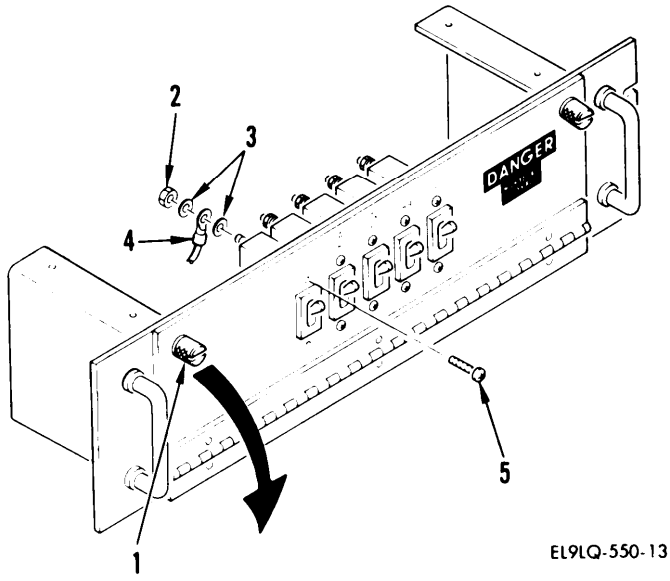
REMOVAL

a. On front panel of AC CONTROL panel assembly, turn two turnlock fasteners (1) counterclockwise and lower hinged panel.



b. Locate defective circuit breaker.

Circuit Breaker	Applies Power To
CB1	Plug mold 1A1J2
CB2	Plug mold 1A1J1
CB3	Digital computer assembly 1A10
CB4	EO test bench
CB5	EO test bench



EL9LQ-550-13

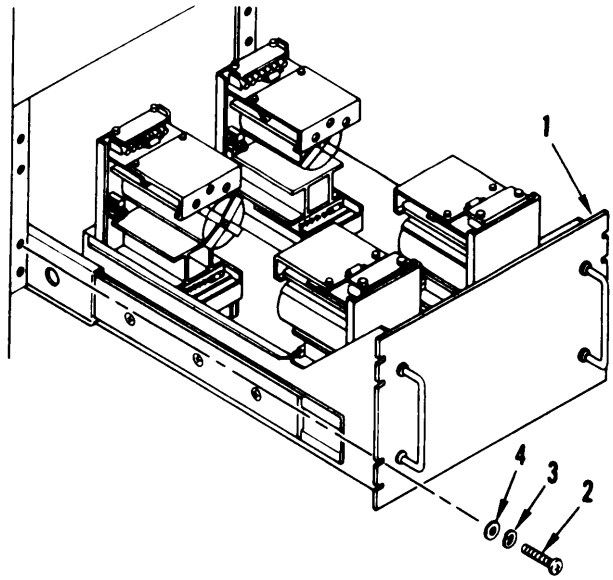
c. Remove nuts (2), washers (3), and wire lugs (4) from both terminals of defective circuit breaker.

d. On front panel of AC CONTROL panel assembly, remove two screws (5) and remove defective circuit breaker.

INSTALLATION

e. Install replacement circuit breaker in reverse order of removal.

END OF TASK



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2. TERMINAL BOARD TB1 REPLACEMENT

REMOVAL

a. On front panel of DC POWER SUPPLY assembly (1), remove eight screws (2), lockwashers (3), and Washer (4), and pull out DC POWER SUPPLY assembly.

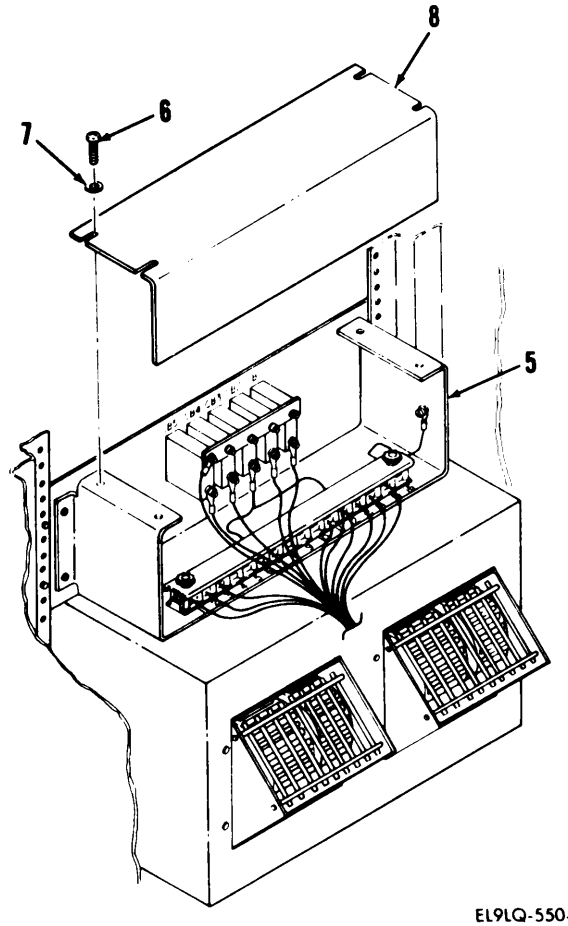
b. Open right rear cabinet door for access to AC CONTROL panel assembly (5).

c. Remove four screws (6) and washers (7).

d. Remove cover (8).

e. Slide DC POWER SUPPLY assembly (1) into cabinet.

f. On front panel of AC CONTROL panel assembly (9), remove four screws (10), lockwashers (11), and washers (12).



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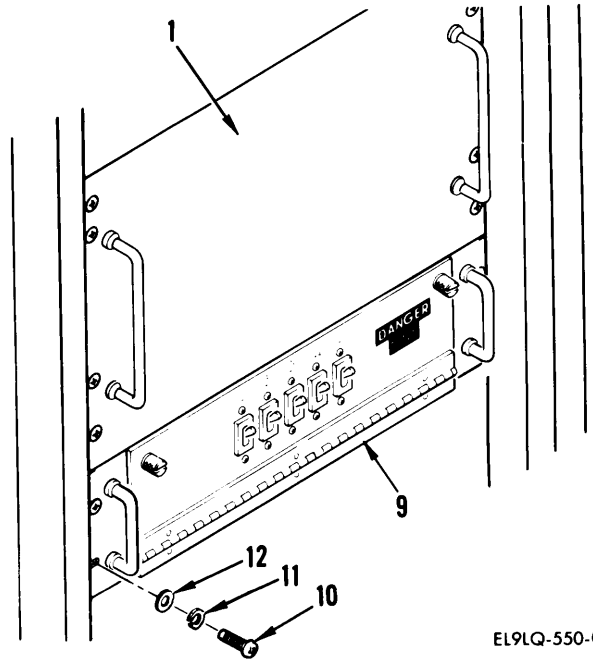

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4-4. AC CONTROL PANEL ASSEMBLY 1A5 REPAIR (cont) 4-4

CAUTION

Do not put any stress on wiring connected to AC CONTROL panel assembly. Damage to wire connections could occur.

g. Carefully extend AC CONTROL panel assembly away from cabinet for access to terminal board (14).

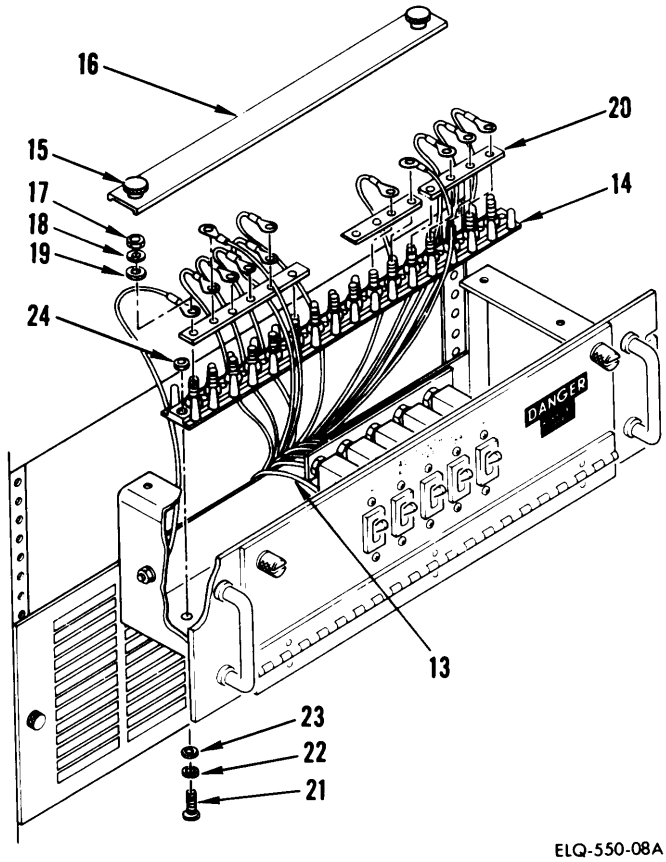
h. Loosen two knurled nuts (15) and remove cover assembly (16).

i. Remove 14 nuts (17), lockwashers (18), and washers (19).

j. Tag and remove attaching wires (13).

k. Remove three terminal links (20).

l. Remove three screws (21), lockwashers (22), washers (23), terminal board (14), and nuts (24).



INSTALLATION

m. Install three screws (21), lockwashers (22), washers (23), terminal board (14), and nuts (24).

n. Inspect terminal links (20) for damage and replace, if necessary.

o. Install three terminal links as shown.

p. position tagged wires (13) on terminal board in the reverse order of removal.

q. Install 14 nuts (17), lockwashers (18), and washers (19).

r. Install cover assembly (16) and two knurled nuts (15).

END OF TASK

4-5. BLOWER ASSEMBLY 1A6 OR 1A12 REPAIR

This task covers replacement of:

Para	Item	Para	Item
1.	Capacitor	2.	Blower motor

INITIAIL SETUP

Tools

1/8 in hex head ball end wrench
Shorting probe

Materials (appendix C)

Lug nut (Item 31)
Masking tape (Item 45)

Personnel Required

39B ATE Repairer

Equipment Conditions

power removed (para 2-24.1)
Blower assembly removed
(para 2-34, steps 1-8)

FOLLOWUP

Blower assembly installation
(para 2-34, steps 17, 18)

1. CAPACITOR REPLACEMENT

NOTE

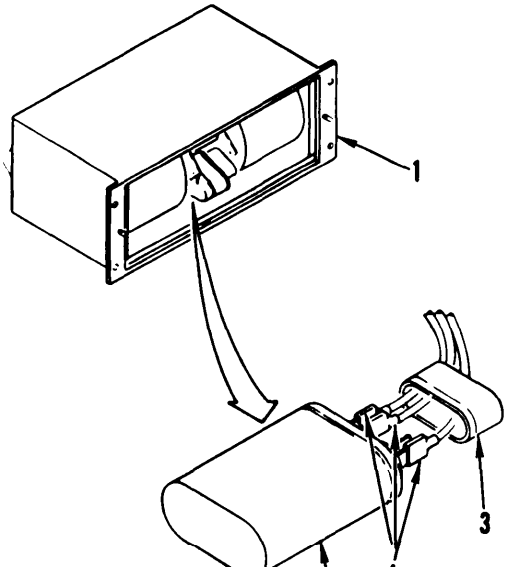
This procedure is used to replace the capacitor contained in blower assembly 1A6 (1) or 1A12 (1).

REMOVAL

WARNING

- A HIGH VOLTAGE CAPACITOR (4 uF, 370v) MUST BE DISCHARGED BEFORE WORKING INSIDE BLOWER ASSEMBLIES 1A6 0R 1A12.
- SERIOUS INJURY CAN RESULT IF CAPACITOR TERMINALS ARE TOUCHED BEFORE CAPACITOR IS DISCHARGED.
- IF SHOCK OCCURS, APPLY FIRST AID (FM 21-11). GET MEDICAL HELP AT ONCE.

a. On capacitor (2), slide rubber grommet (3) away from capacitor terminals (4).



b. Use shorting probe and short out each capacitor terminal to ground.

c. Loosen nut (5).

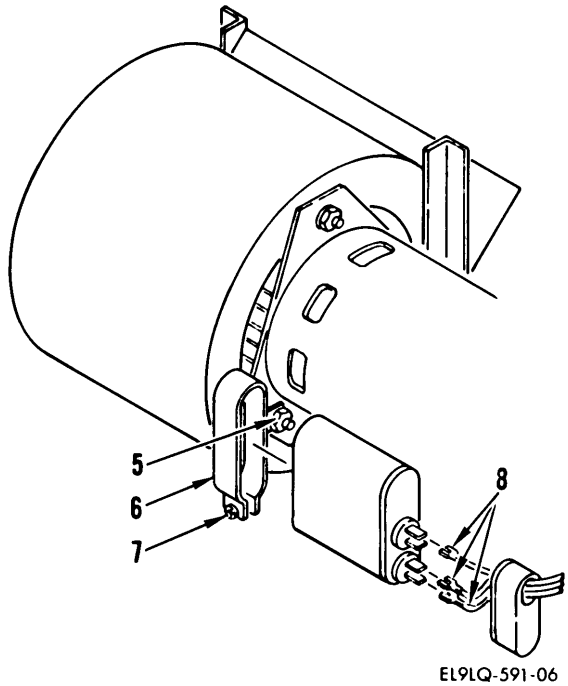
d. Rotate capacitor bracket (6), loosen screw (7), and lift out capacitor.

e. Tag and remove three wires (8) from capacitor terminals.

INSTALLATION

f. Install capacitor in reverse order of removal.

END OF TASK



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BLOWER MOTOR REPLACEMENT

NOTE

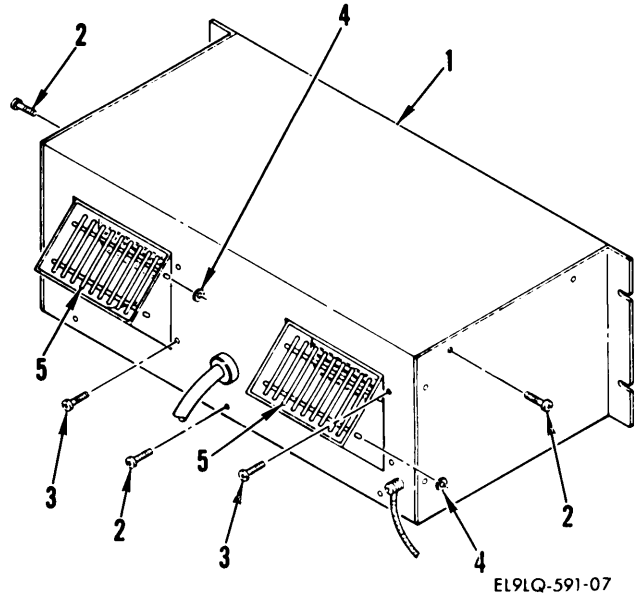
This procedure is used to replace the blower motor contained in blower assembly 1A6 (1) or 1A12 (1).

REMOVAL

a. Refer to paragraph 1 above and do steps a and b.

b. Remove two retaining rings (4) from each grill (5) and lift out grill.

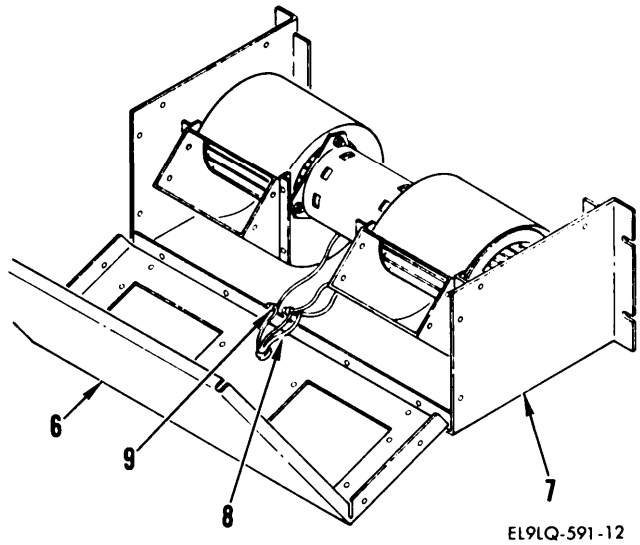
c. On rear of blower assembly (1), remove 11 screws (2) and eight screws (3).



EL9LQ-591-07

d. Separate top cover (6) from bottom half of blower housing (7) as far as attached wiring permits.

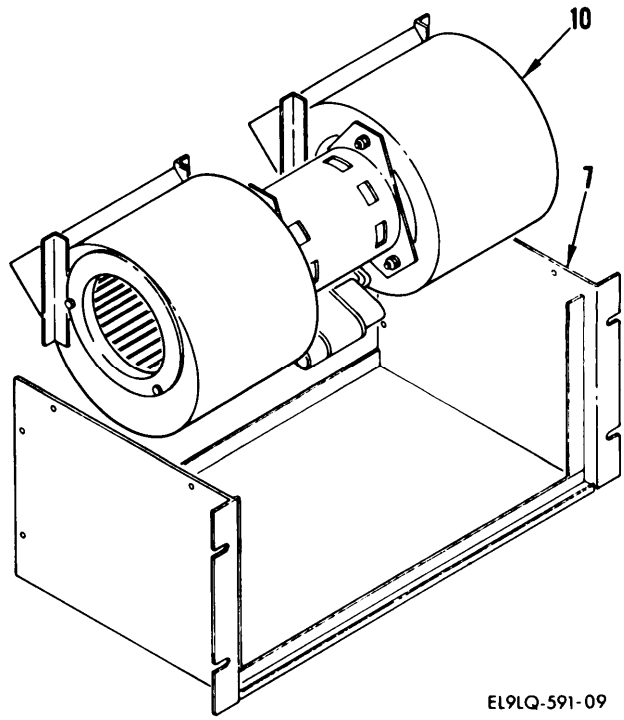
e. Tag and cut three 115 vac power input cable wires (8) from three lug nuts (9). Remove lug nuts from blower motor wires and discard lug nuts.



EL9LQ-591-12

f. Separate blower motor assembly (10) from bottom half of blower housing (7).

f.1. Before disassembly of blower assembly mark a line on motor (20) near wires, brackets (11) and (15), and fan housings (19) and (25). Use lines to aid in reassembly of blower.



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g. On left bracket (11), remove three nuts (12), lockwashers (13), and capacitor assembly (14).

h. On right bracket (15), remove three nuts (16) and lockwashers (17).

i. On right side of blower assembly, loosen motor shaft set screw (18).

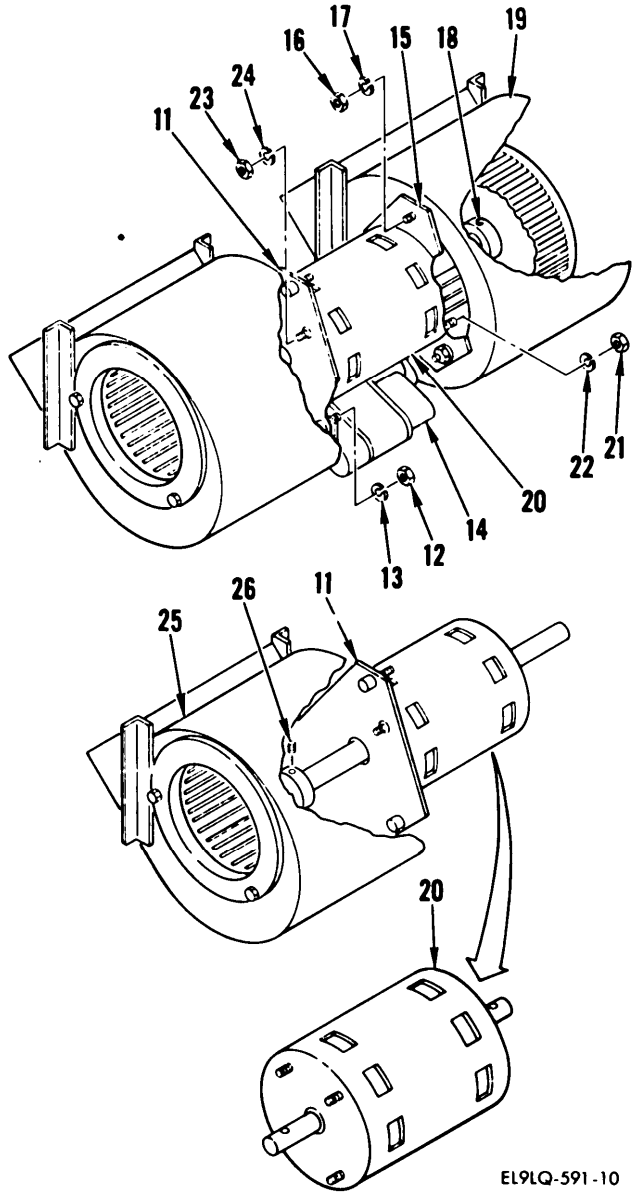
j. Remove right blower fan housing (19) from motor (20).

k. Remove four nuts (21), lockwashers (22), and bracket (15).

l. Between left bracket (11) and blower fan housing (25), loosen motor shaft set screw (26).

m. Remove blower fan housing from motor (20) and left bracket (11).

n. On left side of blower assembly, remove four nuts (23), lockwashers (24), and left bracket (11).



INSTALLATION

o. Using reference lines marked during disassembly, position left bracket (11) on motor (20) and secure with four lockwashers (24) and nuts (23).

p. Position motor/left bracket assembly on the left blower fan housing (25) motor mount screws (27, 28, and 29).

q. Install a lockwasher (13) and nut (12) on motor mount screws (27 and 28).

r. Install capacitor assembly (14), lockwasher (13), and nut (12) on motor mount screw (29).

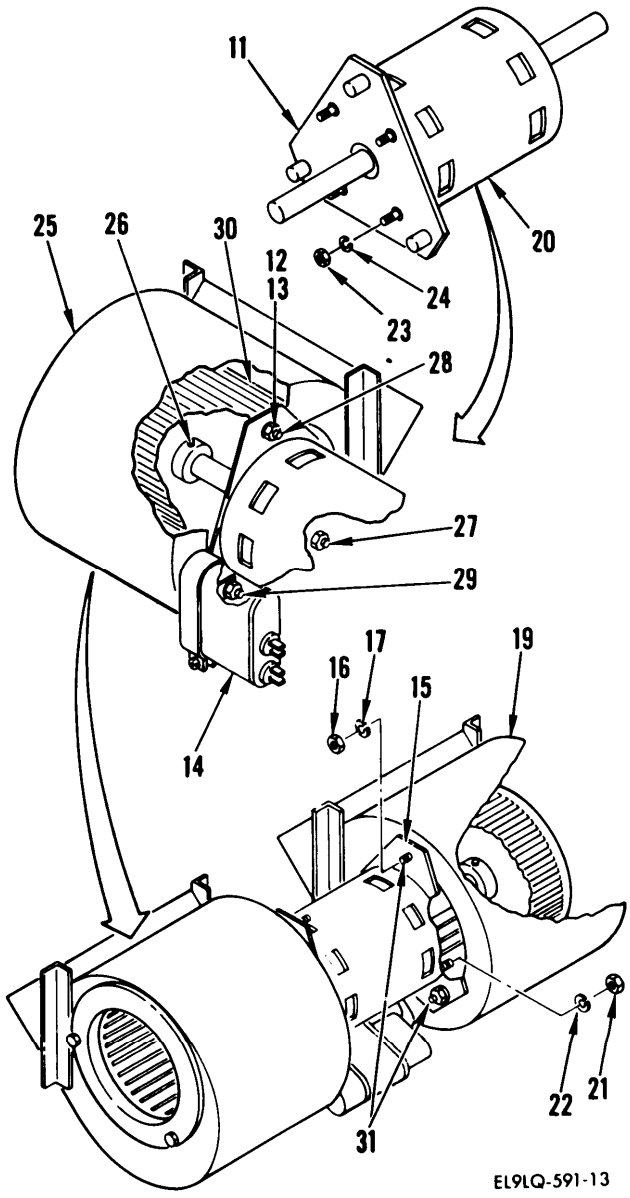
NOTE

Ensure set screw is secured on flat surface of motor shaft.

s. Center fan blade (30) on motor shaft and, using a balldriver tool, tighten set screw (26).

t. Position right bracket (15) to motor and secure with four lockwashers (22) and nuts (21).

u. Position right blower fan housing (19) and motor mount screws (31) on motor/right bracket assembly and secure with three lockwashers (17) and nuts (16).



NOTE

Ensure set screw is secured on flat surface of motor shaft.

v. Center fan blade (32) on motor shaft and, using a ball driver tool, tighten set screw (26).

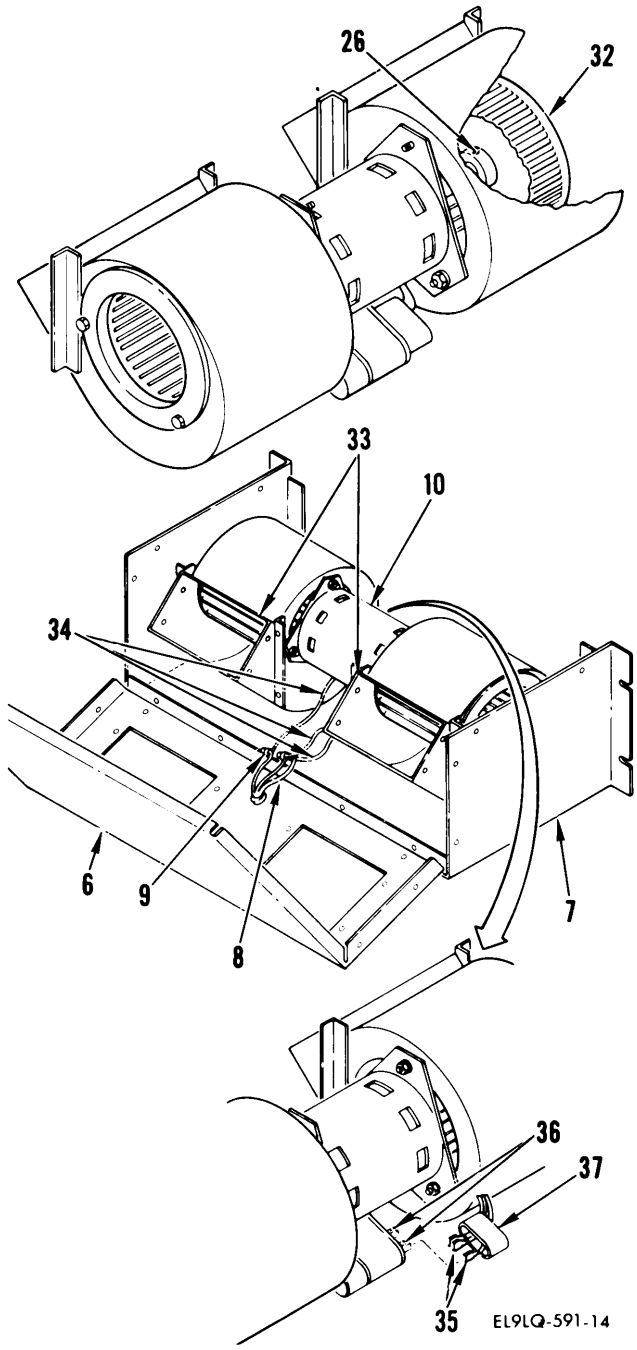
NOTE

Blower motor can be installed with blower exhaust ports facing down. Make sure blower exhaust ports face up after blower motor is installed.

w. Position blower motor assembly (10), with exhaust ports (33) facing up, on bottom half of blower housing (7).

x. Set top cover (6) next to bottom half of blower housing. Use lug nuts (9) and splice three blower motor wires (34) to three 115 vac power input cable wires (8). Remove tags.

y. Install three wires (35) to capacitor terminals (36), remove tags, and position rubber grommet (37) over terminals.

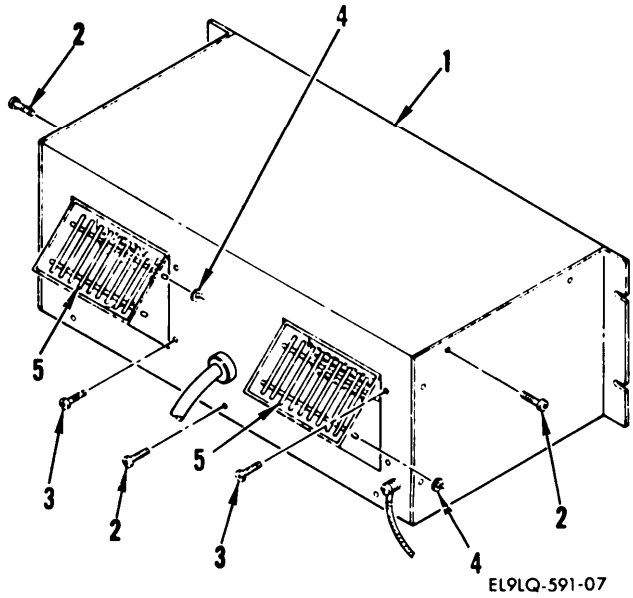


z. Place top cover over blower assembly in line with blower exhaust port openings and install eight screws (3).

aa. Secure top cover to bottom half of blower housing with eleven screws (2).

ab. Install two grills (5) and secure each grill with two retaining rings (4).

END OF TASK



4-6. CABLE ENTRY PANEL REPAIR

This task covers replacement of:

Para	Item
1.	Cable entry panel 1A13
2.	Cable entry panel 1A14

INITIAL SETUP

Tools

Goggles
Rubber apron

Materials (appendix C)

Artist brush (Item 8)
Cheesecloth pad (Item 11)
Chemical film (Item 12)
Rubber gloves (Item 26)
Emery paper, 400 grit (Item 35)
Zinc chromate primer (Item 40)
Trichlorotrifluoroethane (Item 48)

Personnel Required

35C30 ATE Repairer

References

TM 11-6625-3085-12

Equipment Conditions

Power removed (para 2-24.1)
Electronic station positioned for maintenance (TM 11-6625-3085-12)

FOLLOWUP

Electronic station positioned for operation (TM 11-6625-3085-12)

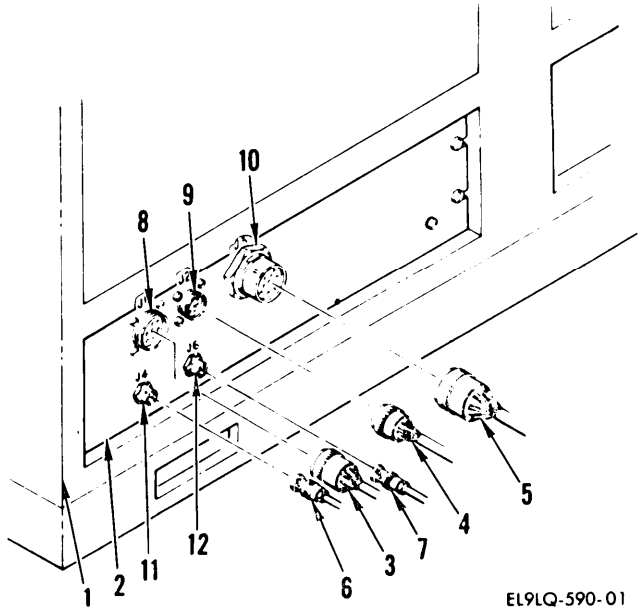
1. CABLE ENTRY PANEL 1A13 REPLACEMENT

REMOVAL

a. Open left rear cabinet door (1).

b. Remove the following cables from cable entry panel (2):

2W7P1 (3) from J1 (8)
2W6P1 (4) from J2 (9)
2W14P1 (5) from J3 (10)
2W13P2 (6) from J4 (11)
2W9P1 (7) from J6 (12)



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CAUTION

Do not put any stress on wiring connected to cable entry panel. Damage to wire connections could occur.

c. Remove four screws (13), lockwashers (14), washers (15), and nuts (16) and separate cable entry panel (2) from electronic station cabinet (17).

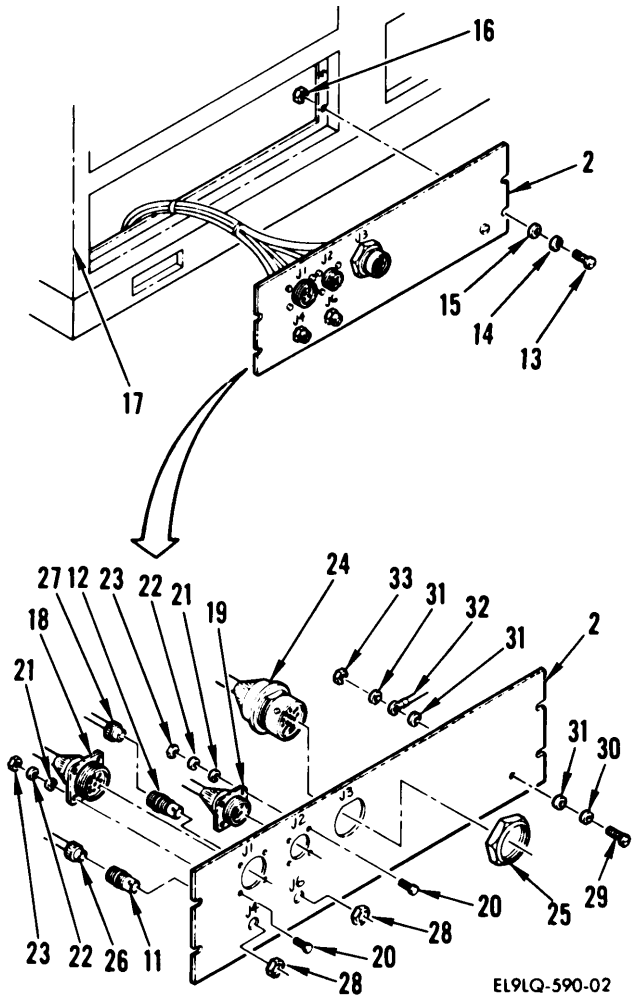
d. On J1 (18) and J2 (19), remove eight screws (20), lockwashers (21), washers (22), and nuts (23).

e. On J3 (24), remove jam nut (25).

f. Disconnect W13P2 (26) from J4 (11) and W25P1 (27) fromJ6 (12).

g. Remove jam nuts (28) and remove J4 (11) and J6 (12) feedthru connectors.

h. Remove screw (29), lockwasher (30), washers (31), ground lead (32), and nut (33).



INSTALLATION

i. Prepare surface, ground lead (32), and hardware (29, 30, 31, and 33) for application of zinc chromate primer (para 2-26).

j. Install ground lead and hardware (29 thru 33) as shown.

k. Apply thin coat of zinc chromate primer over bonded area and hardware (29 thru 33).

l. Install cable entry panel in reverse order of removal, starting with step g.

END OF TASK

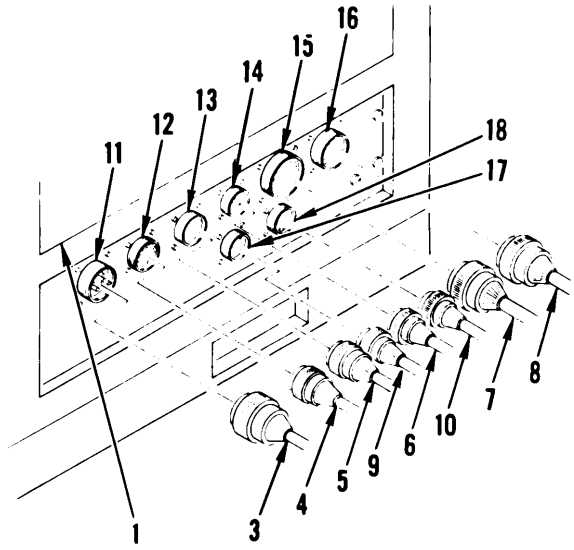
2. CABLE ENTRY PANEL 1A14 REPLACEMENT

REMOVAL

a. Open right rear cabinet door (1).

b. Remove the following system interconnect cables from cable entry panel (2):

115 vac P1 (3) from J1 (11)
2W2P1 (4) from J2 (12)
2W4P1 (5) from J3 (13)
2W1P1 (6) from J4 (14)
2W3P1 (7) from J5 (15)
2W5P1 (8) from J6 (16)
2W10P1 (9) from J7 (17)
2W11P1 (10) from J8 (18)



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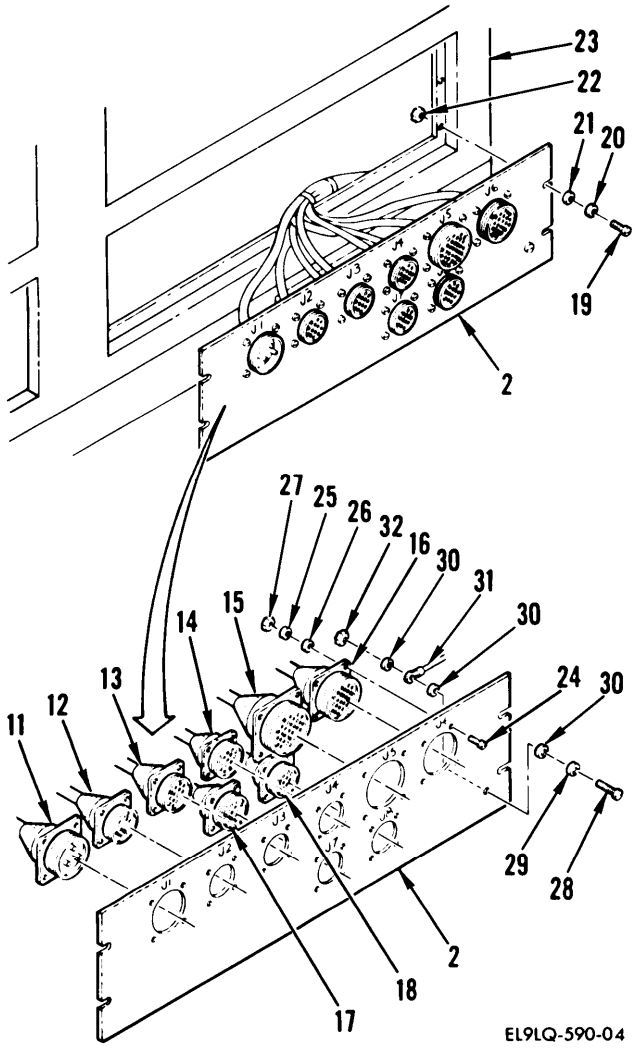


EL9LQ-590-04

CAUTION

Do not put any stress on wiring connected to cable entry panel. Damage to wire connections could occur.

c. Remove four screws (19), lockwashers (20), washers (21), and nuts (22) and separate cable entry panel from electronic station cabinet (23).

d. On connector (11 thru 18), remove 32 screws (24), lockwashers (25), washers (26), and nuts (27).

e. Separate cables from cable entry panel.

f. Remove screw (28), lockwasher (29), washers (30), ground lead (31), and nut (32).

4-6. CABLE ENTRY PANEL REPAIR (cont) 4-6

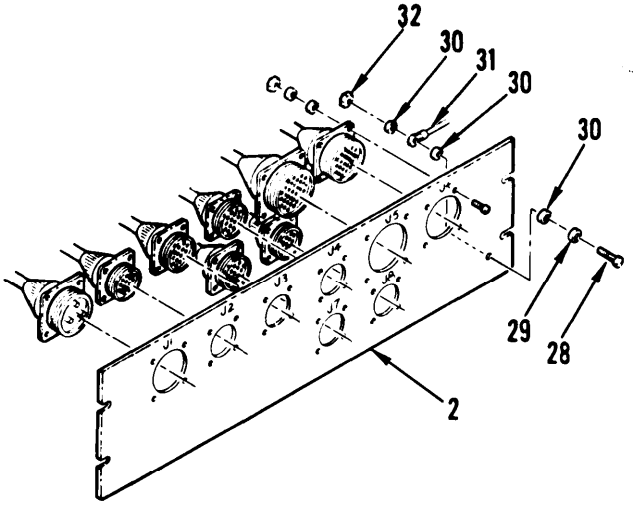
INSTALLATION

g. Prepare surface, ground lead (31), and hardware (28, 29, 30, and 32) for application of zinc chromate primer (para 2-26).

h. Install ground lead and hardware (28 thru 32) as shown.

i. Apply thin coat of zinc chromate primer over bonded area and hardware (28 thru 32).

j. Install cable entry panel in reverse order of removal, starting with step e.



EL9LQ-590-05

END OF TASK

4-7. CABLES AND CONNECTORS REPAIR/REPLACEMENT 4-7

Repair or replace cables and connectors using standard maintenance practices. For electronic station cable wire list data, refer to chapter 3. The cables are listed in reference designator sequence (1W1, 1W2, etc.).

CHAPTER 5

DIRECT SUPPORT MAINTENANCE INSTRUCTIONS
ELECTRO-OPTICAL TEST BENCH SET

OVERVIEW

This chapter provides direct support maintenance instructions for the electro-optical test bench set. The dayside test bench, test console test bench, and nightside test bench are each covered in separate maintenance sections within this chapter.

Section I. REPAIR PARTS; SPECIAL TOOLS; TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE); AND SUPPORT EQUIPMENT

5-1. COMMON TOOLS AND EQUIPMENT 5-1

The maintenance tasks contained in this chapter use tools contained in Tool Kits, Electronic Equipment TK-100/G and TK-105-G. Other tools required are listed in paragraph 5-2 and in the initial setup of the specific maintenance task.

5-2. SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT 5-2

For authorized special tools and support equipment pertaining to direct support maintenance, refer to TM 11-6625-3081-23P, Repair Parts and Special Tools List (RPSTL). For some work on the Electro-Optical Test Bench Set, special tools, TMDE, or support equipment are needed. The following is a list of these items. Each item is identified in the INITIAL SETUP of each maintenance task that requires it's use.

Item No.	National Stock No. or Part No.	Nomenclature
1	8415-00-082-6108	Apron, rubber
2	4240-00-052-3776 (GGG-531CL1)	Goggles, acid-type safety
3	6701300	Gun, nitrogen gas
4	4940-00-561-1002	Gun, heat (500A)
5	2397418	Lift, chassis
6	NAS 1664	Tool, contact installation/removal
7	TE3A	Wrench, torque
8	TE100	Wrench, torque
9	2954T10	Jack, duo lift ratchet
10	N289B800	Wrench set, hex head ball end
11		Socket, 5/32 hex head ball end, 1/4" dr.
12	N79B035-10	7/64" socket head key

5-3. REPAIR PARTS 5 - 3

Repair parts are listed and illustrated in the RPSTL (TM 11-6625-3081-23P) covering organizational and direct support maintenance for this equipment.

Section II. ELECTRO-OPTICAL TEST BENCH SET GENERAL MAINTENANCE INSTRUCTIONS

5-4. GENERAL 5-4

This section covers maintenance procedures that affect the electro-optical test bench set as a total assembly. Maintenance of the three individual (dayside, test console, and nightside) test benches are covered in subsequent sections.

5-5. CABLE INTERCONNECTION 5-5

This task covers interconnection of:

Para	Item
1.	Electronic station and electro-optical test bench set
2.	Electro-optical test bench set

INITIAL SETUP

Tools

Goggles
Rubber Apron

Materials/Parts (appendix C)

Artist brush (Item 8)
Cheesecloth pad (Item 11)
Chemical film (Item 12)
Rubber gloves (Item 26)
Emery paper, 400 grit (Item 35)
Zinc chromate primer (Item 40)
Trichlorotrifluoroethane (Item 48)
Cables:

W1	W6	W11	W16	W29
W2	W7	W12	W17	W30
W3	W8	W13	W24	
W4	W9	W14	W27	
W5	W10	W15	W28	

Personnel Required

39B ATE Repairer

References

TM 11-6625-3085-12

Equipment Condition

Power removed (para 2-24.1)

5-5. CABLE INTERCONNECTION

1. ELECTRONIC STATION AND ELECTRO-OPTICAL TEST BENCH SET INTERCONNECTION

a. Deleted

b. Position electronic station for maintenance. (Refer to TM 11-6625-3085-12.)

c, Connect interconnection cables to cable entry panel 1A13 (7) as follows:

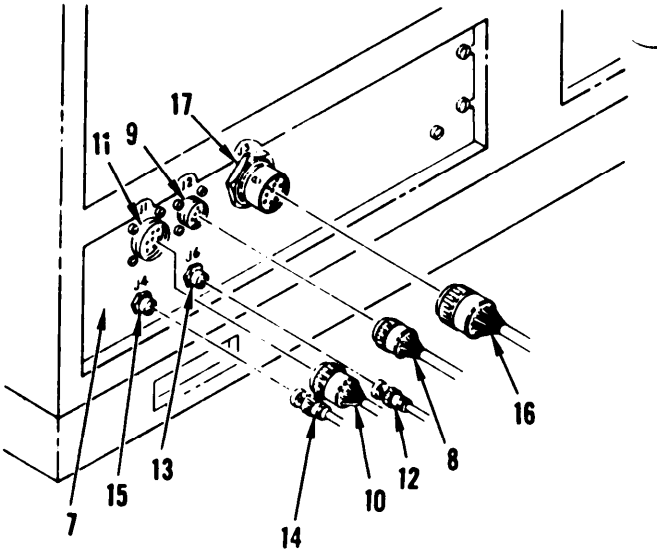
W6P1 (8) to J2 (9)
w7P1 (10) to J1 (11)
W9P1 (12) to J6 (13)
W13P2 (14) to J4 (15)
W14P1 (16) to J3 (17)

d. Verify that W13P1 is connected to extender assembly associated with AN/USM-410. (Refer to TM 11-6625-3085-12.)

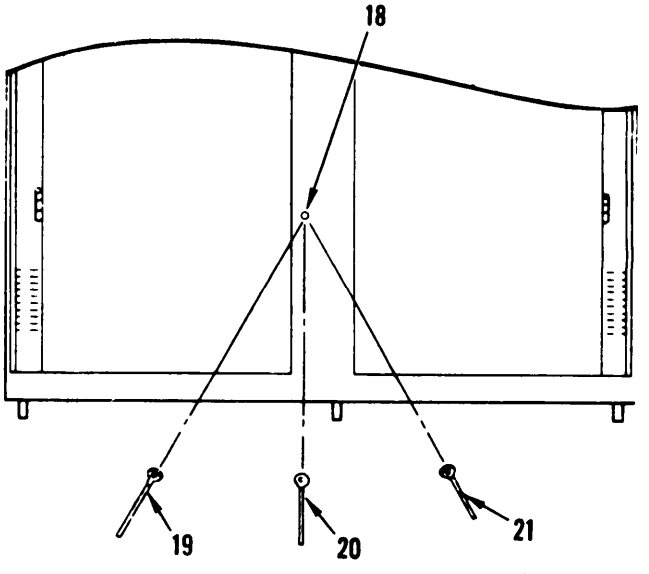
e. Prepare electronic station ground lug El (18) surface and hardware for application of zinc chromate primer.

f. On electronic station, connect W15 (19), W16 (20), and W17 (21) to E1 (18).

g. Apply a thin coat of zinc chromate primer over E1 bonded area and hardware.



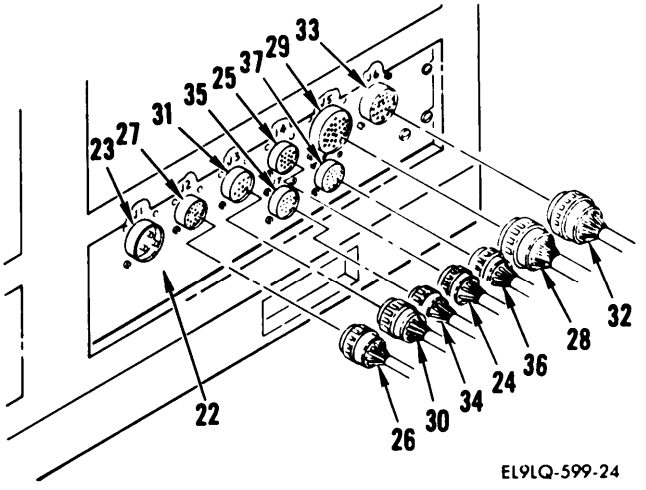
EL9LQ-599-22



EL9LQ-599-23

h. Connect interconnection cables to cable entry panel 1A14 (22) as follows:

System input power to J1 (23)
W1P1 (24) to J4 (25)
w2P1 (26) to J2 (27)
W3P1 (28) to J5 (29)
W4P1 (30) to J3 (31)
W5P1 (32) to J6 (33)
W1OP1 (34) to J7 (35)
W11P1 (36) to J8 (37)

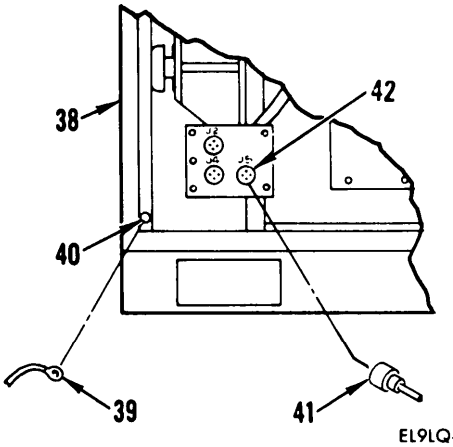


EL9LQ-599-24

i. Position electronic station for operation. (Refer to TM 11-6625-3085-12.)

j. On dayside test bench 2A1 (38), connect W15 (39) to E1 (40).

k. Connect W6P2 (41) to cable entry panel 2A1A5J5 (42).

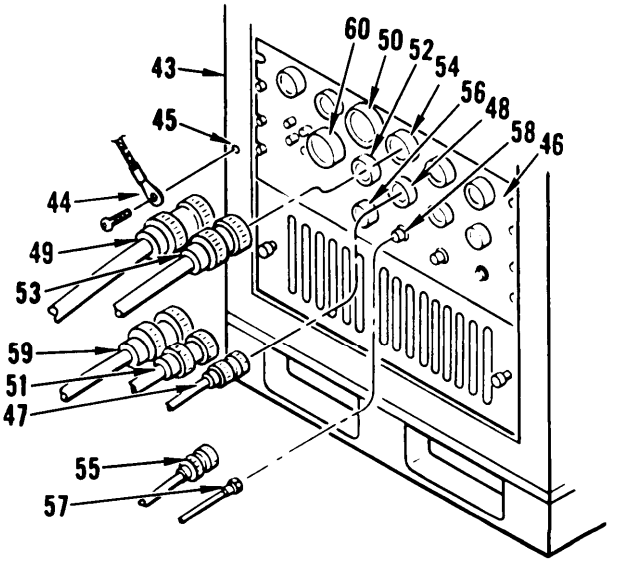


EL9LQ-599-25

l. On test console test bench 2A2 (43), connect W16 (44) to El (45).

m. Connect interconnection cables to cable entry panel 2A2A14 (46) as follows:

W2P2 (47) to J1 (48)
W3P2 (49) to J2 (50)
W4P2 (51) to J11 (52)
W5P2 (53) to J3 (54)
W7P2 (55) to J5 (56)
W9P2 (57) to J4 (58)
W14P2 (59) to J14 (60)



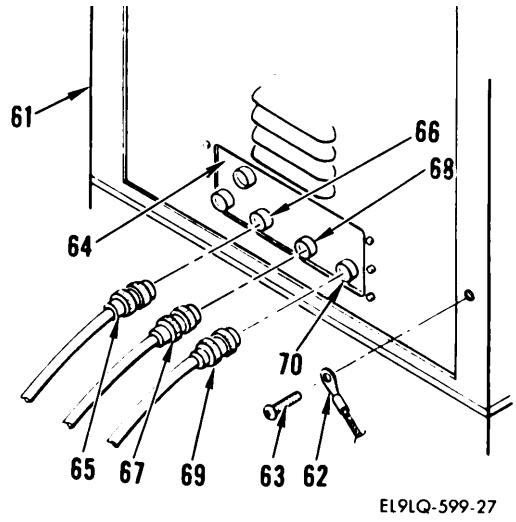
EL9LQ-599-26

n. On nightside test bench 2A3 (61), connect W17 (62) to E1 (63).

o. Connect interconnection cables to cable entry panel 2A3A4 (64) as follows:

W1P2 (65) to J3 (66)
W1OP2 (67) to J4 (68)
W11P2 (69) to J5 (70)

END OF TASK



EL9LQ-599-27

2. ELECTRO-OPTICAL TEST BENCH SET INTERCONNECTION

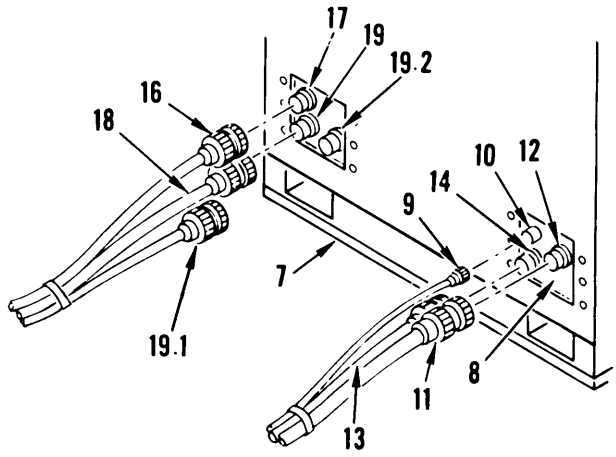
a. Deleted

b. On dayside test bench (7), connect interconnection cables to cable entry panel 2A1A4 (8) as follows:

W24P2 (9) to J6 (10)
W27P2 (11) to J3 (12)
W28P1 (13) to J1 (14)

c. Connect interconnection cables to cable entry panel 2A1A5 (15) as follows:

W29P1 (16) to J2 (17)
W30P2 (18) to J4 (19)
W6P2 (19.1) to J5 (19.2)

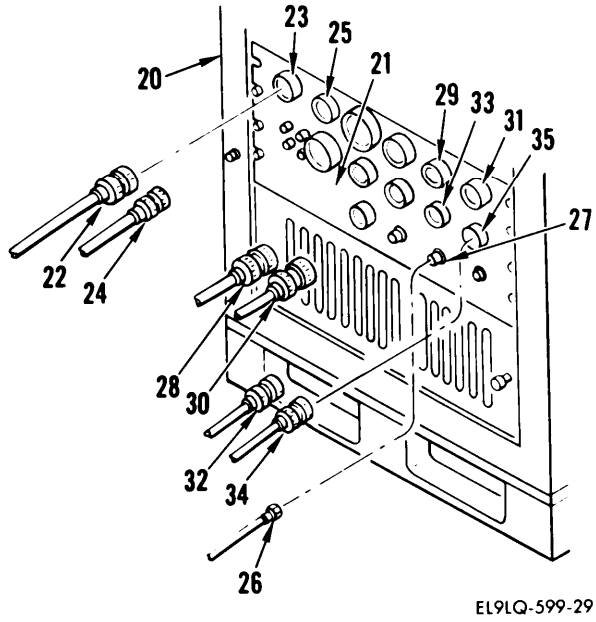


EL9LQ-599-28A

5-5. CABLE INTERCONNECTION (cont)

d. On test console test bench (20), connect interconnection cables to cable entry panel 2A2A14 (21) as follows:

W8P2 (22) to J9 (23)
W12P1 (24) to J10 (25)
W24P1 (26) to J13 (27)
W27P1 (28) to J6 (29)
W28P2 (30) to J8 (31)
W29P2 (32) to J7 (33)
W30P1 (34) to J12 (35)

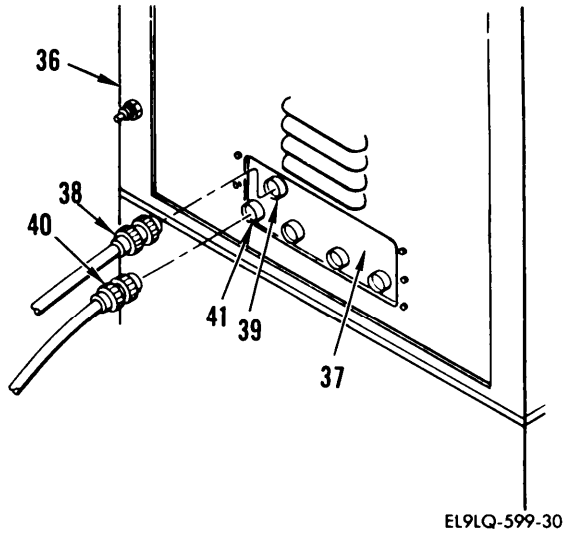


EL9LQ-599-29

e. On nightside test bench (36), connect interconnection cables to cable entry panel 2A3A4 (37) as follows:

W8P1 (38) to J1 (39)
w12P2 (40) to J2 (41)

END OF TASK



EL9LQ-599-30

5-6. BASE ASSEMBLY REPAIR

This task covers replacement of:

Para	Item
1.	Protective skirt
2.	Isolator assembly
3.	Valve assembly
4.	Tubing
5.	Fitting

INITIAL SETUP

Tools and Special Tools

Jack (2)
Torque wrench 0-30 ft-lb
Torque wrench 0-100 ft-lb
Goggles
10 x 10 x 0.25 inch metal plate

Materials (appendix C)

Isopropyl alcohol (Item 4)
Artist brush (Item 8)
Acid brush (Item 9)
Cheesecloth pad (Item 11)
Hardwood block 4 x 4 x 8 inch (2) (Item 34)
Pipe cleaners (Item 37)
Sealing compound primer (Item 38)
Sealing compound (Item 41)
Teflon tape (Item 46)

Personnel Required

% 39B ATE Repairer
One assistant

References

TM 11-6625-3085-12
TM 11-6625-3085-30

Equipment Conditions

E/O cable cover removed (TM 11-6625-3085-30)
Power removed (para 2-24.1)
Pneumatic system bled down (TM 11-6625-3085-12)
Interconnection cables disconnected (para 5-5)

FOLLOWUP

Interconnection cables connected (para 5-5)
E/O cable cover installed (TM 11-6625-3085-30)

1. PROTECTIVE SKIRT REPLACEMENT

WARNING

PNEUMATIC SYSTEM PRESSURE MUST BE BLED DOWN BEFORE PERFORMING MAINTENANCE ON BASE ASSEMBLY TO AVOID INJURING PERSONNEL OR DAMAGING EQUIPMENT.

REMOVAL

This procedure is used to remove front, rear, or side protective skirts from base.

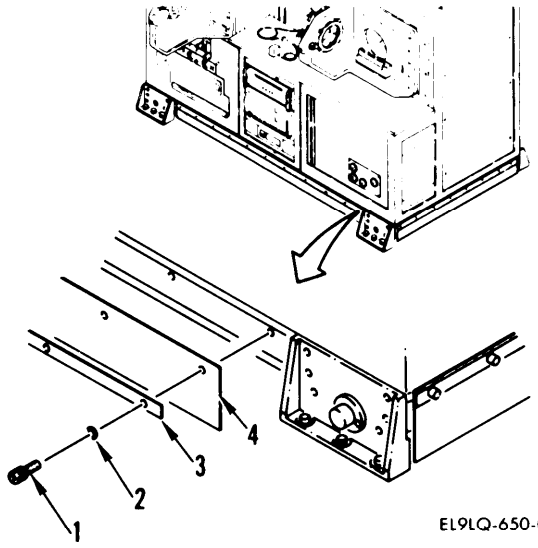
a. Refer to list below for quantities of screws and washers used in each skirt.

Location of Screws	Skirt Quantity
Front	9
Rear	10
Sides	8

NOTE

Front protective skirt is shown. Rear and sides are similar.

b. Remove screws (1), washers (2), retainer (3), and protective skirt (4).



EL9LQ-650-04

INSTALLATION

c. Install in reverse order of removal.

END OF TASK

2. ISOLATOR ASSEMBLY REPLACEMENT

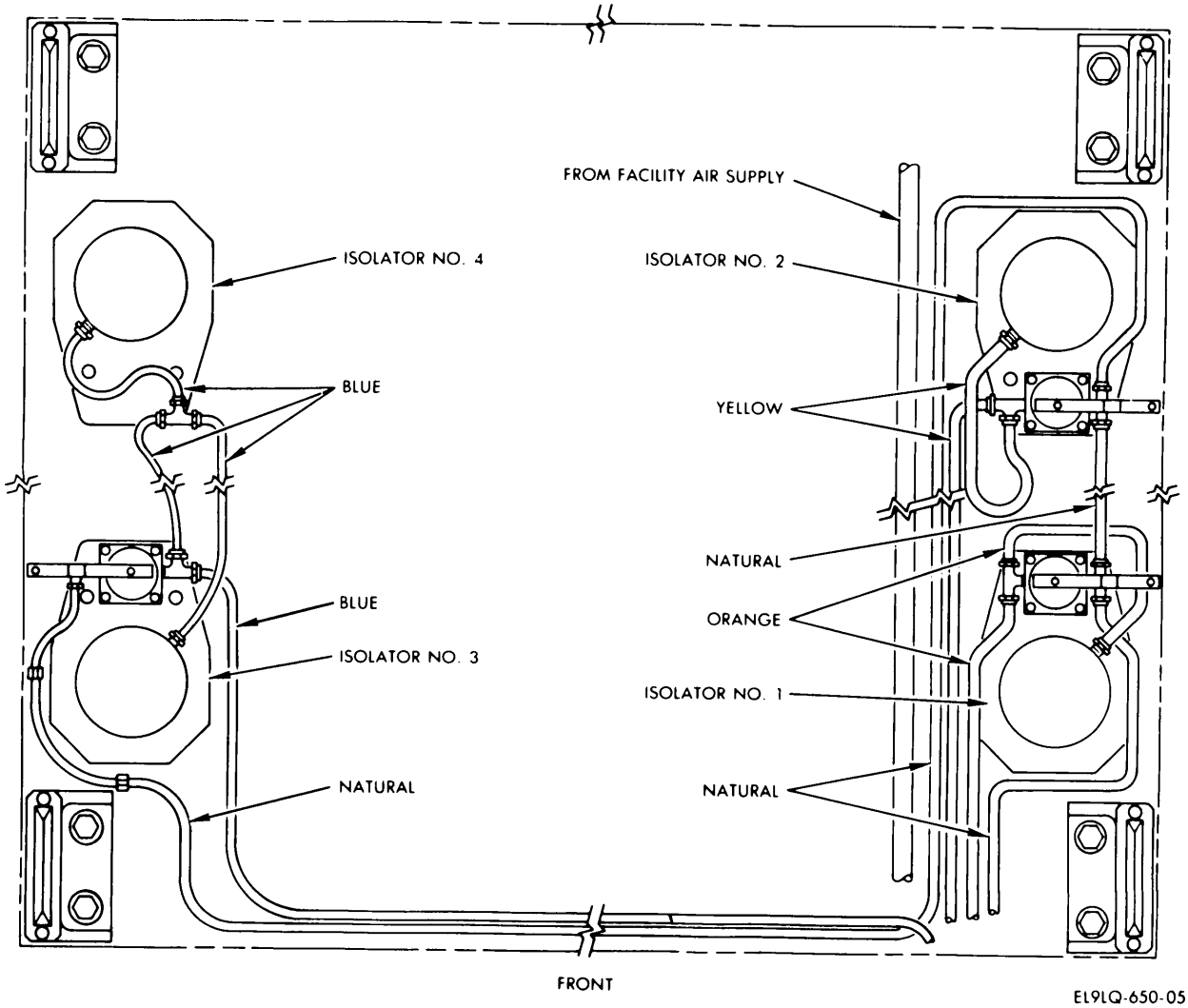
WARNING

PNEUMATIC SYSTEM PRESSURE MUST BE BLED DOWN BEFORE PERFORMING MAINTENANCE ON BASE ASSEMBLY TO AVOID INJURING PERSONNEL OR DAMAGING EQUIPMENT.

NOTE

This procedure contains replacement procedures for all four isolators. Refer to diagram and list below to determine appropriate procedure.

To Replace Isolator No.	Refer to Paragraph
1	a
2	b
3	c
4	d



EL9LQ-650-05

a. To replace isolator number 1, proceed as follows:

REMOVAL

(1) Refer to 1 above and remove front, rear, and right side protective skirts.

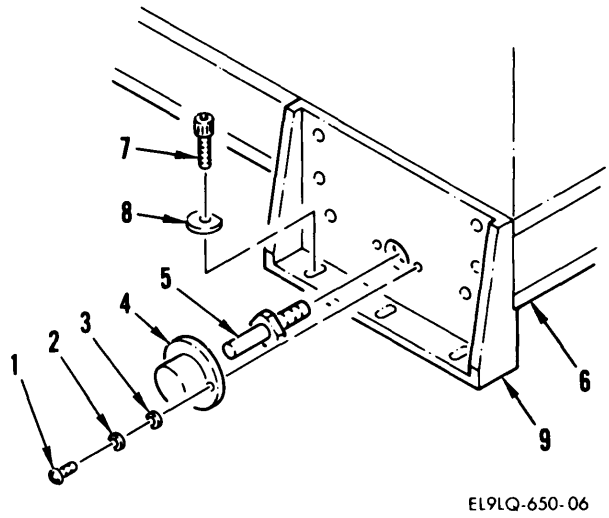
(2) On right side of base remove four screws (1), lockwashers (2), washers (3), and two protective cups (4).

(3) Remove two studs (5) from base assembly (6).

NOTE

Transport retainers on left side of base must be in operational mode.

(4) Remove six screws (7), washers (8), and remove two transport retainer brackets (9).



EL9LQ-650-06

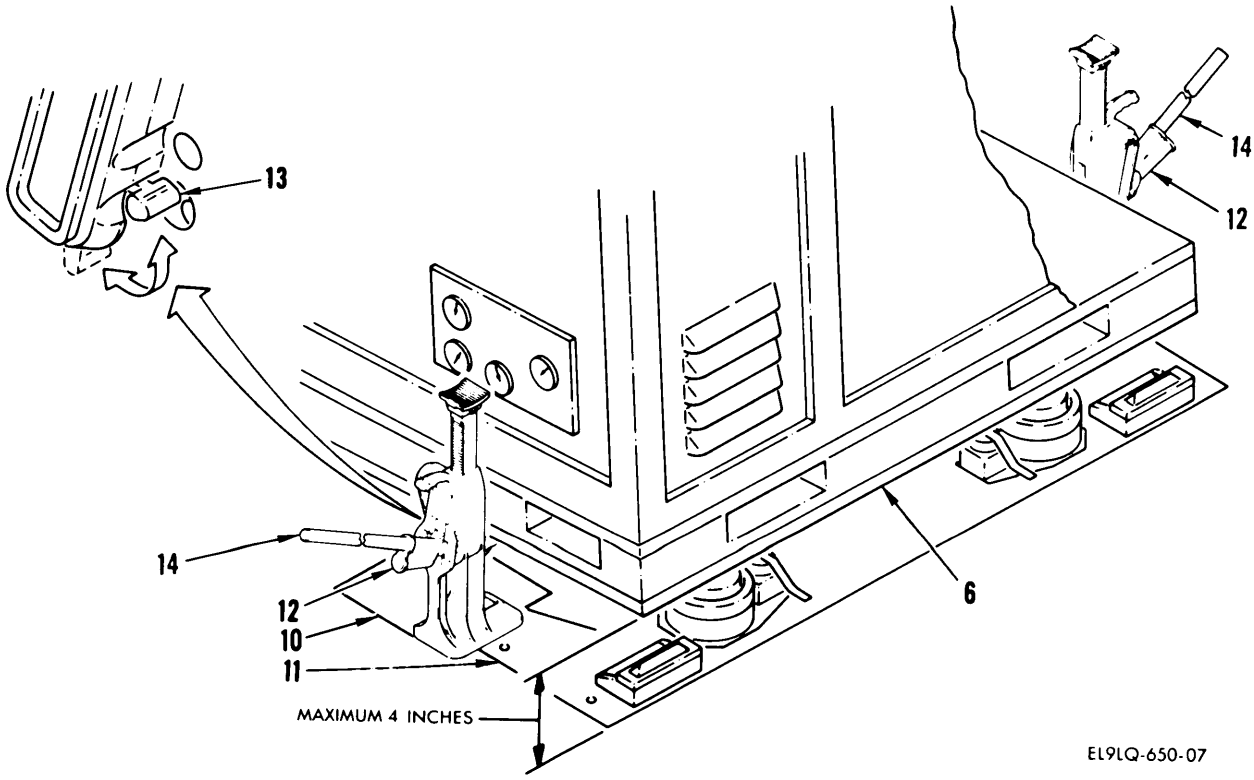
CAUTION

A 10 inch x 10 inch x 0.25 inch plate must be used under each jack or van floor may be damaged.

(5) Position 10 inch x 10 inch x 0.25 inch plates (10) next to mounting plates (11) in floor.

(6) Position jacks (12) under edge of base assembly (6). Be sure jacks are positioned over mounting plates (11) in floor and 10 inch x 10 inch x 0.25 inch plate. Do not rest jacks on protruding hardware.

(7) Position jack levers (13) up and insert jack handles (14) into jacks (12).



WARNING

DO NOT PLACE HANDS OR FEET UNDER BASE WHILE USING JACK. INJURY COULD RESULT.

CAUTION

Be sure jacks are raised at the same time to avoid damaging equipment.

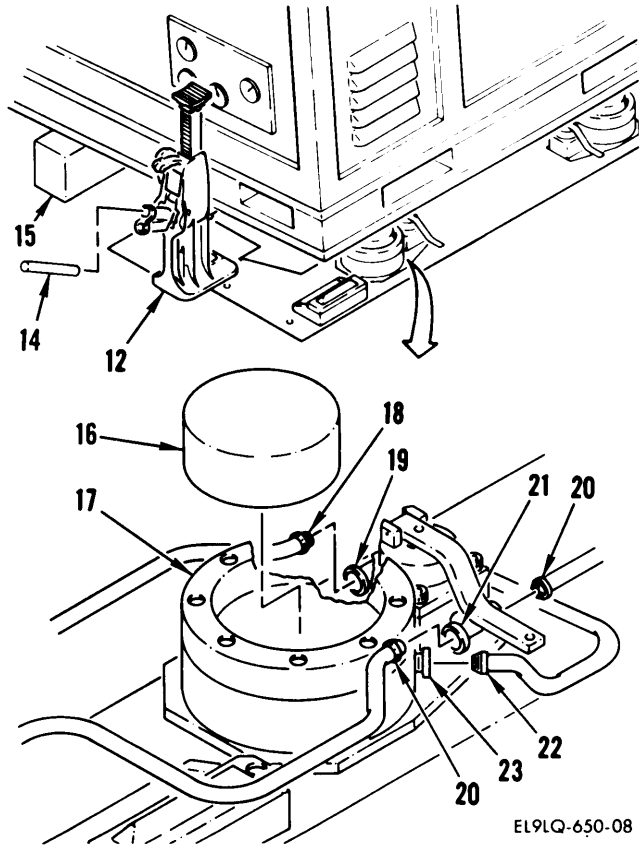
(8) Using an assistant, slowly raise base no higher than 4 inches with jacks. Operate jacks at same time.

(9) Place hardwood blocks (15) under base, do not relieve weight of base from jacks (12). Remove jack handles (14) from jacks (12).

(10) Remove piston plate (16) from isolator (17).

(11) On isolator (17), tag and disconnect one orange tube (18) from tee fitting (19) and two natural tubes (20) from opposite tee fitting (21).

(12) Tag and disconnect orange tube (22) from isolator fitting (23).



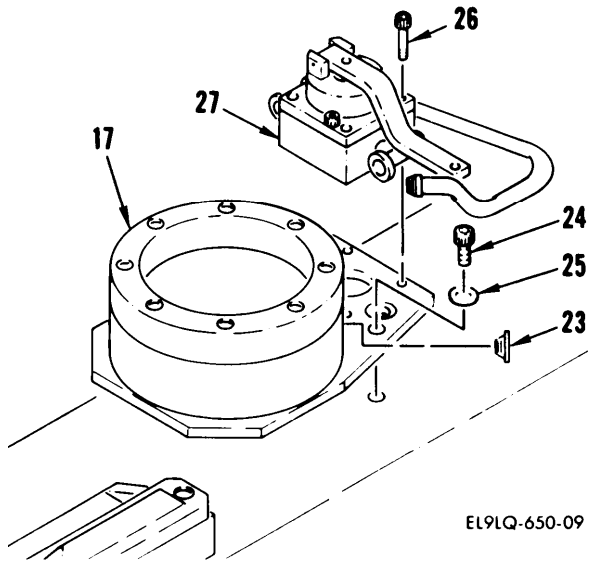
(13) Remove tubing clamps as necessary.

(14) Mark a line around bottom of isolator (17). Replacement isolator must be installed in same position.

(15) Remove two bolts (24), lock-washers (25), and isolator (17).

(16) Remove four screws (26) and valve assembly (27) from isolator (17).

(17) Remove fitting (23) from defective isolator and clean teflon tape residue from threads.



INSTALLATION

(18) Wrap teflon tape around threads of fitting (23).

(19) Install fitting (23) into replacement isolator (17).

WARNING

ISOPROPYL ALCOHOL

- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
- DON'T: USE NEAR FLAMES OR SPARKS. LET IT GET IN EYES, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES.
- IF IT CONTACTS EYES, WASH EYES WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

(20) Clean screws (26) and mating holes in isolator with isopropyl alcohol.

(21) Apply sealing compound primer to threads, allow to dry.

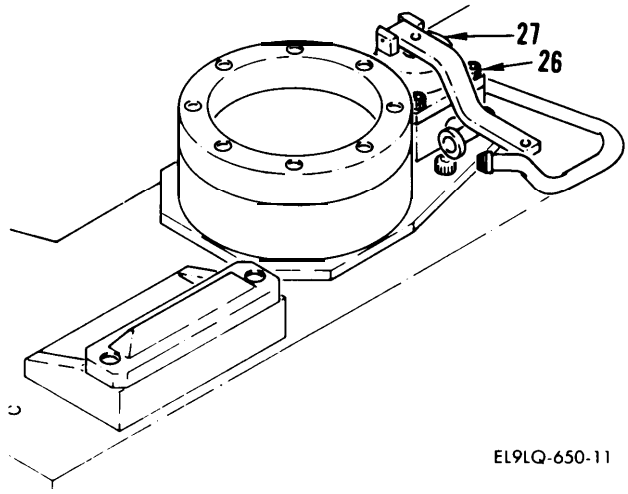
(22) Apply sealing compound to threads of screws (26).

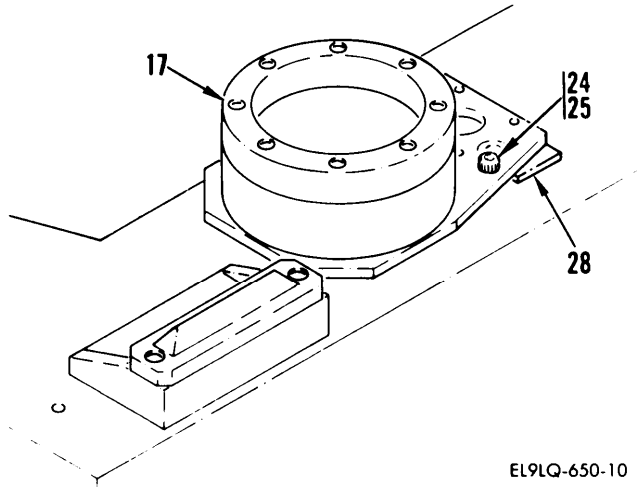
(23) Install valve assembly (27) with four screws (26). Torque screws (26) to 14 ft-lb.

(24) Position isolator (17) on mounting plate. Aline with mark made during removal.

(25) Install two bolts (24) and lockwashers (25). Tighten bolts until just seated on isolator. Be sure piston end of isolator remains flat on mounting plate.

(26) Install laminated shims (28) as required to fill gap under isolator at valve end.





(27) Torque bolts (24) to 54 ft-lb.

CAUTION

Do not use wrench on tubing nuts. Finger tighten only or leakage may result.

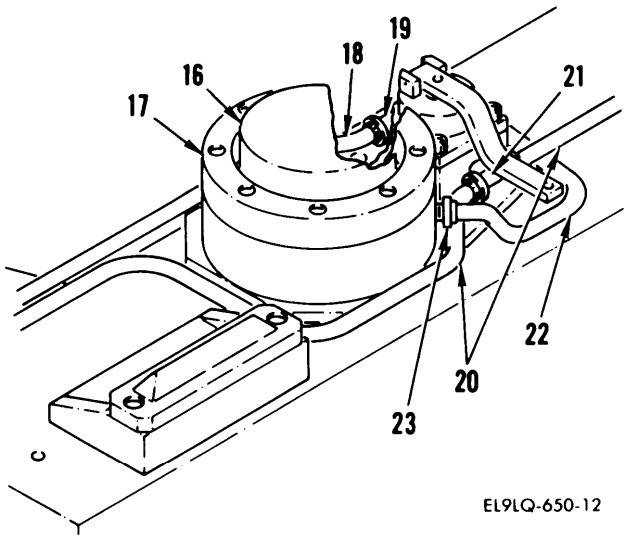
(28) Refer to diagram below and attach two natural tubes (20) to tee fitting (21) on isolator (17). Finger tighten only.

(29) Attach orange tube (18) to tee fitting (19) on isolator (17). Finger tighten only.

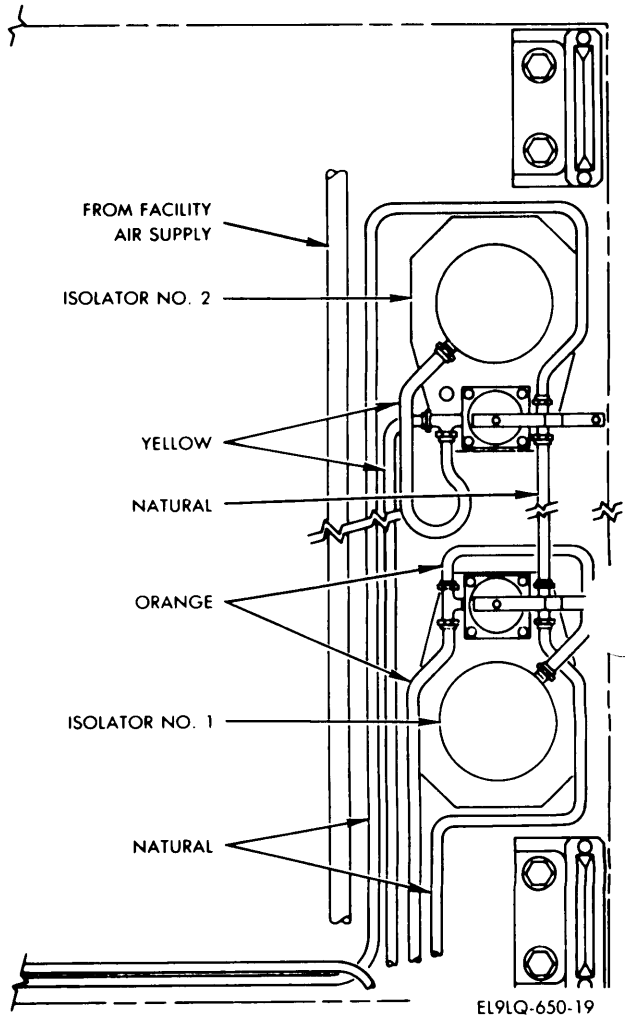
(30) Attach orange tube (22) to isolator fitting (23). Finger tighten only.

(31) Install piston plate (16) On isolator (17).

(32) Check that tubing is secured by retaining clamps where removed.



EL9LQ-650-12



EL9LQ-650-19

(33) Remove hardwood blocks (15) from base.

(34) Position jack levers (13) down and insert jack handles (14) into jacks (12).

WARNING

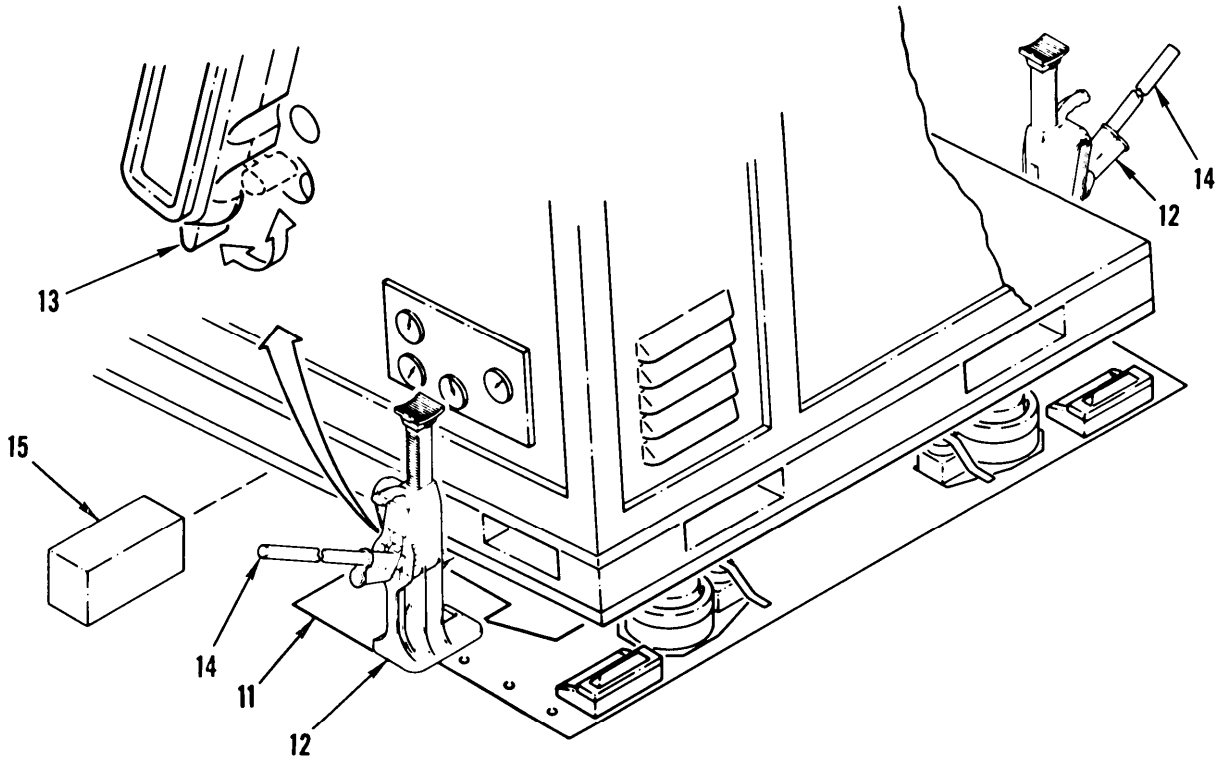
DO NOT PLACE HANDS OR FEET UNDER BASE TO AVOID INJURY.

CAUTION

Be sure jacks are lowered at the same time to avoid damaging equipment.

(35) Using an assistant, slowly lower base with jacks. Operate jacks at same time.

(36) Remove jacks and plates (11) from base.



EL9LQ-650-13

NOTE

Transport retainers should be placed in operational position with flat of washer against bracket.

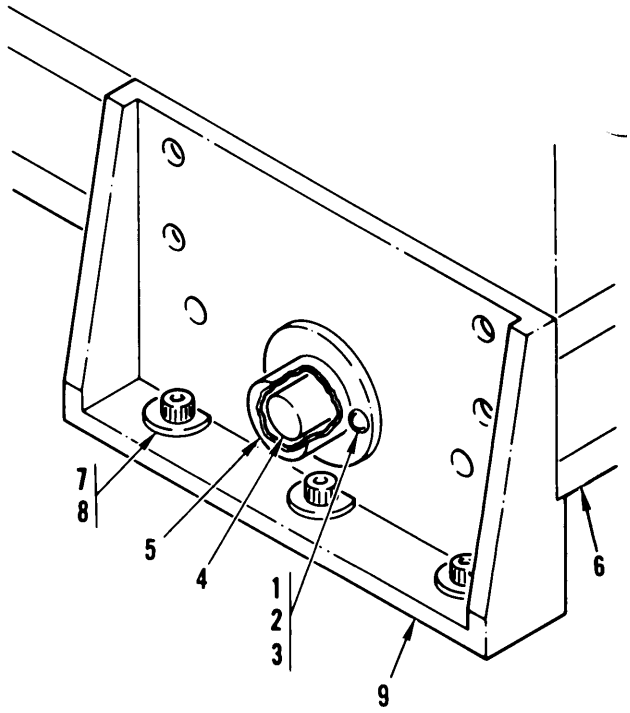
(37) Install two transport retainer brackets (9) with six screws (7) and washers (8). Torque screws (7) to 50 ft-lb.

(38) Install two studs (5) into base assembly (6).

(39) Install two protective cups (4) with four screws (1), lockwashers (2), and washers (3).

(40) Refer to 1 above and install protective skirts.

(41) Refer to paragraph 5-7 and adjust base assembly.



EL9LQ-650-14

END OF TASK

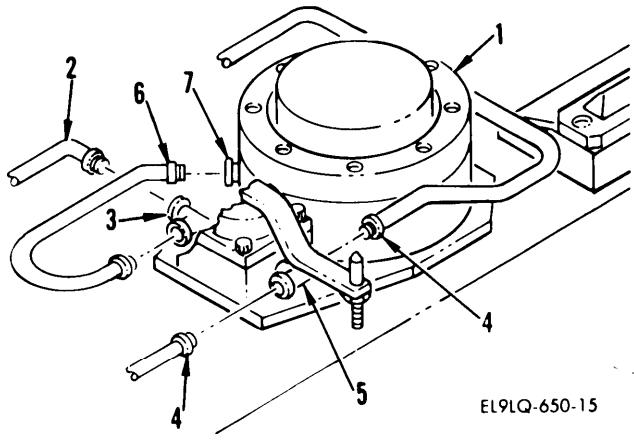
b. To replace isolator number 2, proceed as follows:

REMOVAL

(1) Refer to 2a above and perform steps 1 thru 9.

(2) On isolator (1), tag and disconnect yellow tube (2) from tee fitting (3) and two natural tubes (4) from opposite tee fitting (5).

(3) Tag and disconnect yellow tube (6) from isolator fitting (7).



EL9LQ-650-15

(4) Remove piston plate (8) from isolator (1).

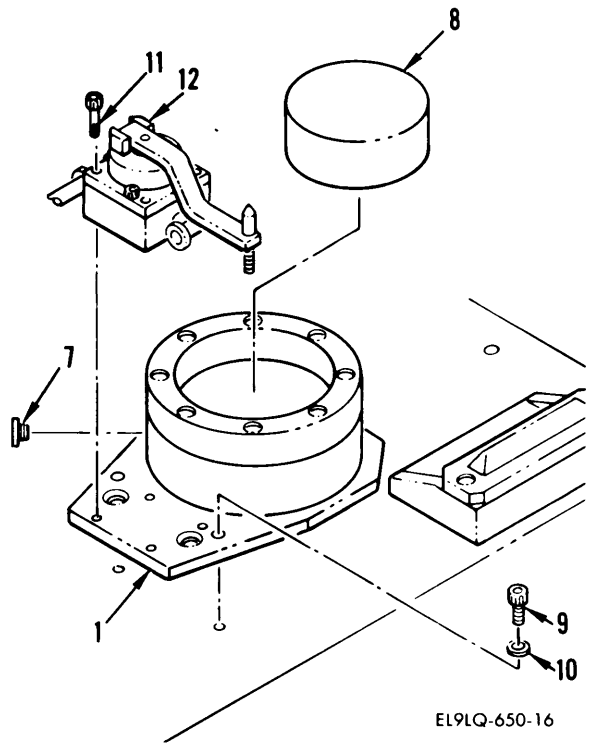
(5) Remove tubing clamps as necessary.

(6) Mark a line around bottom of isolator (l). Replacement isolator must be installed in same position.

(7) Remove two bolts (9), lock-washers (10), and isolator (1).

(8) Remove four screws (11) and valve assembly (12) from isolator (1).

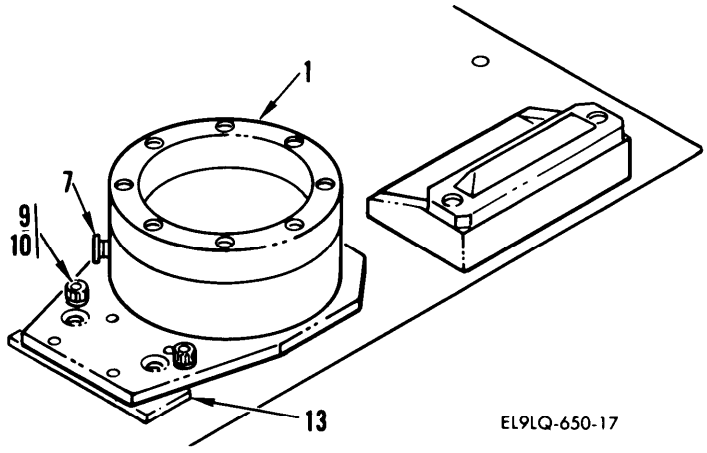
(9) Remove fitting (7) from defective isolator and clean teflon tape residue from threads.



INSTALLATION

(10) Wrap teflon tape around threads of fitting (7).

(11) Install fitting (7) into replacement isolator (1).



WARNING

ISOPROPYL ALCOHOL

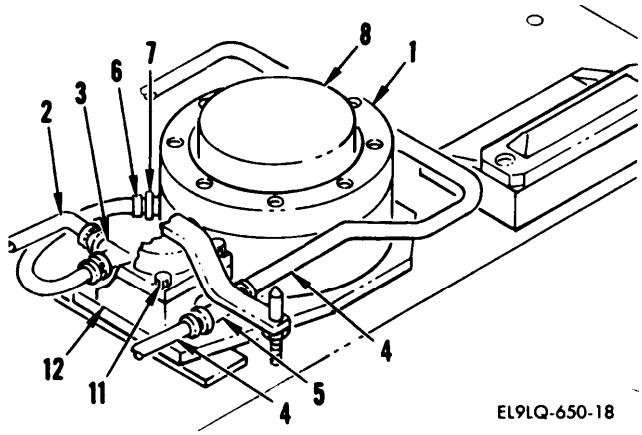
- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET IN EYES, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES.
- IF IT CONTACTS EYES, WASH EYES WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

(12) Clean screws (11) and mating holes in isolator with isopropyl alcohol.

(13) Apply sealing compound primer to threads. Allow to dry.

(14) Apply sealing compound to screws (11).

(15) Install valve assembly (12) with four screws (11) Torque screws (11) to 14 ft-lb.

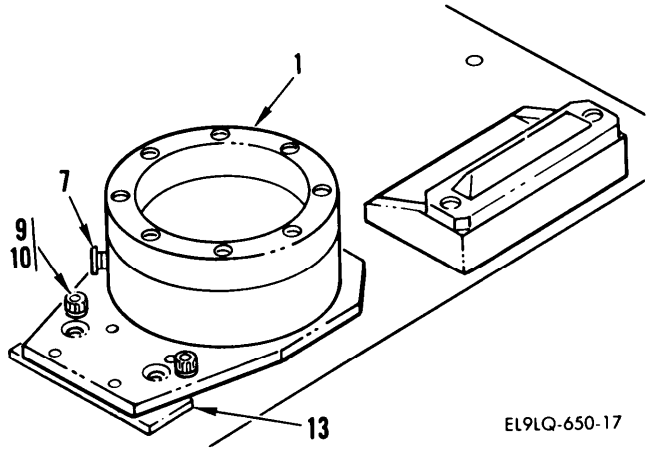


(16) Position isolator (1) on mounting plate. Aline with mark made during removal.

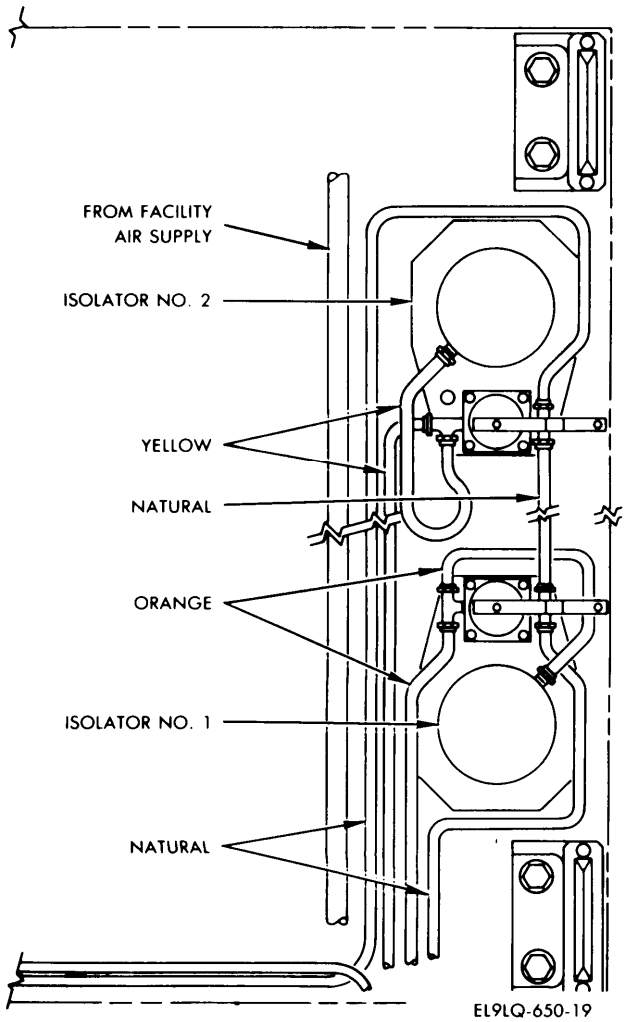
(17) Install two bolts (9) and lockwashers (10). Tighten bolts until just seated on isolator. Be sure piston end of isolator remains flat on mounting plate.

(18) Install laminated shims (13) as required to fill gap under isolator at valve end.

(19) Torque bolts (9) to 54 ft-lb.



EL9LQ-650-17



EL9LQ-650-19

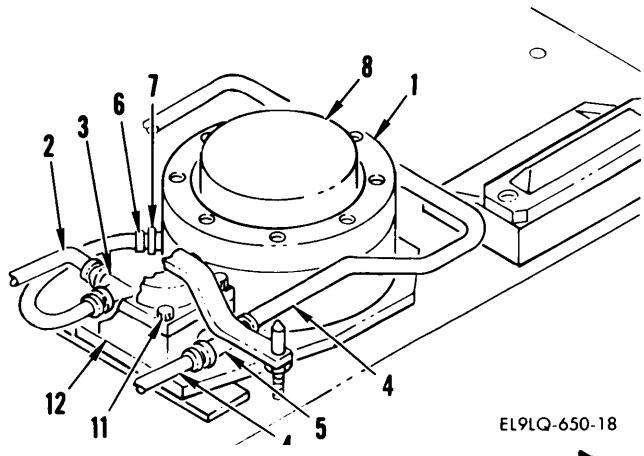
CAUTION

Do not use wrench on tubing nuts. Finger tighten only.

(20) Refer to diagram below and attach two natural tubes (4) to tee fitting (5) and yellow tube (2) to opposite tee fitting (3). Finger tighten only.

(21) Attach yellow tube (6) to isolator fitting (7). Finger tighten only.

(22) Install piston plate (8) on isolator (1).



EL9LQ-650-18

(23) Check that tubing is secured by retaining clamps where removed.

(24) Refer to 2a above and perform steps 33 thru 39.

(25) Refer to 1 above and install protective skirts.

(26) Refer to paragraph 5-7 and adjust base assembly.

END OF TASK

c. To replace isolator number 3, proceed as follows:

REMOVAL

(1) Refer to 1 above and remove front, rear, and left side protective skirts.

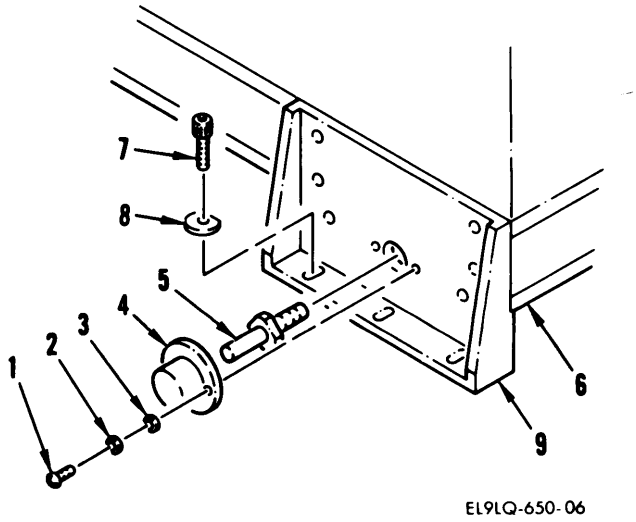
(2) On left side of base remove four screws (1), lockwashers (2), washers (3), and two protective cups (4).

(3) Remove two studs (5) from base assembly (6).

NOTE

Transport retainers on right side of base must be in operational mode.

(4) Remove six screws (7), washers (8), and remove two transport retainer brackets (9).



EL9LQ-650-06

5-6. BASE ASSEMBLY REPAIR (cont) 5-6

CAUTION

A 10 inch x 10 inch x 0.25 inch plate must be used under each jack or van floor may be damaged.

(5) Position a 10 inch x 10 inch x 0.25 inch plate (10) next to mounting plate (11) in floor.

(6) Position jacks (12) under edge of base assembly (6). Be sure jacks are positioned over mounting plates (11) in floor and 10 inch x 10 inch x 0.25 inch plate (10).

(7) position jack levers (13) UP and insert jack handles (14) into jacks (12).

WARNING

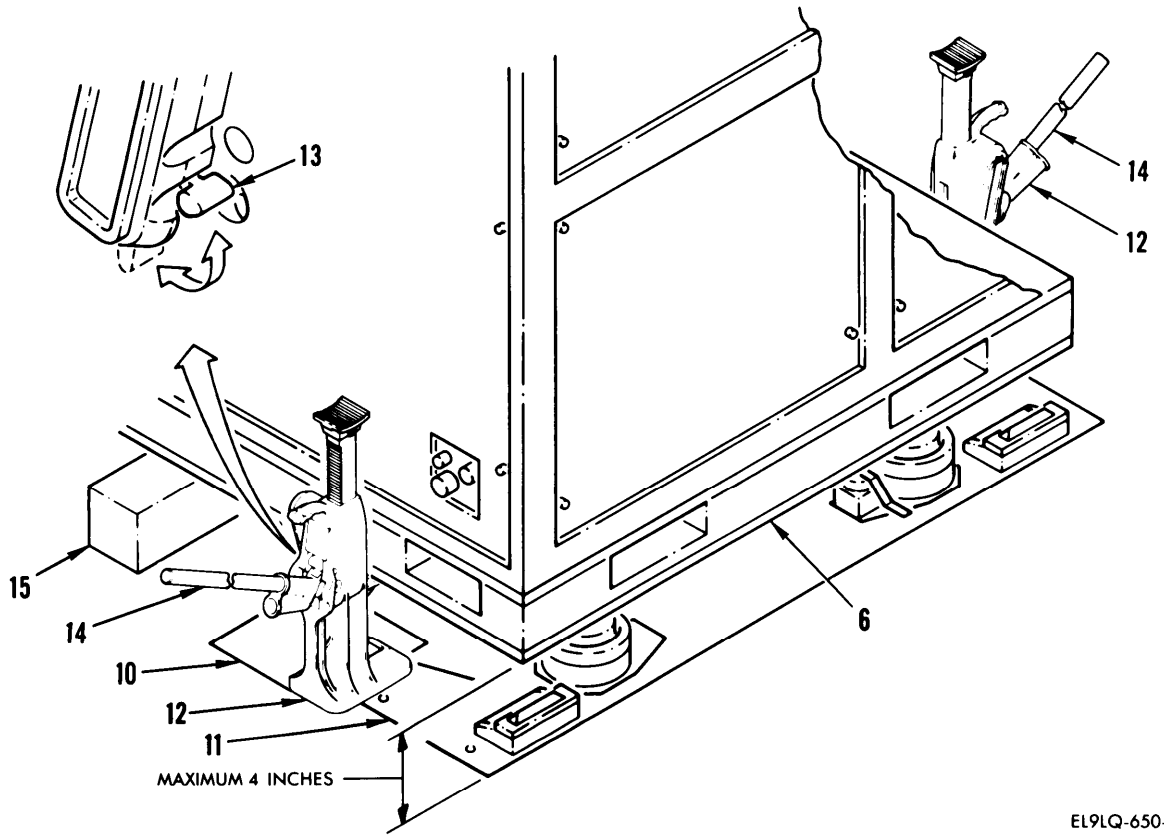
DO NOT PLACE HANDS OR FEET UNDER BASE WHILE USING JACK. INJURY COULD RESULT.

CAUTION

Be sure jacks are raised at the same time to avoid damage to equipment.

(8) Using an assistant, slowly raise base no higher than 4 inches with jacks. Operate jacks at same time.

(9) Place hardwood blocks (15) under base, do not relieve weight of base from jacks (12). Remove jack handles from jacks.

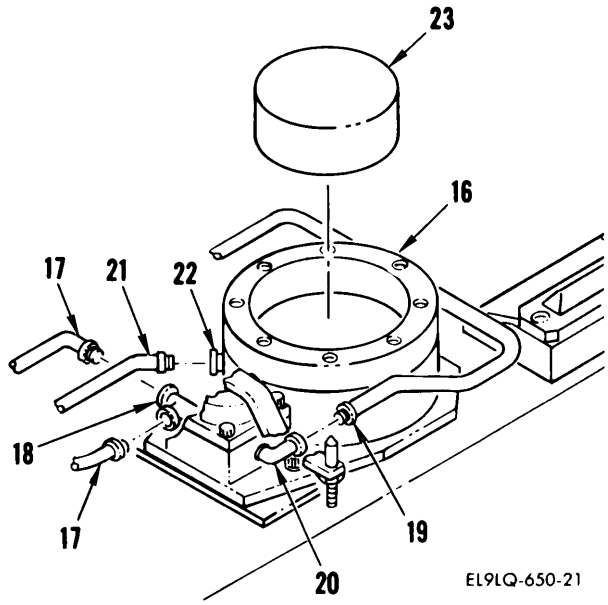


EL9LQ-650-20

(10) On isolator (16), tag and disconnect two blue tubes (17) from tee fitting (18) and natural tube (19) from opposite fitting (20).

(11) Tag and disconnect blue tube (21) from fitting (22) on isolator (16).

(12) Remove piston plate (23) from isolator (16).



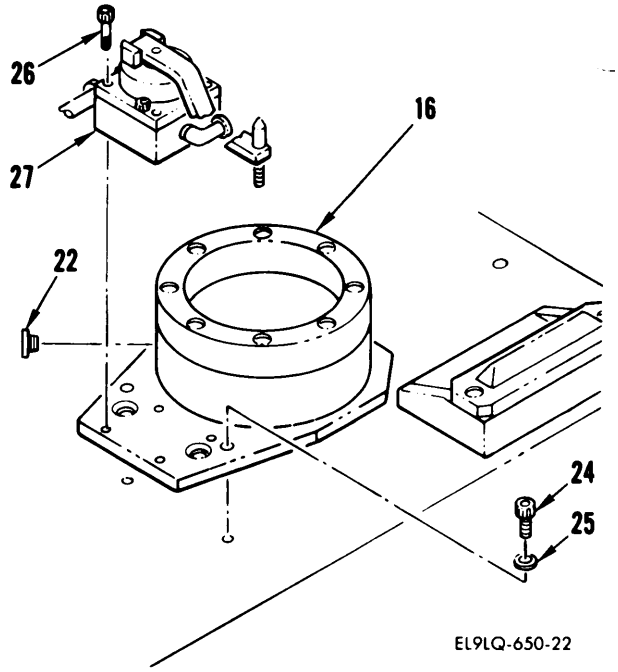
(13) Remove tubing clamps as necessary.

(14) Mark a line around bottom of isolator (16). Replacement isolator must be installed in same position.

(15) Remove two bolts (24), lock-washers (25), and isolator (16).

(16) Remove four screws (26) and valve assembly (27) from isolator (16).

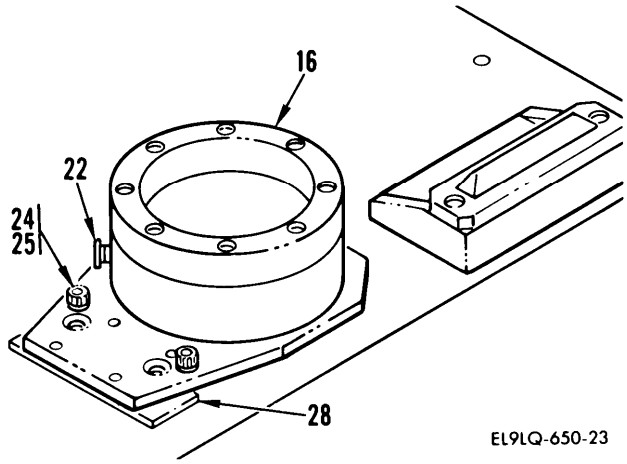
(17) Remove fitting (22) from defective isolator (16) and clean teflon tape residue from threads.



INSTALLATION

(18) Wrap teflon tape around threads of fitting (22).

(19) Install fitting (22) into replacement isolator (16).



WARNING

ISOPROPYL ALCOHOL

- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE .
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET IN EYES, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES.
- IF IT CONTACTS EYES, WASH EYES WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

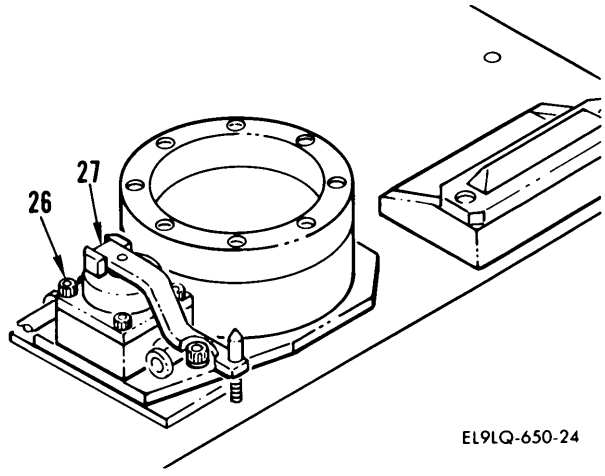
(20) Clean screws (26) and mating holes in isolator (16) with isopropyl alcohol.

(21) Apply sealing compound primer to threads. Allow to dry.

(22) Apply sealing compound to screws (26).

(23) Install valve assembly (27) with four screws (26). Torque screws (26) to 14 ft-lb.

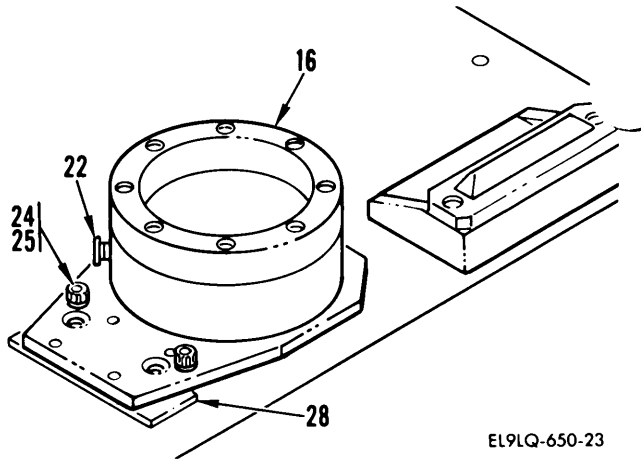
(24) Position isolator (16) on mounting plate. Aline with mark made during removal.



(25) Install two bolts (24) and lockwashers (25). Tighten bolts until just seated on isolator. Be sure piston end of isolator remains flat on mounting plate.

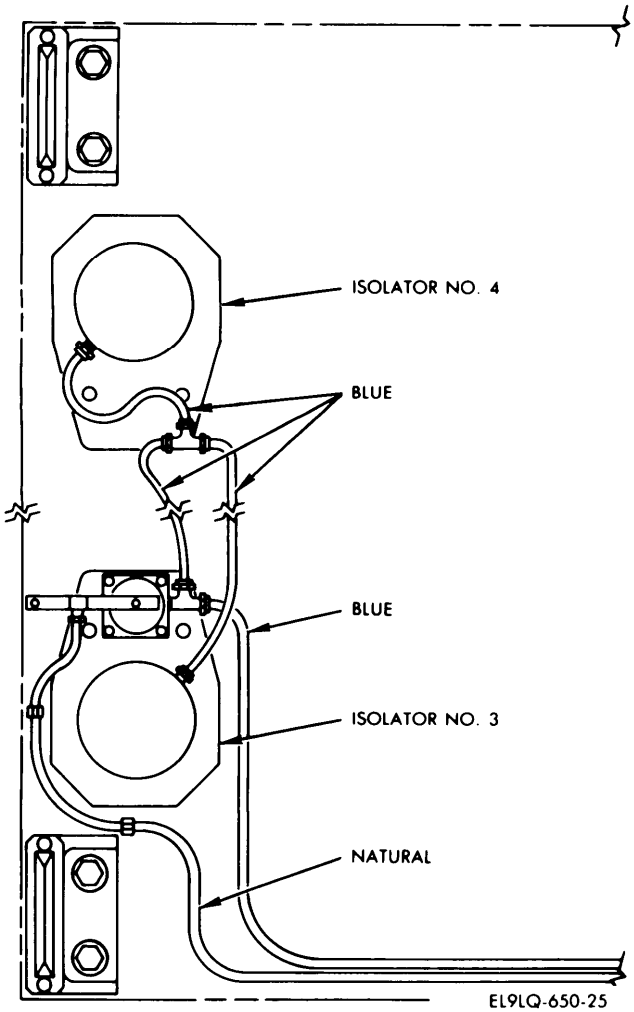
(26) Install laminated shim (28) as required to fill gap under isolator at valve end.

(27) Torque bolts (24) to 54 ft-lb.



CAUTION

Do not use wrench on tubing nuts. Finger tighten only.

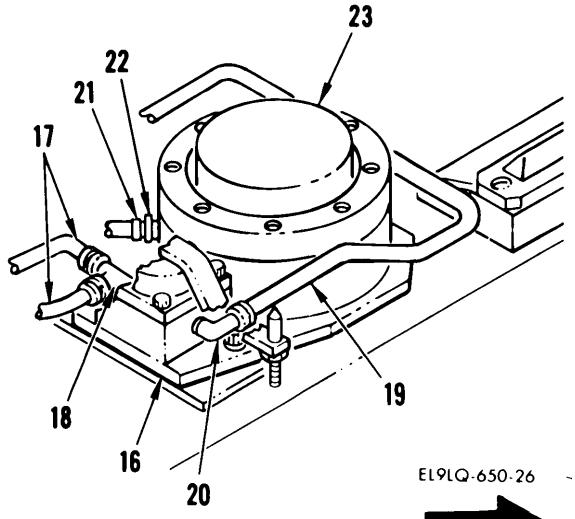


(28) Refer to diagram below and attach two blue tubes (17) to tee fitting (18) and natural tube (19) to opposite fitting (20). Finger tighten only.

(29) Attach blue tube (21) to fitting (22) on isolator (16). Finger tighten only.

(30) Install piston plate (23) on isolator (16).

(31) Check that tubing is secured by retaining clamps where removed.



(32) Remove hardwood blocks (15) from base.

(33) Position jack levers (13) down and insert handles (14) into jacks (12).

WARNING

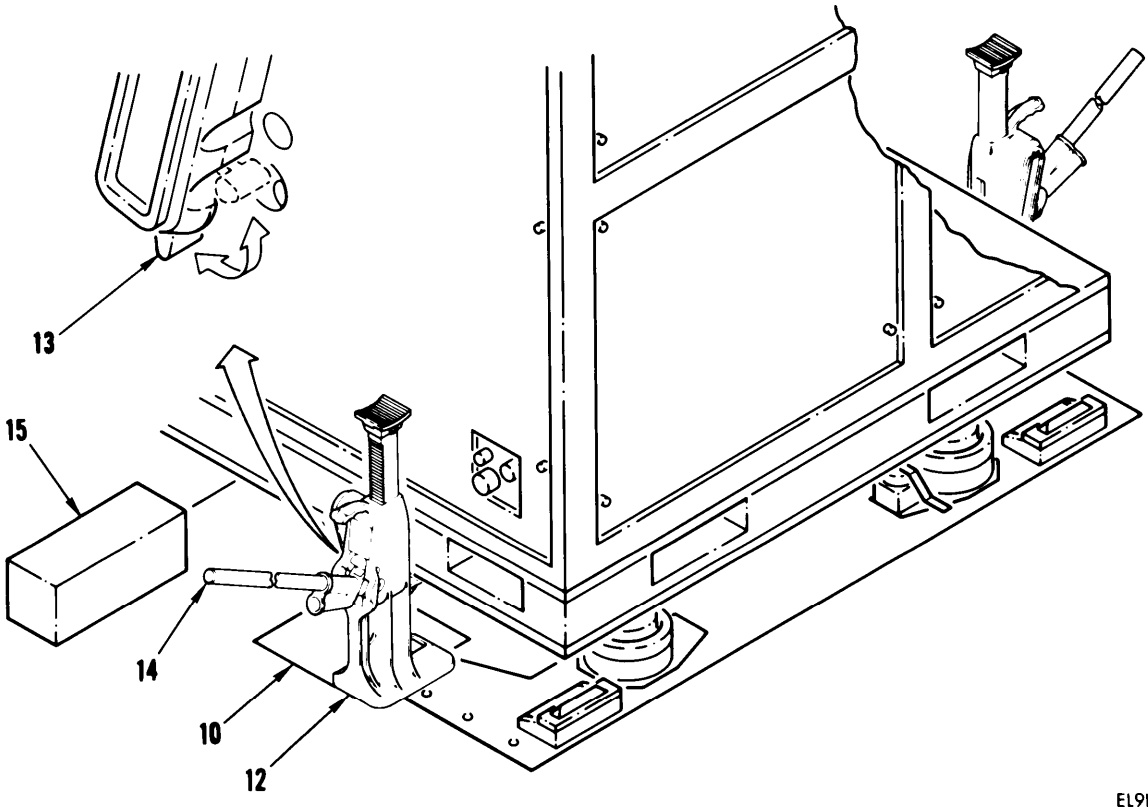
DO NOT PLACE HANDS OR FEET UNDER BASE TO AVOID INJURY.

CAUTION

Be sure jacks are lowered at same time to avoid damaging equipment.

(34) Using an assistant, slowly lower base with jacks. Operate jacks at same time.

(35) Remove jacks and plates from base.



EL9LQ-650-27

(36) Install two transport retainer brackets (9) with six screws (7) and washers (8). Torque screws (7) to 50 ft-lb.

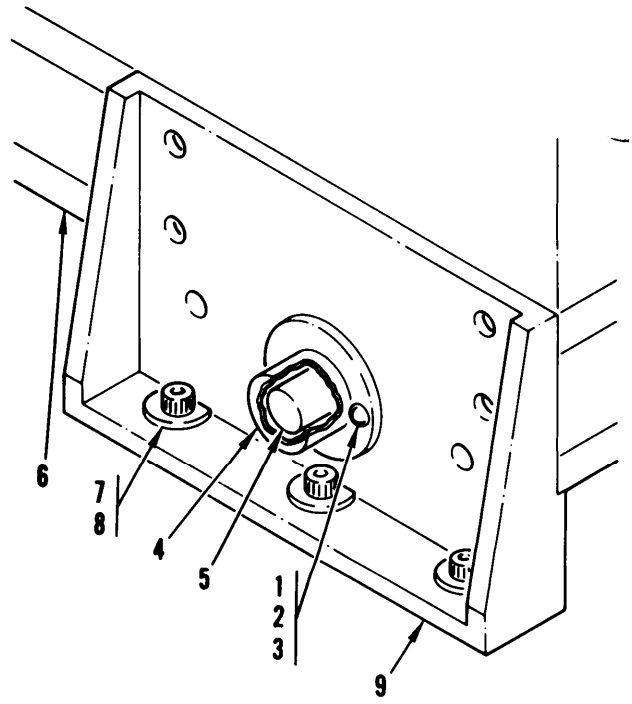
(37) Install two studs (5) into base assembly (6).

(38) Install two protective cups (4) with four screws (1), lockwashers (2), and washers (3).

(39) Refer to 1 above and install protective skirts.

(40) Refer to paragraph 5-7 and adjust base assembly.

END OF TASK



EL9LQ-650-28

d. To replace isolator number 4, proceed as follows:

REMOVAL

(1) Refer to 2c above and perform steps 1 thru 9.

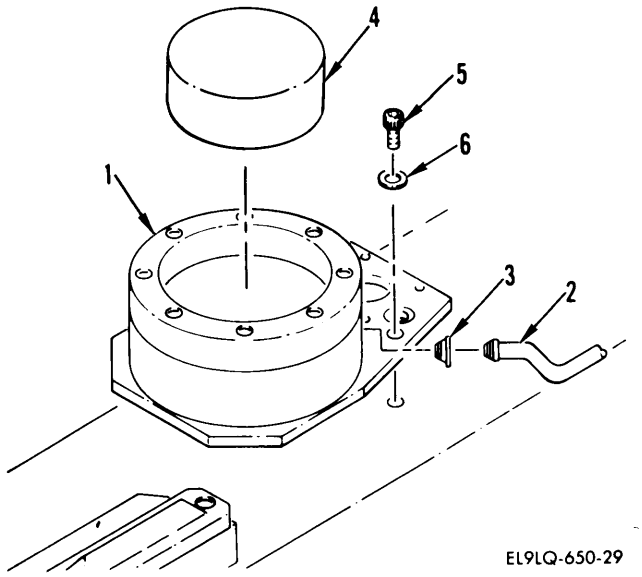
(2) On isolator (1), disconnect blue tube (2) from fitting (3).

(3) Remove piston plate (4) from isolator (1).

(4) Mark a line around bottom of isolator (1). Replacement isolator must be installed in same position.

(5) Remove two bolts (5), lock-washers (6), and isolator (1).

(6) Remove fitting (3) from isolator and clean teflon tape residue from threads.



EL9LQ-650-29

INSTALLATION

(7) Wrap teflon tape around threads of fitting (3).

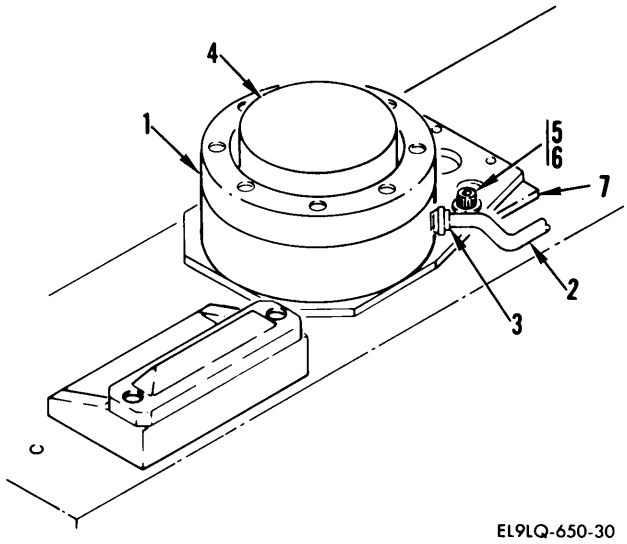
(8) Install fitting (3) into isolator (1).

(9) Position isolator (1) on mounting plate. Aline with mark made during removal.

(10) Install two bolts (5) and lockwashers (6). Tighten bolts until just seated on isolator. Be sure piston end of isolator remains flat on mounting plate.

(11) Install laminated shims (7) as required to fill gap under isolator at valve end.

(12) Torque bolts (5) to 54 ft-lb.



CAUTION

Do not use wrench on tubing nuts. finger tighten only.

(13) Attach blue tube (2) to fitting (3) on isolator (1). Finger tighten only.

(14) Install piston plate (4) on isolator (1).

(15) Refer to 2c above and perform steps 31 thru 38.

(16) Refer to 1 above and install protective skirts.

(17) Refer to paragraph 5-7 and adjust base assembly.

END OF TASK

3. VALVE ASSEMBLY REPLACEMENT

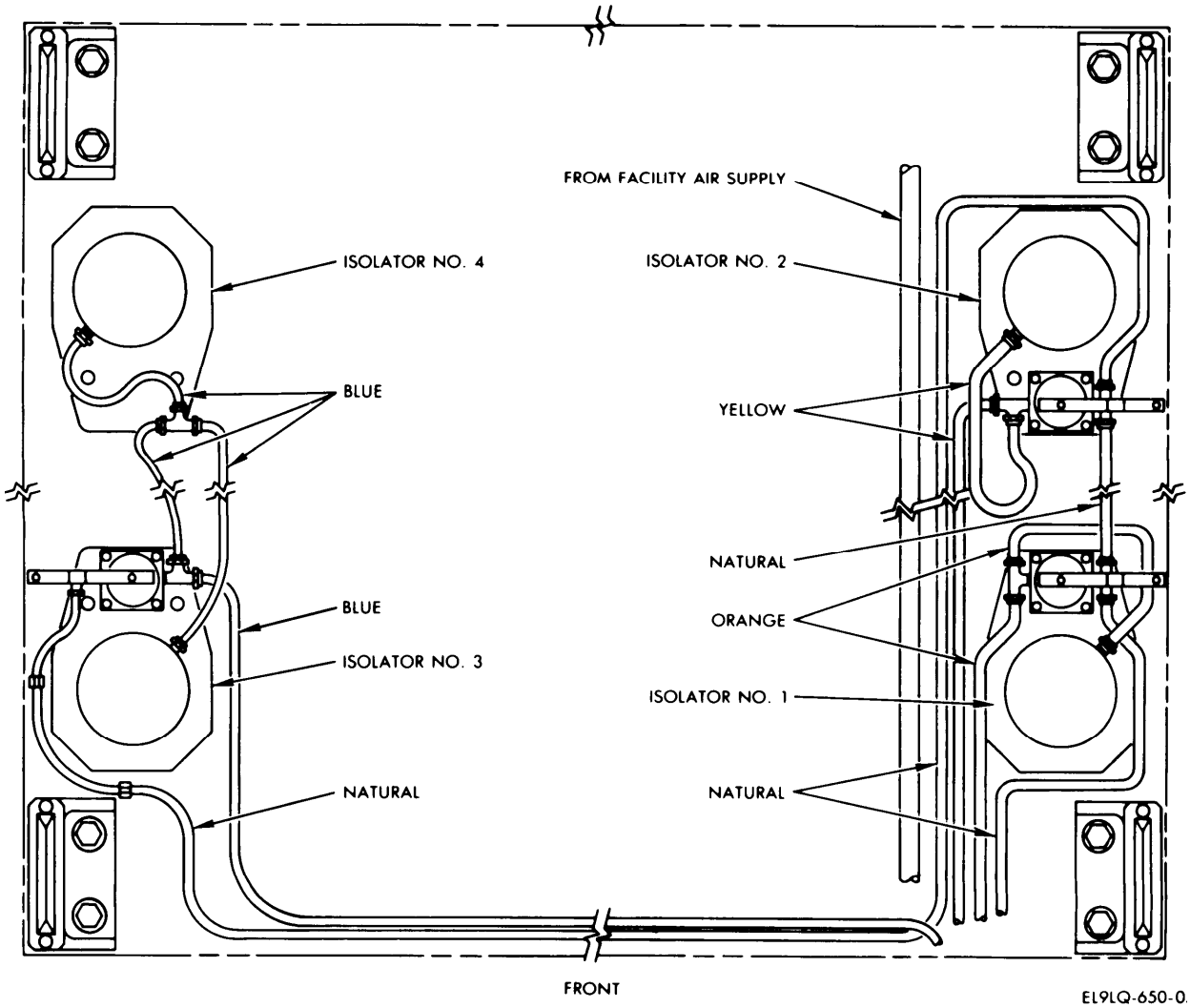
WARNING

PNEUMATIC SYSTEM PRESSURE MUST BE BLED DOWN BEFORE PERFORMING MAINTENANCE ON BASE ASSEMBLY TO AVOID INJURING PERSONNEL OR DAMAGING EQUIPMENT.

NOTE

This procedure contains replacement procedures for three valves in base assembly pneumatic system. Refer to diagram and list below to determine appropriate procedure.

To Replace Valve No.	Refer to Paragraph
1	a
2	b
3	c



a. To replace valve number 1, proceed as follows:

REMOVAL

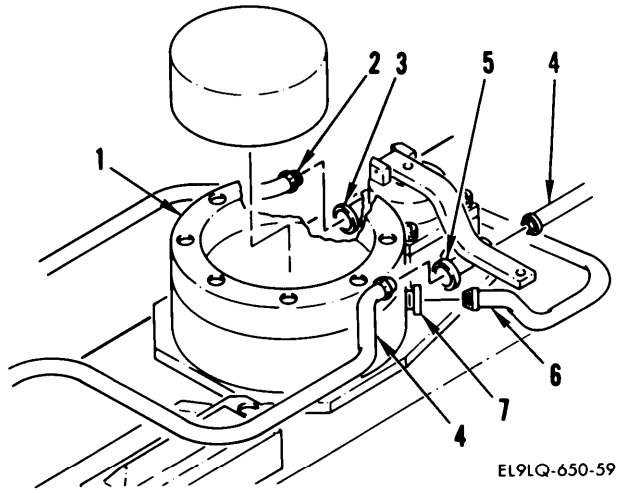
(1) Refer to 2a above and perform steps 1 thru 9.

(2) On isolator (1), tag and disconnect one orange tube (2) from tee fitting (3) and two natural tubes (4) from opposite tee fitting (5).

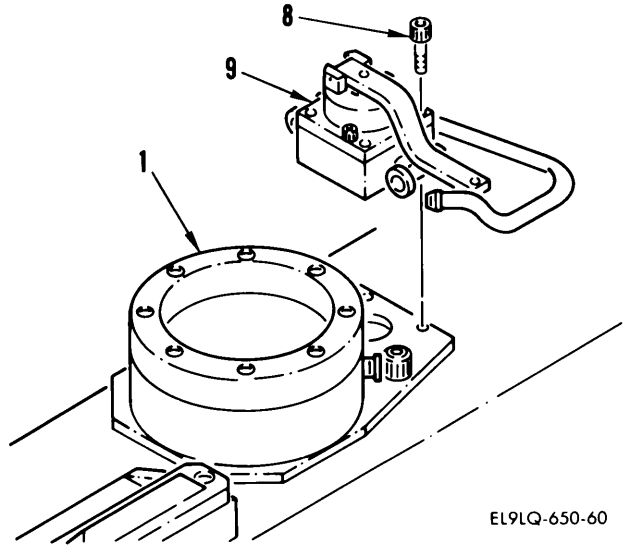
(3) Tag and disconnect orange tube (6) from isolator fitting (7).

(4) Remove tubing clamps as necessary.

(5) Remove four screws (8) and valve assembly (9) from isolator (1).



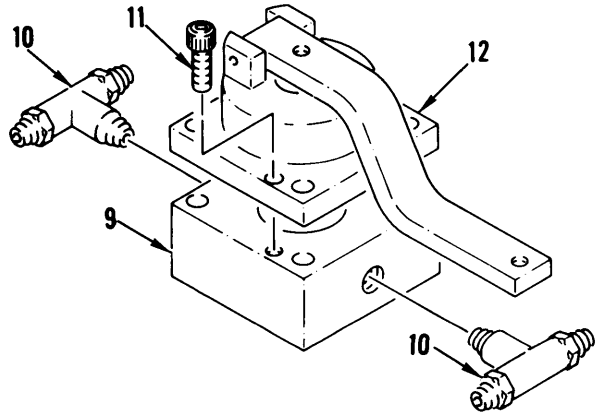
EL9LQ-650-59



EL9LQ-650-60

(6) Note location of tee fittings (10) and remove from valve (9). Clean teflon tape residue from threads.

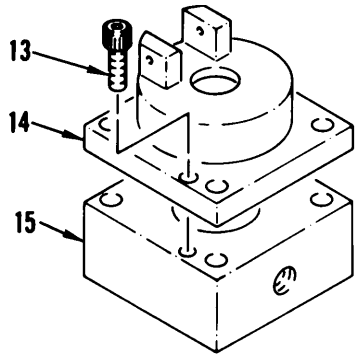
(7) Remove two screws (11) and valve cover assembly (12) from valve (9).



EL9LQ-650-32

INSTALLATION

(8) Remove two screws (13) and valve cover (14) from replacement valve (15) and install on defective valve (9).

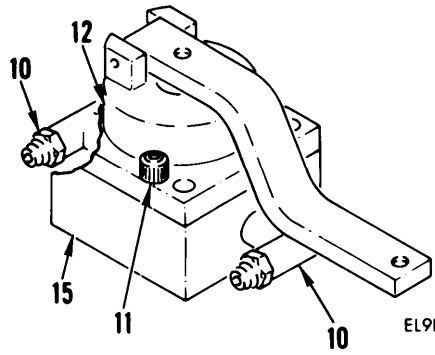


EL9LQ-650-58

(9) Install valve cover (12) with adjusting arm on replacement valve (15) with two screws (11).

(10) Wrap teflon tape around threads of fittings (10).

(11) Install two tee fittings (10) in replacement valve (15).



EL9LQ-650-34

WARNING

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- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES.
- IF IT CONTACTS EYES, WASH EYES WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

(12) Clean screws (8) and mating holes on isolator (1) with isopropyl alcohol.

(13) Apply sealing compound primer to threads, allow to dry.

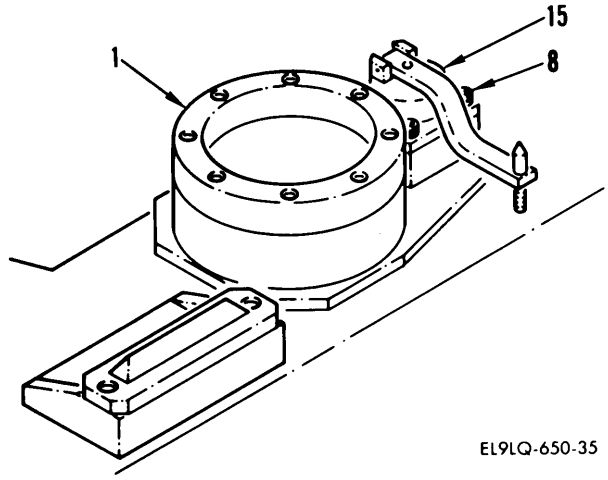
(14) Apply sealing compound to threads of screws (8). Install valve assembly (15) with four screws (8). Torque screws (8) to 14 ft-lb.

(15) Refer to diagram and attach two natural tubes (4) to tee fitting (5) on isolator (1). Finger tighten only.

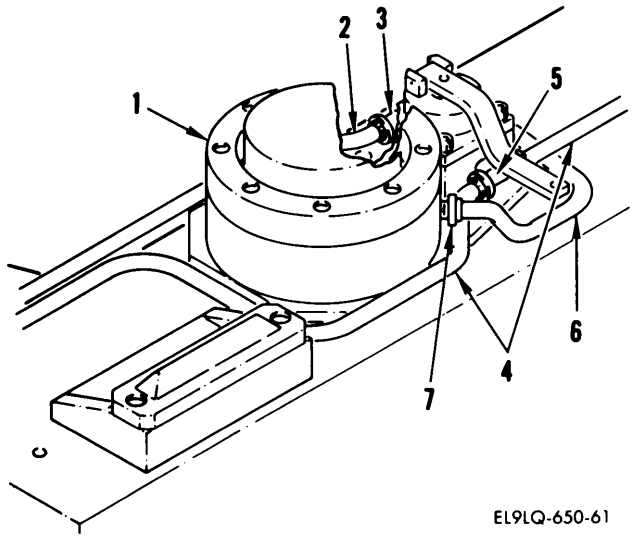
(16) Attach orange tube (2) to tee fitting (3) on isolator. Finger tighten only.

(17) Attach orange tube (6) to isolator fitting (7). Finger tighten only.

(18) Refer to 2a above and perform steps 32 thru 39.



EL9LQ-650-35



EL9LQ-650-61

(19) Refer to 1 above and install protective skirts.

(20) Refer to paragraph 5-7 and adjust base assembly.

END OF TASK

b. To replace valve number 2, proceed as follows:

REMOVAL

(1) Refer to 1 above and remove front, rear, and right side protective skirts.

(2) Refer to 2a above and perform steps 2 thru 9.

(3) On isolator (1), tag and disconnect yellow tube (2) from tee fitting (3) and two natural tubes (4) from opposite tee fitting (5).

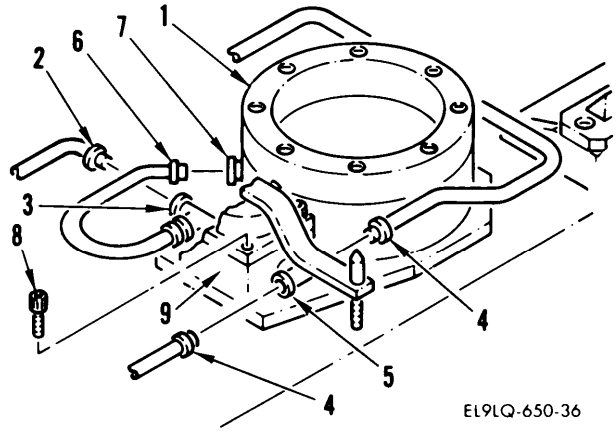
(4) Tag and disconnect yellow tube (6) from isolator fitting (7).

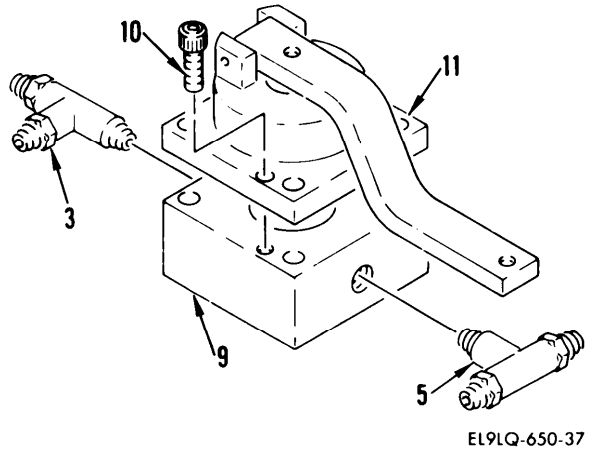
(5) Remove tubing clamps as necessary.

(6) Remove four screws (8) and valve assembly (9) from isolator (1).

(7) Note location of tee fittings (3 and 5) and remove from valve (9). Clean teflon tape residue from threads.

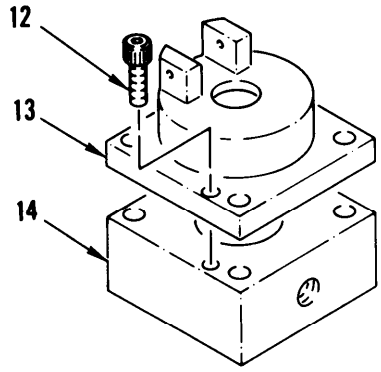
(8) Remove two screws (10) and valve cover assembly (11) from valve (9).





INSTALLATION

(9) Remove two screws (12) and valve cover (13) from replacement valve (14) and install on defective valve (9).

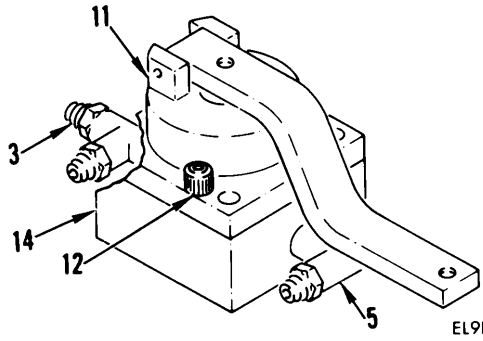


EL9LQ-650-57

(10) Install valve cover (11) with adjusting arm on replacement valve (14) with two screws (12).

(11) Wrap teflon tape around threads of fittings (3 and 5).

(12) Install tee fittings (3 and 5) into replacement valve (14).



EL9LQ-650-39

WARNING

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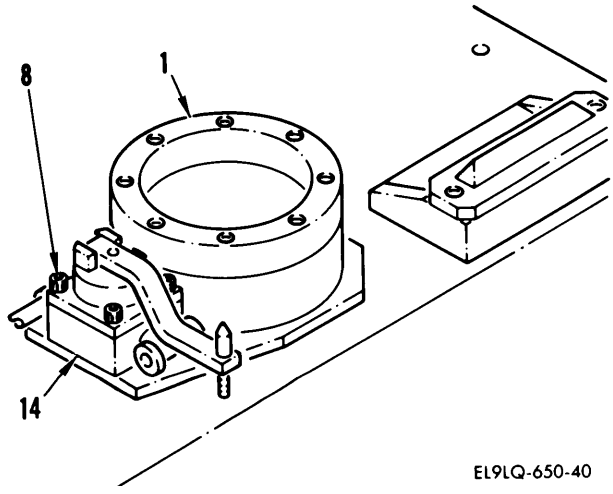
- IF IT CONTACTS EYES, WASH EYES WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

(13) Clean screws (8) and mating holes in isolator (1) with isopropyl alcohol.

(14) Apply sealing compound primer to threads, allow to dry.



EL9LQ-650-40

(15) Apply sealing compound to threads of screws (8). Install valve assembly (14) with four screws (8). Torque screws (8) to 14 ft-lb.

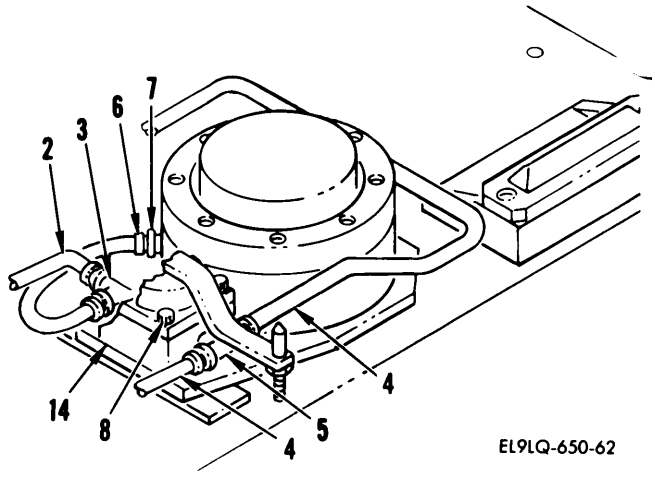
(16) Refer to diagram below and attach two natural tubes (4) to tee fitting (5) and yellow tube (2) to opposite tee fitting (3). Finger tighten only.

(17) Attach yellow tube (6) to isolator fitting (7). Finger tighten only.

(18) Refer to 2a above and do steps 32 thru 39.

(19) Refer 1 above and install protective skirts.

(20) Refer to paragraph 5-7 and adjust base assembly.



END OF TASK

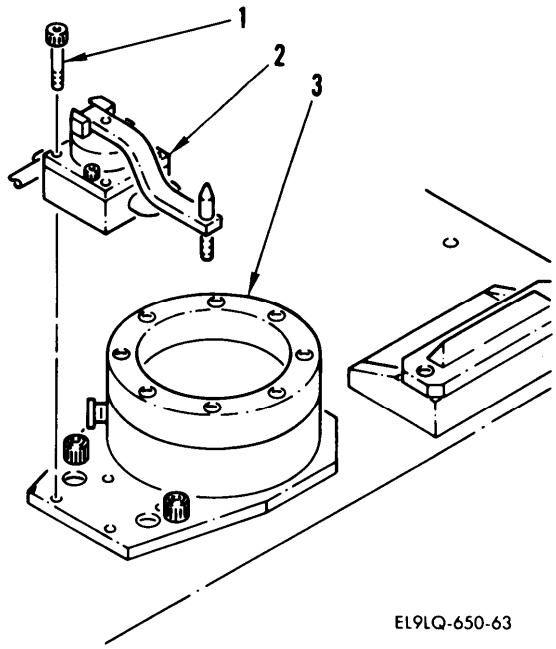
c. To replace valve number 3, proceed as follows:

REMOVAL

(1) Refer to 1 above and remove front, rear, and left side protective skirts.

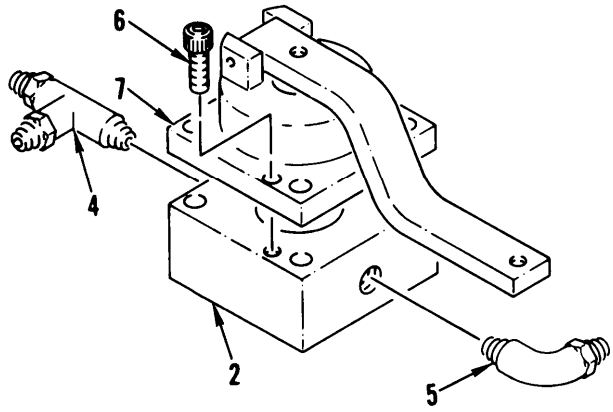
(2) Refer to 2c above and do steps 2 thru 10.

(3) Remove four screws (1) and valve assembly (2) from isolator (3).



(4) Note location of tee fitting (4) and elbow fitting (5) and remove from valve (2). Clean teflon tape residue from threads.

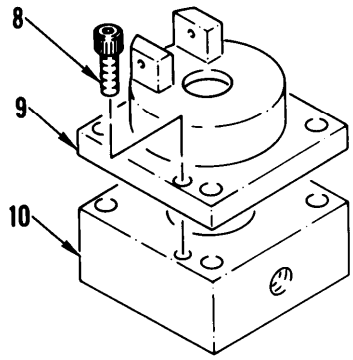
(5) Remove two screws (6) and valve cover assembly (7) from valve (2).



EL9LQ-650-41

INSTALLATION

(6) Remove two screws (8) and valve cover (9) from replacement valve (10) and install on defective valve (2).

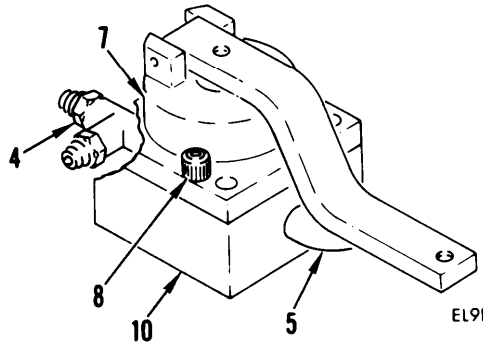


EL9LQ-650-42

(7) Install valve cover (7) with adjusting arm on replacement valve (10) with two screws (8).

(8) Wrap teflon tape around threads of fittings (1 and 2).

(9) Install fittings (4 and 5) into replacement valve (10).



EL9LQ-650-43

WARNING

ISOPROPYL ALCOHOL

- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET IN EYES, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES.
- IF IT CONTACTS EYES, WASH EYES WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

(10) Clean screws (11) and mating holes in isolator with isopropyl alcohol.

(11) Apply sealing compound primer to threads, allow to dry.

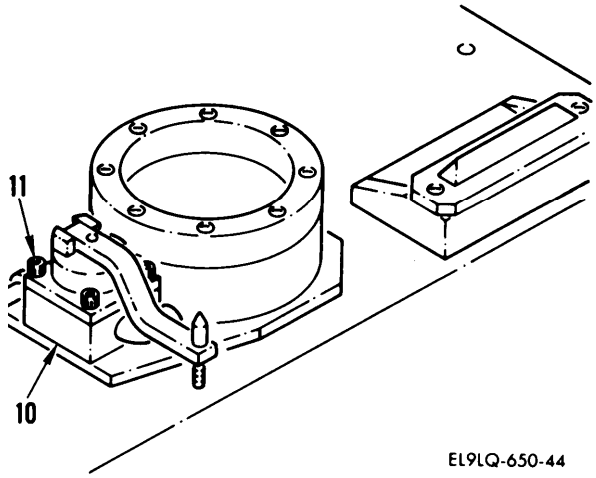
(12) Apply sealing compound to threads of screws (11). Install valve assembly (10) with four screws (11). Torque screws (11) to 14 ft-lb.

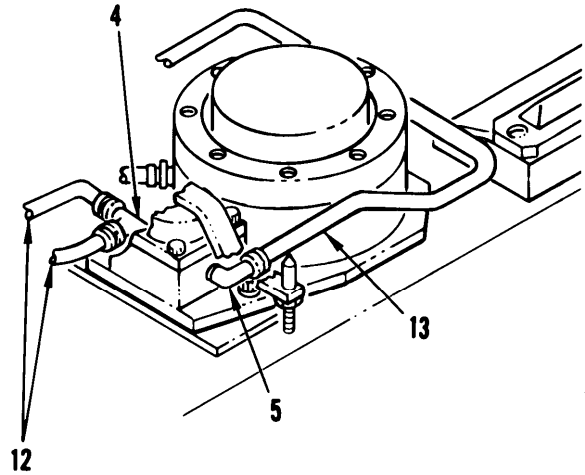
(13) Refer to diagram below and attach two blue tubes (12) to tee fitting (4) and natural tube (13) to opposite fitting (5). Finger tighten only.

(14) Refer to 2c above and do steps 32 thru 38.

(15) Refer to 1 above and install protective skirts.

(16) Refer to paragraph 5-7 and adjust base assembly.





END OF TASK

4. TUBING REPLACEMENT

NOTE

This procedure contains instructions to replace any tubing used in the base assembly.

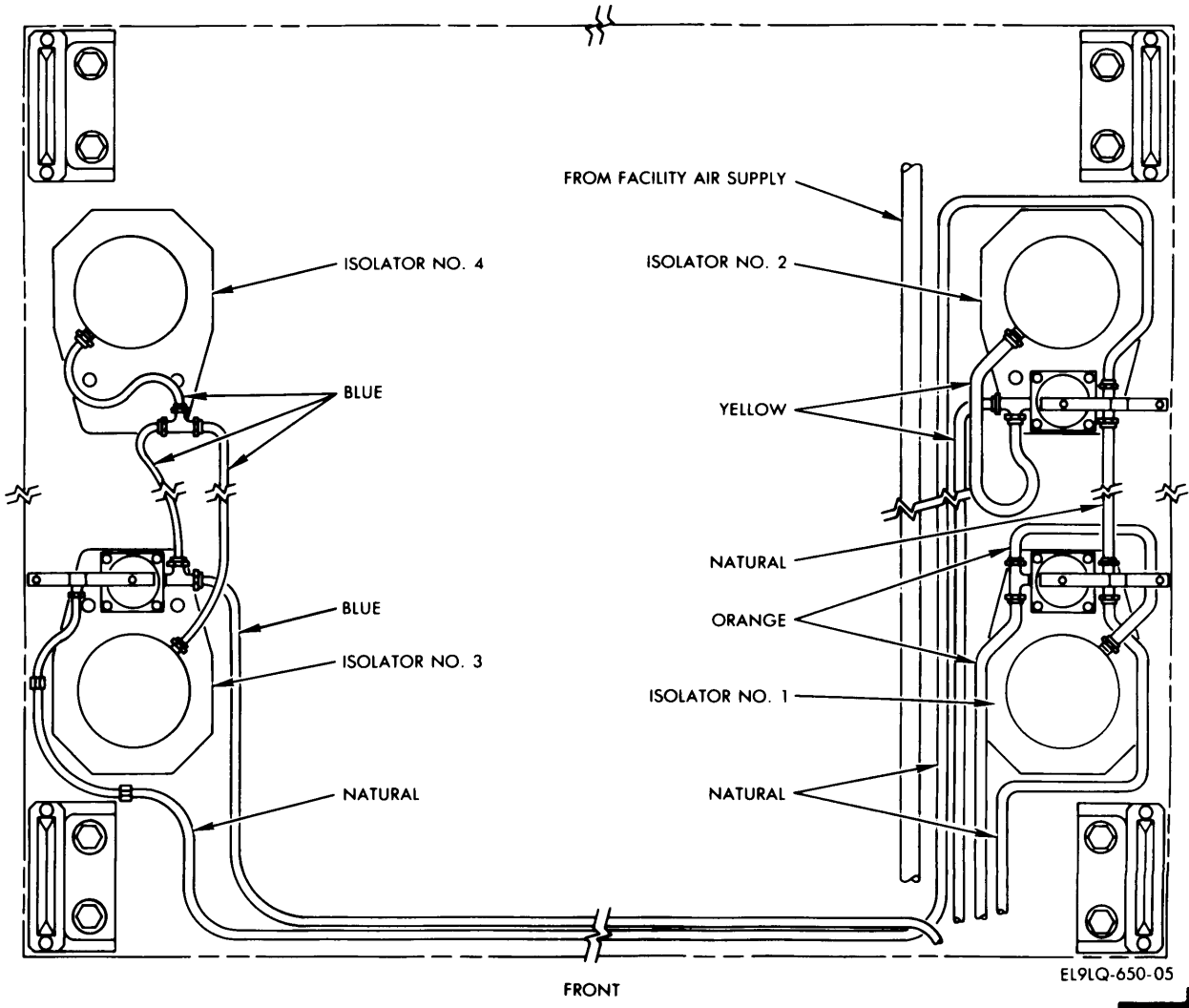
REMOVAL

WARNING

PNEUMATIC SYSTEM PRESSURE MUST BE BLED DOWN BEFORE PERFORMINGMAINTE-NANCE ON BASE ASSEMBLY TO AVOID INJURING PERSONNEL OR DAMAGING EQUIPMENT.

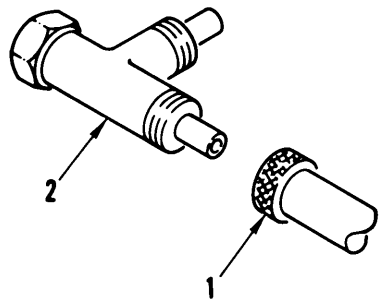
a. Refer to 1 above and remove protective skirts as needed to access tubing assemblies.

b. If jacking of base is required to access tubing on right side, refer to 2a above and do steps 2 thru 9. If access to tubing on left side is required, refer to 2c above and do steps 2 thru 9.



c. Remove any defective tube (1) by disconnecting from fitting (2) at both ends. Remove tubing clamps as necessary to remove tubing.

d. Refer to 5 below to install new fittings on replacement tubing.



EL9LQ-650-46

INSTALLATION

CAUTION

Do not use wrench on tubing nuts. Finger tighten only.

e. Install replacement tube by connecting to fittings. Finger tighten only.

f. To lower base assembly from jacks, refer to 2a above and do steps 32 thru 39 for right side or refer to 2c above and do steps 32 thru 38 for left side.

g. To install protective skirts, refer to 1 above.

END OF TASK

5. FITTING REPLACEMENT

WARNING

PNEUMATIC SYSTEM PRESSURE MUST BE BLED DOWN BEFORE PERFORMING MAINTENANCE ON BASE ASSEMBLY TO AVOID INJURING PERSONNEL OR DAMAGING EQUIPMENT.

NOTE

This procedure contains instructions to replace any pneumatic fitting used in the base assembly.

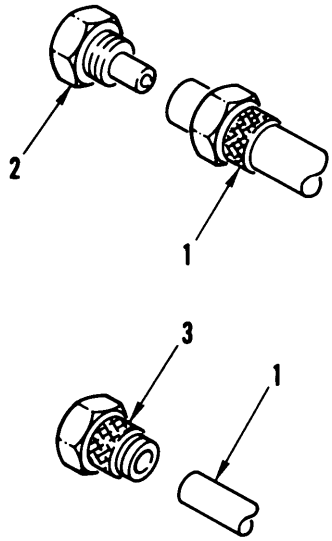
REMOVAL

a. Refer to 1 above and remove protective skirts as needed to access fittings.

b. If jacking of base is required to access fittings on right side, refer to 2a above and do steps 2 thru 9. If access to fittings on left side, refer to 2c above and do steps 2 thru 9.

c. Disconnect tube (1) from fitting (2) on isolator.

d. Remove defective fitting (3) from end of tubing (1). If tubing is damaged, cut off damaged portion. If tubing is not long enough to allow repair, replace tubing.



EL9LQ-650-47

INSTALLATION

e. Install replacement fitting (3) over tubing (1).

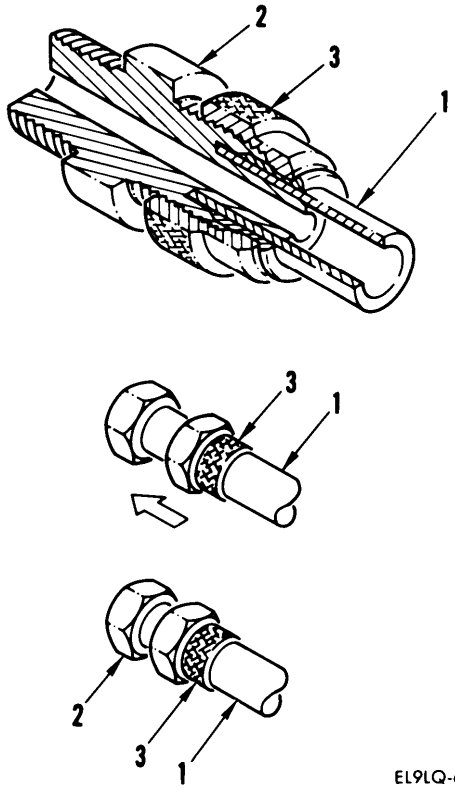
CAUTION

Do not use wrench on tubing nuts. Finger tighten only.

f. Attach tube (1) with fitting (3) to fitting (2) on isolator. Finger tighten only.

g. To lower base assembly from jacks, refer to 2a above and do steps 33 thru 39 for right side. If left side of base was jacked, refer to 2c above and do steps 32 thru 38.

h. Refer to 1 above and install protective skirts.



EL9LQ-650-48

END OF TASK

5-7. BASE ASSEMBLY ADJUSTMENT 5-7

This task covers adjustment of pneumatic leveling and isolation system.

INITIAL SETUP

Materials (appendix C)

Artists brush (Item 8)
Sealing compound primer (Item 38)
Sealing compound (Item 41)

Personnel Required

% 39B ATE Repairer

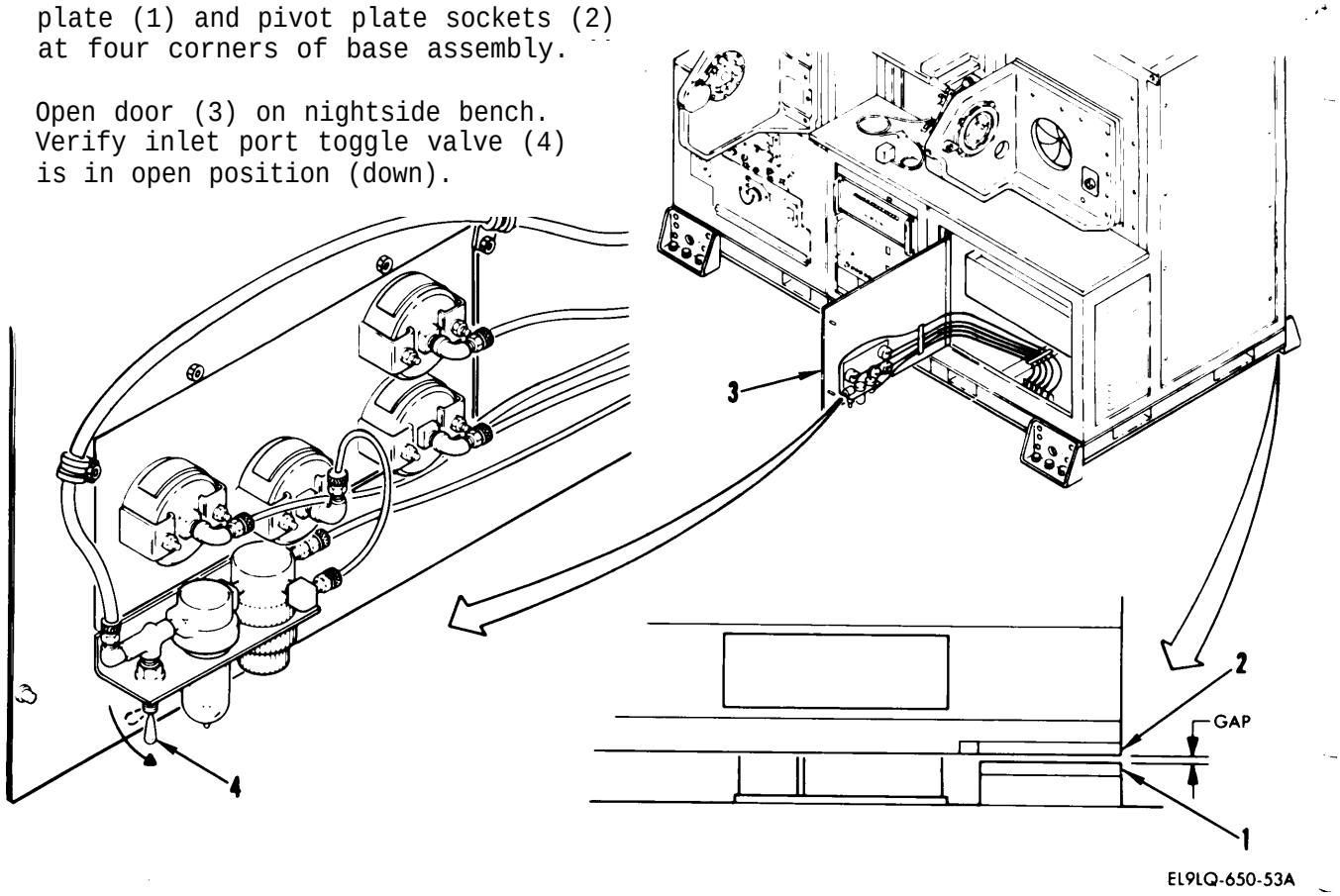
Reference

TM 11-6625-3085-12

Equipment Conditions

Power removed (para 2-24.1)
Pneumatic supply in van turned off and bled down (TM 11-6625-3085-12)
Pneumatic system pressure bled down (TM 11-6625-3085-12)
Floor retaining bracket removed (TM 11-6625-3085-12)

1. Measure and record gap between pivot plate (1) and pivot plate sockets (2) at four corners of base assembly.
2. Open door (3) on nightside bench. Verify inlet port toggle valve (4) is in open position (down).



3. Rotate regulator valve handle (5) to left to closed position.

Verify that gage (6) for regulated air supply indicates 0 psi.

5. Activate van air supply in accordance with TM 11-6625-3085-12.

WARNING

DO NOT PLACE HANDS OR FEET UNDER BASE ASSEMBLY WHILE PNEUMATIC SYSTEM IS OPERATING. INJURY COULD RESULT.

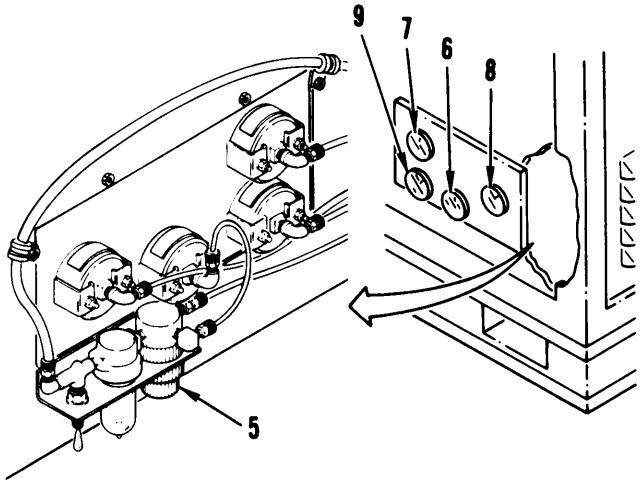
CAUTION

Regulated air pressure on control panel must not exceed 125 psi or damage to equipment may result.

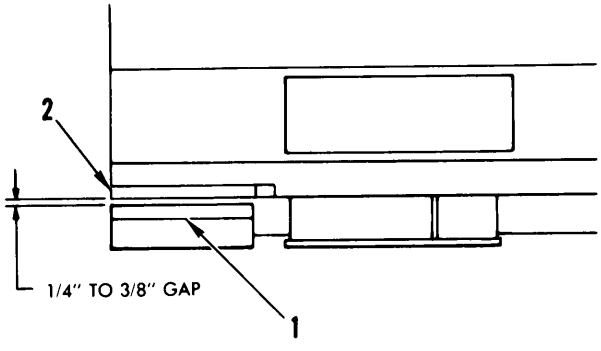
Rotate regulator valve handle (5) to the right until regulated pressure gage (6) indicates 20 psi. Isolator number 1 gage (7), isolator number 2 gage (8) and isolator number 3 and 4 gage (9) should also indicate 20 psi. Refer to paragraph 5-6 for position of isolators in base assembly.

7. Using regulator valve handle (5), increase air pressure in 10 psi increments until bench assembly floats. Pressure should be between 115 to 125 psi.

8. When bench is floating and has stabilized, measure gap between pivot plate (1) and pivot plate sockets (2) at four corners of base assembly. Compare measurements recorded in step 1. Measurements should show an increase of 1/4 to 3/8 inch. All gaps should be equal ± 1/16 inch.



EL9LQ-650-54 A



EL9LQ-650-51

5-7. BASE ASSEMBLY ADJUSTMENT (cont) 5-7

NOTE

If measurements are not equal, perform step 9. If measurements are equal, go to step 10.

When adjustment of isolator No. 3 valve adjusting arm is made, both No. 3 and No. 4 isolators are affected.

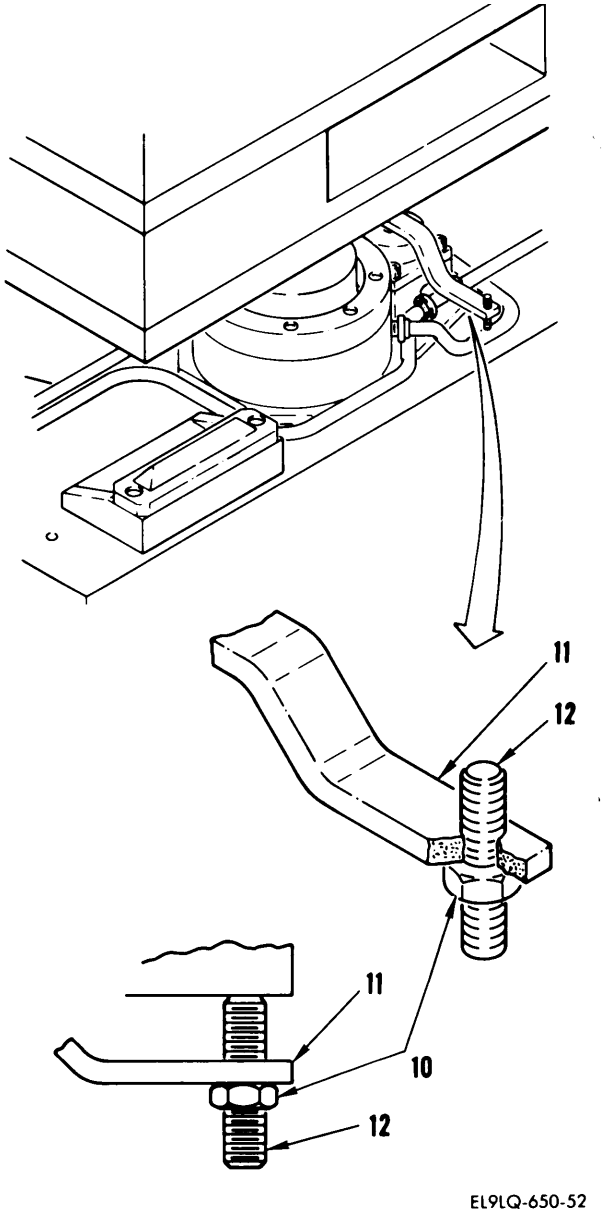
g. Loosen nut (10) on appropriate valve adjusting arm (11) and turn height adjusting screw (12) counterclockwise to decrease gap and clockwise to increase gap. Tighten nut (10) when desired gap is achieved.

10. Apply sealing compound primer to screw (12) and nut (10). Allow to dry.

11. Apply sealing compound to screw (12) and nut (10).

12. Close door on nightside test bench.

END OF TASK



EL9LQ-650-52

5-8. CABLE ASSEMBLY AND CONNECTOR REPAIR/REPLACEMENT 5-8

Repair or replace cables and connectors using standard maintenance practices. For electro-optical test bench set interconnection and cable assembly wire list data, refer to chapter 3. The cable assemblies are listed in reference designator sequence (2A2W1, 2A2W2, etc.).

Section III. DAYSIDE TEST BENCH 2A1 MAINTENANCE PROCEDURES

5-9. DAYSIDE TEST BENCH 2A1 REPLACEMENT 5-9

INITIAL SETUP

Tools

Jacks (2)
Torque wrench

Personnel Required

39B ATE Repairer
One assistant

References

TM 11-6625-3085-12
TM 11-6625-3085-30

Equipment Condition

power removed (para 2-24.1)
Pneumatic system bled down (TM 11-6625-3085-12)
Cable cover removed (TM 11-6625-3085-30)
Protective skirts removed (para 5-6)
Interconnection cables disconnected (para 5-5)

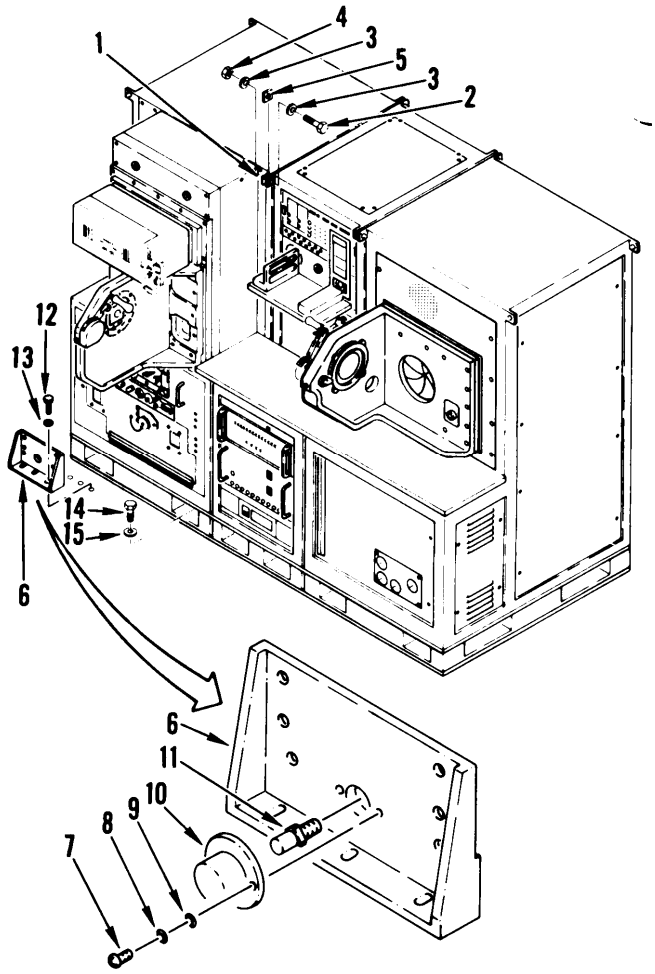
FOLLOWUP

Cable cover installation (TM 11-6625-3085-30)
Protective skirt installation (para 5-6)
Interconnection cables connection (para 5-5)

5-9. DAYSIDE TEST BENCH 2A1 REPLACEMENT (cont) 5-9

REMOVAL

1. On front tiedown lug (1), remove bolt (2), two washers (3), nut (4), and tie bar (5).
2. On retainer bracket (6) remove two screws (7), lockwasher (8), washer (9), protective cup (10), and stud (11).
3. Remove three screws (12). washers (13), and retainer bracket (6).
4. On base of dayside test bench, remove two bolts (14) and washers (15).



EL9LQ-610-12

5-9. DAYSIDE TEST BENCH 2A1 REPLACEMENT (cont)

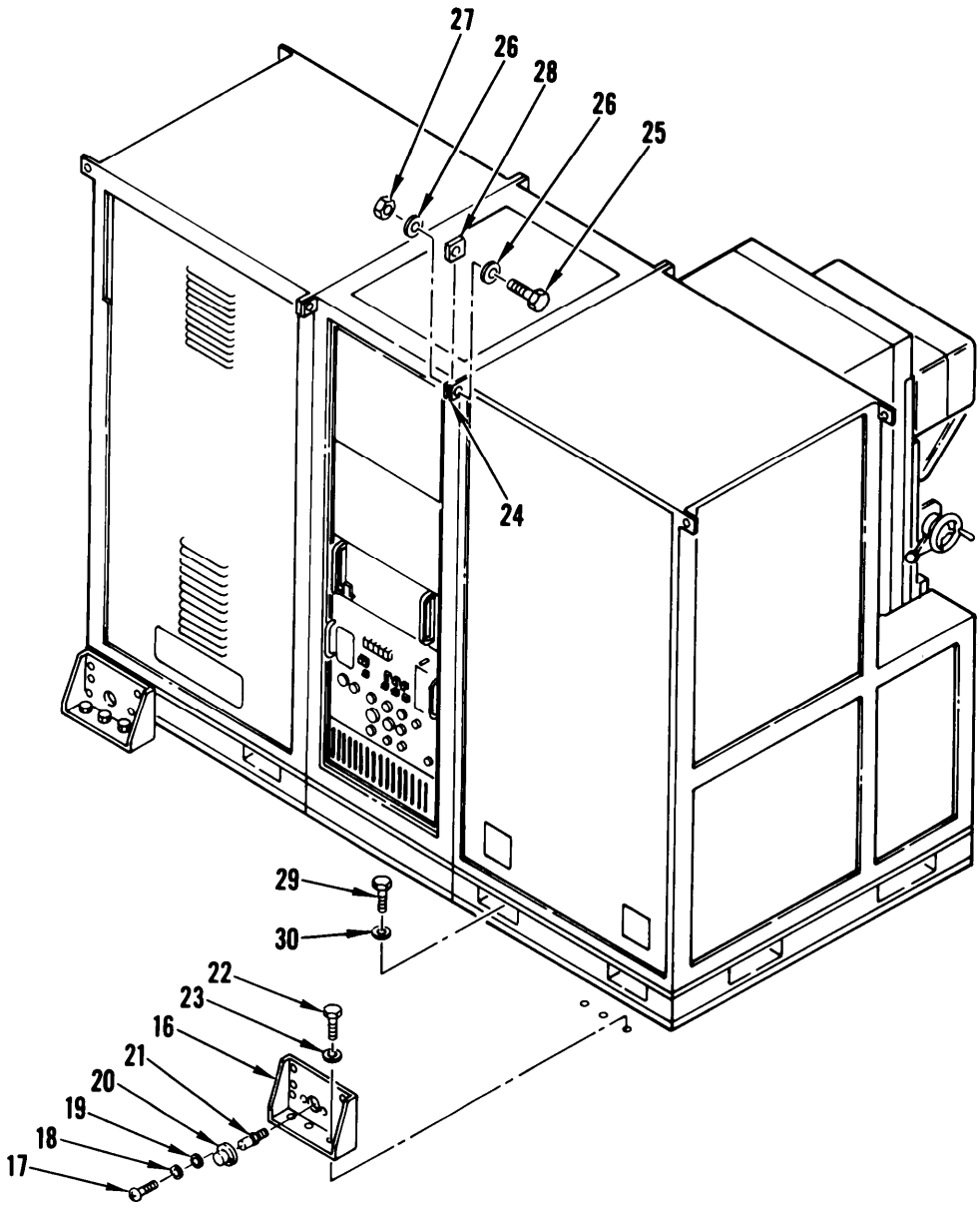
5. On retainer bracket (16) remove two screws (17), lockwashers (18), washers (19), protective cup (20), and stud (21).

6. Remove three screws (22), washers (23), and retainer bracket (16).

7. On rear tiedown lug (24), remove bolt (25), two washers (26), nut (27), and tie bar (28).

8. On base of dayside test bench, remove two bolts (29) and washers (30).

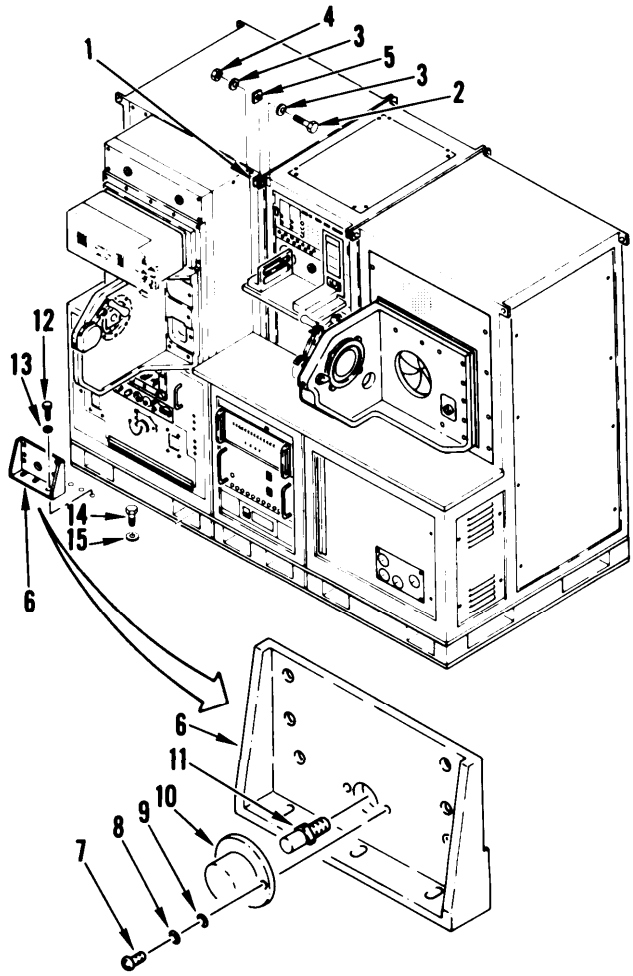
9. Dayside test bench is now ready for movement. Refer to TM 11-6625-3085-30.

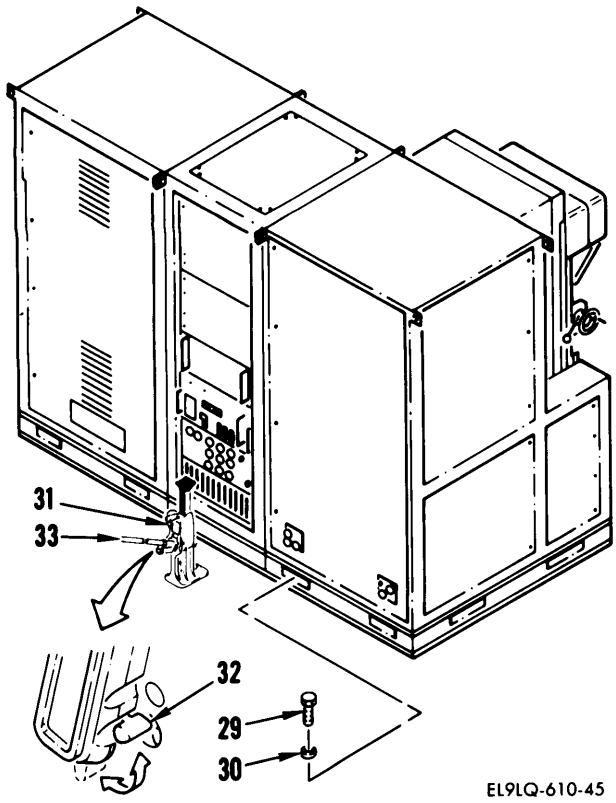


EL9LQ-610-13

INSTALLATION

10. Position dayside test bench over base assembly and install two bolts (14) and washers (15) through base at front.





11. Install two bolts (29) and washers (30) through base at rear.

12. Remove rolalifts from dayside test bench.

13. Torque bolts (29) and (14) to 60 ft-lb.

14. Position two jacks (31) under cent of base. position jack levers (32) to the up position and insert jack handles (33).

'15. Using two persons, jack up base so tie bars (28) and (5) can be inserted between tiedown lugs (24) and (1) at top of dayside test bench.

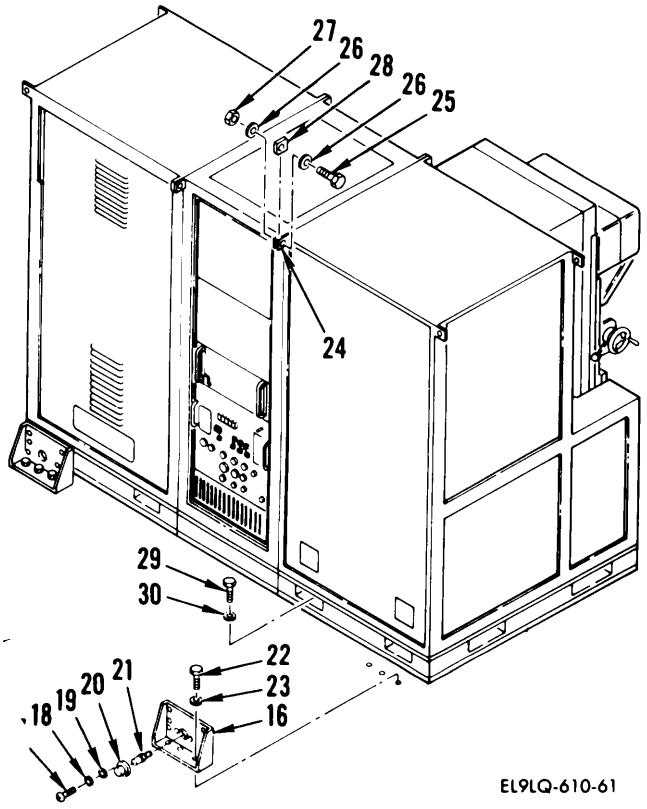
16. On rear of dayside test bench install tie bar (28) with bolt (25) two washers (26), and nuts (27).

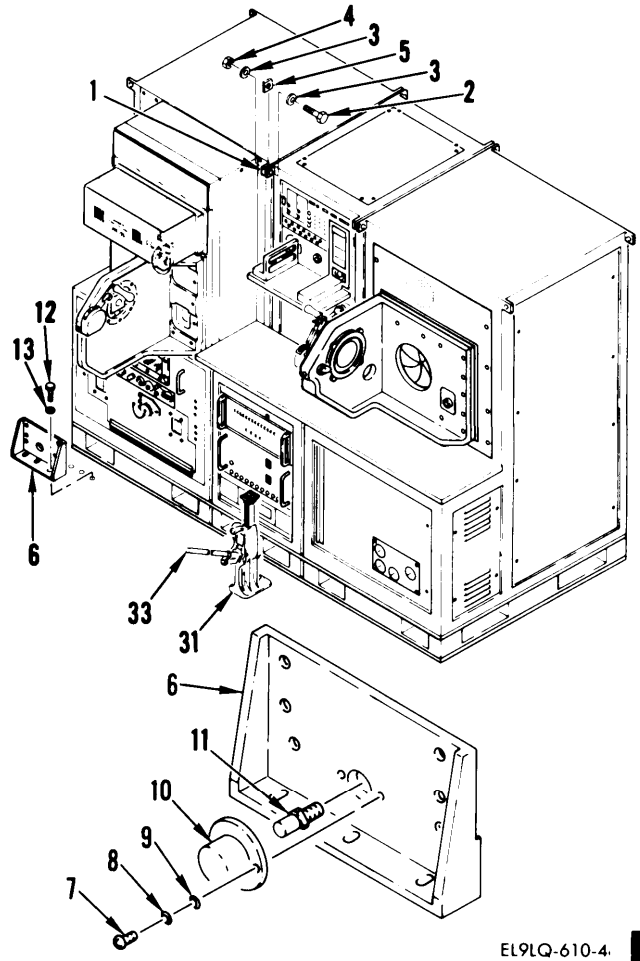
17. On front of dayside test bench install tie bar (5) with bolt (2), two washers (3), and nut (4). Torque bolts (2) and (25) to 50 ft-lb.

18. Lower base and remove jacks (31).

19. On front of dayside test bench install retainer bracket (6) with three screws (12) and washers (13). Be sure bracket is positioned against flats on washers. Torque screws (12) to 50 ft-lb.

20. Install stud (11) into base.





21. Install protective cup (10) with tw screws (7), lockwashers (8), and washers (9).

22. On rear of dayside test bench, install retainer bracket (16) with three screws (22) and washers (23). Be sure bracket is positioned against flats of washers. Torque screws (22) to 50ft-lb.

23. Install stud (21) into base.

24. Install protective cup (20) with two screws (17), lockwashers (18), washers (19).

END OF TASK

5-10. DAYSIDE TEST BENCH CABINET REPAIR

This task covers replacement of:

Para	Item
1.	Optical signal analyzer slide
2.	Optical signal analyzer cable retractor

INITIAL SETUP

Personnel Reauired

% 39B ATE Repairer

Equipment Condition

Power removed (para 2-24.1)
Optical signal analyzer removed (para 5-11)

FOLLOWUP

Optical signal analyzer installation (para 5-ii)

1. OPTICAL SIGNAL ANALYZER SLIDE REPLACEMENT

REMOVAL

NOTE

Use this procedure to remove either left or right hand slide.

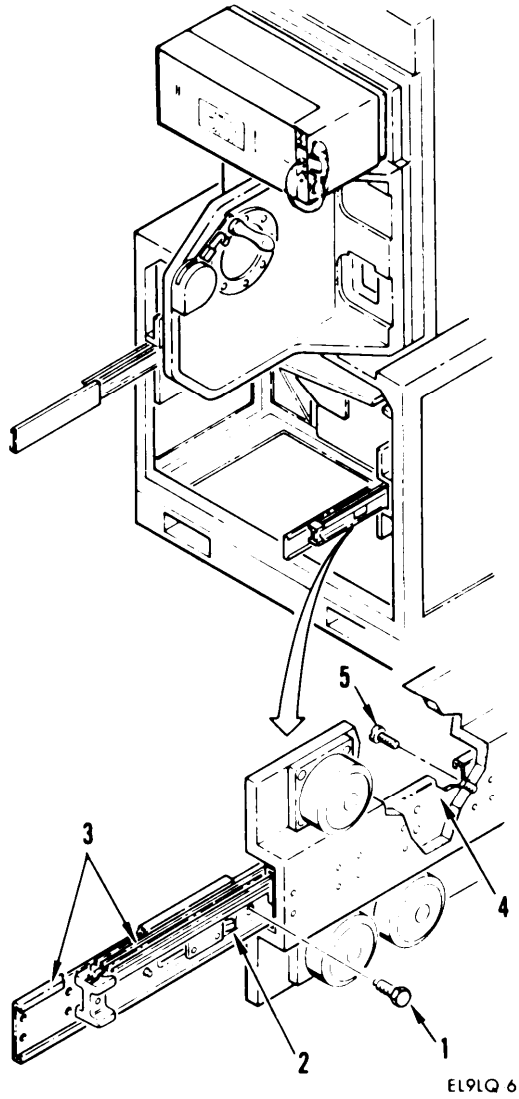
a. Loosen slide stop bolt (1), press release catch (2), and slide first two sections (3) off stationary section (4).

b. Remove 14 screws (5) securing stationary section of slide to cabinet. Remove slide.

INSTALLATION

c. Install in reverse order of removal.

END OF TASK



2. OPTICAL SIGNAL ANALYZER CABLE RETRACTOR REPLACEMENT

REMOVAL

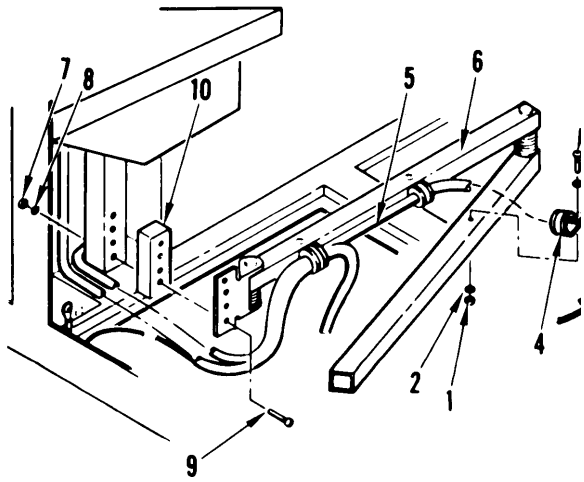
a. Remove three nuts (1), six washers (2), three screws (3), and clamps (4) securing cable assembly (5) to retractor (6).

b. Remove four nuts (7), washers (8), and screws (9) securing retractor and standoff block (10) to inner module. Remove retractor and standoff block.

INSTALLATION

c. Install in reverse order of removal.

END OF TASK



5-11. OPTICAL SIGNAL ANALYZER (OSA) ASSEMBLY 2A1A1 REPLACEMENT 5-11

INITIAL SETUP

Tools

Chassis lift
Ratchet strap
Goggles
Rubber apron

Materials (appendix C)

Artist brush (Item 8)
Cheesecloth pad (Item 11)
Chemical film (Item 12)
Rubber gloves (Item 26)
Lumber (Item 33)
Emery paper (Item 35)
Zinc chromate primer (Item 40)
Lacing tape (Item 44)
Trichlorotrifluoroethane (Item 48)

Personnel Required

39B ATE Repairer
Two assistants

Equipment Condition

Power removed (para 2-24.1)

Applicable Configuration

E/O Bench Serial No. 00001 thru 00105

REMOVAL

1. Remove 12 screws (1), washers (2), and pull out OSA (3) on slides.

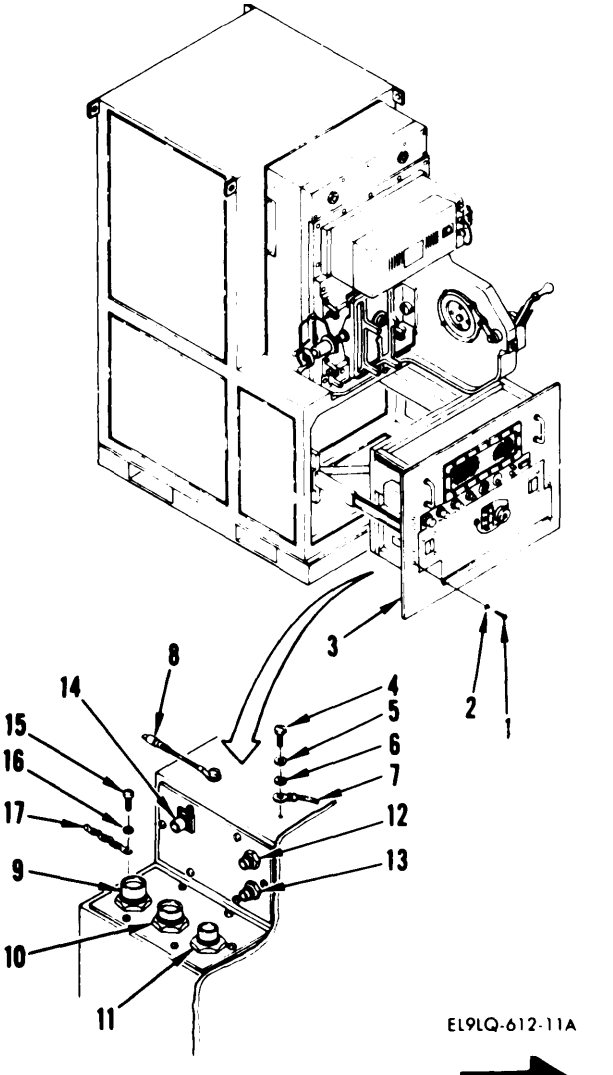
2. Remove screw (4), lockwasher (5), two washers (6) and ground lead (7) from OSA.

3. Disconnect quick disconnect ground lead (8).

4. Disconnect cables from the following connectors:

   W31P1 from J10 (9)
   w35P4 from J11 (10)
   W32P3 from J12 (11)
   W34P1 from J13 (12)
   W34P2 from J14 (13)
   W36P1 from J15 (14)

5. Remove screw (15), washer (16), and chain (17).

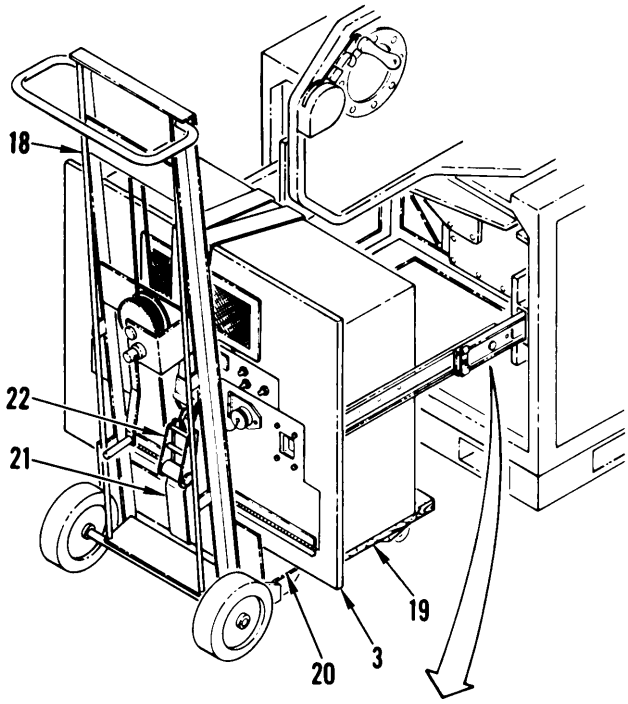


6. Position chassis lift (18) at center of gravity under front of OSA. Place lumber (19) on chassis lift to support OSA.

7. On chassis lift (18), lock wheels and raise base plate (20) until it just supports OSA.

8. Wrap ratchet strap (21) around OSA and base plate (20). Be sure ratchet strap is positioned over center of gravity of OSA and wrapped only around base plate of chassis lift.

9. Secure ratchet strap with ratchet (22) positioned between chassis lift and OSA.



WARNING

HEAVY OBJECT

- EXCESSIVE STRAIN CAN CAUSE SERIOUS INJURY.
- DON'T: ATTEMPT TO LIFT OR CARRY HEAVY OBJECTS ALONE.
- DO: GET HELP FOR LIFTING OR CARRYING HEAVY OBJECTS.
- IF YOU EXPERIENCE A SUDDEN PAIN WHILE LIFTING OR DISCOMFORT AFTER LIFTING, GET MEDICAL HELP AT ONCE.

10. Remove two stop bolts (23) that secure OSA slides (24) to mating slides (25) in cabinet.

11. Unlock wheels on chassis lift (18) and move OSA away from dayside test bench.

12. Lower base plate with OSA, all the way down.

INSTALLATION

13. Position chassis lift (18) with OSA (3) in front of dayside test bench and lock wheels.

14. Raise OSA up until slides (24) on OSA aline with slides (25) in cabinet.

NOTE

Raising or lowering of OSA may be necessary to lock slides together.

15. Pull cabinet slides (25) out onto OSA slides (24) until locked together.

16. Push OSA forward until it hits stops in slides, then install two stop bolts (23). Check to be sure stop bolts are installed correctly, OSA cannot be pulled away from test bench.

17. Install chain (15) with screw (16) and washer (17).

18. On lower left corner of OSA, connect the following connectors:

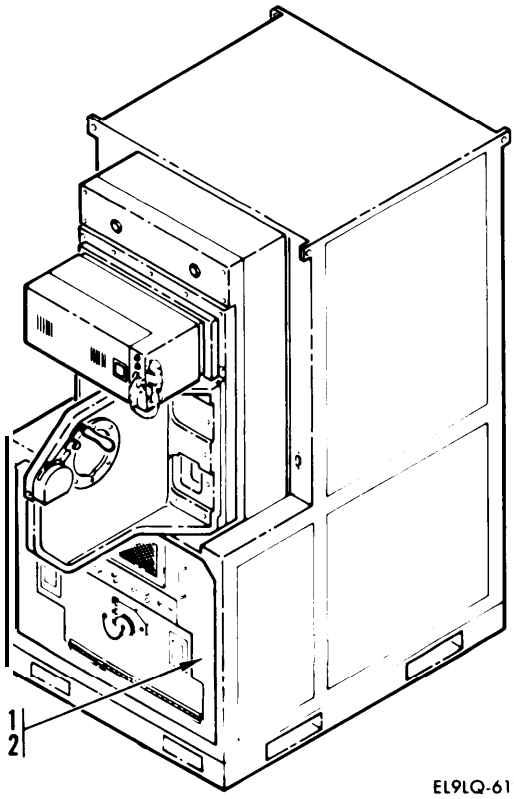
    W31P1 to J10 (9)
    W35P4 to J11 (10)
    W32P3 to J12 (11)
    W34P2 to J14 (13)
    W34P1 to J13 (12)
    W36P1 to J15 (14)

19. Connect quick disconnect ground lead (8).

20. Prepare surface and hardware (4 thru 7) for application of zinc chromate primer (para 2-19).

21. Install ground lead E4 (7) on OSA with screw (4), lockwasher (5), and two washers (6).

22. Apply zinc chromate primer to surface and hardware (4 thru 7).



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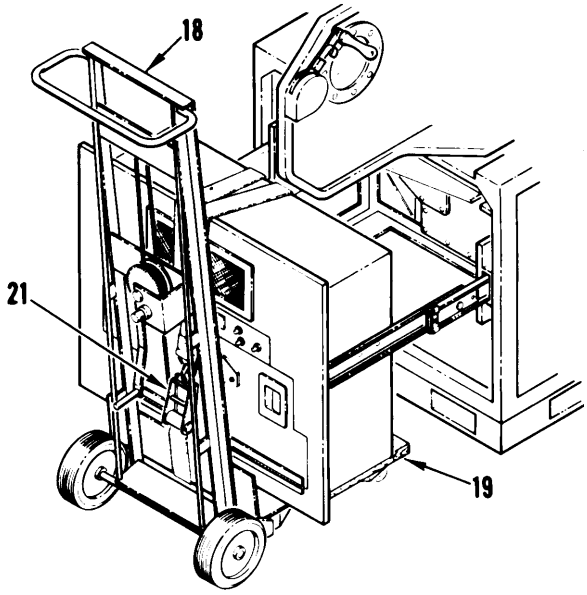
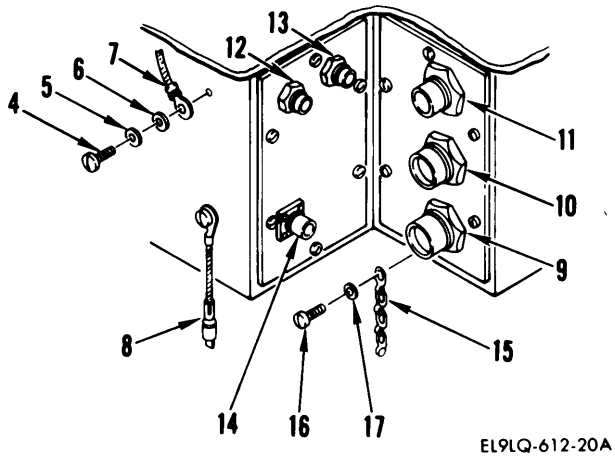




EL9LQ-612-20A

23. Remove ratchet strap (21) and remove chassis lift (18) and lumber (19).

WARNING

DO NOT USE FINGERS TO UNLOCK SLIDES. USE SCREWDRIVER TO PREVENT INJURY.

24. Push OSA into dayside test bench and install 12 screws (1) and washers (2).

END OF TASK

5-12. OPTICAL SIGNAL ANALYZER (OSA) HOUSING ASSEMBLY REPAIR 5-12

This task covers replacement of:

Para	Item
1.	Main access door interlock switches S1 or S2
2.	Photomultiplier tube (PMT) access door interlock switches S1 or S2
3.	Main access door latch
4.	Filter
5.	Resistor

INITIAL SETUP

Materials (appendix C)

Artist brush (Item 8
Cheesecloth pad (Item 11)
Pipe cleaners (Item 37)
Zinc chromate primer (Item 40)
Solder (Item 43)
Lacing tape (Item 44)
Trichlorotrifluoroethane (Item 47)

Personnel Required

396 ATE Repairer

Equipment Condition

Power removed (para 2-24.1)

Applicable Configuration

E/O Bench Serial No. 00001 thru 00105

1. MAIN ACCESS DOOR INTERLOCK SWITCHES S1 OR S2 REPLACEMENT

NOTE

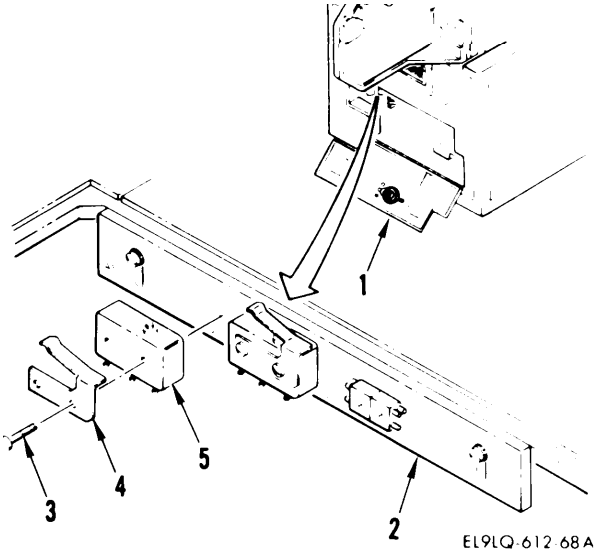
This procedure is used to replace switch S1 or S2.

REMOVAL

a. On OSA, open access door (1).

b. On switch assembly A5 (2), remove two screws (3), switch lever (4), and switch S1 (5).

c. Tag and remove leads from switch (5).



INSTALLATION

d. Install in reverse order of removal .

END OF TASK

2. PHOTOMULTIPLIER TUBE (PMT) ACCESS DOOR INTERLOCK SWITCHES S1 or S2 REPLACEMENT

NOTE

This procedure is used to replace switch S1 or S2.

REMOVAL

a. Remove 12 screws (1) and pull out OSA.

b. Loosen two captive screws (2) and open PMT access door (3).

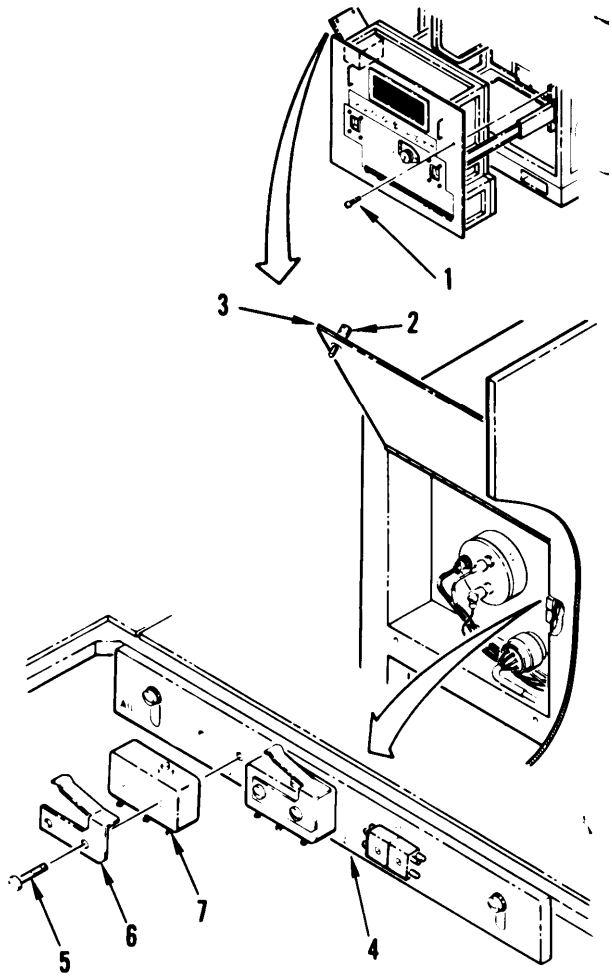
c. On switch assembly All (4), remove two screws (5), switch lever (6), and switch S1 (7).

d. Tag and remove leads from switch (7).

INSTALLATION

e. Install in reverse order of removal.

END OF TASK



EL9LQ-612-69A

3. MAIN ACCESS DOOR LATCH REPLACEMENT

REMOVAL

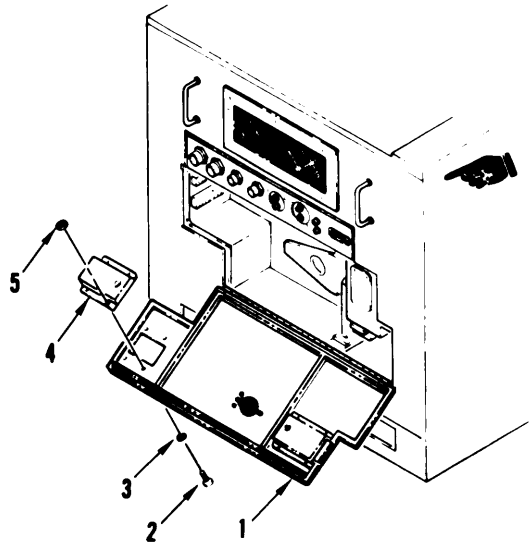
a. Open access door (1).

b. On latch assembly (2), remove two screws (3), washers (4), nut (5), and remove latch assembly (2).

INSTALLATION

c. Install in reverse order of removal.

END OF TASK



EL9LQ-612-70B

4. FILTER REPLACEMENT

REMOVAL

a. Remove 14 screws (1), washers (2), and filter panel (3).

INSTALLATION

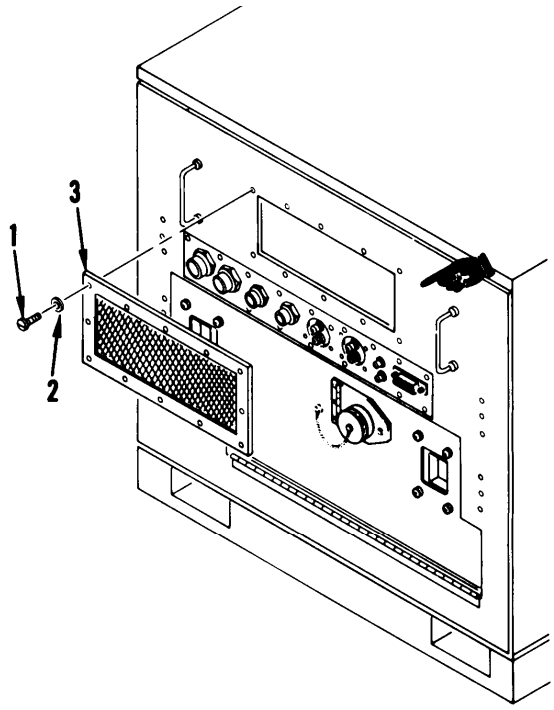
b. Inspect filter for defects and cleanness. Refer to paragraph 2-22 for cleaning.

c. Prepare screws and screw holes for application of zinc chromate primer.

d. Apply zinc chromate primer to screws (1).

e. Install filter panel (3) with 14 screws (1) and washers (2).

END OF TASK



EL9LQ-612-71B

5. RESISTOR REPLACEMENT

REM0VAL

a. On OSA, open access door (1).

b. On resistor assembly TB3 (2), remove two screws (3) and lockwashers (4).

c. Cut lacing tape as necessary to access TB3.

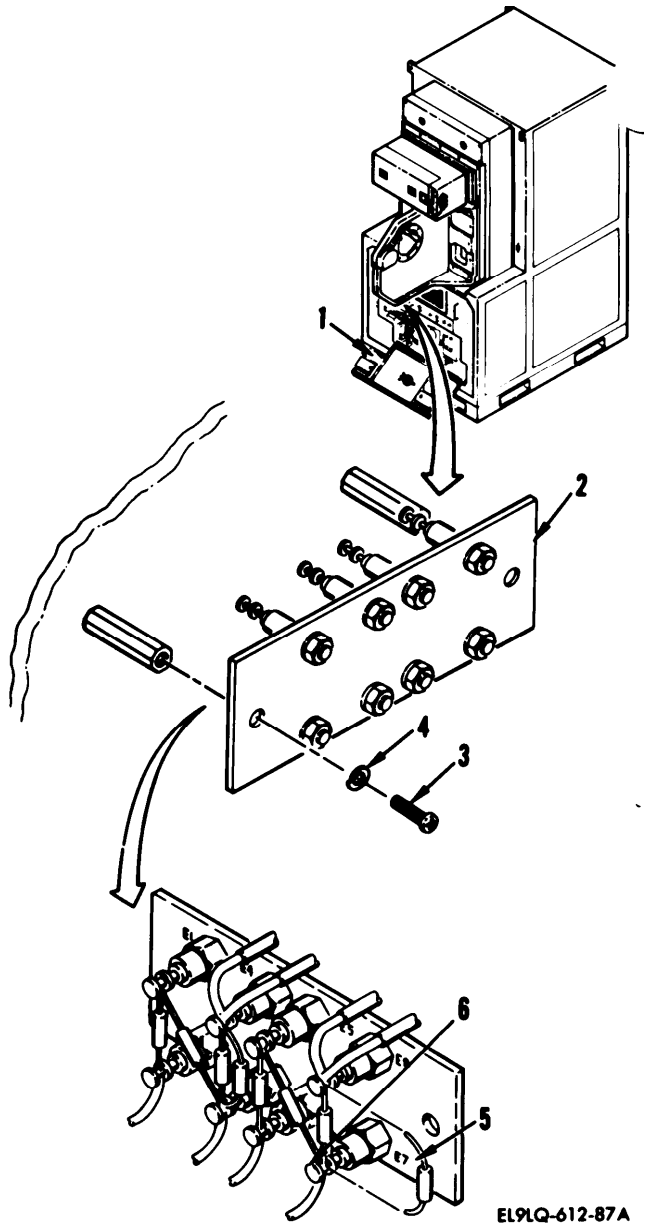
d. Unsolder resistor leads (5) from terminal posts (6). Remove resistor.

INSTALLATION

e. Install resistor in reverse order of removal.

Locator Chart - TB 3

Resistor	From	To
R1	E1	E2
R2	E1	E3
R3	E3	E4
R4	E3	E4
R5	E5	E6
R6	E5	E7
R7	E7	E8
R8	E7	E8



END OF TASK

5-13. OPTICAL SIGNAL ANALYZER (OSA) ASSEMBLY 2A1A1 REPAIR 5-13

This task covers OSA disassembly and OSA reassembly

INTIAL SETUP

Tools/Special Tools

Chassis lift

Materials (appendix C)

Lumber 4 x 4 x 36 inch (2) (Item 32)
Lens paper (Item 36)
Lacing tape (Item 44)
Masking tape (Item 45)

Personnel Required

396 ATE Repairer
Three assistants

Equipment Condition

OSA removed (para 5-11)

FOLLOWUP

OSA installation (para 5-11)

Applicable Configuration

E/O Bench Serial No. 00001 thru 00105

DISASSEMBLY

1. Push chassis lift (1) with OSA (2) to open area of floor. Lock wheels on chassis lift. There should be enough area on floor to lay OSA on its back.

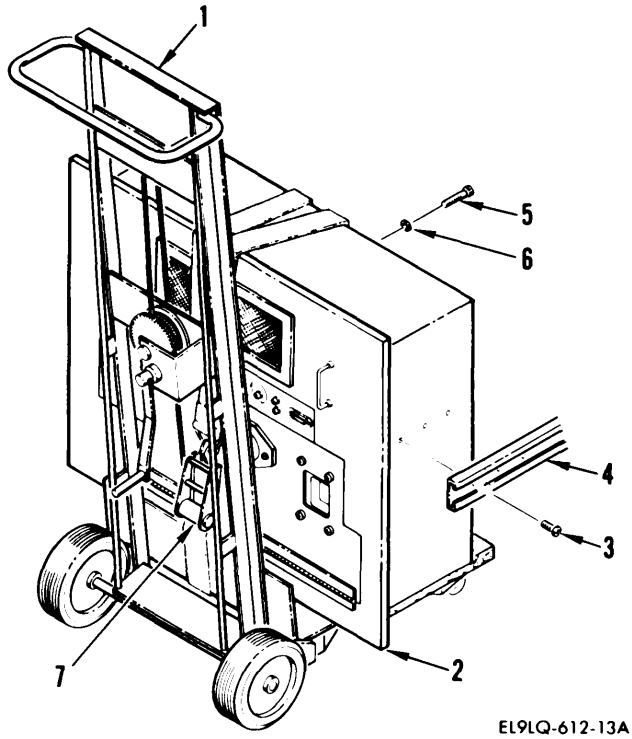
2. Remove 12 screws (3) and two slide assemblies (4) from OSA.

CAUTION

Four corner screws must be left in place or OSA will be damaged when lowered onto its back.

3. Remove 16 screws (5) and washers (6) from rear of OSA. Leave four corner screws in place.

4. Remove ratchet strap (7).



EL9LQ-612-13A

WARNING

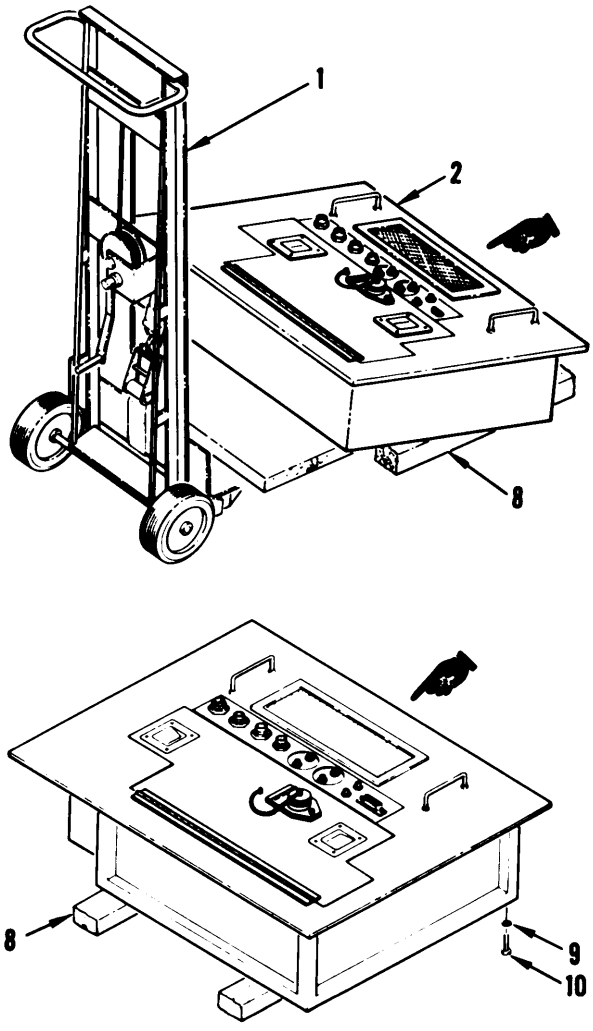
HEAVY OBJECT

EXCESSIVE STRAIN CAN CAUSE SERIOUS INJURY.
DON'T: ATTEMPT TO LIFT OR CARRY HEAVY 0BJECTS ALONE.
DO: GET HELP FOR LIFTING OR CARRYING HEAVY OBJECTS.
IF YOU EXPERIENCE A SUDDEN PAIN WHILE LIFTING OR DISCOMFORT AFTER LIFTING, GET MEDICAL HELP AT ONCE.

5. Using three persons, carefully tilt OSA (2) from-chassis lift (1) onto floor. Position lumber (8) to support OSA (2).

6. Using two persons to hold OSA, unlock wheels on chassis lift and remove from under OSA. Lower OSA onto lumber (8).

7. Remove four remaining screws (10) and washers (9) from rear corners of OSA.



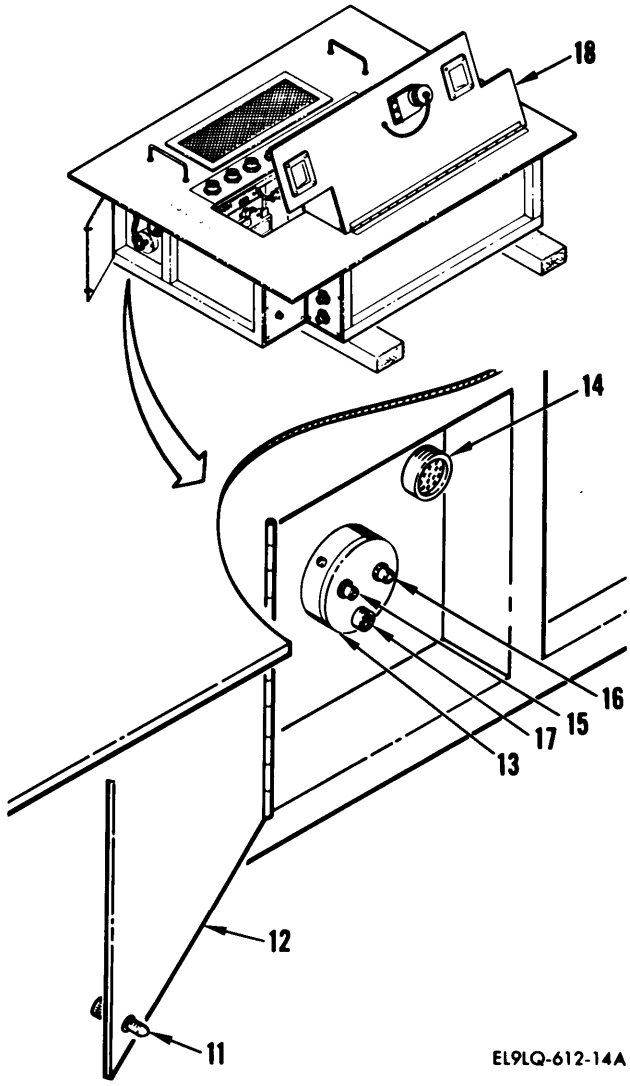
EL9LQ-612-98B

8. Loosen two captive screws (11) and open photomultiplier tube access door (12).

9. On photomultiplier assembly A7 (13), disconnect the following connectors:

   W9P1 from A7J3 (14)
   W11P2 from A7J1 (15)
   W16P2 from A7J2 (16)
   W11P4 from A7J4 (17)

10. Open access door (18).



11. Remove two screws (19) securing relay assembly (20) to OSA mounting plate assembly (21).

12. Cut lacing tape and disconnect connector W11J1 from connector A6P1 (22).

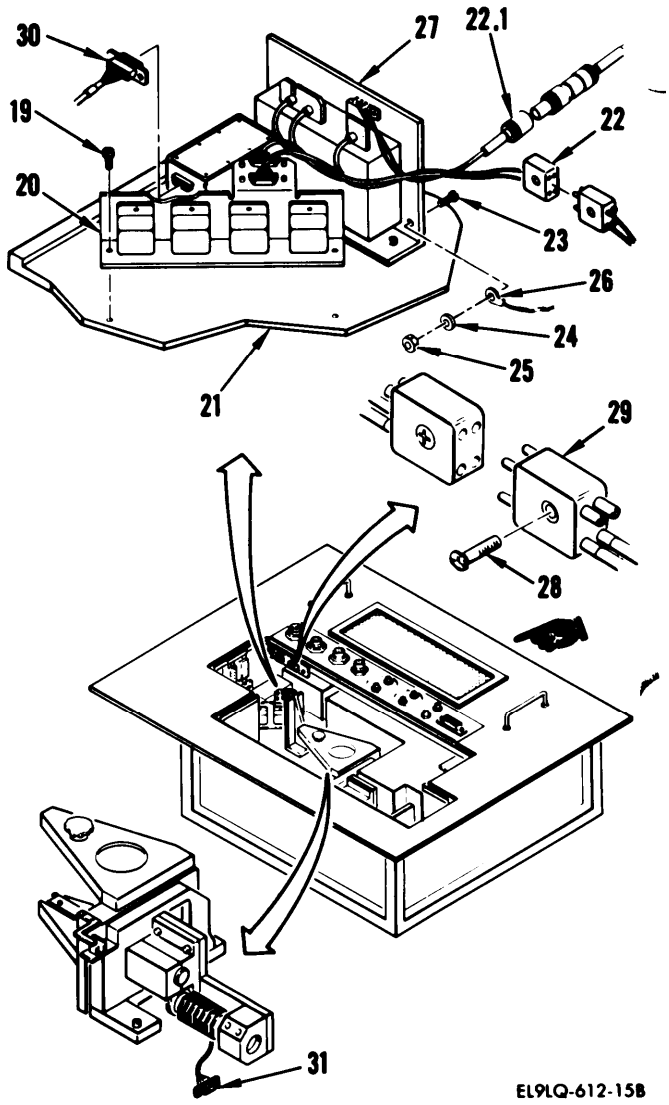
12.1 Disconnect connector W16P1 from connector A6P2 (22.1).

13. Remove screw (23), washer (24), nut (25), and ground lead (26) from power Supply (27).

14. Remove screw (28) and disconnect connector W11P5 from connector A5J1 (29).

15. Disconnect connector W11P1 from connector A8J1 (30).

16. Disconnect connector W11J4 from connector A4P1 (31).



CAUTION

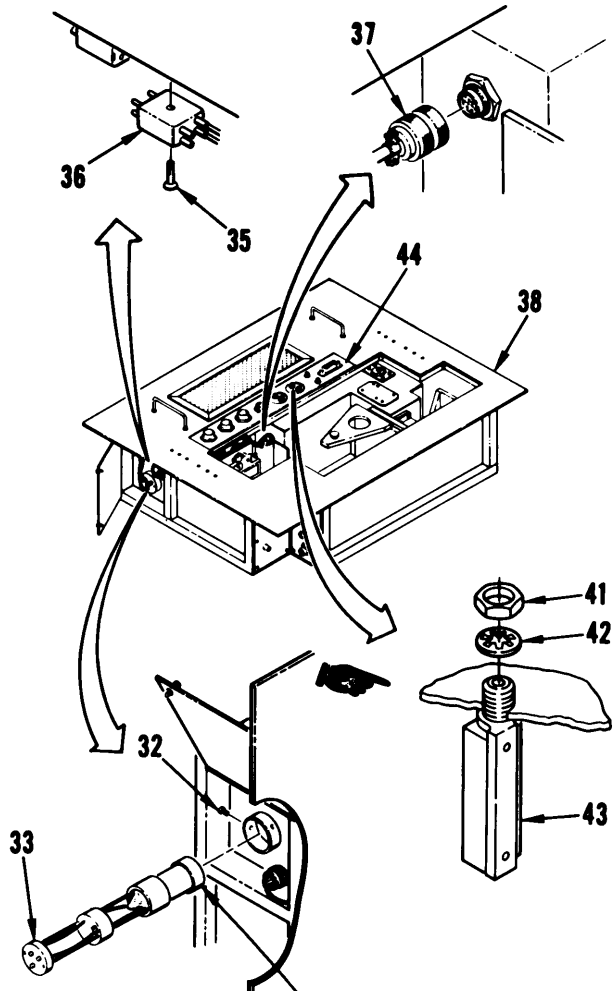
The photomultiplier tube will be permanently damaged if exposed to direct rays of light.

17. Remove three screws (32) and carefully remove tube carrier (33) from photomultiplier tube housing. Cover optical opening (34) with a multifolded lens tissue and secure with masking tape.

18. Remove screw (35) and disconnect connector A6P3 from connector A11J1 (36).

19. Disconnect connector W11P3 from connector W14J1 (37).

19.1 Remove locknut (41) and washer (42) securing A6R4 (43) to OSA housing assembly (38) front panel (44).



WARNING

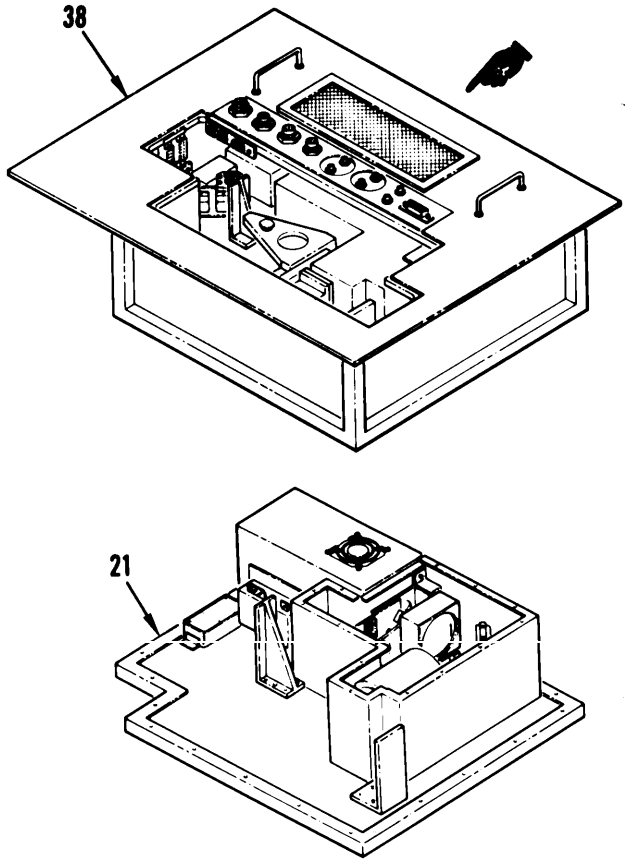
HEAVY OBJECT

- EXCESSIVE STRAIN CAN CAUSE SERIOUS INJURY.
- DON'T: ATTEMPT TO LIFT OR CARRY HEAVY OBJECTS ALONE.
- DO: GET HELP FOR LIFTING OR CARRYING HEAVY OBJECTS.
- IF YOU EXPERIENCE A SUDDEN PAIN WHILE LIFTING OR DISCOMFORT AFTER LIFTING, GET MEDICAL HELP AT ONCE.

CAUTION

Be sure cables are not caught when removing housing assembly.

20. Carefully lift OSA housing assembly (38) off OSA mounting plate assembly (21).



EL9LQ-612-16A

REASSEMBLY

WARNING

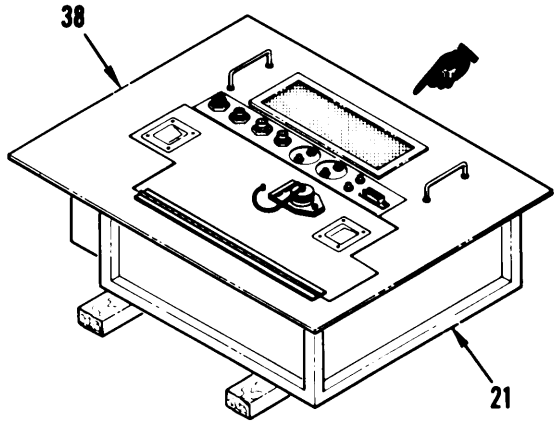
HEAVY OBJECT

- EXCESSIVE STRAIN CAN CAUSE SERIOUS INJURY.
- DON'T: ATTEMPT TO LIFT OR CARRY HEAVY OBJECTS ALONE.
- DO: GET HELP FOR LIFTING OR CARRYING HEAVY OBJECTS.
- IF YOU EXPERIENCE A SUDDEN PAIN WHILE LIFTING OR DISCOMFORT AFTER LIFTING, GET MEDICAL HELP AT ONCE.

CAUTION

Be sure cables and wire leads are tied back to prevent damage. Be sure cables that attach to PMT housing are in place.

21. Position OSA housing assembly (38) onto OSA mounting plate assembly (21).



EL9LQ-612-86B

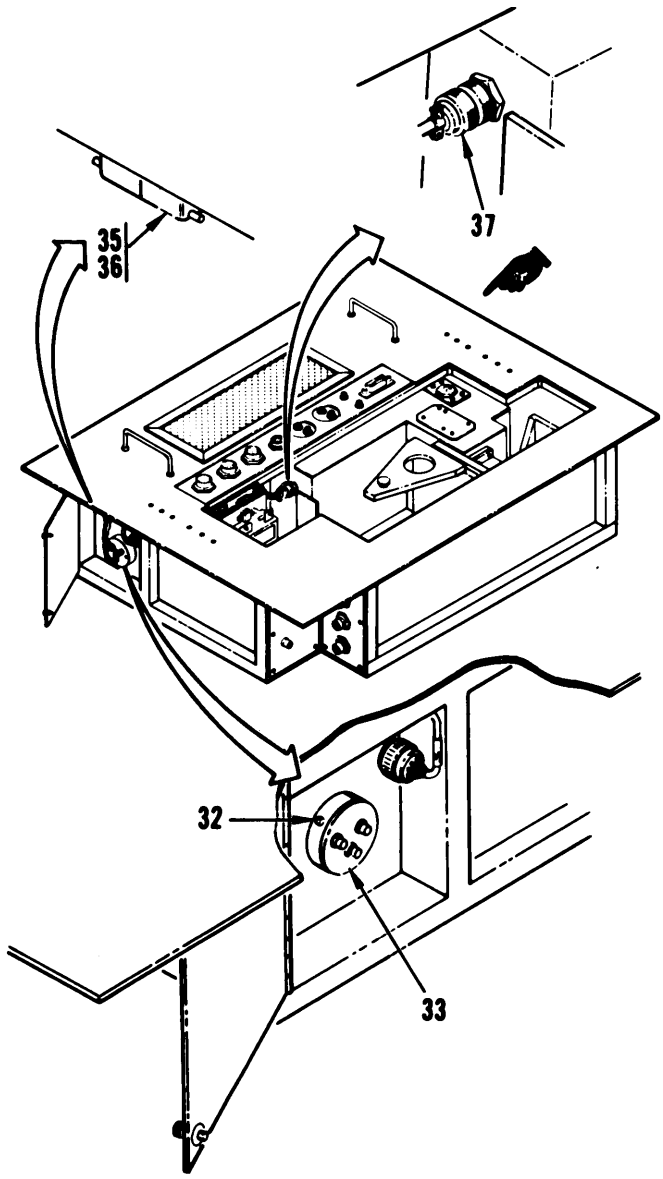
22. Connect connector W11P3 to connector W14J1 (37).

    Connect connector A6P3 to connector A1lJ1 (36) and install screw (35).

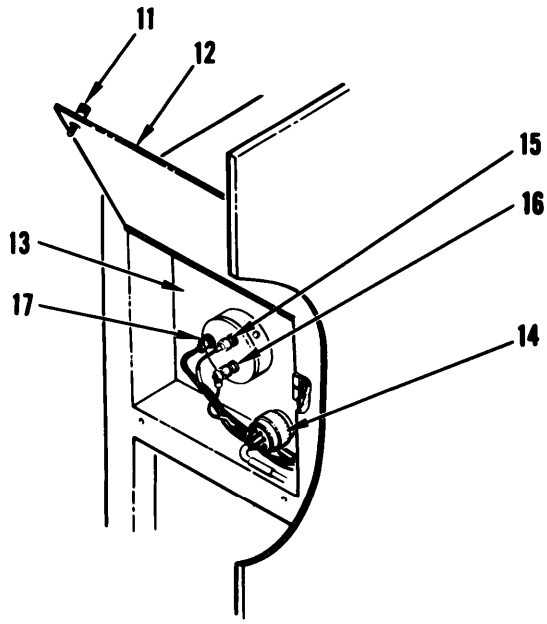
CAUTION

23. The photomultiplier tube will be permanently damaged if exposed to direct rays of light.

24. Remove lens tissue from optical opening, carefully install tube carrier (33) into photomultiplier tube housing, and install three screws (32).



EL9LQ-612-85A



EL9LQ-612-18

25. On photomultiplier assembly A7 (13), connect the following connectors:

    W11P4 toA7J4 (17)
    W16P2 to A7J2 (16)
    W11P2 toA7Jl (15)
    W9P1 to A7J3 (14)

26. Close photomltiplier access door (12) and tighten two captive screws (11).

27. Connect the following connectors:

    W11J4 to A4P1 (31)
    W11P1 to A8J1 (30)

28. Connect connector W11P5 to connector A5J1 (29) and install screw (28).

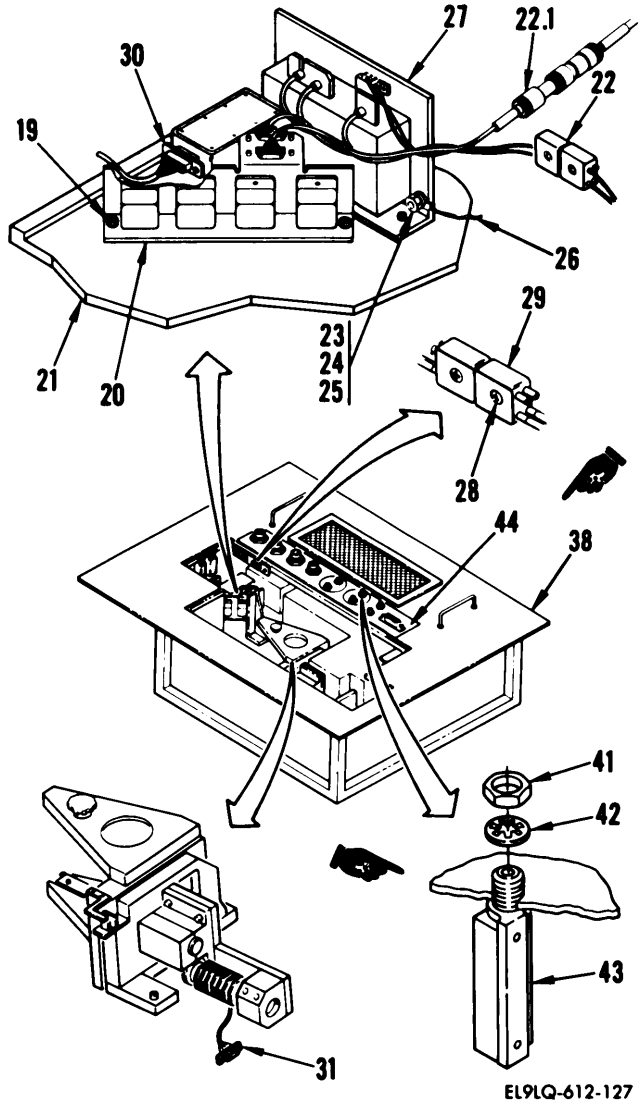
29. Attach ground lead (26) to power supply (27) with screw (23), washer (24), and nut (25).

29.1 Secure A6R4 (43) to OSA housing assembly (38) front panel (44) with locknut (41) and washer (42).

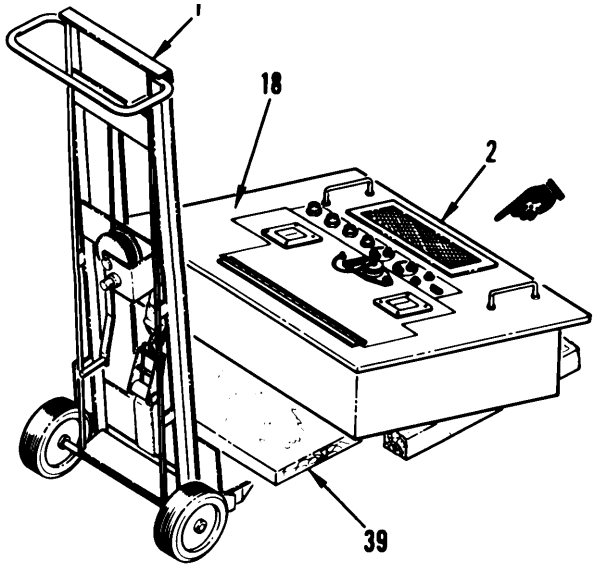
30. Connect connector W11J1 to connector A6P1 (22). Secure with lacing tape.

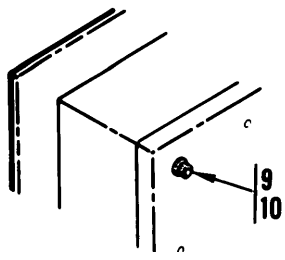
30.1 Connect connector W16P1 to connector A6P2 (22.1).

31. Position relay assembly (20) onto mounting plate (21) and install two screws (19).



EL9LQ-612-127





EL9LQ-612-19B

32. Close access door (18).

33. Install four corner screws (9) and washers (10).

34. Using two persons, lift bottom end of OSA (2), and roll chassis lift (1) under OSA. Lock wheels on chassis lift.

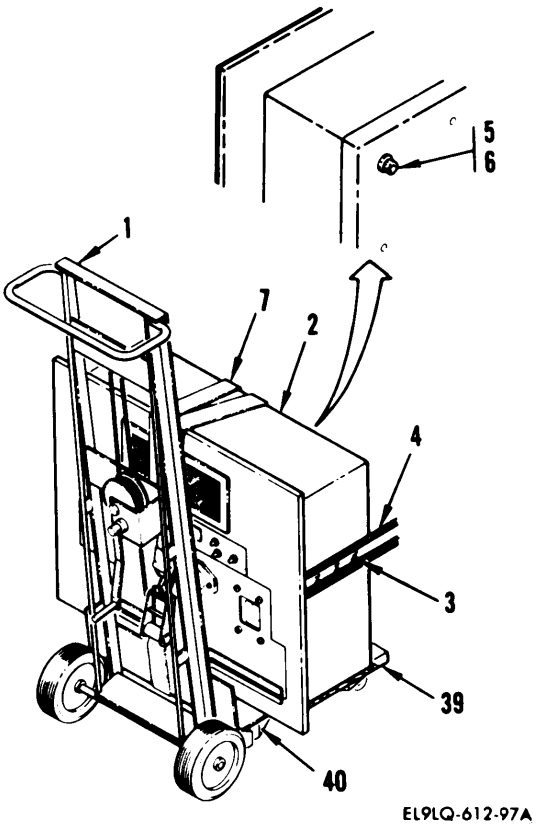
35. Using three persons, lift OSA onto chassis lift to vertical position. Position lumber support (39) on chassis lift.

36. Install ratchet strap (7). Be sure ratchet strap is wrapped around OSA and base plate (40) of chassis lift only.

37. Install remaining 16 screws (5) and washers (6) washers (6) into rear of OSA.

38. Install twos lide assemblies(4)with 12 screws (3).

END OF TASK



EL9LQ-612-97A

5-13.1 HOD MOUNTING 8RACKET ASSEMBLY 2A1A1A4 REPAIR

This task covers replacement of:

Para	Item	Para	Item
1.	Stepper motor assembly M1	2.	Target wheel sensor assembly A

INITIAL SETUP

Tools

Filtered N2 gas gun
Industrial goggles
Rubber apron

Materials (appendix C)

Isopropyl alcohol (Item 4)
Artists brush (Item 8)
Cheesecloth pad (Item 11)
Rubber gloves (Item 26)
Insulation tubing (Item 28.1)
Zinc chromate primer (Item 39)
Solder (Item 43)
Lacing and tying tape (Item 44)
Trichlorotrifluoroethane (Item 47)

Personnel Required

396 ATE Repairer

Equipment Condition

Positioned on workbench

Applicable Configuration

E/O Bench Serial No. 00001 thru 00105

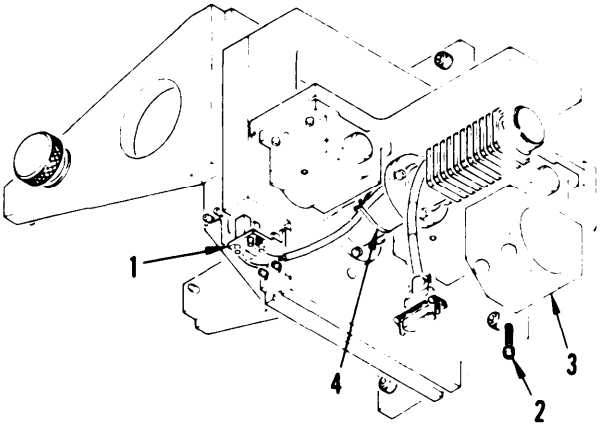
1. STEPPER MOTOR ASSEMVLY M1 REPLACEMENT

REMOVAL

a. Remove three leads from target wheel sensor assembly (1).

b. Remove four screws (2) and motor guard (3).

c. Cut lacing tape securing cable harness to HOD mounting bracket assembly (4).



EL9LQ-612-119

d. Remove four screws (1), nuts (2), and defective stepper motor assembly (3).

e. Loosen two screws (4) and remove shaft coupling (5) and clamp (6).

f. Remove two screws (7) and motor adapting plate (8). Retain screws.

g. Using cheesecloth pad and trichloroethane, clean motor adapting plate (8), bearing housing (9), and attaching hardware.

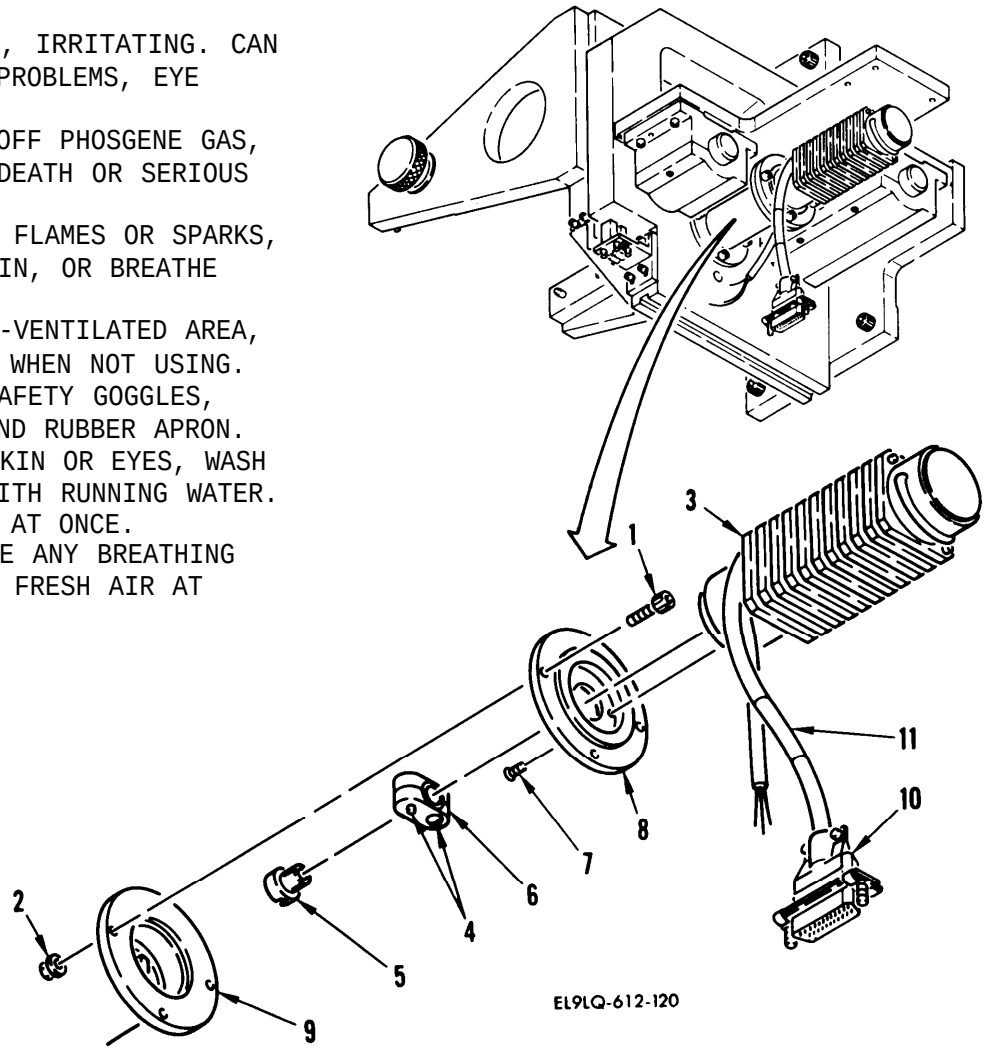
h. Remove all leads from connector P1 (10).

i. Remove and retain cable marker (11) from defective stepper motor assembly.

WARNING

TRICHLOROETHANE

- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
- AT 325°F, GIVES OFF PHOSGENE GAS, WHICH CAN CAUSE DEATH OR SERIOUS INJURY.
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET ON SKIN, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES, RUBBER GLOVES, AND RUBBER APRON.
- IF IT CONTACTS SKIN OR EYES, WASH AFFECTED AREAS WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.



INSTALLATION

j. Obtain three 3-inch and three 12-inch wire leads. Strip ends of all leads.

k. Cut off connector supplied with replacement stepper motor assembly.

l. Cut back insulation sleeving and strip ends of all leads from stepper motor assembly except the encoder green lead.

m. Refer to the wiring diagram and splice a 3-inch lead to CTP1, a 3-inch and a 12-inch lead to CTP2, and a 3-inch and a 12-inch lead to CTP3.

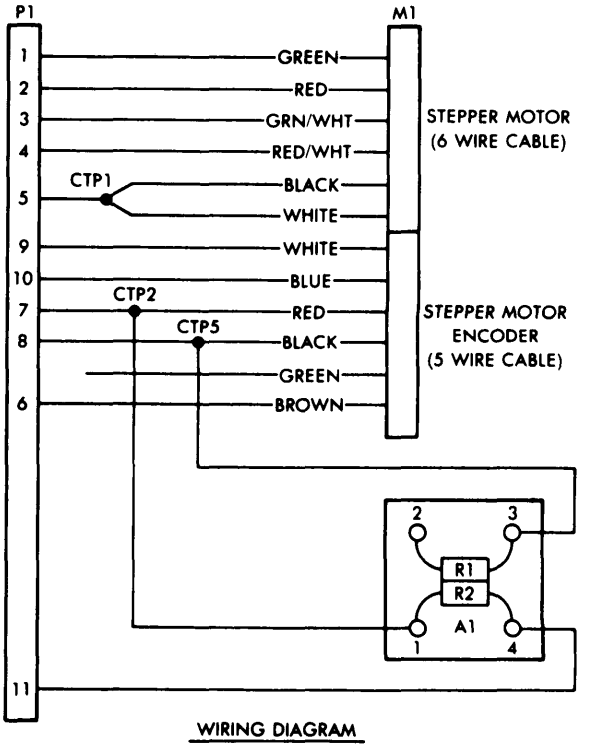
n. Tin one end of each 12-inch lead.

o. Insulate unused (green) lead by shrinking a l-inch piece of insulation tubing over free end.

p. Fold back green lead and slide cable marker over leads of stepper motor assembly.

q. Crimp replacement contact on 10 leads from stepper motor assembly and untinned lead of remaining 12-inch lead.

r. Install 11 contacts in connector P1 according to the wiring diagram.



WIRING DIAGRAM

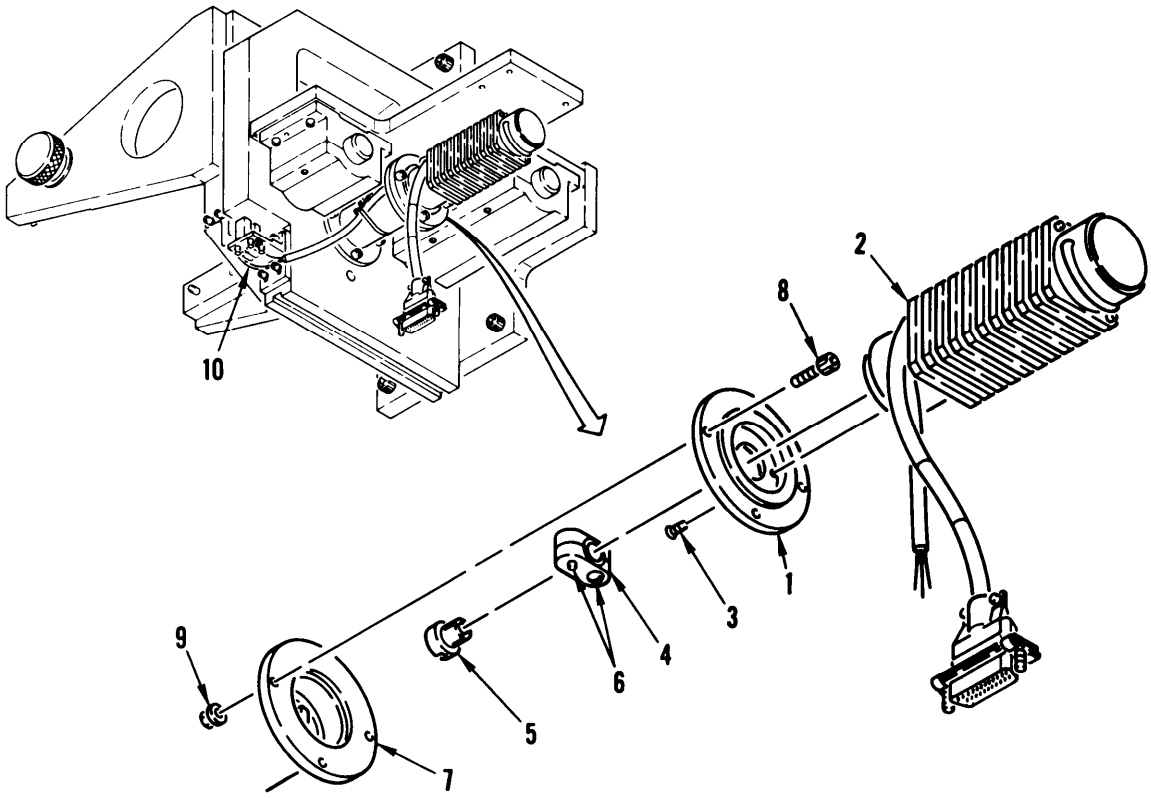
EL9LQ-612-121

s. Position motor adapting plate (1) on stepper motor assembly (2) and install two screws (3).

t. Position clamp (4) and shaft coupling (5) on stepper motor assembly shaft. Tighten two screws (6) in clamp (4).

u. Position stepper motor assembly (2) on bearing housing (7) making sure shaft coupling (5) is engaged with drive shaft. Secure with four screws (8) and nuts (9).

v. Apply coating of zinc chromate primer to four screws (8) and nuts (9).



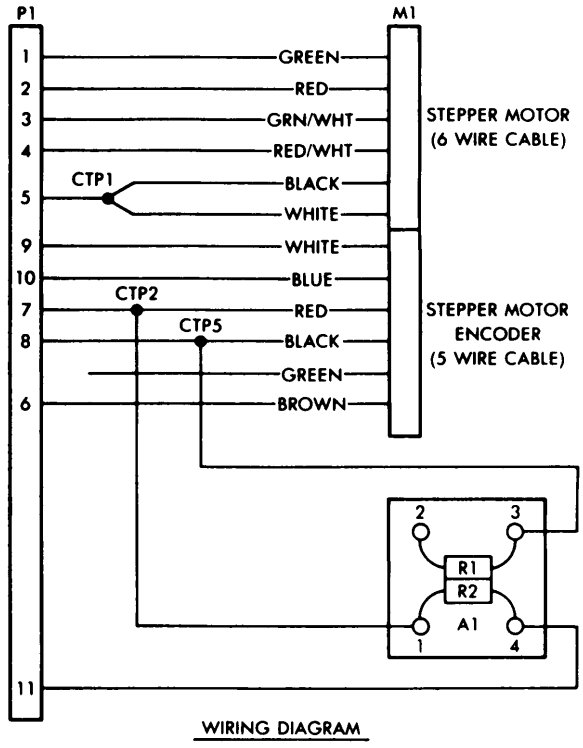
EL9LQ-612-122

w. Solder three leads to target wheel sensor assembly (10) as identified on wiring diagram.

x. Using lacing tape, spot tie leads as required to form neat cable harness.

y. Apply zinc chromate primer to threads of four screws (12).

z. Install motor guard (11) and four screws (12).



WIRING DIAGRAM

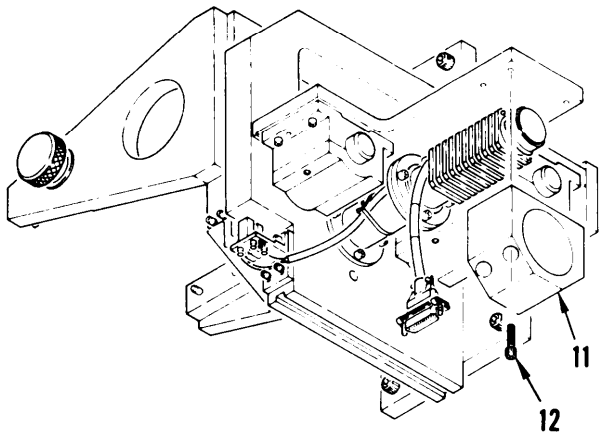
EL9LQ-612-121

ISOPROPYL ALCOHOL

- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET IN EYES, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS 'WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES, RUBBER GLOVES, AND RUBBER APRON.
- IF IT CONTACTS EYES, WASH EYES WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

aa. Clean contacts of connector P1 and target wheel sensor assembly using isopropyl alcohol and blow dry thoroughly.

END OF TASK



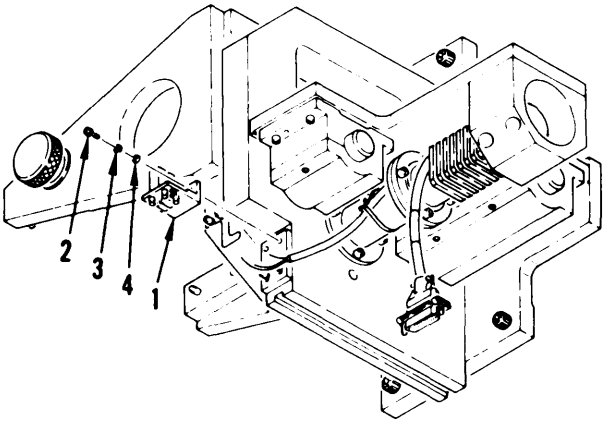
EL9LQ-612-124

2. TARGET WHEEL SENSOR ASSEMBLY A1
REPLACEMENT

REMOVAL

a. Tag and remove three wires from defective target wheel sensor assembly (1).

b. Remove two screws (2), lock-washers (3), flat washers (4), and target sensor wheel assembly (1).



EL9LQ-612-123

INSTALLATION

c. Install in reverse order of removal.

END OF TASK

5-14. OPTICAL SIGNAL ANALYZER FILTER AND DETECTOR ASSEMBLY 2A1A1A14 REPAIR 5-14

This task covers replacement of:

Para	Item
1.	Relay K1
2.	Resistor R5
3.	Switch S1 or S2
4.	Optical switch A1 or A3

INITIAL SETUP

Tools

Goggles
Heat gun

Materials (appendix C)

Rubber gloves (Item 26)
Lens paper (Item 36)
Nose-mouth shield (Item 42)
Solder (Item 43)
Masking tape (Item 45)

Personnel Required

39B ATE Repairer

Equipment Condition

OSA disassembled (para 5-13)

FOLLOWUP

OSA reassembly (para 5-13)

Applicable Configuration

E/O Bench Serial No. 00001 thru 00105

1. RELAY K1 REPLACEMENT

REMOVAL

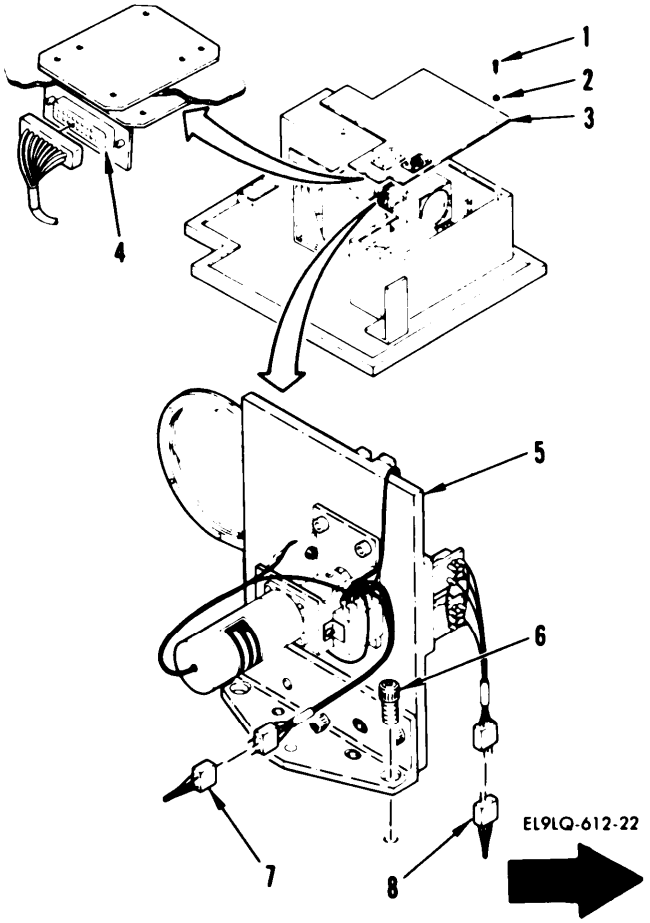
a. Remove 16 screws (1) and washers (2), position baffle cover (3), disconnect W14P1 from A3J1 (4) and remove baffle cover to allow removal of filter and detector assembly (5).

CAUTION

Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface.

b. Cover all exposed optics in filter and detector assembly with lens paper and masking tape. If any optical surfaces need cleaning refer to paragraph 2-22.

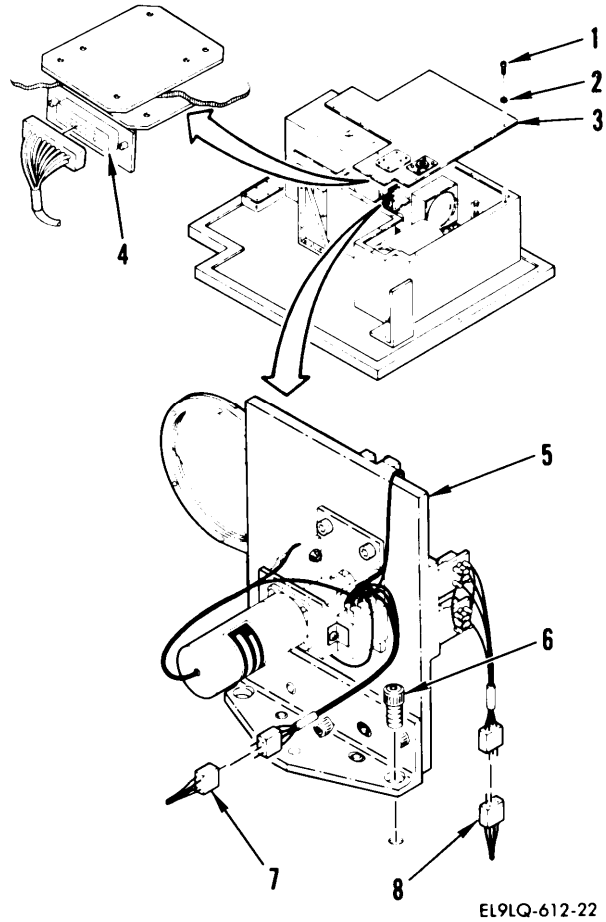
c. Remove three screws (6).



5-14. OPTICAL SIGNAL ANALYZER FILTER AND DETECTOR ASSEMBLY 2A1A1A14 REPAIR (cont) 5-14

d. Cut lacing tape and disconnect the following connectors:

A14 P1 from W14 J3 (7)
A14 P2 from W14 J2 (8)



EL9LQ-612-22

e. Remove filter and detector assembly (4) and place on workbench.

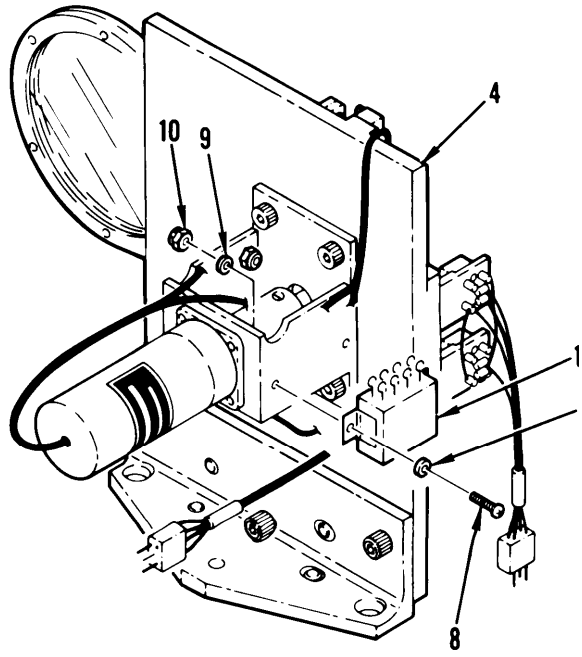
f. Remove two screws (8), four washers (9), two nuts (10), and relay K1 (11).

g. Tag and remove all leads from J-hooks.

INSTALLATION

h. Install in reverse order of removal.

END OF TASK



EL9LQ-612-23

2. RESISTOR R5 REPLACEMENT

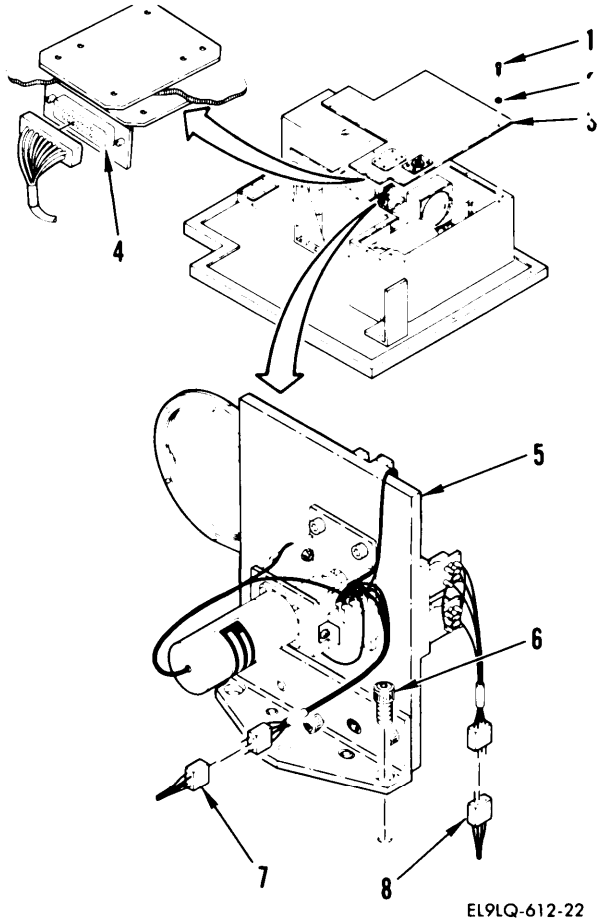
REMOVAL

a. Remove 16 screws (1) and washers (2) and position baffle cover (3), disconnect W14P1 from A3J1 (4) and remove baffle cover to allow removal of filter and detector assembly (5).

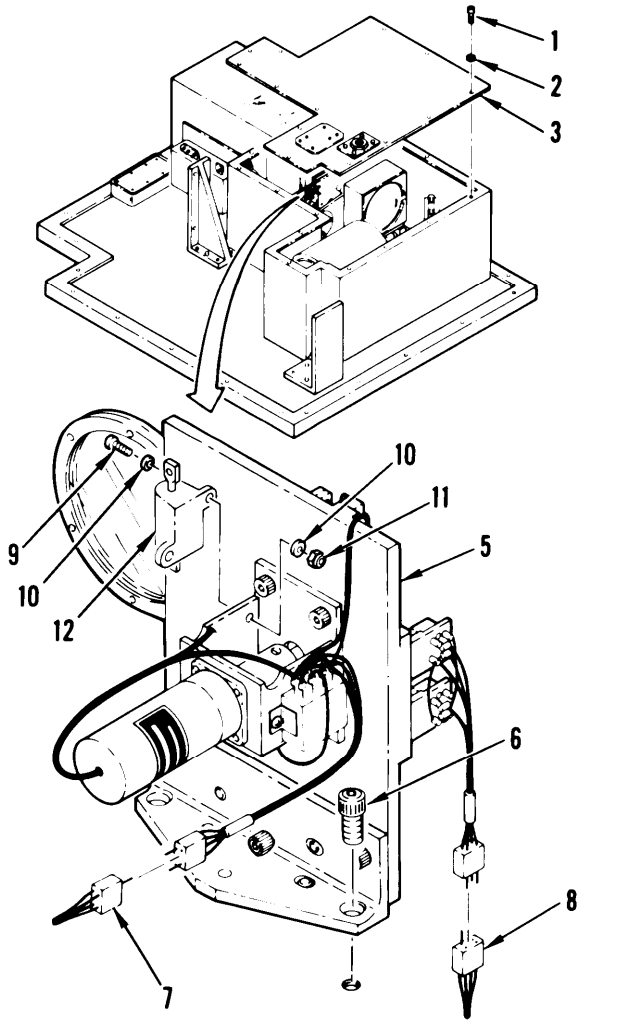
b. Remove three screws (6).

c. Cut lacing tape and disconnect the following connectors:

A14P1 from W14J3 (7)
A14P2 from W14J2 (8)



EL9LQ-612-22



EL9LQ-612-24

d. Remove filter and detector assembly (5) and place on workbench.

e. Remove two screws (9), four washers (10), and two nuts (11).

f. Tag and remove leads from defective resistor R5 (12).

INSTALLATION

g. Install in reverse order of removal.

END OF TASK

3. SWITCH S1 OR S2 REPLACEMENT

NOTE

This procedure is used to replace switch S1 (1) or S2 (2).

REMOVAL

a. Remove 16 screws (3), washers (4), position baffle cover (5), disconnect W14P1 from A3J1 on baffle cover and remove baffle cover to allow removal of filter and detector assembly (7).

CAUTION

Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface.

b. Cover all exposed optics in filter and detector assembly with lens paper and masking tape. If any optical “surfaces need cleaning refer to paragraph 2-22.

c. Remove three screws (8).

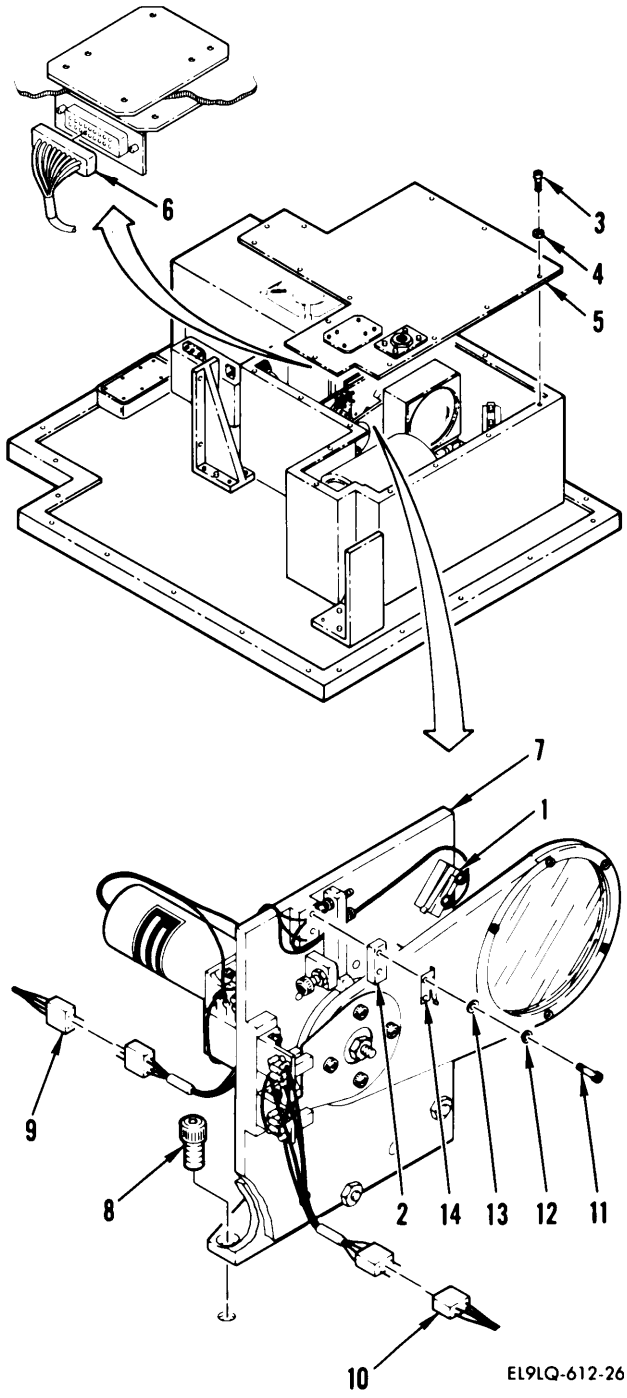
d. Cut lacing tape and disconnect the following connectors:

A14P1 from W14J3 (9)
A14P2 from W14J2 (10)

e. Remove filter and detector assembly (7) and place on workbench.

f. Remove two screws (11), lockwashers (12), washers (13), lever (14), and switch (2).

g. Tag and remove leads from switch.



INSTALLATION

h. Install in reverse order of removal.

END OF TASK

4. OPTICAL SWITCH A1 OR A3 REPLACEMENT

NOTE

This procedure is used to replace optical switch A1 (1) or A3 (2).

REMOVAL

a. Refer to 3 above and do steps a and b.

b. Remove three screws (3).

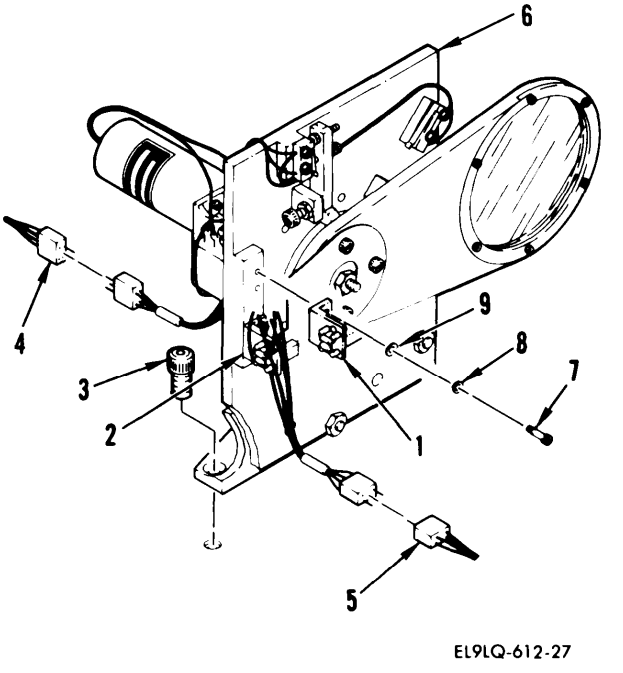
c. Cut lacing tape and disconnect the following connectors:

A14P1 from W14J3 (4)
A14P2 from W14J2 (5)

d. Remove filter and detector assembly (6) and place on workbench.

e. Remove two screws (7), lockwashers (8), washers (9), and optical switch (l).

f. Tag and remove leads from optical switch.



EL9LQ-612-27

INSTALLATION

g. Install in reverse order of removal.

END OF TASK

5-15, OPTICAL SIGNAL ANALYZER PHOTOMULTIPLIER AND BRACKET ASSEMBLY 2A1A1A7 REPAIR

This task covers replacement of:

Para	Item
1.	Shutter
2.	Optical switch A1 or A2
3.	Temperature sensor Q1
4.	Resistors R1 through R4

INITIAL SETUP

Tools

Goggles
Heat gun

Materials (appendix C)

Epoxy adhesive (Item 2)
Silicone rubber (Item 3)
Applicator (Item 6)
Cheesecloth pad (Item 11)
Rubber gloves (Item 26)
Heat shrinkable tubing (Item 30)
Lens paper (Item 36)
Nose-mouth shield (Item 42)
Solder (Item 43)
Lacing tape (Item 44)
Masking tape (Item 45)
Trichlorotrifluoroethane (Item 47)

Personnel Required

39B ATE Repairer
One assistant

Equipment Condition

OSA disassembled (para 5-13)
(not required for para3)

FOLLOWUP

Reassemble OSA (para 5-13)
(not required for para 3)

Applicable Configuration

E/O Bench Serial No. 00001 thru 00105

1. SHUTTER REPLACEMENT

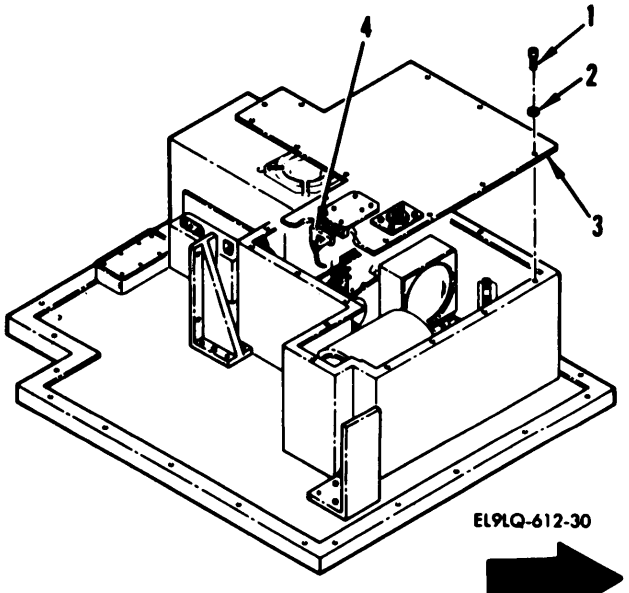
REMOVAL

a. Remove 16 screws (1) and washers (2), position baffle cover (3) and disconnect connector W14P1 from connector A3J1 (4).

CAUTION

Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surfaces in optical signal analyzer.

b. Cover exposed optics with lens paper and secure with masking tape.

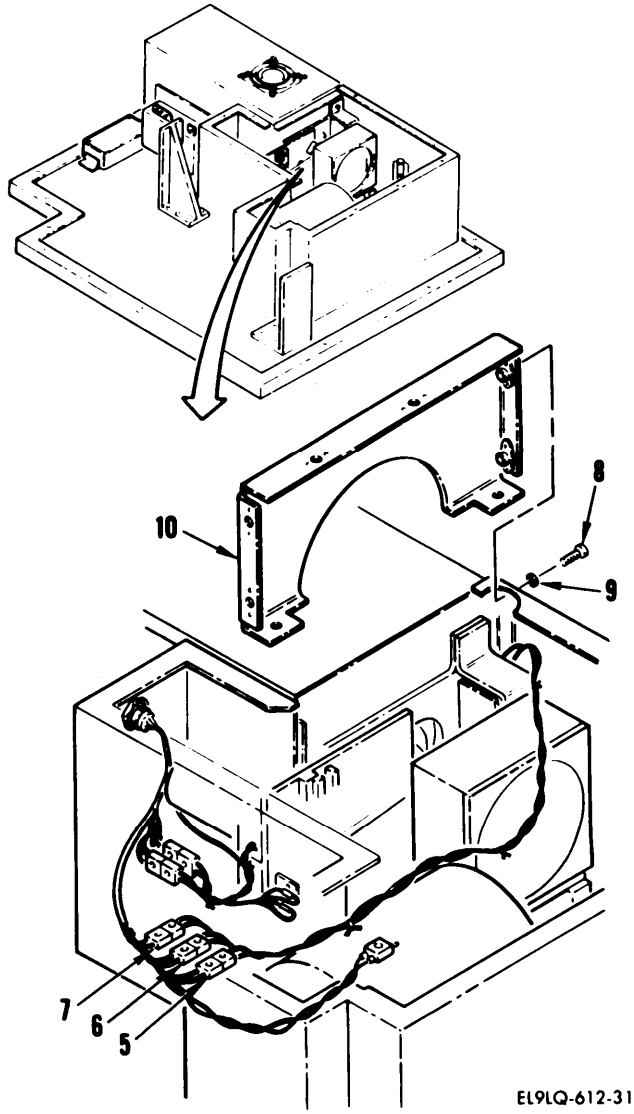


c. Cut lacing tape and disconnect the following connectors:

A1P3 from W14J6 (5)
A1P2 from W14J5 (6)
A1P1 from W14J4 (7)

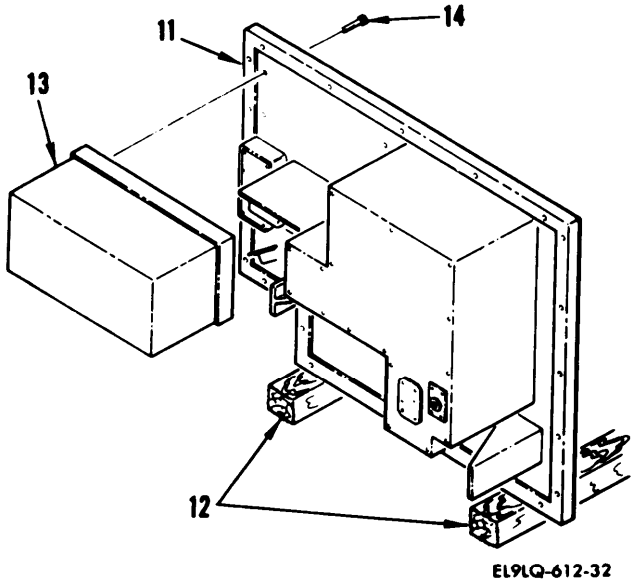
d. Remove six screws (8), washers (9), and shutter housing assembly (10).

e. Carefully tilt OSA mounting plate assembly (11) up on wood supports (12) to a vertical position.



EL9LQ-612-31

f. Using an assistant to support mounting plate assembly and photomultiplier and bracket assembly (13), remove 12 screws (14). Note eight short screws are located in recessed areas of plate assembly (13).



EL9LQ-612-32

NOTE

Photomultiplier and bracket assembly fit on two guide pins. Difficulty may be encountered while removing assembly.

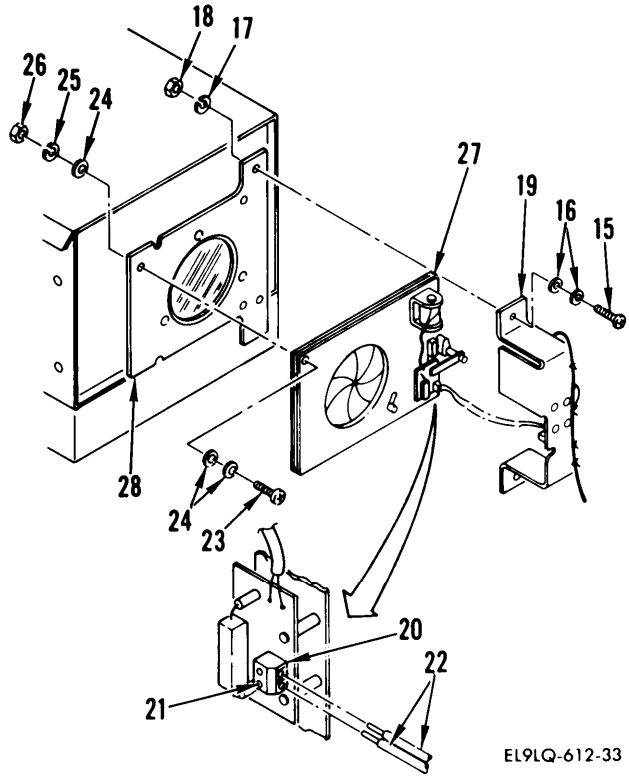
g. Remove photomultiplier and bracket assembly (13) and place on workbench.

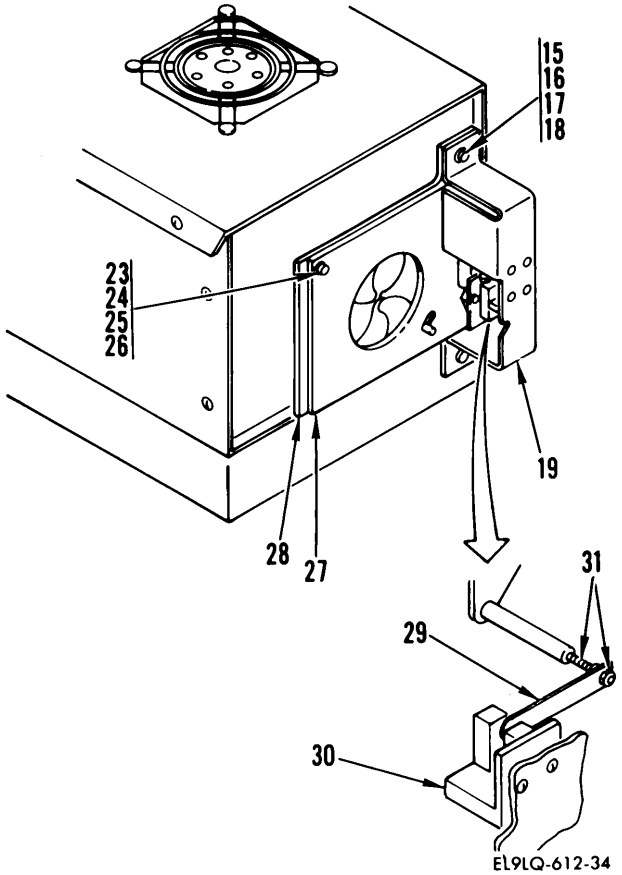
h. Remove two screws (15), four washers (16), two lockwashers (17), two nuts (18), and position cover (19) to access terminal block (20).

i. On terminal block (20), loosen two screws (21), and tag and remove two wires (22).

j. Remove two screws (23), six washers (24), two lockwashers (25), and nuts (26) securing shutter assembly (27) to adapter plate assembly (28).

k. Remove shutter assembly (27).





INSTALLATION

l. Position shutter assembly (27) on adapter plate assembly (28) and install two screws (23), six washers (24), two lockwashers (25), and nuts (26).

m. Attach two wires (22) to terminal block (20) and secure in place by tightening two screws (21).

n, Position cover (19) on adapter plate assembly (28) and install two screws (15), four washers (16), two lockwashers (17), and nuts (18).

o. Check clearance of actuator blade (29) in optical switch assembly (30). Blade should not touch switch. Adjust blade as needed with two nuts (31).

5-15. OPTICAL SIGNAL ANALYZER PHOTOMULTIPLIER AND BRACKET ASSEMBLY 2A1A1A7 REPAIR (cont)

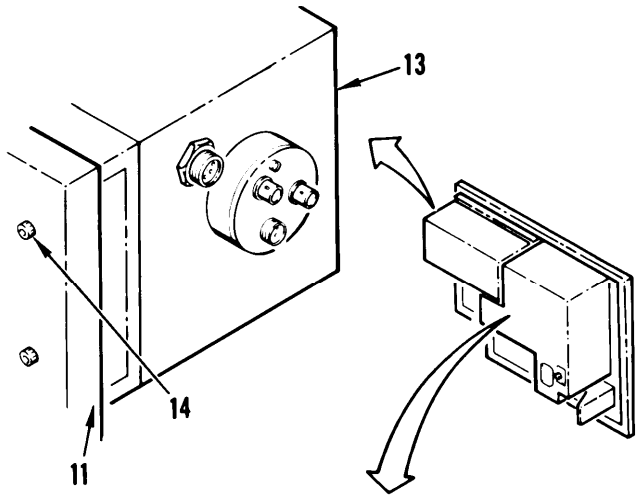
p. Position photomultiplier and bracket assembly (13) on mounting plate assembly (11) and install 12 screws (14). Note eight short screws are located in recessed area of plate assembly.

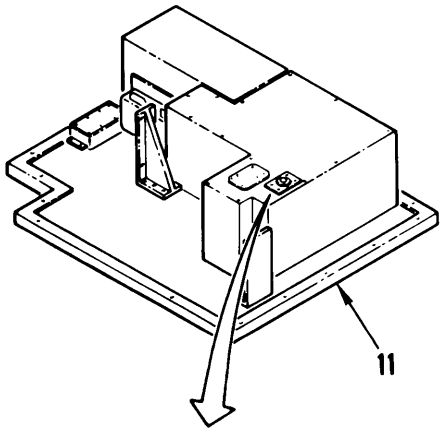
q. Connect the following connectors:

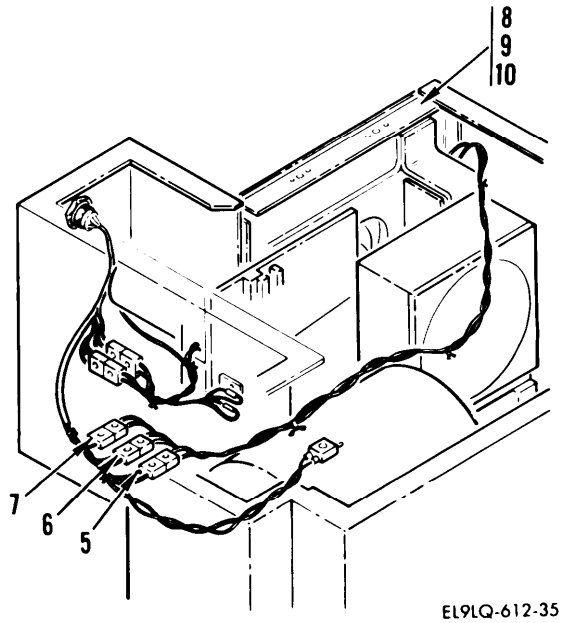
A1P1 to W14J4 (7)
A1P2 to W14J5 (6)
A1P3 to W14J6 (5)

r. Install shutter housing assembly (10) with six screws (8) and washers (9).

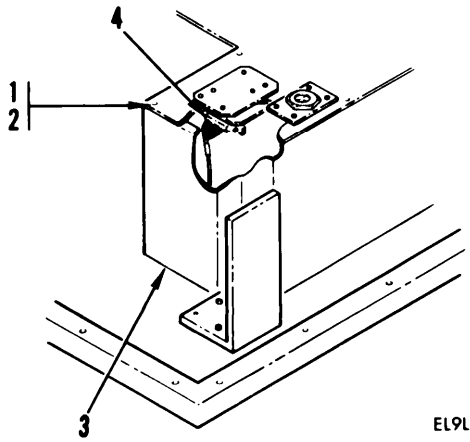
s. Seal edges of shutter housing assembly (10) with silicone rubber.







EL9LQ-612-35



EL9LQ-612-36

t. Remove lens paper covering from exposed optics.

u. Connect connector W14P1 to connector A3J1 (4).

v. Install baffle cover (3) with 16 screws (1) and washers (2).

END OF TASK

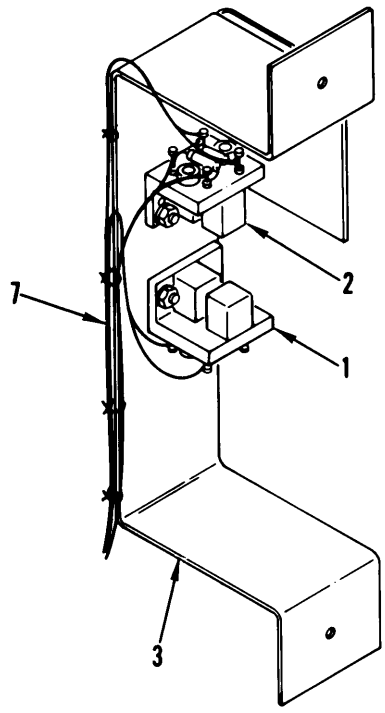
2. OPTICAL SWITCH Al OR A2 REPLACEMENT

NOTE

This procedure is used to replace optical switch Al (1) or A2 (2).

REMOVAL

a. Refer to 1 above and do steps a through i to remove photomultiplier and bracket assembly and shutter cover (3).

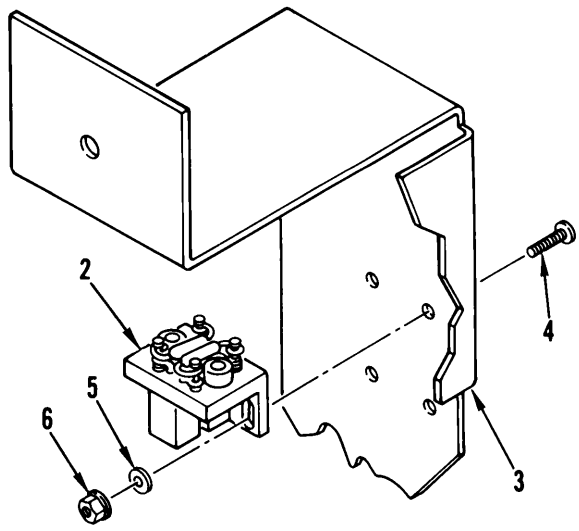


EL9LQ-612-37

b. Mark location of optical switch (1) or (2) by marking a pencil line around edge of optical switch on shutter cover (3).

c. On shutter cover (3), remove two screws (4), washers (5), nuts (6), and optical switch (1 or 2).

d. Tag and remove leads (7) from terminals on optical switch (1 or 2).



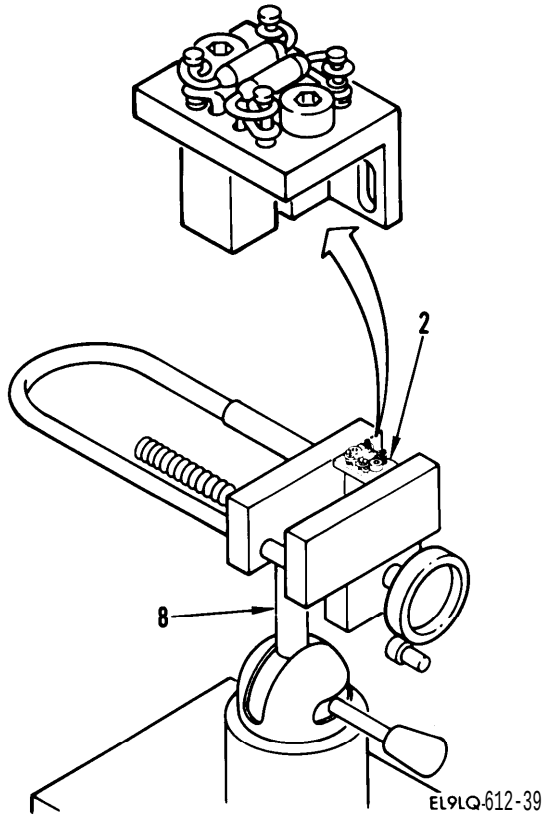
EL9LQ-612-38

INSTALLATION

e. Place replacement optical switch (1 or 2) in holding fixture (8).

f. Attach and solder resistor leads to terminals on optical switch as listed below.

OPTICAL SWITCH	TERMINALS	RESISTOR
A1	1 and 4	R1
A1	2 and 3	R4
A2	1 and 4	R2
A2	2 and 3	R3



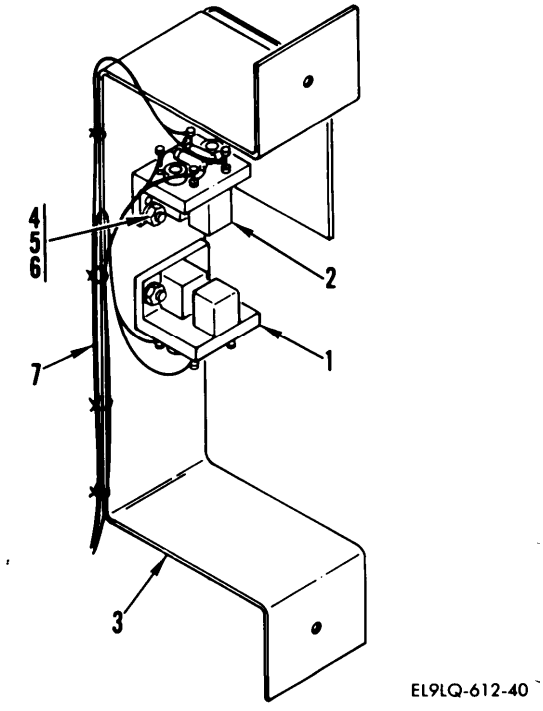
g. Remove optical switch (1 or 2) from holding fixture.

h. Solder tagged leads (7) to optical switch terminals.

i. Position optical switch (1 or 2) on previously marked shutter cover (3) and install two screws (4), washers (5), and nuts (6).

j. Refer to 1 above and do steps m through v to install shutter cover, photomultiplier, and bracket assembly.

END OF TASK



3. TEMPERATURE SENSOR Q1 REPLACEMENT

REMOVAL

a. Remove 12 screws (1) and pull out OSA (2) on slides.

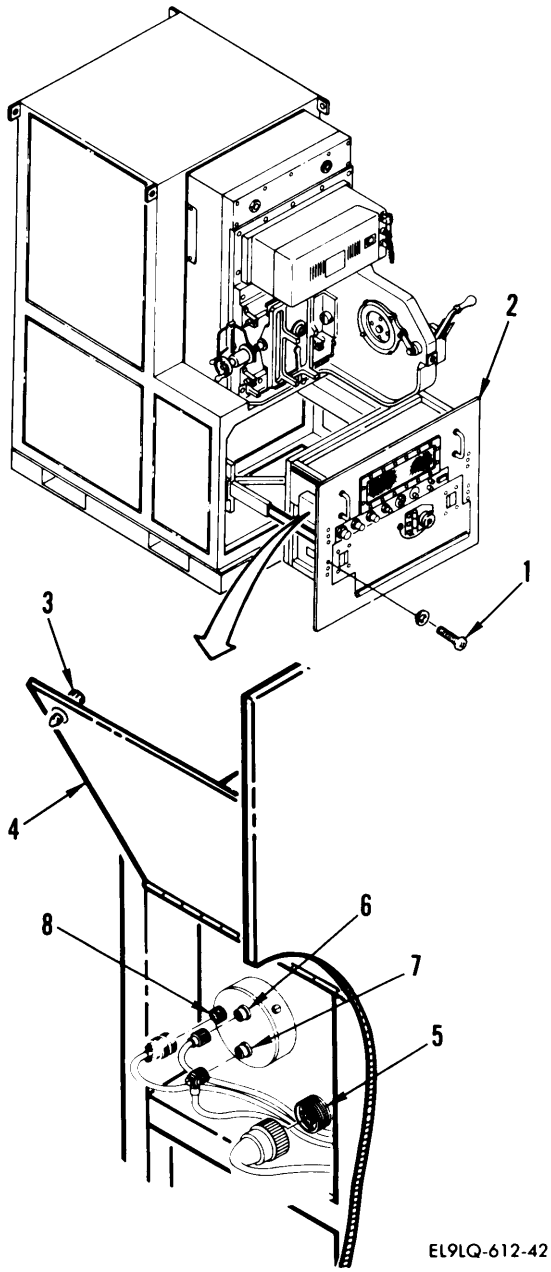
b. Loosen two captive screws (3) and open access door (4).

c. Disconnect the following connectors:

W9P1 from A7J3 (5)
W11P2 from A7J1 (6)
W16P2 from A7J2 (7)
W11P4 from A7J4 (8)

CAUTION

The photomultiplier tube may be damaged by excessive exposure to light. Do not handle photomultiplier tube with fingers.



CAUTION

The photomultiplier tube may be damaged by excessive exposure to light. Do not handle photomultiplier tube with fingers.

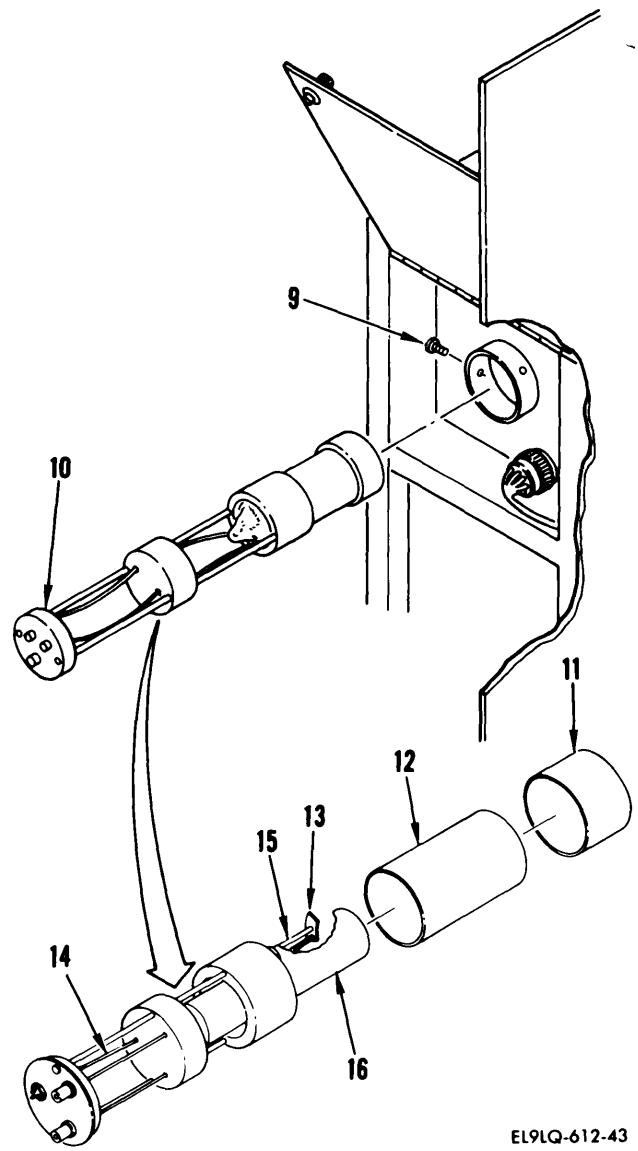
d. Remove three screws (9) and remove tube carrier (10).

e. Remove cap (11) and shield (12) from end of tube carrier (10).

f. Locate temperature sensor Q1 (13), tag and remove leads (14) from connector J4.

g. Remove temperature sensor Q1 (13) with leads and rod (15).

h. Cover photomultiplier tube (16) with multifolded lens paper and secure with masking tape.



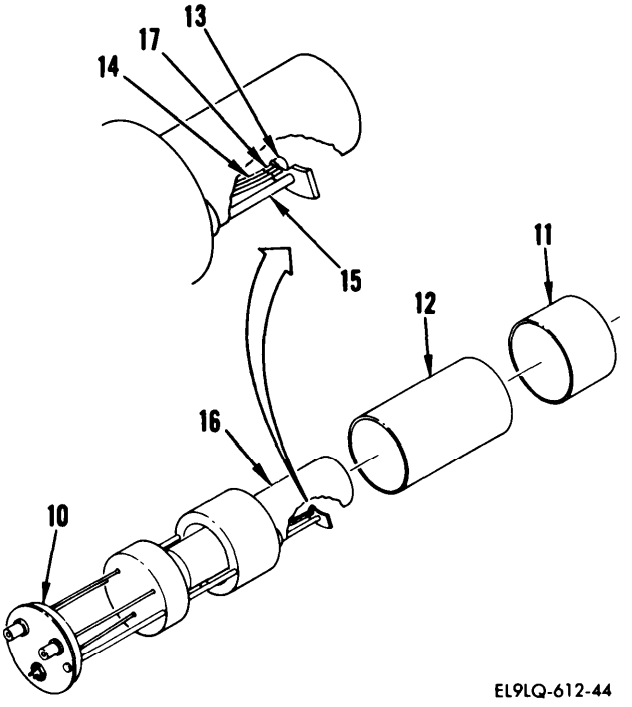
WARNING

TRICHLOROETHANE

- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
- AT 325°F, GIVES OFF PHOSGENE GAS, WHICH CAN CAUSE DEATH OR SERIOUS INJURY.
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET ON SKIN, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES, RUBBER GLOVES, AND RUBBER APRON.
- IF IT CONTACTS SKIN OR EYES, WASH AFFECTED AREAS WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

i. Soften epoxy securing temperature sensor (13) with trichloroethane, and carefully remove temperature sensor.

j. Scrape and clean mounting area with trichloroethane until no residue appears on cheesecloth pad.



EL9LQ-612-44

INSTALLATION

WARNING

EPOXY ADHESIVE

- TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
- DON'T: LET IT GET ON SKIN, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES, RUBBER GLOVES, AND RUBBER APRON.
- IF IT CONTACTS SKIN OR EYES, WASH AFFECTED AREAS WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

k. Mix 2 parts of epoxy resin part A to 1 part of epoxy resin part B.

l. Apply epoxy to mating surfaces of temperature sensor (13) and rod (15) and position temperature sensor in place. Wipe off excess epoxy.

m. Allow epoxy to cure 8 hours.

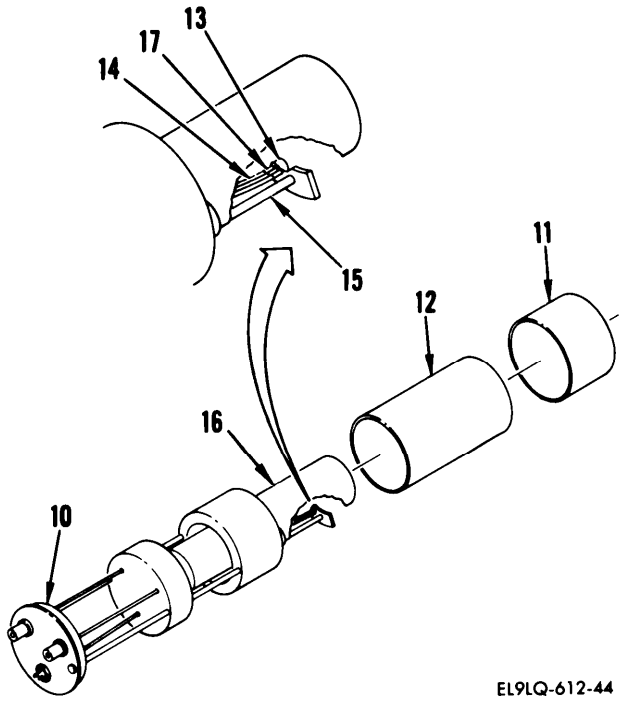
n. Slide heat shrinkable tubing (17) onto leads (14) and attach tagged leads to temperature sensor (13).

o. Slide heat shrinkable tubing (17) over solder connections and shrink in place.

p. Remove lens paper from photomultiplier tube (16).

q. Route and attach leads from temperature sensor (13) to connector J4.

r. Install shield (12) and cap (11) onto end of tube carrier (10).



EL9LQ-612-44

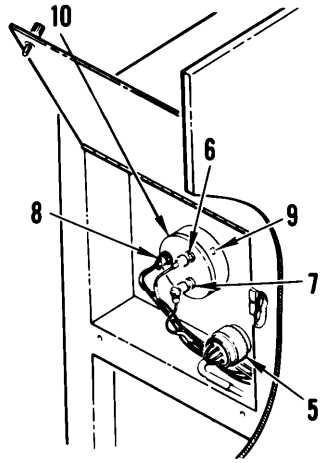
5-15. OPTICAL SIGNAL ANALYZER PHOTOMULTIPLIER AND BRACKET ASSEMBLY 2A1A1A7 REPAIR (cont) 5-15

s. place tube carrier (10) into photomultiplier housing.

t. Install three screws (9).

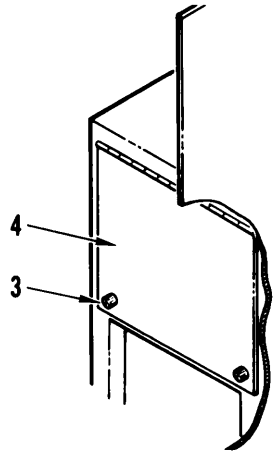
u. Connect the following connectors:

W11P4 to A7J4 (8)
W16P2 to A7J2 (7)
W11P2 to A7J1 (6)
W9P1 to A7J3 (5)



EL9LQ-612-45

v. Close access door (4) and tighten two screws (3).

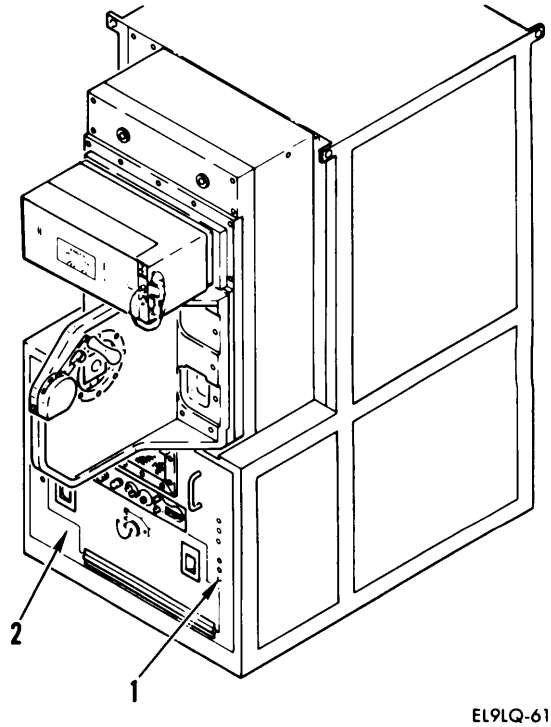


EL9LQ-612-46

WARNING

USE A TOOL TO UNLOCK OSA SLIDES. DO NOT USE FINGERS. INJURY MAY RESULT.

w. Push OSA (2) into dayside cabinet and install 12 screws (1).



EL9LQ-612-47

END OF TASK

4. RESISTORS R1 THROUGH R4 REPLACEMENT

NOTE

This procedure is used to replace any of four resistors.

REMOVAL

a. Refer to 1 above and do steps a through i to remove photomultiplier assembly and shutter cover.

b. On shutter cover (1), mark location of switch (2 or 3) by marking a pencil line around edge of switch on shutter cover.

c. Remove two screws (4), washers (5), nuts (6), and switch (2 or 3).

d. Place switch (2 or 3) in holding fixture (7).

e. Remove leads to access defective resistor (8).

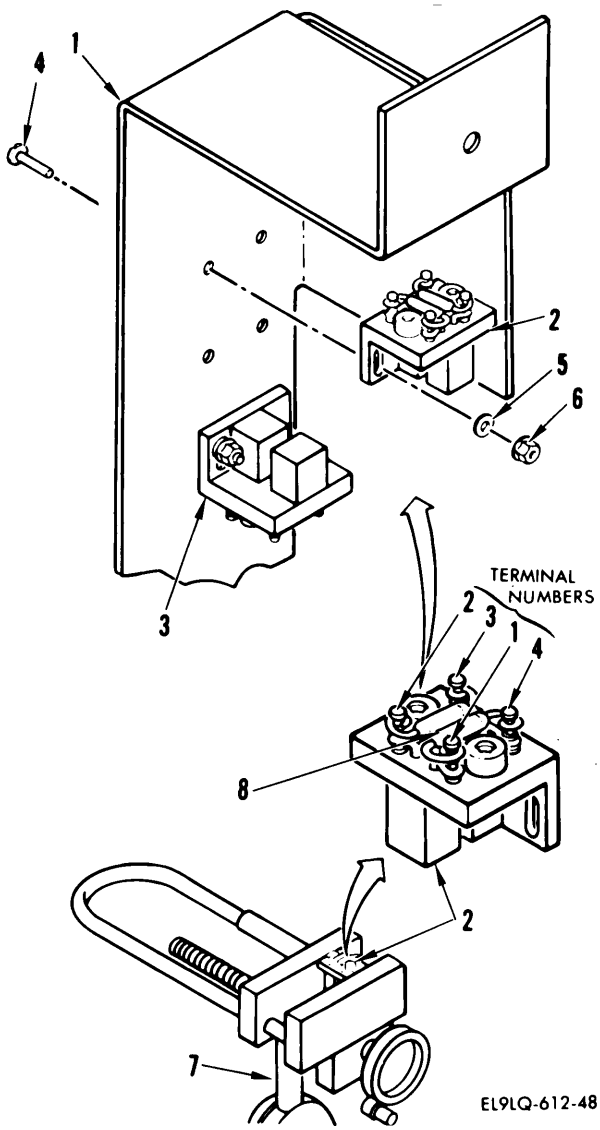
f. Remove leads of defective resistor (8).

INSTALLATION

g. Refer to list below and install replacement resistor in reverse order of removal.

OPTICAL SWITCH	TERMINALS	RESISTOR
A1	1 and 4	R1
A1	2 and 3	R4
A2	1 and 4	R2
A2	2 and 3	R3

h. Refer to 1 above and do steps n through v.



END OF TASK

5-16. OPTICAL SIGNAL ANALYZER POWER SUPPLY ASSEMBLY 2A1A1A6 REPAIR 5-16

This task covers replacement of:

Para	Item	Para	Item
1.	Power supply PS1	2.	Relay K1

INITIAL SETUP

Tools

Nitrogen gas gun
Goggles
Hex head ball end wrench set

Materials (appendix C)

Silicone adhesive (Item 3)
Isopropyl alcohol (Item 4)
Applicator (Item 6)
Artist brush (Item 8)
Filter (Item 24)
Solder (Item 43)
Lacing tape (Item 44)

Personnel Required

396 ATE Repairer

Equipment Condition

OSA disassembled (para 5-13)

FOLLOWUP

Reassemble OSA (para 5-13)

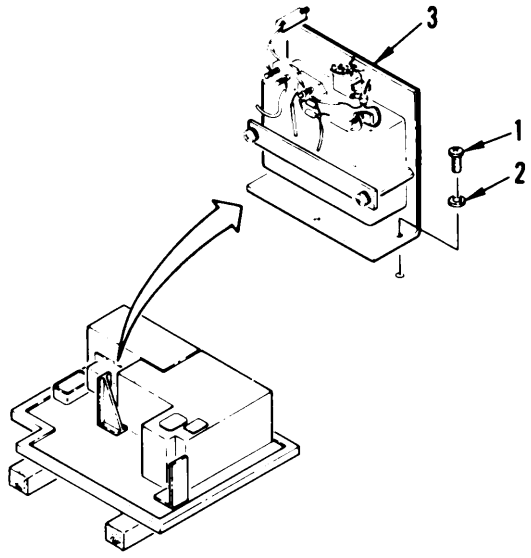
Applicable Configuration

E/O Bench Serial No. 00001 thru 00105

1. POWER SUPPLY PS1 REPLACEMENT

REMOVAL

a. Remove three screws (1), washers (2), and power supply assembly (3). Place power supply assembly on workbench.



EL9LQ-612-130

b. Remove three screws (4), lockwashers (5), washers (6), clamp (7), standoff (8), and nut (9), securing relay K1 (10).

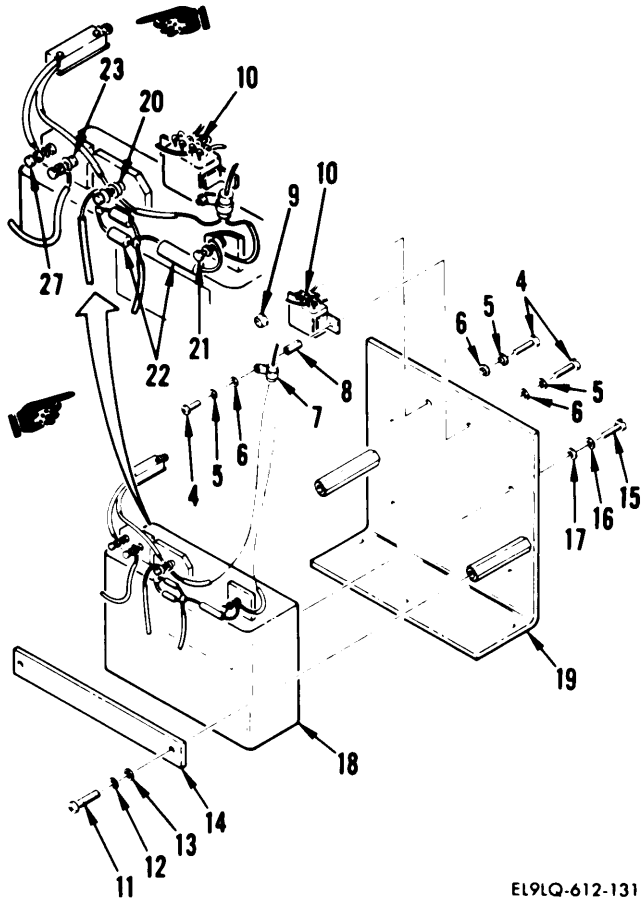
c. Remove two screws (11), lockwashers (12), washers (13), and retaining strap (14).

d. Remove four screws (15), lockwashers (16), washers (17), and remove power supply PS1 (18) with relay, connectors, and wiring from mounting bracket (19).

e. Clean and scrape silicone rubber as required from power supply PS1 (18) to access solder terminals.

f. Tag and remove the following leads and remove power supply PS1 (18).

Connector	Wire No.	Terminal
P1 - B	3	PS1-GND (20)
P2 - (shield)	6	PS1-GND (20)
P2 - (center lead)	7	PS1-OUTPUT (21)
P1 - D	8	R1, R2, R3 (22)
P3 - C	11	PS1-INPUT (23)
R2, R3	9	PS1-GND (20)
R4-1	13	PS1-GND (20)
R4-2	14	PS1-REMOTE ADJUST (27)



EL9LQ-612-131

INSTALLATION

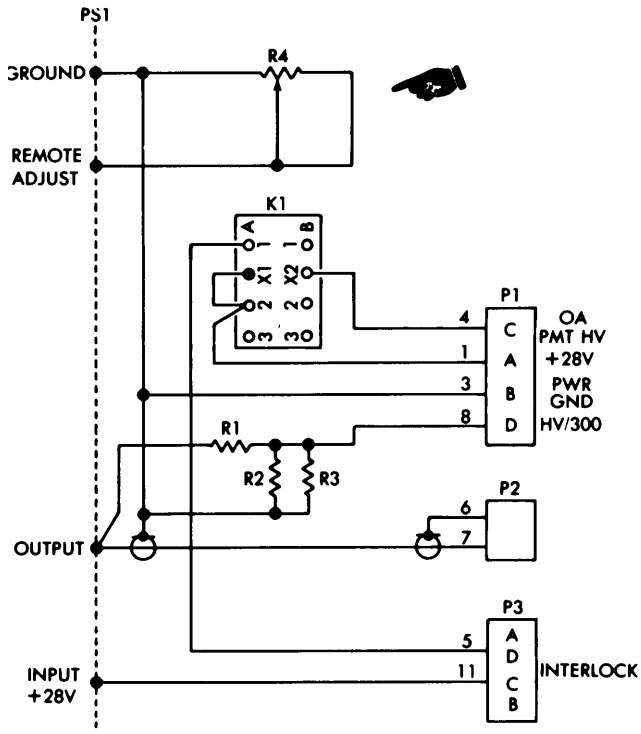
g. Refer to diagram and connect one lead of replacement resistor R1 (24) to OUTPUT terminal (21) of replacement power supply PSI (18).

h. Connect one lead each of replacement resistors R2 (25), R3 (26), and R4-1 (28) to GND terminal (20) of power supply PS1 (18).

i. Connect remaining leads of R1 (24), R2 (25), and R3 (26) to wire No. 2 from connector P1-D.

j. Connect remaining leads to power supply as listed below:

Connector	Wire No.	Terminal
P1 - B	3	PS1-GND (20)
P2 - (shield)	6	PS1-GND (20)
P2 - (center lead)	7	PS1-OUTPUT (21)
P3 - C	11	PS1-INPUT (23)
R4-2	14	PS1-REMOTE ADJUST (27)

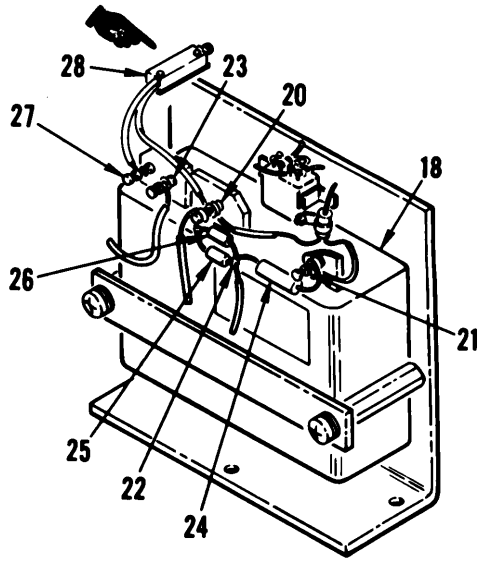


EL9LQ-612-128

WARNING

ISOPROPYL ALCOHOL

- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET IN EYES, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES.
- IF IT CONTACTS EYES, WASH EYES WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.



EL9LQ-612-132

k. Clean terminals, resistors, and leads with isopropyl alcohol in preparation for applying silicone adhesive.

WARNING

SILICONE ADHESIVE

- FLAMMABLE, TOXIC, CAN CAUSE BREATHING PROBLEMS.
- DON'T: USE NEAR FLAMES OR SPARKS OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING.
- IF YOU EXPERIENCE SHORTNESS OF BREATH, OR OTHER BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

l. Coat power supply terminal boards with silicone adhesive so that wire terminations, terminals, and far side of boards are completely covered.

m. Cover resistor R1 (24) completely with silicone adhesive.

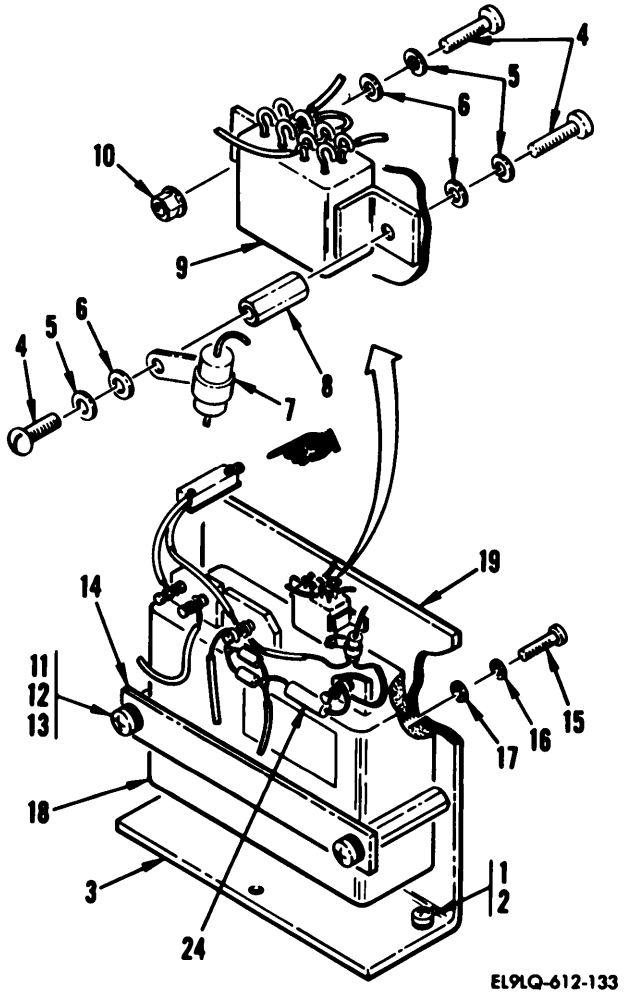
n. Allow silicone adhesive to cure for 48 hours at 67° to 87°F.

o. Position power supply (18) on mounting bracket (19) and install four screws (15), lockwashers (16), and washers (17).

p. Install retaining strap (14) with two screws (11), lockwashers (12), and washers (13).

q. Position relay K1 (9) on mounting bracket (19), and install three screws (4), three lockwashers (5), three washers (6), standoff (8), clamp (7), and nut (10).

r. Position power supply assembly (3) into OSA and install three screws (1) and washers (2).



END OF TASK

2. RELAY K1 REPLACEMENT

REMOVAL

a. Remove three screws (1), washers (2), and power supply assembly (3). Place power supply assembly on workbench.

b. Tag and remove three leads from solder hooks on relay K1 (4).

c. Remove three screws (5), three lockwashers (6), three washers (7), clamp (8), standoff (9), nut (10), and relay K1 (4).

INSTALLATION

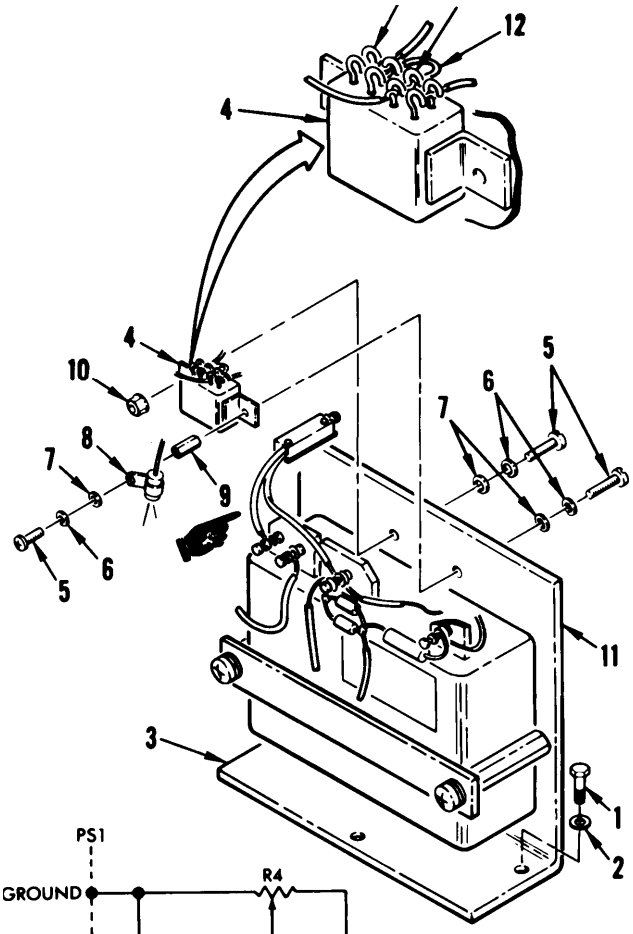
d. Position replacement relay (4) on mounting bracket (11) and install three screws (5), three lock-washers (6), three. washers (7), clamp (8), standoff (9), and nut (10).

e. Attach jumper lead (12) between solder hooks K1X1 (13) and K1A2 (14).

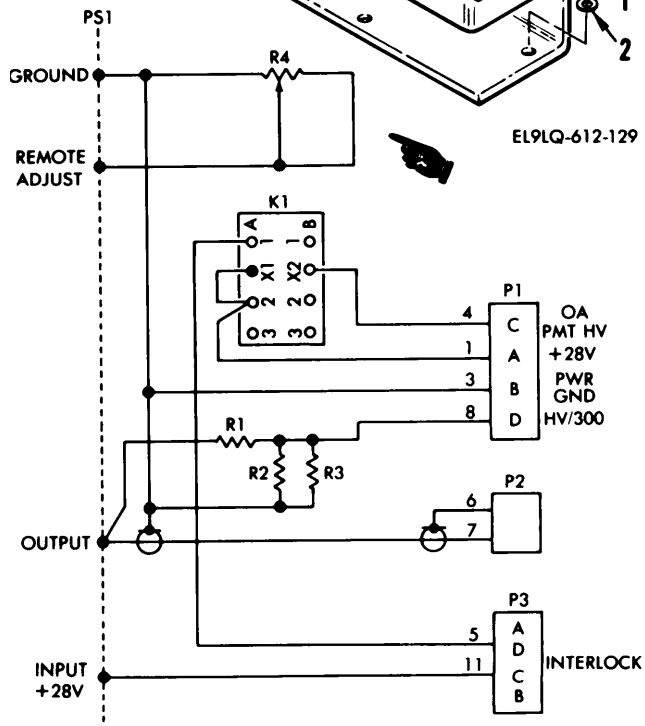
f. Attach three leads to relay K1 (4) as tagged. Refer to wiring diagram.

g. Position power supply (3) onto OSA and install three screws (1) and washers (2).

END OF TASK



EL9LQ-612-129



EL9LQ-612-128

5-17. OPTICAL SIGNAL ANALYZER INTERFACE ASSEMBLY 2A1A1A8 REPLACEMENT 5-17

INITIAL SETUP

Tool/Special Tool

Socket, 5/32 hex head ball end, 1/4 drive

Personnel Required

396 ATE Repairer

Equipment Condition

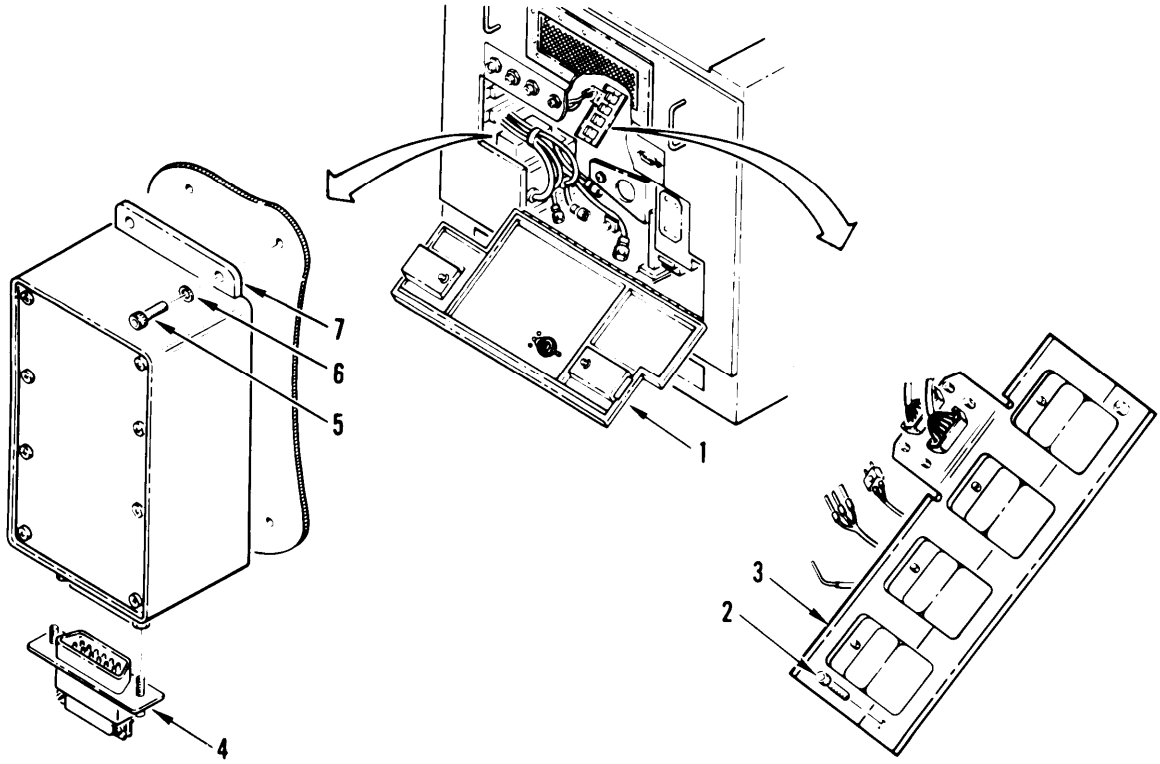
power removed (para 2-24.1)

Applicable Configuration

E/O Bench Serial No. 00001 thru 00105

REMOVAL

1. Open access door (1).
2. Remove two screws (2) securing relay assembly (3) to mounting plate. Move relay assembly aside to gain access to interface assembly.
3. Disconnect connector W11P1 from connector A8J1 (4).
4. Remove four screws (5), washers (6), and interface assembly (7).



EL9LQ-612-60

INSTALLATION

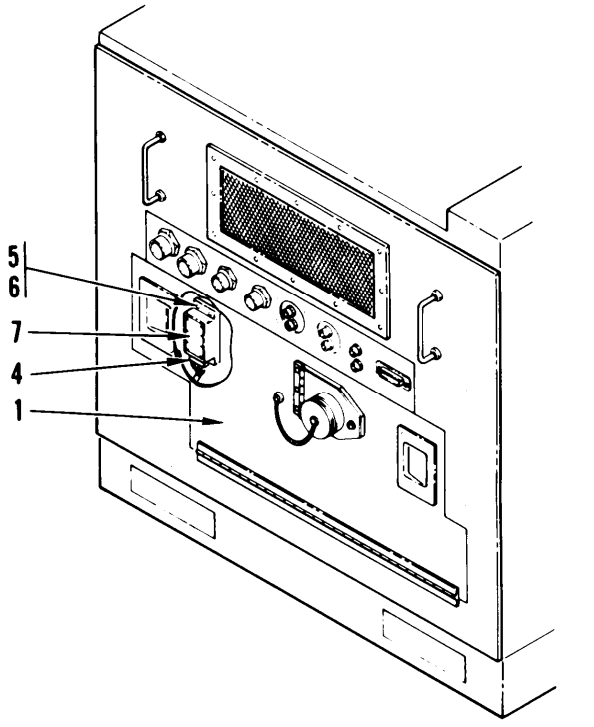
5. Position interface assembly (7) into OSA and install four screws (5) and washers (6).

6. Connect connector W11P1 to connector A8J1 (4).

7. position relay assembly (3) in place and install two screws (2).

8. Close access door (1).

END OF TASK



EL9LQ-612-63A

5-18. OPTICAL SIGNAL ANALYZER PHOTON EMITTER ASSEMBLY 2A1A1A3 REPLACEMENT

INITIAL SETUP

Materials (appendix C)

Lens paper (Item 36)
Masking tape (Item 43)

Personnel Required

39B ATE Repairer

Equipment Condition

Power removed (para 2-24.1)

Applicable Configuration

E/O Bench Serial No. 00001 thru 00105

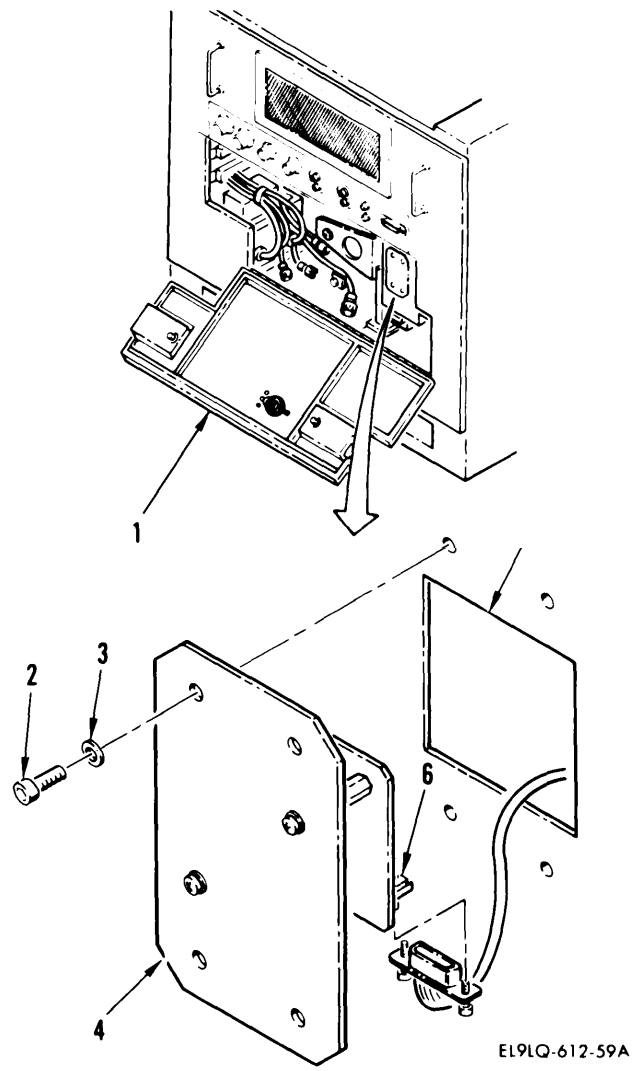
REMOVAL

1. Open access door (1).
2. Remove four screws (2) and washers (3) that secure photon emitter assembly (4) to baffle cover (5).
3. Lift photon emitter assembly (4) and disconnect connector W14P1 from connector A3J1 (6).
4. Cover opening in baffle cover with lens paper and secure with masking tape.

INSTALLATION

5. Install in reverse order of removal.

END OF TASK



5-19. OPTICAL SIGNAL ANALYZER (OSA) RELAY ASSEMBLY 2A1A1A12 REPAIR 5-19

This task covers replacement of:

Para	Item	Para	Item
	1. Relays K1 through K4	3.	Resistor R1
	2. Diodes CR1 through CR4		

INITIAL SETUP

Tools

Contact installation/removal tool
Heat gun

Materials (appendix C)

Heat shrinkable tubing (Item 29)
Solder (Item 43)
Lacing tape (Item 44)
Masking tape (Item 45)

Personnel Required

39B ATE Repairer

Equipment Condition

Power removed (para 2-24.1)

Applicable Configuration

E/O Bench Serial No. 00001 thru 00105

1. RELAYS K1 THROUGH K4 REPLACEMENT

NOTE

This procedure is used to replace any of four relays.

REMOVAL

a. Open access door (1).

b. Remove two screws (2) securing relay assembly (3) to mounting plate assembly (4).

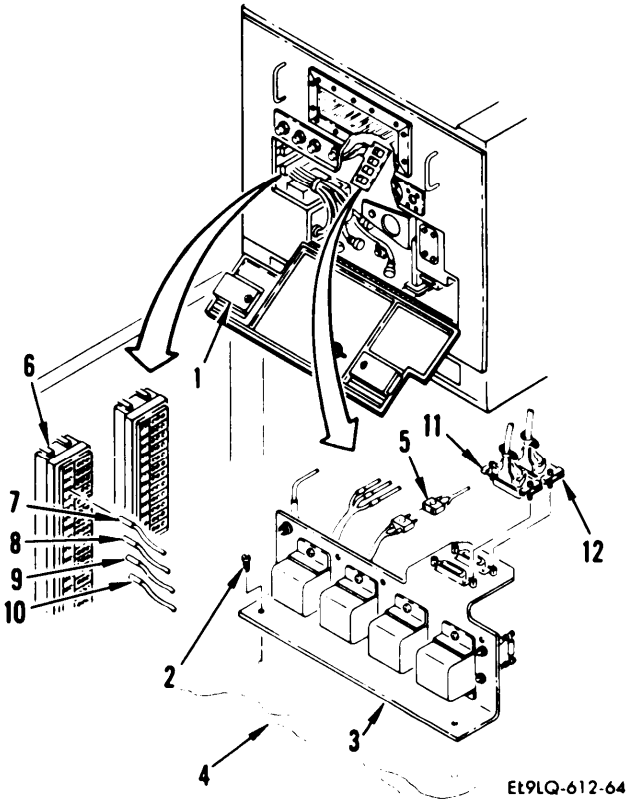
c. Cut lacing tape and disconnect connector A12J3 from connector W11P7 (5).

d. On terminal block TB1 (6), remove terminal leads E3 (7), from TBl-140, E4 from TB1-11D (8), E5 from TB1-12K (9), and E6 from TB1-10G (10) using contact installation/removal tool.

e. Disconnect the following connectors:

W2P2 from A12J1 (11)
W4P2 from A12J2 (12)

f. Remove relay assembly (3) from OSA and place on workbench.



g. Locate defective relay K1 (13), K2 (14), K3 (15), or K4 (16).

h. Tag and remove leads to defective relay (13).

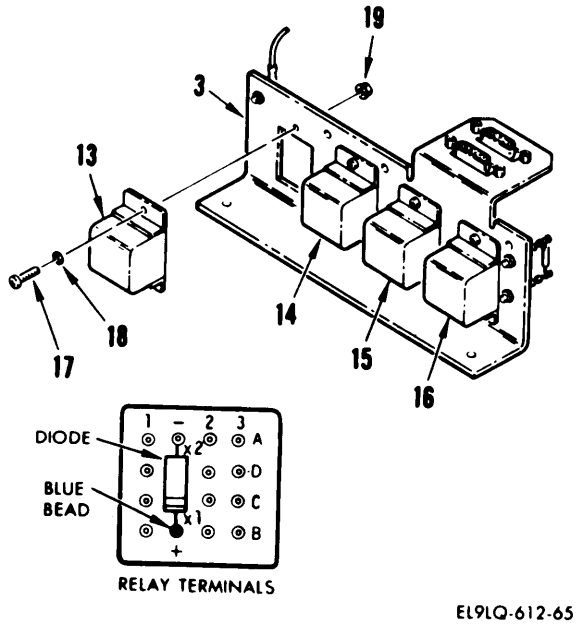
i. Remove three screws (17), washers (18), nuts (19), and relay (13).

INSTALLATION

j. Install replacement relay (13) on relay assembly (3) with three screws (17), washers (18), and nuts (19).

k. Install replacement diode on replacement relay (13) with banded end of diode to blue relay terminal.

l. Place heat shrinkable tubing over leads and attach leads as tagged to replacement relay.



EL9LQ-612-65

From	To	From	To
J1-1	K1-D1	J3-A	K4-X1
J1-2	K1-C1	J3-B	K4-A2
J1-3	K1-B1	J3-C	K2-A1
J1-4	J1-8	J3-D	K2-A2
J1-5	K2-D1	K1-D2	K2-D2
J1-6	K2-C1	K1-C2	K2-C2
J1-7	K2-B1	K1-B2	K2-B2
J1-9	K1-D2	K3-D2	K4-D2
J1-10	K1-C2	K3-C2	K4-C2
J1-11	K1-B2	K3-B2	K4-B2
J1-12	K3-D2	K1-X1	K2-X1
J1-13	K3-C2	K2-X1	K3-X1
J1-14	K3-B2	K3-X1	K4-X1
J1-15	K4-X2	E3	K4-A1
J2-1	K3-D1	E4	K4-X2
J2-2	K3-C1	K1-X2	K2-X2
J2-3	K3-B1	K2-X2	K3-X2
J2-4	J2-8	K3-X2	K4-X2
J2-5	K4-D1	E2	K4-A2
J2-6	K4-C1	E1	E5
J2-7	K4-B1	E6	E7

m. Slide heat shrinkable tubing over solder joints and shrink in place.

n. Connect the following connectors:

W4P2 to A12J2 (12)
W2P2 to A12J1 (11)

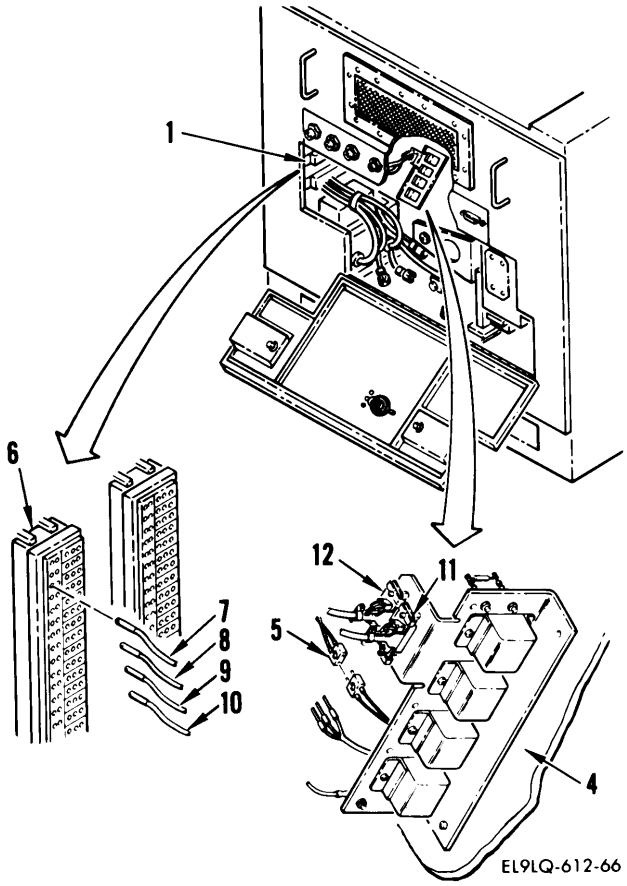
o. Position relay assembly (3) on mounting plate (4) and install two screws (2).

p. Connect connector A12J3 to connector W11P7 (5).

q. Install terminal leads E3 (7), to TB1-14D, E4 to TB1-11D, E5 to TB1-12K, and E6 to TB1-1OG using contact installation/removal tool.

r. Close access door (1).

END OF TASK



EL9LQ-612-66

2. DIODES CR1 THROUGH CR4 REPLACEMENT

NOTE

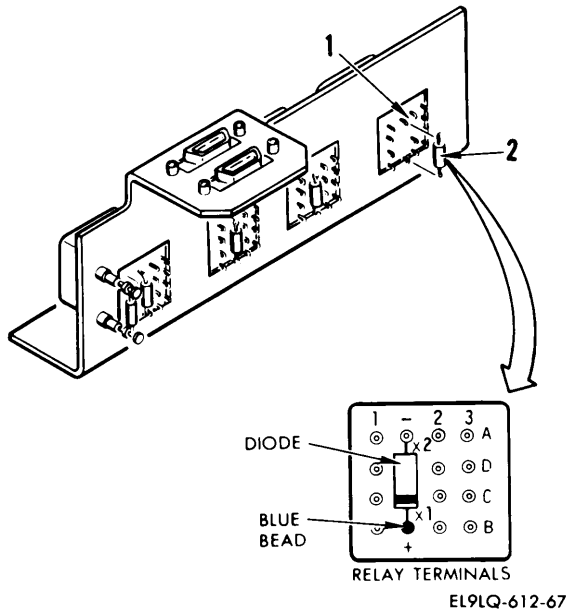
This procedure is used to replace any of four diodes.

REMOVAL

a. Refer to 1 above and do steps a through f to remove relay assembly.

b. Tag and remove leads to terminals X1 and X2 of relay (1) with defective diode (2).

c. Remove defective diode (2) from relay (1).



EL9LQ-612-67

INSTALLATION

d. Install replacement diode (2) in relay (1) with banded end to blue terminal Xl on relay.

e. Install tagged leads to relay (1). Refer to wire list in 1 above.

f. Refer to 1 above and do steps n through r to install relay assembly.

END OF TASK

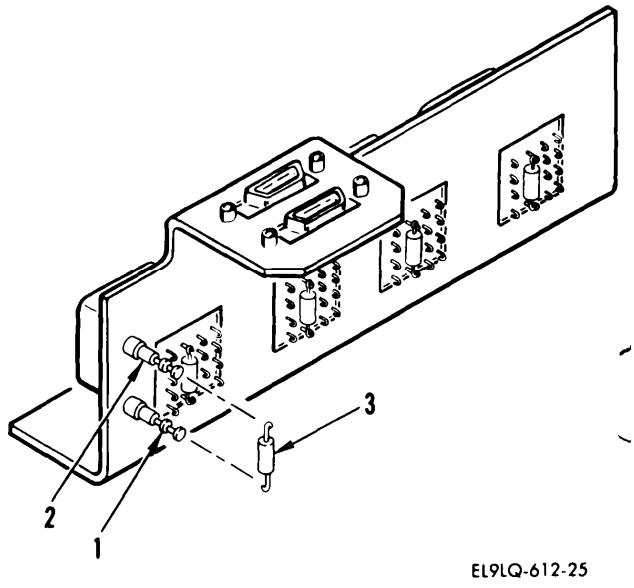
3. RESISTOR R1 REPLACEMENT

REMOVAL

a. Refer to 1 above and do steps a through f to remove relay assembly.

b. Tag and identify leads to terminals E1 (1) and E2 (2).

c, Remove tagged leads and resistor R1 (3).



EL9LQ-612-25

INSTALLATION

d. Install replacement resistor and attach leads as tagged.

e. Refer to 1 above and do steps n through r to install relay assembly.

END OF TASK

5-19.1 ADAPTER PANEL ASSEMBLY (2A1A1) REPLACEMENT 5-19.1

INITIAL SETUP

Personnel Required

39B ATE Repairer
One assistant

Equipment Condition

Power removed (para 2-24.1)

REMOVAL

1. Loosen four captive screws (1) on cable access panel (2) and remove panel.

2. Disconnect the following cables:

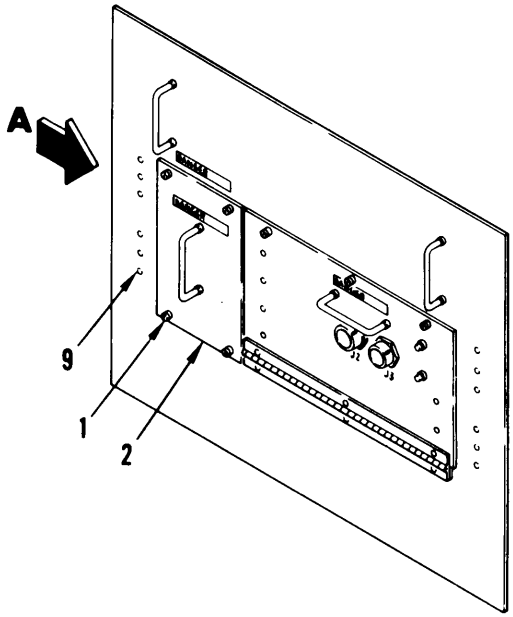
   2A1W77 P1 from 2A1A1 J14 (3)
   2A1W78 P1 from 2A1A1 J13 (4)
   2A1W32 P3 from 2A1A1 J12 (5)
   2A1W37 P4 from 2A1A1 J11 (6)
   2A1W31 P1 from 2A1A1 J10 (7)
   Ground lead from pigtail E2 (8).

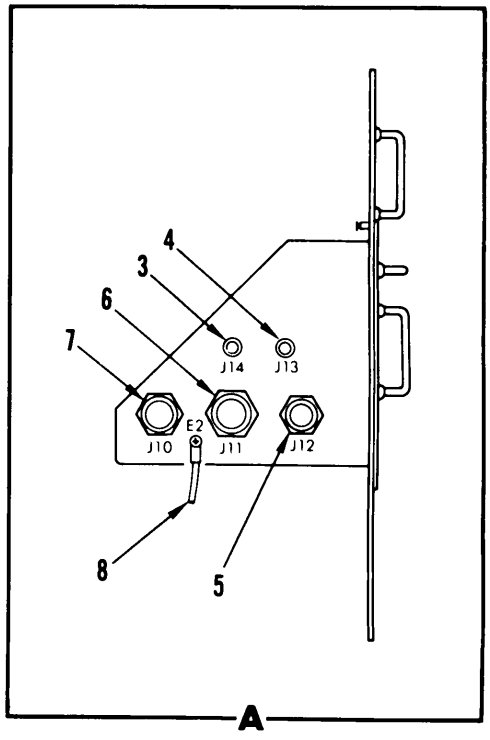
3. Remove 12 allen head bolts (9) and washers; remove panel assembly.

INSTALLATION

4. Install adapter panel assembly in reverse order of removal.

END OF TASK





EL9LQ-1100-111

5-20. LASER TEST MODULE 2A1A2A1A1 REPAIR 5-20

This task covers replacement of:

Para	Item
1. Deleted	2. Cable assemblies W48, W49, and W50

INITIAL SETUP

Materials/Parts (appendix C)

Cardboard (Item 10)
Lens paper (Item 36)
Lacing tape (Item 44)
Masking tape (Item 45)
Laminated shims (13082806-23)

Personnel Required

39B ATE Repairer

Equipment Conditions

Power removed (para 2-24.1)
Rear panel removed (para 2-41)
Inner module upper rear access plate removed (para 2-41)

FOLLOWUP

Inner module upper rear access plate installation (para 2-41)
Rear panel installation (para 2-41)

1. Deleted

2. CABLE ASSEMBLIES W48, U49, and W50 REPLACEMENT

REMOVAL

CAUTION

Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface in lower portion of inner module. Place cardboard over openings to protect mirrors from falling objects.

NOTE

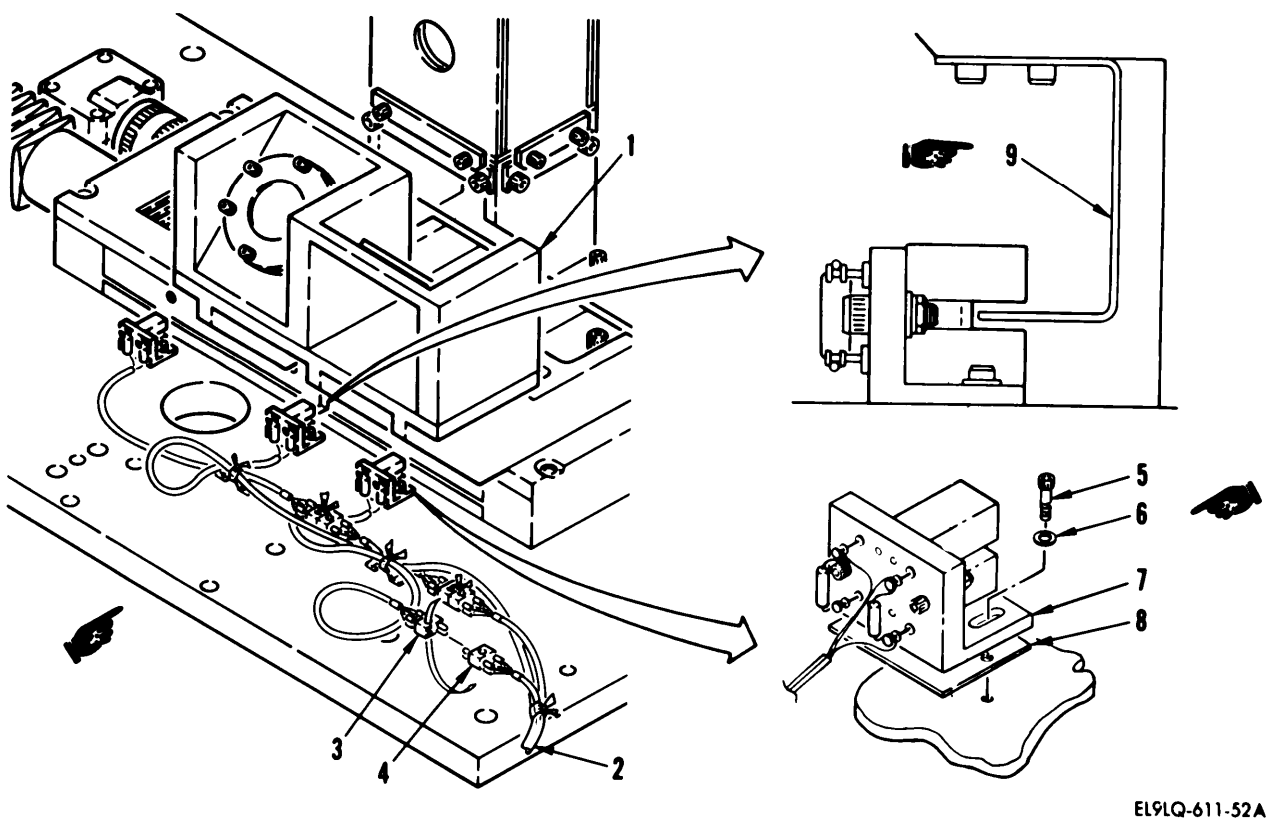
This procedure is used to replace cable W48, W49, or W50. W48 is shown.

a. Cover exposed optics on switching mirror assembly (1), with lens paper. Secure with masking tape.

b. Move W41 cable (2) aside to gain access to special cable assemblies.

c. Cut lacing tape and disconnect connector W48 (3) from connector W40J8 (4).

d. Remove two screws (5), flat washers (6), optical switch assembly (7), and shims (8) from base plate assembly.



EL9LQ-611-52A

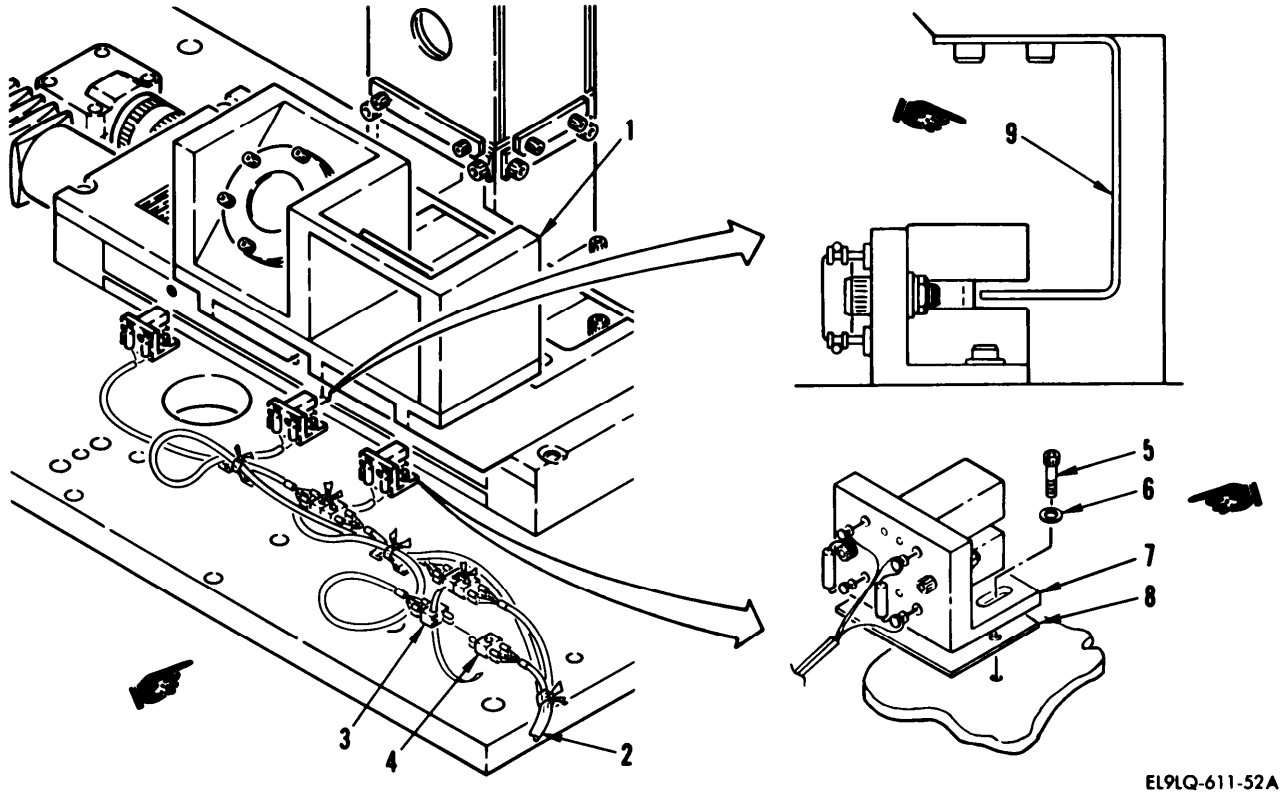
INSTALLATION

NOTE

If new shims are used, peel laminations as required to center blade (9) in optical switch assembly.

e. Install in reverse order of removal.

END OF TASK



EL9LQ-611-52A

5-20.1. CAMERA/BRACKET ASSEMBLY 2A1A2A1A1A15 REPLACEMENT 5-20.1

INITIAL SETUP

Materials (appendix C)

Cardboard (Item 10)
Lens paper (Item 36)
Masking tape (Item 45)

Personnel Required

396 ATE Repairer

Equipment Conditions

power removed (para 24.1)
Cabinet rear panel removed (para 2-41)
Inner module upper rear access plate removed (para 2-41)

FOLLOWUP

Inner module upper rear access plate installation (para 2-41)
Cabinet rear panel installation (para 2-41)

REMOVAL

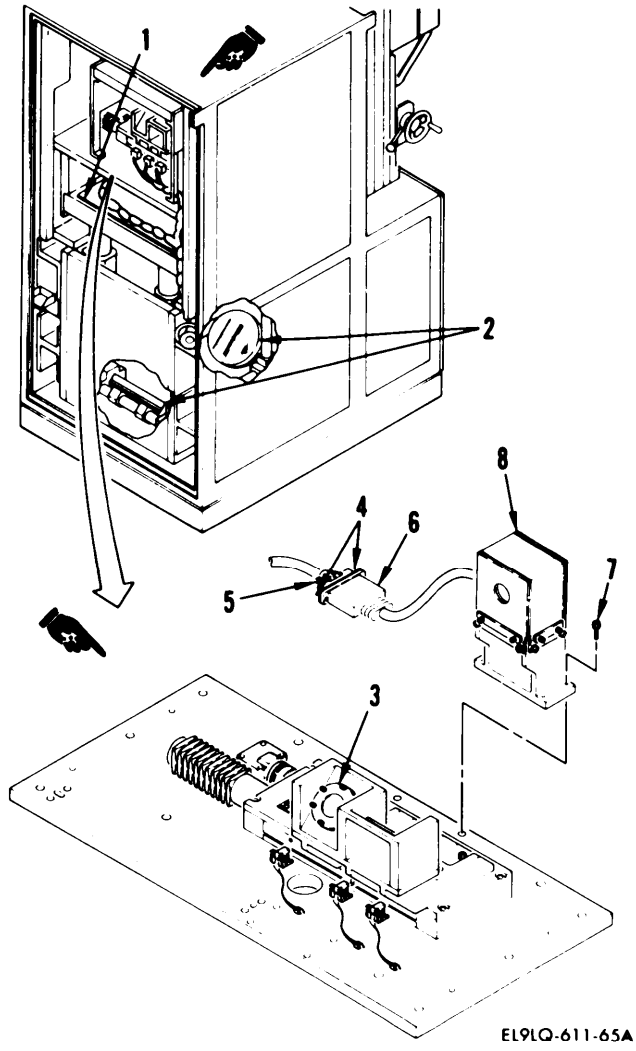
CAUTI0N

Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface in lower portion of inner module.

NOTE

The camera/bracket assembly and camera head control unit 2A2A7A3 are a matched set and must be replaced at the same time. Refer to paragraph 2-51 for camera head control unit 2A2A7A3 replacement procedures.

1. Place cardboard over openings (1) to protect mirrors (2) from falling objects. Cover exposed optics on switching mirror (3) with lens paper and secure with masking tape.
2. Cut lacing tape securing camera/bracket cable.
3. Completely loosen two screws (4) securing connector W33P1 (5) to A15J1 (6) and disconnect.
4. Remove four screws (7) and remove camera/bracket assembly (8).



INSTALLATION

5. Install in reverse order of removal.

END OF TASK

5-21. LAMPHOLDER 2A1A2A11 REPAIR 5-21

This task covers lamp replacement.

INTIAL SETUP

Materials (appendix C)

Cardboard (Item 10)
Lens paper (Item 36)
Masking tape (Item 45)

Personnel Required

39B ATE Repairer

Equipment Conditions

Power removed (para 2-24.1)
Cabinet rear panel removed (para 2-41)
Inner module upper rear access plate removed (para 2-41)

FOLLOWUP

Inner module upper rear access plate installation (para 2-41)
Cabinet rear panel installation (para 2-41)

REMOVAL

CAUTION

Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface in lower portion of inner module.

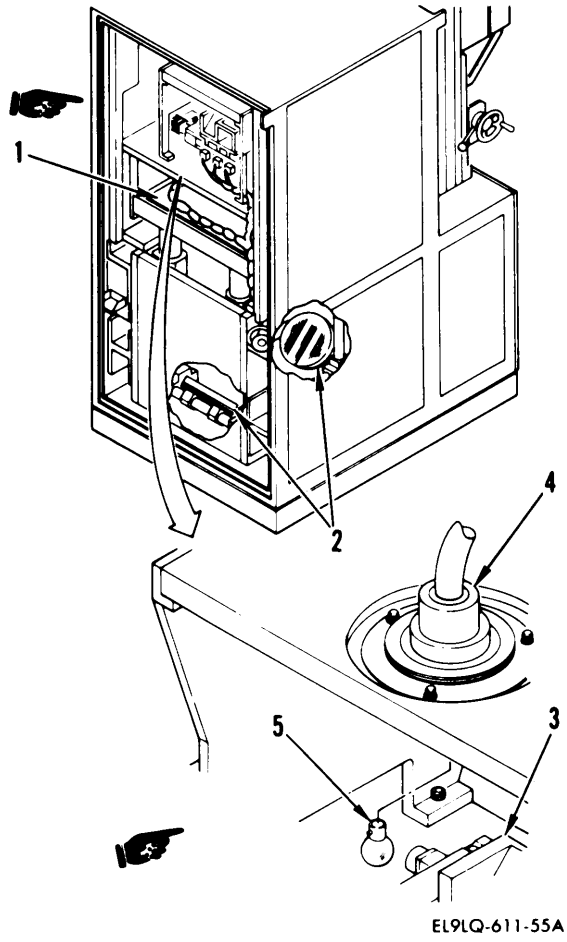
1. Place cardboard over openings (1) to protect mirrors (2) from falling objects. Cover exposed optics on switching mirror (3) with lens paper and secure with masking tape.

2. Holding lamp socket (4) turn lamp (5) counterclockwise and remove lamp.

INSTALLATION

3. Install in reverse order of removal.

END OF TASK



5-22. LASER COVER ASSEMBLY 2A1A2A19 REPAIR 5-22

This task covers replacement of:

Para	Item
1.	Switch S1
2.	Switch S2
3.	Switch S3
4.	Switch S4
5.	Lampholder 0S1 or DS2

INITIAL SETUP

Tools/Special Tools

7/64″ socket head key

Personnel Required

39B ATE Repairer

Equipment Condition

Power removed (para 2-24.1)

1. SWITCH S1 REPLACEMENT

REMOVAL

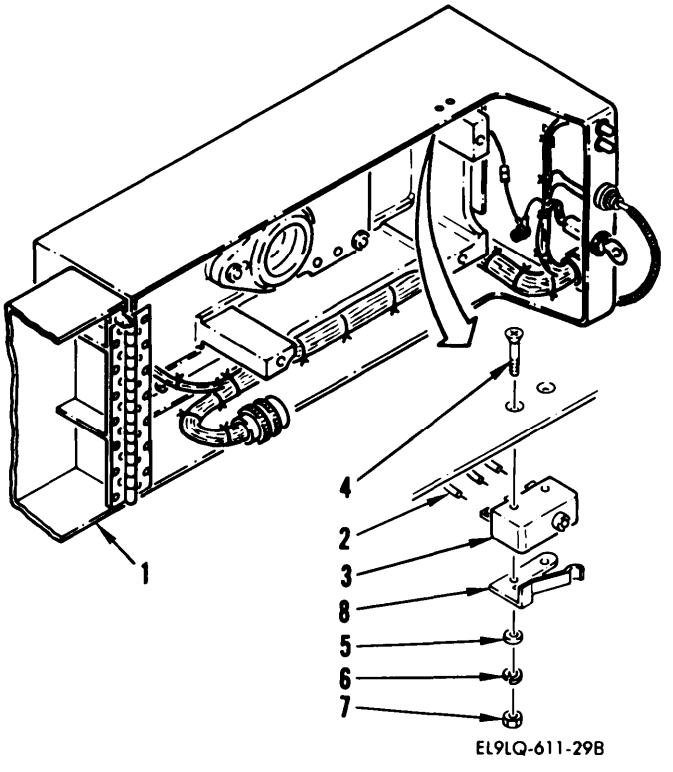
a. Open cover (1) and remove two screws (4), washers (5), lockwashers (6), and nuts (7) securing switch S1 (3) and switch lever (8) to laser cover. Remove switch and switch lever.

b. Tag and unsolder three wires (2) from interlock switchS1 (3).

INSTALLATION

c. Install in reverse order of removal.

END OF TASK



EL9LQ-611-29B

2. SWITCH S2 REPLACEMENT

REMOVAL

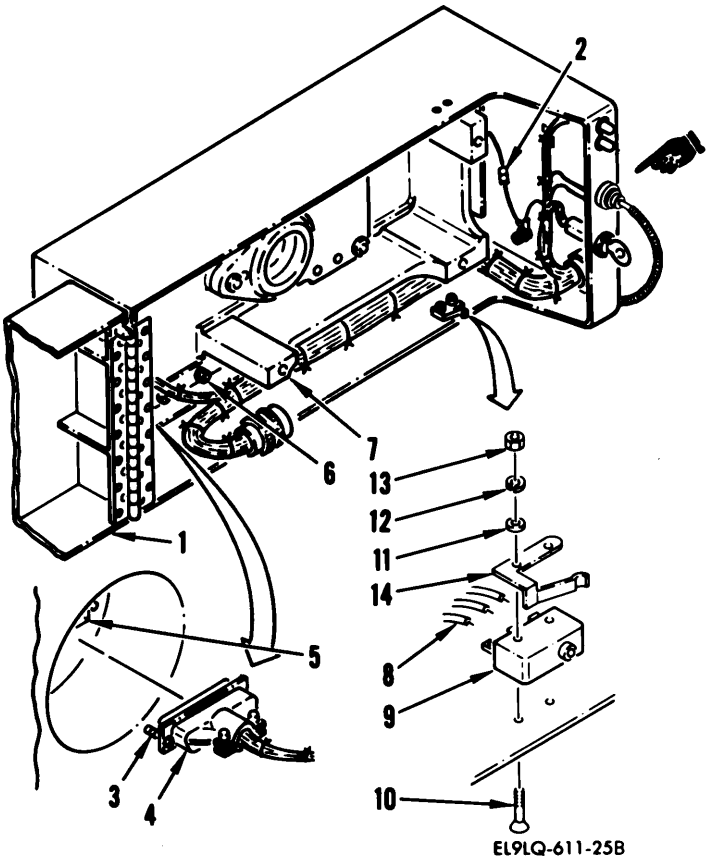
a. Open cover (1) and separate quick disconnect splice (2) in chassis ground lead.

b. Loosen two screws (3) securing connector P2 (4) to connector J16 (5). Separate connectors.

c. Remove 16 screws (6) securing cover assembly to inner module (7). Remove cover assembly and place on work bench.

d. Remove two screws (10), washers (11), lockwashers (12), and nuts (13) securing switch S2 (9) and switch lever (14) to cover. Remove switch and switch lever.

e. Tag and unsolder three wires (8) from interlock switch S2 (9).



INSTALLATION

f. Install in reverse order of removal.

END OF TASK

5-22. LASER COVER ASSEMBLY 2A1A2A19 REPAIR (cont) 5-22.

3. SWITCH S3 REPLACEMENT

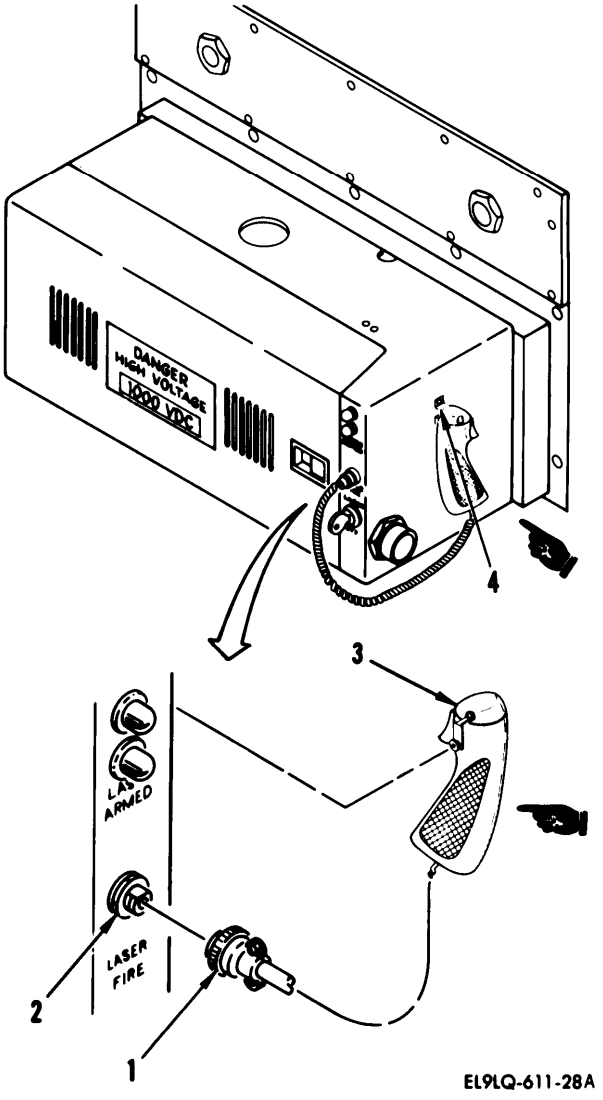
REMOVAL

a. On laser cover disconnect pistol grip switch S3 connector P3 (1) from connector J2 (2) and remove pistol grip switch S3 (3) from clip (4).

INSTALLATION

b. Install in reverse order of removal.

END OF TASK



EL9LQ-611-28A

4. SWITCH S4 REPLACEMENT

REMOVAL

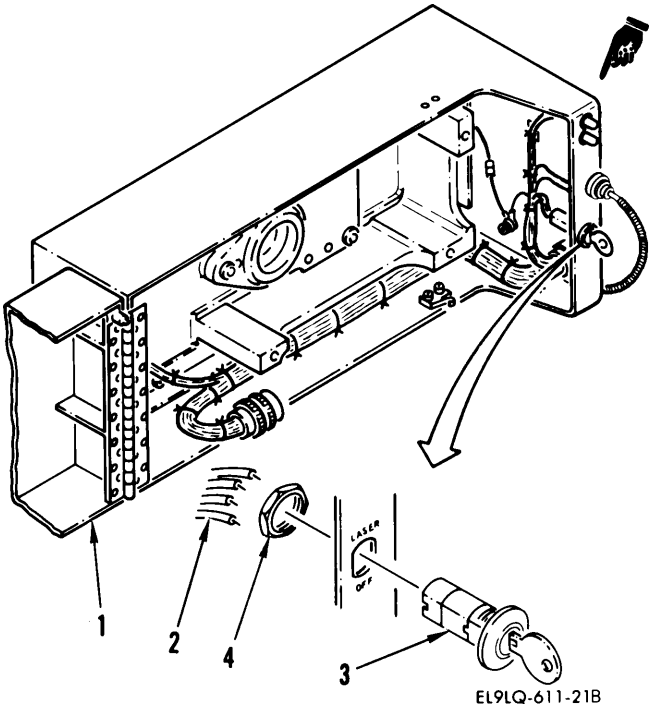
a. Open cover (1), tag and unsolder four wires (2) from switch S4 (3).

b. Remove nut (4) securing switch S4 to cover. Remove switch.

INSTALLATION

c. Install in reverse order of removal.

END OF TASK



EL9LQ-611-21B

5. LAMPHOLDER DS1 OR DS2 REPLACEMENT

REMOVAL

NOTE

This procedure is used to replace either lampholder DS1 (1) or DS2 (2).

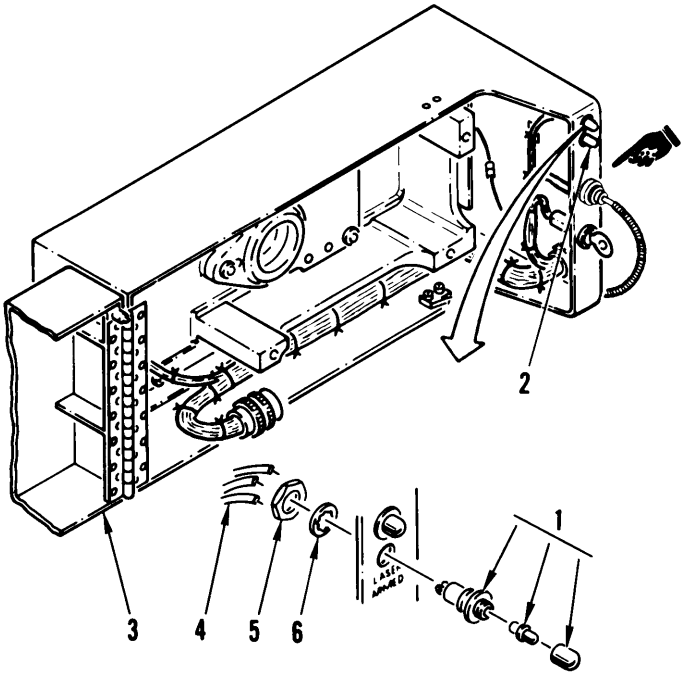
a. Open laser cover (3), tag and unsolder three wires (4) from lampholder.

b. Remove nut (5) and lockwasher (6) securing lampholder to laser cover. Remove lampholder.

INSTALLATION

c. Install in reverse order of removal.

END OF TASK



EL9LQ-611-24B

5-23. MICROCIRCUIT AND HEAT SINK ASSEMBLY 2A1A2W55 REPLACEMENT 5-23

INITIAL SETUP

Materials (appendix C)

Cardboard (Item 10)
Lacing tape (Item 44)

Personnel Required

39B ATE Repairer

Equipment Conditions

Cabinet rear panel removed (para 2-41)
Inner module upper rear access plate removed (para 2-41)

FOLLOUUP

Inner module upper rear access plate installation (para 2-41)
Rear cover installation (para 2-41)

REMOVAL

CAUTION

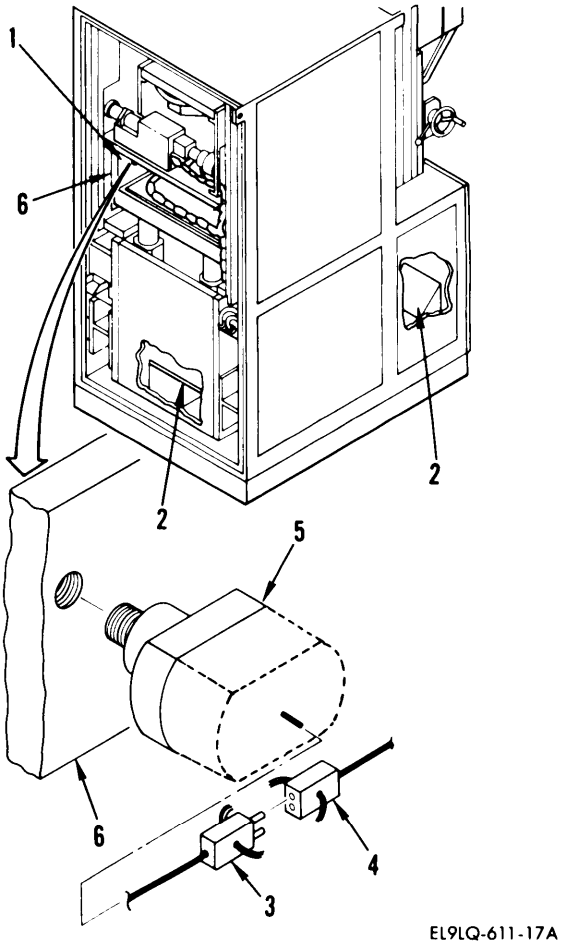
Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface in lower portion of inner module.

1. Place cardboard over openings (1) to protect mirrors (2) from falling objects.
2. Cut lacing tape that secures connector J1 (3) to connector P12 (4). Disconnect the connectors.
3. Unscrew and remove microcircuit and heat sink assembly (5) from inner left side of camera/target support assembly (6).

INSTALLATION

4. Install in reverse order of removal.

END OF TASK



EL9LQ-611-17A

5-24. LASER ATTENUATOR ASSEMBLY REPAIR

This task covers replacement of attenuator assembly.

INITIAL SETUP

Personnel Required

39B ATE Repairer

Equipment Condition

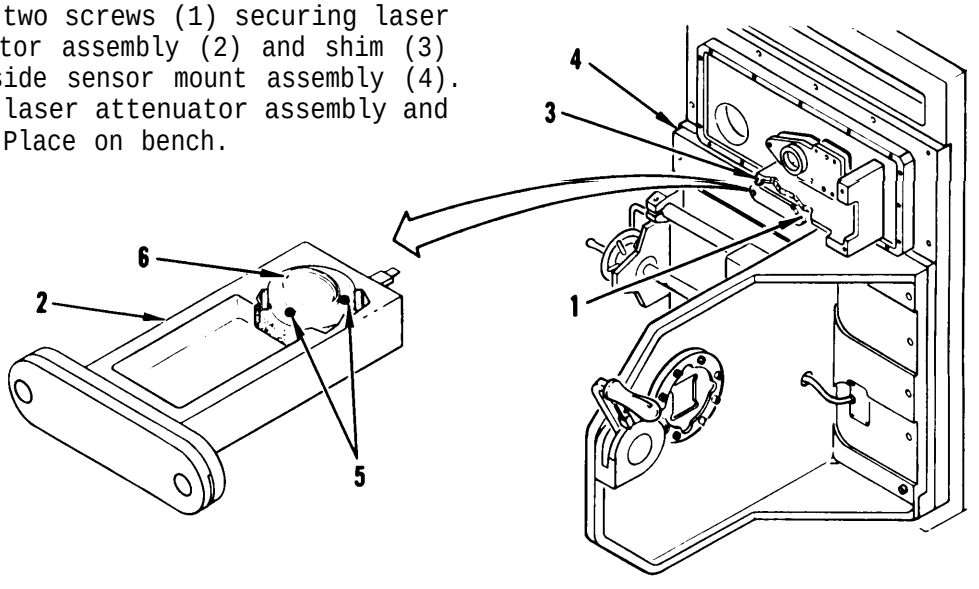
Power removed (para 2-24.1)

REMOVAL

CAUTION

Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface.

1. Remove two screws (1) securing laser attenuator assembly (2) and shim (3) to dayside sensor mount assembly (4). Remove laser attenuator assembly and shim. Place on bench.



EL9LQ-611-23

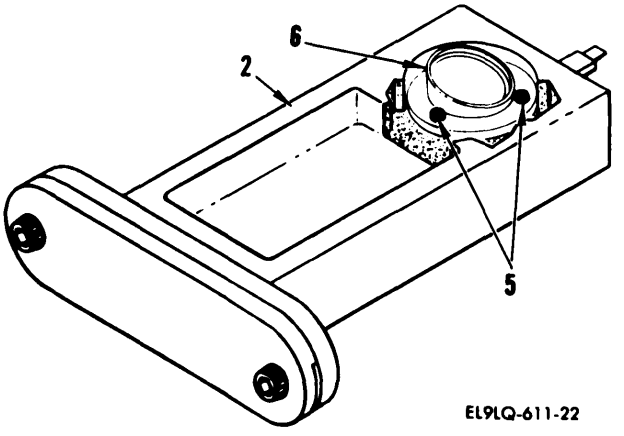
2. Remove three screws (5) securing attenuator (6) to laser attenuator assembly (2) and remove attenuator.

3. If laser attenuator assembly needs cleaning refer to paragraph 2-22 and perform subparagraph 2.

INSTALLATION

4. Install in reverse order of removal.

END OF TASK



EL9LQ-611-22

5-25. INDIRECT VIEW DISPLAY 2A1A3 REPLACEMENT 5-25

INITIAL SETUP

Personnel Required

39B ATE Repairer

Equipment Conditions

Power removed (para 2-24.1)
Rear panel removed (para 2-41)

FOLLOWUP

Rear panel installation (para 2-41)

REMOVAL

1. Disconnect the following connectors from the IVD (1):

   W37P2 from J2 (2)
   W37P3 from J4 (3)
   W34P3 from J3 (4)
   W37P1 from J1 (5)
   W36P2 from J5 (6)

2. Move cables aside to gain access to screws (7).

CAUTION

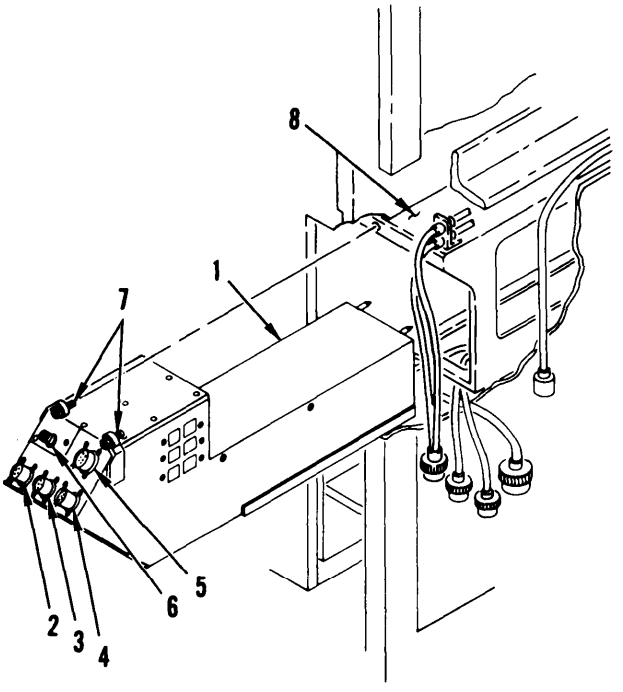
IVD must be supported when loosening screws to prevent dropping.

3. Loosen two screws (7) securing IVD to the IVD adapter assembly (8). Remove IVD.

INSTALLATION

4. Install in reverse order of removal.

END OF TASK



EL9LQ-611-30A

5-26. INDIRECT VIEW DISPLAY 2A1A3 REPAIR

This task covers replacement of:

Para	Item
1.	Circuit card assemblies (CCAS) A2A4 through A2A9
2.	Circuit card assemblies (CCAS) A13, A14, or A15
3.	Filter assembly
4.	High voltage power supply assembly A3
5.	Low voltage power supply assembly A12
6.	Elapsed time indicator
7.	Fan assembly A4

INITIAL SETUP

Tools

Goggles
Rubber apron

Materials (appendix C)

Soft cloth (Item 14)
Rubber gloves (Item 26)
Nose-mouth shield (Item 42)
Solder (Item 43)
Masking tape (Item 45)
Trichloroethane (Item 47)

Personnel Required

39B ATE Repairer

Equipment Condition

Indirect view display removed (para 5-25)

FOLLOWP

Indirect view display installation (para 5-25)

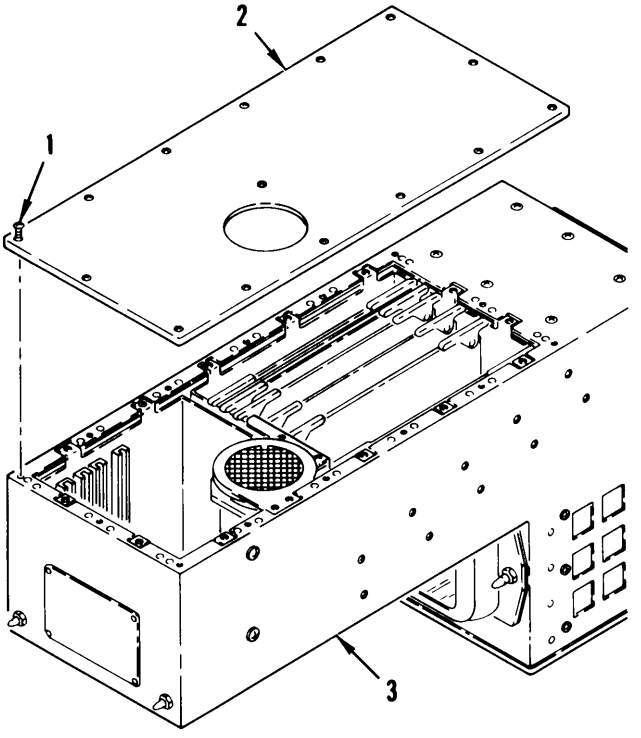
1. CIRCUIT CARD ASSEMBLIES (CCAS) A2A4 THROUGH A2A9 REPLACEMENT

NOTE

This procedure is used to replace CCAS A2A4 through A2A9.

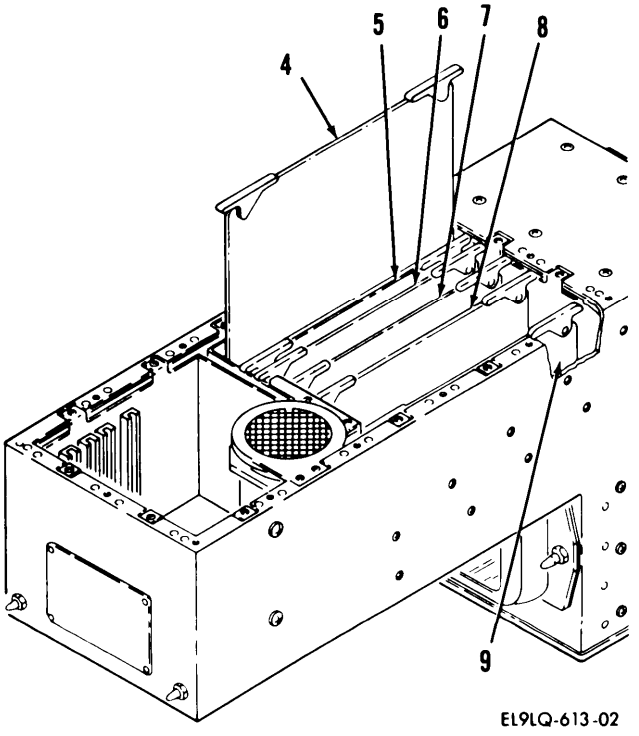
REMOVAL

a. Loosen 15 screws (1) securing bottom cover assembly (2) to chassis assembly (3). Remove bottom cover assembly.



EL9LQ-613-01

b. Remove circuit card assembly A4 (4), A5 (5), A6 (6), A7 (7), A9 (8), or A8 (9).



EL9LQ-613-02

INSTALLATION

co Install in reverse order of removal.

END OF TASK

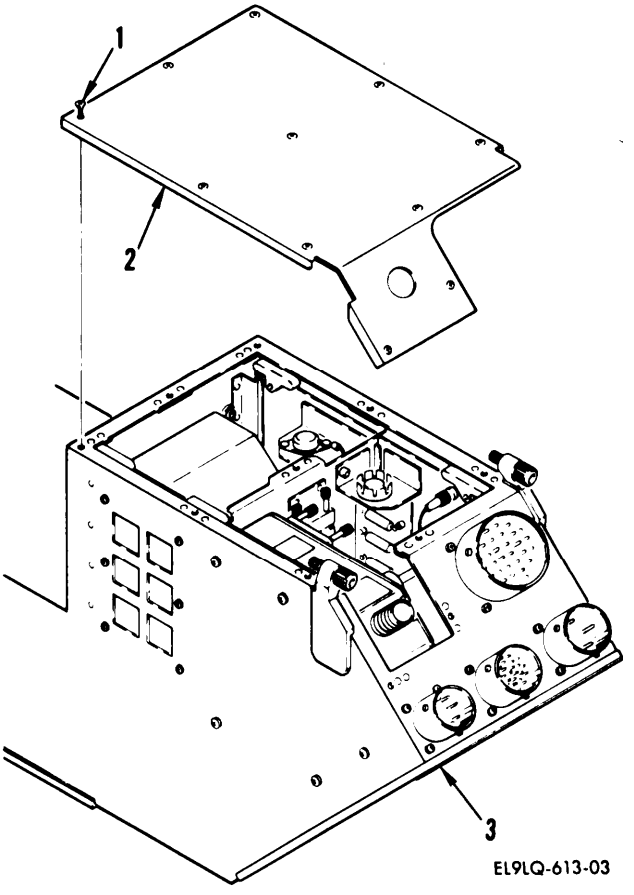
2. CIRCUIT CARD ASSEMBLIES (CCAS) A13, A14, OR A15 REPLACEMENT

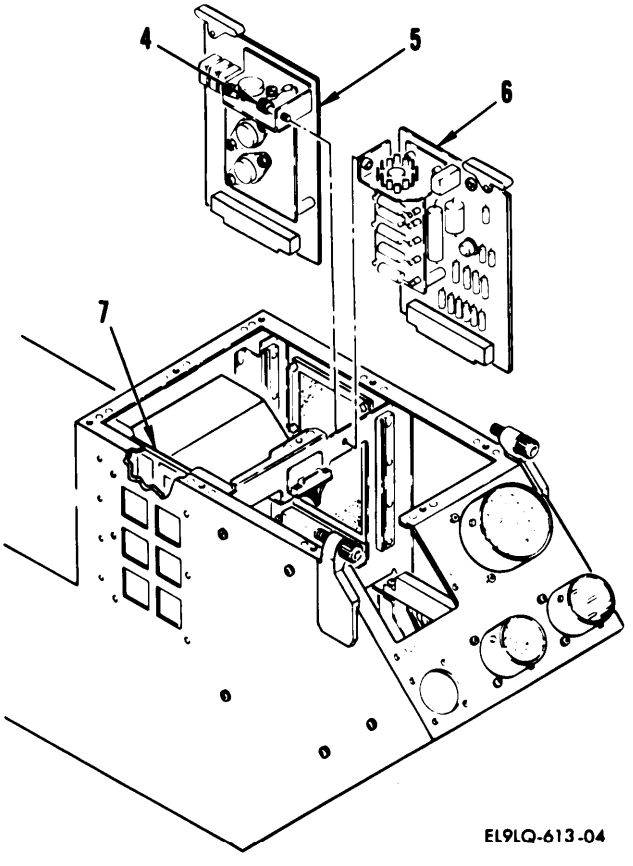
NOTE

This procedure is used to replace CCAS A13, A14, or A15.

REMOVAL

a. Loosen 11 screws (1) securing top cover assembly (2) to chassis assembly (3). Remove cover.





b. Loosen captive screw (4) securing CCAS A13 (5) and A14 (6) to chassis. Remove CCA A13.

c. Disconnect connector P4 from connector 14J1 and remove CCA A14.

d. Disconnect connector P3 from connector A15J1 and remove CCA A15 (7).

INSTALLATION

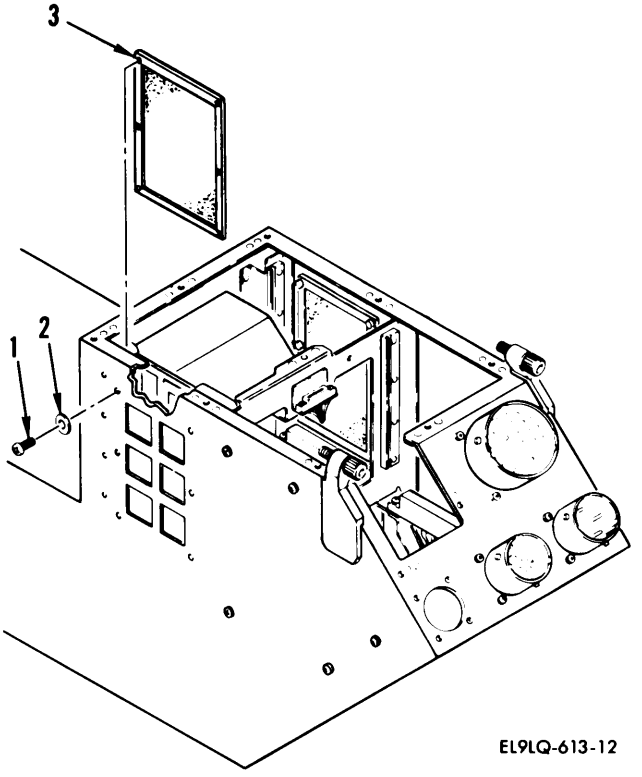
e. Install in reverse order of removal.

END OF TASK

3. FILTER ASSEMBLY REPLACEMENT

a. Remove CCA A13 (2 above).

b. Remove six screws (1), washers (2), and filter assembly (3).

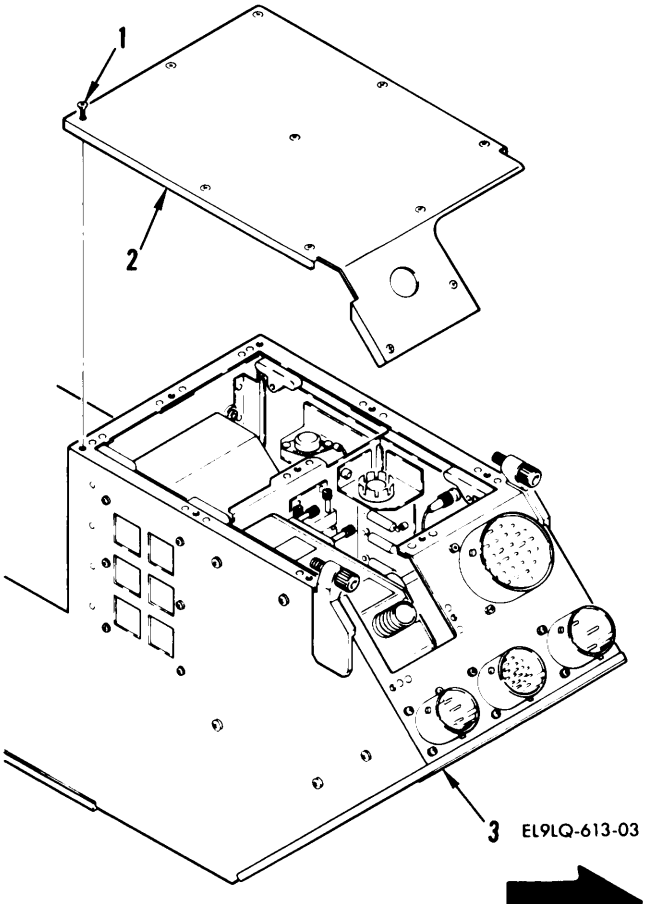


c. Inspect filter for defects and cleanness. Refer to paragraph 2-22 for cleaning.

4. HIGH VOLTAGE POWER SUPPLY ASSEMBLY A3 REPLACEMENT

REMOVAL

a. Loosen 11 screws (1) securing top cover assembly (2) to chassis assembly (3). Remove cover.



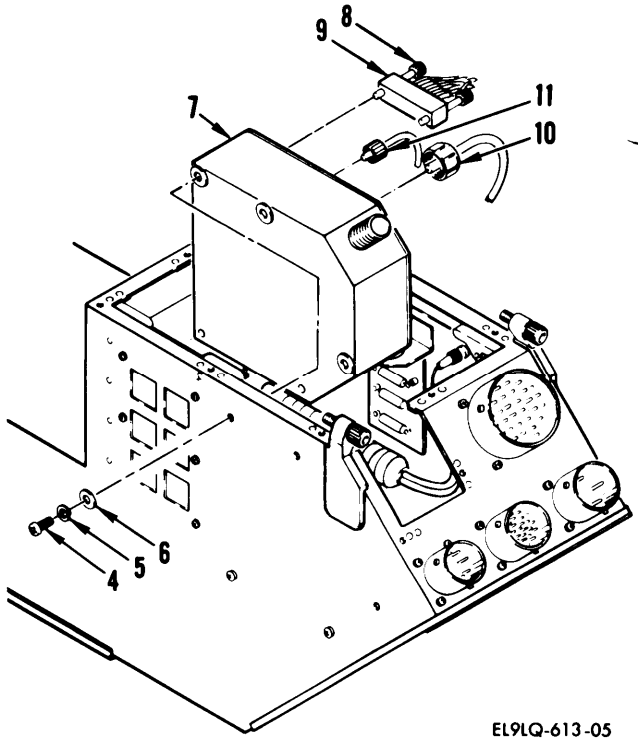
b. Remove five screws (4), lockwashers (5), and washers (6) securing high voltage power supply assembly (7) to chassis assembly.

c. Unscrew and disconnect cable (10) from connector J1 and lift power supply to access connector P3.

d. Loosen two screws (8) on connector P3 (9) and disconnect from connector A3J3.

e. Unscrew and disconnect cable (11) from connector J2.

f. Remove high voltage power supply assembly from chassis assembly.



EL9LQ-613-05

INSTALLATION

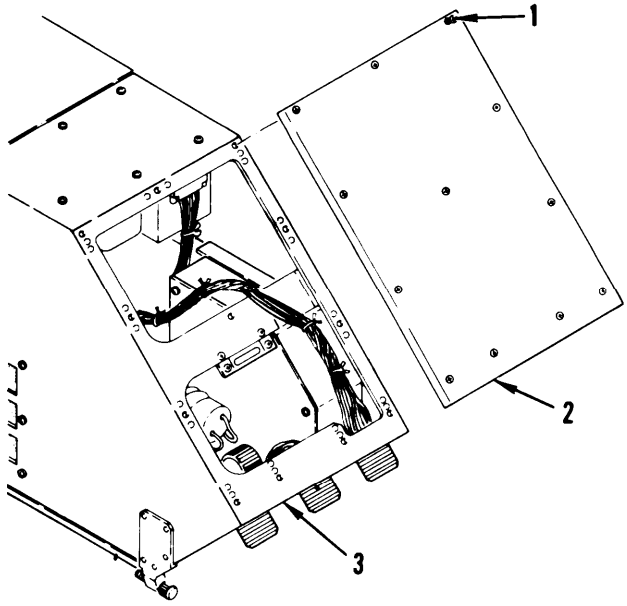
g. Install in reverse order of removal.

END OF TASK

5, LOW VOLTAGE POWER SUPPLY ASSEMBLY A12 REPLACEMENT

REMOVAL

a. Loosen 12 screws (1) securing rear cover assembly (2) to chassis assembly (3). Remove rear cover.



EL9LQ-613-06

b. Remove four screws (4), washers (5), and retainer (6) securing connector J2 (7) to chassis assembly.

c. Remove six screws (8) and washers (9) securing low voltage power supply (10) to chassis.

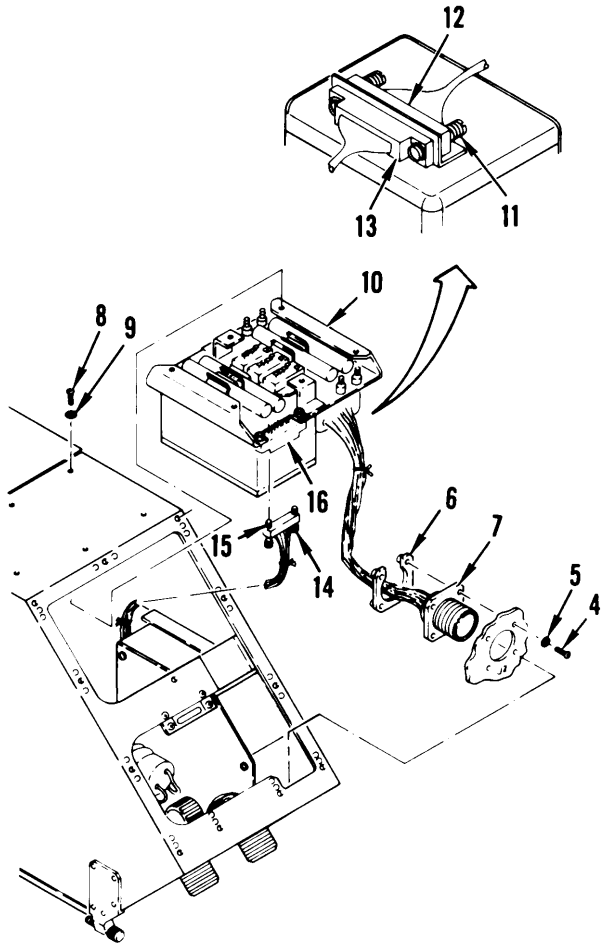
d. Loosen two screws (11) securing connector P7 (12) to connector A12J7 (13). Disconnect connector P7.

e. Loosen two screws (14) securing connector P8 (15) to A12J8 (16). Disconnect P8 and remove low voltage power supply assembly.

INSTALLATION

f. Install in reverse order of removal.

END OF TASK

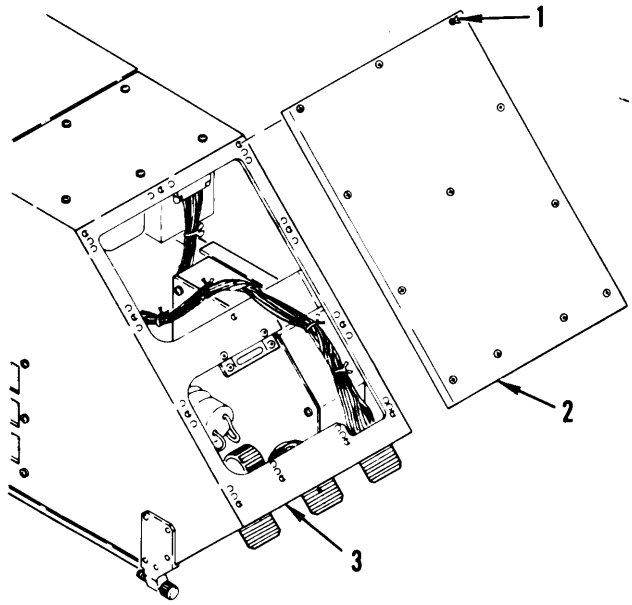


EL9LQ-613-07

6. ELAPSED TIME INDICATOR REPLACEMENT

REMOVAL

a. Loosen 12 captive screws (1) and remove rear cover (2) from chassis assembly (3).

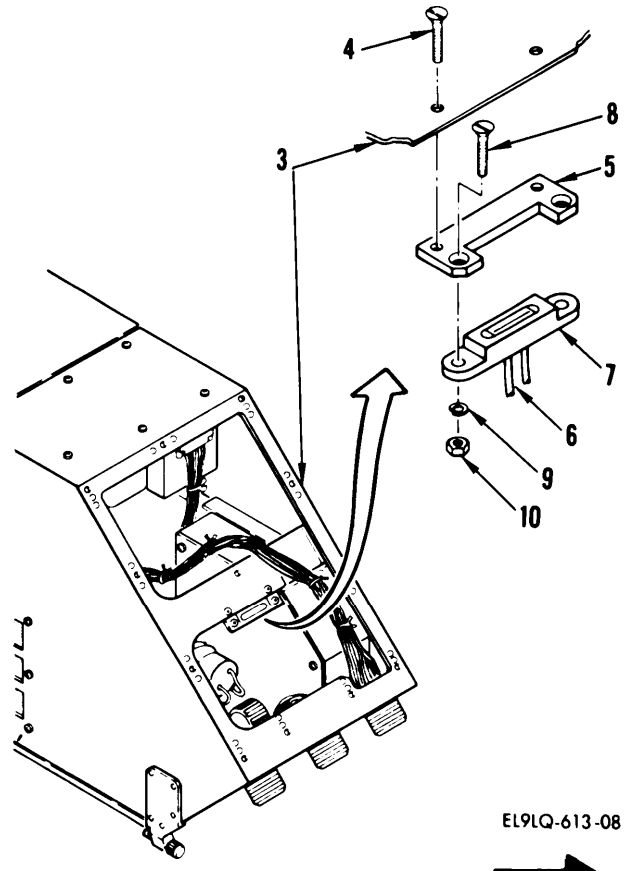


EL9LQ-613-06

b. Remove two screws (4) securing elapsed time indicator bracket (5) to chassis assembly (3).

c. Tag and remove two leads (6) from elapsed time indicator (7).

d. Remove two screws (8), lock-washers (9), nuts (10), and remove elapsed time indicator (7) from bracket (5).



EL9LQ-613-08

INSTALLATION

e. Install in reverse order of removal.

END OF TASK

7. FAN ASSEMBLY A4 REPLACEMENT

REMOVAL

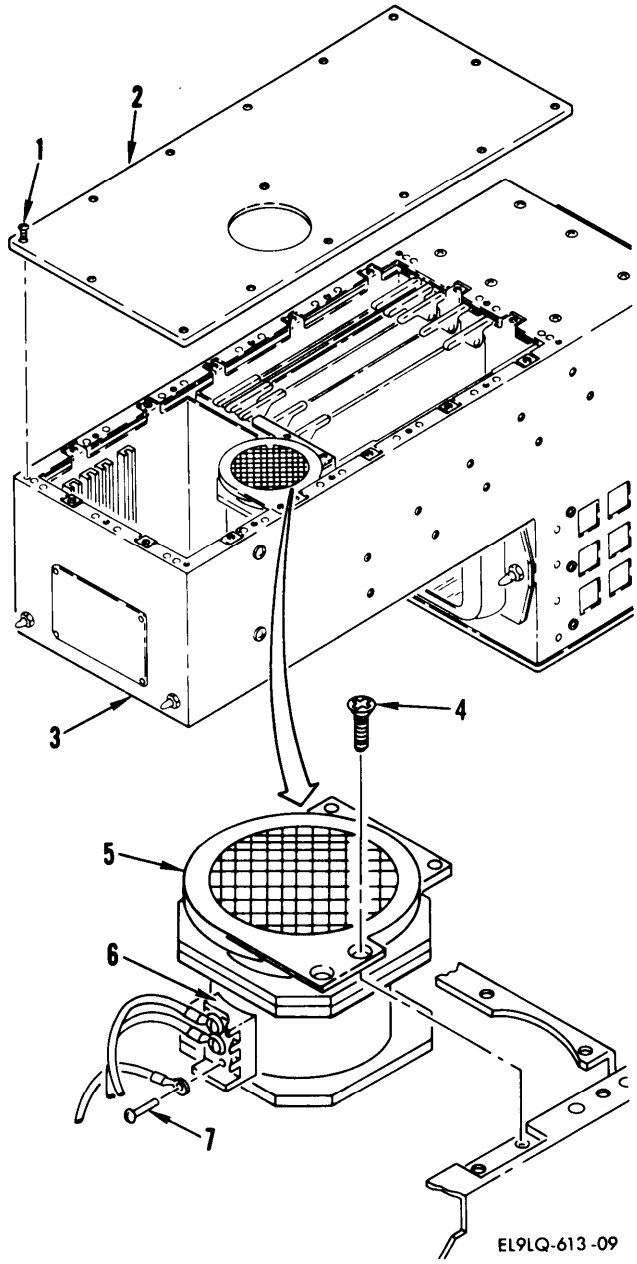
a. Loosen 15 captive screws (1) and remove bottom cover (2) from indirect view display (3).

b. Remove four screws (4) and position fan (5) to access terminal block (6).

NOTE

Terminal block is coated with silicone rubber that will have to be scraped off.

c. On terminal block (6), tag all leads, remove three screws (7) and leads, and remove fan assembly (5).



INSTALLATION

WARNING

TRICHLOROETHANE

- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
- AT 325°F, GIVES OFF PHOSGENE GAS, WHICH CAN CAUSE DEATH OR SERIOUS INJURY.
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET ON SKIN, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES, RUBBER GLOVES, AND RUBBER APRON.
- IF IT CONTACTS SKIN OR EYES, WASH AFFECTED AREAS WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

d. Using a soft cloth moistened with trichloroethane, clean terminal block on fan assembly.

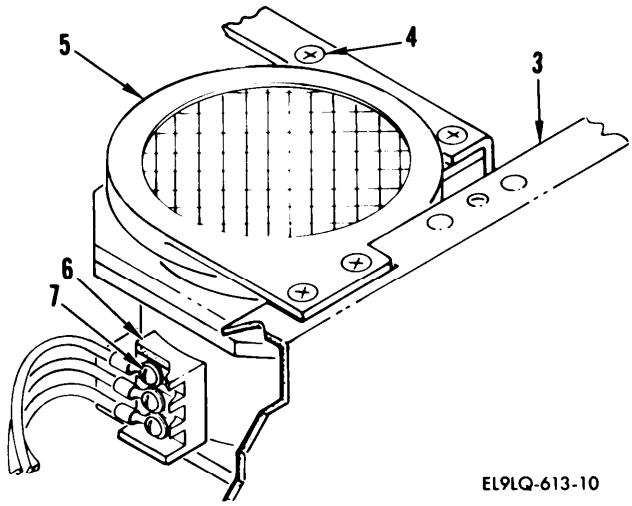
e. Scrape silicone residue from lugs on fan cable leads and clean with trichloroethane.

f. Position fan (5) into indirect view display (3) and install leads, as tagged, onto terminal block (6) and install three screws (7).

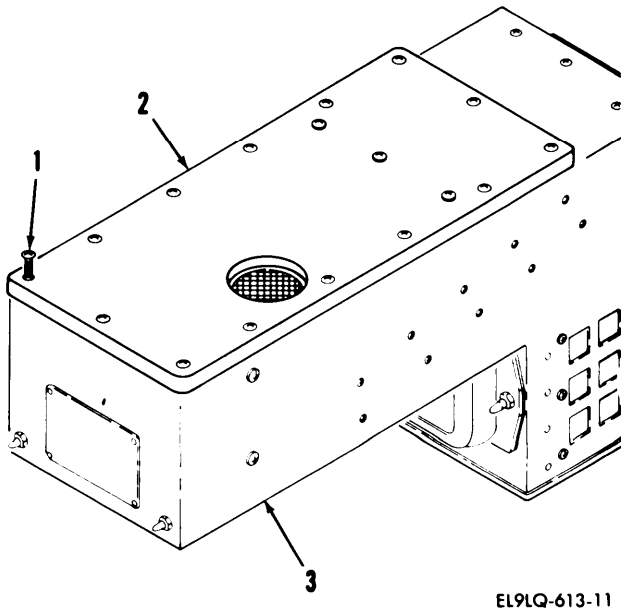
g. Position fan assembly (5) into indirect view display (3) and install four screws (4).

i. Position bottom cover (2) on indirect view display (3) and tighten 15 screws (1).

END OF TASK



EL9LQ-613-10



EL9LQ-613-11

5-27. HARNESS ASSEMBLY REPAIR 5-27

This task covers replacement of:

Para	Item	Para	Item
1.	Connector J1, J3, or J4 contact	6.	Connector J5
2.	Connector A1P1 or A1P2	7.	Connector J6
3.	Connector XA10 or XA11	8.	Connector P8
4.	Connector XA13, XA14, or XA15		
5.	Connector P3		

INITIAL SETUP

Materials (appendix C)

Heat shrinkable insulation sleeving (Item 28.2)
Heat shrinkable insulation sleeving (Item 29.1)
Lacing and tying tape (Item 44)

Personnel Required

39B ATE Repairer

FOLLOWUP

Indirect view display installation (para 5-25)

CONNECTOR DATA TABLE

	CONTACT				CRIMPING TOOL		INSTALL/REMOVAL TOOL	
REF. DES.	TYPE	NO. PINS	SIZE	P/N	BASIC	PSNR*	INSTALL	REMOVE
J1	P	128	22D	1	A	B	d	a
J3	P	5	24	2	A	C,D	b	b
J4	P	37	24	1	A	B	d	a

1 CONTACT TYPE	2 CONTACT PART NUMBER	3 CRIMPING TOOL	4 INSTALLATION/REMOVAL TOOL
P - PIN	1 - M39029/58-360	A - M22520/2-01	a - M81969/14-01
S - SOCKET	2 - M39029/76-424	B - M22520/2-09	b - M81969/14-03
		C - M22520/2-35	d - SOLDER
		D - M22520/4-02	

*POSITIONER

1. CONNECTOR J1, J3, OR J4 CONTACT REPLACEMENT

NOTE

This procedure is for repairing connector J1 (4) and can also be used for repairing connector J3 (5) or J4 (6).

REMOVAL

a. Remove rear assembly cover (para 5-26 task 5).

b. Remove faulty connector by removing four screws (1), washers (2), and connector plate (3).

c. Remove faulty contact from connector (connector data table).

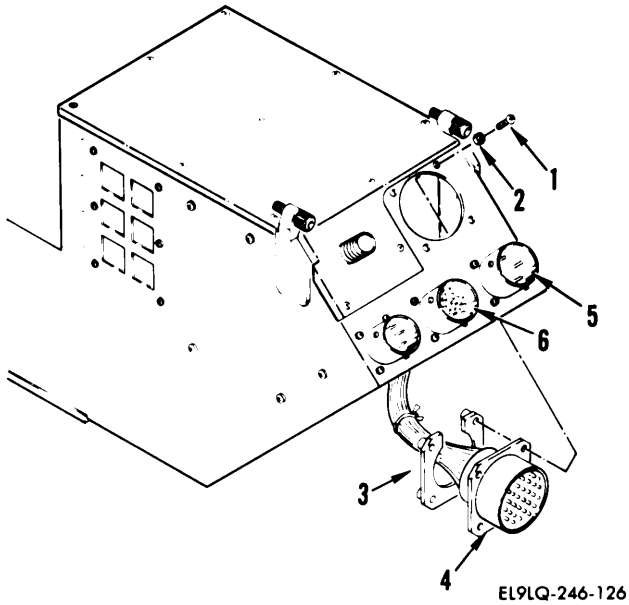
INSTALLATION

d. Install contact in connector (connector data table).

e. Install connector in chassis using four screws (1), washers (2), and connector plate (3).

f. Install rear assembly cover (para 5-26 task 5).

END OF TASK



2. CONNECTOR A1P1 OR A1P2 REPLACEMENT

NOTE

This procedure can be used to replace connector A1P1 or A1P2.

REMOVAL

a. Remove bottom assembly cover (para 5-26 task 1).

b. Remove CCA A5 (1) using card extractor.

c. Remove fan assembly (3) by removing four screws (2) and lifting from housing.

d. Disconnect faulty connector by loosening two screwlocks (4).

Connector	Mating Connector
A1P1 (5)	A6J1
A1P2 (6)	A6J2

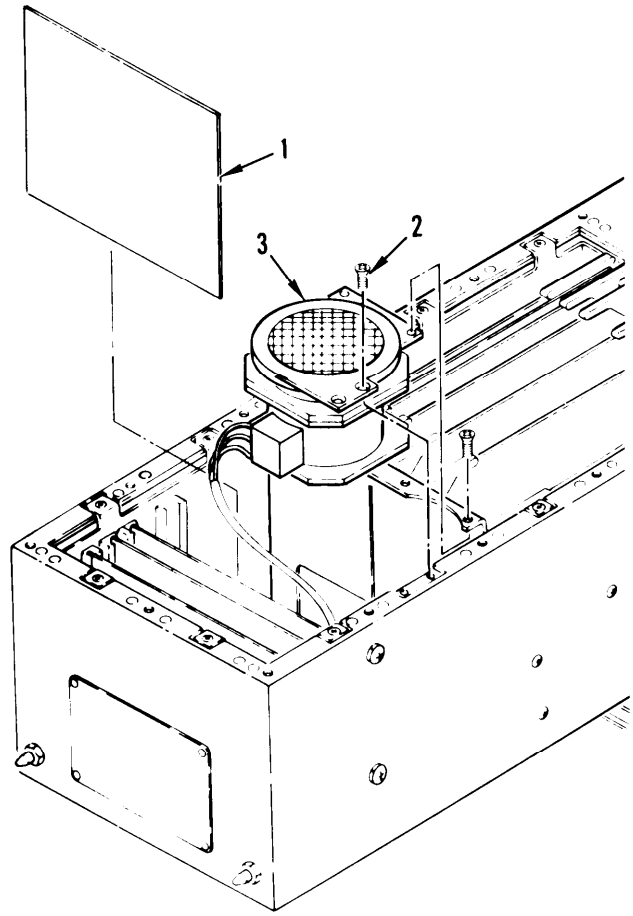
e. Remove faulty connector from wiring harness.

INSTALLATION

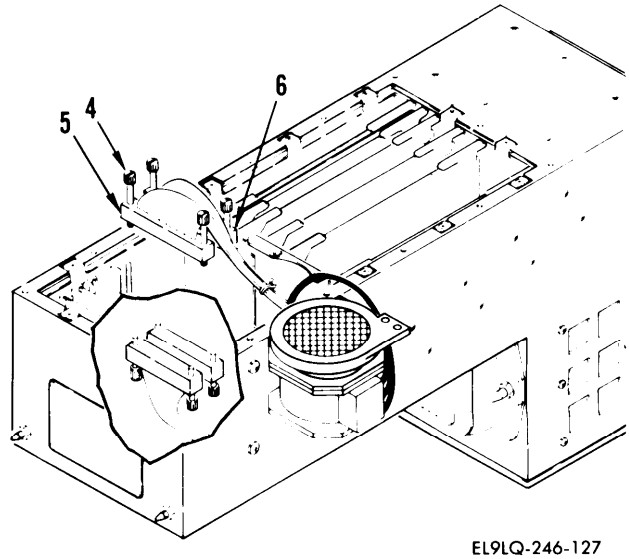
f. Install connector on wiring harness.

g. Connect connector to mating connector and tighten two screwlocks (4).

Connector	Mating Connector
A1P1 (5)	A6J1
A1P2 (6)	A6J2



EL9LQ-246-134



EL9LQ-246-127

h. Install fan assembly (3) using four screws (2).

i. Install CCAA5 (1).

j. Install bottom assembly cover (para 5-26 task 1).

END OF TASK

3. CONNECTOR XA1O OR XA11 REPLACEMENT

NOTE

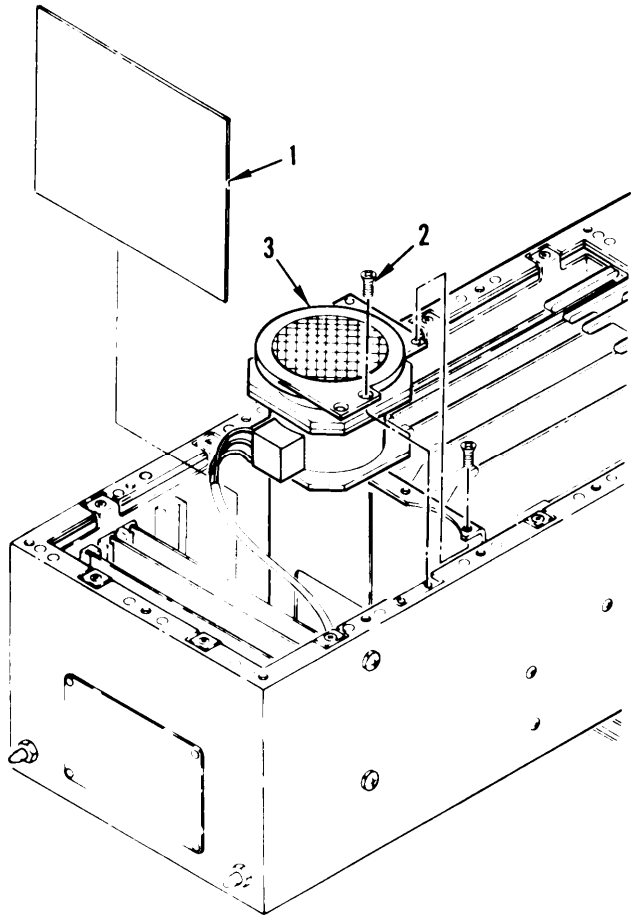
This procedure can be used to replace connector XA1O or XA11.

REMOVAL

a. Remove bottom assembly cover (para 5-26 task 1).

b. Remove CCA A5 (1) using card extractor.

c. Remove fan assembly (3) by removing four screws (2) and lifting from housing.



EL9LQ-246-134

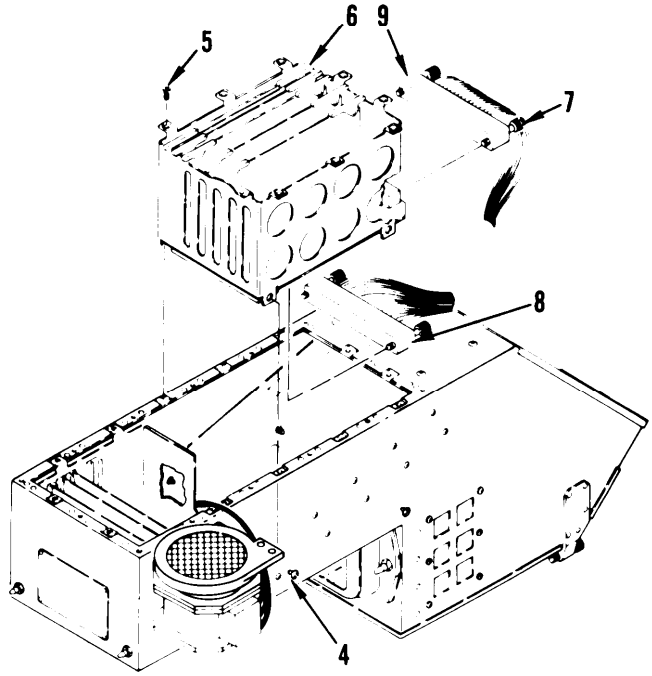
d. Loosen four captive screws (4).

e. Remove eight screws (5) and remove CCA cage (6).

f. Disconnect faulty connector by loosening two screwlocks (7).

Connector XA1O (9)
Connector XA11 (8)

g. Remove faulty connector from wiring harness.



EL9LQ-246-128

INSTALLATION

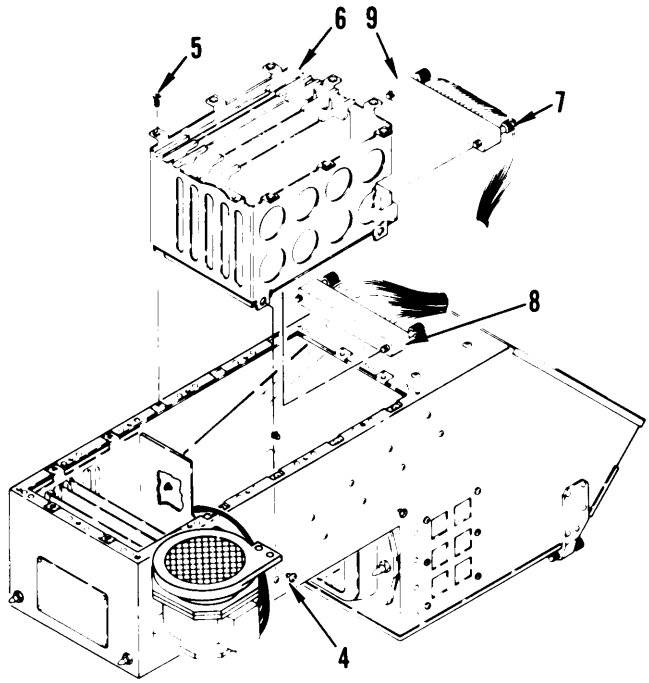
h. Install connector on wiring harness.

i. Connect connector to mating connector and tighten two screwlocks (7).

Connector XA10 (9)
Connector XA11 (8)

j. Install CCA cage (6) using eight screws (5).

k. Tighten four captive screws (4).



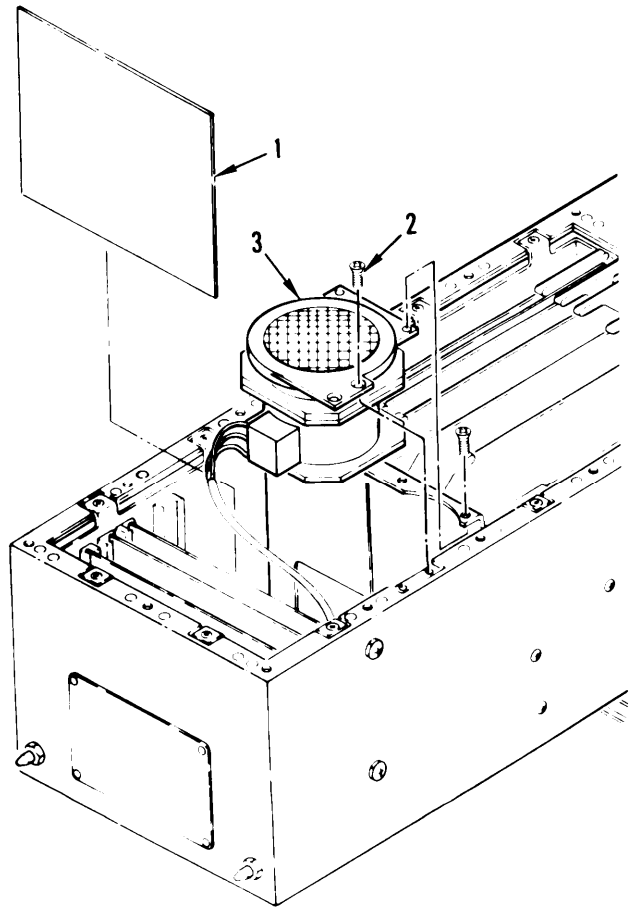
EL9LQ-246-128

l. Install fan assembly (3) using four screws (2).

m. Install CCAA5 (1).

n. Install bottom assembly cover (para 5-26 task 1).

END OF TASK



EL9LQ-246-134

4. CONNECTOR XA13, XA14, OR XA15 REPLACEMENT

NOTE

This procedure is for replacing connector XA15 (5) and can also be used for replacing connector XA13 (3) or XA14 (4).

REMOVAL

a. Remove top assembly cover (para 5-26 task 2).

NOTE

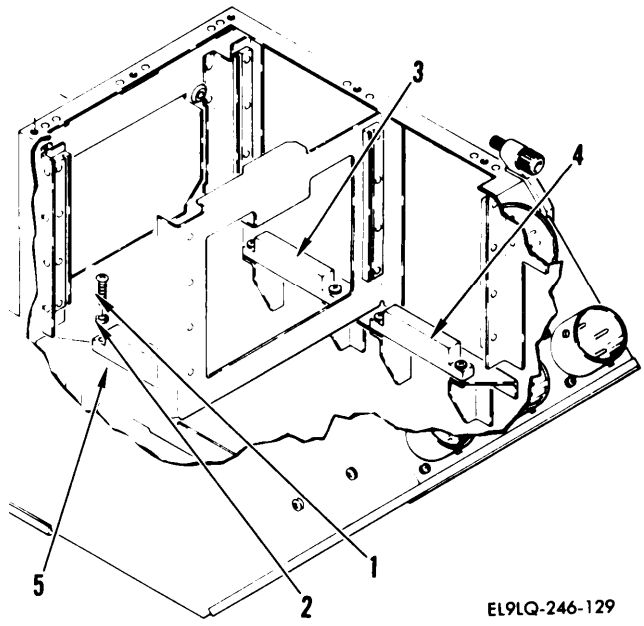
To gain access to connectors XA13, XA14, or XA15, the applicable CCA must be removed.

To replace connector	Remove CCA
XA13 (3)	A13
XA14 (4)	A14
XA15 (5)	A15

b. Remove applicable CCA.

c. Remove faulty connector from chassis assembly by removing two screws (1) and washers (2).

d. Remove faulty connector from wiring harness.



INSTALLATION

e. Install connector on wiring harness.

f. Install connector in chassis assembly using two screws (1) and washers (2).

g. Install applicable CCA A13, A14, or A15.

h. Install top cover assembly (para 5-26 task 2).

END OF TASK

5. CONNECTOR P3 REPLACEMENT

REMOVAL

a. Remove CGA A14.

b. Disconnect connector P3 (2) connector A3J3 (3) by loosening two screwlocks (1).

c. Remove connector P3 (2) from wiring harness.

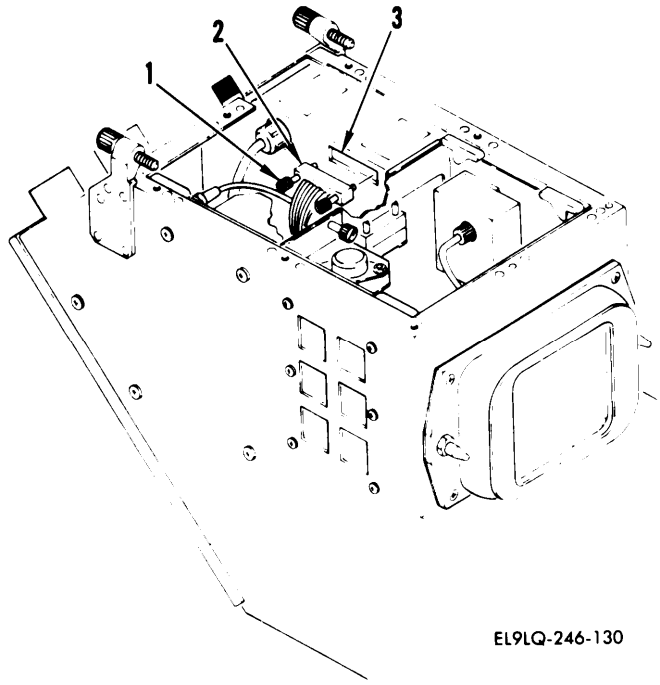
INSTALLATION

d. Install connector P3 (2) on wiring harness.

e. Connect connector P3 (2) to connector A3J3 (3) and tighten two screwlocks (1).

f. Install CCA A14.

END OF TASK



6. CONNECTOR J5 REPLACEMENT

REMOVAL

a. Remove CCA A14.

b. Disconnect connector P5 (2) from connector J5 (3) by loosening two screwlocks (1).

c. Remove connector J5 (3) from bracket (6) by removing two screws (4) and washers (5).

NOTE

Move connector J5 into forward compartment for easier access.

d. Remove connector J5 (3) from wiring harness.

INSTALLATION

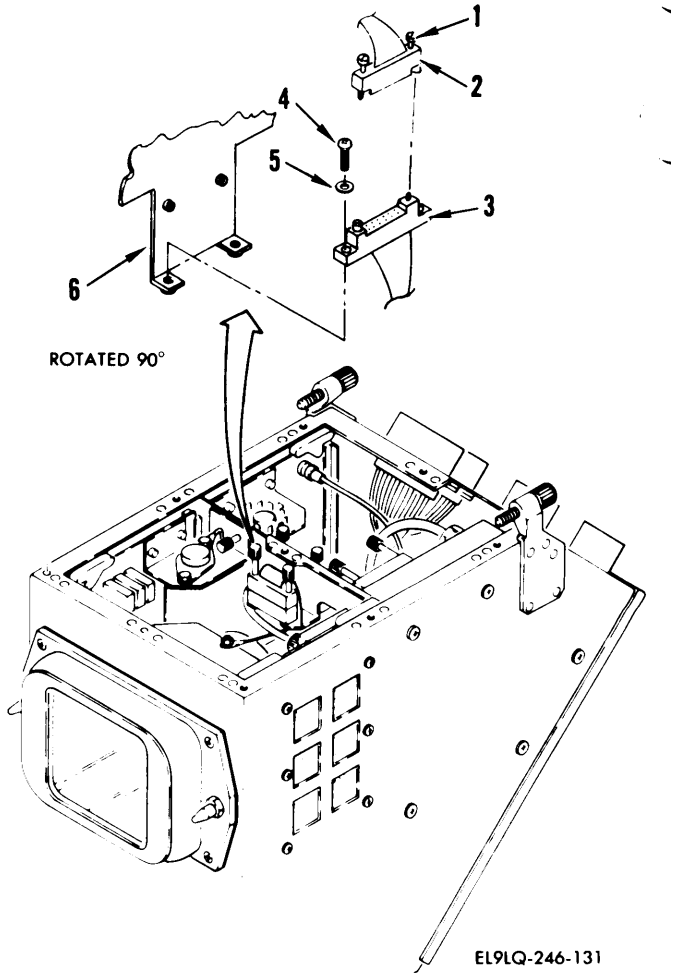
e. Install connector J5 (3) on wiring harness.

f. Install connector J5 (3) on bracket (6) using two screws (4) and washers (5).

g* Connect connector J5 (3) to connector P5 (2) and tighten two screwlocks (1).

h. Install CCA A14.

END OF TASK



7. CONNECTOR J6 REPLACEMENT

REMOVAL

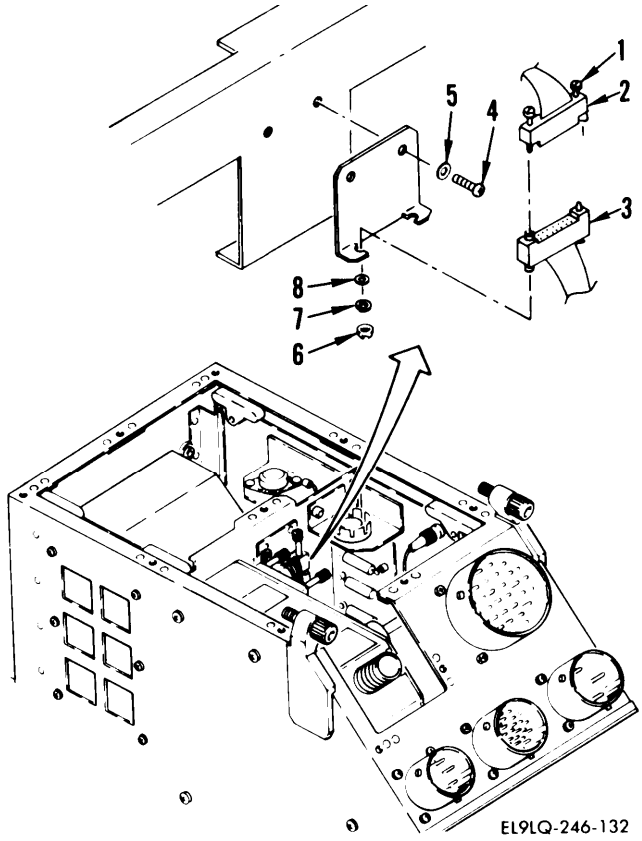
a. Remove CCA A14.

b. Disconnect connector P6 (2) from connector J6 (3) by loosening two screwlocks (1).

c. Remove bracket with connector J6 (3) from chassis assembly by removing two screws (4) and washers (5).

d. Remove connector J6 (3) from bracket by removing two nuts (6), lockwashers (7), and washers (8).

e. Remove connector J6 (3) from wiring harness.



INSTALLATION

f. Install connector J6 (3) on wiring harness.

g. Install connector J6 (3) on bracket using two washers (8), lockwashers (7), and nuts (6).

h. Install connector J6 (3) in chassis assembly using two screws (4) and washers (5).

i. Connect connector P6 (2) to connector J6 (3) and tighten two screwlocks (1).

j. Install CCA A14.

END OF TASK

5-27. HARNESS ASSEMBLY REPAIR (cont)

8. CONNECTOR P8 REPLACEMENT

REMOVAL

a. Remove rear assembly cover (para 5-26 task 5).

b. Disconnect connector P8 (2) by loosening two screwlocks (1).

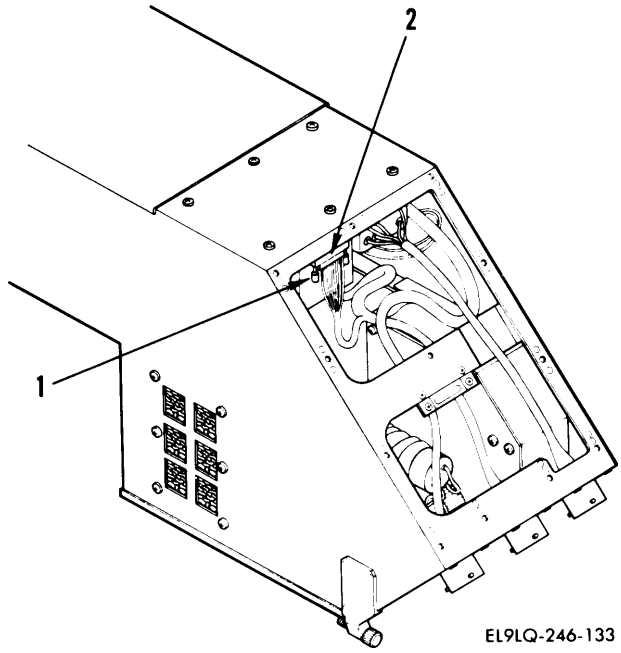
c. Remove connector P8 (2) from wiring harness.

INSTALLATION

d. Install replacement connector P8 (2) on wiring harness.

e. Connect connector P8 (2) and tighten two screwlocks (1).

f. Install rear assembly cover (para 5-26 task 5).



END OF TASK

5-28. FIELD LENS ASSEMBLY REPLACEMENT 5-28

INITIAL SETUP

Tools

Goggles
Rubber apron

Materials (appendix C)

Artists brush (Item 8)
Cheesecloth pad (Item 11)
Rubber gloves (Item 26)
Pipe cleaners (Item 37)
Sealing compound primer (Item 38)
Locking and retaining sealing compound (Item 41)
Nose mouth shield (Item 42)
Trichloroethane (Item 47)

Personnel Required

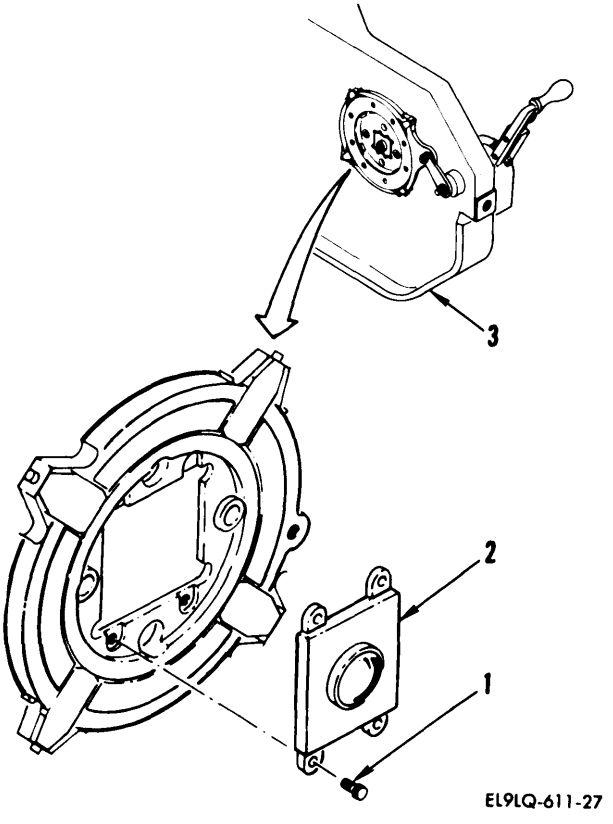
396 ATE Repairer

Equipment Condition

Power removed (para 2-24.1)

REMOVAL

l. Remove four screws (1) securing field lens assembly (2) to sensor mount bracket assembly (3). Remove field lens assembly.



WARNING

TRICHLOROETHANE

- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
- AT 325°F, GIVES OFF PHOSGENE GAS, WHICH CAN CAUSE DEATH OR SERIOUS INJURY.
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET ON SKIN, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES, RUBBER GLOVES, AND RUBBER APRON.
- IF IT CONTACTS SKIN OR EYES, WASH AFFECTED AREAS WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

2. Using trichloroethane, clean old sealing compound from threads of field lens assembly mounting screws (1) and from threads in sensor mount bracket assembly (3).

INSTALLATION

CAUTION

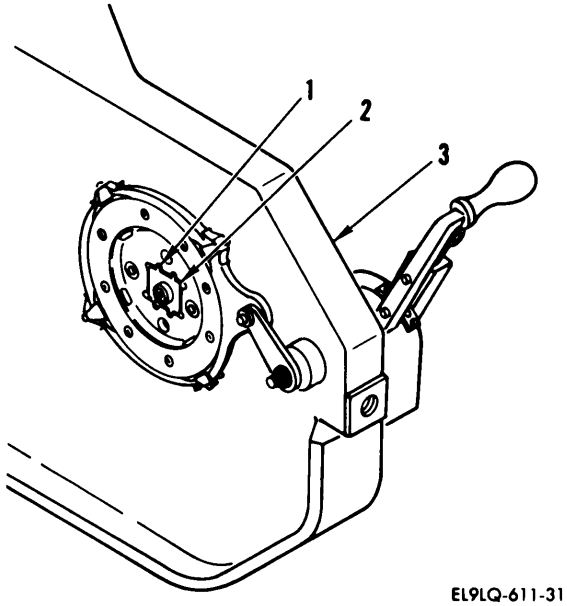
Do not touch optical surfaces of field lens assembly to avoid damage.

3. Coat field lens assembly mounting screw threads (1) with sealing compound primer. Allow to cure for 15 to 30 minutes.

NOTE

Assemble screws into final position within 10 minutes after application of sealing compound.

4. Coat threads of primed screws with sealing compound.



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5. Position field lens assembly (2) on sensor mount assembly (3) and secure with four screws (l).

6. Allow sealing compound to cure for 5 hours minimum at no less than 45°F.

END OF TASK

5-29. POWER SUPPLY ASSEMBLY 2A1A6 REPAIR

This task covers replacement of:

Para	Item
1.	High voltage power supply assembly
2.	High voltage power supply assembly CCA
3.	Relays K1 or K2, connector J1, or terminal board Al
4.	Resistors R1 or R2, or capacitor C1

INITIAL SETUP

Personnel Required

39B ATE Repairer

Material (appendix C)

Solder (Item 43)

Equipment Conditions

Power removed (para 2-24.1)
Cabinet rear panel removed (para 2-41)

FOLLOWUP

Cabinet rear panel installation (para 2-41)

1. HIGH VOLTAGE POWER SUPPLY ASSEMBLY REPLACEMENT

NOTE

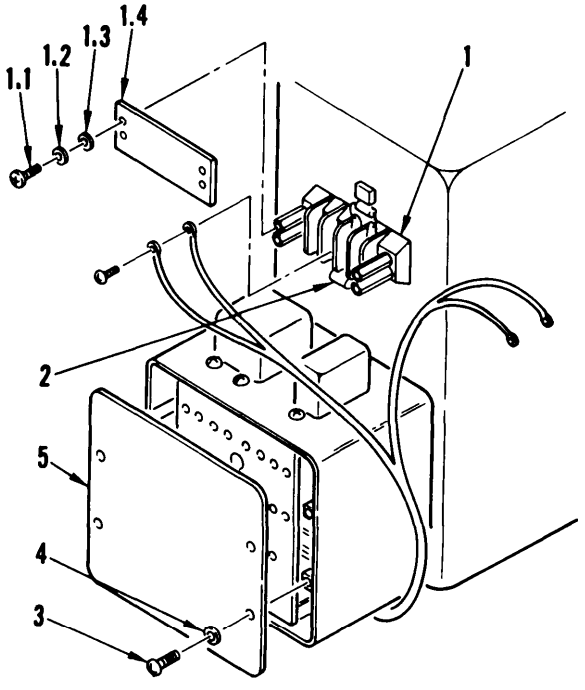
For test and/or repair of high voltage power supply assembly (except CCA replacement) refer to TPS part number 13082575.

REMOVAL

a. Remove four screws (1.1), washers (1.2), lockwashers (1.3), and terminal board cover (1.4).

a.1. Remove all wires from terminal board TB1 (1). Tag if necessary. Replace one screw to secure resistor R1 (2).

b. Remove four screws (3), washers (4), and electronic box assembly cover (5).



EL9LQ-610-54A

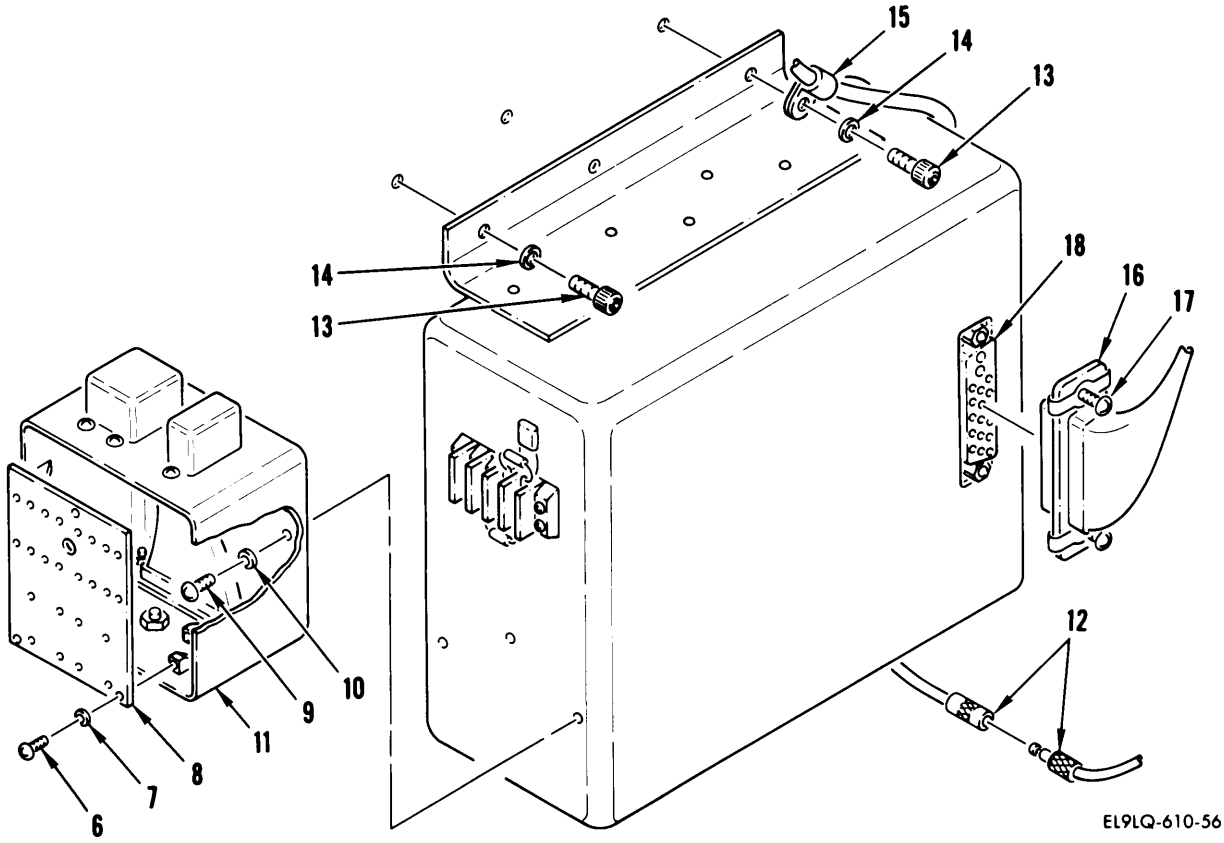
c. Remove three screws (6), washers (7), and terminal board A1 (8).

d. Remove three screws (9), washers (10), and electronic box assembly (11). Allow electronic box assembly to hang by wires.

e. Disconnect ground wire quick-disconnect (12).

f. Remove six screws (13), washers (14), and two cable clamps (15) securing high voltage power supply assembly. Move high voltage power supply assembly out of cabinet to gain access to connector 2A1W45P1 (16).

g. Loosen two screws (17) securing connector 2A1W45P1 (16) to high voltage power supply connector J1 (18). Separate connectors.

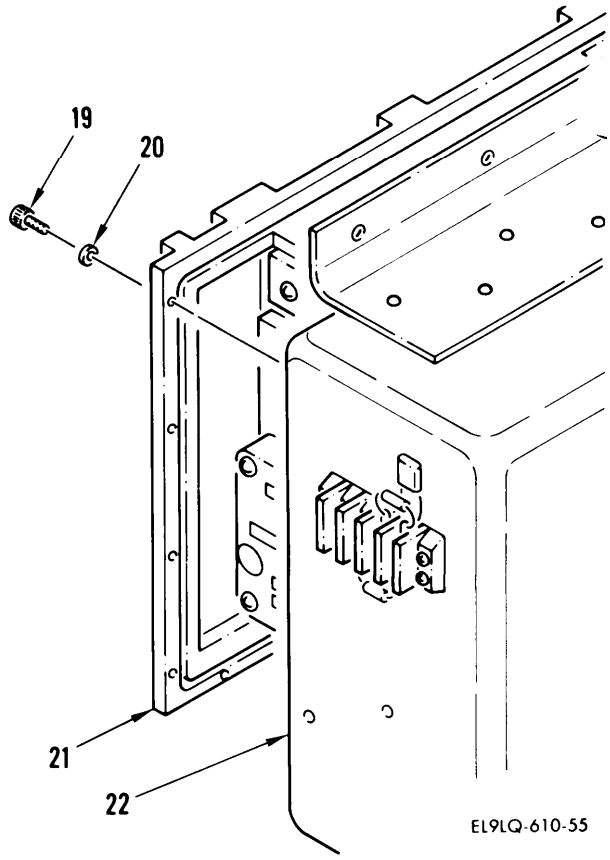


h. Place power supply assembly on work bench and remove 14 screws (19) and washers (20). Separate high voltage power supply assembly (21) from power supply assembly case (22).

INSTALLATION

i. Install in reverse order of removal.

END OF TASK



2. HIGH VOLTAGE POWER SUPPLY ASSEMBLY CCA REPLACEMENT

REMOVAL

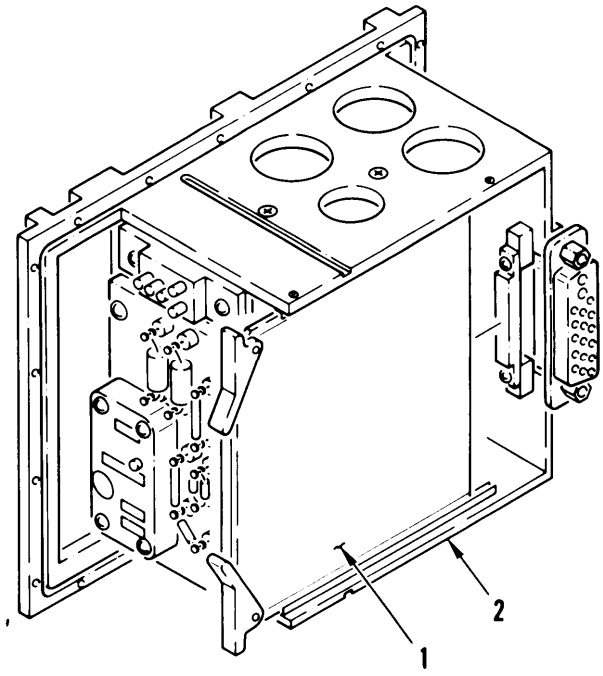
a. Remove high voltage power supply assembly (1 above).

b. Using card ejectors, remove CCA (1) from high voltage power supply assembly (2).

INSTALLATION

c. Install in reverse order of removal.

END OF TASK



3. RELAYS K1 OR K2, CONNECTOR J1, OR TERMINAL BOARD Al REPLACEMENT

REMOVAL

a. Remove four screws (1.1), washers (1.2), lockwashers (1.3), and terminal board cover (1.4).

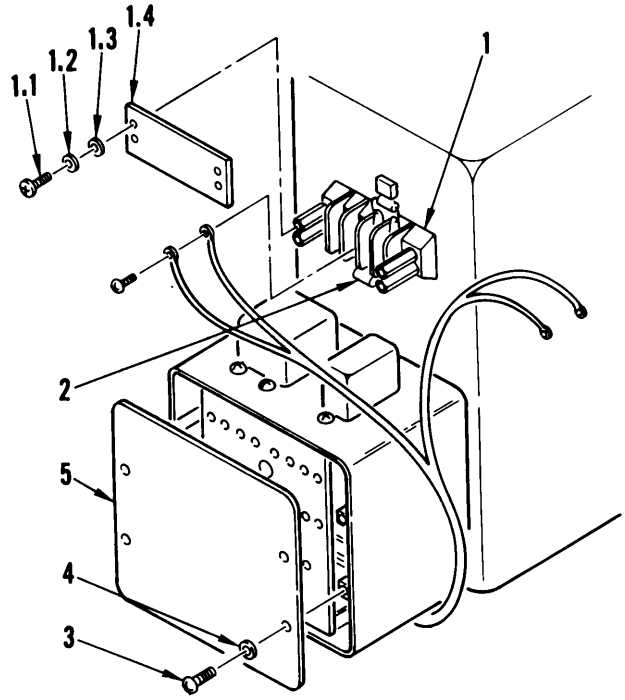
a.1. Remove all wires from terminal board TB1 (1). Tag if necessary. Replace one screw to secure resistor R1 (2).

b. Remove four screws (3), washers (4), and cover (5).

c. Remove three screws (6), washers (7), and terminal board A1 (8) from electronic box assembly (9).

d. Remove three screws (10), washers (11), and electronic box assembly (9). Allow electronic box to hang by wires.

e. Remove nut (12), lockwashers (13), washer (14), terminal lug (15), washer (16), terminal lug (17), washer (18), and screw (19).



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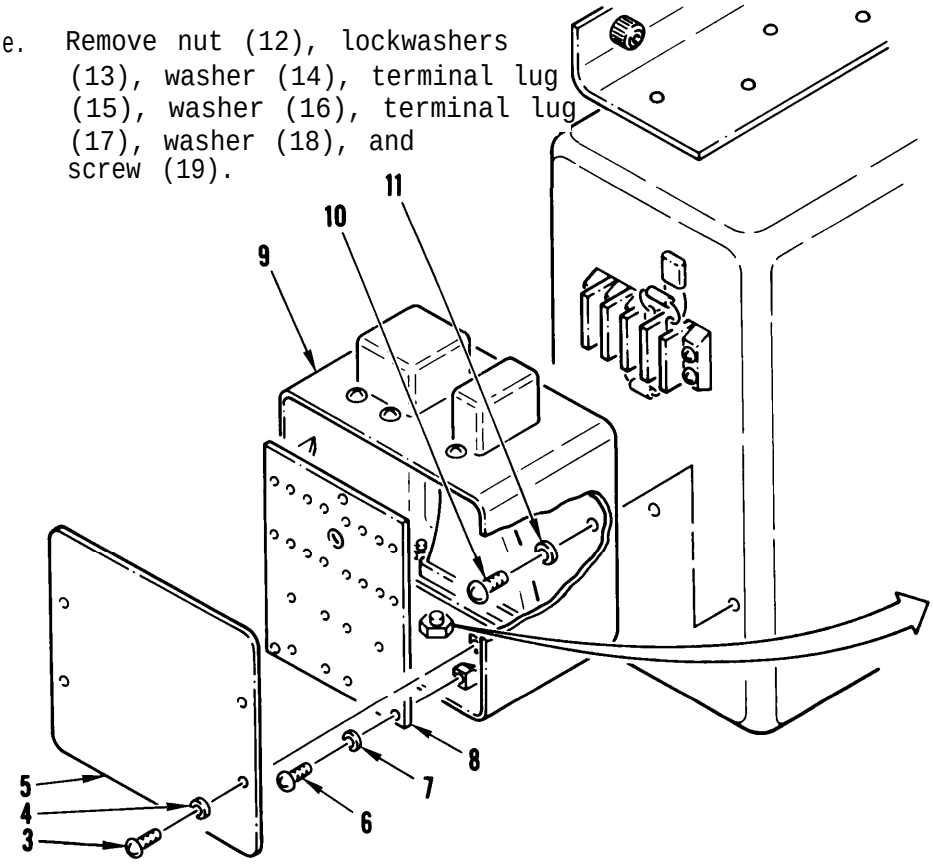
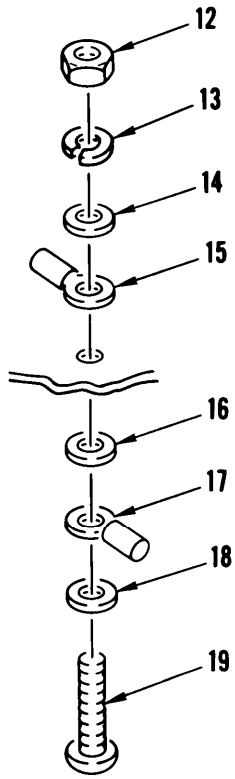




EL9LQ-610-60

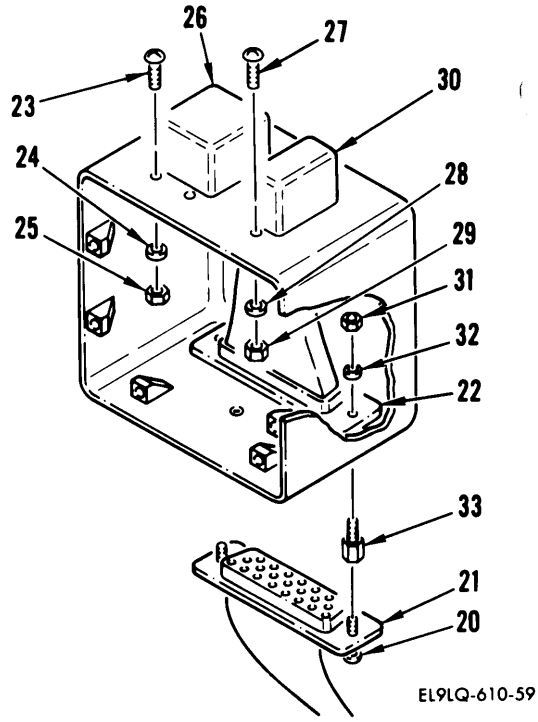
f. Loosen two screws (20) securing connector 2A1W45P2 (21) to electronic box assembly connector J1 (22). Separate connectors.

g. Place electronic box assembly on work bench and remove three screws (23), washers (24), and nuts (25) from relay K1 (26).

h. Remove two screws (27), washers (28), and nuts (29) from relay K2 (30).

i. Remove two nuts (31), lockwashers (32), and posts (33) from connector J1 (22).

j. Unsolder wires from relay K1 or K2, connector J1, or terminal board A1. Tag wires, if necessary.



INSTALLATION

k. Install in reverse order of removal.

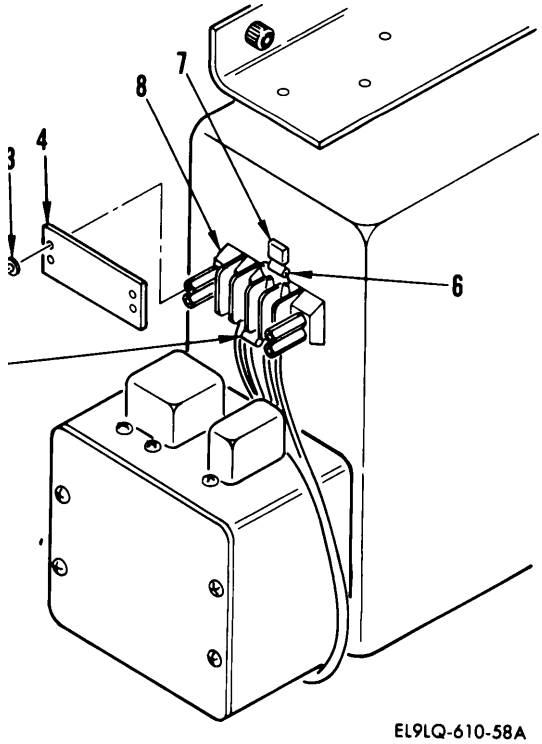
END OF TASK

4. RESISTOR R1 OR R2, OR CAPACITOR C1 REPLACEMENT

REMOVAL

a. Remove four screws (1), washers (2), lockwashers (3), and terminal board cover (4).

b. Unsolder and remove resistor R1 (5), or R2 (6), or capacitor C1 (7) from solder lugs on terminal board TB1 (8).



INSTALLATION

c. Install in reverse order of removal.

ENDOF TASK

Section IV. TEST CONSOLE TEST BENCH 2A2 MAINTENANCE PROCEDURES

5-30. TEST CONSOLE TEST BENCH 2A2 REPLACEMENT 5-30

INITIAL SETUP

Tools/Special Tools

Torque wrench, 0 to 60 ft-lb

Personnel Required

39B ATE Repairer
One assistant

Reference

TM 11-6625-3085-30

Equipment Conditions

Dayside test bench removed from base (para 5-9)
Protective skirts removed (para 5-6)

FOLLOWUP

Dayside test bench installation (para 5-9)
Protective skirt installation (para 5-6)

5-30. TEST CONSOLE TEST BENCH 2A2 REPLACEMENT (cont) 5-30

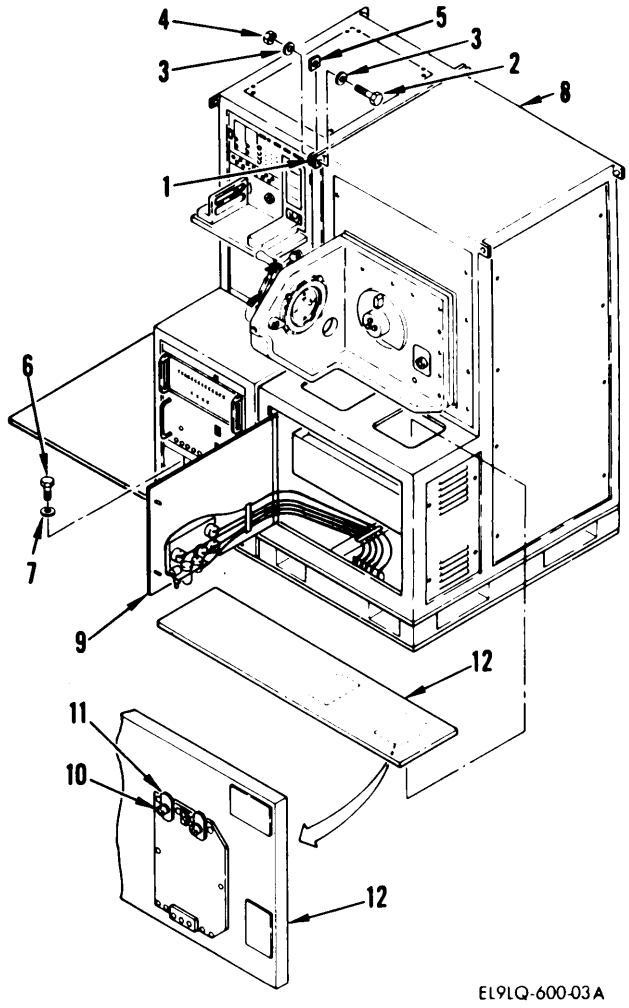
REMOVAL

1. On front tiedown lug (1), remove bolt (2), two washers (3), nut (4), and tie bar (5).

2. On base of test console test bench, remove two bolts (6) and washers (7).

3. Check that all slide mounted assemblies are properly secured in test bench.

4. On nightside test bench (8) open access door (9). On underside of bench top loosen four screws (10), rotate four retainers (11), and remove bench top (12).



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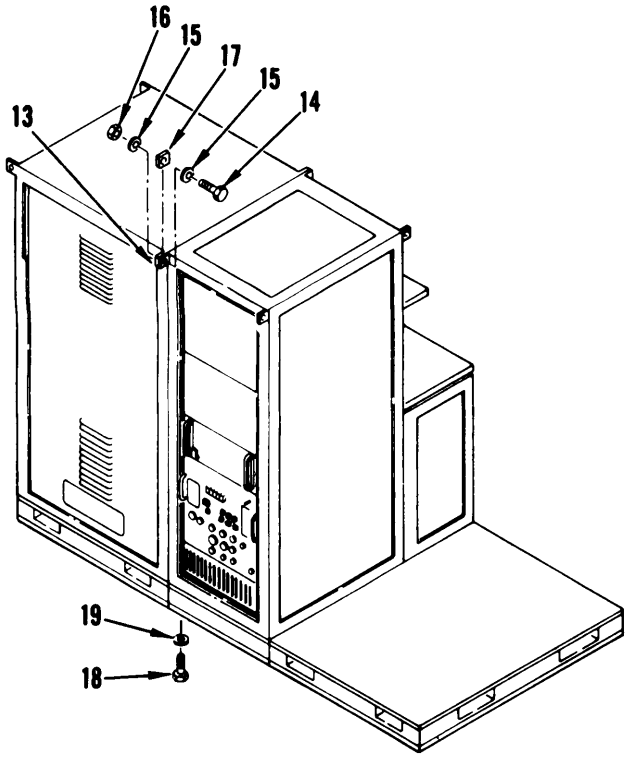


EL9LQ-600-05

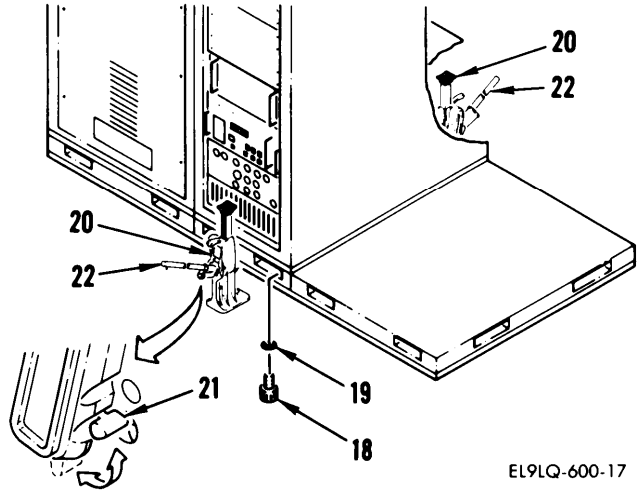
5. On rear tiedown lug (13), remove bolt (14), two washers (15), nut (16), and tie bar (17).

6. On base of test console test bench, remove two bolts (18), and washers (19).

7. Test console test bench is now ready for movement. Refer to TM 11-6625-3085-30.

INSTALLATION

8. Position test console test bench over base assembly and install two bolts (18) and washers (19) through base at rear.

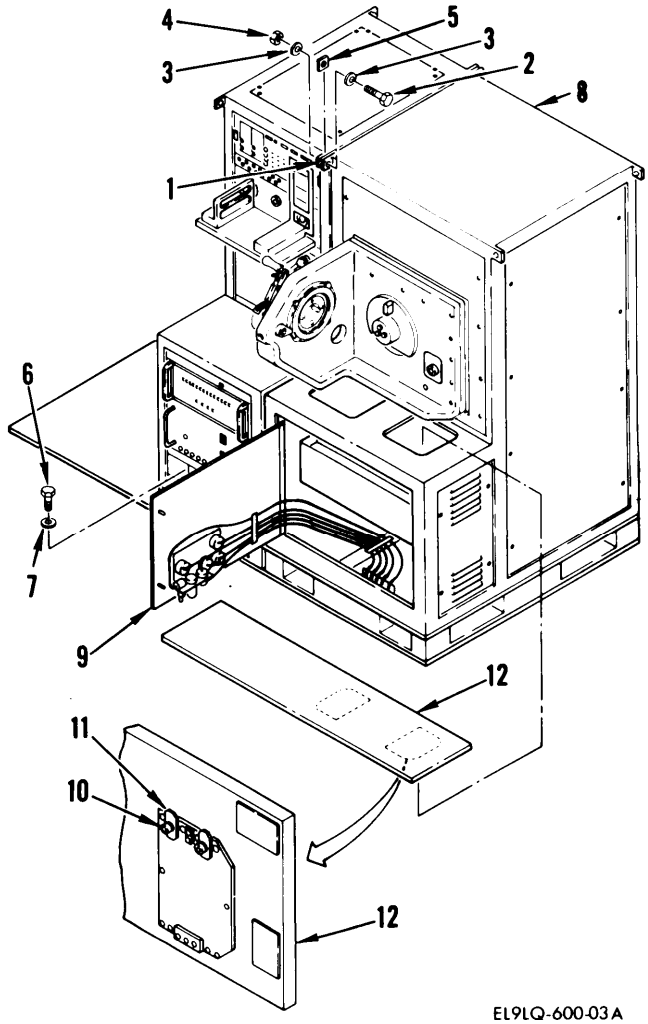


9. Install two bolts (6) and washers (7) through base at front.

10. Remove rolalift from test console test bench.

Torque bolts (18) and (6) to 60 ft-lb.

12. Position two jacks (20) under center of base. Position jack levers (21) to the up position and insert jack handles (22).

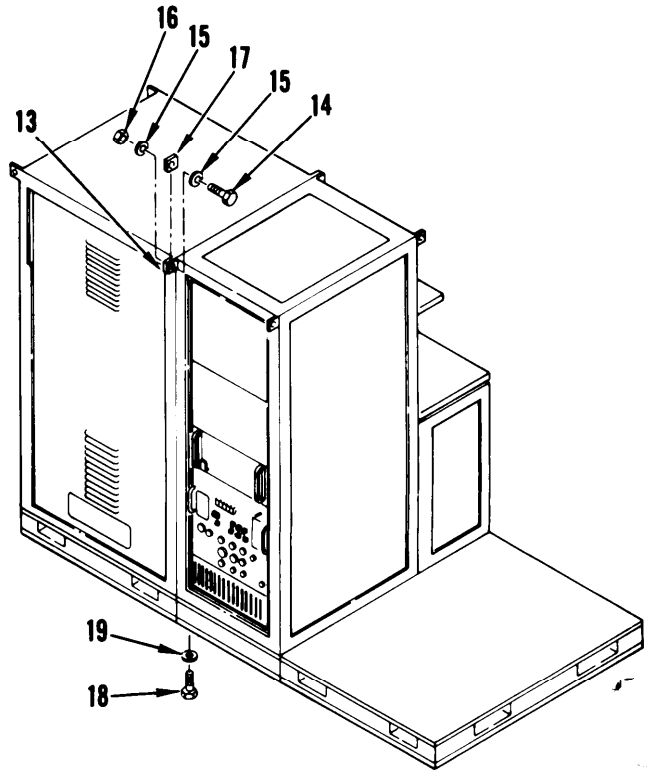


13. Using two persons jack up base so tie bars (5) and (17) can be inserted between tiedown lugs (1) and (13) at top of test console test bench.

WARNING

DO NOT PLACE FINGERS BETWEEN TIEDOWN LUGS WHEN INSTALLING TIE BARS, SERIOUS INJURY COULD RESULT IF FINGERS BECOME PINCHED.

14. On rear of test console test bench install tie bar (17) with bolt (14), two washers (15), and nut (16).



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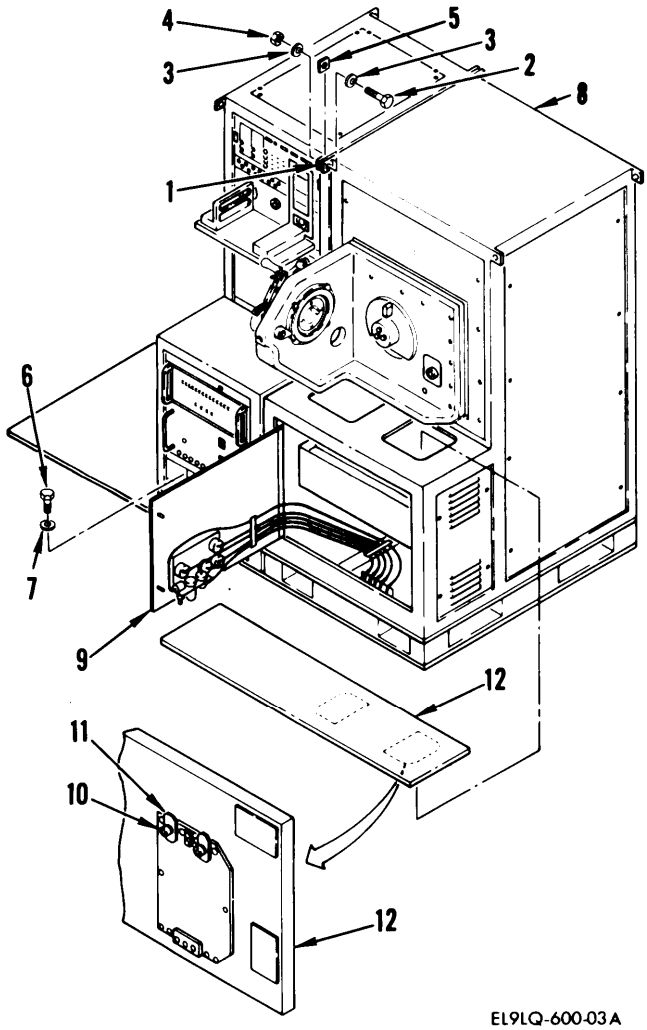


EL9LQ-600-03A

15. On front of test console test bench install tie bar (5) with bolt (2), two washers (3), and nut (4). Torque bolts (2) and (14) to 50 ft-lb.

16. Lower base and remove jacks.

17. On nightside test bench (8) open access door (9). Install bench top (12). On underside, rotate four retainers (11) and tighten four screws (10).

18. Close access door (9).

END OF TASK

5-31. TEST CONSOLE TEST BENCH 2A2 CABINET REPAIR

This task covers replacement of:

Para	Item	Para	Item
1.	Slide	2.	Cable carrier

INITIAL SETUP

Material (appendix C)

Lacing tape (Item 44)

Personnel Required

35C30 ATE Repairer

Personnel Required

35C30 ATE Repairer

Equipment Condition

Power removed (para 2-24.1)

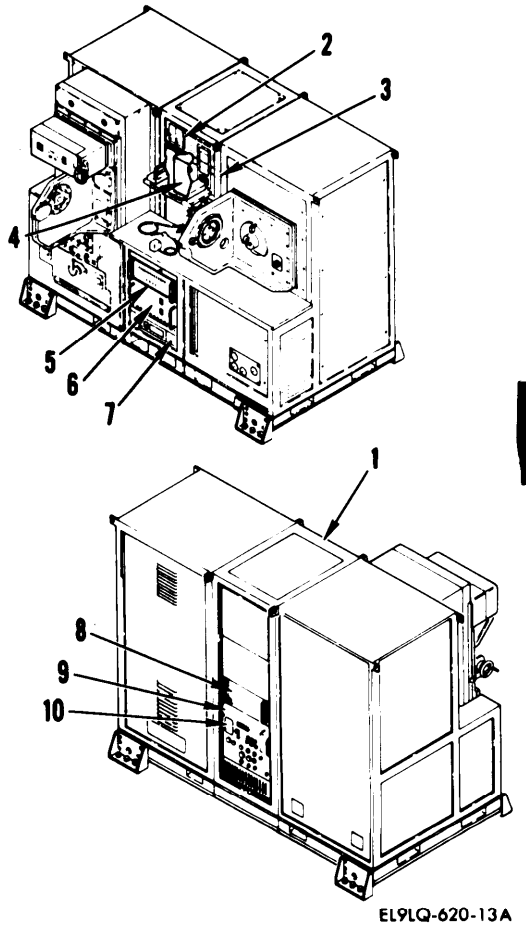
1. SLIDE REPLACEMENT

REMOVAL

NOTE

Test console test bench (1) uses various drawer slides. The following list identifies assemblies that are slide mounted.

Item	Assembly	Ref Des	Para Ref
2	Programmable digitizer assembly	2A2A1	2-43
3	Optical signal generator assembly	2A2A3	2-46
4	Matrix switch assembly	2A2A10	2-54
5	Multiprogrammer assembly	2A2A6	2-48
6	Electronics drawer assembly	2A2A7	2-50
7	Extender assembly	2A2A8	2-52
8	Multiprogrammer extender assembly	2A2A11	2-56
9	Switch controller assembly	2A2A12	2-58
10	Analog to digital converter assembly	2A2A13	2-60



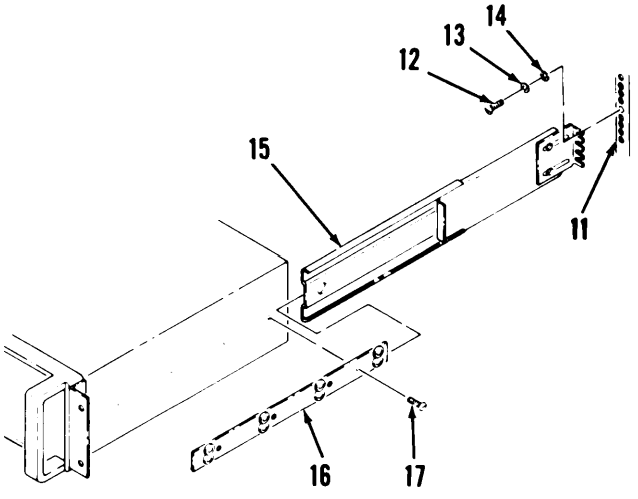
NOTE

This procedure is used to replace the defective section of either the left or right slide assembly.

a. Remove assembly (2 thru 10) containing defective slide assembly as listed above.

b. For defective slide track on cabinet (11), remove four screws (12), lockwashers (13), washers (14), and remove left or right slide track (15).

c. For defective slide on an assembly, remove left or right defective slide (16) by removing four screws (17).



INSTALLATION

d. Install in reverse order of removal.

END OF TASK

2. CABLE CARRIER REPLACEMENT

REMOVAL

NOTE

This procedure is used to replace any of nine cable carriers. Mounting shown is typical for all carriers.

a. On cable carrier (1), clip lacing tape (2) as required.

b. Remove nuts (3), lockwashers (4), washers (5), screws (6), and cable clamps (7).

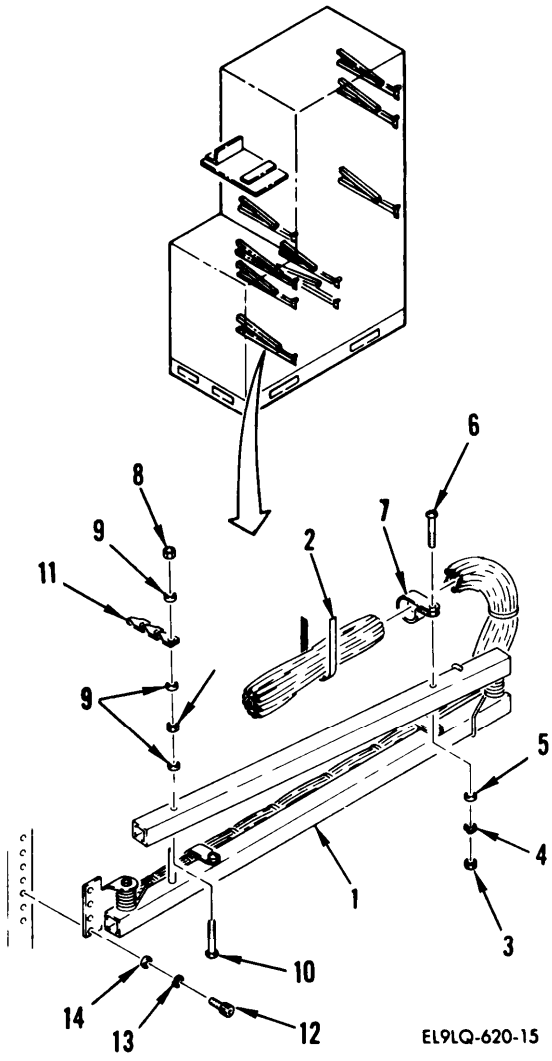
c. Remove two nuts (8), three washers (9), screw (10), and chain (11).

d. Remove two screws (12), lockwashers (13), washers (14), and defective cable carrier (1).

INSTALLATION

e. Install in reverse order of removal.

END OF TASK



5-32. OPTICAL SIGNAL GENERATOR (OSG) ASSEMBLY 2A2A3 REPAIR 5-32

This task covers replacement of:

Para	Item	Para	Item
1.	OSG cover	3.	Lamp sensor A2
2.	Lamp A2DS1	4.	Relay bracket assembly A1, K1 through K3

INITIAL SETUP

Tools/Special Tools

7/64 hex head ball end wrench

Materials (appendix C)

Lens paper (Item 36)
Solder (Item 43)
Lacing tape (Item 44)
Masking tape (Item 45)

Personnel Required

396 ATE Repairer

Equipment Conditions

Power removed (para 2-24.1)
OSG removed (para 2-46)

FOLLOWUP

OSG installation (para 2-46)

1. OSG COVER REPLACEMENT

NOTE

This procedure can be used when access to OSG is required for maintenance.

REMOVAL

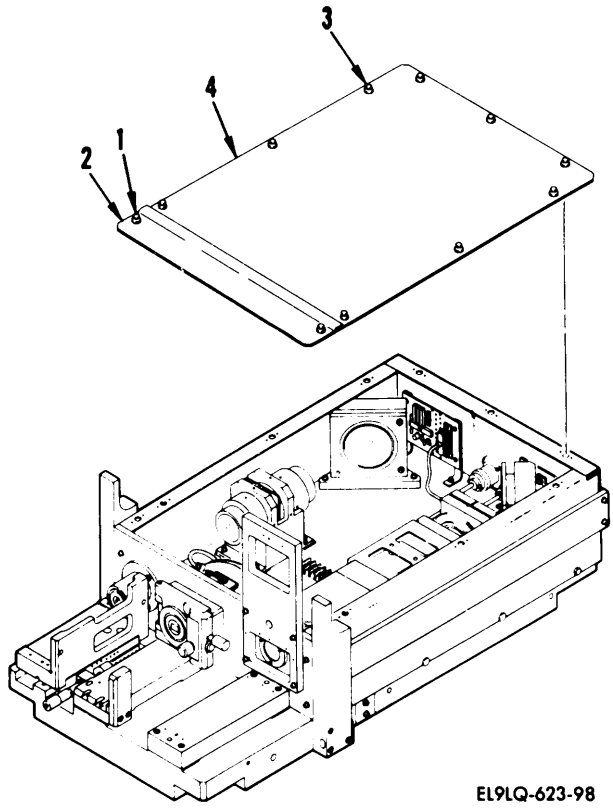
a. Loosen two captive fasteners (1) and remove forward cover (2).

b. Loosen nine captive fasteners (3) and remove rear cover (4).

CAUTION

Avoid touching or contaminating optical surfaces.

c. Cover exposed optics with lens paper and secure with masking tape.



EL9LQ-623-98

INSTALLATION

d. Install in reverse order of removal.

END OF TASK

2. LAMP DS1 REPLACEMENT

REMOVAL

a. Remove OSG covers (1 above).

b. Remove lacing and tying tape from connector P4 (1) and disconnect

c. Remove four socket head capscrews (2) and washers (3).

d. Remove light shield (4).

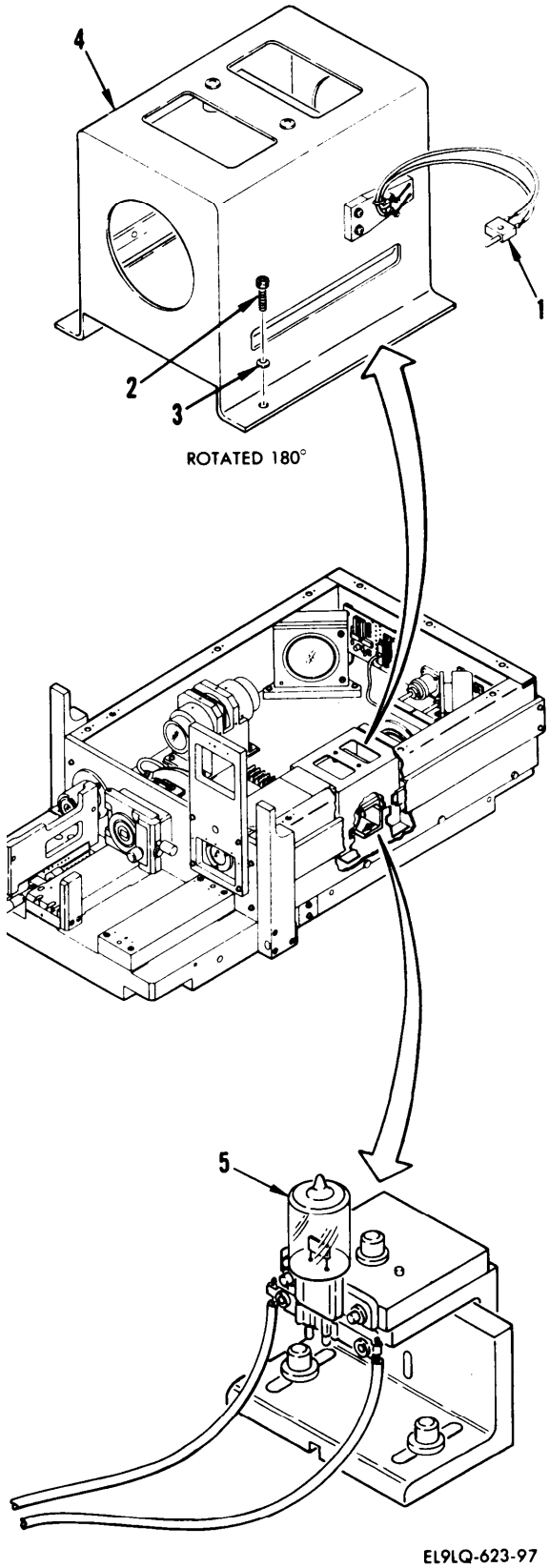
e. Remove lamp DS1 (5).

INSTALLATION

f. Install lamp DS1 (5) and wipe clean with lens tissue.

g. Complete installation in reverse order of removal.

END OF TASK



3. LAMP SENSOR A2 REPLACEMENT

REMOVAL

a. Remove OSG covers (1 above).

b. Remove lacing and tying tape from connector P4 (1) and disconnect.

c. Remove four socket head capscrews (2) and washers (3).

d. Remove light shield (4) with sensor assembly (5) from OSG.

e. Remove two screws (6), washers (7), sensor assembly (5), lockwashers (8), and nuts (9) from light shield.

INSTALLATION

NOTE

Washers are used on both sides of sensor assembly.

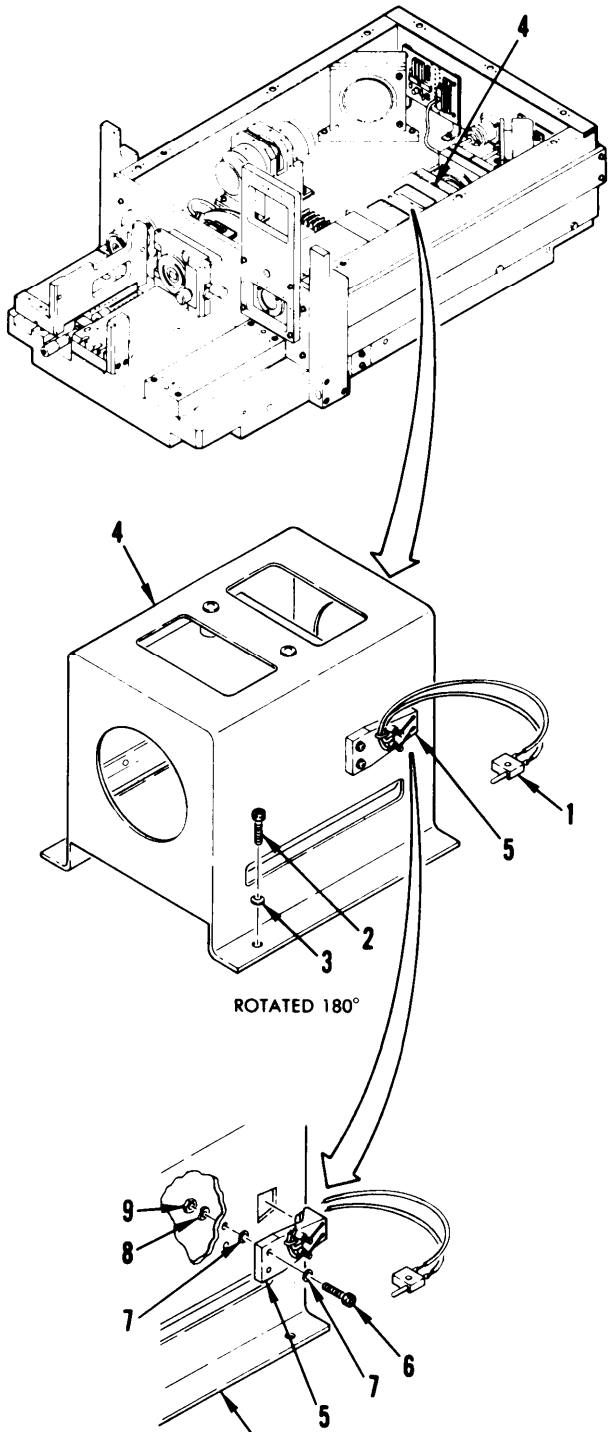
f. Install sensor assembly (5) with two screws (6), washers (7), lockwashers (8), and nuts (9).

g. Install light shield assembly (4) with four socket head capscrews (2) and washers (3).

h. Connect sensor assembly connector (1) to W1P4 and secure with lacing and tying tape.

i. Install OSG covers (1 above).

END OF TASK



4. RELAY BRACKET ASSEMBLY A1, K1 THROUGH K3 REPLACEMENT

NOTE

This procedure is used to replace K1, K2, or K3. K1 is shown.

REMOVAL

a. Remove OSG covers (1 above).

b. Remove two screws (1) and washers (2).

c. Disconnect connector W1P1 (3) from A1J1 (4).

d. Locate defective relay K1, K2, or K3 on relay assembly (5).

e. Remove two screws (6), washers (7), and nuts (8).

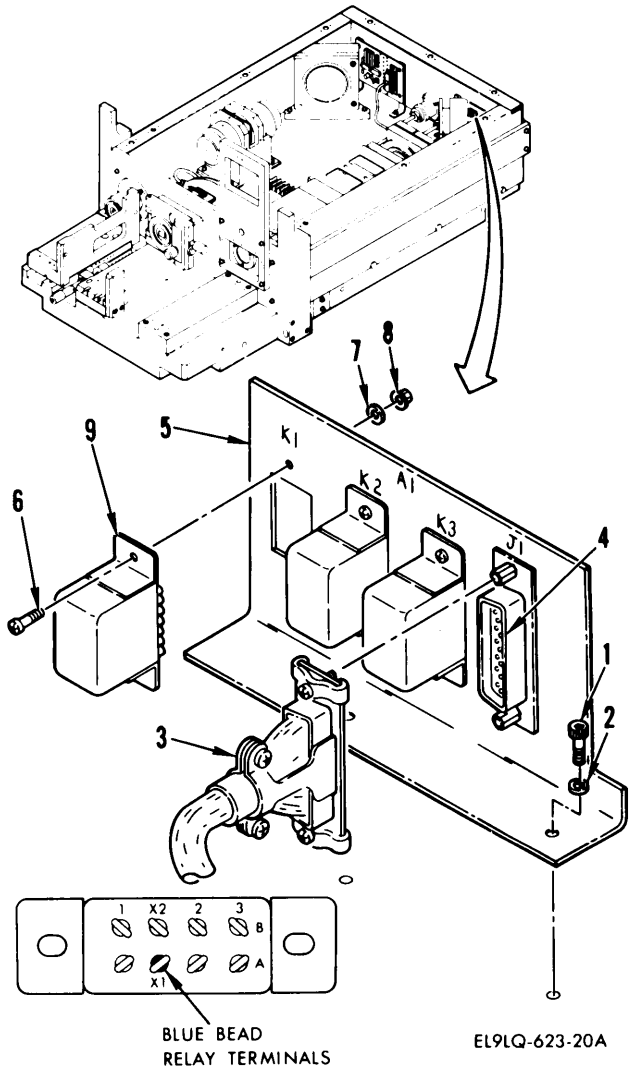
f. Tag and unsolder wires from relay (9).

INSTALLATION

g. Install replacement relay in reverse order of removal. Refer to wire list below:

RELAY ASSEMBLY A1

FROM	TO	FROM	TO
K1-A1	K2-A1	K2-X1	J1-10
K1-A1	J1-20	K1-X1	K2-X1
K2-A1	K3-A1	K2-A2	J1-18
K3-A1	J1-7	K2-B2	J1-4
K1-A2	J1-19	K2-B1	K3-B1
K1-B1	J1-17	K2-B2	J1-15
K1-B1	K2-B1	K2-X2	J1-5
K1-B2	J1-16	K3-A2	K1-A2
K1-X2	J1-9	K3-B1	J1-14
K1-X1	J1-8	K3-B2	J1-3
K2-X1	K3-X1	K3-X2	J1-1



END OF TASK

5-33. TEST ADAPTER PANEL ASSEMBLY 2A2A4 REPAIR 5-33

This task covers replacement of relays K1 through K12.

INITIAL SETUP

Material (appendix C)

Solder (Item 43)

Personnel Required

39B ATE Repairer

Equipment Condition

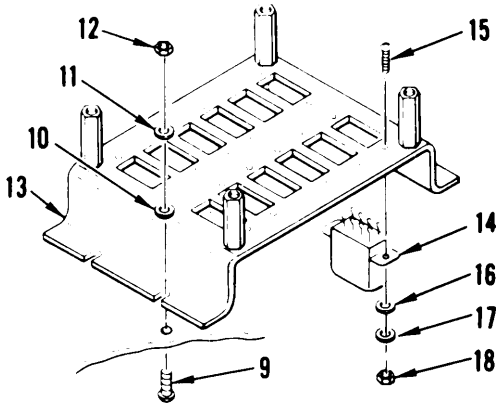
Power removed (para 2-24.1)

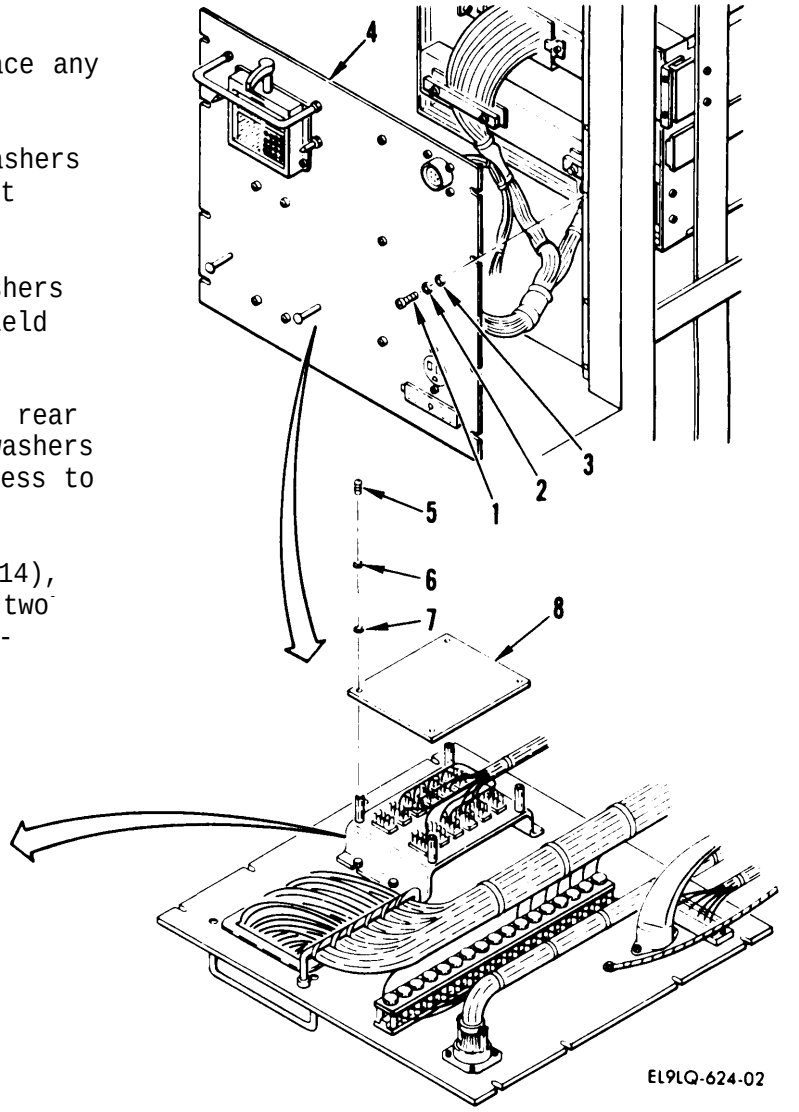
REMOVAL

NOTE

This procedure is used to replace any of 12 relays K1 through K12.

1. Remove eight screws (1), lockwashers (2), washers (3), and lower test adapter panel assembly (4).
2. Remove four screws (5), lockwashers (6), washers (7), and relay shield (8).
3. Remove two front and loosen two rear screws (9), washers (10), lockwashers (11), and nuts (12) to gain access to relay panel (13).
4. To remove any defective relay (14), tag and unsolder leads, remove two screws (15), washers (16), lockwashers (17), and nuts (18).



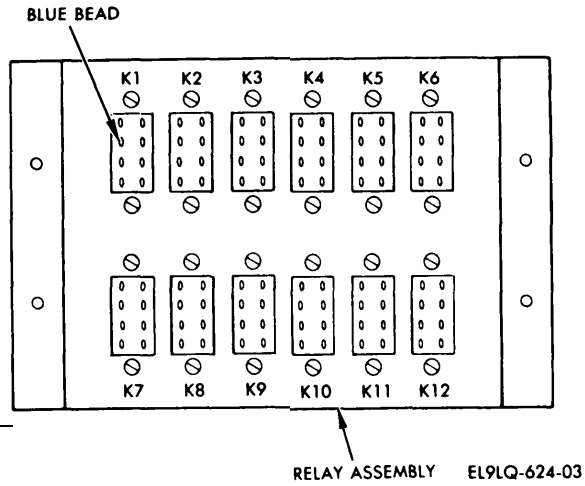


INSTALLATION

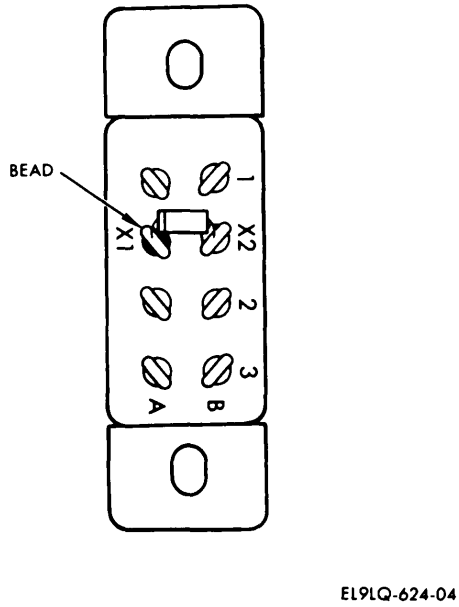
5. Attach replacement diode to replacement relay between terminals X1 and X2. Position diode with stripe end on X1 terminal.

6. Position replacement relay with blue bead oriented as shown.

7. Refer to wire list below for proper connection.



Wire No.	From	To	Wire No.	From	To
1	TB2-E4	K1-A2	26	K4-X1	K10-X1
2	TB2-E8	K1-B2	27	K10-X1	K9-X1
3	TB2-E3	K2-A2	28	K9-X1	K8-X1
4	TB2-E7	K2-B2	29	K8-X1	K7-X1
5	TB2-E2	K3-A2	30	K9-X1	K1-X1
6	TB2-E6	K3-B2	193	CP-48	K1-A1
7	TB2-E1	K4-A2	194	CP-49	K1-B1
8	TB2-E5	K4-B2	195	CP-50	K2-AI
9	TB2-E9	K7-A1	196	CP-51	K2-B1
10	TB2-E10	K1-B1	197	CP-52	K3-A1
11	TB2-E11	K9-A1	198	CP-53	K3-B1
12	TB2-E12	K9-B1	199	CP-54	K4-A1
13	TB2-E13	K10-A1	200	CP-55	K4-B1
14	TB2-E14	K10-B1	210	P1-CH	K7-X2
15	TB2-E15	K1-X1	211	P1-CK	K8-X2
16			212	P1-CM	K9-X2
17	K7-A2	K8-A2	213	P1-CP	K10-X2
18	K8-A2	K9-A2	228	J6-U1	K7-A2
19	K9-A2	K10-A2	229	J6-U2	K7-A2
20	K7-B2	K8-B2	230	J6-U3	K7-B2
21	K8-B2	K9-B2	231	J6-U4	K7-B2
22	K9-B2	K10-B2	232	P6-1	K1-X2
23	K1-X1	K2-X1	233	P6-2	K2-X2
24	K2-X1	K3-X1	234	P6-3	K3-X2
25	K3-X1	K4-X1	235	P6-4	K4-X2



8. Install replacement relay in reverse order of removal.

END OF TASK

5-34. ELECTRONICS DRAWER ASSEMBLY 2A2A7 REPAIR

This task covers replacement of:

Para	Item
1.	Relay 2A2A7A4K1 through K15
2.	Video signal generator (VSG) assembly 2A2A7A1
3.	Heat sink 2A2A7A5 component
4.	Resistor 2A2A7R1

INITIAL SETUP

Personnel Required

39B ATE Repairer

Equipment Condition

Power removed (para 2-24.1)

1. RELAY 2A2A7A4K1 THROUGH K15 REPLACEMENT

NOTE

This procedure is used to replace any of 15 relays K1 through K15.

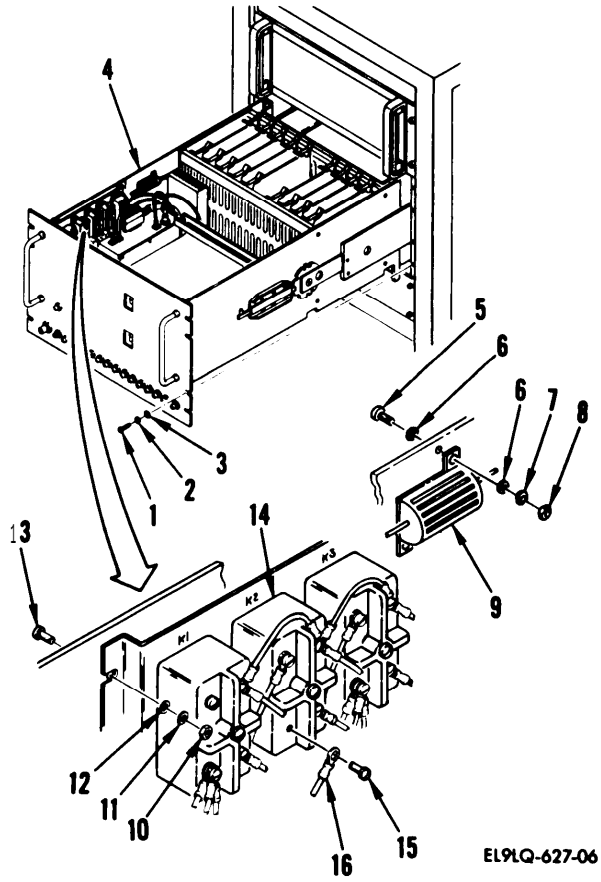
REMOVAL

a. Remove eight screws (1), lockwashers (2), washers (3), and pull out electronics drawer assembly (4).

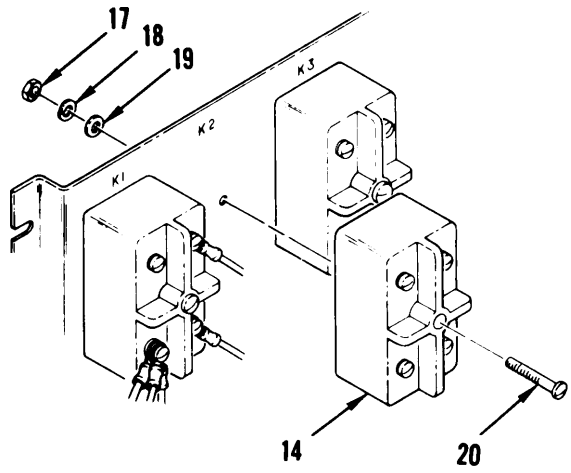
b. Remove two screws (5), four washers (6), lockwashers (7), two nuts (8), and resistor R1 (9).

c. Loosen two front and remove two rear nuts (10), lockwashers (11), washers (12), and screws (13) and pull out relay panel to gain access to relay nuts.

d. To remove any defective relay (14), tag and remove four terminal screws (15) and wires (16).



e. Remove nut (17), lockwasher (18), washers (19), screw (20), and relay (14).



INSTALLATION

f. Install in reverse order of removal.

END OF TASK

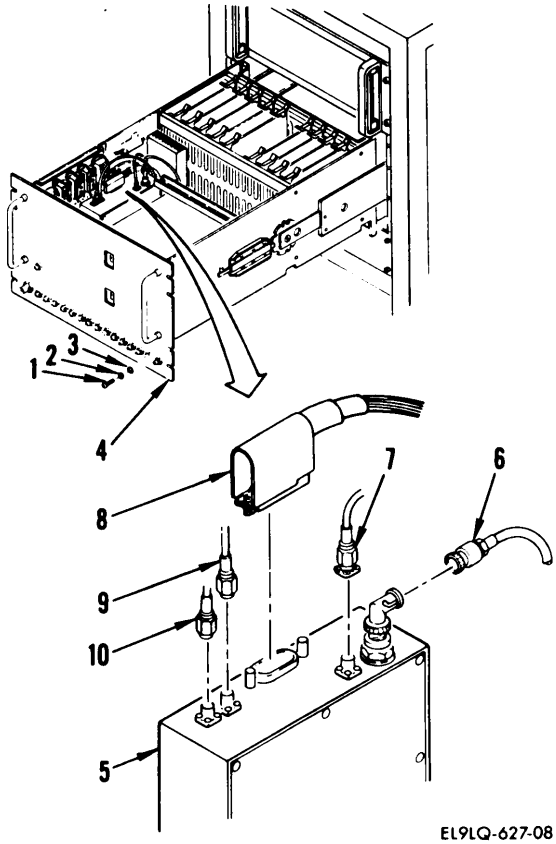
2. VIDEO SIGNAL GENERATOR (VSG) ASSEMBLY 2A2A7A1 REPLACEMENT

REMOVAL

a. Remove eight screws (1), lockwashers (2), washers (3), and pull out electronics drawer assembly (4).

b. Disconnect the following cables from VSG (5):

W1OP2 from A1J1 (6)
W3P6 from A1J2 (7)
W3P2 from A1J3 (8)
W16P3 from A1J4 (9)
W30P1 from A1J5 (10)



c. Remove four nuts (11), lockwashers (12), washers (13), screws (14), and VSG (5).

INSTALLATION

d. Install in reverse order of removal.

END OF TASK

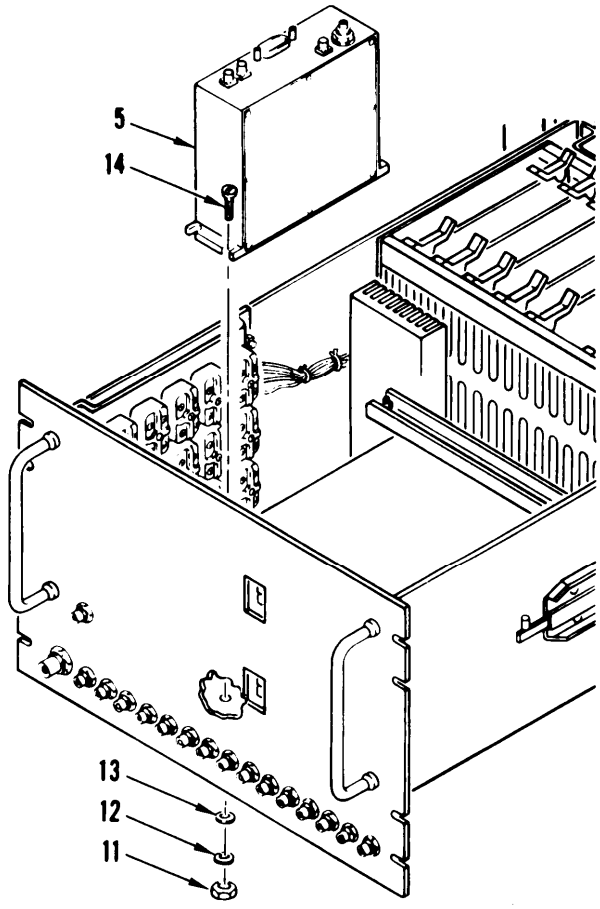
3. HEAT SINK 2A2A7A5 COMPONENT REPLACEMENT

REMOVAL

a. Remove eight screws (1), lock washers (2), washers (3), and pull out electronics drawer assembly (4).

b. Locate heat sink assembly (5). Tag wires and remove three screws (6) and terminal wires (7) from terminal numbers 1, 3, and 4.

c. Remove three screws (8), locking nuts (9), washers (10), and heat sink assembly (5).



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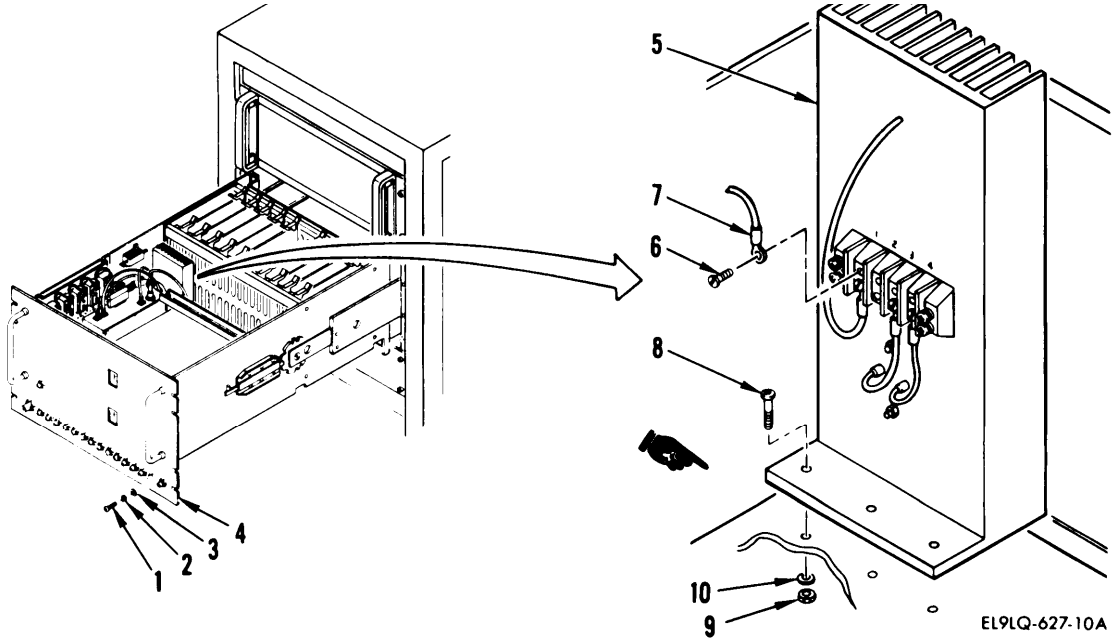

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5-34. ELECTRONICS DRAWER ASSEMBLY 2A2A7 REPAIR (cont)

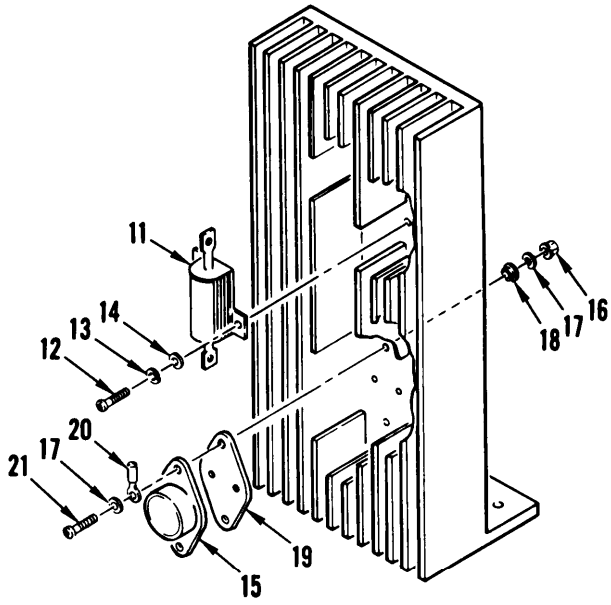
do Remove leads from resistor (11) and remove two screws (12), lockwashers (13), washers (14)) and resistor (11).

e. Remove leads from microcircuit (15) and remove two nuts (16), washers (17), insulating discs (18), insulating plate (19), terminal lug (20), screws (21), and microcircuit (15).

INSTALLATION

f. Install in reverse order of removal.

END OF TASK



EL9LQ-627-11

4. RESISTOR 2A2A7R1 REPLACEMENT

REMOVAL

a. Remove eight screws (1), lockwashers (2), washers (3), and pull out electronics drawer assembly (4).

b. Locate resistor R1 (5) on left side of electronics drawer.

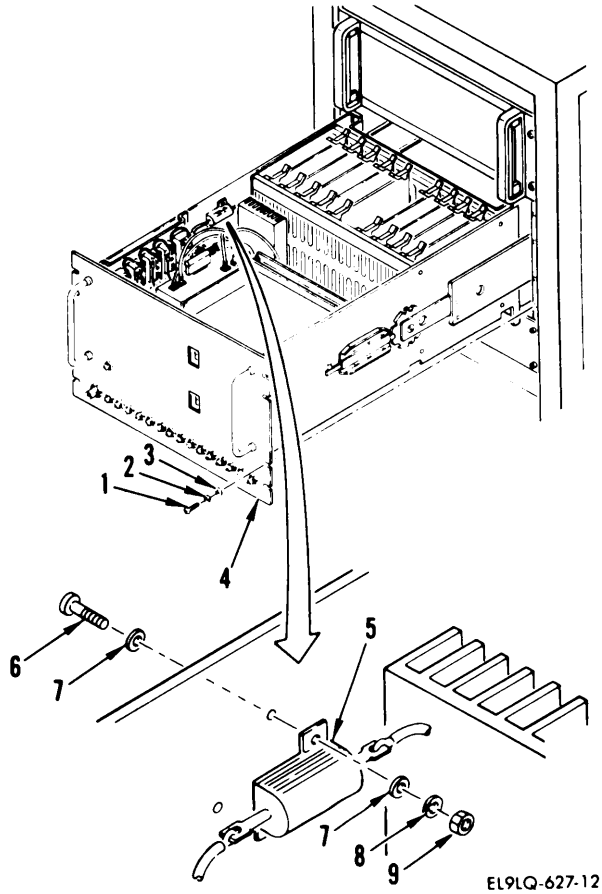
c. Tag and remove leads from resistor R1.

d. Remove two screws (6), four washers (7), two lockwashers (8), two nuts (9), and resistor R1 (5).

INSTALLATION

e. Install in reverse order of removal.

END OF TASK



EL9LQ-627-12

5-35. BLOWER ASSEMBLY 2A2A15 REPAIR

This task covers replacement of:

Para	Item
1.	Motor
2.	Switch

INITIAL SETUP

Personnel Required

39BATE Repairer

Equipment Conditions

Power removed (para 2-24.1)
Blower removed (para 2-63)

FOLLOWUP

Blower installation (para 2-63)

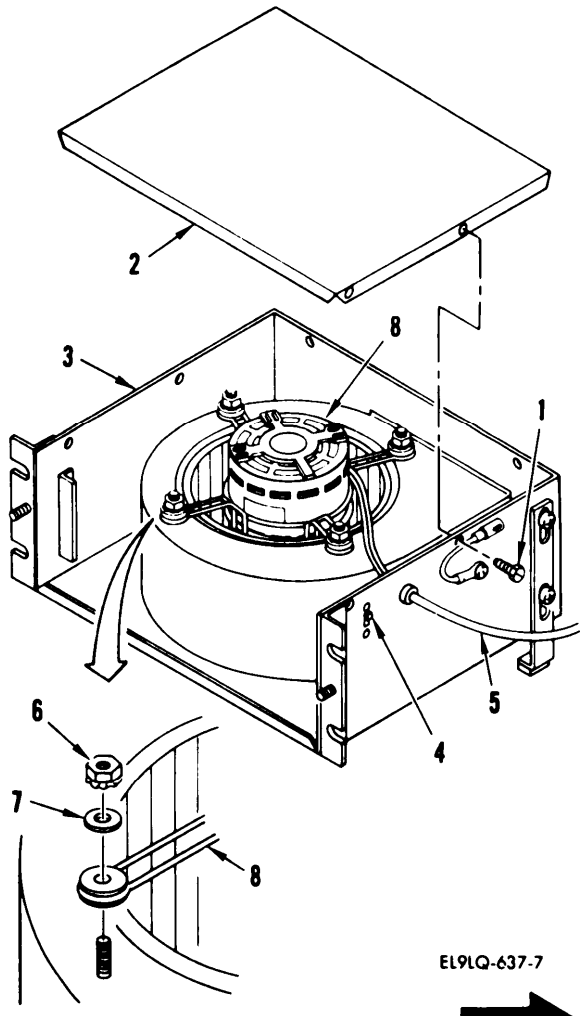
1. MOTOR REPLACEMENT

REMOVAL

a. Remove seven screws (1) and cover (2) from blower assembly (3).

b. Tag and disconnect wire leads from switch (4) and ac cord (5).

c. Remove four nuts (6), washers (7), and motor and fan assembly (8).



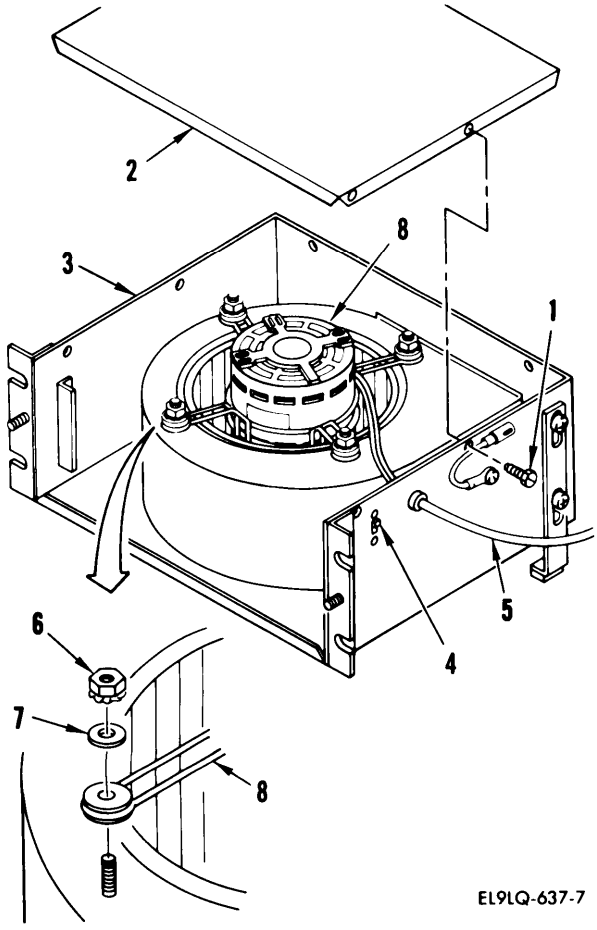
d. Loosen setscrew (9) and remove fan (10) from motor shaft.

e. Loosen nut (11) on motor support bracket (12) and remove defective motor (13).

INSTALLATION

f. Install replacement motor (13) into motor support bracket (12). Vent holes on motor should be positioned between wire rings on motor support bracket. Tighten nut (11).

g. Position fan (10) onto motor shaft. Fan should be flush with end of motor shaft and setscrew (9) should aline with flat on motor shaft. Tighten setscrew (9).



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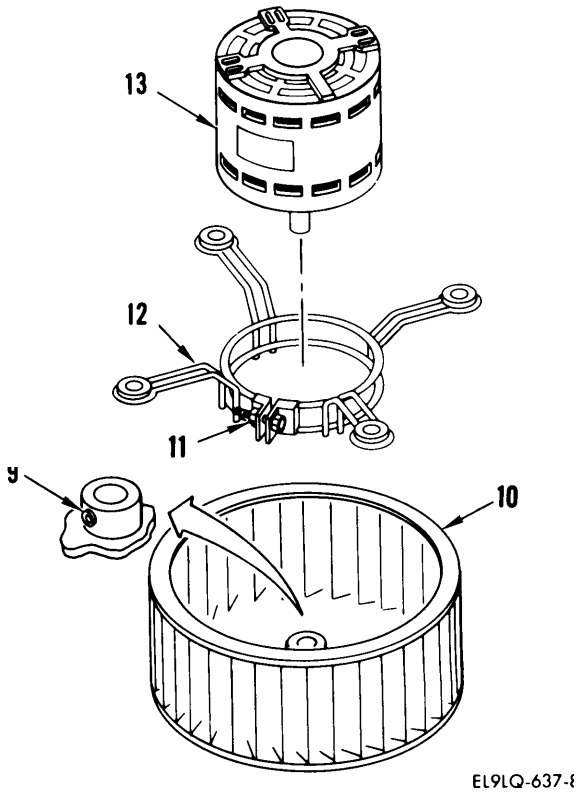


EL9LQ-637-8

CAUTION

Be sure fan does not rub motor support bracket or bottom of blower housing. Damage may result from improper clearance.

h. Install motor and fan assembly (8) into blower assembly (3) with four nuts (6) and washers (7). Check for proper clearance by spinning fan by hand. Fan should not rub on blower housing or motor support bracket.

i. Connect wire leads to switch (4) and ac cord (5) as tagged.

j. Install cover (2) with seven screws (1).

END OF TASK

2. SWITCH REPLACEMENT

REMOVAL

a. Remove seven screws (1) and cover (2) from blower assembly (3).

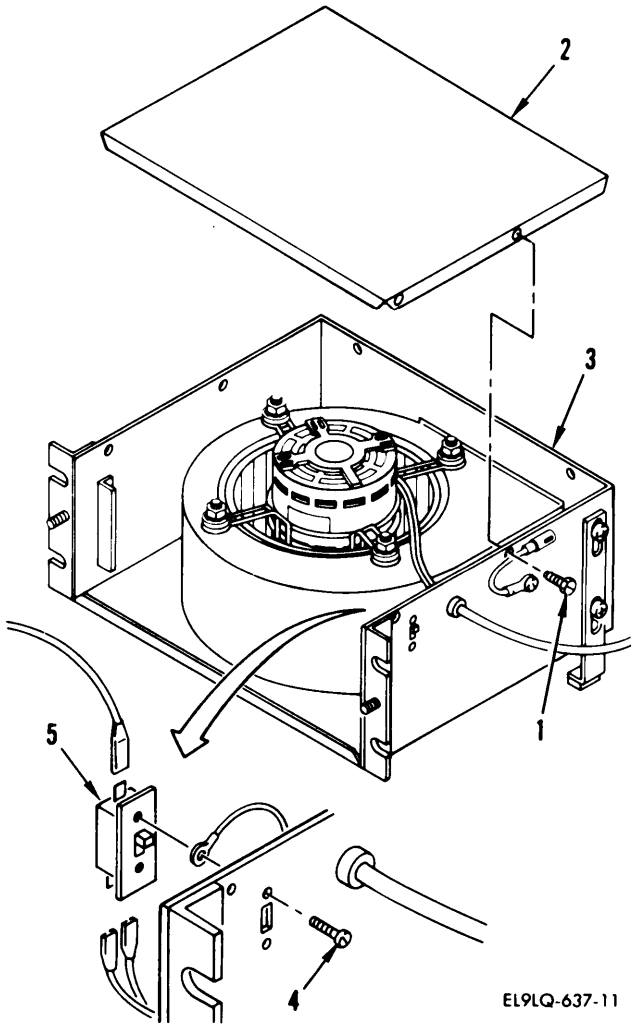
b. Tag and disconnect wire leads from switch.

c. Remove two screws (4) and switch (5).

INSTALLATION

d. Install in reverse order of removal.

END OF TASK



Section V. NIGHTSIDE TEST BENCH 2A3 MAINTENANCE PROCEDURES

5-36. N16HTSIDE TEST BENCH 2A3 REPLACEMENT 5-36

INITIAL SETUP

Tool/Special Tool

Torque wrench, 0-60 ft-lb

Personnel Required

39B ATE Repairer

References

TM 11-6625-3085-30
TM 11-6625-3085-12

Equipment Conditions

Power removed (para 2-24.1)
Dayside bench removed (para 5-9)
Test console test bench removed (para 5-30)
Pneumatic system bled down (TM 11-6625-3085-12)

FOLLOWUP

Test console test bench installation (para 5-30)
Dayside test bench installation (para 5-9)

5-36. NIGHTSIDE TEST BENCH 2A3 REPLACEMENT (cont)

REMOVAL

1. On retainer bracket (1) remove two screws (2), lockwashers (3), washers (4), protective cup (5), and stud (6).

2. On front of nightside test bench, remove three screws (7), washers (8), and retainer bracket (1).

WARNING

TO PREVENT INJURY TO PERSONNEL, PNEUMATIC PRESSURE SHOULD BE OFF AND SYSTEM BLED DOWN PRIOR TO PERFORMING THE FOLLOWING STEP.

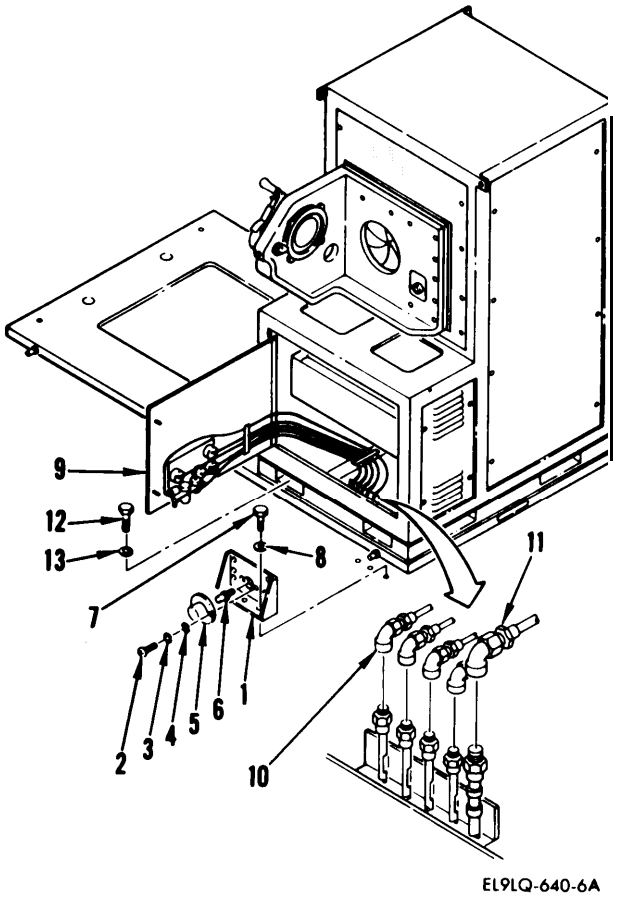
NOTE

Be sure tubing nuts are secured after disconnecting pneumatic lines.

3. Open access door (9) and disconnect four pneumatic lines (10); orange, blue, yellow, and clear. Be sure lines are free from bench.

4. Disconnect main pneumatic supply line (11). Be sure line is free from bench.

5. On front of nightside test bench, remove two bolts (12), and washers (13).



6. On retainer bracket (14) remove two screws (15), lockwashers (16), washers (17), Protective cup (18)s and stud (19).

7. On base of nightside test bench, remove three screws (20), washers (21), and bracket (14).

8. On base of nightside test bench, remove two bolts (22), and washers (23).

9. Nightside test bench is now ready for movement. Refer to TM 11-6625-3085-30.

INSTALLATION

10. Position nightside test bench over base and install two bolts (12) and washers (13) on front and two bolts (22) and washers (23) at rear-

11. Remove rolalift from nightside test bench.

CAUTION

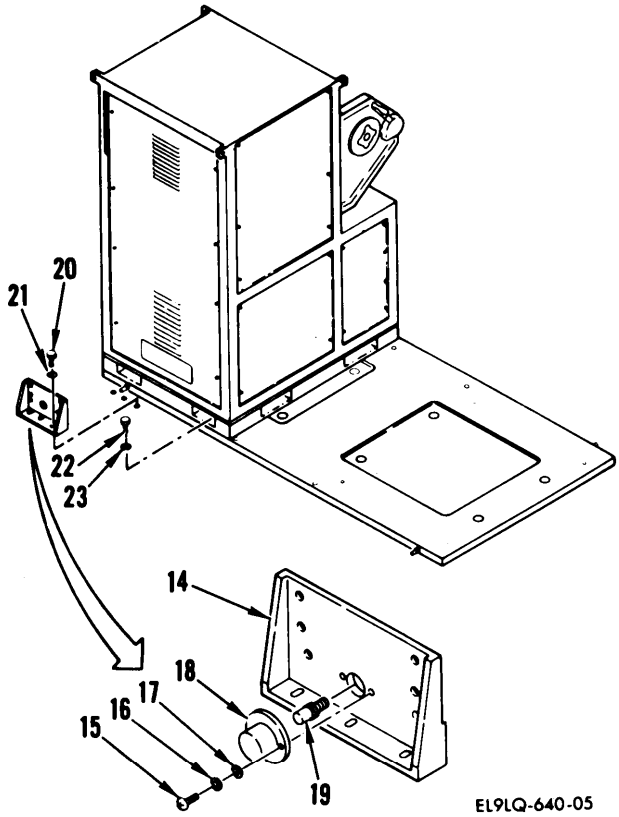
Do not use wrench on pneumatic tubing nuts. Finger tighten only.

12. Install nightside test bench in reverse order of removal starting with step 7 except omit step 5.

13. Use torque values as listed below.

Itern	Torque
7	50 ft-lb
12	60 ft-lb
20	50 ft-lb
22	60 ft-lb

END OF TASK



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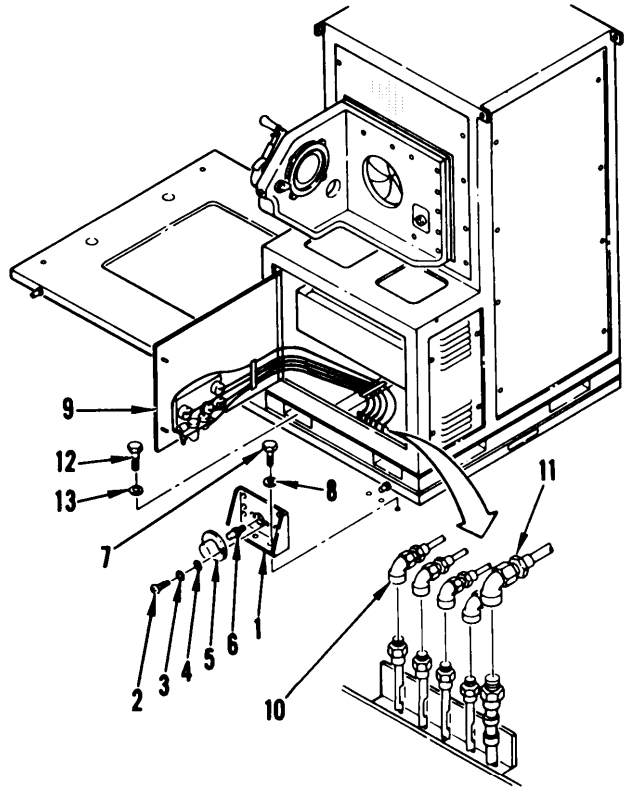


EL9LQ-640-6A

5-37. PNEUMATIC CONTROL PANEL REPAIR

This task covers replacement of:

Para	Item
1.	Gage
2.	Regulator
3.	Filter
4.	Toggle valve
5.	Tubing and fittings

INITIAL SETUP

Personnel Required

396 ATE Repairer

Material (appendix C)

Teflon tape (Item 46)

Equipment Conditions

Power removed (para 2-24.1)
Pneumatic system pressure bled down (TM 11-6625-3085-12)

FOLLOWUP

Pneumatic system turn-on and adjustment (para 5-7)

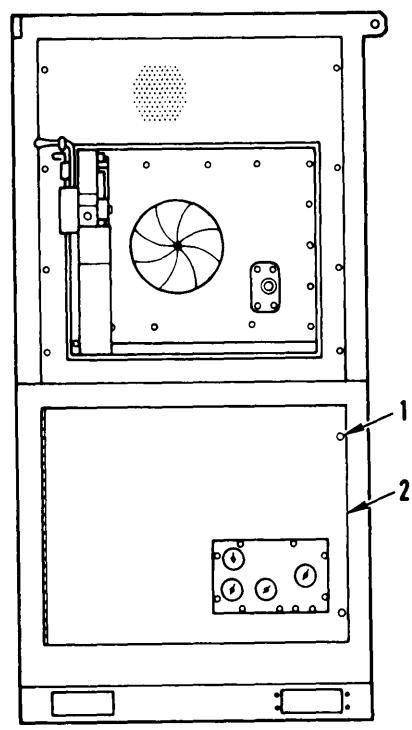
1. GAGE REPLACEMENT

NOTE

Use this procedure to replace any of four gages on the pneumatic control panel:

REMOVAL

a. Loosen two screws (1) and lower cabinet panel (2).



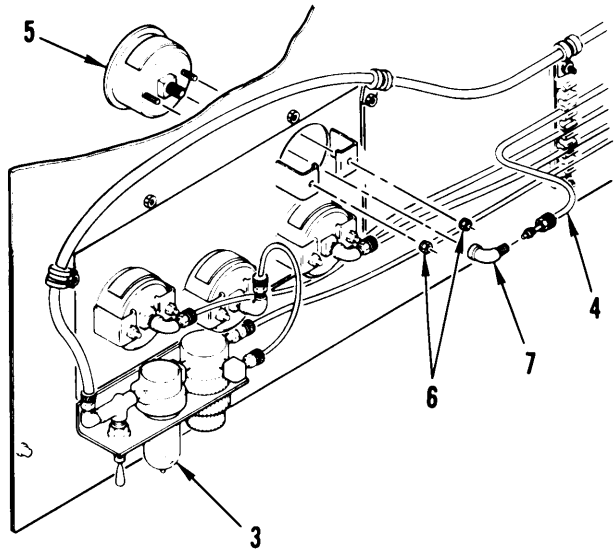
EL9LQ-641-34A

b. On bottom of filter, push valve (3) up to bleed off air pressure.

c. Tag and disconnect air supply line (4) from gage (5).

d. Remove two locknuts (6) securing gage to panel. Remove gage.

e. Remove elbow (7) from gage.



EL9LQ-641-33A

INSTALLATION

f. Remove teflon tape residue from elbow threads and wrap with teflon tape.

CAUTION

Do not use wrench on tubing nuts. Finger tighten only.

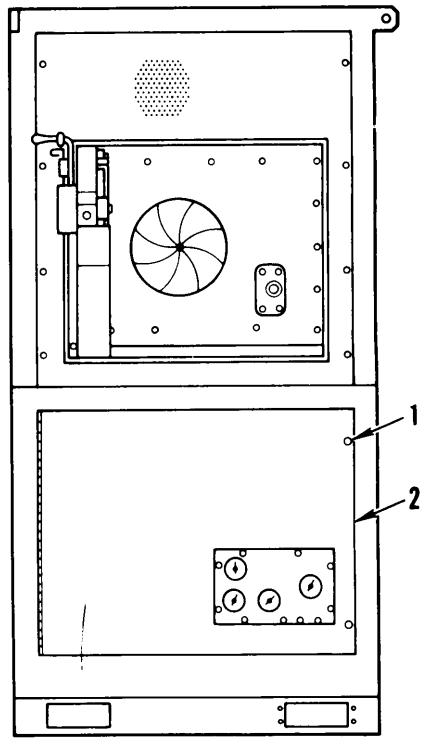
g. Install gage in reverse order of removal.

END OF TASK

2. REGULATOR REPLACEMENT

REMOVAL

a. Loosen two screws (1) and open lower cabinet panel (2).



EL9LQ-641-34A

b. On bottom of filter, push valve (3) up to bleed off air pressure.

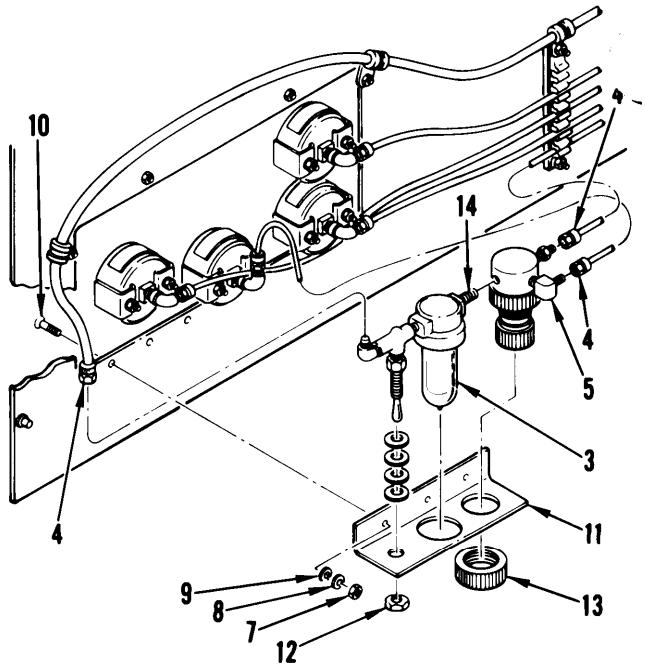
c. Tag and remove air lines (4) from regulator (5) and toggle valve (6).

d. Remove three nuts (7), lock-washers (8), washers (9), and screws (10) securing control panel bracket (11) to cover plate. Remove bracket.

e. Remove nut (12) securing toggle valve to bracket.

f. Remove nut (13) securing regulator to bracket. Remove bracket.

g. Unscrew regulator from nipple (14). Remove regulator.



EL9LQ-641-32A

INSTALLATION

h. Remove teflon tape residue from nipple threads and wrap with teflon tape.

CAUTION

Do not use wrench on tubing nuts. Finger tighten only.

i. Install regulator in reverse order of removal.

END OF TASK

3. FILTER REPLACEMENT

REMOVAL

a. Remove regulator (2 above).

b. Unscrew filter (1) from nipples (2) and (3).

INSTALLATION

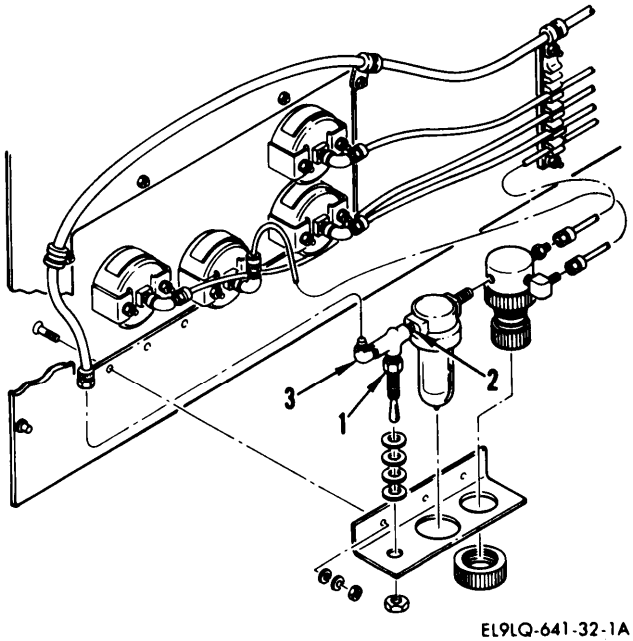
c. Remove teflon tape residue from nipple threads and wrap with teflon tape.

CAUTION

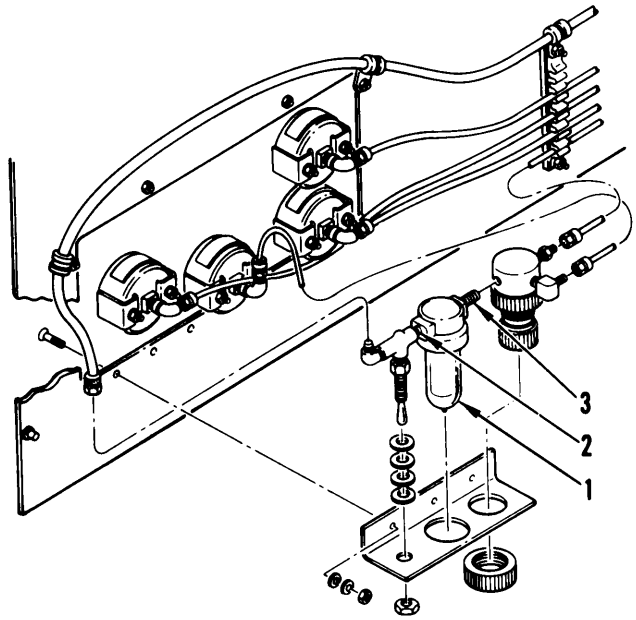
Do not use wrench on tubing nuts. Finger tighten only.

d. Install filter in reverse order of removal.

END OF TASK



EL9LQ-641-32-1A



EL9LQ-641-32-2A

4. TOGGLE VALVE REPLACEMENT

REMOVAL

a. Remove regulator (2 above).

b. Unscrew toggle valve (1) from nipple (2). Remove toggle valve.

c. Remove elbow (3) from toggle valve.

INSTALLATION

d. Remove teflon tape residue from nipple and elbow threads. and wrap with teflon tape.

CAUTION

Do not use wrench on tubing nuts, Finger tighten only.

e. Install toggle valve in reverse order of removal.

END OF TASK

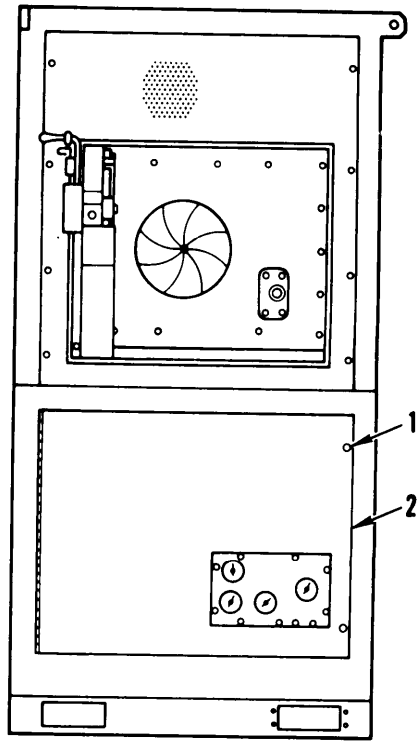
5. TUBING AND FITTINGS REPLACEMENT

NOTE

Use this procedure to replace any tubing and fittings connected to the pneumatic control panel.

REMOVAL

a. Loosen two screws (1) and open lower cabinet panel (2).



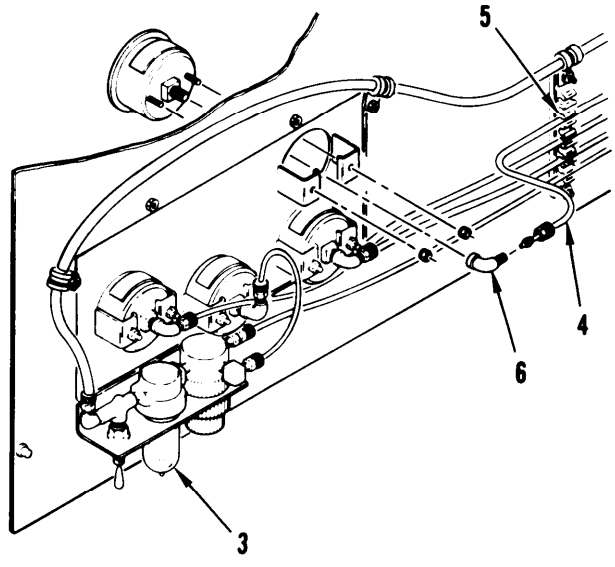
EL9LQ-641-34A

b. On bottom of filter, push valve (3) up to bleed off air pressure.

c. Disconnect tubing (4) at both ends.

d. Unsnap tubing retainers (5) and remove tubing.

e. Remove fitting (6).



EL9LQ-641-33-1A

INSTALLATION

f. Remove teflon tape residue from gage threads and wrap with teflon tape.

CAUTION

Do not use wrench on tubing nuts. Finger tighten only.

g. Install replaced item in reverse order of removal.

END OF TASK

5-38. HEAT SOURCE TARGET ASSEMBLY 2A3A1A1 REPAIR

This task covers replacement of:

Para	Item
1.	Heat source A1 assembly
2.	Heat source A2 assembly
3.	Microcircuit and heat sink/cable assembly W24 or W25
4.	Clutch/cable assembly W17 or W26
5.	Motor/cable assembly W16
6.	Solenoid/cable assembly W13
7.	Optical switch/cable assembly W20
8.	Belt

INITIAL SETUP

Materials (appendix C)

Isopropyl alcohol (Item 4)
Applicator (Item 6)
Cheesecloth pad (Item 11)
Thermal grease (Item 28)
Lacing tape (Item 44)

Personnel Required

35C30 ATE Repairer

Equipment Condition

power removed (para 2-24.1)

1. HEAT SOURCE A1 ASSEMBLY REPLACEMENT

CAUTION

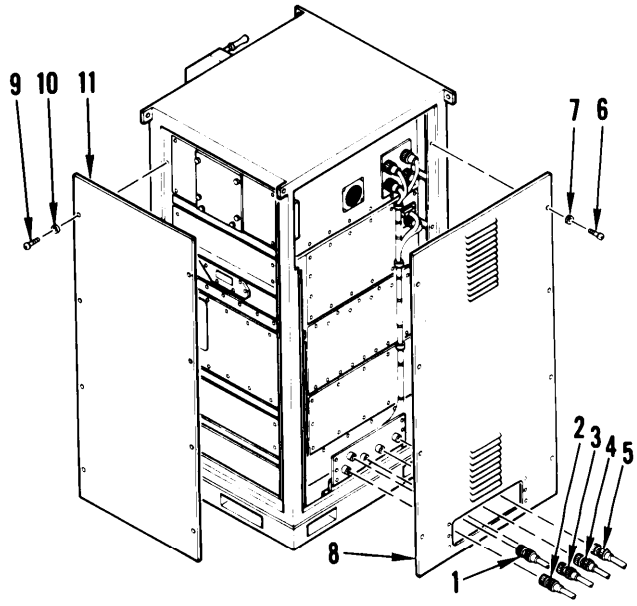
Never attempt to reach up into the upper portion of the nightside test bench through the shutter opening. The target wheel may be damaged.

REMOVAL

a. On rear of nightside test bench cable entry panel, disconnect five cables:

W8P1 from J1 (1)
W12P2 from J2 (2)
W1P2 from J3 (3)
W1OP2 from J4 (4)
W11P2 from J5 (5)

b. Remove eight screws (6), washers (7), and remove rear panel (8).



c. Remove eight screws (9), washers (10), and remove right side panel (11).

d. Remove three screws (12), washers (13), and bracket (14).

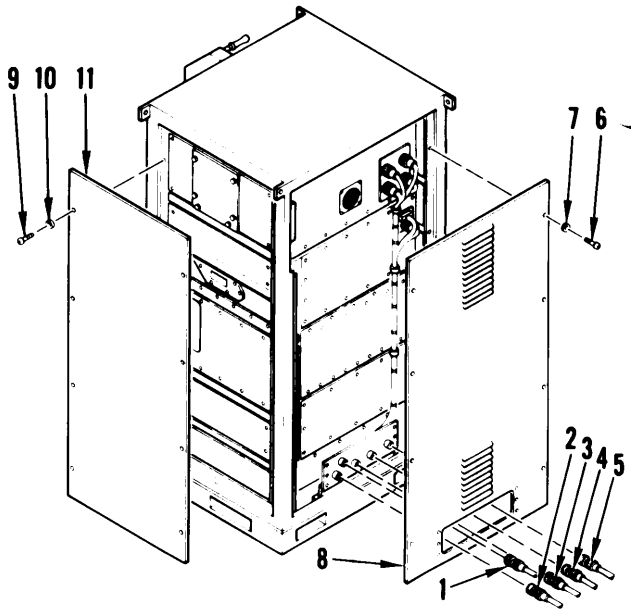
e. Disconnect the following connectors:

W4P1 from J1 (15)
W4P3 from J2 (16)
W1P1 from J3 (17)
W2P1 from J4 (18)

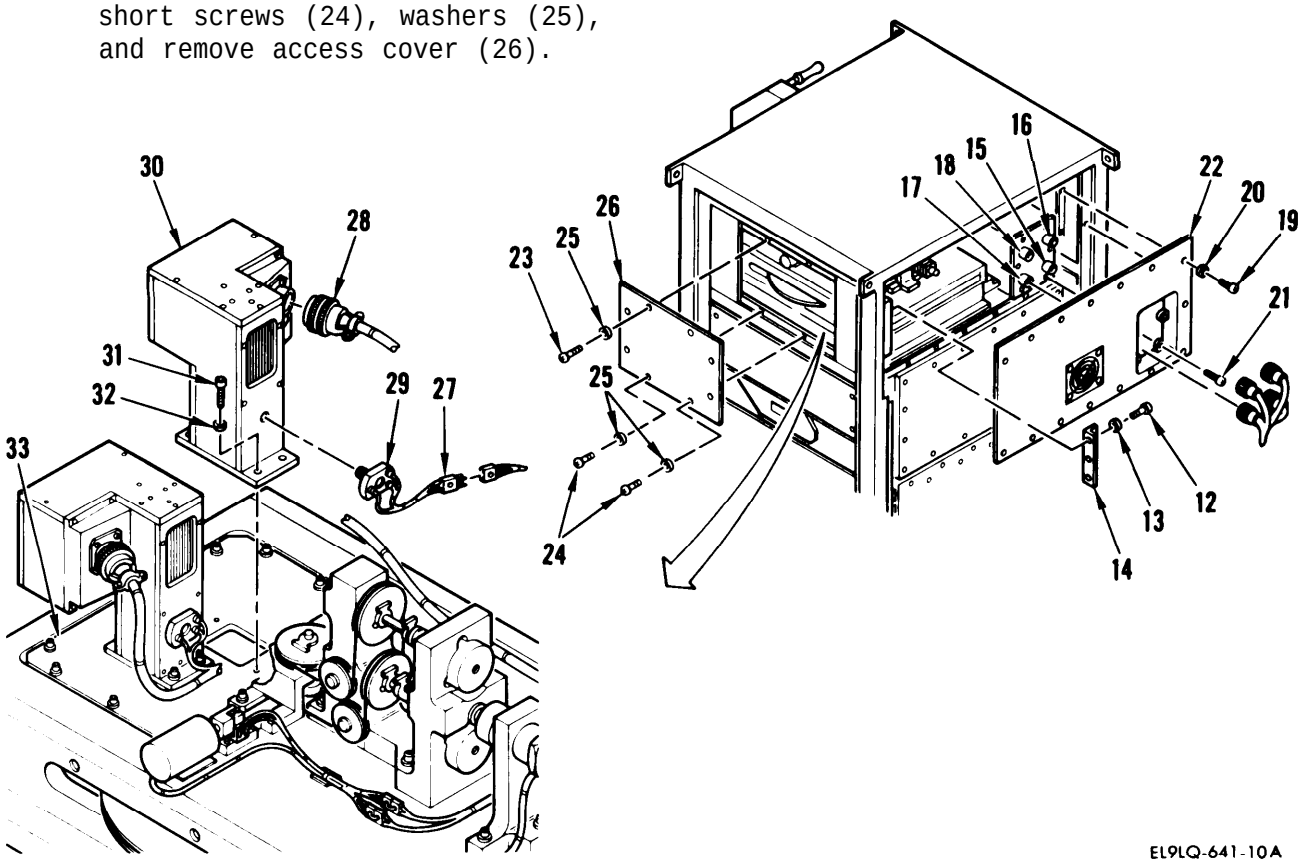
f. Remove 14 screws (19) and washers (20). Note positions of large screw.

g. Remove six screws (21) from connector bracket A3A1A15 and rear access cover (22).

h. Remove six long screws (23), two short screws (24), washers (25), and remove access cover (26).



EL9LQ-641-09A



EL9LQ-641-10A

i. Disconnect the following connectors:

W6P13 from W24J1 (27)
W6P11 from A1A1J1 (28)

j. Remove microcircuit and heat sink assembly (29) from heat source assembly (30) by turning counterclockwise.

CAUTION

Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface.

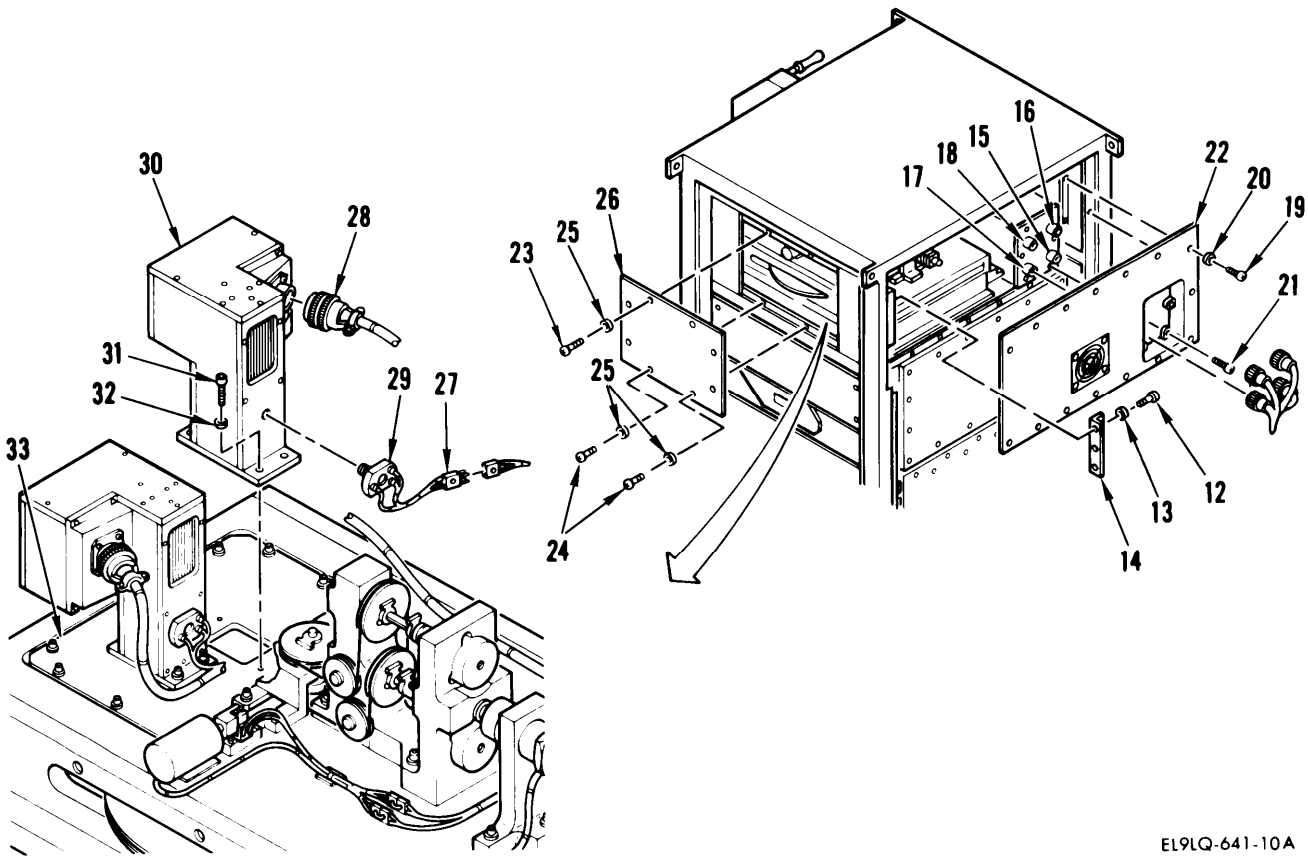
k. Remove four screws (31), washers (32), and remove heat source assembly (30) from target mounting base assembly (33).

WARNING

ISOPROPYL ALCOHOL

- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET IN EYES, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES.
- IF IT CONTACTS EYES, WASH EYES WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

l. Using isopropyl alcohol, clean thermal grease from mating surface of microcircuit and heat sink assembly (29).



EL9LQ-641-10A

INSTALLATION

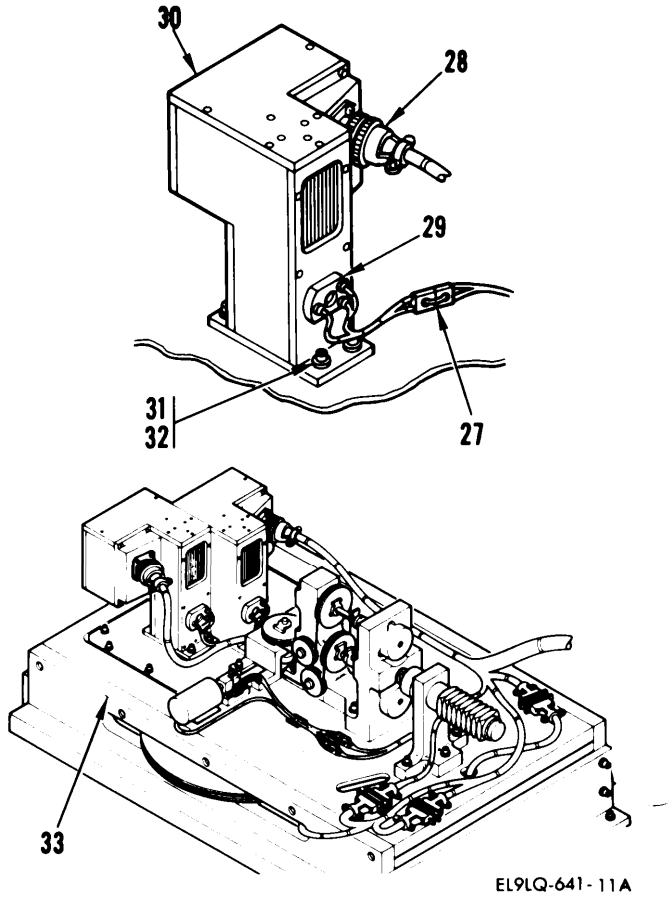
m. Apply a coat of thermal grease to mating surface of microcircuit and heat sink assembly (29).

n. Position heat source assembly (so) on target mounting base assembly (33), and install four screws (31) and washers (32).

0. Install microcircuit and heat sink assembly (29) on replacement heat source assembly (30), tighten finger-tight plus one-quarter turn.

p. Connect the following connectors:

W6P11 to A1A1J1 (28)
W6P14 to W25J1 (27)



q. Position access cover (26), and secure with six long screws (23), two short screws (24), and washers (25).

r. Position access cover (21) on nightside test bench, and secure with 14 screws (19) and washers (20).

s. Install six screws (21) into connector bracket A3A1A15.

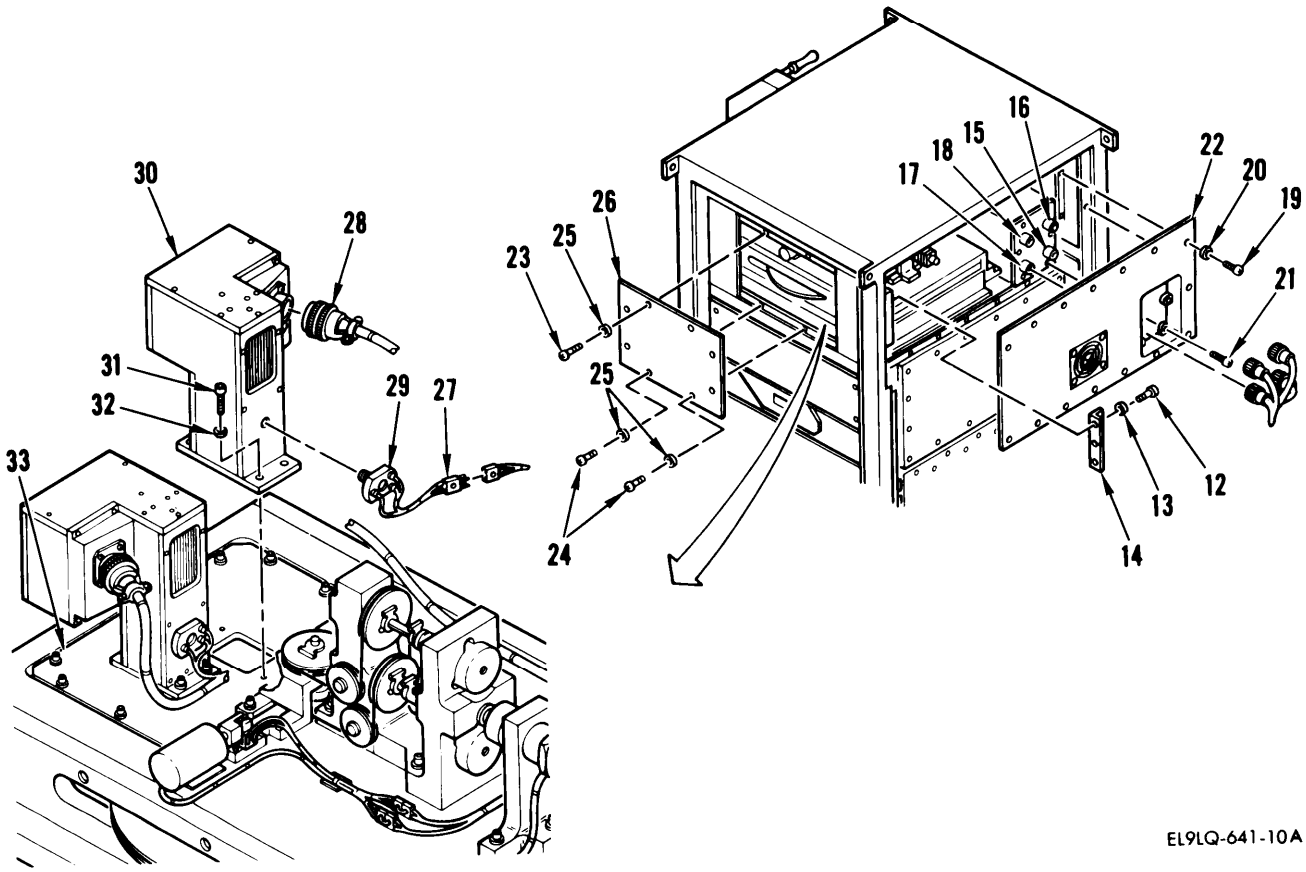
t. Connect the following connectors:

W4P1 to J1 (15)
W4P3 to J2 (16)
W1P1 to J3 (17)
W2P1 to J4 (18)

u. Position bracket (14) and secure with three screws (12) and washers (13).

v. position right side panel (11) and secure with eight screws (9) and washers (10).

w. Position rear panel (8) on nightside cabinet and secure with eight screws (6) and washers (7).

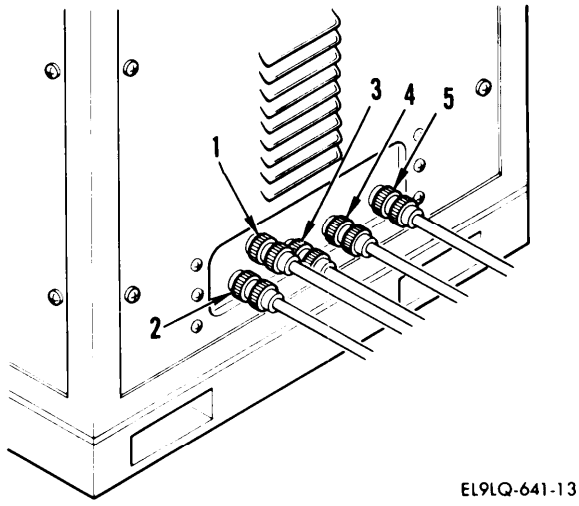


EL9LQ-641-10A

x. On cable entry panel, connect five connectors:

W11P2 to J5 (5)
W1OP2 to J4 (4)
W1P2 to J3 (3)
W12P2 to J2 (2)
W8P1 to J1 (1)

END OF TASK



EL9LQ-641-13

2. HEAT SOURCE A2 ASSEMBLY
REPLACEMENT

REMOVAL

a. Refer to 1 above and do steps a through h to gain access to heat source assembly.

b. Disconnect the following connectors:

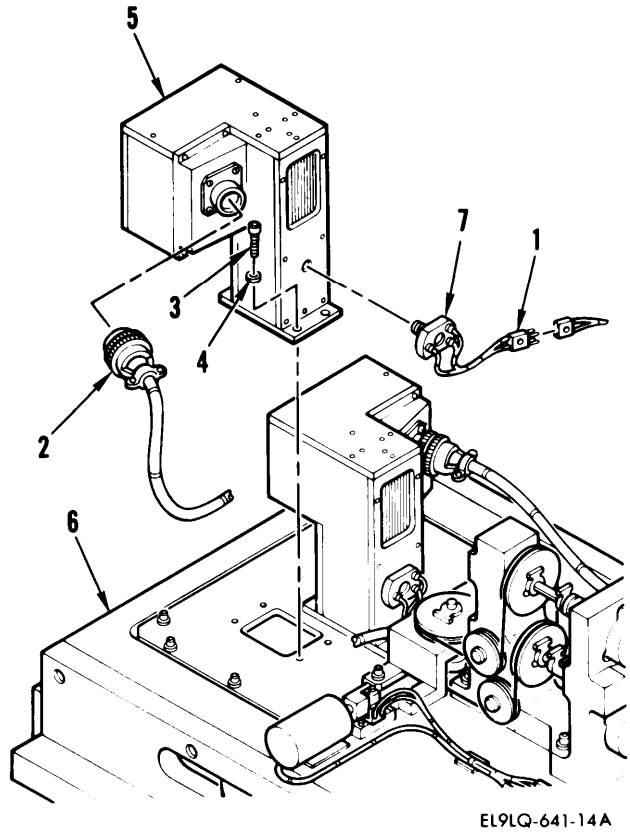
W6P14 from W25J1 (1)
W6P12 from A1A2J1 (2)

CAUTION

Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface.

c. Remove four screws (3), washers (4), and heat source assembly (5) from target mounting base assembly (6).

d. Remove microcircuit and heat sink assembly (7) from heat source assembly (5) by turning counterclockwise.



WARNING

ISOPROPYL ALCOHOL

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- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET IN EYES, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES.
- IF IT CONTACTS EYES, WASH EYES WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

e. Using isopropyl alcohol, clean thermal grease from mating surface of microcircuit and heat sink assembly (7).

INSTALLATION

f. Apply a coat of thermal grease to mating surface of microcircuit and heat sink (7).

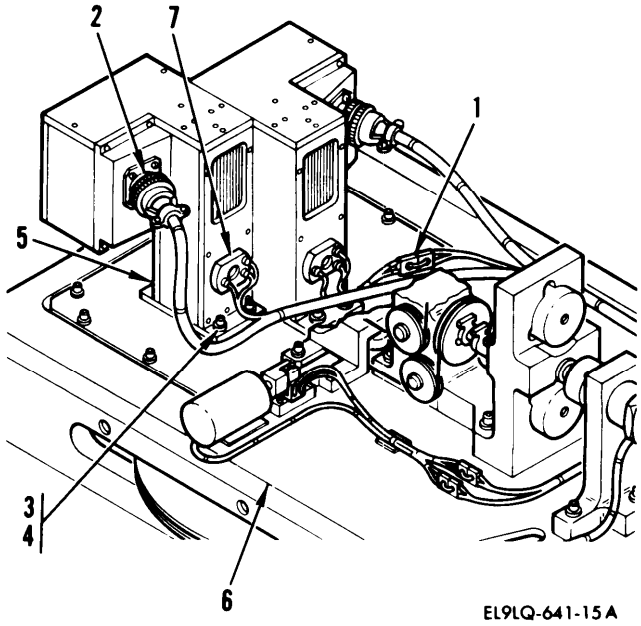
g. Position heat source assembly (5) on target mounting base assembly (6), and secure with four screws (3) and washers (4).

h. Install microcircuit and heat sink assembly (7) on heat source assembly (5), and tighten finger-tight plus one-quarter turn.

i. Connect the following connectors:

W6P12 to A1A2J1 (2)
W6P13 to W24J1 (1)

j. Refer to 1 above and do steps q through x.



EL9LQ-641-15A

END OF TASK

3. MICROCIRCUIT AND HEAT SINK/CABLE ASSEMBLY W24 OR W25 REPLACEMENT

REMOVAL

a. Refer to 1 above and do steps a through h to gain access to microcircuit and heat sink assemblies.

CAUTION

Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface.

NOTE

Do step b below to replace microcircuit and heat sink/cable assembly W24 on heat source assembly Al, or do step c below to replace microcircuit and heat sink/cable assembly W25 on heat source assembly A2.

b. On heat source assembly A1 (1), disconnect W25J1 from W6P14 (2), and turn microcircuit and heat sink/cable assembly W25 (3) counterclockwise.

c. On heat source assembly A2 (4), disconnect W24J1 from W6P13 (5) and turn microcircuit and heat sink/cable assembly W24 (6) counterclockwise.

WARNING

ISOPROPYL ALCOHOL

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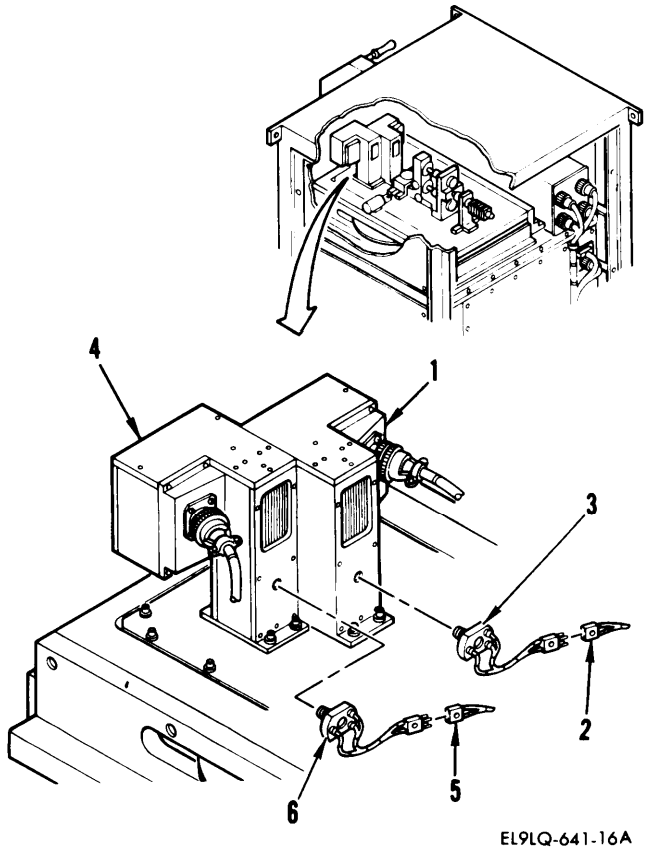
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET IN EYES, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES.
- IF IT CONTACTS EYES, WASH EYES WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

d. Using isopropyl alcohol, clean thermal grease from mating surface of heat source assembly (1) or (4).



EL9LQ-641-16A

INSTALLATION

e. Apply a coat of thermal grease to mating surface of replacement microcircuit and heat sink.

f. Install in reverse order of removal and tighten microcircuit and heat sink assembly finger-tight plus one-quarter turn.

END OF TASK

4. CLUTCH/CABLE ASSEMBLY W17 OR W26 REPLACEMENT

NOTE

This procedure is used to replace clutch/cable assembly W17 or W26.

REMOVAL

a. Refer to 1 above and do steps a through h to gain access to clutch assemblies.

b. To remove either clutch assembly W17 (1) or W26 (2), disconnect connector W6P1 from connector W17J1 (3) or connector W6P2 from connector W26J2 (4).

CAUTION

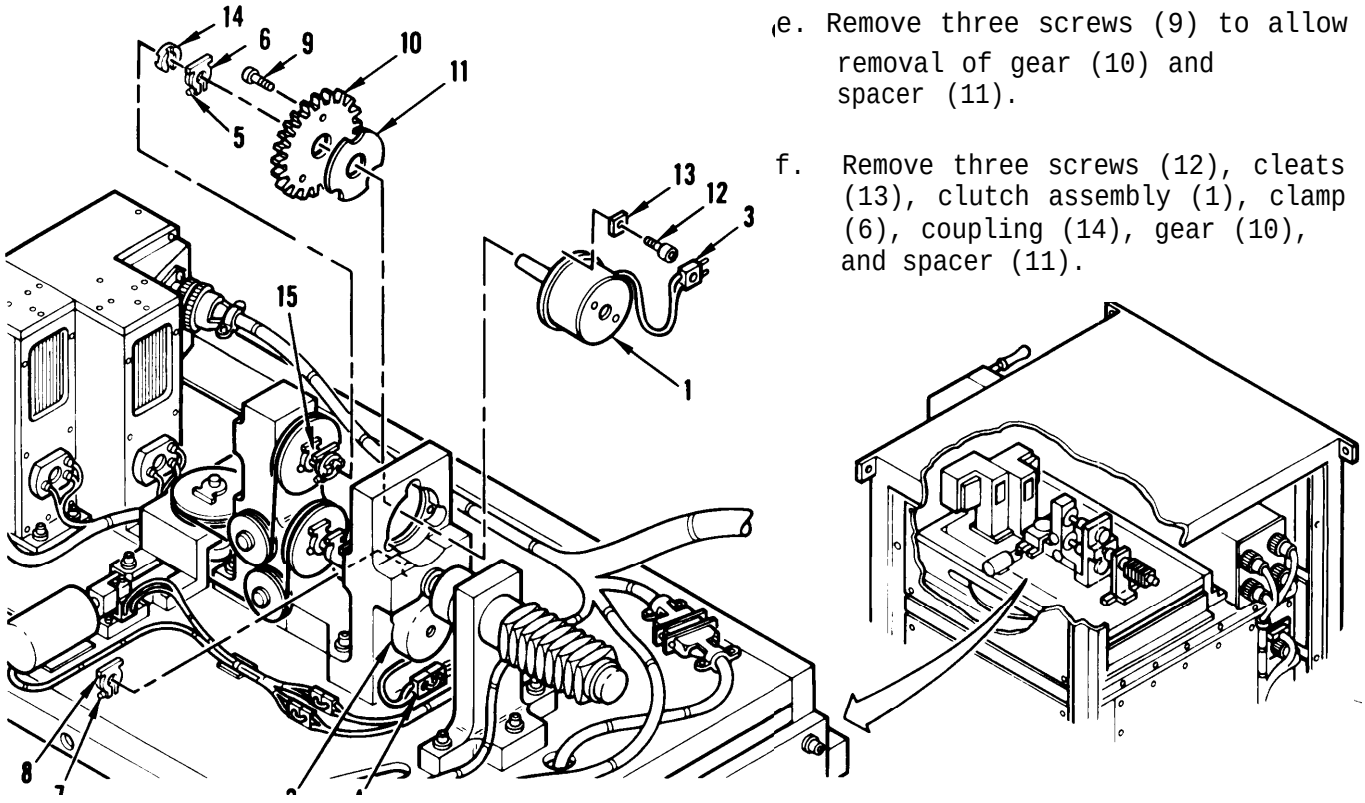
Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface.

c. Loosen setscrew (5) on clamp (6).

d. Loosen setscrew (7) on clamp (8) and remove clamp from drive gear.

e. Remove three screws (9) to allow removal of gear (10) and spacer (11).

f. Remove three screws (12), cleats (13), clutch assembly (1), clamp (6), coupling (14), gear (10), and spacer (11).



EL9LQ-641-21

INSTALLATION

g. Position clutch (1) in mount and place spacer (11), gear (10), and clamp (6), onto clutch shaft.

h. Place coupling (14) onto front shaft (15), aline couplings and push clutch into place on mount so couplings are properly mated.

i. Tighten setscrew (5) on clamp (6).

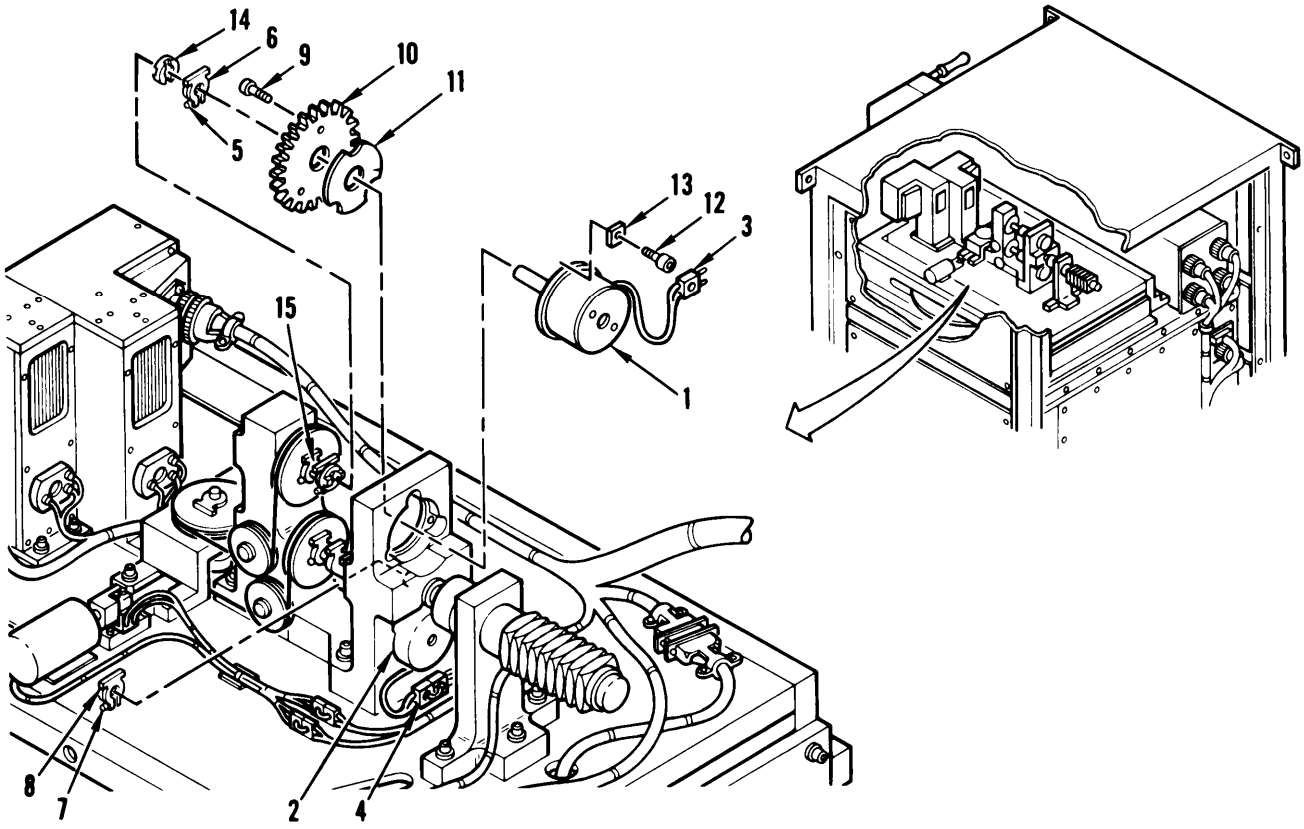
j. Install three screws (12) with cleats (13) to secure clutch. Aline holes in gear with spacer and clutch.

k. Press gear (10) into place and secure with three screws (9).

l. Install clamp (8) on drive gear. Be sure clamp does not rub on clutch gears.

m. Tighten setscrew (7) on clamp (8).

n. Refer to 1 above and do steps q through x.



END OF TASK

5. MOTOR/CABLE ASSEMBLY W16
REPLACEMENT

REMOVAL

a. Refer to 1 above and do steps a through g to gain access to motor.

b. On motor/cable assembly (1), disconnect W16J1 from W6P8 (2).

CAUTION

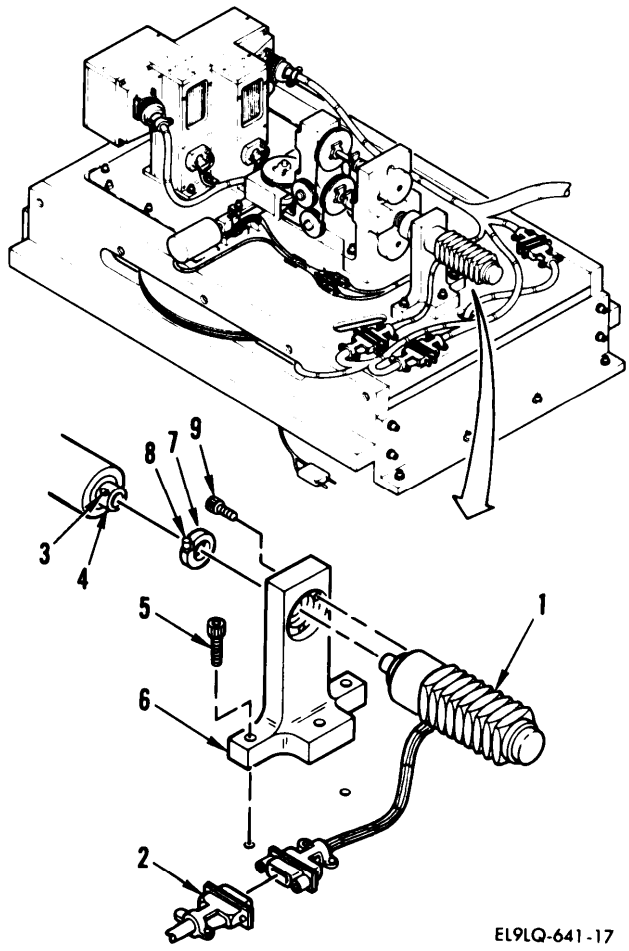
Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface.

c. Loosen setscrew (3) on clutch hub (4).

d. Remove three screws (5) and motor mount assembly (6).

e. On clamp (7), loosen screw (8) and remove clamp.

f. Remove two screws (9), and remove motor/cable assembly (1).



INSTALLATION

g. Install in reverse order of removal.

END OF TASK

6. SOLENOID/CABLE ASSEMBLY W13 REPLACEMENT

REMOVAL

a. Refer to 1 above and do steps a through g to gain access to solenoid.

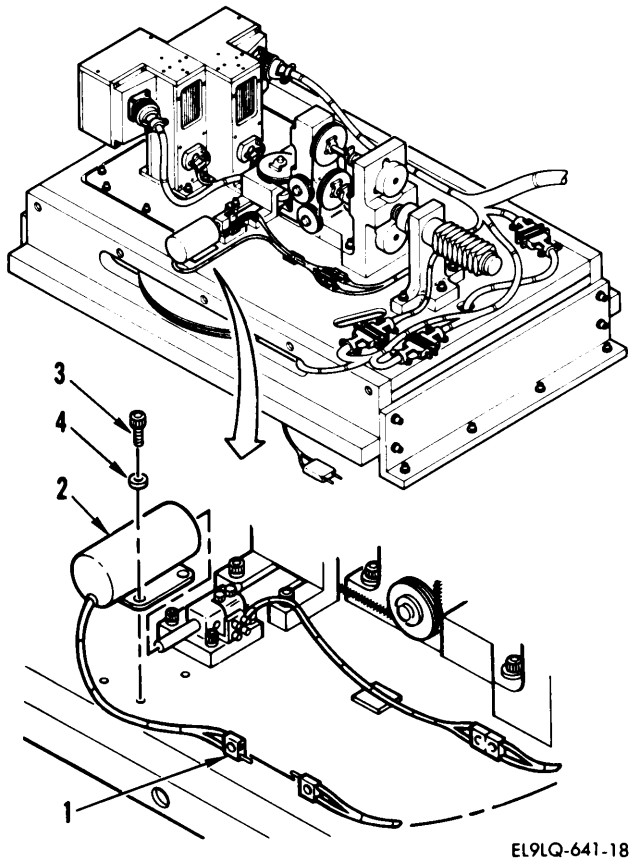
b. Cut lacing tape as required to remove solenoid and cable assembly.

c. Disconnect cable W6P9 from W13J1 (1).

CAUTION

Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface.

d. On solenoid (2), remove four screws (3), washers (4), and carefully remove solenoid.



EL9LQ-641-18

INSTALLATION

e. Install in reverse order of removal.

END OF TASK

7. OPTICAL SWITCH/CABLE ASSEMBLY W20 REPLACEMENT

REMOVAL

a. Refer to 1 above and do steps a through h to gain access to optical switch.

b. Cut lacing tape as required to remove optical switch/cable assembly (1).

c. Disconnect connector W20J1 from connector W6P7 (2).

CAUTION

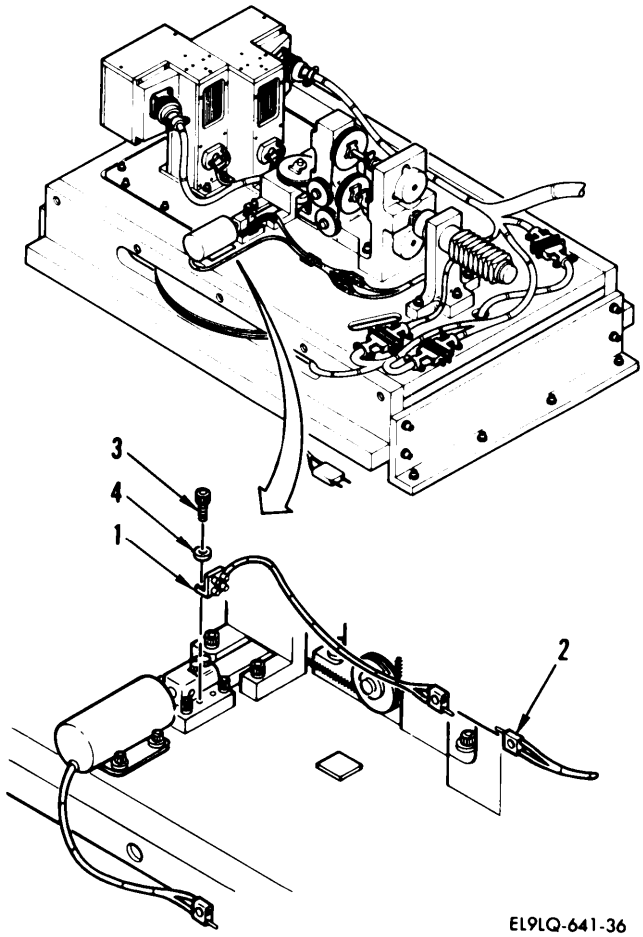
Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface.

d. Remove two screws (3), washers (4), and optical switch/cable assembly (1).

INSTALLATION

e. Install in reverse order of removal.

END OF TASK



EL9LQ-641-36

8. BELT REPLACEMENT

NOTE

Lower belt (7) is not replaceable at this level of maintenance.

REMOVAL

a. Refer to 1 above and do steps a through h to gain access to belt.

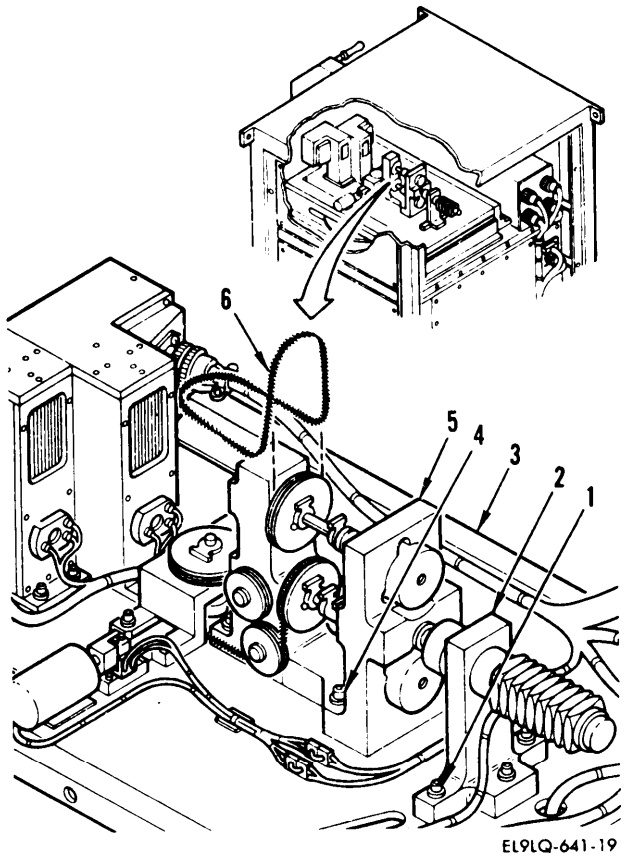
CAUTION

Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surface.

b. Loosen three screws (1) that secure motor mount (2) to target mounting base (3).

c. Loosen four screws (4) that secure clutch drive assembly (5) to target mounting base (3).

d. Slide motor mount (2) and clutch drive assembly (5) forward and remove belt (6).



EL9LQ-641-19

INSTALLATION

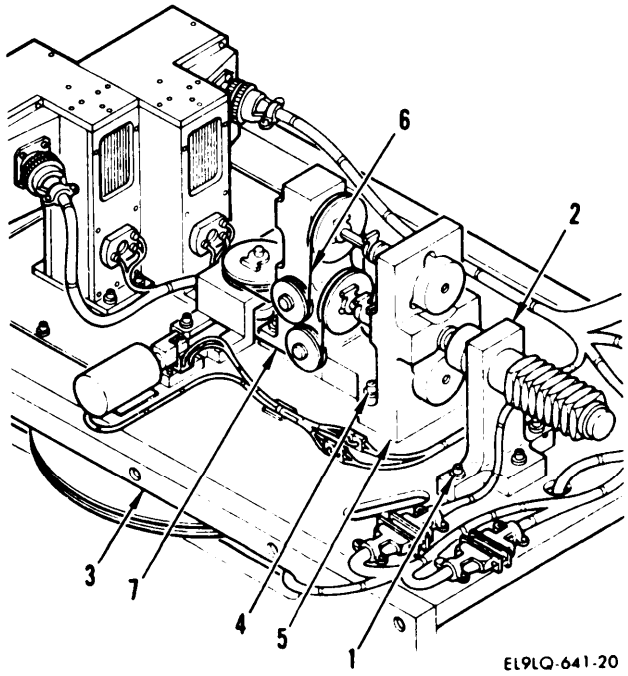
e. Position replacement belt (6) in place.

f. Be sure lower belt (7) is in position, and slide motor mount (2) and clutch drive assembly (5) in position to tighten belt.

g. Tighten four screws (4) on clutch drive assembly (5).

h. Tighten three screws (1) on motor mount assembly (2).

i. Refer to 1 above and do steps q through x.



EL9LQ-641-20

END OF TASK

5-39. SECONDARY HEAT SOURCE ASSEMBLY 2A3A1A17 REPAIR 5-39

This task covers replacement of:

Para	Item
1.	Heat source A17
2.	Microcircuit and heat sink assembly

INITIAL SETUP

Tools

Goggles
Nitrogen gas gun

Materials (appendix C)

Acetone (Item 1)
Isopropyl alcohol (Item 4)
Methyl alcohol (Item 5)
Applicator (Item 6)
Cheesecloth pad (Item 11)
Filter (Item 24)
Fingercots (Item 25)
Rubber gloves (Item 26)
Thermal grease (Item 28)
Lens paper (Item 36)
Nose-mouth shield (Item 42)
Lacing tape (Item 44)
Masking tape (Item 45)

Personnel Required

39B ATE Repairer

Equipment Condition

Power removed (para 2-24.1)

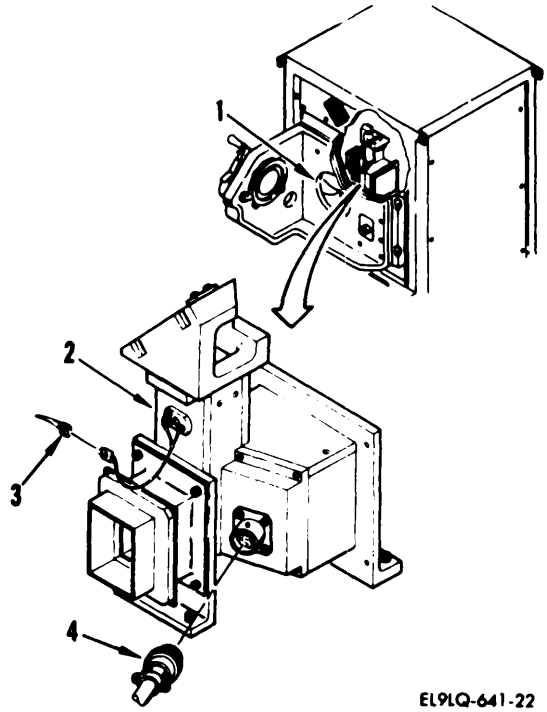
1. HEAT SOURCE A17 REPLACEMENT

CAUTION

When reaching through shutter opening do not attempt to reach into the upper portion of the nightside test bench. The target wheel may be damaged.

REMOVAL

a. On front of nightside test bench assembly, carefully open shutter assembly (1) and tape in open position in three places.

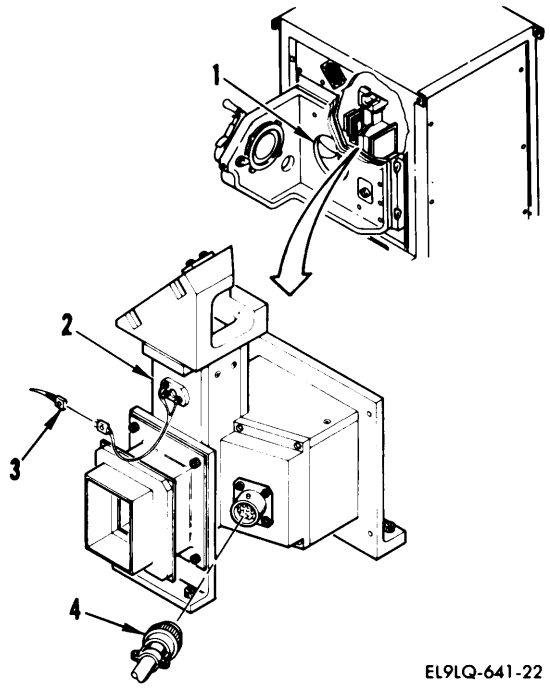


EL9LQ-641-22

b. On secondary heat source assembly (2), disconnect the following connectors:

W5P4 from W23J1 (3)
W5P5 from A17J1 (4)

c. Cut lacing tape as required to allow removal of heat source assembly (2).



EL9LQ-641-22

NOTE

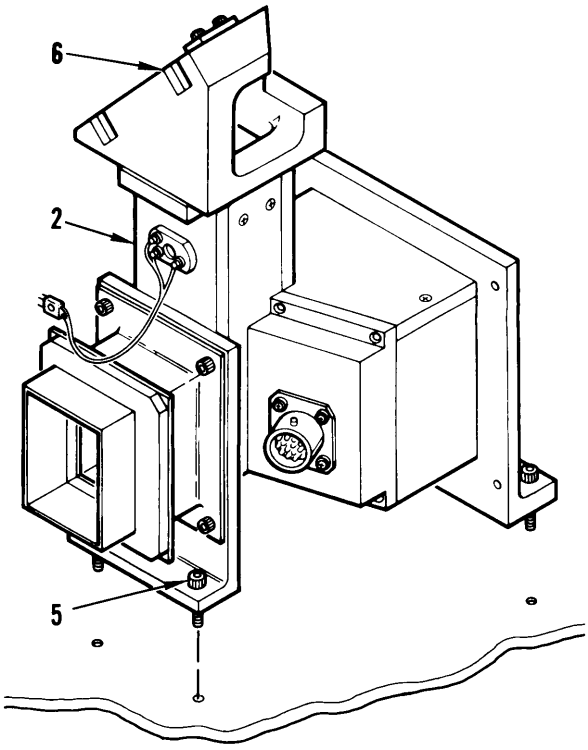
Heat source assembly may have loose (noncaptive) screws (5).

d. Through shutter assembly opening, loosen five captive screws (5) and carefully remove heat source assembly (2).

CAUTION

Exercise special care when working near optical surfaces. Avoid touching or contaminating any optical surfaces in nightside test bench. Do not drop tools to prevent damaging equipment.

e. Cover exposed surfaces of folding mirror assembly (6).



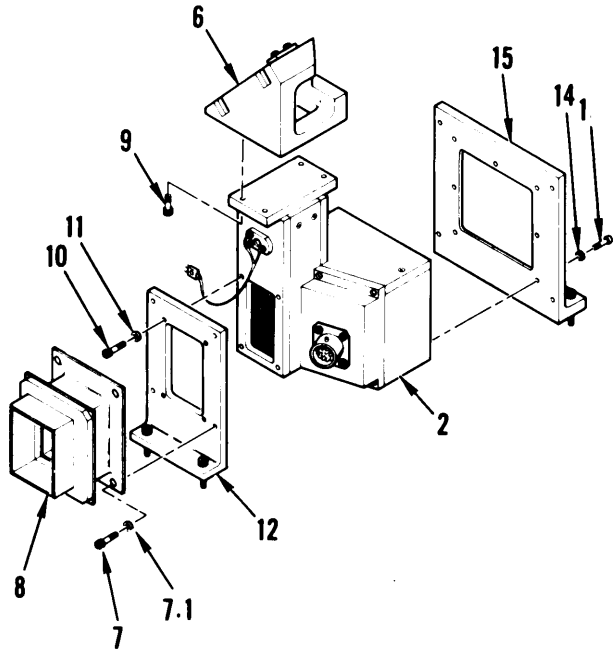
EL9LQ-641-23

f. Remove four screws (7), washers (7.1), and remove air duct assembly (8).

g. Remove four screws (9) and folding mirror assembly (6).

h. Remove four screws (10), lockwashers (11), and mounting bracket (12).

i. Remove eight screws (13), lockwashers (14), and mounting bracket (15).

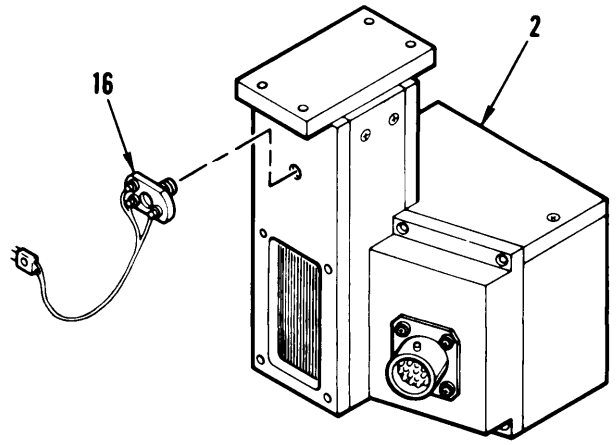


EL9LQ-641-24A

CAUTION

When removing microcircuit and heat sink assembly ensure cable follows rotation of heat sink.

j. Remove microcircuit and heat sink assembly (16).



EL9LQ-641-25

WARNING

ISOPROPYL ALCOHOL

FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET IN EYES, OR BREATHE VAPORS.
DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES.
IF IT CONTACTS EYES, WASH EYES WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

k. Using isopropyl alcohol clean old thermal grease from surface of microcircuit and heat sink assembly (16) that mates with heat source (2).

INSTALLATION

l. Apply a coat of thermal grease to surface of microcircuit and heat sink assembly that mates with heat source (2).

CAUTION

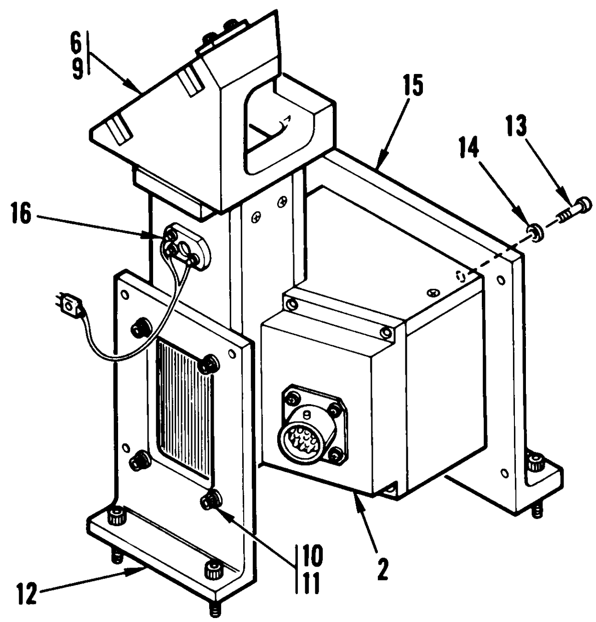
When installing microcircuit and heat sink assembly ensure cable follows rotation of heat sink.

m. Install microcircuit and heat sink assembly (16) on replacement heat source assembly (2), tighten finger-tight plus one-quarter turn.

n. Position mounting bracket (12) on heat source assembly (2), and secure with four screws (10) and lockwashers (11).

o. Position opposite mounting bracket (15) on heat source assembly (2) and secure with eight screws (13) and lockwashers (14).

p. Position folding mirror assembly (6) on heat source assembly (2) and install four screws (9).



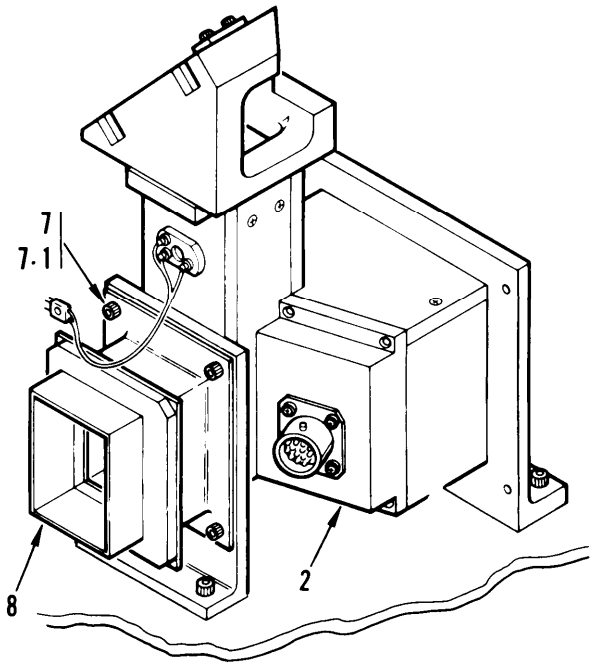
EL9LQ-641-26

q. Position air duct assembly (8) on heat source assembly (2) and install four screws (7) and washers (7.1).

WARNING

ACETONE

- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET ON SKIN, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES, RUBBER GLOVES, AND RUBBER APRON.
- IF IT CONTACTS SKIN OR EYES, WASH AFFECTED AREAS WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.



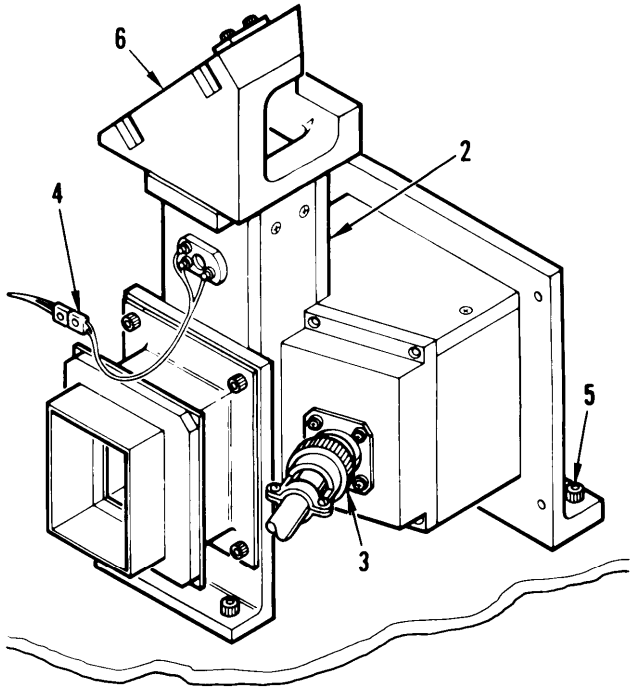
EL9LQ-641-27A

WARNING

METHYL ALCOHOL

- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET IN EYES, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES, RUBBER GLOVES, AND RUBBER APRON.
- IF IT CONTACTS EYES, WASH EYES WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

r. Inspect exposed surfaces of folding mirror-assembly (6) and clean, if necessary, using methyl alcohol, then acetone.



EL9LQ-641-28

s. Through shutter opening, position heat source assembly (2) on center plate and tighten five captive screws (5).

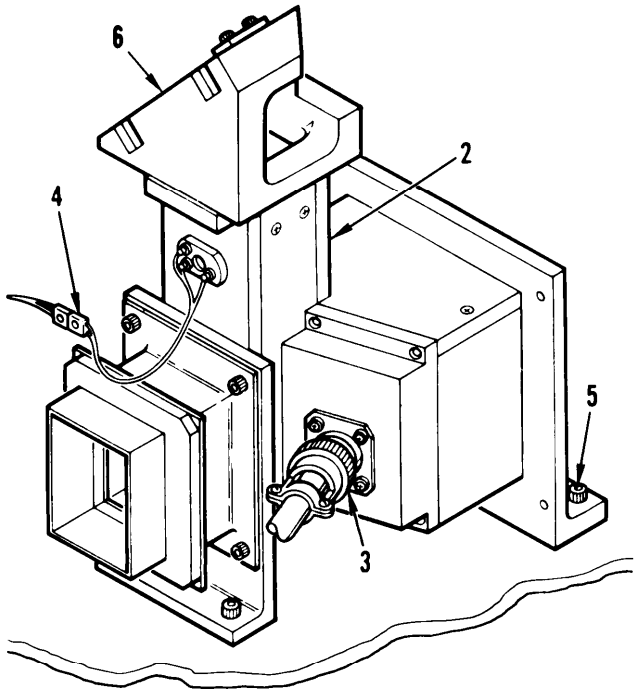
t. Connect the following connectors:

W5P4 to W23J1 (4)
W5P5 to A17J1 (3)

u. Install lacing tape as necessary on cable assemblies.

v. Hold shutter vanes in open position, remove tape, and carefully close shutter assembly.

END OF TASK



EL9LQ-641-28

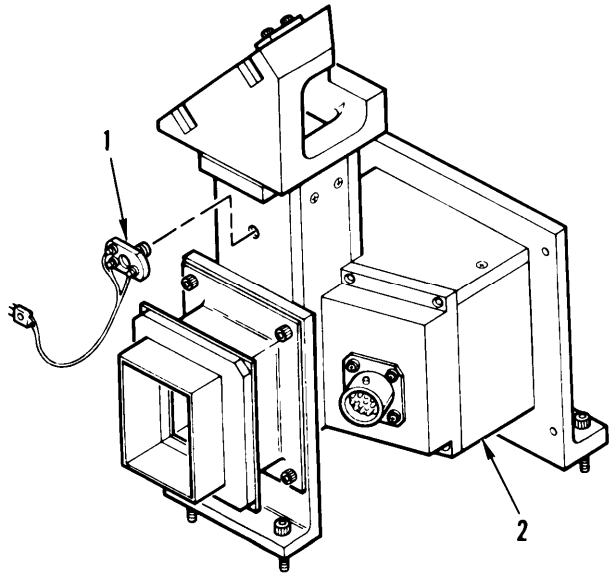
2. MICROCIRCUIT AND HEAT SINK ASSEMBLY REPLACEMENT

REMQVAL

CAUTION

When removing microcircuit and heat sink assembly ensure cable follows rotation of heat sink.

a. Remove microcircuit and heat sink assembly (1) from heat source assembly (2). Rotate counterclockwise to remove.



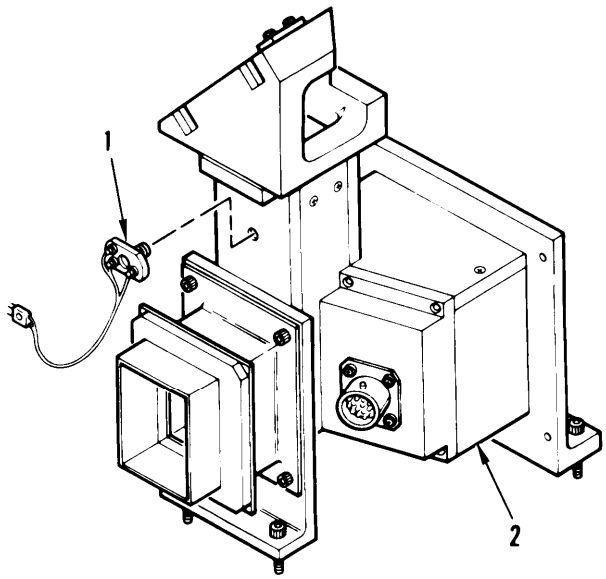
EL9LQ-641-29

WARNING

ISOPROPYL ALCOHOL

- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET IN EYES, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES.
- IF IT CONTACTS EYES, WASH EYES WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

b. Using isopropyl alcohol, clean old thermal grease from surface of heat source assembly (2) that mates with microcircuit and heat sink assembly (1).



EL9LQ-641-29

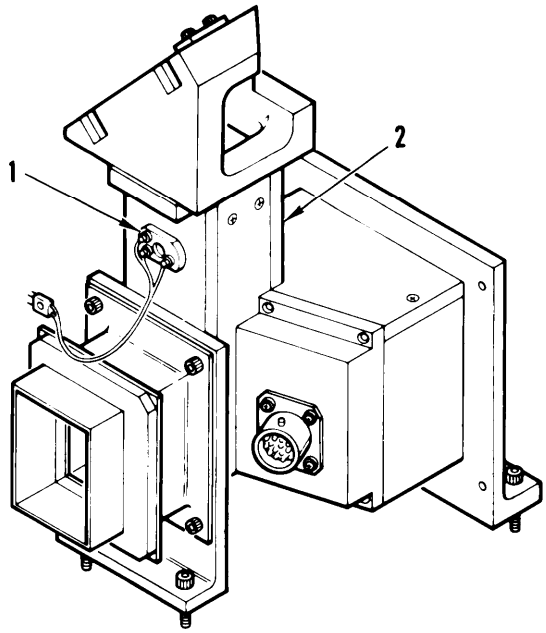
INSTALLATION

c. Apply a coat of thermal grease to surface of replacement microcircuit and heat sink assembly (1).

CAUTION

When installing microcircuit and heat sink assembly ensure cable follows rotation of heat sink.

d. Install microcircuit and heat sink assembly (1) on heat source assembly (2), tighten finger-tight plus one-quarter turn.



EL9LQ-641-30

END OF TASK

5-40. FAN ASSEMBLY 2A3A1B1 REPLACEMENT 5-40

INITIAL SETUP

Personnel Required

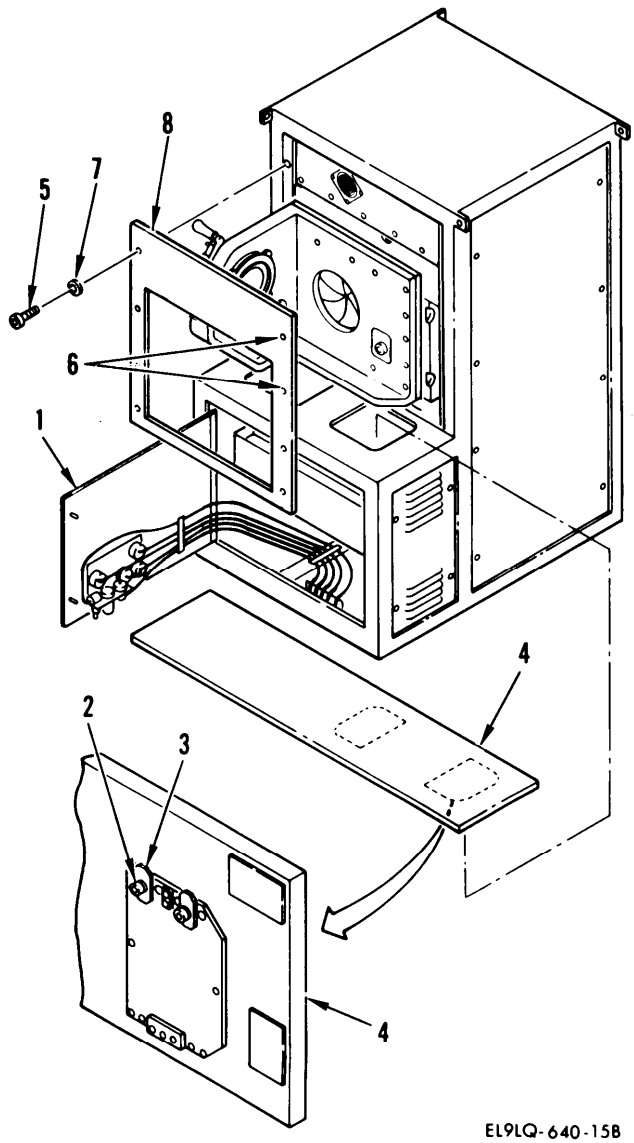
39B ATE Repairer

Equipment Condition

Power removed (para 2-24.1)

REMOVAL

1. On front of nightside test bench, open access door (1).
2. On underside of nightside test bench, loosen four screws (2), rotate four retainers (3), and remove bench top (4).
3. Remove six long screws (5), two short screws (6), and eight washers (7) securing front panel (8) to cabinet. Remove front panel.



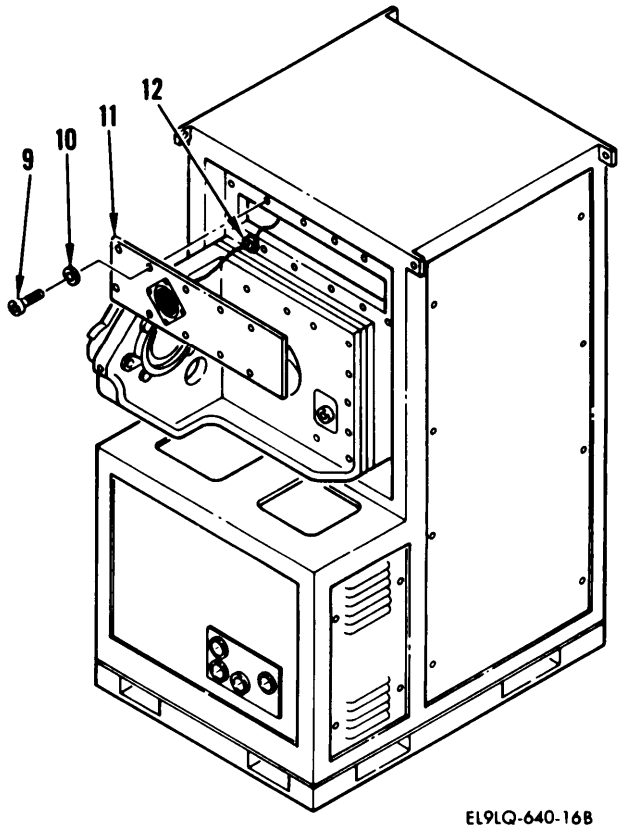
4. Remove 10 screws (9), 10 washers (10), and pull out access cover (11) to access connector (12). Disconnect connector W6P16 from connector B1J1 (12).

5. On access cover (11), remove four screws (13), washers (14), and remove fan assembly (15).

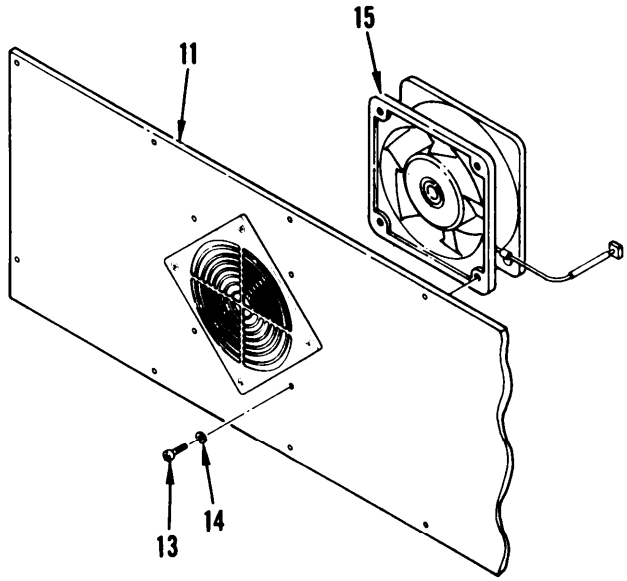
INSTALLATION

6. Install fan in reverse order of removal.

END OF TASK



EL9LQ-640-16B



EL9LQ-640-17B

CHAPTER 6

DIRECT SUPPORT MAINTENANCE INSTRUCTIONS TEST PROGRAM SETS

OVERVIEW

This chapter provides direct support maintenance instructions for the test program sets (TPS). The adapters, test fixtures, cables, and self-test connectors used at direct support maintenance level are each covered in separate sections within this chapter.

Section I. REPAIR PARTS; SPECIAL TOOLS; TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE); AND SUPPORT EQUIPMENT

6-1. COMMON TOOLS AND EQUIPMENT 6-1

The maintenance tasks contained in this chapter use tools contained in tool kits, Electronic Equipment TK-100/G, and TK-105/G. Other tools, if required, will be listed in paragraph 6-2 and in the INITIAL SETUP of the specific maintenance task.

6-2. SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT 6-2

For authorized special tools and support equipment pertaining to direct support maintenance, refer to TM 11-6625-3081-23P, Repair Parts and Special Tools List (RPSTL).

6-3. REPAIR PARTS 6-3

Repair parts are listed and illustrated in the RPSTL (TM 11-6625-3081-23P) covering organizational and direct support maintenance for this equipment.

Section II. MAJOR TEST ADAPTER MAINTENANCE PROCEDURES

6-4. MAJOR TEST ADAPTER REPAIR 6-4

This task covers replacement of:

Para	Item
1.	Circuit card cover assembly
2.	UUT cover assembly
3.	Connectors J5 through J12
4.	Connector J13
5.	Switch S1 or S3
6.	Switch S2 or S4
7.	Filter assembly
8.	PC card guide
9.	Guide pin
10.	Silicone rubber strip
11.	Resistor R1
12.	Wiring and connector repair/replacement

INITIAL SETUP

Personnel Required

39B ATE Repairer

Tools

Goggles
Rubber Apron

Materials appendix C

Silicone adhesive (Item 3)
Cheesecloth pad (Item 11)
Rubber gloves (Item 26)
Nose mouth shield (Item 42)
Trichloroethane (Item 47)

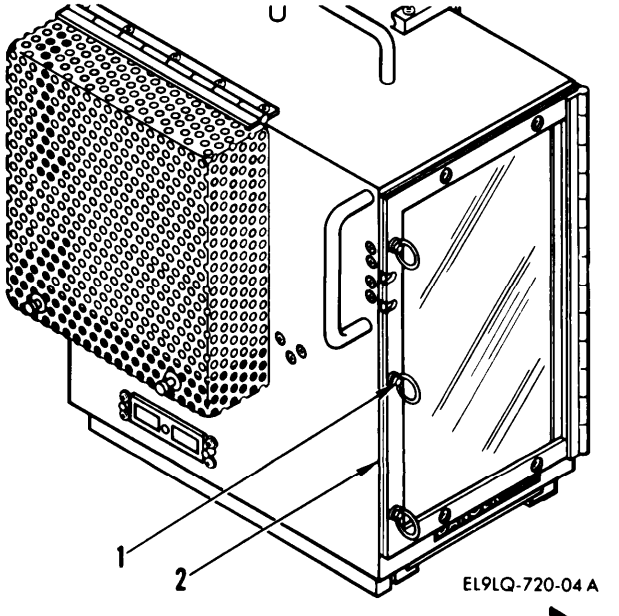
Equipment Condition

Positioned on workbench

1. CIRCUIT CARD COVER ASSEMBLY REPLACEMENT

REMOVAL

a. Rotate three turnlock fasteners (1) counterclockwise and open the circuit card cover assembly (2).



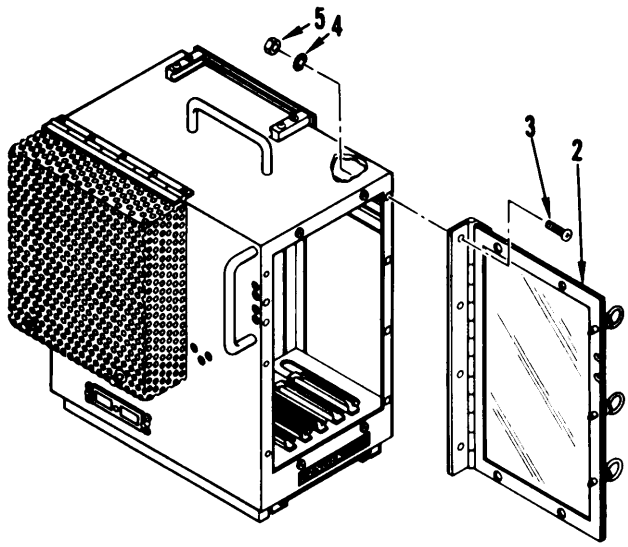
b. Remove four screws (3), lockwashers (4), and nuts (5).

c. Remove circuit card cover assembly (2).

INSTALLATION

d. Install in reverse order of removal.

END OF TASK



EL9LQ-720-05 B

2. UUT COVER ASSEMBLY REPLACEMENT

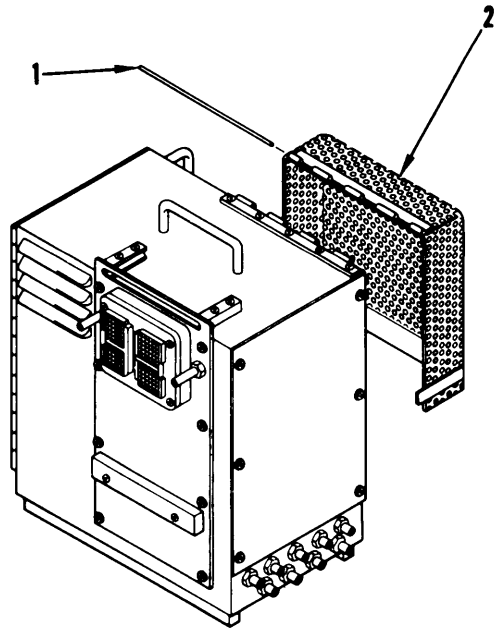
REMOVAL

a. Remove hinge pin (1) and UUT cover assembly (2).

INSTALLATION

b. On replacement UUT cover assembly, remove hinge pin and install UUT cover assembly and hinge pin in reverse order of removal.

END OF TASK



EL9LQ-720-06 A

3. CONNECTORS J5 THROUGH J12 REPLACEMENT

NOTE

This procedure is used to replace any of connectors J5 through J12.

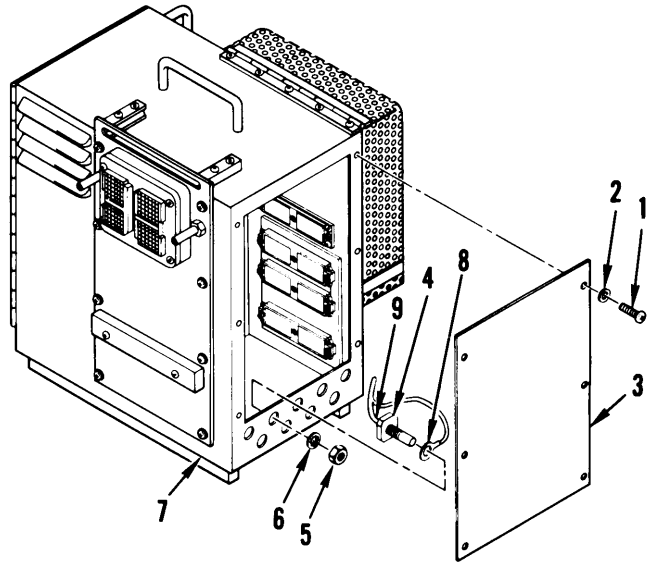
REMOVAL

a. Remove six screws (1) and washers (2), and remove rear access cover (3).

b. Holding rear of connector (4), remove nut (5) and lockwasher (6).

c. Pull connector (4) out of major test adapter (7) and remove shield (8).

d. Unsolder contact (9) and remove connector.



EL9LQ-720-08 A

INSTALLATION

e. Install in reverse order of removal.

END OF TASK

4. CONNECTOR J13 REPLACEMENT

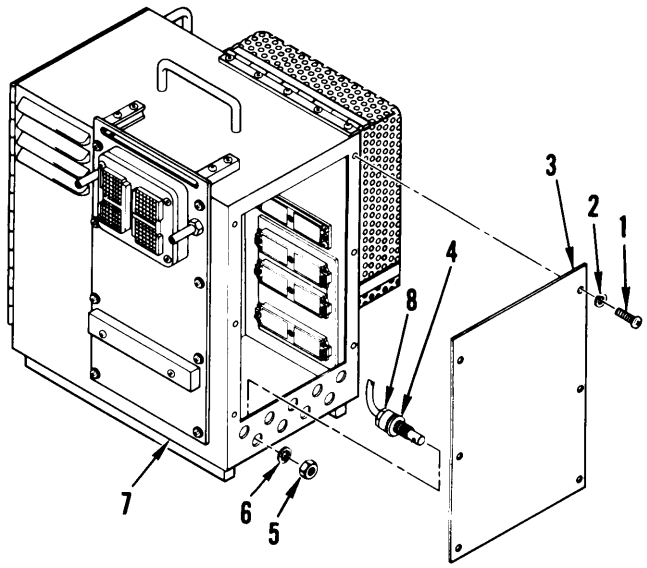
REMOVAL

a. Remove six screws (1) and washers (2), and remove rear access cover (3).

b. Holding rear of connector (4), remove nut (5) and lockwasher (6).

c. Pull connector out of major test adapter (7) and remove nut and wire (8).

d. Remove connector.



EL9LQ-720-09 A

INSTALLATION

e. Install in reverse order of removal.

END OF TASK

5. SWITCH S1 OR S3 REPLACEMENT

NOTE

This procedure is used to replace switch S1 or S3.

REMOVAL

a. Rotate three turnlock fasteners (1) counterclockwise and open the circuit card cover assembly (2).

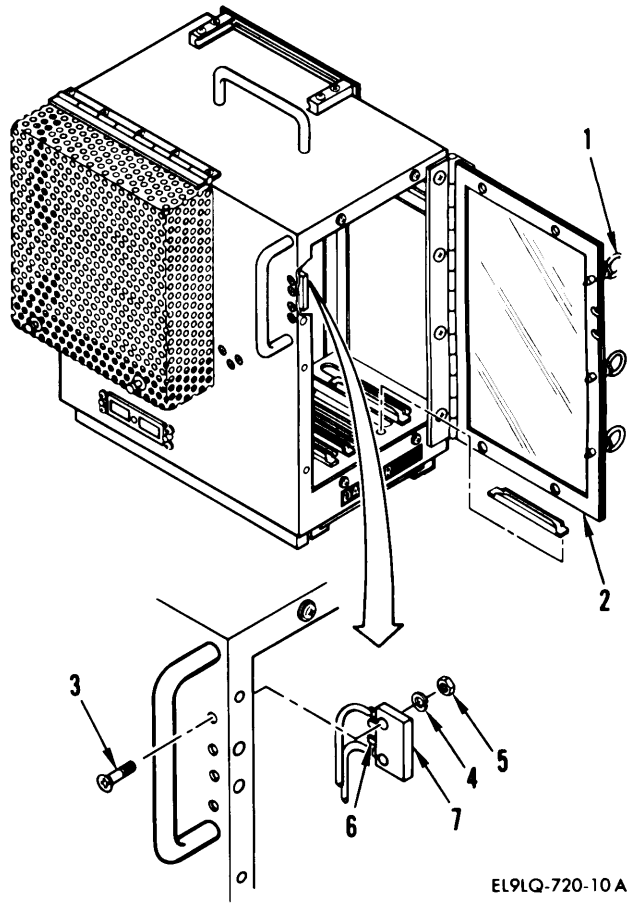
b. Remove two screws (3), lockwashers (4), and nuts (5).

c. Tag and unsolder wires from two contacts (6) and remove switch (7).

INSTALLATION

d. Install in reverse order of removal.

END OF TASK



6. SWITCH S2 OR S4 REPLACEMENT

NOTE

This procedure is used to replace switch S2 or S4.

REMOVAL

a. Rotate three turnlock fasteners (1) counterclockwise and open the circuit card cover assembly (2).

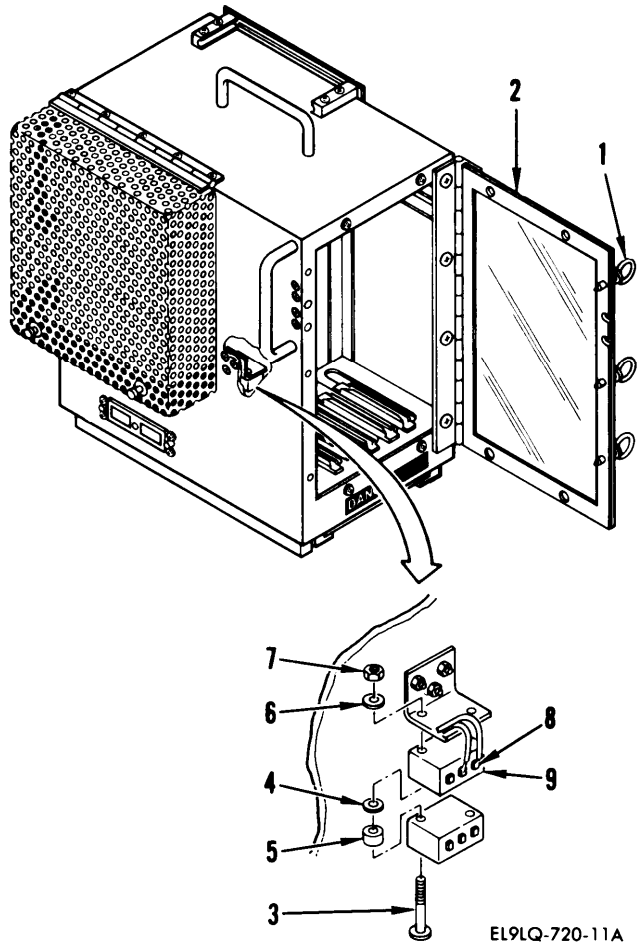
b. Remove two screws (3), washers (4), spacers (5), lockwashers (6), and nuts (7).

c. Tag and unsolder wires from two contacts (8), and remove defective switch (9).

INSTALLATION

d. Install in reverse order of removal.

END OF TASK



7. FILTER ASSEMBLY REPLACEMENT

REMOVAL

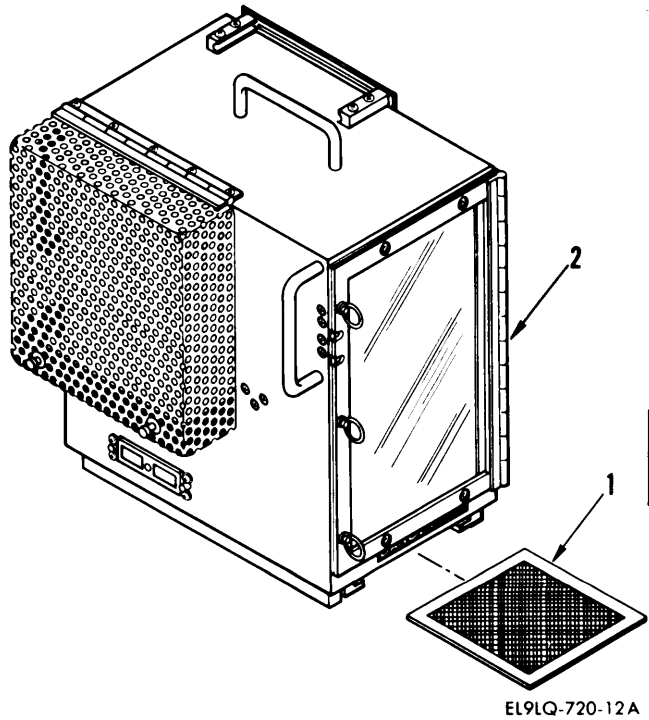
a. Slide filter assembly (1) out from the bottom of the major test adapter (2).

b. Inspect filter for defects and cleanness. Refer to paragraph 2-22 for cleaning.

INSTALLATION

c. Install in reverse order of removal.

END OF TASK



8. PC CARD GUIDE REPLACEMENT

REMOVAL

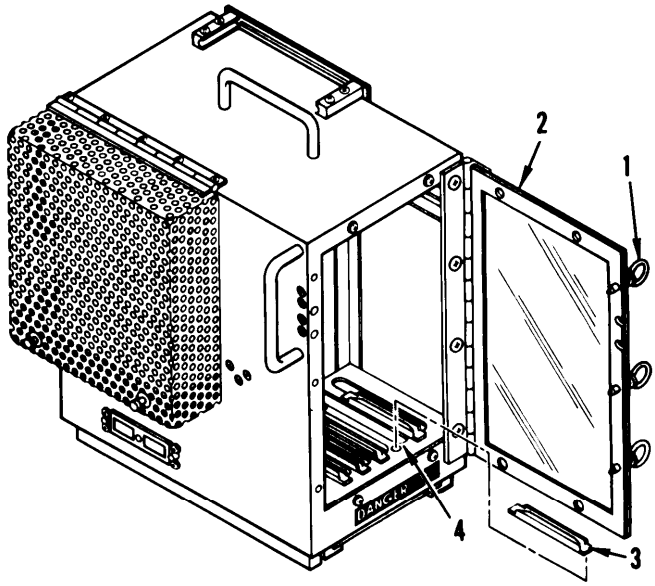
a. Rotate three turnlock fasteners (1) counterclockwise and open the circuit card cover assembly (2).

b. Pull defective PC card guide (3) up and out of the card guide bracket assembly (4).

INSTALLATION

c. Install in reverse order of removal.

END OF TASK



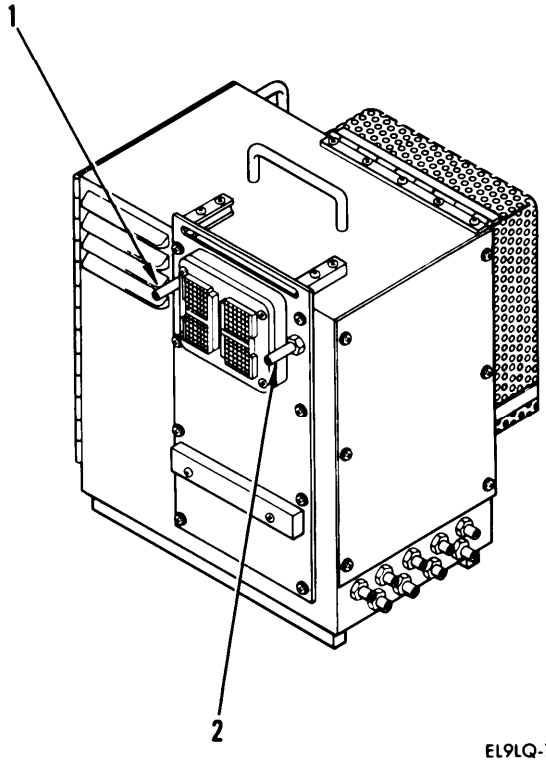
EL9LQ-720-13 A

9. GUIDE PIN REPLACEMENT

REMOVAL

NOTE

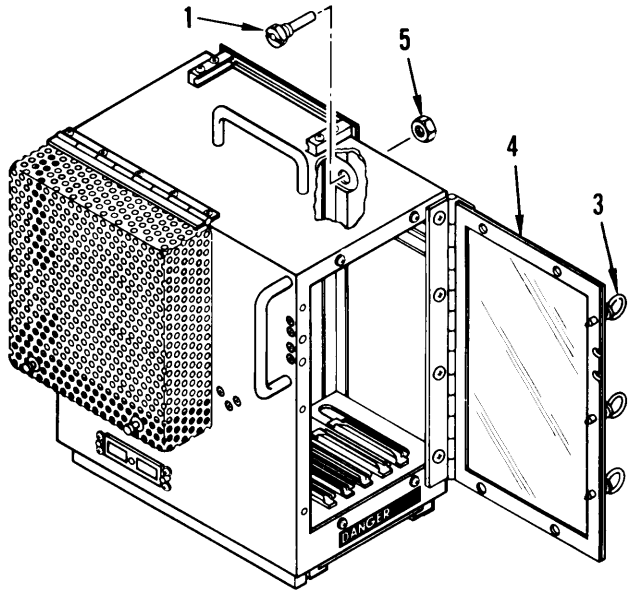
To replace left guide pin (1), do steps a and b. To remove right guide pin (2), do steps c and d.



EL9LQ-720-14 A

a. Rotate three turnlock fasteners (3) counterclockwise and open the circuit card cover assembly (4).

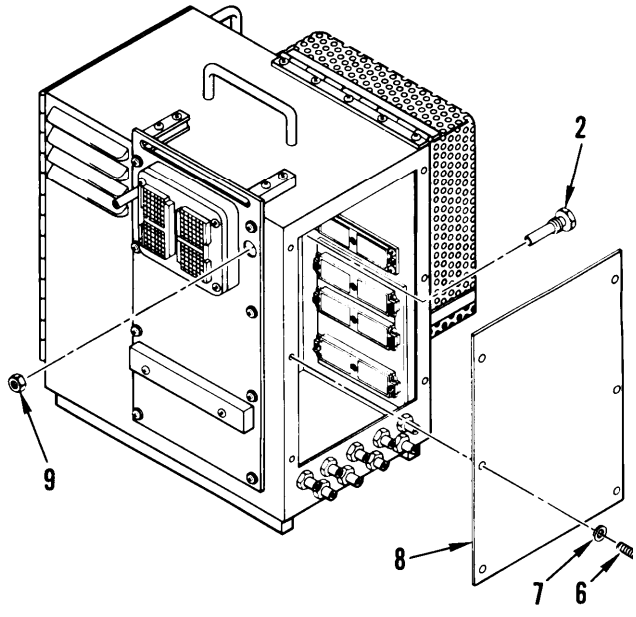
b. Reaching through opening, hold rear of guide pin (1), remove nut (5), then guide pin.



EL9LQ-720-15A

c. Remove six screws (6) and washers (7), and remove rear access cover (8).

d. Reaching through opening, hold rear of guide pin (2), remove nut (9), then guide pin.



EL9LQ-720-18A

INSTALLATION

e. Install in reverse order of removal.

END OF TASK

10. SILICONE RUBBER STRIP REPLACEMENT

REMOVAL

a. To remove silicone rubber strip (1) or (2) peel from bottom of major test adapter.

b. Scrape bonding area to remove remaining particles.

WARNING

TRICHLOROETHANE

- FLAMMABLE, TOXIC, IRRITATING. CAN CAUSE BREATHING PROBLEMS, EYE DAMAGE.
- AT 325°F, GIVES OFF PHOSGENE GAS, WHICH CAN CAUSE DEATH OR SERIOUS INJURY.
- DON'T: USE NEAR FLAMES OR SPARKS, LET IT GET ON SKIN, OR BREATHE VAPORS.
- DO: USE IN WELL-VENTILATED AREA, CLOSE CONTAINERS WHEN NOT USING. WEAR ACID-TYPE SAFETY GOGGLES, RUBBER GLOVES, AND RUBBER APRON.
- IF IT CONTACTS SKIN OR EYES, WASH AFFECTED AREAS WITH RUNNING WATER. GET MEDICAL HELP AT ONCE.
- IF YOU EXPERIENCE ANY BREATHING PROBLEMS, GET TO FRESH AIR AT ONCE.

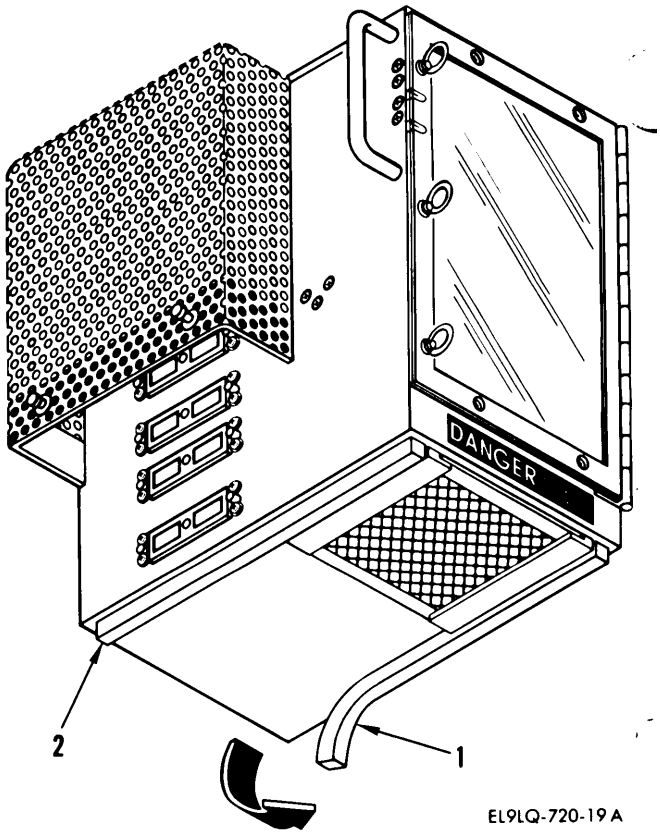
c. Clean bonding area using cheesecloth pad moistened with trichloroethane.

INSTALLATION

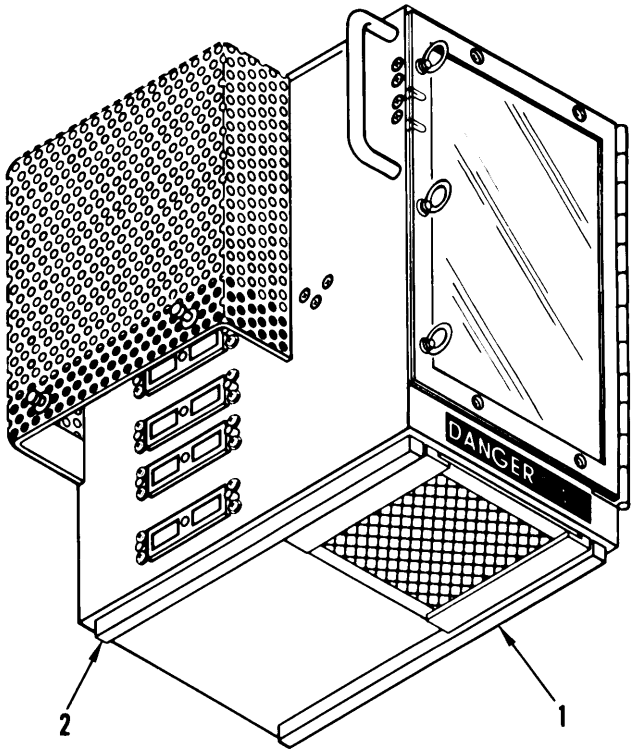
d. Install silicone rubber strip (1) using silicone adhesive.

e. Allow 12 hours to dry.

END OF TASK



EL9LQ-720-19A



EL9LQ-720-20A

11. RESISTOR R1 REPLACEMENT

REMOVAL

a. Rotate three turnlock fasteners (1) counterclockwise and open circuit card cover assembly (2).

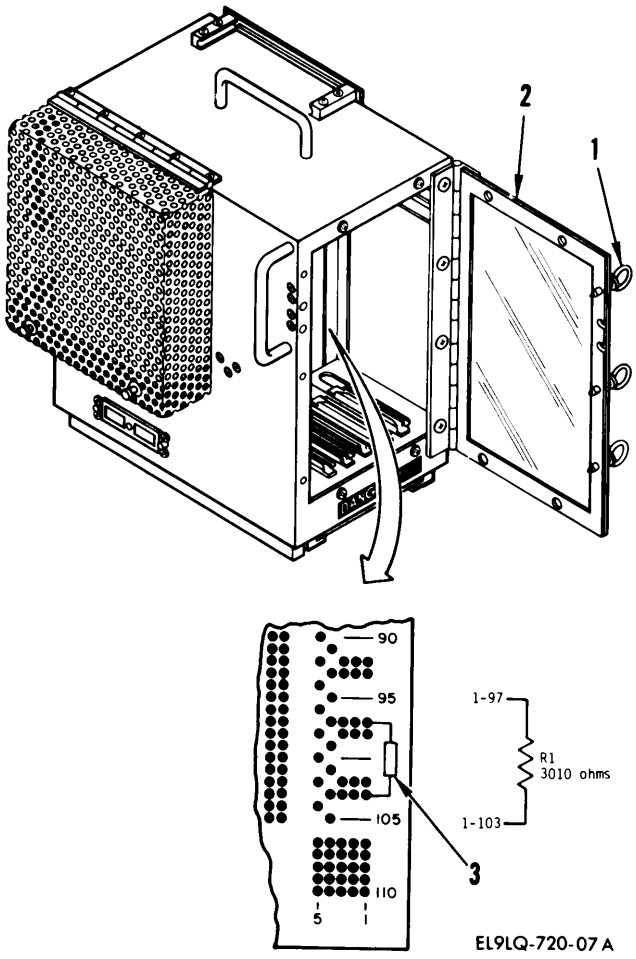
b. Unsolder and remove resistor R1 (3).

INSTALLATION

c. Install resistor R1 by connecting R1 between pins 1-97 and 1-103 on the motherboard.

d. Close circuit card cover assembly (2) and push and rotate three turnlock fasteners (1) clockwise.

END OF TASK



12. WIRING AND CONNECTOR REPAIR/REPLACEMENT

Repair or replace wires and connectors using standard maintenance practices. For the major test adapter wire list refer to paragraph 3-31.

END OF TASK

Section III. CABLE ASSEMBLY AND SELF-TEST CONNECTOR MAINTENANCE DATA

6-5. TPS CABLE ASSEMBLY REPAIR 6-5

Repair TPS cable assemblies and connectors using standard maintenance practices. For test program set cable assembly wire list data, refer to paragraph 3-32. The cable assemblies are listed in part number sequence.

6-6. SELF-TEST CONNECTOR REPAIR 6-6

The self-test connectors are not repairable. Upon failure, they are to be discarded. The wire lists contained in paragraph 3-33 can be used to confirm that the self-test connector is defective.

Section IV. TEST FIXTURE MAINTENANCE PROCEDURES

6-7. GENERAL 6-7

This section provides direct support maintenance instructions for the test fixtures used with test program sets.

6-7.1. (Deleted) 6-7.1

6-7.2. (Deleted) 6-7.2

6-8 TERMINAL BOX ASSEMBLY 13082747 REPAIR

This task covers:

Para	Item
1.	Resistor R1, R2, R3, or R4 replacement
2.	Stud terminal E1 through E8 replacement
3.	Wiring and connector repair/replacement

INITIAL SETUP

Materials (appendix C)

Personnel Required

39B ATE Repairer

1. RESISTOR R1, R2, R3, or R4 REPLACEMENT

REMOVAL

NOTE

This procedure is used to replace any of four resistors.

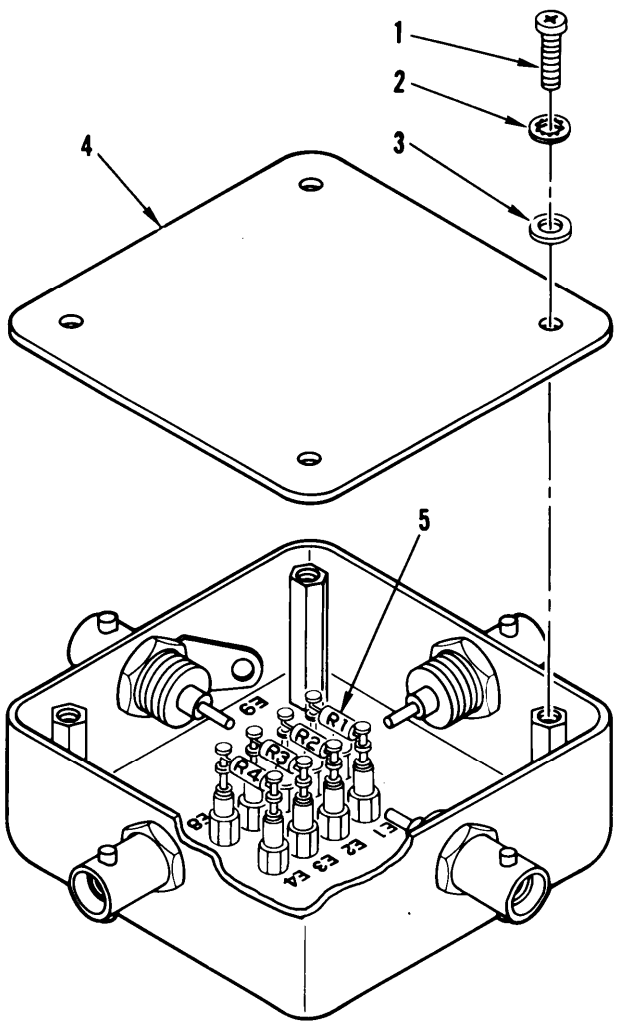
a. Remove four screws (1), lockwashers (2), washers (3), and cover (4).

b. Tag and remove wires and defective resistor (5) from resistor stud terminals.

INSTALLATION

c. Install in reverse order of removal.

END OF TASK



EL9LQ-700-25A

2. STUD TERMINAL E1 THROUGH E8 REPLACEMENT

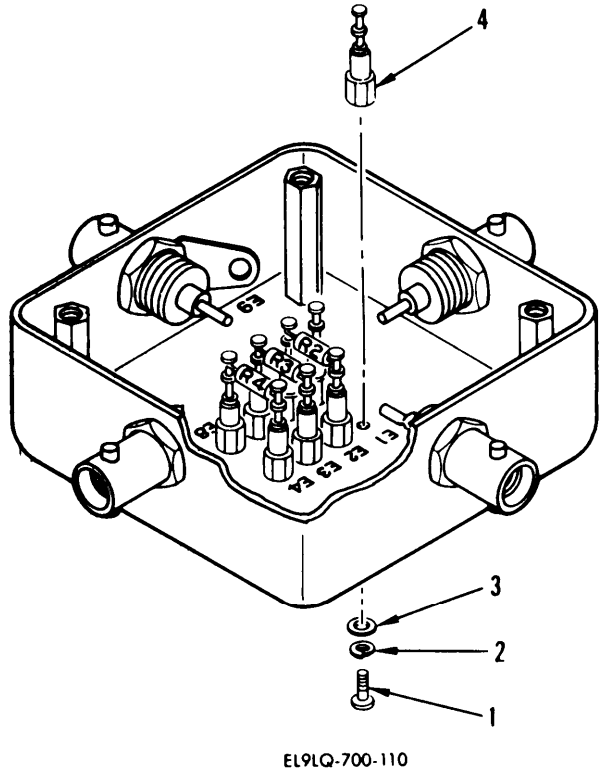
REMOVAL

NOTE

This procedure is used to replace any of eight stud terminals.

a. Refer to 1 above and remove applicable resistor(s) and/or wire(s).

b. Remove screw (1), lockwasher (2), washers (3), and stud terminal (4).



EL9LQ-700-110

INSTALLATION

c. Install in reverse order of removal.

END OF TASK

3. WIRING AND CONNECTOR REPAIR/REPLACEMENT

Repair or replace wires and connectors using standard maintenance practices. For wire list data refer to paragraph 3-34.

END OF TASK

6-9. DELETED 6-9

6-10. OPTICAL-HOD AND IVD ALIGNMENT ASSEMBLY REPAIR

This task covers:

Para	Item
1.	Power supply PS1 replacement
2.	Switch S1 or S2 replacement
3.	Control panel assembly replacement
4.	Bracket and circuit card assembly replacement
5.	Yoke load coil assembly replacement
6.	Wiring and connector repair/replacement

INITIAL SETUP

Tools

Goggles
Rubber apron

Materials (appendix C)

Artist brush (Item 8)
Cheesecloth pad (Item 11)
Rubber gloves (Item 26)
Emery paper, 400 grit (Item 35)
Zinc chromate primer (Item 40)
Trichlorotrifluoroethane (Item 48)

Personnel Required

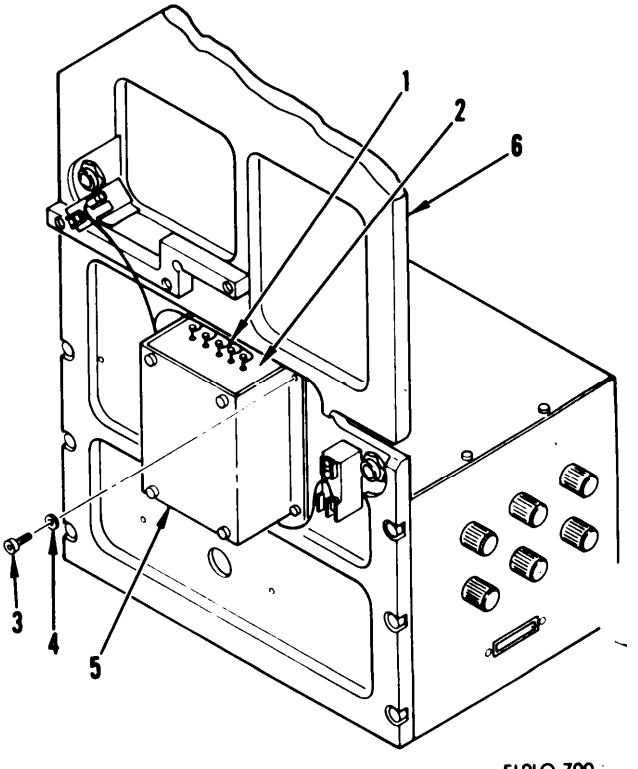
39B ATE Repairer

1. POWER SUPPLY PS1 REPLACEMENT

REMOVAL

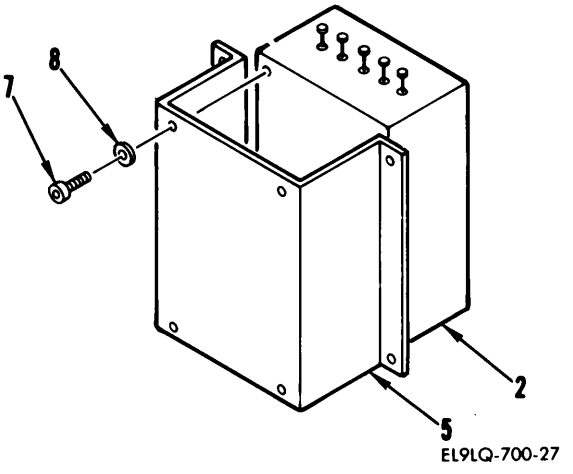
a. Tag and remove leads (1) from terminals on power Supply PS1 (2).

b. Remove four screws (3) and washers (4) from support bracket (5) and remove support bracket and PS1 from optical-HOD and IVD alignment assembly (6).



EL9LQ-700-

C. Remove four screws (7), washers (8), and PS1 (2) from support bracket (5).



EL9LQ-700-27

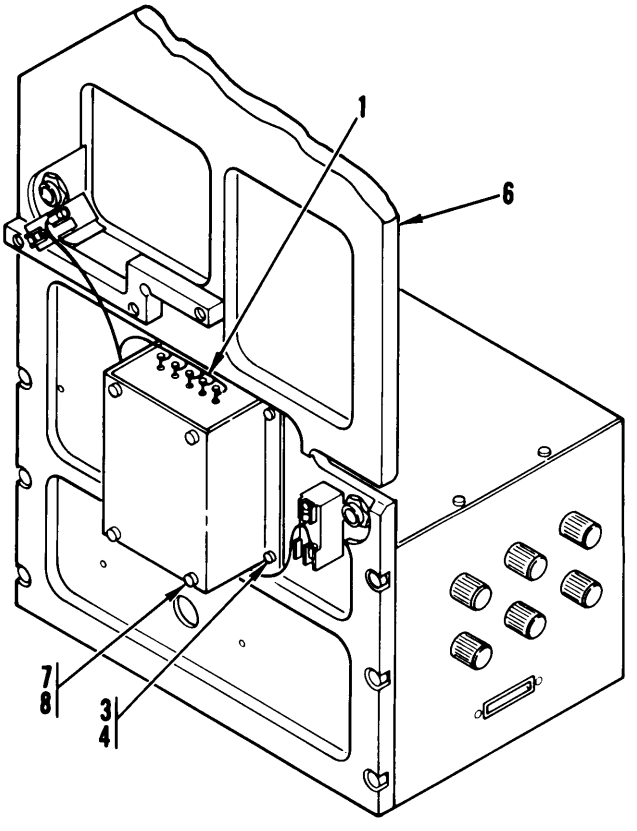
INSTALLATION

d. Install replacement power supply on support bracket using four screws (7) and washers (8).

e. Prepare four screws (3) for application of zinc chromate primer (para 2-19).

f. Apply a thin coat of zinc chromate primer on four screw threads.

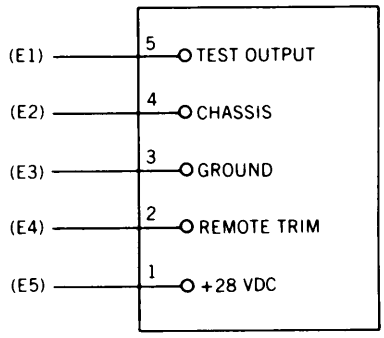
g. Install PS1 and support bracket using four screws (3) and washers (4) on optical-HOD and IVD alignment assembly (6).



EL9LQ-700-28

h. Install leads on terminals of PS1 and remove tags.

From	To
J2-19	PS1-E1
J2-24	PS1-E5
P6-6	PS1-E2
P6-27	PS1-E5
PS1-E2	PS1-E3
PS1-E2	E6 (GND LUG)



EL9LQ-700-45

END OF TASK

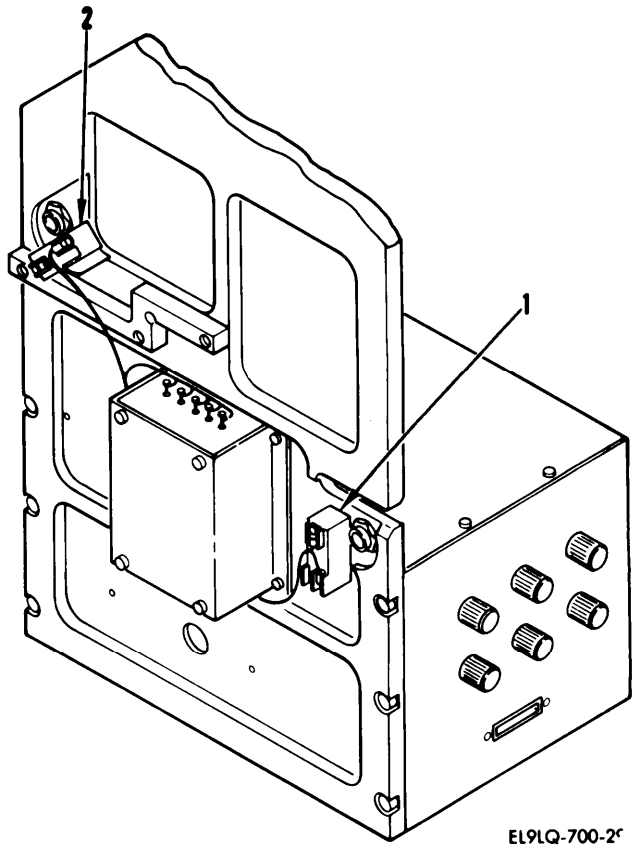
2. SWITCH S1 OR S2 REPLACEMENT

NOTE

This procedure is used to replace either switch S1 (1) or S2 (2).

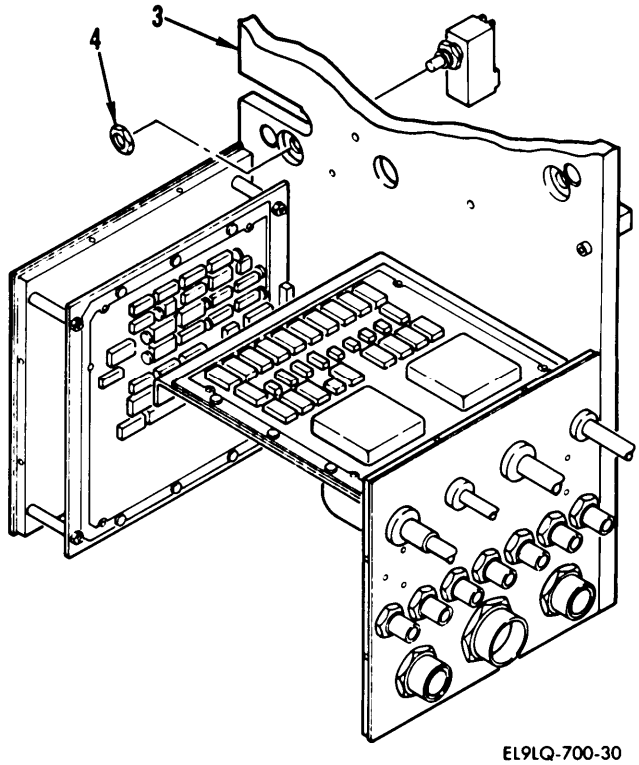
REMOVAL

a. Tag and remove leads from contacts of defective switch (1) or (2).



EL9LQ-700-2

b. On front of optical-HOD and IVD alignment assembly (3) remove nut (4) and defective switch.



EL9LQ-700-30

INSTALLATION

c. Install in reverse order of removal.

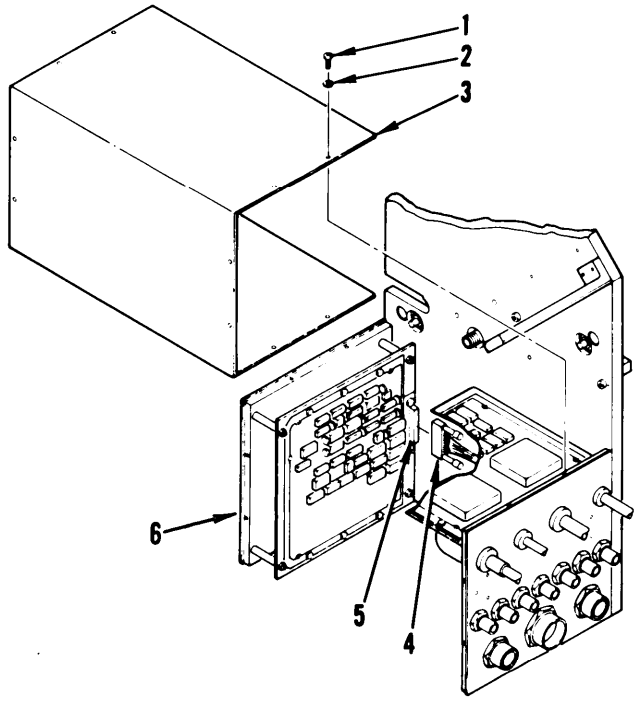
END OF TASK

3. CONTROL PANEL ASSEMBLY REPLACEMENT

REMOVAL

a. Remove 12 screws (1), washers (2), and cover (3).

b. Disconnect P5 (4) from A2J2 (5) on control panel assembly (6).



EL9LQ-700-31

c. Remove three screws (7), washers (8), and control panel assembly.

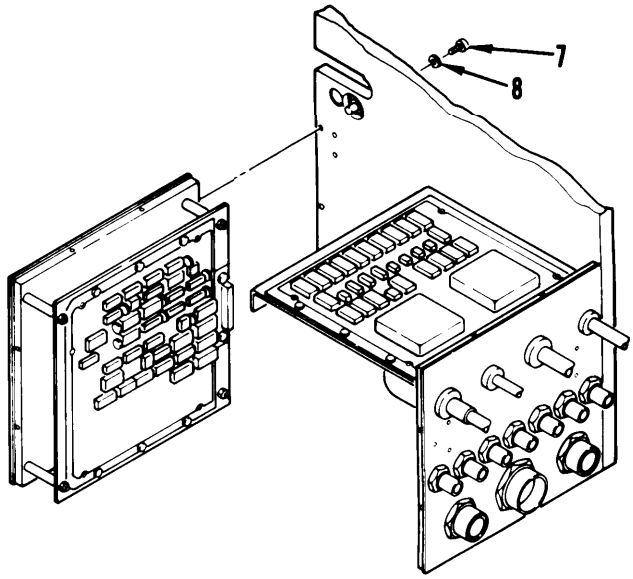
INSTALLATION

d. Prepare three screws (7) for application of zinc chromate primer (para 2-19).

e. Apply a thin coat of zinc chromate primer on three screw threads.

f. Install in reverse order of removal.

END OF TASK



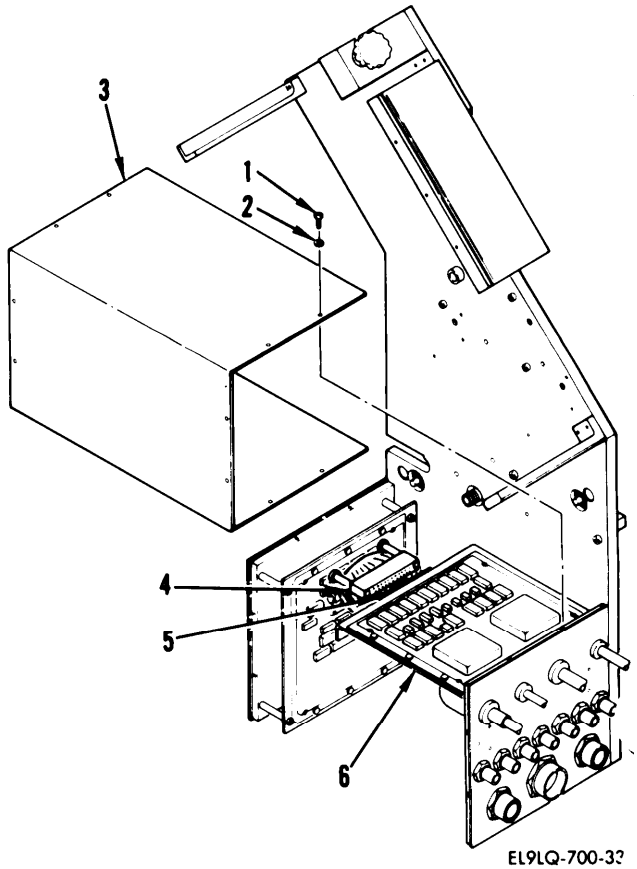
EL9LQ-700-32

4. BRACKET AND CIRCUIT CARD ASSEMBLY REPLACEMENT

REMOVAL

a. Remove 12 screws (1), washers (2), and cover (3).

b. Disconnect P6 (4) from A1J1 (5) on bracket and circuit card assembly (6).



EL9LQ-700-33

c. Remove three screws (7) and washers (8).

d. Remove six screws (9), washers (10), and bracket and circuit card assembly.

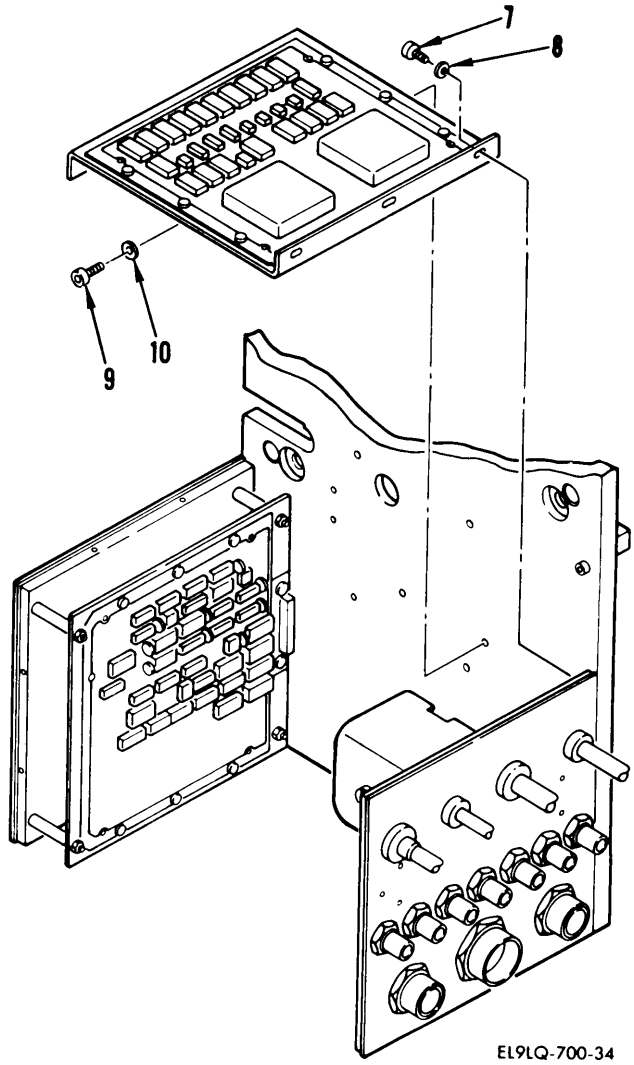
INSTALLATION

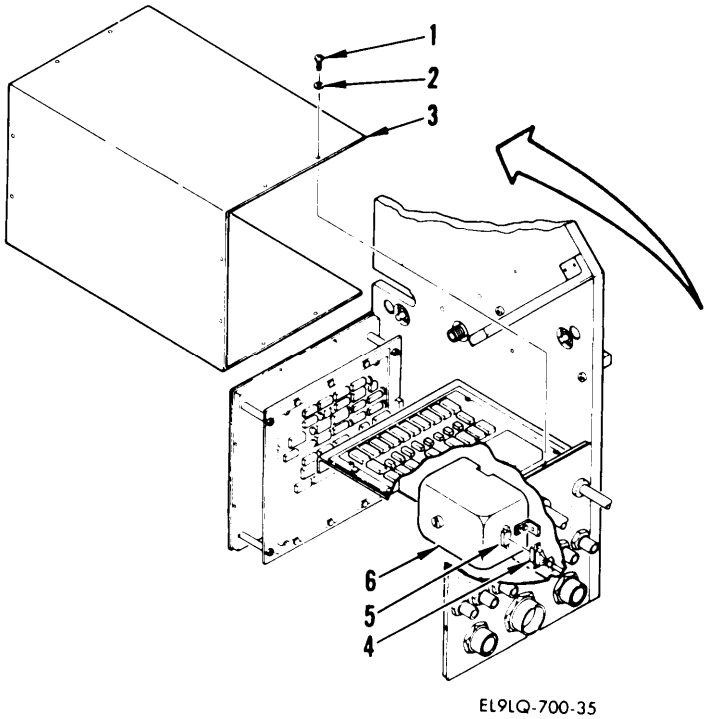
e. Prepare six screws (9) for application of zinc chromate primer (para 2-19).

f. Apply a thin coat of zinc chromate primer on three screw threads.

g. Install in reverse order of removal.

END OF TASK





5. YOKE LOAD COIL ASSEMBLY REPLACEMENT

REMOVAL

a. Remove 12 screws (1), washers (2), and cover (3).

b. Disconnect P7 (4) from A3J1 (5) on yoke load coil assembly (6).

c. Remove two screws (7), washers (8), nuts (9), and yoke load coil assembly (6).

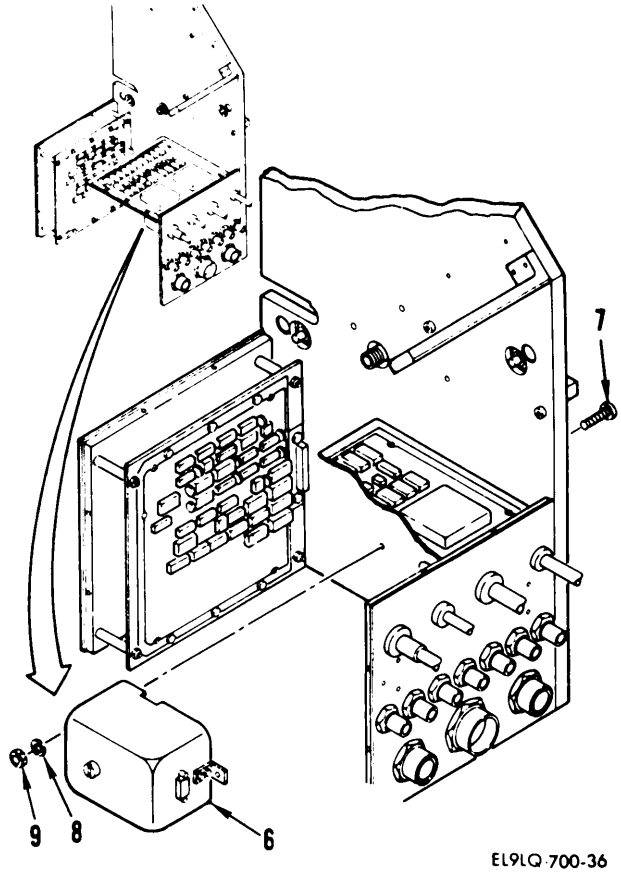
INSTALLATION

d. Prepare two screws (7) for application of zinc chromate primer (para 2-19).

e. Apply a thin coat of zinc chromate primer on two screw threads.

f. Install in reverse order of removal.

END OF TASK



EL9LQ-700-36

6. WIRING AND CONNECTOR REPAIR/REPLACEMENT

Repair or replace wires and connectors using standard maintenance practices. For wire list data refer to paragraph 3-34.

END OF TASK

APPENDIX A

REFERENCES

A-1. SCOPE A-1

This appendix lists all technical data referenced in or used in conjunction with this manual.

A-2. GENERAL INFORMATION A-2

The Army Maintenance Management Systems (TAMMS) . . . . . DA PAM 738-751

A-3. FIELD MANUALS A-3

First Aid for Soldiers. . . . . FM 21-11

A-4. TECHNICAL MANUALS A-4

Aviation Unit Maintenance Manual, Target Acquisition Designation Sight (TADS) Assembly AN/ASQ-170 . . . . . TM 9-1270-476-20-1

Aviation Unit Maintenance Manual. Target Acquisition Designation Sight (TADS) Assembly AN/ASQ-170 . . . . . TM 9-1270-476-20-2

Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List (Including Depot Level Parts), Target Acquisition Designation Sight (TADS) Assembly AN/ASQ-170 . . . . TM l-1270-476-23P

Aviation Intermediate Maintenance Manual, Target Acquisition Designation Sight (TADS) Assembly AN/ASQ-170 . . . . . TM 9-1270-476-30

Technical Escort Information on Chemical Agents and Decontaminating Procedures (TM 1300-30) . . . . . TM 9-1300-275/2

Aviation Unit and Intermediate Support Maintenance Manual for Target Acquisition Designation Sight/Pilot Night Vision Sensor Assembly (TADS/PNVS) Shipping and Storage Containers . . TM 9-8145-476-23

Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List for Target Acquisition Designation Sight (TADS) Assembly and Pilot Night Vision Sensor (PNVS) Assembly Shipping and Storage Containers . . . . . TM 9-8145-476-23p

APPENDIX A

REFERENCES (cont)

A-4. TECHNICAL MANUALS (cont) A-4

Aviation Unit Maintenance Manual, Pilot Night Vision Sensor (PNVS) Assembly AN/AAQ-11 . . . . . TM 11-5855-265-20-1

Aviation Unit Maintenance Manual, Pilot Night Vision Sensor (PNVS) Assembly AN/AAQ-11 . . . . . TM 11-5855-265-20-2

Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List (Including Depot Level Parts), Pilot Night Vision Sensor (PNVS) Assembly AN/AAQ-11 . . . . . TM 1-5855-265-23P

Aviation Intermediate Maintenance Manual, Pilot Night Vision Sensor (PNVS) Assembly AN/AAQ-11 . . . . . TM 11-5855-265-30

Operator and Organizational Maintenance Manual, Test Station Electronic Equipment . . . . . TM 11-6625-2773-12

Organizational and Direct Support Maintenance Repair Parts and Special Tools List for Electronic Equipment Test Facility (EETF) TADS/PNVS Augmentation Equipment . . . . . TM 1-6625-3081-23P

Operator and Aviation Unit Maintenance (AVUM) Setup, Operation, and Teardown Procedures AH-64A Electronic Equipment Test Facility (EETF) OQ-290(V)2/MSM . . . . . TM 11-6625-3085-12

Aviation Intermediate Maintenance (AVIM) Procedures Peculiar Subsystem and Interface Devices (IDs) . . . . . TM 11-6625-3085-30

A-5. SUPPLY CATALOGS A-5

Tool Kit, Electronic Equipment TK-100/G . . . . . SC 5180-91-CL-S21

Tool Kit, Electronic Equipment TK-105/G . . . . . SC 5180-91-CL-R07

A-6. MISCELLANEOUS PUBLICATIONS A-6

Electrostatic Discharge Control Handbook for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices) DOD-HDBK-263

Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices) DOD-STD-1686

APPENDIX B

MAINTENANCE ALLOCATION CHART (MAC)

Section I. INTRODUCTION

B-1 GENERAL B-1

a. This section provides a general explanation of all maintenance and repair functions authorized at various maintenance categories.

b. The Maintenance Allocation Chart (MAC) in section II 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 will be consistent with the capacities and capabilities of the designated maintenance categories.

Section III lists the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from section II.

d. Section IV contains supplemental instructions and explanatory notes for a particular maintenance function.

B-2. MAINTENANCE FUNCTIONS B-2

Maintenance functions will be limited to and defined as follows:

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).

b. Test. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. Operations required periodically to keep an item in proper operating condition, i.e., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases.

d. Adjust. To maintain or regulate, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to specified parameters.

e. Aline. To adjust specified variable elements, of an item to bring about optimum or desired performance.

f. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test, measuring, and diagnostic equipments 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 instrument being compared.

g. 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.

h. Replace. To remove an unserviceable item and install a serviceable counterpart in its place. "Replace" is authorized by the MAC and is shown as the 3d position code of the SMR code.

i. Repair. The application of maintenance services[1], including fault location/troubleshooting[2], removal/installation, and disassembly/assembly[3] procedures, and maintenance actions[4], to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (compartment or assembly), end item, or system,

j. 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 (i.e., DMWR). Overhaul is normally the highest degree of maintenance performed by the Army. overhaul does not normally return an item to like new condition.

k. 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 (hours/miles, etc.) considered in classifying Army equipment/components.

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[1] Services - inspect, test, service, adjust, aline, calibrate, and/or replace.

[2] Fault locate/troubleshoot - 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).

[3] Disassemble/assemble - encompasses the step-by-step taking apart (or breakdown) of a spare/functional group coded item to the level of its least componency identified as maintenance significant (i.e., assigned an SMR code) for the category of maintenance under consideration.

[4] Actions - welding, grinding, riveting, straightening, facing, remachining, and/or resurfacing.

B-3. EXPLANATION OF COLUMNS IN THE MAC, SECTION II

a. Column 1, Group Number. Column 1 lists functional group code numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the next higher assembly. End item group number shall be ???

b. Column 2, Component/Assembly. Column 2 contains the names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

c. Column 3, Maintenance Function. Column 3 lists the functions to be performed on the item listed in Column 2. (For detailed explanation of these functions, see paragraph B-2.)

d. Column 4, Maintenance Category, Column 4 specifies, by the listing of a work time figure in the appropriate subcolumn(s), the category of maintenance authorized to perform the function listed in Column 3. This figure represents the active time required to perform that maintenance function at the indicated category of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance categories, appropriate work time figures will be shown for each category. 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/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. The symbol designations for the various maintenance categories are as follows:

C	Operator or crew
O	Organizational Maintenance
F	Direct Support Maintenance
H	General Support Maintenance
D	Depot Maintenance

e. Column 5, Tools and Equipment. Column 5 specifies, by code, those common tool sets (not individual tools) and special tools, TMDE, and support equipment required to perform the designated function.

f. Column 6, Remarks. This column shall, when applicable, contain a letter code, in alphabetic order, which shall be keyed to the remarks contained in Section IV.

B-4. EXPLANATION OF COLUMNS IN TOOL AND TEST EQUIPMENT REQUIREMENTS, SECTION III B-4

a. Column 1, Reference Code. The tool and test equipment reference code corre-Iates with a code used in the MAC, Section II, column 5.

b. Column 2, Maintenance Category. The lowest category of maintenance authorize to use the tool or test equipment.

c. Column 3, Nomenclature. Name or identification of the tool or test equipment.

d. Column 4, National/NATO Stock Number. The stock number of the tool or test equipment.

e. Column 5, Tool Number. The manufacturer’s part number.

B-5. EXPLANATION OF COLUMNS IN REMARKS, SECTION IV B-5

a. Column 1, Reference Code. The code recorded in column 6, Section II.

b. Column 2, Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC, Section II.

Section II. MAINTENANCE ALLOCATION CHART FOR
EETF TADS/PVS AUGMENTATION EQUIPMENT

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQPT	(6) REMARKS
			O	F	D		
00	ELEC STA/EO TEST	ALIGN	0.66			463,474,484	
		FAULT LOCATION	0.33			32,36,37,226,404,431,433, 434,435,436,437,438,439,471, 472,473,474,484,485,487,488, 490,491,492,493,494,495,496, 499,605	
		REPAIR		0.51		66,103,233,237,372	
04	ELECTRONIC STATION,1	CALIBRATION	0.44				
		FAULT LOCATION		0.34		17,42,90,98,182,192,228,233, 366,368,546	
		REPAIR		0.65		17,32,42,66,90,98,102,103, 182,192,197,228,233,362,366, 368,370,372,520,545,546,587, 614,615	
04	BLOWER ASSEMBLY,1A6	REMOVE/REPLACE	0.30			103,233,401,510	
		REPAIR		0.23		87,116,192,233,401,424,517	
		SERVICE	0.09			118	
0404	PANEL ASSEMBLY CB,1A5	REPAIR		0.24		233,366,368	
0408	POWER SUPPLY DRAWER,1A4	REPAIR	0.13			233,236	
0408	POWER SUPPLY,1A4PS4	REMOVE/REPLACE	0.28			233,236	
		REPAIR	0.11			233	
0408	POWER SUPPLY,1A4PS2/PS3	REMOVE/REPLACE	0.28			233,236	
		REPAIR	0.11			233	
0408	POWER SUPPLY,1A4PS1	REMOVE/REPLACE	0.28			233,236	
		REPAIR	0.11			233	
0412	POWER SUPPLY,1A3PS1/PS2	REMOVE/REPLACE	0.33			232,233,545	
0412	POWER SUPPLY,1A3PS3/PS4	REMOVE/REPLACE	0.31			232,233,545	
0416	POWER SUPPLY DRAWER,1A2	REMOVE/REPLACE	0.39			103,232,233,338,545	
		REPAIR	0.11			233	
0416	PROGRAMMER, POWER SUPPLY,1A2	REMOVE/REPLACE			0.41	233,237	
		REPAIR	0.27			232,233,238,545	
		TEST			1.12	103,232,233,338,445,463,484, 545	
0416	PROGRAMMER CARDS, 1A2A1/A2/A3/A4	REMOVE/REPLACE	0.09			238	
		REPAIR	0.08			238	
0420	CONTROL UNIT ASSEMBLY, 1A1	CALIBRATE			4.81	32,98,103,106,186,233,234, 237,240,252,333,392,511, 524,588,591	
		REMOVE/REPLACE	0.25			103,232,233,368,370,543,545, 606	
		REPAIR	0.07				
0420	CONTROLLER, TEMP,1A1XX	REMOVE/REPLACE			0.45	103,221,232,237,606	
		TEST			0.36	251,466,467,468,533,534, 535,536,538	
0424	POWER SUPPLY ASSEMBLY, 1A10	REMOVE/REPLACE	0.43			237,507,595,596,598,600	
		REPAIR	0.17			103,237,507,595	
0424	DISC/TAPE DRIVE,1A10	FAULT LOCATION	0.54			17,579	
		REMOVE/REPLACE	0.44			233,237,507,530,595,596,598, 610,611,612	
0424	SWITCH PCA A15,1A10A15 TAPE MODULE	REMOVE/REPLACE	0.15			237,507,520,587,595,596	
		REMOVE/REPLACE	0.27			233,237,507,520,587,595,596, 598	
042404	DISC, MODULE,1A10XX	REPAIR	0.37			22,89,115,118,180,187,214, 230,237,357,367,371,372,507, 530,595,596,597,599,601	
		SERVICE	0.16			115,118	
04240404	DMA PCA,1A10A4	REMOVE/REPLACE	0.17			237,520,587	
04240404	MICROPROCESSOR PCA, 1A10A3	REMOVE/REPLACE	0.17			237,520,587	
04240404	TIB PCA,1A10A6	REMOVE/REPLACE	0.17			237,520,587	
04240404	JUMPER PCA,1A10A7	REMOVE/REPLACE	0.17			237,520,587	

Section II. MAINTENANCE ALLOCATION CHART FOR
EETF TADS/PNVS AUGMENTATION EQUIPMENT

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQPT	(6) REMARKS
			O	F	D		
04240404	READ/WRITE PAC,1A10A8	REMOVE/REPLACE	0.17			237,520,587	
04240404	SERVO PCA-A9,1A10A9	REMOVE/REPLACE	0.17			237,520,587	
0428	CCA,1A11	REMOVE/REPLACE	0.13			235,520,587	
		REPAIR			0.28	90,96,103,127,130,142,205, 221,227,520,543,548,552,555, 560,562,566,573,584,587,606	
		TEST			0.31	235,520,587	
0428	INTERFACE, HP-IB,1A11	REMOVE/REPLACE	0.15			520,587	
0428	A900 COMPUTER SYSTEM, 1A11	REMOVE/REPLACE			0.26	103,118,520,587	
0428	SEQUENCER CCA,1A11A2	REMOVE/REPLACE	0.13			520,587	
0428	DATA PATH CCA W/FPP, 1A11A6	REMOVE/REPLACE	0.13			520,587	
0428	CACHE CONT CCA,1A11A4	REMOVE/REPLACE	0.11			520,587	
0428	MEMORY CONT CCA,1A11A5	REMOVE/REPLACE	0.11			520,587	
0428	ECC MEMORY CCA,1A11A3	REMOVE/REPLACE	0.11			520,587	
0428	ASYNCHRONOUS I/F CCA, 1A11A1	REMOVE/REPLACE	0.13			520,587	
0428	CACHE CONTROL CCA, 1A11A9	REMOVE/REPLACE	0.13			235,520,587	
		REPAIR			0.27	38,90,96,103,127,130,205, 221,227,520,543,548,552,555, 560,562,566,573,584,587,606	
		TEST			0.76	235,463,520,587	
0428	INTERFACE COMPTR,1A11A8	REMOVE/REPLACE	0.10			520,587	
0428	CCA,1A11A10	REMOVE/REPLACE	0.15			520,587	
0432	IP-IB EXTENDER,1A9A2	REMOVE/REPLACE	0.23			232,233,545	
		REPAIR	0.10			233	
	PMT CONTROLLER	REMOVE/REPLACE	0.30			103,182,233	
		REPAIR	0.08				
043604	CABLE ASSEMBLY,1W2	FAULT LOCATION		0.39		17,42,233,545	
		REPAIR		0.20		42,98,103,130,144,146,149, 150,192,195,228,233,390,510, 511,546,555,609	
		TEST	0.41			17,42,233,545	
043608	CABLE ASSEMBLY,1W4	FAULT LOCATION		0.21		17,42	
		REPAIR		0.18		42,98,103,149,150,170,174, 192,195,228,233,510,546,609	
		TEST		0.20		17,42	
043612	CABLE ASSEMBLY,1W5	FAULT LOCATION		0.41		17,43,233,545	
		REPAIR		0.15		43,53,54,56,57,98,103,149, 162,163,192,197,228,233,352, 374,510,546,609	
		TEST		0.41		17,43,233,545	
043616	CABLE ASSEMBLY,1W6	FAULT LOCATION		0.49		17,42,545	
		REPAIR		0.15		42,54,57,98,103,149,162,163, 192,197,228,233,510,532,546, 609	
		TEST		0.49		17,42,545	
043620	CABLE ASSEMBLY,1W15	FAULT LOCATION		0.18		17,42	
		REPAIR		0.18		42,98,103,149,150,170,174, 192,195,228,233,510,546,609	
		TEST		0.17		17,42	
043624	CABLE ASSEMBLY,1W16	FAULT LOCATION		0.18		17,42	
		REPAIR		0.18		42,98,103,149,150,170,174, 192,195,228,233,510,546,609	
		TEST		0.17		17,42	
0440	CABLE ASSEMBLY,1W7	FAULT LOCATION		0.88		17,42,98,228,520,587	
		REPAIR		0.42		25,42,90,98,103,112,144,146, 149,150,152,156,158,162,163, 169,182,192,195,228,233,237, 390,510,511,546,555,609,615	
		TEST		0.86		17,42,98,228,233,520,587	

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(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
04	CABLE ASSEMBLY,1W31	FAULT LOCATION		0.19		17,42,192,233,366,368	
		REPAIR		0.07		44,45,46,47,55,58,103,162, 163,228,510,609	
		TEST		0.20		17,42,192,233,366,368	
0444	CABLE ASSEMBLY,1W3	FAULT LOCATION		0.24	0.13	17,42,130,192,233,366,368	
		REMOVE/REPLACE		0.93		32,42,98,192,197,233,366, 368,546	
		REPAIR		0.05	0.30	56,90,98,103,120,127,130, 149,162,163,221,374,510,562, 606,609	
		TEST		0.25	0.12	17,42,130,192,233,366,368	
04	CABLE ASSEMBLY,1W13	FAULT LOCATION		0.14		17,233	
		REPAIR		0.16		18,42,90,91,98,103,192,213, 233,372,390,511,543,546,555	
		TEST		0.14		17,233	
04	CABLE ASSEMBLY,1W25	FAULT LOCATION		0.14		17,233	
		REPAIR		0.16		18,42,90,91,98,103,192,213, 233,372,390,511,543,546,555	
		TEST		0.14		17,233	
04	CABLE ASSEMBLY,1W8	FAULT LOCATION		0.18	0.14	17,42,130	
		REMOVE/REPLACE		0.81		32,42,98,192,195,197,233,546	
		REPAIR		0.22	0.34	42,56,57,90,98,103,120,127, 130,149,150,170,174,192,195, 221,228,233,352,374	
		TEST		0.17	0.12	17,42,130	
08	TEST BENCH, ELEC/OPT,2	ADJUST		0.32		30,94,103,182,237,562	
		SERVICE	0.08			237	
0804	TEST BENCH ASSEMBLY, DAY,2A1	CALIBRATE			1.10	30,31,33,42,73,200,233,237, 256,344,442,444,502,537,546	
		REMOVE/REPLACE		3.05		23,24,30,32,42,79,81,84,94, 185,200,217,233,237,561,562	
		REPAIR		0.37		20,35,42,73,98,186,195,200, 233,237,510	
		TEST	0.63			31,42,73,200,233,237,256, 344,442,444,502,537,546	
080404	BEAM SAMPLER ASSEMBLY, 2A1A2A13	FAULT LOCATION			0.51		
		REMOVE/REPLACE			0.59	28,113,233,237,510,556	
		REPAIR			0.17	28,103,221,388,602,606,609	
		TEST			0.59		
080404	CABLE ASSEMBLY,SP,ELEC, 2A1A2A3W41/W42/W43/W44	FAULT LOCATION			1.04	17,21,31,33,98,130,232,237, 279,281,510,511	
		REPAIR			0.13	103,152,153,156,169,195,205, 221,232,237,510,511,545,555, 556	
		TEST			1.41	17,21,31,33,98,101,130,221, 232,237,279,281,510	
080404	INNER MODULE, DAYSIDE, 2A1A2	ALIGN			0.51		
		FAULT LOCATION			0.12		
		REPAIR		0.62		20,21,73,113,200,233,237, 510,607	
		SERVICE	0.15				
		TEST			0.15	73,79,200,233	
080404	BRACKET ASSEMBLY, MIRROR,2A1A2XX	REPAIR			50.87	21,30,73,103,113,120,200, 220,233,237,511	
		TEST			0.12		
080404	BRACKET ASSEMBLY, MIRROR,2A1A2XX	REPAIR			26.83	21,30,73,103,113,120,200, 221,233,237,511	
		TEST			0.12		
080404	BRACKET ASSEMBLY, MIRROR,2A1A2XX	REPAIR			50.87	21,30,73,103,113,120,200, 220,233,237,511	
		TEST			0.12		
080404	OPTICS ASSEMBLY,2A1A2A1	REPAIR			0.73	21,73,103,200,220,233,510	

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EETF TADS/PNVS AUGMENTATION EQUIPMENT

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQPT	(6) REMARKS
			O	F	D		
080404	TRANSLATOR ASSEMBLY, 2A1A2A1A1A8	REMOVE/REPLACE			0.59	73,200,220,233,510	
080404	SWITCHING MIRROR ASSEMBLY	REPAIR			0.77	21,73,103,113,200,221,233, 359,375,510	
080404	CABLE ASSEMBLY, 2A1A2A1W48	FAULT LOCATION			0.18	17,130	
		REMOVE/REPLACE		0.53		21,26,73,113,200,221,233, 237,510	
		REPAIR			0.12	103,205,221,510,555,566, 573,606,609	
080404	CABLE ASSEMBLY, 2A1A2A1W49	FAULT LOCATION			0.18	17,130	
		REMOVE/REPLACE		0.53		21,26,73,113,200,221,233, 237,510	
		REPAIR			0.12	103,205,221,510,511,566, 573,606,609	
080404	CABLE ASSEMBLY, 2A1A2A1W5	FAULT LOCATION			0.18	17,130	
		REMOVE/REPLACE		0.53		21,26,73,113,130,200,233, 237,510	
		REPAIR			0.12	103,205,221,510,511,555,566, 573,606,609	
080404	CABLE ASSEMBLY, SP, ELEC,2A1A2A4A10W14	FAULT LOCATION			0.18	17,130	
		REMOVE/REPLACE		0.52		20,68,73,200,220,221,233, 237,510	
		REPAIR			0.12	103,205,221,511,510,555,566, 573,606,609	
080404	CABLE ASSEMBLY, SP ELEC,2A1A2W53	FAULT LOCATION			0.18	17,130	
		REMOVE/REPLACE		0.52		20,68,73,200,220,221,233, 237,510	
		REPAIR			0.12	103,205,221,510,511,555, 566,573,606,609	
080404	CABLE ASSEMBLY, RF, 2A1A2W95	FAULT LOCATION		0.30		17,42,73,98,130,200,233,237	
		REPAIR		0.14		90,103,390,510,511,562,586, 606	
		TEST		0.29		17,42,73,98,130,200 233	
080404	MOUNT ASSEMBLY,2A1A2A4	FAULT LOCATION			0.43	17,21,26,31,32,33,40,98,203, 221,237,278,279,281,510,511, 545	
		TEST			0.67	17,21,31,101,221,237,278, 279,281,510	
080404	MOUNT ASSEMBLY, SENSOR, 2A1A2XX	REPAIR			0.62	26,31,32,103,109,208,221, 232,237,372,511,606	
080404	INSERT/ADAPTER ASSEMBLY, 2A1A2XX	OVERHAUL			6.75	20,21,32,33,41,86,99,103, 110,204,221,233,269,270, 360,363,372	
080404	CLAMP ASSEMBLY GIMBAL, 2A1A2XX	OVERHAUL			032	92,103,197,206,221,360, 363,372,395,519,605	
		REMOVE/REPLACE	0.09			103,233,360,363,372	
080404	CLAMP ASSEMBLY, SPECIAL, 2A1A2XX				0.51	17,26,98,103,130,152,156, 169,205,221,370,372,510, 511,555,566,573,606,609	
		TEST			0.16	17,98,221,278	
080404	SAFETY SHIELD ASSEMBLY, 2A1A2XX	REMOVE/REPLACE			0.81	21,31,101,221,237,279,281, 510,511	
080404	CABLE ASSY, SP ELEC	REMOVE/REPLACE			0.13	26,98,221	
		REPAIR			0.12		
		TEST			0.18	17,130	
080404	SWITCH ASSEMBLY, ACTUATOR,2A1A2XX	REPAIR			0.91	21,31,86,90,98,101,103,108, 127,221,237,279,281,372,510, 511	
080404	CABLE ASSEMBLY, SP ELEC, 2A1A2XX	REMOVE/REPLACE			0.22	26,31,98,221	
		REPAIR			0.12	103,205,221,510,511,555,566, 573,606,609	
		TEST			0.18	17,130	

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EETF TADS/PNVS AUGMENTATION EQUIPMENT

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
080404	CABLE ASSEMBLY, SP ELEC, 2A1A2XX	REMOVE/REPLACE			0.18	26,32,33,40,98,203,221	
		REPAIR			0.12	103,205,221,510,511,555,566, 573,606,609	
		TEST			0.18	17,130	
080404	CABLE ASSEMBLY, SP ELEC, 2A1A2XX	FAULT LOCATION			0.65	17,31,98	
		REPAIR			0.17	15,26,98,103,152,156,169, 206,221,228,510,511,555,558, 566,573,606,609	
		TEST			0.78	17,31,98,221	
080404	SHUTTER ASSEMBLY, 2A1A2XX	FAULT LOCATION			0.58		
		OVERHAUL			1.06	26,32,103,191,192,194,197, 221,233,511,562,606	
		REPAIR			0.77	21,29,31,32,33,40,92,101, 103,194,203,221,229,237,279 281,395,510,511,519,586,606	
		TEST			0.87	17,21,31,33,101,221,237,278, 279,280,281,510	
080404	CABLE ASSEMBLY, SP, 2A1A2XX	FAULT LOCATION			0.28	17,130	
		REMOVE/REPLACE			0.22	26,68,98,221,237	
		REPAIR			0.14	103,205,221,510,511,555,566, 573,606,609	
080404	MIRROR ASSEMBLY,2A1A2XX	REPAIR			1.06	20,21,28,30,98,103,221,279, 281	
080404	CABLE ASSEMBLY, SP ELEC, 2A1A2XX	FAULT LOCATION			0.18	17,130	
		REMOVE/REPLACE		0.51		20,68,73,200,220,221,233, 510	
		REPAIR			0.12	103,205,221,510,555,566, 606,609	
080404	LENS CELL ASSEMBLY, 2A1A2XX	REMOVE/REPLACE			1.72	21,26,28,32,73,103,113,200, 221,233,237,253,510,545	
		REPAIR			0.24	103,221,606	
		TEST			1.72		
080404	AUTO FOCUS CTL ASSEMBLY, 2A1A2XX	REMOVE/REPLACE			2.03	21,26,28,32,73,103,113,200, 221,237,279,281,510,545	
080404	CABLE ASSEMBLY, SP ELEC, 2A1A2XX	FAULT LOCATION			0.18	17,130	
		REMOVE/REPLACE		0.51		20,68,73,200,220,221,233,510	
		REPAIR			0.12	103,205,221,510,511,555,566, 573,606,609	
08040404	COVER ASSEMBLY, LASER, 2A1A2A19	FAULT LOCATION		0.27		17,29,237	
		REPAIR	0.05	0.29		29,42,98,103,112,149,152, 156,158,169,185,233,237,390, 511,543,551,553,562,586,609, 614,615	
08040404	FILTER WHEEL/MOTOR, 2A1A2A19XX	REPAIR			0.58	26,28,32,103,233,237,545, 556,606	
08040404	CABLE ASSEMBLY, SPECIAL, 2A1A2A19XX	FAULT LOCATION			0.13	17,31,195,545	
		REPAIR			0.38	26,28,31,32,40,92,100,103, 152,156,169,195,221,282, 510,545,606,609	
		TEST			0.15	17,31,195,221,545	
08040404	STEPPER MOTOR, 2A1A2A19XX	REMOVE/REPLACE			0.61	17,26,28,31,32,40,87,92,98, 100,103,152,156,169,195,282, 283,395,510,518,545,562,606, 614,615	
08040404	RADIOMETER ASSEMBLY, 2A1A2A3	CALIBRATE			0.36	77,121,128,284,341,346,532, 564	
		REMOVE/REPLACE		0.62		28,103,221,233,237,510,556	
		REPAIR			0.27	90,98,195,205,221,232,233, 511,543,555,562,566,573,609, 614,615	

MAINTENANCE ALLOCATION CHART (cont)

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
08040404	DETECTOR HEAD,2A1A2A3XX	REMOVE/REPLACE			0.89	61,98,121,128,195,221,233, 284,346,395,532,564	
080404	ADAPTER BEAM CABLE ASSEMBLY, RF, 2A1A2A3W43	REMOVE/REPLACE			0.44	121,128,221,284,346,532,564,	
		FAULT LOCATION		0.30		17,42,73,98,130,200,233,237	
		REPAIR		0.14		90,103,390,510,511,562,586, 606	
080404	CABLE ASSEMBLY, RF, 2A1A2A3W42	TEST		0.29		17,42,73,98,130,200,233	
		FAULT LOCATION		0.30		17,42,73,98,130,200,233,237	
		REPAIR		0.14		90,103,390,510,511,562,586, 606	
080404	CABLE ASSEMBLY, RF, 2A1A2A3W44	TEST		0.29		17,42,73,98,130,200,233	
		FAULT LOCATION		0.30		17,42,73,98,130,200,233,237	
		REPAIR		0.14		90,103,390,510,511,562,586, 606	
080404	CABLE ASSEMBLY, RF, 2A1A2A3W41	TEST		0.29		17,42,73,98,130,200,233	
		FAULT LOCATION		0.30		17,42,73,98,130,200,233,237	
		REPAIR		0.14		90,103,390,510,511,562,586, 606	
080404	ATTENUATOR ASSEMBLY,LAS	TEST		0.29		17,42,73,98,130,200,233	
08040408	CABLE ASSEMBLY,SPECIAL, 2A1A2W40	REPAIR		0.17		101,166,237,510,511	
		FAULT LOCATION		1.59		17,32,42,73,98,200,233,237	
		REPAIR		0.12		32,98,103,144,146,149,150, 152,153,169,228,232,233,237, 368,370,388,390,510,511,543, 555,557,559,562,608,609,614, 615	
08040412	CABLE ASSEMBLY, SPECIAL, ELEC,2A1A2W91	TEST		1.50		17,32,42,73,200,233,237	
		FAULT LOCATION		0.43		17,32,33,42,73,98,130,182, 195,200,232	
		REPAIR		0.14		15,98,103,130,144,146,149, 150,152,156,169,228,236,510, 609	
08040416	LAMP HOLDER ASSEMBLY, 2A1A2A11	TEST		0.43		17,32,33,42,73,98,130,182, 195,200,232,233	
		FAULT LOCATION		0.32		17,42,73,98,130,200,233,237, 545	
		REPAIR		0.24		42,73,103,148,200,233,237, 510,511,555,609	
08040804	CHASSIS ASSEMBLY, ELEC, 2A1A1	TEST		0.30		17,42,73,98,132,200,233	
		FAULT LOCATION		1.17		17,35,42,64,233,237,372,545	
		REPAIR		0.10		83,90,98,103,139,149,151,152, 153,155,157,158,168,169,170, 197,200,228,232,390,510,511, 526,527,528,555,562,609	
080412	CABLE ASSEMBLY, SPECIAL, ELEC,2A1W45	TEST		1.18		17,35,42,64,233,372,545	
		FAULT LOCATION		0.57		15,17,32,42,73,98,130,197, 200,233,237,545,546	
		REPAIR		0.21		49,50,90,103,130,162,163,195, 390,510,511,545,555,562,563, 609	
080416	POWER SUPPLY ASSEMBLY, 2A1A6	TEST		0.69		15,17,32,42,73,98,103,130, 197,200,545,546	
		REPAIR		0.30		31,42,232,233,237,553	
080416	POWER SUPPLY, HV, 2A1A6XX	FAULT LOCATION			0.46	460,576	
		REMOVE/REPLACE		0.50		28,31,32,42,232,233,237	
		REPAIR			0.24	17,28,103,127,147,181,182, 191,192,205,221,232,233,234, 237,401,510,543,552,555,562, 566,573,609,614,615	
		TEST			0.50	460,567	

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EETF TADS/PVS AUGMENTATION EQUIPMENT

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
080416	CIRCUIT CARD ASSEMBLY, 2A1A6XX	REPAIR			0.85	38,90,96,103,130,167,205,221, 227,232,368,370,520,543,552, 555,560,562,566,573,584,587, 606	
08041604	BOX ASSEMBLY, ELEC, 2A1A6A1	REPAIR			0.57	15,20,32,42,50,73,103,130, 192,200,232,233,237,390,510, 511,543,545,552,555,603,606, 609	
080416	FIELD LENS ASSEMBLY 2A1A6XX	REMOVE/REPLACE		0.13		28,103	
		REPAIR			0.25	7,98,103,120,221	
		TEST		0.13			
080424	CABLE ASSEMBLY, SPECIAL, ELEC,2A1W93	FAULT LOCATION		0.40		17,31,32,42,73,98,130,200, 233,237	
		REPAIR		0.12		98,103,130,144,146,149,150, 162,163,171,173,228,237,510, 609	
		TEST		0.49		17,31,32,42,73,98,103,130, 200,233	
080428	CABLE ASSEMBLY, SPECIAL, ELEC,2A1W26	FAULT LOCATION		0.47		17,31,42,73,98,130,200,233, 237	
		REPAIR		0.15		98,103,130,144,145,149,150, 171,173,228,510,609	
		TEST		0.45		17,31,42,73,98,130,200,233	
080432	CABLE ASSEMBLY, SPECIAL, ELEC,2A1W32	FAULT LOCATION		0.95		17,35,42,73,200,233,237	
		REPAIR		0.13		98,103,144,146,149,150,152, 155,168,171,173,228,233,510, 609	
		TEST		0.93		17,35,42,73,130,200,233	
080436	CABLE ASSEMBLY, SPECIAL, ELEC,2A1W31	FAULT LOCATION		0.36		17,35,42,73,200,233,590	
		REPAIR		0.13		98,103,143,145,149,150,170, 228,233,510,609	
		TEST		0.33		17,35,42,73,200,233	
080440	CABLE ASSEMBLY, RF, 2A1W34	FAULT LOCATION		0.38		17,35,42,73,130,200,233,237,	
		REPAIR		0.11		90,98,103,139,149,151,170, 228,510,526,527,528,562,609	
		TEST		0.38		17,35,42,73,98,130,200,233	
080444	CABLE ASSEMBLY, SPECIAL, ELEC,2A1W37	FAULT LOCATION		0.65		17,35,42,73,98,130,195,200, 233,237	
		REPAIR		0.12		103,149,152,155,157,158,168, 169,228,510,609	
		TEST		0.66		17,35,42,73,98,130,195,200, 233	
080448	IVD AND ELEC ASSEMBLY, 2A1A3	ALIGN	3.78			28,31,32,33,42,91,103,209,232 233,237,254,255,377,400,433, 434,447,449,472,476,477,484, 485,488,504,537,546,580	
		FAULT LOCATION		4.11		432,461,462,483,567	
		REMOVE/REPLACE				31,33,42,233	
		REPAIR		0.21		20,114,119,232,236,237,394, 405,483,508,510,545	
		TEST		4.25	4.25	432,461,462,483,567	
080448	IVD MOTHERBOARD CCA, 2A1A3XX	FAULT LOCATION			0.75	17,130,453,567	
		REMOVE/REPLACE			0.39	221,232,236,365,368,483,508	
		REPAIR			0.48	38,90,96,103,130,205,221,227, 543,547,552,560,566,573,584, 606	
		TEST			0.75	17,130	

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(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
080448	CCA, VIDEO PRE AMP, 2A1A3A4	FAULT LOCATION			0.41	453,567	
		REMOVE/REPLACE		0.13		232,483	
		REPAIR			0.97	38,86,90,96,98,103,127,130, 167,205,221,232,368,370,543, 552,555,560,562,566,573,584, 606	
		TEST			0.45	453,567	
080448	CCA, RELAY DRIVER, 2A1A3A9	FAULT LOCATION		0.34		463,470,484,497,567	
		REMOVE/REPLACE		0.13		232,483	
		REPAIR			0.90	38,90,96,98,103,127,167,205, 221,227,232,368,370,543,552, 555,560,562,566,573,584,606	
		TEST			0.36	463,470,484,497,567	
080448	CCA, BIT PATTERN GEN, 2A1A3A5	FAULT LOCATION			0.35	454,567	
		REMOVE/REPLACE		0.13		232,483	
		REPAIR			0.99	38,90,96,98,103,127,167,205, 221,227,232,368,370,520,543, 552,555,560,562,566,573,584, 587,606	
		TEST			0.43	454,567	
080448	CIRCUIT CARD ASSEMBLY, 2A1A3A6	FAULT LOCATION			0.52	455,567	
		REMOVE/REPLACE		0.13		232,483	
		REPAIR			1.02	38,86,90,96,98,103,127,167, 205,221,227,232,368,370,543, 552,555,560,562,566,573,584, 606	
		TEST			0.61	455,567	
080448	HIGH VOLTAGE ASSEMBLY, 2A1A3A3	FAULT LOCATION			0.28	456,552,555,562,567,573,	
		REMOVE/REPLACE		0.18		20,232,233,483,545	
		REPAIR			0.24	90,195,205,221,232,368,370, 543,566	
		TEST			0.33	456,567	
080448	CCA, HIGH VOLTAGE PS, 2A1A3XX	REPAIR			1.13	38,86,90,96,98,103,127,130, 196,205,221,227,232,368,370, 543,552,555,560,562,566,573, 584,606	
080448	POWER SUPPLY ASSEMBLY, 2A1A3PS1	FAULT LOCATION			0.30	446, 448,463,469,484,567	
		REMOVE/REPLACE		0.20		232,237,483	
		REPAIR			0.21	98,149,151,169,194,205,221, 232,233,237,368,370,543,552, 555,562,566,573,574,614,615	
		TEST			0.31	446,448,463,469,484,567	
080448	CIRCUIT CARD ASSEMBLY, 2A1A3A15	FAULT LOCATION			0.33	457,567	
		REMOVE/REPLACE		0.11		232,483	
		REPAIR			1.00	38,90,96,98,103,127,130,167, 205,221,227,366,368,370,375, 543,552,555,560,562,566,573, 584,606	
		TEST			0.38	457,567	
08044812	HARNESS ASSEMBLY,2A1A3XX	FAULT LOCATION		1.02		17,98,103,114,119,130,232, 236,394,405,545	
		REPAIR		0.22		15,98,103,114,119,130,152, 157,159,160,161,168,175,176, 221,232,233,236,237,394,483, 510,511,552,553,574,606,609, 614,615	
		TEST		1.27		17,98,103,114,119,130,221, 232,236,394,405,545	
080448 0808	LASER POWER METER,2A2 TEST BENCH ASSEMBLY	REMOVE/REPLACE	0.06				
		REPAIR		0.78		42,98,103,115,118,181,191, 195,196,197,232,233,235,237, 520,546,587,588	

Section II. MAINTENANCE ALLOCATION CHART FOR
EETV TADS/PNVS AUGMENTATION EQUIPMENT

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQPT	(6) REMARKS
			O	F	D		
0808	DIGITIZER, PROGRAMMABLE, 2A2A1	CALIBRATE			7.06	59,62,76,117,201,202,210, 211,212,224,257,345,351,354, 396,397,398,399,402,403,406, 407,415,416,417,419,420,421, 425,426,427,498,512,513,540, 541,542,547,568,570,571,572, 578,606	
		REMOVE/REPLACE	0.32			103,232,233,237,238	
		REPAIR	0.12			233	
		TEST	2.69			226,433,463,473,474,484	
080808	OPTICAL SIGNAL GEN, 2A2A3	ALIGN			0.57		
		CALIBRATE			2.19	32,103,131,132,137,138,207, 232,237,258,259,260,261,285, 319,320,321,322,323,324,325, 332,335,336,337,338,339,340, 342,356,358,362,364,372,581	
		FAULT LOCATION			0.33		
		REMOVE/REPLACE	0.24			32,42,233	
		REPAIR		0.37	0.42	32,42,98,103,113,120,180,195, 221,233,237,238,510	
		TEST			0.69	28,32,40,103,120,221,237,479, 480,481,482,511,519,565	
080808	COLLIMATOR ASSEMBLY, 2A2A3XX	REMOVE/REPLACE			0.33	32,103,221,237	
		REPAIR			0.91	3,13,14,31,32,98,103,120, 221,237,250	
		TEST			0.33		
080808	OPTICAL FILTER ASSEMBLY, 2A2A3XX	REMOVE/REPLACE			0.31	32,103,221,237	
		REPAIR			3.35	3,98,103,120,221,606	
080808	LENS/TARGET ASSEMBLY, 2A2A3XX	REMOVE/REPLACE			0.31	32,103,221,237,606	
		REPAIR			0.35	5,98,103,120,221,250,606	
		TEST			0.31		
080808	MIRROR ASSEMBLY, ADJ, 2A2A3XX	REMOVE/REPLACE			0.30	113,221,237	
		REPAIR			0.32	91,103,180,221,233,237,511, 606	
		REPAIR			0.33		
		TEST			0.30		
080808	OPTICAL RELAY ASSEMBLY, 2A2A3XX	REMOVE/REPLACE			0.33		
		REPAIR			0.83	4,9,31,98,103,210,233,511, 606	
		TEST			0.33		
080808	MIRROR ASSEMBLY, ADJ, 2A2A3XX	REMOVE/REPLACE			0.30	113,221,237	
		REPAIR			0.32	91,103,180,221,233,237,511, 606	
		TEST			0.30		
08080804	CABLE ASSEMBLY, SP, ELEC,2A2A3W1	FAULT LOCATION		0.41		17,32,42,98,233,237,238,545	
		REPAIR		0.11		103,143,144,145,146,149,150, 152,156,162,163,169,197,228, 233,234,237,390,510,511,555, 609	
		TEST		0.37		17,32,42,98,233,238,545	
080808	RELAY ASSEMBLY, 2A2A3XX	REPAIR		0.46		32,103,152,156,169,221,233, 237,238,390,510,511,603,609	
08080808	LIGHT SHIELD ASSEMBLY, 2A2A3XX	REPAIR		0.37		32,42,98,195,233,237	
08080808	PREC TRANS STAGE,2A2A3XX	REMOVE/REPLACE			0.29	28,103,113,221	
080812	TEST ADAPTER PANEL,2A2A4	REPAIR		0.23		178,232,234,237,238,390	
080812	RELAY ASSEMBLY,2A2A4A1	REPAIR		0.23		15,232,233,234,237,238,390, 510,609,614,615	
080816	MULTIPROGRAMMER	REMOVE/REPLACE	0.55			102,233,237,520,546,587,588	
	ASSEMBLY,2A2A6	REPAIR	0.20			237,520,587,588	
080816	RACK ASSEMBLY, MULTIPROGRAMMER,2A2A6	REMOVE/REPLACE			0.38	102,180,233,237,520,587	

Section II. MAINTENANCE ALLOCATION CHART FOR
EETF TADS/PNVS AUGMENTATION EQUIPMENT

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQPT	(6) REMARKS
			O	F	D		
080816	CIRCUIT CARD ASSEMBLY, 2A2A6	REMOVE/REPLACE	0.23			233,236,237,520,587,588	
080816	CIRCUIT CARD ASSEMBLY, 2A2A6	REMOVE/REPLACE	0.23			233,236,237,520,587,588	
080816	CIRCUIT CARD ASSEMBLY 2A2A6	REMOVE/REPLACE	0.23			233,236,237,520,587,588	
080816	CIRCUIT CARD ASSEMBLY 2A2A6	REMOVE/REPLACE	0.23			233,236,237,520,587,588	
080816	CIRCUIT CARD ASSEMBLY 2A2A6A12	REMOVE/REPLACE	0.23			236,237,520,587,588	
080816	CIRCUIT CARD ASSEMBLY 2A2A6A7/A8/A9/A10/A11	REMOVE/REPLACE	0.20			236,237,520,587,588	
080816	CARD, VOLTAGE REGULATOR 2A2A6A2/A3/A4/A5/A6	REMOVE/REPLACE REPAIR	0.20 0.18			236,237,520,587,588 237	
080820	ELECTRONICS DRAWER,2A2A7	REPAIR		0.20		15,233,234,237,238,390,588, 609,614,615	
080820	RELAY ASSEMBLY,2A2A7A4	REPAIR		0.24		98,191,197,228,233,234,237, 238	
080820	CIRCUIT CARD ASSEMBLY, 2A2A7A7	ALIGN REMOVE/REPLACE REPAIR TEST	0.28 0.19		 0.14 1.66	107,233,262,263,546,582,585 233,237,546 96,103,130,205,543,566,606 233,433,438,463,474,484,490, 546	
080820	CIRCUIT CARD ASSEMBLY, 2A2A7A6A5	REMOVE/REPLACE REPAIR TEST	0.19		 0.12 0.83	233,237,546 96,130,205,520,543,566,587, 606 233,438,463,490,546	
080820	CIRCUIT CARD ASSEMBLY, 2A2A7A6A3	FAULT LOCATION REMOVE/REPLACE REPAIR TEST	0.19		0.19 0.19 0.19	 233,237,546 96,103,130,205,520,543,606	
080820	CIRCUIT CARD ASSEMBLY, 2A2A7A6A4	FAULT LOCATION REMOVE/REPLACE REPAIR TEST	0.19		0.19 0.19 0.19	 233,237,546 96,103,130,205,520,543,606	
080820	CIRCUIT CARD ASSEMBLY, 2A2A7A6A2	FAULT LOCATION REMOVE/REPLACE REPAIR TEST	0.19		0.19 0.25 0.19	 233,237,546 96,103,130,205,520,543,566, 587,606	
080820	CIRCUIT CARD ASSEMBLY, 2A2A7A6A1	FAULT LOCATION REMOVE/REPLACE REPAIR TEST	0.19		0.19 0.21 0.19	 233,237,546 90,96,103,130,205,221,510, 511,520,555,584,587	
080820	CIRCUIT CARD ASSEMBLY, 2A2A7A6A8	REMOVE/REPLACE REPAIR TEST	0.19		 0.19 3.51	233,237,546 96,103,130,205,542,566,606 226,233,433,463,473,474,484, 546	
080820	CASE ASSEMBLY, VIDEO SIGNAL,2A2A7A1	REMOVE/REPLACE REPAIR TEST		0.22	 0.25 2.77	192,234,237,238,520,587 68,103,152,156,169,205,221, 233,365,372,510,511,606,609 192,226,234,238,433,463,473, 484,520,587	
080820	CIRCUIT CARD ASSEMBLY, 2A2A7XX	FAULT LOCATION REMOVE/REPLACE REPAIR TEST			0.32 0.39 0.10 0.39	 103,205,231,232,520,552,566, 587,606 96,103,205,520,543,566,587, 606	

MAINTENANCE ALLOCATION CHART (cont)

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
080820	CIRCUIT CARD ASSEMBLY, 2A2A7XX	FAULT LOCATION			0.25		
		REMOVE/REPLACE			0.32	103,205,231,232,552,566,606	
		REPAIR			0.16	90,96,97,103,195,205,221,227, 232,543,548,566,606	
		TEST			0.32		
08082008	HEAT SINK ASSEMBLY, 2A2A7A5	REPAIR		0.25		197,232,234,235,237,238,365, 368,390,511,607	
080820	CONN BRACKET ASSEMBLY, 2A2A7	REPAIR			0.71	28,98,103,195,197,233,237, 409,410,413,414,510,511,546, 609	
08082012	CIRCUIT ASSEMBLY, SPECIAL, ELEC,2A2A7W3	FAULT LOCATION		1.18		17,98,191,197,233,237,545, 546	
		REPAIR		0.13		25,85,98,103,149,152,156,158, 162,163,169,179,195,200,228, 390,409,410,411,412,510,511, 521,545,588,609,614,615	
		TEST		1.13		17,98,103,191,197,233,545, 546	
080820	CABLE ASSEMBLY, RF, 2A2A7W1	FAULT LOCATION		0.29		17,98,191,197,233,237,546	
		REPAIR		0.22		17,64,75,90,98,103,182,213, 233,372,390,428,510,511,525, 529,555,562	
		TEST		0.33		17,98,103,191,197,233,546	
080820	CABLE ASSEMBLY, RF, 2A2A7W2	FAULT LOCATION		0.29		17,98,191,197,233,237,546	
		REPAIR		0.21		17,64,75,90,98,103,182,213, 233,372,390,428,510,511,525, 529,555,562	
		TEST		0.33		17,98,103,191,197,233,546	
080820	CIRCUIT CARD ASSEMBLY, 2A2A7A6A10	REMOVE/REPLACE	0.20			233,237,520,546,587	
		REPAIR			0.11	96,130,205,221,520,543,548, 566,587,606	
		TEST			2.65	226,233,433,463,473,484,520, 546,587	
080820	CIRCUIT CARD ASSEMBLY, 2A2A7A6A9	CALIBRATE	2.00			134,137	
		FAULT LOCATION			0.27		
		REMOVE/REPLACE		0.19		233,237,546	
		REPAIR			0.35	38,90,96,103,130,205,221,227, 543,552,555,560,562,566,573, 584,606	
		TEST			2.00		
080824	HP-IB EXTENDER,2A2A8	REMOVE/REPLACE	0.27			103,233,237,372,373,546	
		REPAIR	0.18			237	
0808	INTERFACE ASSEMBLY, 2A2A7XX	FAULT LOCATION			0.23	225,343,386	
		REMOVE/REPLACE	0.23			20,232,237,510	
		REPAIR			0.26	68,103,205,221,233,510,511, 606,609	
		TEST			0.23		
0808	CIRCUIT CARD ASSEMBLY, 2A2A7XX	FAULT LOCATION			0.45		
		REPAIR			0.37	103,130,180,205,221,227,233, 510,511,562,566,573,584,606	
		TEST			0.37		
080828	MATRIX SWITCH ASSEMBLY, 2A2A10	REMOVE/REPLACE	0.45			196,197,233,237,520,546,587	
		REPAIR	0.35			80,196,197,237,520,587	
080828	MATRIX SWITCH,2A2A10	REMOVE/REPLACE			1.48	103,192,195,221,232,237,520, 587,606	
		TEST			1.19	196,197,233,237,520,546,587	
080828	CIRCUIT CARD ASSEMBLY, 2A2A11	REMOVE/REPLACE	0.39			196,197,237	
080832	EXTENDER ASSEMBLY, MULTI,2A2A11	REMOVE/REPLACE	0.37			197,232,233,237,520,546,587	
		REPAIR	0.19			232,237	

MAINTENANCE ALLOCATION CHART (cont)

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQPT	(6) REMARKS
			O	F	D		
080832	MULTIPROGRAMMER EXT, 2A2A11XX	REMOVE/REPLACE			0.62	103,221,232,237,520,587,606	
		TEST			4.28	197,226,232,233,237,433,445, 463,473,474,484,520,546,587	
080832	CIRCUIT CARD ASSEMBLY, 2A2A11XX	REMOVE/REPLACE	0.18			237	
080832	CIRCUIT CARD ASSEMBLY, 2A2A11XX	REMOVE/REPLACE	0.18			237	
080832	CIRCUIT CARD ASSEMBLY, 2A2A11XX	REMOVE/REPLACE	0.18			237	
080832	CIRCUIT CARD ASSEMBLY, 2A2A11XX	REMOVE/REPLACE	0.19			237,520,587	
080836	SELF TEST CARD,2A2A12A2	REMOVE/REPLACE	0.22			233,234,237,520,587	
080836	SWITCH CONTROLLER, 2A2A12	REMOVE/REPLACE	0.27			233,236,237,520,546,587	
		REMOVE/REPLACE			0.56	103,192,221,232,233,237,520, 587,606	
		REPAIR	0.18			232,233,236,237,520,546,587	
		TEST				233,237,520,546,587	
080836	CIRCUIT CARD ASSEMBLY, 2A2A12A1	REMOVE/REPLACE	0.23			232,233,236,237,520,546,587	
080840	COMPUTER ASSEMBLY, 2A2A13	FAULT LOCATION	0.07				
		REMOVE/REPLACE	0.33			103,119,520,587	
		REPAIR	0.17			233,520,587	
		SERVICE	0.19			115,118	
080840	CONVERTER ASSEMBLY, A TO D,2A2A13	ALIGN	0.94		1.68	16,39,181,221,233,235,237, 264,265,344,435,500,501,503, 520,546,587,591	
		REMOVE/REPLACE	0.24			181,233,235,237,546	
		REPAIR	0.20			233,235,237,520,587	
		TEST			0.81	181,233,235,520,546,587	
		REMOVE/REPLACE			0.83	103,195,221,232,233,237,387, 514,520,562,587,606	
080840	CIRCUIT CARD ASSEMBLY, 2A2A13XX	REMOVE/REPLACE	0.30			181,233,235,237,520,587	
080840	CIRCUIT CARD ASSEMBLY, 2A2A13XX	REMOVE/REPLACE	0.20			181,233,235,237,520,587	
		REMOVE/REPLACE	0.33			181,233,235,238,520,587	
080840	COMPUTER INTERFACE KIT, 2A2A13XX	REPAIR	0.31			180,181,233,235,237,520,587	
080840	CIRCUIT CARD ASSEMBLY, 2A2A13XX	REMOVE/REPLACE	0.24			233,237,520,587	
080840	CIRCUIT CARD ASSEMBLY, 2A2A13XX	REMOVE/REPLACE	0.33			181,233,235,237	
080840	CIRCUIT CARD ASSEMBLY, 2A2A13XX	REMOVE/REPLACE	0.24			233,237,520,587	
080848	BLOWER ASSEMBLY, 2A2A15	REMOVE/REPLACE	0.35			102,103,115,118,233,237	
		REPAIR		0.12		87,181,183,185,237,358,371, 372,543,613,615	
		SERVICE	0.22			115,118,237	
080852	CABLE ASSEMBLY, SPECIAL, ELEC,2A2W9	FAULT LOCATION		0.97		17,42,64,233,237,368,520,546, 587	
		REPAIR		0.15		25,103,162,163,237,390,409, 410,411,412,510,511,545,555, 609	
		TEST		0.95		17,42,64,233,237,368,520,546, 587	
080856	CABLE ASSEMBLY, SPECIAL, ELEC,2A2W11	FAULT LOCATION		3.01		17,64,196,233,237,368,520, 546,587	
		REPAIR		0.30		25,42,48,51,90,98,103,152, 156,162,163,169,191,192,194, 195,232,233,237,390,410,411, 412,510,511,525,529,545,546, 555,562,609	
		TEST			3.01	17,64,196,233,237,368,546	

MAINTENANCE ALLOCATION CHART (cont)

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQPT	(6) REMARKS
			O	F	D		
080860	CABLE ASSEMBLY, SPECIAL, ELEC, 2A2W17	FAULT LOCATION		1.05		17,32,42,64,233,237,368,546	
		REPAIR		0.12		25,90,98,103,143,144,145,146, 149,150,162,163,164,165,171, 173,195,228,232,237,410,411, 412,510,525,529,545,562,609	
		TEST		1.02		17,32,42,64,233,368,546	
080864	CABLE ASSEMBLY, SPECIAL, ELEC, 2A2W13	FAULT LOCATION		1.09		17,42,64,233,237,368,546	
		REPAIR		0.11		25,98,103,149,150,162,163, 164,165,170,171,173,174,195, 228,232,410,411,510,545,609	
		TEST		1.84		17,42,64,233,368,546	
080872	CABLE ASSEMBLY, SPECIAL, ELEC, 2A2W15	FAULT LOCATION		0.37		17,233,237,546	
		REPAIR		0.15		98,103,152 156,164,165,169, 171,173,195,228,232,510,545, 609	
		TEST		0.31		17,233,546	
080876	CABLE ASSEMBLY, SPECIAL, ELEC, 2A2W8	FAULT LOCATION		0.91		17,42,64,233,237,368,520,546, 587	
		REPAIR		0.14		25,103,162,163,237,390,410, 411,412,510,511,545,555,609	
		TEST		0.87		17,42,64,233,237,368,520,546, 587	
080880	CABLE ASSEMBLY, SPECIAL, ELEC, 2A2W3	FAULT LOCATION		0.46		17,42,64,233,237,368,546	
		REPAIR		0.27		98,103,162,163,197,232,236, 390,510,511,543,554,555,609	
		TEST		0.37		17,42,64,233,237,368,546	
080884	CABLE ASSEMBLY, SPECIAL, ELEC, 2A2W5	FAULT LOCATION		0.77		17,42,233,237,546	
		REPAIR		0.25		25,42,66,67,98,103,149,158, 162,163,164,165,169,171,173, 195,228,232,233,368,410,411, 412,510,545,546,609	
		TEST		0.69		17,42,233,546	
080888	CABLE ASSEMBLY, SPECIAL, ELEC, 2A2W7	FAULT LOCATION		1.04		17,233,235,237,520,546,587,	
		REPAIR		0.30		25,98,103,152,156,169,237, 390,410,411,412,510,511,545 555,562,609	
		TEST		1.00		17,233,235,237,520,546,587	
080892	CABLE ASSEMBLY, RF, 2A2W19	FAULT LOCATION		0.51		17,181,196,197,233,235,237, 520,546,587	
		REPAIR		0.24		90,103,390,510,511,525,529, 545,555,562,609	
		TEST		0.54		17,181,196,197,233,235,237, 546	
080896	CABLE ASSEMBLY, SPECIAL, ELEC, 2A2W1	FAULT LOCATION		1.02		17,42,64,181,233,235,237,368, 520,546,587	
		REPAIR		0.18		25,98,103,164,165,171,173, 195,228,232,390,410,411,412, 510,511,545,609	
		TEST		1.00		17,42,64,181,233,235,368,520, 546,587	
080900	CABLE ASSEMBLY, POWER, 2A2W2	FAULT LOCATION		0.54		17,42,233,237,546	
		REPAIR		0.26		17,32,98,103,130,162,163,193, 197,232,233,390,510,511,545, 546,555,562,609,614,615	
		TEST		0.57		17,42,115,118,233,546	
080904	CABLE ASSEMBLY, SPECIAL, ELEC, 2A2W4	FAULT LOCATION		0.48		17,42,64,233,237,368,546	
		REPAIR		0.42		42,98,103,162,163,197,232, 233,390,510,511,545,546, 555,609	
		TEST		0.38		17,42,64,233,368,546	

MAINTENANCE ALLOCATION CHART (cont)

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
0808	CABLE ASSEMBLY, RF, 2A2W6	FAULT LOCATION REPAIR		0.23 0.20		17,42,23,237,546 18,42,90,91,98,103,213,233,372,390,511,543,546,555	
0808	CABLE ASSEMBLY, SPECIAL, ELEC,2A2W20	TEST FAULT LOCATION REPAIR		0.14 0.28 0.08		17,42,233,237,546 17,42,64,233,237,368,546 103,148,390,510,609	
0808	CABLE ASSEMBLY, RF, 2A2W10	TEST FAULT LOCATION REPAIR		0.24 0.23 0.14		17,42,64,233,368,546 17,233,237,546 90,103,390,510,511,562,586	
0808	CABLE ASSEMBLY, RF, 2A2W16	TEST FAULT LOCATION REPAIR		0.16 0.22 0.12		17,233,546 17,233,237,546 90,98,103,130,179,390,510,511,521,522,523,525,529,562,588,609,614,615	
0808	CABLE ASSEMBLY, RF, 2A2W21	TEST FAULT LOCATION REPAIR		0.15 0.20 0.12		17,233,546 17,233,237,546 90,103,130,179,390,510,511,521,522,523,525,529,562,609 614,615	
0808	CABLE ASSEMBLY, RF, 2A2W22	TEST FAULT LOCATION REPAIR		0.12 0.20 0.12		17,233,546 17,233,237 90,103,130,179,390,510,511,522,523,525,529,562,609,614,615	
080908	CABLE ASSEMBLY, SPECIAL, ELEC,2A2W92	TEST FAULT LOCATION REPAIR		0.12 0.33 0.23		17,233,546 17,42,233,237,545,546 42,66,98,103,152,156,162,163,164,165,169,171,173,195,228,232,233,368,510,546,609	
0808	CABLE ASSEMBLY, RF, 2A2W30	TEST FAULT LOCATION REPAIR		0.25 0.22 0.13		17,42,233,545,546 17,233,237,546 90,98,103,130,179,390,510,511,521,522,523,525,529,562,609,614,615	
0808	CABLE ASSEMBLY, RF, 2A2W27	TEST FAULT LOCATION REPAIR		0.15 0.20 0.13		17,233,546 17,233,237,546 90,103,510,525,529,562,614,615	
0808	CABLE ASSEMBLY, RF, 2A2W28	TEST FAULT LOCATION REPAIR		0.12 0.20 0.13		17,233,546 17,233,237,546 90,103,510,525,529,562,614,615	
080912	CABLE ASSEMBLY, SPECIAL, ELEC,2A2W105	TEST FAULT LOCATION REPAIR		0.12 0.51 0.26		17,233,546 17,237,520,587 42,48,51,90,98,103,195,232,233,237,390,510,511,525,529,546,555,562,609	
0812	TEST BENCH ASSEMBLY, NITE,2A3	TEST CALBIRATE REMOVE/REPLACE	55.42	0.43 3.90		17,237,520,587 106,125,286,326,478 23,24,30,32,33,41,42,71,72,79,81,84,90,94,103,182,185,200,217,232,237,271,511,543,561,562	
		REPAIR		2.28		23,30,32,71,79,90,91,94,103,182,197,232,233,237,271,531,561,562	
		TEST			6.24	23,24,32,33,41,42,71,72,79,81,84,103,182,200,233,237,511,539,543,561,606	

MAINTENANCE ALLOCATION CHART (cont)

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
081204	OPTICAL ASSEMBLY, N/S, 2A3A1	REPAIR		0.46		28,31,32,33,41,115,278,232, 233,237,511,548,546	
		SERVICE		0.61		33,41,42,115,233,237,511,543, 546	
081204	WHEEL/TARGET ASSEMBLY, 2A3A1A1A6	REPAIR			3.39	20,26,28,31,32,33,41,42,90, 94,98,100,103,181,182,197, 221,232,233,237,267,268,359, 363,372,408,539,546,548,606	
08120404	HEAT SOURCE ASSEMBLY, SECONDARY,2A3A1A17	FAULT LOCATION		3.52			
		REMOVE/REPLACE		0.55		28,32,33,98,103,232,233,546	
		REPAIR		0.18	0.32	28,29,31,103,120,186,221,606	
		TEST		0.11			
08120408	TARGET, HEAT SOURCE, 2A3A1A1	REPAIR		0.55	3.44	20,26,28,31,32,33,41,42,90, 94,98,100,103,181,182,186, 197,221,232,233,237,266,267, 268,359,363,372,408,539,546, 548,606	
08120408004	CLUTCH ASSEMBLY,2A3A1A1	OVERHAUL			1.05	26,28,30,91,98,103,221,355, 368,408,606	
		REMOVE/REPLACE		1.02		20,28,32,33,41,42,98,100,103, 197,232,233,236,359,363,372, 408,546,548	
		REPAIR		1.06		20,28,32,33,41,42,98,100,103, 197,232,233,237,359,363,372, 408,546,548	
		TEST			0.08		
08120408004	CABLE ASSEMBLY, SPECIAL, ELEC, 2A3A1A1W26	FAULT LOCATION		0.49		17,20,28,32,33,42,98,103,197, 232,233,237,359,363,369,408, 546	
		REPAIR		0.15		26,28,103,355,368,390,510, 511,555,609	
		TEST		0.67		28,32,33,41,42,98,100,103, 197,232,233,359,363,372,408, 546,548	
08120408004	CABLE ASSEMBLY, SPECIAL, ELEC, 2A3A1A1W25	FAULT LOCATION		0.49		17,20,28,32,33,42,98,103,197, 232,233,237,359,363,372,408, 546	
		REPAIR		0.15		26,23,103,355,368,390,510, 511,555,609	
		TEST		0.67		28,32,33,41,42,98,100,103, 197,232,233,359,363,372,408, 546,548	
08120408004	SENSOR ASSEMBLY, 2A3A1A1A7	FAULT LOCATION			1.40	17,20,28,31,32,33,42,98,103, 181,182,197,232,233,237,267, 278,359,363,372,408,539,546	
		REPAIR			0.19	86,103,152,156.169,221,237, 390,510,511,555,606,609	
		TEST			1.89	17,28,31,32,33,41,42,98,100, 103,181,182,197,219,232,233, 237,267,278,359,363,408,546, 548	
08120408004	SENSOR ASSEMBLY, TARGET, 2A3A1A1A6	FAULT LOCATION		1.40		17,28,31,32,33,41,42,98,103, 181,182,197,232,233,237,267, 278,359,363,372,408,546	
		REPAIR			0.12	103,152,156,169,205,221,237, 609	
		TEST			1.53	17,28,31,32,33,41,42,98,100, 103,181,182,197,232,233,237, 278,359,363,372,408,546,548	
08120408004	CABLE ASSEMBLY, SPECIAL, ELEC, 2A3A1A1W15	FAULT LOCATION			1.13	17,20,26,28,31,32,33,42,98, 103,130,181,182,197,232,233, 237,267,359,363,372,408,546	

Section II. MAINTENANCE ALLOCATION CHART FOR
EETF TADS/PNVS AUGMENTATION EQUIPMENT

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQPT	(6) REMARKS
			O	F	D		
08120408004	CABLE ASSEMBLY, SPECIAL, ELEC, 2A3A1A1W15	REPAIR			0.12	103,205,221,511,555,566,573, 606,609	
		TEST			1.53	17,26,28,31,32,33,41,42,98, 100,103,130,181,182,197,221, 232,233,237,267,359,363,372, 408,546,548	
08120408004	CABLE ASSEMBLY, SPECIAL, ELEC, 2A3A1A1W20	FAULT LOCATION REMOVE/REPLACE			0.18	17,130	
		REPAIR			0.55	26,32,33,42,98,197,233,237, 546	
08120408004	CABLE ASSEMBLY, SPECIAL, ELEC, 2A3A1A1W13	FAULT LOCATION REMOVE/REPLACE		0.60	0.12	103,205,221,510,511,555,566, 573,606,609	
		REPAIR			0.07	12	
08120408004	CABLE ASSEMBLY, SPECIAL, ELEC, 2A3A1A1W16	FAULT LOCATION REMOVE/REPLACE		0.60	0.12	28,32,33,40,42,98,130,197, 233,237,511,544,546	
		REPAIR			0.14	87,103,510,511,555,562,573, 606,613,614,615	
08120408004	STEPPER MOTOR ASSEMBLY, 2A3A1A1XX	REMOVE/REPLACE			0.14	17,130	
08120408004	CABLE ASSEMBLY, SPECIAL, ELEC, 2A3A1A1W14	FAULT LOCATION			0.34	28,32,33,42,98,197,228,233, 237,545,546	
		REPAIR			0.17	103,152,156,169,195,221,510, 545,606,609	
		TEST			0.52	17,87,98,103,152,156,169,195, 510,545,562,606,614,615	
08120408004	MIRROR ASSEMBLY,2A3A1XX	REMOVE/REPLACE			1.58	17,20,28,31,32,33,40,42,98, 103,130,181,182,197,203,232, 233,237,267,359,363,372,408, 511,546	
		REPAIR			02.08	87,103,205,221,510,511,555, 562,566,573,606,609,614,615	
08120408004	MIRROR ASSEMBLY,2A3A1XX	REMOVE/REPLACE			0.79	17,28,31,32,33,40,41,42,98, 100,103,130,181,182,197,203, 221,232,233,237,267,359,363, 372,408,511,546,548,606	
		REPAIR			1.25	21,28,32,33,42,68,82,103,112, 188,190,197,200,221,232,233, 235,279,281,539,546,562,606	
08120408004	MIRROR ASSEMBLY,2A3A1XX	REMOVE/REPLACE			0.79	11,86,90,91,103,120,127,221, 233,234,247,546,606	
		REPAIR			3.56	28,32,33,42,68,103,188,189, 190,197,221,232,233,235,511, 539,543,546,562,606	
08120408004	HOUSING ASSEMBLY, PRBLC, 2A3A1XX	REMOVE/REPLACE			0.79	10,86,90,91,103,120,127,221, 223,247,546,606	
		REPAIR			3.59	21,28,29,32,33,42,68,103,188, 189,190,198,217,221,232,233, 235,237,279,281,511,531,539, 543,545,546,562,606	
08120408004	CABLE ASSEMBLY, SPECIAL, ELEC, 2A3A1W15	FAULT LOCATION			0.79	10,86,90,91,103,120,127,221, 223,247,546,606	
		REPAIR			1.34	21,28,29,32,33,42,68,103,189, 198,217,221,232,233,235,237, 279,281,511,531,539,543,545, 546,562,606	
					1.07	12,32,86,90,91,103,120,127, 221,233,247,546,606	
					0.18	17,21,28,32,33,112,232,233, 279,281,539,545	
						28,32,33,98,103,143,145,149, 150,152,156,169,170,172,174, 195,205,221,228,232,391,510, 511,545,555,566,573,606,609	

Section II. MAINTENANCE ALLOCATION CHART FOR
EETF TADS/PNVS AUGMENTATION EQUIPMENT

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
	CABLE ASSEMBLY, SPECIAL, ELEC	TEST			1.11	17,21,28,32,33,112,221,232, 233,279,281,545,546 359,363,372,408,539,546	
08120412	CABLE ASSEMBLY, SPECIAL, ELEC,2A3A1W6	FAULT LOCATION			1.75	17,20,28,31,32,33,42,98,103, 181,182,197,232,233,237,267, 359,363,372,408,539,546	
		REPAIR			0.17	28,32,33,90,98,103,149,150, 152,156,164,165,169,170,171, 173,174,195,221,228,232,390, 391,510,511,545,555,562,609, 614,615	
		TEST			2.23	17,28,31,32,33,41,42,98,100, 103,181,182,197,221,232,233, 237,267,359,363,372,408,546, 548	
08120412	SHUTTER ASSEMBLY, 2A3A1A2	FAULT LOCATION			0.88	17,21,28,32,33,112,232,233, 278,279,280,281,539,546	
		OVERHAUL			1.10	26,32,103,191,192,194,197, 221,232,233,511,562,606	
		REPAIR			0.19	32,40.92,103,191,203,221,229, 395,519,586,606	
		TEST			0.90	17,21,28,32,33,112,221,232, 233,278,279,230,281,546	
08120412	CABLE ASSEMBLY, SPECIAL, ELEC, 2A3A1A2W7	FAULT LOCATION			0.28	17,130	
		REMOVE/REPLACE			0.22	26,68,98,221,237	
		REPAIR			0.14	26,87,103,205,221,510,511, 566,606,609	
08120412	SENSOR MOUNT ASSEMBLY, 2A3A1A3	FAULT LOCATION			0.55	17,21,26,28,32,33,98,112,221, 232,233,278,279,281,539,545, 546	
		REPAIR			0.62	26,31,32,103,109,208,221,232, 237,372,443,464,511,606	
		TEST			0.54	17,21,28,32,33,221,232,233, 278,279,281,546	
08120412	CLAMP ASSEMBLY, GIMBAL, 2A3A1XX	OVERHAUL			0.32	92,103,197,206,221,360,363, 372,395,519,606	
		REMOVE/REPLACE	0.09			103,233,360,363,372	
08120412	INSERT/ADAPTER ASSEMBLY,2A3A1XX	OVERHAUL			12.78	20,21,31,32,33,41,86,99,103, 110,204,221,233,269,270,360, 363,372	
08120412	MASK WINDOW ASSEMBLY, 2A3A1XX	REMOVE/REPLACE	0.06			31	
		REPAIR			0.24	20,25,31,41,86,91,92,103,203, 221,395,516,606	
08120412	CABLE ASSEMBLY, SPECIAL, ELEC, 2A3A1A3W9	REPAIR			0.17	98,103,152,156,169,205,221, 370,372,510,511,545,566,606, 609	
		TEST			0.16	17,98,221,545	
08120412	CABLE ASSEMBLY, SPECIAL, ELEC, 2A3A1A3W10	REPAIR			0.51	17,26,98,103,130,152,156,169, 205,221,370,372,510,511,545, 555,566,573,606,609	
		TEST			0.16	17,98,221,278,545	
08120416	ILLUMINATOR ASSEMBLY, 2A3XX	REMOVE/REPLACE		0.30		28,32,33,233,237,546	
		REPAIR			0.19	28,94,103,221,606	
081212	PANEL, CONTROL,2A3XX	REPAIR		2.62		23,30,32,41,68,71,79,90,91, 94,103,105,130,181,182,192, 233,234,237,511,531,543,561, 562	
081216	CABLE ASSEMBLY, SPECIAL, ELEC,2A3W1	FAULT LOCATION		0.31		17,42,233,237,546	
		REPAIR		0.13		28,98,103,143,145,149,150, 172,174,195,228,510,609	
		TEST		0.24		17,42,233,546	

MAINTENANCE ALLOCATION CHART (cont)

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQPT	(6) REMARKS
			O	F	D		
081220	CABLE ASSEMBLY, SPECIAL, ELEC,2A3W2	FAULT LOCATION		0.18		17,42,233,237,546	
		REPAIR		0.11		28,98,103,149,150,170,174, 195,228,510,609	
		TEST		0.21		17,42,233,546	
081224	CABLE ASSEMBLY, SPECIAL, ELEC,2A3W3	FAULT LOCATION		0.18		17,42,233,237,546	
		REPAIR		0.13		28,98,103,143,145,149,150, 172,174,195,228,510,609	
		TEST		0.21		17,42,233,546	
081228	CABLE ASSEMBLY, SPECIAL, ELEC,2A3W4	FAULT LOCATION		0.77		17,42,233,237,545,546	
		REPAIR		0.14		28,90,98,103,143,144,145,146, 149,150,152,156,169,171,172, 173,174,195,228,510,562,609	
		TEST		0.70		17,42,233,237,546	
0816	CABLE ASSEMBLY, SPECIAL, ELEC,2W1	FAULT LOCATION		0.28		17,42,237	
		REPAIR		0.14		90,103,149,150,170,174,228, 510,562,609	
		TEST		0.21		17,42,	
0820	CABLE ASSEMBLY, SPECIAL, ELEC,2W10	FAULT LOCATION		0.26		17,42,237	
		REPAIR		0.14		90,103,149,150,170,174,228, 510,562,609	
		TEST		0.20		17,42	
0824	CABLE ASSEMBLY, SPECIAL, ELEC,2W11	FAULT LOCATION		0.26		17,42,237	
		REPAIR		0.14		90,103,149,150,170,174,228, 510,562,609	
		TEST		0.20		17,42	
0832	CABLE ASSEMBLY, SPECIAL, ELEC,2W2	FAULT LOCATION		0.46		17,42,237	
		REPAIR		0.14		90,103,149,150,171,173,228, 510,562,609	
		TEST		0.30		17,42	
0836	CABLE ASSEMBLY, SPECIAL, ELEC,2W4	FAULT LOCATION		0.22		17,42,237	
		REPAIR		0.14		53,56,90,103,149,228,374,510, 562,609	
		TEST		0.18		17,42	
0840	CABLE ASSEMBLY, SPECIAL, ELEC,2W3	FAULT LOCATION		0.38		17,42,237	
		REPAIR		0.14		53,54,56,57,90,103,149,228, 352,374,510,562,609	
		TEST		0.26		17,42	
0844	CABLE ASSEMBLY, SPECIAL, ELEC,2W5	FAULT LOCATION		0.34		17,42,237	
		REPAIR		0.14		54,57,90,103,149,228,352, 510,562,609	
		TEST		0.24		17,42	
0848	CABLE ASSEMBLY, SPECIAL, ELEC,2W7	FAULT LOCATION		0.42		17,42,237	
		REPAIR		0.14		90,103,149,150,169,228,510, 562,609	
		TEST		0.28		17,42	
0852	CABLE ASSEMBLY, SPECIAL, ELEC,2W12	FAULT LOCATION		0.31		17,42,237	
		REPAIR		0.12		90,103,149,150,171,172,173, 174,228,510,562,609	
		TEST		0.22		17,42	
08	CABLE ASSEMBLY, SPECIAL, ELEC,2W24	FAULT LOCATION		0.12		17	
		REPAIR		0.14		90,103,510,511,562,586	
		TEST		0.13		17	
0856	CABLE ASSEMBLY, SPECIAL, ELEC,2W30	FAULT LOCATION		0.28		17,42,237	
		REPAIR		0.15		90,98,103,149,150,171,173, 228,510,562,609	
		TEST		0.19		17,42	
0860	CABLE ASSEMBLY, SPECIAL, ELEC,2W27	FAULT LOCATION		0.37		17,42,130,237	
		REPAIR		0.15		90,98,103,149,150,171,173, 228,510,562,609	
		TEST		0.28		17,42	

MAINTENANCE ALLOCATION CHART (cont)

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
0864	CABLE ASSEMBLY, SPECIAL, ELEC,2W28	FAULT LOCATION		0.37		17,42,130,237	
		REPAIR		0.12		90,103,149,150,171,173,228, 510,562,609	
		TEST		0.28		17,42,130	
0868	CABLE ASSEMBLY, SPECIAL, ELEC,2W29	FAULT LOCATION		0.33		17,42,130,237	
		REPAIR		0.12		90,103,149,150,171,173,228, 510,562,609	
		TEST		0.24		17,42,130	
0872	CABLE ASSEMBLY, SPECIAL, ELEC,2W8	FAULT LOCATION		0.39		17,42,130,237	
		REPAIR		0.12		90,103,149,150,171,173,228, 510,562,609	
		TEST		0.30		17,42,130	
08	CABLE ASSEMBLY, SPECIAL, ELEC,2W9	FAULT LOCATION		0.21		17,237	
		REPAIR		0.13		18,90,91,103,213,372,390, 511,543,555	
		TEST		0.18		17,130	
0880	CABLE ASSEMBLY, SPECIAL, ELEC,2W14	FAULT LOCATION		0.44		17,42,237	
		REPAIR		0.17		90,98,103,149,158,169,228, 510,562,609	
		TEST		0.29		17,42,130	
08	CABLE ASSEMBLY, SPECIAL, ELEC,2W13	FAULT LOCATION		0.80			
		REPAIR		0.80			
		TEST		0.80			
12	INSTALLATION ASSEMBLY	REPAIR		1.80		23,30,32,41,71,79,90,91,94, 103,182,214,233,237,359,364, 372,511,561,562	
		TEST		2.38		23,30,32,41,71,79,94,103, 182,233,237,511,531,543, 561,562	
12	ISOLATOR	REMOVE/REPLACE		3.11		23,30,32,71,79,90,94,103, 182,200,214,233,237,359,364, 372,561,562	
		REPAIR			0.23	32,97,103,237,606	
		TEST			1.01		
16	HARDWARE SET, SUPPORT	FAULT LOCATION		0.14		17,130	
1604	CABLE ASSEMBLY, POWER,W2	FAULT LOCATION		0.16			
		REPAIR		0.15		48,51,102,103,149,150,164, 165,170,171,232,233,236,510, 511,546,609	
1608	MAJOR TEST ADAPTER	REMOVE/REPLACE	0.09			98,233,390,511	
		REPAIR		0.13		52,60,67,68,103,233,245,390, 429,510,511,576,609	
		SERVICE	0.16			115	
1608	CONNECTOR ASSEMBLY	REPAIR		0.22		52,103,233,510,609	
1608	MOTHERBOARD ASSEMBLY	FAULT LOCATION			0.31		
		REMOVE/REPLACE			0.49		
		REPAIR			0.49	38,90,103,180,205,221,227, 234,510,511,543,548,552,555, 584,606,607	
		TEST			0.49		
1612	CONNECTOR ASSEMBLY	FAULT LOCATION		0.28		17,130	
		REPAIR		0.12		48,51,103,232,510,511,546, 609	
		TEST	0.31				
1616	CABLE ASSEMBLY, SPECIAL, ELEC,W61	FAULT LOCATION		0.17		17,130	
		REPAIR		0.13		48,51,98,103,232,236,510, 525,529,546,562,609,614,615	
1620	CABLE ASSEMBLY, SPECIAL, ELEC,W62	FAULT LOCATION		0.10			
		REPAIR		0.13		48,51,98,103,232,236,510, 525,529,546,562,609,614,615	

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EETF TADS/PNVS AUGMENTATION EQUIPMENT

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQPT	(6) REMARKS
			O	F	D		
1624	CABLE ASSEMBLY, SPECIAL, ELEC,W64	FAULT LOCATION		0.23			
		REPAIR		0.10		98,103,149,150,152,156,169, 171,173,237,390,510,511,545, 609,614,615	
1628	CABLE ASSEMBLY, SPECIAL, ELEC,W66	FAULT LOCATION		0.12			
		REPAIR		0.23		48,50,51,68,103,149,152,156, 169,170,232,236,510,511,545, 546,609	
16	CCA	FAULT LOCATION			0.12		
		REMOVE/REPLACE	0.12				
		REPAIR			0.24	38,90,96,103,130,205,221, 227,232,543,552,555,560,562, 566,573,584,606	
16	CCA	TEST			0.12		
		FAULT LOCATION			0.32		
		REMOVE/REPLACE	0.12				
		REPAIR			0.17	38,90,103,130,205,221,227, 232,233,543,552,555,560,562, 566,573,584,606	
1612	CONNECTOR ASSEMBLY	TEST			0.12		
		FAULT LOCATION		0.24		17,130	
		REPAIR		0.12		48,51,103,232,510,511,546, 609	
16	ALIGNMENT ASSEMBLY, OPTICAL	TEST	0.31				
		FAULT LOCATION			1.09	17,31,103,221,232,546	
		REMOVE/REPLACE	0.12			32	
		REPAIR			0.33	19,28,31,32,67,90,98,103, 130,149,151,152,153,156,157, 158,162,163,168,169,170,194, 196,205,221,232,511,543,545, 546,554,555,562,566,573,606, 614,615	
16	BRACKET & CIRCUIT CARD ASSEMBLY	REPAIR			0.23	31,90,96,103,205,221,232, 233,543,552,555,560,562,566, 573,583,584,588,606	
16	BRACKET & CIRCUIT CARD ASSEMBLY	REPAIR			1.14	31,90,96,103,130,205,221, 232,233,543,552,555,560,562, 566,573,584,606,609	
16	CABLE ASSEMBLY, RF,W107	FAULT LOCATION			0.10	17,130	
		REPAIR			0.06	90,103,510,525,529,562,606	
		TEST			0.30	452,567	
16	CABLE ASSEMBLY,W107	FAULT LOCATION		2.64			
		REPAIR		0.10		90,103,182,233,390,510,545, 562,588	
16	CABLE ASSEMBLY,W1	FAULT LOCATION		0.09			
		REPAIR		2.64		98,103,152,155,157,168,236 510,609	
16	CABLE ASSEMBLY,W81	FAULT LOCATION				17,130	
		REPAIR		0.09		90,103,139,525,526,527,528, 529,589,609	
16	CABLE ASSEMBLY,W78	FAULT LOCATION		0.12			
		REPAIR		0.10		90,103,182,233,390,510,545, 562,588	
16	CCA	FAULT LOCATION			0.11		
		REMOVE/REPLACE	0.12				
		REPAIR			0.53	96,103,205,221,543,548,566, 606	
		TEST			0.12		

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EETF TADS/PNVS AUGMENTATION EQUIPMENT

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
16	CCA	FAULT LOCATION			0.14		
		REMOVE/REPLACE	0.11			520,587	
		REPAIR			0.32	38,90,103,130,205,221,232, 520,543,548,552,555,562,566, 573,587,606	
		TEST			0.11		
1632	FAN ASSEMBLY	FAULT LOCATION		0.10		233,590	
		REPAIR		0.14		103,141,142,205,233,552,555, 566,573,584,588,589,609	
16	MONITOR, TELEVISION	REMOVE/REPLACE	0.09				
1636	RADIOMETER BRACKET	REPAIR	0.12	0.12		27,33,90,103,222	
1636	RADIOMETER HEAD	REMOVE/REPLACE		2.43			
16	CAMERA MOUNT ASSEMBLY	CALIBRATE			2.43	78,103,111,129,192,200,233, 272,273,274,275,329,334,475, 537,546	
		REMOVE/REPLACE	0.41			103,192,233,237,546	
16	CAMERA CONTROLLER	REMOVE/REPLACE			0.39	28,32,34,103,221,606	
16	CAMERA CONTROLLER	REMOVE/REPLACE			0.32	28,67,103,221	
16	CABLE ASSEMBLY, RF,W94	REPAIR		0.13		18,90,91,103,213,372,390, 511,543,555	
16	CCA	REMOVE/REPLACE	0.12				
		REPAIR			0.13	38,90,96,103,127,130,194, 205,221,227,233,543,552,555, 560,562,566,573,584,606,609	
		TEST				567	
1640	CABLE ASSEMBLY,W58	FAULT LOCATION		0.71		17,130	
		REMOVE/REPLACE	0.01				
		REPAIR		0.10		17,48,51,90,103,130,149,151, 152,155,157,158,168,169,170, 180,232,236,510,525,529,545, 546,562,609	
		TEST	0.25			567	
1644	CABLE ASSEMBLY,W106	FAULT LOCATION		0.25			
		REMOVE/REPLACE	0.07				
		REPAIR		0.16		103,169,221,137,390,424,510, 609,615	
		TEST	0.07				
1648	CABLE ASSEMBLY,W34	FAULT LOCATION		0.42		17,130	
		REPAIR		0.10		48,51,90,103,149,151,152, 155,156,157,158,168,169,170, 180,194,232,236,510,525,529, 545,546,562,576,609	
		TEST	0.25			567	
16	FIBER OPTIC ASSEMBLY	REMOVE/REPLACE	0.08				
16	ALIGNMENT TOOL ASSEMBLY	ALIGN			1.12		
		CALIBRATE			1.12	29,103,135,276,328,393,592, 593,606	
		OVERHAUL			13.68	29,32,35,74,98,103,135,276, 277,350,393,546,592,593,606	
		REMOVE/REPLACE	4.68				
16	ALIGNMENT DEVICE, OPT	REMOVE/REPLACE			2.11	29,35,74,103,135,276,350, 393,393,546,592,593,606,	
16	MASK ASSEMBLY	REMOVE/REPLACE	0.15				
		REPAIR			0.15		
16	ADAPTER ASSEMBLY, CHANGE	OVERHAUL			0.15		
16	CLAMP ASSEMBLY, CHAN BAL	OVERHAUL			0.22	92,197,221,395,519	
		REMOVE/REPLACE	0.16			103,197,221,232,249	
16	ILLUMINATOR	REMOVE/REPLACE	0.08				
16	CAMERA BRACKET ASSEMBLY	REMOVE/REPLACE		0.62		31,32,42,103,192,228,233, 237,543	

MAINTENANCE ALLOCATION CHART (cont)

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQPT	(6) REMARKS
			O	F	D		
20	TPS, IVD ELECTRONICS	FAULT LOCATION		0.20		17,130	
2004	RETICLE ASSEMBLY	REMOVE/REPLACE	0.02				
		REPLACE			0.16	103,216,221,606	
2008	GROUNDING SET, SHROUD	FAULT LOCATION			0.12	17,130	
		REPAIR			0.17	98,103,130,162,163,192,196, 200,205,221,223,232,511,543, 562,566,573,606,609	
		TEST			0.12	17,130	
2008	GROUNDING SET, SHROUD	REMOVE/REPLACE	0.07				
2008	TPS, SHROUD ASSEMBLY	FAULT LOCATION		0.12		17,130	
2008	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.02				
		REPAIR			0.34	38,90,96,103,127,130,194, 195,205,221,227,232,395,511, 515,543,549,550,552,555,560, 562,566,573,584,606	
		TEST			0.44	17,130,289,292,293,294	
2008	CABLE ASSEMBLY, SPECIAL	FAULT LOCATION		0.70		17,130	
		REPAIR		0.16		48,51,103,149,150,152,156, 169,172,174,180,194,236,510, 545,546,562,576,609	
		TEST	0.25			567	
2012	TPS, TADS ELEC UNIT	FAULT LOCATION		0.15		17,130	
2012	CABLE ASSEMBLY, RF	FAULT LOCATION		0.08		17,130	
		REPAIR		0.13		17,75,90,98,103,130,213,367, 389,390,428,510,525,529,562	
		TEST	0.25			567	
2012	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.02				
		REPAIR			0.35	38,90,96,103,127,130,194, 195,205,221,227,232,395,511, 515,543,549,550,552,555,560, 562,566,573,584,606,609	
		TEST			0.74	17,130,289,290,292,293	
201204	CABLE ASSEMBLY, SPECIAL,W99	FAULT LOCATION		0.71		17,130	
		REPAIR		0.18	0.30	17,48,51,98,103,130,155,168, 180,232,236,390,510,512,545, 546,562,609	
		TEST	0.25			567	
2012	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.04			520,587	
		REPAIR			0.38	38,90,96,103,127,130,194, 205,221,227,232,520,543,552, 555,560,562,566,573,584,587, 606	
		TEST			1.32	17,130,292,293,295,296,520, 287	
2012	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.04			520,587	
		REPAIR			0.34	38,90,96,103,127,130,194, 195,197,205,221,227,232,511, 520,543,552,555,560,562,566, 573,584,587,606,609	
		TEST			1.69	17,130,291,292,293,295,296, 520,587	
2012	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.04			520,587	
		REPAIR			0.42	38,90,96,103,127,130,194, 205,221,227,232,511,520,543, 552,555,560,562,566,573,584, 587,606	
		TEST			0.89	17,130,292,293,294,295,296, 520,587	
2016	TPS, TADS P/S	FAULT LOCATION		0.23		17,130	

MAINTENANCE ALLOCATION CHART (cont)

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
2016	ELEC COMPONENT ASSEMBLY	REMOVE/REPLACE	0.02		0.25	90,96,103,127,130,194,195, 205,221,232,511,543,552,555, 560,562,566,573,584,606	
		REPAIR			0.25	17,130,292,293	
201604	CABINET ASSEMBLY	TEST				17,130,232,292,297	
		FAULT LOCATION		0.41		103,149158,169,191,197,232, 233,297,390,511,543,555,609	
		REPAIR		0.19			
		TEST		0.41		17,130,232,292,297	
201604	ELEC COMPONENT ASSEMBLY	REMOVE/REPLACE	0.02		0.22	90,96,103,127,130,194,195, 205,221,232,511,543,552,555, 560,562,566,573,584,606,609	
		REPAIR				17,130,292	
		TEST		0.18			
201604	ELEC COMPONENT ASSEMBLY	REMOVE/REPLACE	0.02		0.22	90,96,103,127,130,194,195, 205,221,232,511,543,552,555, 560,566,573,584,606,609	
		REPAIR			0.53	17,130,292,298	
		TEST					
201604	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.02		0.22	38,86,90,96,103,127,130,194, 205,221,227,232,395,511,515, 543,549,550,555,560,562,566, 573,584,606,609	
		REPAIR			0.37	17,130,292	
		TEST				17,130	
201608	CABLE ASSEMBLY, SPECIAL,W47	FAULT LOCATION		0.70		48,51,103,149,150,151,152, 155,158,168,169,170,172, 174,180,232,236,510,545, 546,562,609	
		REPAIR		0.10			
		TEST	0.25			567	
2020	PS, PNVS ELEC UNIT	FAULT LOCATION		0.18		17,130	
2020	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.06		0.35	38,90,96,103,127,130,194, 205,221,227,232,511,543,555, 560,562,566,573,584,606,609	
		REPAIR			0.33	17,130,292,293	
		TEST					
2020	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.02		0.32	38,90,96,103,127,130,194,195, 205,221,227,232,511,543,552, 560,562,566,573,584,606,609	
		REPAIR			0.24	17,130,289,292	
		TEST				520,587	
2020	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.04		0.34	38,90,96,103,127,130,194, 195,205,221,227,232,511, 520,543,552,555,560,562, 566,573,584,587,606,609	
		REPAIR			0.72	17,130,292,293,520,587	
		TEST					
2020	ELEC COMPONENT ASSEMBLY	REMOVE/REPLACE	0.02		0.23	90,96,103,127,130,194,195, 205,221,227,232,511,543,552, 555,560,562,566,573,584,606, 609	
		REPAIR			0.26	17,130,292,293	
		TEST				17,130	
202004	CABLE ASSEMBLY, SPECIAL,W56	FAULT LOCATION		0.71		48,51,103,149,150,151,152, 155,158,168,169,170,172,174, 180,232,236,510,545,562,609	
		REPAIR		0.10			
		TEST	0.25			567	
2024	RETICLE ASSEMBLY	REMOVE/REPLACE	0.02		0.18	103,216,221,606	
		REPAIR					
2024	TPS, HEADS OUT DISPLAY	FAULT LOCATION		0.23		17,130	

MAINTENANCE ALLOCATION CHART (cont)

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQPT	(6) REMARKS
			O	F	D		
202404	CABLE ASSEMBLY, SPECIAL,W91	FAULT LOCATION		0.70		17,130	
		REPAIR		0.10		90,103,149,151,158,169,170, 510,525,529,545,562,609	
		TEST	0.25			567	
202408	COVER, PROTECTIVE	REMOVE/REPLACE	0.06			238	
		REPAIR		0.07		103,149,151,158,169,170,221, 510,609	
2028	CABLE ASSEMBLY SPECIAL	FAULT LOCATION		0.69		17,130,232,401,545	
		REPAIR		0.14		48,51,63,64,103,130,149,150, 169,180,182,185,232,236,372, 390,401,510,545,546,552,555, 562,609	
		TEST	0.25			567	
2028	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE			0.02		
		REPAIR			0.75	38,90,96,103,127,130,194, 205,221,227,232,543,552,555, 560,562,566,573,584,606,609	
		TEST				567	
2028	TPS, LASER ELEC UNT	FAULT LOCATION		0.18		17,130	
2028	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.04			520,587	
		REPAIR			0.36	38,90,96,103,127,130,194, 195,205,221,227,232,511,520, 543,552,555,560,562,566,573, 584,587,606,609	
		TEST			0.90	17,130,292,293,295,296,520, 587	
2032	TPS, LASER TRANSCEIVER	FAULT LOCATION		0.12		17,130	
2032	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.04			520,587	
		REPAIR			0.36	38,90,96,103,127,130,194, 205,221,227,232,511,520,543, 552,555,560,562,566,573,584, 587,606,609	
		TEST			0.44	17,130,205,221,292,293,295, 296,520,566,587	
2032	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.02				
		REPAIR			0.32	38,90,96,103,127,130,194,195, 205,221,227,232,511,543,552, 555,560,562,566,573,584,606, 609	
		TEST			0.28	17,130	
203204	CABLE ASSEMBLY, SPECIAL	FAULT LOCATION		0.70		17,130	
		REPAIR		0.18		48,50,51,75,90,103,130,149, 158,169,180,194,213,232,236, 390,428,510,525,529,545,546, 552,562,577,609,614,615	
		TEST	0.25			567	
2036	TPS, PNVS NITE SENSOR	FAULT LOCATION		0.12		17,130	
2036	CABLE ASSEMBLY, SPECIAL	FAULT LOCATION		0.70		17,130	
		REPAIR		0.13		17,48,51,90,98,103,130,152, 154,156,169,180,194,232,236, 390,510,525,529,545,546,562, 576,609	
		TEST	0.25			567	
2040	CABLE ASSEMBLY, SPECIAL,W44	FAULT LOCATION		0.71		17,130	
		REPAIR		0.15	0.30	17,48,51,90,98,103,130,152, 154,168,180,194,232,236,390, 510,525,529,545,546,562,576, 609	
		TEST	0.25			567	
2044	TPS, D/S SUBASSEMBLY	FAULT LOCATION		0.20		17,130	

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(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
2044	TARGET MOUNT	CALIBRATE				287,288	
		REMOVE/REPLACE	0.06			236	
		REPAIR			0.25	31,90,103,122,123,221,509, 606	
2044	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.02				
		REPAIR			0.35	38,90,96,103,127,130,194, 205,221,227,232,543,552,555, 560,562,566,573,584,606	
		TEST			0.36	17,130,292,299	
2044	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.02				
		REPAIR			0.33		
		TEST			0.21		
2044	LIGHT SOURCE ASSEMBLY	ALIGN			0.60	28,69,90,122,123,509	
		REMOVE/REPLACE	0.06			35	
		REPAIR			1.36	6,28,69,90,103,104,120,122, 123,124,200,221,246,509,606	
2044	CABLE ASSEMBLY SPECIAL	FAULT LOCATION		0.71		17,130	
		REPAIR		0.27	0.30	17,48,51,88,90,98,103,130, 140,152,154,168,180,194,232, 236,390,510,545,546,552,562, 576,609,614,615	
		TEST	0.25			567	
2048	TPS, HANDGRIP L & R	FAULT LOCATION		0.22		17,130	
2048	CABLE ASSEMBLY, SPECIAL	FAULT LOCATION		0.23		17,130	
		REPAIR		0.12		48,51,103,152,156,169,180, 194,236,510,545,562,576,609	
		TEST	0.25			567	
2052	CABLE ASSEMBLY, RF	FAULT LOCATION		0.08		17,130	
		REPAIR		0.10		90,103,510,525,529,562	
		TEST	0.25			567	
2052	TPS, TV CAMERA ASSEMBLY	FAULT LOCATION		0.11		17,130	
2052	CABLE ASSEMBLY, RF	FAULT LOCATION		0.08		17,130	
		REPAIR		0.09		90,103,510,525,529,562	
		TEST	0.25			567	
2052	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE		0.02			
		REPAIR			0.33	38,90,96,103,127,130,194, 205,221,227,232,511,543,552, 555,560,562,566,573,584,606, 609	
		TEST			0.20	17,130,300	
2050	CABLE ASSEMBLY, SPECIAL	FAULT LOCATION		0.17		17,130	
		REPAIR		0.11		48,51,103,149,152,157,158, 168,169,180,236,510,545,562, 609	
		TEST	0.25			567	
2052	CABLE ASSEMBLY, SPECIAL	FAULT LOCATION		0.71		17,130	
		REPAIR		0.20	0.30	17,48,51,90,98,103,130,149, 150,170,174,180,232,236,390, 510,525,529,545,546,562,609	
		TEST	0.25			567	
2056	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.06				
		REPAIR			0.31	38,90,96,103,127,130,194, 205,221,227,232,511,543,552, 555,560,562,566,573,584,606, 609	
		TEST			0.23	17,130	
2056	TPS, AZ DR GIMBAL ASSEMBLY	FAULT LOCATION		0.13		17,130	
2056	TOOL ASSEMBLY, ALIGNMENT	REMOVE/REPLACE	0.07				
		REPAIR			0.09	31,103,113,221,606	

MAINTENANCE ALLOCATION CHART (cont)

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
2056	CABLE ASSEMBLY, SPECIAL	FAULT LOCATION		0.19		17	
		REPAIR		0.11		48,51,103,130,155,168,180, 232,236,510,545,546,562,609	
		TEST	0.25			567	
2060	DIAL INDICATOR ASSEMBLY	REMOVE/REPLACE			0.13	103,127,221,606	
		CALIBRATE			0.07		
2060	DIAL INDICATOR ASSEMBLY	REMOVE/REPLACE	0.07				
		REPAIR			0.12	103,127,221,606	
2060	INDICATOR ASSEMBLY, ANGL	REMOVE/REPLACE	0.09			32	
		REPAIR		0.06		32	
2060	TPS, TURRET ASSEMBLY	FAULT LOCATION		0.15		17,130	
		REPAIR	0.04				
206004	CABLE ASSEMBLY, SPECIAL,W19	FAULT LOCATION		0.13		17,130	
		REPAIR		0.09		98,103,149,150,152,156,169, 170,171,173,510,545,609	
		TEST	0.25			567	
2060	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.02				
		REPAIR			0.33	38,90,96,103,127,130,194, 205,221,227,232,543,552,555, 560,562,566,573,584,606	
		TEST			0.17	17,130	
2060	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.04			520,587	
		REPAIR			0.36	38,90,96,103,127,130,194, 205,221,232,511,520,543,552, 555,560,562,566,573,584,606, 609	
		TEST			0.41	17,130,292,520,587	
2060	GIMBAL ALIGNMENT SET	CALIBRATE	10.00		10.00	177,328,575,594	
		REMOVE/REPLACE	0.10			214,361	
		REPAIR			1.23	24,40,72,86,97,103,120,127, 200,204,221,233,248,304,305, 349,546,562,606	
2060	FIXTURE, GIMBAL ALIGNMENT	OVERHAUL			5.52	32,40,70,72,103,127,200,203, 204,213,221,233,248,301,302, 305,349,395,519,606	
2060	AUTOCOLLIMATOR ASSEMBLY	ALIGN			0.25	20,35,74,200,221,303,348, 511,543	
		REPAIR			0.36	20,31,35,40,65,74,103,127, 200,204,214,221,303,348,362, 372,511,543,606	
		TEST			0.16	221,303	
2060	AUTOCOLLIMATOR	REMOVE/REPLACE			0.36	20,35,74,103,200,221,303, 348,511,543	
2060	MIRROR ASSEMBLY, ALIGNMENT	REPAIR			1.45	86,90,97,103,120,221,304, 546,562,606	
206008	CABLE ASSEMBLY, SPECIAL, ELEC	FAULT LOCATION		0.71		17,130	
		REPAIR		0.11	0.30	48,51,103,149,152,156,157, 158,168,169,180,194,232,510, 545,562,576,609	
		TEST	0.25			567	
206012	CABLE ASSEMBLY, SPECIAL, ELEC,W48	FAULT LOCATION		1.30		17,130	
		REPAIR		0.11	0.30	48,103,149,151,152,155,156, 157,158,168,169,180,194,232, 510,545,562,576,609	
		TEST	0.25			567	
206016	CABLE ASSEMBLY, SPECIAL, ELEC,W97	FAULT LOCATION		0.71		17,130	
		REPAIR		0.17	0.30	17,48,51,98,103,130,149,150, 151,152,155,156,158,168,170, 180,194,232,390,510,545,562, 576,609	
		TEST	0.25			567	

Section. II. MAINTENANCE ALLOCATION CHART FOR
EETF TADS/PNVS AUGMENTATION EQUIPMENT

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQPT	(6) REMARKS
			O	F	D		
2060	BACKLASH TOOL ASSEMBLY	OVERHAUL			0.08	33,221	
		REMOVE/REPLACE	0.10				
2060	SUPPORT ASSEMBLY, DIAL INDICATOR	OVERHAUL			0.44	20,103,166,221,306,604,606	
		REMOVE/REPLACE	0.10			29	
206020	CABLE ASSEMBLY, SPECIAL	FAULT LOCATION		0.71		17,130	
		REPAIR		0.10		48,51,103,130,152,156,169, 180,194,232,236,390,510,545, 546,552,562,576,577,609	
		TEST	0.25			567	
2060	CLAMP ASSEMBLY, PINION	REMOVE/REPLACE	0.06			33	
		REPAIR		0.05		33	
206024	ALIGNMENT TOOL, MTF	CALIBRATE			0.63	28,29,94,103,111,218,221, 318,327,334,344,353,475,490, 606	
		REMOVE/REPLACE	0.50			33,214,359,360,364,372,430, 546	
206024	TEST FIXTURE ASSEMBLY	CALIBRATE			8.00	111,330,331,475,505	
		REPAIR			1.07	1,2,8,26,29,31,90,91,103, 120,124,126,127,133,214,221, 250,307,308,309,360,364,372, 378,379,380,381,382,383,384, 385,606	
206024	SIM, TURRET INTERFACE	CALIBRATE	8.00			241,242,243,244	
		REPAIR			0.38	23,28,33,103,214,221,360, 364,372,606	
206024	CLAMP ASSEMBLY, GIMBAL	OVERHAUL			0.28	92,197,206,221,395,519	
		REMOVE/REPLACE		0.17		214,232,360,364,372	
206024	TEST FIXTURE	CALIBRATE	8.00			136,215,441,486,489,506	
		REPAIR			0.44	26,28,30,33,91,103,221,236, 310,311,546,606	
2060	BRACKET ASSEMBLY, SIGNAL	REMOVE/REPLACE	0.05			546	
		REPAIR		0.06		20	
2060	CLAMP, GIMBAL ALIGNMENT FIXTURE	OVERHAUL			0.16	92,96,103,221,511,544	
		REMOVE/REPLACE	0.16			214,360,364,372	
2064	TPS, POWER FRAME	FAULT LOCATION		0.16		17,130	
2064	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.02				
		REPAIR			0.32	38,90,96,103,127,130,194, 195,205,221,227,232,511,543, 552,555,560,566,573,584,606, 609	
		TEST			0.37	17,130,292,300	
2064	CABLE ASSEMBLY, SPECIAL, ELEC	FAULT LOCATION		0.50		17,130	
		REPAIR		0.14		17,48,51,88,90,103,130,140, 180,232,236,390,422,423,510, 545,546,562,609,614,615	
		TEST	0.25			567	
2068	TPS, POWER MODULE	FAULT LOCATION		0.49		17,130	
2068	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.02				
		REPAIR			0.32	38,90,96,103,127,130,194, 205,221,227,232,395,511,515, 543,549,550,552,555,560,562, 566,573,584,606,609	
		TEST			0.31	17,130	
2068	CABLE ASSEMBLY	FAULT LOCATION		0.70		17,130	
		REPAIR		0.16	0.30	17,48,51,88,90,103,130,140, 180,232,236,390,510,545,546, 552,562,609,614,615	
		TEST	0.25			567	

MAINTENANCE ALLOCATION CHART (cont)

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY O	F	D	(5) TOOLS AND EQPT	(6) REMARKS
2068	ELEC COMPONENT ASSEMBLY	REMOVE/REPLACE	0.02				
		REPAIR			0.24	90,96,103,127,194,195,205, 221,232,511,543,552,555,560, 562,566,573,584,606	
		TEST			0.44	17,130,292,300	
24	HARDWARE SET, AVIM	FAULT LOCATION		0.11		17,130	
24	CABLE ASSEMBLY, RF	FAULT LOCATION		0.08		17,130	
		REPAIR		0.14		17,75,90,98,103,130,213,367, 376,389,390,428,510,562	
		TEST	0.25			567	
24	CABLE ASSEMBLY, RF	FAULT LOCATION		0.08		17,130	
		REPAIR		0.14		17,75,90,98,103,130,213,367, 376,389,390,428,510,562	
		TEST	0.25			567	
24	ELEC COMPONENT ASSEMBLY	REMOVE/REPLACE	0.02				
		REPAIR			0.24	90,96,103,127,130,194,195, 221,232,511,543,552,555,560, 562,566,584,606,609	
		TEST			0.09	17,130	
2404	TERMINAL BOX ASSEMBLY	REMOVE/REPLACE	0.04			520,587	
		REPAIR			0.35	38,90,96,103,127,130,194, 197,205,221,227,232,511,520, 543,552,555,560,562,566,573, 584,587,606,609	
		TEST			0.53	17,130,292,293,296,312,313, 314,520,587	
24	TERMINAL BOX ASSEMBLY	FAULT LOCATION		0.18		17,233	
		REMOVE/REPLACE	0.06				
		REPAIR		0.11		103,184,195,232,233,390,510, 511,555,609	
		TEST		0.18		17,233	
24	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.02				
		REPAIR			0.32	38,90,96,103,127,130,194, 205,221,227,232,395,511,515, 543,549,550,552,555,560,562, 566,573,584,606,609	
		TEST			0.52	17,130,292,315	
28	CABINET ASSEMBLY	FAULT LOCATION			0.47		
		REMOVE/REPLACE	0.05				
		REPAIR			0.12		
		TEST			0.47	17,130,300	
28	ELEC COMPONENT ASSEMBLY	REMOVE/REPLACE	0.02				
		REPAIR			0.24		
		TEST			0.22		
28	HARDWARE SET, SUPPORT-COMMON	FAULT LOCATION		0.23		17,130	
28	CIRCUIT CARD ASSEMBLY	REMOVE/REPLAE	0.04			520,587	
		REPAIR			0.35	38,90,96,103,127,130,194, 195,205,221,227,232,395,511, 515,520,543,549,550,552,555, 560,562,566,573,584,587,606, 609	
		TEST			0.50	17,130,289,292,293,300,316, 317,520,587	
28	CIRCUIT CARD ASSEMBLY	REMOVE/REPLACE	0.02				
		REPAIR			0.32	38,90,96,103,127,130,194, 205,221,227,232,511,543,552, 555,560,562,566,573,584,606, 609	
		TEST			0.30	17,130	

MAINTENANCE ALLOCATION CHART (cont)

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQPT	(6) REMARKS
			O	F	D		
28	CABLE ASSEMBLY, SPECIAL, ELEC	FAULT LOCATION REPAIR TEST	 0.25	0.17 0.13			

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
01	D	WRENCH, SPANNER	-	A-30006
02	D	WRENCH, SPANNER	-	A-30047
03	D	WRENCH, SPANNER	-	A-30050
04	D	WRENCH, SPANNER	-	A-30056
05	D	WRENCH, SPANNER	-	A-30057
06	D	WRENCH, SPANNER	-	A-30059
07	D	WRENCH, SPANNER	-	A-30063
08	D	ASSEMBLY, AID	-	A-40004
09	D	ASSEMBLY, AID	-	A-40051
10	D	FIXTURE, LOAD	-	A-40058EZ
11	D	FIXTURE, LOAD	-	A-40059
12	D	FIXTURE, LOAD	-	A-40060
13	D	ASSEMBLY, AID	-	A-40061
14	D	ASSEMBLY, AID	-	A-40063
15	D,F	WR, OE 5/32 & 3/16	-	A-1356
16	D,O	EXTENDER CARD	-	AC70
17	D,F,O	MULTIMETER, DIGITAL	5990-01-139-2512	AN/PSM-45
18	F	WR, CRFT 7/16 & 1/4 DR	5120-00-184-8410	AN8508-7
19	D	WRENCH, JAM NUT	-	AT 1
20	D,F,O	PLIERS, SLIP JOINT	5120-00-624-8065	AT508K
21	D,F	KEY, SKT HD 5/16 IN	5120-00-198-5409	AWL10

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
22	O	KEY, SKT HD 18 IN	5120-00-198-5412	AWL4
23	D,F	KEY, SKT HD 5/16 IN	5120-00-240-5274	AW1O
24	D,F	KEY, SKT HD 3/8 IN	5120-00-198-5390	AW12
25	D,F	KEY, SKT HD 1/16 IN	5120-00-198-5398	AW2
26	D,F	KEY, SKT HD 5/64 IN	5120-01-224-2504	AW2-1/2
27	O	KEY, SKT HD 5/8 IN	5120-00-224-2510	AW20
28	D,F,O	KEY, SKT HD 3/32 IN	5120-00-221-8036	AW3
29	D,F,O	KEY, SKT HD 7/64 IN	5120-01-144-7853	AW3-1/2
30	D,F	KEY, SKT HD 1/8 IN	5120-00-240-5292	AW4
31	D,F,O	KEY, SKT HD 9/64 IN	5120-01-142-9855	AW4-1/2
32	D,F,O	KEY, SKT HD 5/32 IN	5120-00-198-5392	AW5
33	D,F,O	KEY, SKT HD 3/16 IN	-	AW6
34	D	KEY, SKT HD 7/32 IN	5120-00-241-3179	AW7
35	D,F,O	KEY, SKT HD 1/4 IN	5120-00-224-4659	AW8
36	O	INTERFACE STATION	-	A13A8J106
37	0	SELF TEST CABLE	5995-01-220-7908	A3003942
38	D	LIGHT, BLACK	6635-00-611-5617	B-1OOXR
39	D,O	VOLTMETER, DIGITAL	-	BALLANTINE 9632M
40	D,F	HAMMER, BALLPEEN 4 OZ	5120-00-243-2985	BPS7-O
41	D,F	HAMMER, HAND 4 OZ	-	BP4A
42	D,F,O	WRENCH, STRAP	5120-01-160-8219	BT-BS-601

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
43	F	WRENCH, JAM NUT	-	BT-BS-700
44	F	CRIMP TOOL, POWER	-	CBT-600
45	F	GAUGE	-	CCH-4
46	F	CRIMP HEAD	-	CCH-4-1
47	F	LOCATOR	-	CCHP-4-1
48	D,F	TOOL, CRIMP, HAND	5120-01-019-0812	CCT-DL
49	F	CRIMPING TOOL	-	CCT-DM
50	F	TOOL, EXTRACTION	5120-00-963-7661	CET-C6B
51	D,F	TOOL, CONTACT EXTRN	5120-01-019-0803	CET-DL-2
52	F	EXTRACT TOOL, FRONT	5120-01-162-9472	CET-ECP
53	F	TOOL, EXTRACTION	-	CET-12-2
54	F	TOOL, EXTRACTION	-	CET-16-4
55	F	TOOL, EXTRACTION	-	CET-4
56	D,F	TOOL, INSERTION	-	CIT-12
57	D,F	TOOL, INSERTION	-	CIT-16
58	F	TOOL, INSERTION	-	CIT-4
59	D	SPS BASIC	-	CP58000 OPT.1
60	F	CRIMP TOOL	-	CT 3
61	D	DRILL, TWIST 5/32 IN	-	DBF5/32B
62	D	MULTIMETER, DIGITAL	-	DM 501A
63	F	SKT, 12PT 5/16 & 1/4 D	5120-00-021-2022	D3121-471OT

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
64	F	SKT, 12PT 11/32, 1/4 DR	5120-00-242-3351	D3121-4711T
65	D	SKT, 12PT 3/8 & 1/4 DR	5120-00-242-3352	D3121-4712T
66	D	SKT, 12PT 7/16, 1/4 DR	5120-00-235-5869	D3121-4714T
67	D,F	WR, ADJUSTABLE 10 IN	5120-00-449-8083	D71O
68	D,F	WR, ADJ O TO 0.760	5120-00-264-3796	D76
69	D	COMPARATOR, OPTICAL	-	EQ728632
70	D	BIT, HEX 5/32 IN 3/8 DR	5120-00-555-2353	FA 5L
71	D,F	BIT, HEX 5/16 IN 3/8 DR	5120-00-683-8602	FA1OB
72	D,F	BIT, HEX 3/8 IN 3/8 DR	5120-00-596-1199	FA12A
73	D,F,O	BIT, HEX 9/64 IN 3/8 DR	5120-00-935-7474	FA4.5A
74	D	BIT, HEX 1/4 IN 3/8 DR	5120-00-596-8508	FA8A
75	F	CROWFOOT 7/16 & 3/8 DR	5120-00-184-8384	FC14
76	D	FUNCTION GENERATOR	6625-01-106-987:	FG 501A
77	D	VOLTMETER, DIGITAL		FLUKE 8840
78	F	EXT,SKT WR 3 IN, 3/8 DR	5120-00-243-168!	FX2
79	D,F,O	EXT,SKT WR 6 IN, 3/8 DR	5120-00-227-810′	FX6

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
80	O	TONGS, FUSE	-	FZ4A
81	D,F	SKT, REG 7/16, 3/8 DR	5120-00-227-6703	F141
82	D	SKT, REG 9/16, 3/8 DR	5120-00-227-6704	F181
83	F	SKT, REG 5/8, 3/8 DR	5120-00-935-7414	F201
84	D,F	SKT, REG 3/4, 3/8 DR	5120-00-935-7416	F241
85	F	SKT, DP 1 IN, 3/8 DR	5120-00-177-6859	F321
86	D	GAGE, THICKNESS	5120-00-221-1999	F71371
87	D,F	STRIPPER, WIRE 8-22	5110-00-268-4224	GA116
88	F	FRAME, JEWELERS SAW	-	GGF671TY5CL1B
89	O	GAGE, THICKNESS	5120-00-031-1504	GGG-G-17TY8CL1
90	D,F,O	KNIFE, CRAFTSMAN	5110-00-359-6479	GGG-K-450
91	D,F,O	SCRIBER, MACHINIST	5120-00-596-1543	GGG-S-131
92	D	VISE, MACHINE TABLE	-	GGG-V-00443TY1
93	D	BLADE, JEWELERS SAW	5110-00-224-6343	GGGB471TYII
94	D,F	CALIPER O-1 IN 0.0001	5120-00-088-1945	GGGC105
95	D	FRAME, JEWELERS SAW	-	GGGF671TY5CL1B
96	D	HAMMER, HAND 8 OZ	5120-00-224-4134	GGGH86
97	D	KNIFE, PUTTY	5120-00-223-7779	GGGK481
98	D,F,O	KNIFE, POCKET	-	GGGK484DTY2CL1
99	D	PUNCH, DR PIN 3/8 IN	-	GGGP831-3/8
100	D,F	PUNCH, DR PIN 1/16 IN	-	GGGP831B-1/16
101	D,F	PLIERS, WIRE TWISTER	5120-00-542-4171	GGGW340SIZE12

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
102	D,F,O	WR, BX & OE 1/4 IN	-	GGGW636-1/4
103	D,F,O	GOGGLES, INDUSTRIAL	4240-00-288-9123	GGG531CL1
104	D	SKT, 8PT 1/2, 3/8 OR	-	GT44345
105	F	PLIERS, INTERLOCKING	5120-00-781-0819	HL112P
106	D,O	MULTIMETER, DIGITAL	-	HP3456A
107	O	COUNTER, FREQUENCY	-	HP5315A
108	D	BIT, SCDR HI TQ NO. 1	5120-00-903-8938	HTS1
109	D	BIT, SCDR HI TQ NO. 3	5120-00-863-4944	HTS3
110	D	BIT, SCDR HI TQ NO. 4	-	HTS4
111	D	ILLUMINATOR	6625-01-222-1255	I-250
112	D,F	WRENCH, JAM UNIT	-	JR700
113	D,F	KEY, SKT HD 3/16 IN	5120-00-240-5300	K229
114	F	FACESHIELD, INDSTRL	4240-00-542-2048	L-F-36STYLEBSZ3
115	F,O	PAIL, PLASTIC 5-QT	7240-00-246-1097	L-P-65
116	F	BALL DRIVER HEX, 1/8	-	LN724BP
117	D	CONTROLLER, INSTR	-	MICRO 11
118	F	VACUUM CLEANER	7910-00-530-6260	MIL-C-52074 TY1
119	D,F,O	APRON, HEAVY DUTY	-	MILA41829
120	D	BALANCE, TRIP	6670-00-401-7195	MILB43714STY2SZ2
121	D	YAG LASER	-	MODEL LLS NT-90
122	D	UNIV ILLUMINATOR	-	MODEL LSD
123	D	TRANSFORMER	-	MODEL TE-11

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
124	D	PENCIL, VACUUM	-	MODEL VUP-1OO
125	O	THERMOMETER, MINCO	-	MODEL X531-20B
126	D	INDICATOR, DIAL	-	MODEL 2414
127	D	OVEN, PRECISION SCIE	-	MODEL 31543
128	D	CALORIMETER	-	MODEL 3600
129	D	MONITOR, TV	-	MODEL 38-V 20101
130	D,F	HOLDER, PANAVISE PCB	-	MODEL 396
131	D	MOUNT, TRIPOD HEAD	-	MODEL 4-72011-6
132	D	TRIPOD	-	MODEL 4-73010-7
133	D	DEGREASER, ULTASONIC	-	MODEL 4144
134	O	COUNTER, H/P	-	MODEL 5345A
135	D	AUTOCOLLIMATOR	-	MODEL 6D
136	O	OSCILLOSCOPE	-	MODEL 745
137	D	ALIGNMENT TELESCOPE	-	MODEL 81
138	D	SCOPE MOUNT	-	MODEL 89
139	F	TOOL, FRAME	-	MS-3191-A
140	F	BLADE, HAND, HACKSAW	-	MSS1032
141	F	TOOL, CRIMP	-	MS22520/10-01
142	F	DIE	-	MS22520/10-101
143	D,F	TOOL, INSERTION	5120-00-079-4599	MS24256A16
144	F	TOOL, INSERTION	5120-00-079-4598	MS24256A20
145	D,F	TOOL, EXTRACTION	5120-00-079-4602	MS24256R16

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
146	F	TOOL, INSERTION	5120-00-079-4601	MS24256R20
147	D	TOOL, INSTALL	5120-00-132-5218	MS3160-16
148	F	TOOL, HAND CRIMP	5120-00-596-9313	MS90413-1
149	D,F	TOOL, HAND CRIMP	5120-00-165-3912	M22520/1-01
150	D,F	TOOL, CRIMP POSITION	5120-00-016-6382	M22520/1-02
151	D,F	TOOL, CRIMP POSITION	5120-00-016-7582	M22520/1-04
152	D,F	TOOL, HAND CRIMP	5120-00-165-3910	M22520/2-01
153	D,F	TOOL, CRIMP POSITION	5120-00-165-3913	M22520/2-02
154	F	TOOL, CRIMP POSITION	5120-00-017-3809	M22520/2-06
155	D,F	TOOL, CRIMP POSITION	5120-00-017-3827	M22520/2-07
156	D,F	TOOL, CRIMP POSITION	5120-00-017-3921	M22520/2-08
157	D,F	TOOL, CRIMP POSITION	5120-00-017-3927	M22520/2-09
158	D,F	TOOL, CRIMP POSITION	5120-00-017-3932	M22520/2-10
159	F	TOOL, CRIMP POSITION	-	M22520/2-35
160	F	TOOL, HAND CRIMP	-	M22520/4-01
161	F	TOOL, CRIMP POSITION	5120-00-017-4142	M22520/4-02
162	D,F	TOOL, HAND CRIMP	5120-00-132-6913	M22520/5-01
163	D,F	TOOL, DIE CRIMP	5120-00-126-0860	M22520/5-100
164	D,F	TOOL, HAND CRIMP	5120-00-275-2664	M22520/7-01
165	D,F	TOOL, POSITIONER	-	M22520/7-02
166	D,F	KEY, SKT HD 0.094 IN	-	M332

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
167	D	WRENCH, SPANNER	-	M55302/57-01
168	D,F	TOOL, INSTALL/REMOVE	5120-00-018-0575	M81969/14-01
169	D,F	TOOL, INSTALL/REMOVE	5120-00-915-4587	M81969/14-02
170	D,F	TOOL, INSTALL/REMOVE	5120-00-915-4988	M81969/14-03
171	D,F	TOOL, INSTALL	5120-00-079-4598	M81969/17-03
172	D,F	TOOL, INSERTION	5120-00-079-4599	M81969/17-04
173	D,F	TOOL, REMOVAL	5120-00-079-4601	M81969/19-07
174	D,F	TOOL, REMOVAL	5120-00-079-4602	M81969/19-08
175	D,F	TOOL, INSTALL/REMOVE	5120-00-018-0529	M81969/8-07
176	F	TOOL, REMOVE	5120-00-409-5206	M81969/8-08
177	O	AUTOCOLLIMATOR	-	NIKON 8D
178	F	PLIERS, NEEDLE NOSE	5120-00-900-0444	NN56R
179	F	DIE, CRIMP TOOL	-	NO. C
180	D,F,O	WR, BX & OE 5/16 IN	5120-00-228-9503	OEX1OO
181	D,F,O	WR, BX & OE 3/8 STD	5120-00-228-9504	OEX120
182	D,F,O	WR, BX & OE 7/16 STD	5120-00-228-9505	OEX140
183	F	WR, BX & OE 1/2 LG HDL	-	0EX16
184	D,F	WR, BX & OE 1/2 IN	5120-00-228-9506	0EX160
185	F	WR, BX & OE 9/16 STD	5120-00-228-9507	0EX180
186	D,F	WR, BX & OE 5/8 STD	5120-00-228-9508	OEX200
187	O	WR, BX & OE 3/4 IN	5120-00-228-9510	0EX24

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
188	D	WR, BX & OE 7/8 IN	-	0EX28
189	D	WR, BX & OE 1-1/8 IN ST	-	0EX34
190	D	WR, BX & OE 1-1/4 IN ST	-	0EX36
191	D,F	WR, BX & OE 5/16 MIDGE	-	OXI-10
192	D,F,O	WR, BX & OE 11/32 MIDGE	-	OXI-11
193	F	WR, BX & OE 3/8 MIDGE	-	OXI-12
194	D,F	WR, BX & OE 5/32 MIDGE	5120-00-132-0492	OXI-5
195	D,F	WR, BX & OE 3/16 MIDGE	-	OXI-6
196	D,F,O	WR, BX & OE 7/32 MIDGE	-	OXI-7
197	D,F,O	WR, BX & OE 1/4 MIDGE	-	OXI-8
198	D	PALLET	-	PALLET
199	D	PUNCH, DR PIN 3/16 IN	-	PC208
200	D,F,O	HDL, RATCHET 3/8 DR	-	PF720
201	D	PULSE GENERATOR	-	PG 502
202	D	GENERATOR, CALIBRATOR	-	PG 506
203	O	PUNCH, DR PIN 1/8 IN	5120-00-187-9389	PPC104A
204	D	PUNCH, DR PIN 1/4 IN	-	PPC108A
205	D,F	KIT, SOLDERING	4940-01-031-4541	PRC350C

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
206	D	PLIERS, RETAINING RNG	-	PR12A
207	D	SPOTMETER	-	PR1500
208	D	PLIERS, RETAINING RNG	-	PR34A
209	O	PROBE, CURRENT	6625-01-048-9351	P6021OPT.13
210	D	PROBE	-	P6053B
211	D	PROBE	-	P6056
212	D	PROBE	6625-00-477-1383	P6106A
213	D,F	WR, TQ 5-50 IN 1/4 DF	5120-01-191-4497	QJR1ORA
214	D,F,O	WR, TQ 30-200 IN-LB 1/4 DF	-	QJ117B
215	O	CONRAC MONITOR	-	QQA/14Rs
216	D	COORD. MEAS MACHINE	-	RCH404-18
217	D,F	ROLALIFT	-	ROLALIFT
218	D	SHOP AID, BLOCK	-	SA-012044
219	D	ADAPTER	6625-01-652-9922	SA-1
220	D,F	KEY, SKT HD 5/64 IN	-	SCC131809GP4
221	D,F,O	TOOL KIT, TECH INSP	5180-00-323-5114	SC518099CLA09
222	O	SCDR, FT	-	SD8
223	D	SKT, DP 1/2, 3/8 DR	-	SF161
224	D	GENERATOR, SIGNAL	-	SG 503
225	D	MULTIMETER	-	SIMPSON 260

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
226	D,O	CABLE, COAXIAL	5995-01-101-0567	SM-D-869641-4
227	D	KNIFE, THERMAL	-	SP23HK
228	D,F	SCDR, FT 3/16 X 3 IN	-	SSDE63B
229	D	SCDR, FT 3/16 X 8 IN	-	SSDE68B
230	O	SCDR, CT NO. 2 16 IN	5120-00-166-7984	SSDP216
231	D	SCDR, CT NO. 2 1.5 IN	5120-00-227-7293	SSDP22
232	D,F,O	SCDR, CT NO. 1, 3 IN	5120-00-240-8716	SSDP31
233	D,F,O	SCDR, CT NO. 2, 4 IN	5120-00-234-8913	SSDP42
234	D,F,O	SCDR, CT NO. 3, 6 IN	5120-00-234-8912	SSDP63
235	D,F,O	SCDR, FT 1/4 X 1.5 IN	5120-00-596-8502	SSD1
236	D,F,O	SCDR, FT 1/8 X 2 IN	5120-00-236-2140	SSD204
237	D,F,O	SCDR, FT 1/4 X 4 IN	5120-00-222-8852	SSD4
238	D,F,O	SCDR, FT 5/16 X 6 IN	5120-00-234-8910	SSD6
239	D	SCDR, FT 3/8 X 8 IN	-	SSD8
240	D	ROTARY, SWITCH, MINCO	-	SS8005
241	O	MICROMETER	-	STARRETT MODEL T
242	0	RIGHT ANGLE BLOCK	-	STARRETT MODEL 8
243	0	DIAL INDICATOR	-	STARRETT NO. 711
244	0	HEIGHT GAUGE, ELEC	-	STARRETT NO. 754
245	F	STRIPPING CASSETTE	-	STC-W
246	D	EXT, SKT WR 2 IN 3/8 DR	-	SX2

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
247	D	VACUUM JAR	-	S15720
248	D	ADPTR, SKT l/4F-3/8M	5120-00-224-9219	TA3
249	O	OVEN	-	TBD7KAB19J
250	D	FLOW BOOTH, 10000	-	TBD7K1J
251	D	TEMP. SOURCE, 25C	-	TBD8ABTAPBDBAA1B
252	D	PWR STRIP, 2 OUTLET	-	TBD8ABTAPBD1F
253	D	LIFT SLING/STRAP	-	TBD8ABTAXAPHUA1H
254	O	TOOL, ALIGNMENT	-	TBD8ABTAXAPTAA2F
255	0	TOOL, YOKE ALIGNMENT	-	TBD8ABTAXAPTAA3F
256	D,O	CABLE, COAXIAL	-	TBD8ABTAXAP2F
257	D	ALIGNMENT TOOL	-	TBD8ABTAXAXCAA1F
258	D	PRISM UNIT	-	TBD8ABTAXAXDAA1F
259	D	LAMP, AUTOCOLLIMATOR	-	TBD8ABTAXAXDAA2F
260	D	CABLE ASSY, RF	-	TBD8ABTAXADAA3F
261	D	CABLE ASSY, DIU	-	TBD8ABTAXAXDAA4F
262	O	CONNECT, BNC-TO-CLIP	-	TBD8ABTAXAGKW1F
263	0	CABLE ASSY, RF	-	TBD8ABTAXAXGKW2F
264	0,0	ADAPTER, BANANA PIN	-	TBD8ABTAXAXLZA1F
265	D,O	SHORTING PLUG, COAX	-	TBD8ABTAXAXLZA2F
266	D	WRENCH, SPANNER	-	TBD8ABTAXBXEUA1J
267	D	LADDER, STEP	-	TBD8ABTAXBXFQA1N

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
268	D	WRENCH, SPANNER	-	TBD8ABTAXBXGJA1J
269	D	MIC, INSIDE 0.0001	-	TBD8ABTAXBXQDK1K
270	D	MIC, OUTSIDE 0.0001	-	TBD8ABTAXBXQDK2K
271	F	WRENCH FOR 22NTM-82	-	TBD8ABTAXBX7H
272	D	SKT, REG 1-1/2, 3/8 DR	-	TBD8ABTCPMG1F
273	D	MICROMETER	-	TBD8ABTCPMG2F
274	D	CABLE, TEST, RF	-	TBD8ABTCPMG3F
275	D	WR, BX & OE 1-1/2 IN	-	TBD8ABTCPMG5F
276	D	TABLE, GRANITE	-	TBD8ABTCPQG1F
277	D	LAP TOOL, 2.250 IN	-	TBD8ABTCPQG1K
278	D	5 VDC POWER SUPPLY	-	TBD8ALCAPAXPGS1N
279	D	SLING	-	TBD8ALCAPAXVMS1J
280	D	POWER SUPPLY, 28 VDC	-	TBD8ALCAPAXVMS1N
281	D	DEVICE, LIFTING	-	TBD8ALCAPAXVMS2J
282	D	KEY METRIC	-	TBD8ALCAPAX2RE1J
283	D	KEY, SOCKET HEAD	-	TBD8ALCAPAX2RE2J
284	D	KG-3 LASER GOGGLES	-	TBD8ALCAPAX3BA4F
285	D	TRIPOD HEAD	-	TBD8ALCAXBG1F
286	0	THERMAL CAL TOOLS	-	TBD8ALCBX1F
287	0	DEPTH GAGE	-	TBD8ALEMGEG1F
288	0	COMPARATOR, OPTICAL	-	TBD8ALEMGEG2F

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
289	D	RESISTOR, 100 OHM	-	TBD8XACAMC1B
290	D	RESISTOR, 825, 1/8 W	-	TBD8XACATAM1B
291	D	RESISTOR, 500 OHM	-	TBD8XACATLA1B
292	D,F	POWER SUPPLY, DCV	-	TBD8XACATMA1B
293	D	JUMPER	-	TBD8XACATMA2B
294	D	RESISTOR, 10K 1/4 W	-	TBD8XACATMA3B
295	D	GENERATOR, SQ. WAVE	-	TBD8XACATMA4B
296	D	OSCILLOSCOPE	-	TBD8XACATMA5B
297	F	WRENCH, OPEN END	-	TBD8XACBFEA1J
298	D	TESTER, INDUCTANCE	-	TBD8XACBFGA1B
299	D	GENERATOR, SIGNAL	-	TBD8XACFABA1B
300	D	METER, LCR	-	TBD8XACMAGA1B
301	D	FIXTURE, ASSEMBLY	-	TBD8XACUSBXAA1K
302	D	FIXTURE, DRILL	-	TBD8XACUSBXBAA2K
303	D	FIXTURE, ALIGNMENT	-	TBD8XACUSBXDKU1H
304	D	FIXTURE, GIMBAL ALIGN	-	TBD8XACUSBX1F
305	D	FIXTURE, ASSEMBLY	-	TBD8XACUSBX2F
306	D	ROD, 1/2 IN DIAMETER	-	TBD8XACUSCK1K
307	D	WRENCH, SPANNER	-	TBD8XACUSTGADQ1J
308	D	ILLUMINATOR, SCOPE	-	TBD8XACUSTGADQ2J
309	D	INDICATOR, DIAL	-	TBD8XACUSTGADQ3J

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
310	D	WRENCH, SPANNER	-	TBD8XACUSTGUBQ1J
311	D	WRENCH, SPANNER	-	TBD8XACUSTGUBQ2J
312	D	POWER SUPPLY, ACV	-	TBD8XAFGA1B
313	D	GENERATOR, SINE WAVE	-	TBD8XAFGA2B
314	D	RESISTOR, 178 OHM	-	TBD8XAFGA3B
315	D	RESISTOR, 100 OHM	-	TBD8XAFTA1B
316	D	POWER SUPPLY, ACV	-	TBD8XARBA1B
317	D	RESISTOR, 100 OHM	-	TBD8XARBA2B
318	D	ADPTR, LIGHT UNIT	-	TE-782058 UNIT 2
319	D	CABLE, TEST 1W6	-	TE-781OO2
320	D	CAMERA	-	TE-782004
321	D	TOOL, CAMERA	-	TE-782004 UNIT 7
322	D	RETICLE, MUX SIM	-	TE-782036 UNIT 2
323	D	RETICLE, MUX SIM	-	TE-782036 UNIT 3
324	D	SIMULATOR, DTV	-	TE-782036 UNIT 4
325	D	MICROSCOPE, MEASURE	-	TE-782036 UNIT 7
326	O	TOOL, FIR FOCUS	-	TE-782050
327	D	TOOL, MASTER REF	-	TE-782058
328	D,O	FIXTURE, CALIBRATION	-	TE-782061
329	O	TOOL, EXT CAM ALIGN	-	TE-782062
330	D	TOOL, CAM ALIGN #3	-	TE-782062 UNIT 3

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cOnt)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
331	D	TOOL, CAM ALIGN #4	-	TE-782062 UNIT 4
332	D	HEAD, INSTRUMENT	-	TE-782069 UNIT 1
333	D	EMITTER, REFERENCE	-	TE-782070
334	D	TOOL, CID SIM ALIGN	-	TE-782071
335	D	TELESCOPE	-	TE-782072 UNIT 1
336	D	MICROSCOPE	-	TE-782072 UNIT 2
337	D	TOOL, CALIBRATION	-	TE-782072 UNIT 3
338	D	TOOL, CALIBRATION	-	TE-782072 UNIT 4
339	D	TOOL, RETICLE	-	TE-782072 UNIT 5
340	D	FILTER, RED	-	TE-782072 UNIT 6
341	D	CABLE ASSY, PS	-	TE-782073/W6
342	D	TOOL, BORESITE ALIGN	-	TE-7821OO UNIT 4
343	D	OSCILLOSCOPE	-	TEKTRONIX 4K65
344	D,O	OSCILLOSCOPE	-	TEK 475A
345	D	DISPLAY	-	TEK 620
346	D	OSCILLOSCOPE, TEK	-	TEK 7104
347	O	OSCILLOSCOPE	-	TEK 475
348	D	WR,TQ 0-150 IN-LB 3/8 DR	-	TE12A
349	D	WR,TQ 0-30 IN-LB 1/4 DR	-	TE3A
350	D	WR,TQ 0-50 FT-LB 3/8 DR	-	TE50FA

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
351	D	GENERATOR, TIME MARK	-	TG 501
352	D,F	LOCATOR, CRIMP TOOL	-	TH-70-1
353	D	CALCULATOR, POCKET	-	TI-35-11
354	D	MODULE, POWER	-	TM 503
355	D,F	BIT, HEX 3/32 IN, 1/4 DR	5120-00-596-0930	TMA3
356	D,F	BIT, HEX 7/64 IN, 1/4 DR	5120-00-761-2015	TMA3.5
357	O	BIT, HEX 1/8 IN, 1/4 DR	5120-00-596-0934	TMA4
358	D,F	BIT, HEX 5/32 IN, 1/4 DR	5120-00-596-0940	TMA5
359	D,F,O	BIT, HEX 3/16 IN, 1/4 DR	5120-00-596-0938	TMA6
360	D,F,O	BIT, HEX 1/4 IN, 1/4 DR	-	TMA8
361	O	SPINNER, RATCHET 1/4 DR	5120-00-924-7813	TMS70
362	D,F	EXT, SKT WR 2 IN, 1/4 DR	-	TMX-2
363	D,F,O	EXT, SKT WR 4 IN, 1/4 DR	5120-00-107-0055	TMX-4
364	D,F,O	EXT, SKT WR 6 IN, 1/4 DR	5120-00-066-1529	TMX60
365	D,F	SKT, REG 5/32, 1/4 OR	5120-00-962-8343	TM05
366	D,F	SKT, REG 5/16, 1/4 DR	5120-00-918-2216	TM1O

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
367	D,F	SKT, REG 1/2, 1/4 DR	-	TM16
368	D,F,O	HDL, SPIN 1/4 DR	-	TM4A
369	D	HDL, SPIN RIGID 1/4 DR	5120-00-293-1096	TM4CS
370	D,F,O	SKT, REG 3/16, 1/4 DR	5120-00-236-2262	TM 6
371	F,O	EXT, FLEX, SKT 1/4 DR	5120-00-240-1532	TM61
372	D,F,O	HDL, RATCHET 1/4 DR	5120-00-221-7957	TM708
373	O	SKT, REG 1/4 DR	5120-00-236-2264	TM8
374	D,F	LOCATOR, CRIMP TOOL		TP567
375	D	DR, TQ O-48 IN-OZ 1/4 DR	5120-00-044-2979	TQS025
376	F	DR, TQ 0-50 IN-LB 1/4 DR	5120-00-401-0692	TQS4
377	O	AMPLIFIER, CURRENT	-	TYPE 134, 11OV
378	D	TOOL, ASSEMBLY	-	T7-781299
379	D	TOOL, TEST	-	T8-781083
380	D	FIELD LENS & MOUNT	-	T8-781083 UNIT 1
381	D	MICROSCOPE & MOUNT	-	T8-781083 UNIT 2
382	D	RETICLE & MOUNT	-	T8-781083 UNIT 3
383	D	DVO RETICLE & MOUNT	-	T8-781083 UNIT 8

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
384	D	FIELD LENS & MOUNT	-	T8-781083 UNIT 9
385	D	TARGET, RESOLUTION	-	T8-781083 UNIT 12
386	D	GENERATOR, SIGNAL	-	WAVE TEK 142
387	D	DRILL, ELECTRIC, PORT	-	WDO0661
388	D,F	GUN, SOLDERING	3439-00-542-0396	WS564
389	F	TOOL, CRIMP	-	WT-203
390	D,F	KIT, SOLDER/ DESOLDER	-	WTCPK
391	D	WR, FLANK 3/16-13/64	-	XID1213
392	D	PLAT. RES. THERM.	-	X59690PM1X36
393	D	MIRROR, 16 IN FLAT	-	ZYGO 16 IN MIR
394	F	GLOVES, RUBBER PR	8415-00-266-8674	ZZG381TY1CL2
395	D	PRESS, DRILL	-	00-D-676,CL1SZ14
396	D	TERMINATION, 50-OHM	-	011-0049-01
397	D	ATTENUATOR, 10X	-	011-0059-01
398	D	ATTENUATOR, 10X	-	011-0059-02
399	D	CABLE, COAXIAL	-	012-0057-01
400	O	CABLE	-	012-0104-00
401	D,F,O	JUMPER LEAD	-	012-0181-00
402	D	CABLE, BNC	-	012-0482-00
403	D	PROBE TIP TO BNC		013-0084-01

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
404	O	AMPLIFIER, CURRENT PROBE	-	015-0058-01
405	F	SCDR, OFFSET FT 1/4	5965-01-230-5521	020
406	D	INTERFACE, GPIB	-	021-0391-00
407	D	TEST LEAD SET	-	030-0120-00
408	D,F	KEY, SKT HD 0.50 IN	5120-00-198-5401	050
409	F	TOOL, INSTALL	5120-00-904-3510	06-1742-04
410	F	TOOL, REMOVE	5120-00-056-8122	06-1877-04
411	F	TOOL, POLARIZING	5120-00-138-3792	06-1989-02
412	F	CRIMPING TOOL, HAND	5120-01-042-8219	06-7515-01
413	F	TOOL, INSTALLATION	-	06-7638-01
414	F	TOOL, HAND CRIMP	-	06-7852-01
415	D	SOFTWARE, CALIBRATION	-	062-8873-00
416	D	COUPLER, DUAL INPUT	-	067-5025-01
417	D	NORMALIZER, RC	-	067-0538-00
418	D	FIXTURE, CALIBRATION	-	067-0587-10
419	D	EXTENDER, PLUG-IN	-	067-0589-00
420	D	ADAPTR, T	-	103-0030-00
421	D	ADAPTER	-	103-0090-00
422	F	TOOL, EXTRACTION	5120-00-122-8357	11-10368
423	F	TOOL, INSERTION	5120-00-122-1125	11-10372

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
424	F	CRIMPING TOOL ASSY	5120-00-017-4145	11-7295
425	D	FILTER, LOW PASS	-	119-1813-00
426	D	FILTER, LOW PASS	-	119-1814-00
427	D	FILTER, LOW PASS	-	119-1815-00
428	F	VISE, BENCH, UTILITY	3460-00-221-1104	12
429	F	WR, BX & OE 13/16 IN	5120-00-228-9511	1226
430	O	CABLE ASSY, SPECIAL	-	13081448
431	D,O	CABLE ASSY, SPECIAL	-	13081531
432	D,F	TPS, IVD ELECTRONICS	-	13081533-29
433	D,O	CABLE ASSY, RF	5995-01-224-2536	13081706
434	O	CABLE ASSY, RF	5995-01-226-2439	13081706-29
435	D,O	CABLE ASSY, RF	-	13081706-69
436	O	CIRCUIT CARD ASSY	6625-01-220-7945	13081830
437	0	CONNECTOR, SELF TEST	5935-01-656-5500	13081833
438	D,O	CABLE ASSY, SPECIAL, ELECT	-	13081836
439	0	CABLE ASSY, SP, SPECIAL, ELECT	-	13081837
440	0	RADIOMETER BRACKET	-	13081875
441	0	TEST FIXTURE ASSY	-	13081963
442	D,O	CAMERA BRACKET ASSY	-	13082029-39
443	D	INSERT/ADAPTER ASSY	-	13082064-39

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
444	D,O	ALIGNMENT TOOL ASSEMBLY	5120-01-221-0371	13082071-19
445	D,O	CIRCUIT CARD ASSEMBLY	6625-01-220-7923	13082310
446	D	CIRCUIT CARD ASSEMBLY	6625-01-226-2535	13082317
447	O	CIRCUIT CARD ASSEMBLY	6625-01-220-7938	13082365
448	D	ELECT ASSY-A8-6	6625-01-223-8383	13082404
449	O	CIRCUIT CARD ASSEMBLY	6625-01-226-2539	13082411
450	D	KEY, POLARIZING	5935-01-235-3382	13082470
451	D	TPS, PS ASSY	-	13082503
452	D	TPS, RANGE CNTR CCA	-	13082509-19
453	D	TPS, VID PREAMP CCA	-	13082515
454	D	TPS, BIT PAT GEN CCA	-	13082516
455	D	TPS, VERT SYNC CCA	-	13082517
456	D	TPS, HV PS ASSY	-	13082519
457	D	TPS, FOCUS REG CCA	-	13082520
458	D	TPS, ELEV MIRROR ASSEMBLY	-	13082522
459	D	TPS, BORESIGHT ASSEMBLY	-	13082529-19
460	D	TPS, I-IV PS ASSY	-	13082575

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
461	D,F	ELECTRONIC STATION	-	13082701-29
462	D,F	TEST BENCH, ELEC/OPTICAL	-	13082704-39
463	D,O	CABLE ASSY, POWER	-	13082730
464	D	ADAPTER ASSY, NIGHT	-	13082785-19
465	O	CONNECTOR, SELF-TEST	-	13082962-519
466	D	HEAT SOURCE, 2.00 IN	6625-01-229-8774	13082971
467	D	HEAT SOURCE, 1.5 IN-1	6625-01-229-7382	13082972
468	D	HEAT SOURCE, 1.5 IN-2	6625-01-222-4202	13092974
469	D	TPS, LV PS ASSY	-	13083027
470	D	TPS, RELAY DRIVE CCA	-	13083028
471	O	ALIGNMENT ASSY, OPT I CAL	-	13083078
472	0	ALIGNMENT ASSY, OPTICAL	-	13083078-39
473	D,O	CABLE ASSY, SPECIAL, ELECT	-	13083092
474	D,O	CABLE ASSY, SPECIAL, ELECT	-	13083093
475	D	FIBER OPTIC ASSY	6625-01-223-5197	13083098
476	O	COVER, PROTECTIVE	-	13083110
477	O	RETICLE ASSY	-	13083115

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
478	O	ALIGNMENT TOOL ASSY	5120-01-222-1369	13083129
479	D	RELAY ASSY, OPTICAL	-	13083464-19
480	D	MIRROR ASSEMBLY, ADJ	-	13083512-39
481	D	MIRROR ASSEMBLY, ADJ	-	13083512-49
482	D	LENS/TARGET ASSY	-	13083514
483	D,F	CONTAINER, IVD ELECT	8145-01-183-8309	13083625
484	D,O	ADAPTER, MAJOR TEST	6625-01-220-7887	13083633-19
485	O	CIRCUIT CARD ASSY	6625-01-225-8825	13083641
486	0	CAMERA/CONTROLLER	6625-01-252-2853	13083700-2
487	0	CABLE ASSY, SP, ELECT	-	13083701
488	0	CABLE ASSY, SP, ELECT	-	13083702
489	0	CAMERA	-	13083954-29
490	D,O	CAMERA MOUNT ASSY	-	13083954-59
491	O	CONNECTOR, SELF-TEST	5935-01-222-1202	13083962-419
492	0	CONNECTOR, SELF-TEST	5935-01-222-1203	13083962-429
493	0	CONNECTOR, SELF-TEST	5935-01-222-1204	13083962-439
494	0	CONNECTOR, SELF-TEST	5935-01-222-1205	13083962-449
495	0	CONNECTOR, SELF-TEST	5935-01-655-7607	13083962-529
496	0	CONNECTOR, SELF-TEST	-	13083962-559
497	D	CONNECTOR, SELF-TEST	5935-01-222-1158	13083964-49
498	D	JUMPER	-	131-0993-00
499	O	CABLE ASSY, SP, ELECT	-	13230911

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
500	D,O	CONNECTOR, SELF-TEST	-	13231049
501	D,O	CABLE ASSY, RF	-	13231052
502	D,O	ALIGNMENT FIXTURE, LASER	-	13231053
503	D,O	EXTENDER CARD, ELECT	-	13231055
504	0	CABLE ASSY, SP, ELECT	-	13231404
505	D	ALIGNMENT TOOL, TARGET	-	13231454
506	0	ALIGNMENT TOOL, MTF	-	13231455
507	0	DRIVER, VARIABLE TRQ	-	1535-2653
508	D,F	EXTRACTOR, PC BOARD	-	1731
509	D	MICROMETER, Toolmakers	-	176-912
510	D,F,O	PLIERS, DIAGONAL, CUT	5110-00-240-6209	184CP
511	D,F,O	PLIERS, RD NDL NOSE	5120-00-293-3481	1920
512	D	SHORTING CAP	-	200-0678-00
513	D	PANEL, TOP	-	200-2092-00
514	D	DRILL, TWIST HSS 13/64		2011-0203
515	D	DRILL, TWIST NO. 57	5133-00-189-9302	2012-0043
516	D	DRILL, TWIST NO. 25	-	2012-0149
517	F	PLIERS, DIAGONAL CUT	5110-00-293-3209	204T
518	D	DRILL, TWIST HSS 1/16	5133-00-227-9646	206-1-16
519	D	DRILL, TWIST HSS 1/8	5133-00-227-9650	206-1-8

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
520	D,F,O	WRISTSTRAP, ANTI-ESD	-	2066
521	F	CRIMP TOOL, HAND	-	2098-0105-54
522	F	TOOL, LOCATOR	5120-01-142-4245	2098-5218-02
523	F	HOLDER, CTR CONTACT	5120-00-169-5779	2098-5221-10
524	D	CONTROLLER, REFERENCE	-	2221R/MOD
525	D,F	CRIMPING DIE	5120-01-160-1312	227-1221-09
526	F	TOOL, FRAME	5120-01-073-9005	227-350
527	F	POSITIONER	5120-00-132-6913	227-918
528	F	CRIMPING, DIE	5120-00-113-3322	227-920-1
529	D,F	TOOL FRAME, TWIN-HEX	5120-00-132-6913	227-944
530	O	DOLLY, CHASSIS HDLING	-	2397418-501
531	D,F	JACKRATCHET	-	2954T1O
532	D	PHOTO DETECTOR	-	301020
533	D	PROBE, AMBIENT TEMP	-	30595
534	D	CABLE ASSY	-	309621-W
535	D	CABLE ASSY	-	309621-X
536	D	CABLE ASSY	-	309621-Y
537	D	T-CONNECTOR (COAX)	-	31-008
538	D	CABLE ASSY	-	310299-1
539	D	TRUCK, FORK LIFT	-	3330601
540	D	GRATICULE, MONITOR	-	337-2820-00

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
541	D	PANEL, SIDE	-	390-0572-00
542	D	CABINET, LEFT SIDE	-	390-0573-00
543	D,F,O	PLIERS, DIAGONAL CUT	-	41-4C
544	D,F	PUNCH, OR PIN 1/8 IN	5120-00-242-5966	41P3602
545	D,F,O	SCDR, FT 3/16 X 5 IN	5120-00-278-1270	41S1056-10
546	D,F,O	SCDR, FT 5/16 X 6 IN	5120-00-278-1283	41S1104-10
547	D	TERMINAL	-	4105A
548	D,F	RULE, STEEL 6 INCH	5120-00-182-9656	430C
549	D	ANVIL, SWAGING		435-6522-01-00-0
550	D	PUNCH, FLARE	5120-01-009-7892	435-6657-01-00-0
551	F	STRIPPER, WIRE HAND	-	45-502
552	D,F	PLIERS, NEEDLE NOSE	-	497CP
553	F	(IT, SOLDER/DESOLDER	-	500 MDK
554	D,F	HEATER, GUN TYPE	4940-00-561-1002	500A
555	D,F	HEATSINK, SOLDER AID	3439-00-856-9496	51E
556	D,F	KEY, SKT HD 5/64 IN	5120-00-239-0080	564L
557	D,F	CRIMPING TOOL, ADJ	-	579316
558	D	TOOL, CRIMP	-	59250
559	D,F	TOOL, INSERT/EXTRACT	-	597104
560	D	PLIERS, DUCKBILL	5120-00-595-9519	60R
561	D,F	WR, TQ 5-80 FT 3/8 DR	-	6006-4

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
562	D,F	RULE, STEEL, MACHINIST	5120-00-273-1965	607R
563	D,F	WT, OE 13/64 & 15/64		62
564	D	DUAL POWER SUPPLY	6130-00-251-0662	6253A
565	D	DRILL, ELECTRIC, PORT	5130-00-142-5325	681V
566	D	KIT, SPECIAL AIDS	3439-01-121-5745	6993-0032
567	D	ATE STATION, AAH-64		7-265100000
568	D	AMPLIFIER		7A16A
569	D	AMPLIFIER		7A16P
570	D	AMPLIFIER		7A19
571	D	TIME BASE UNIT		7B80 TIME BASE
572	D	COUNTER/TIMER		7D15
573	D,F	RESOLDERING TOOL	3439-00-808-2144	7010-0004
574	D,F	STRIPPER, THERMAL		7012-0003-02
575	O	MIRROR, MAGNET BACK	6650-00-219-3379	71-6204
576	D,F	SCDR, CT NO. O, 4 IN	5120-00-060-2004	7228423P1
577	F	SCDR, CT NO. O, 4 IN		778423P1
578	D	MAINFRAME, CALIB		7904A
579	O	DISC/TAPE DRIVE		7914R
580	0	COVER, PROTECTIVE		79911517
581	D	AC POWER/SIGNAL CRD		79916697
582	O	TOOL, ALIGNMENT		8TO05

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
583	D	MAGNIFIER, POCKET	6650-00-964-9470	81-23-64
584	D,F	MAGNIFIER, ILLUMINTD	-	81-34-80
585	O	BOARD, EXTENDER	-	8136-WG86
586	D,F	PLIERS, SLIP JOINT	5120-00-278-0352	8195590
587	D,F,O	MAT, ANTI-ELECTROSTA	-	8201
588	D,F,O	PLIERS, DIAG CUT MIN	5110-00-965-0974	84CG
589	F	PLIERS, DIAGONAL CUT	5110-00-239-8253	86CP
590	F	MULTIMETER, DIGITAL	-	8600A
591	D,O	TOOL, ALIGNMENT	-	8608
592	D	ZYGO BLOCK & BRKT	-	866F-761O
593	D	UUT MOUNT W/CLAMP	-	866F-7618
594	O	ZYGO ALIGN BLOCK	-	866F7602
595	0	WRENCH, TORQUE	5120-01-133-2347	8710-1007
596	0	BIT, 115 TORX	-	8710-1415
597	0	BIT, T20 TORX	-	8710-1416
598	0	BIT, T25 TORX	-	8710-1417
599	0	BIT, T1O TORX	-	8710-1418
600	0	BIT, T30 TORX	-	8710-1419
601	0	BIT, T7 TORX	-	8710-1423
602	D	TAPE, SOLDER REMOVAL	-	886
603	F	WR, SOCKET 3/16 IN	-	9HT41977

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS (cont)

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool Number
604	D	KEY SET, SKT HD MINI	-	9007702
605	O	ADAPTER, CONNECTOR	5935-00-320-6636	901-167
606	D,F,O	GUN, FILTERED AIR	-	902F
607	D,F	HEATSINK, PLIERS TYPE	3439-00-145-6673	9077-1
608	F	TOOL, SOLDERING AID	3439-00-611-7136	99088
609	D,F	STRIPPER, WIRE 14-30	5110-00-542-4487	9177208-1
610	O	PALLET, BASE	-	9211-3932
611	0	CONTAINER, TOP	-	9211-3935
612	0	COVER, PROTECTIVE	-	9220-3856
613	D,F	REFLECTOR, SOLDER SLV	-	991319
614	D,F	REFLECTOR, TUBING	-	991320
615	D,F	HEATER, GUN TYPE	-	991332

APPENDIX C

EXPENDABLE SUPPLIES AND MATERIALS LIST

Section I. INTRODUCTION

C-1. SCOPE C-1

This appendix lists expendable supplies and materials you will need to maintain the EETF TADS/PNVS Augmentation Equipment. These items are authorized to you by CTA 50-970, Expendable Items (except Medical, Class V, Repair Parts, and Heraldic Items).

C-2. EXPLANATION OF COLUMNS C-2

a. Column 1 - Item Number. This column identifies the number assigned to the entry listing and is referenced in the initial setup to identify the materiel.

b. Column 2 - Level. This column identifies the lowest level of maintenance that requires the listed item.

O - Organizational Maintenance

F - Direct Support Maintenance

c. Column 3 - National Stock Number. This column lists the National Stock Number assigned to the item; use it to request or requisition the item.

d. Column 4 - Description. This column indicates the Federal item name and, if required, a description to identify the item. The last line for each item indicates the Commercial and Government Entity (CAGE) code in parentheses, as applicable.

e. Column 5 - Unit of Measure (U/M). This column indicates the measure used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation. If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

Section II. EXPENDABLE SUPPLIES AND MATERIALS LIST

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) U/M
1	O	6810-00-223-2739	Acetone, Q-A-51	pt
1.1	O	7930-00-297-7089	Alconox, liquid (Liqui-Nox)	oz
			or	
	O	7930-01-149-3544	Alconox, powdered	oz
2	F	-	Adhesive, epoxy, MIS22657	oz
3	F	-	Adhesive, silicone, SWS 930	oz
4	O	6810-00-753-4993	Alcohol, isopropyl	pt
5	O	-	Alcohol, methyl, 9073	pt
6	O	6515-00-303-8250	Applicator, disposable, GG-A-616	bg
7	O	-	Bag, electrostatic shielding, 3M 2004	ea
8	O	8020-00-264-3883	Brush, artists, HB-118, No. 9	ea
9	O	7920-00-514-2417	Brush, acid, swabbing	ea
10	F	-	Cardboard, 17 x 22 x 1/4 inch	ea
11	O	7920-00-205-3558	Cheesecloth pad, DDDC 301	pg
12	O	-	Chemical film, MIL-C-5541LA	pt
13	0	-	Cloth, lint free	pg
14	0	-	Cloth, soft	pg
14.1	0	8030-00-833-9116	Compound, sealing and locking	oz
15	0	-	Desiccant, TA 363-RB-01 (08992)	oz
16	0	-	Detergent, MIL-D-16791	bt
16.1	0	-	Duster, aerosol, MS220	oz
17	0	-	Enamel, equipment, lt. gray, No. 26307, MIL-E-15090, class 2 type 1	cn

Section II. EXPENDABLE SUPPLIES AND MATERIALS LIST

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) U/M
18	o	-	Enamel, semigloss alkyd, lt. gray, TT-E-529, class A	cn
19	0	8010-00-087-0109	Enamel, semigloss alkyd, gray qt No. 26492, TT-E-529, class A	
20	0	-	Enamel, synthetic resin, black MIS-11916, form 1 type 1	kt
21	0	-	Enamel, synthetic resin, black MIS-11916, form 2 type 1	kt
22	0	-	Enamel, synthetic resin, white MIS-11916, form 1 type 2	kt
23	0	-	Enamel, synthetic resin, white MIS-19916, form 2 type 2	kt
24	F	-	Filter, 4.7 micron, MF-HAW	ea
25	F	-	Finger cots, surgical rubber, ZZ-F-1299	ea
26		8145-00-266-8675	Gloves, rubber	pr
27	o	-	Grease, MIL-G-4343	tu
28	F	-	Grease, thermal, (05820)	tu
28.1	F	-	Insulating tubing, M23053/5-101-9	ea
28.2	F	5970-00-812-2968	Insulation sleeving, electrical, heat shrinkable, M23053/5-102-O	in
29	F	-	Insulating tubing, M23053/5-103-9	ea
29.1	F	5970-00-954-1622	Insulation sleeving, electrical, heat shrinkable, M23053/5-105-O	ea
30	F	-	Insulating tubing, M23053/5-106-9	ea
31	F	-	Lug nut, crimp, AMF ECN 18-10	ea
32	F	-	Lumber, 4 x 4 x 36 inch	ar
33	F	-	Lumber, 2 1/2 x 12 x 26 inch	ar
34	F	-	Lumber, Hardwood, 4 x 4 x 8 inch	ar

Section II. EXPENDABLE SUPPLIES AND MATERIALS LIST (cont)

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) U/M
35	O	5350-00-224-7201	Paper, emery, P-P-101, class 2, No. 400	pg
36	0	6640-00-597-6145	Paper, lens, NNN-P-40, class 2	pg
37	0	9920-00-292-9946	Pipe cleaner	pg
38	F	-	Primer, sealing compound, MIL-S-22473 grade T, form R	oz
39	O	8010-00-835-2114	Primer, zinc chromate, TT-P-1757 Yel, comp G	pt
40	0	-	Primer, zinc chromate, TT-P 1757, Yel, comp G	pt
41	F	-	Sealing compound, MIL-S-22473, GRD H	cn
42	F	-	Shield, nose-mouth 9722-00	ea
43	F	-	Solder, SN63 WRM AP2	oz
44	O	4020-00-033-7695	Tape, lacing and tying, MIL-T-43435, type 2 F1	sl
45	0	7510-00-290-2023	Tape, masking, UU-T-OO1O6, type 2, 1/2 inch	ro
46	F	-	Tape, teflon, MIL-I-23594, type 1	ro
47	O	6810-00-664-0273	Trichloroethane, O-T-620, type 1	pt
48	0	-	Trichlorotrifluoroethane, MIL-C-81302	cn
49	0	6810-00-107-1510	Water, distilled, O-C-265	bt

APPENDIX D

ILLUSTRATED LIST OF MANUFACTURED ITEMS

There are no requirements for this appendix at time of issue.

APPENDIX E

REFERENCE DESIGNATIONS

Section I. INTRODUCTION

E-1. SCOPE

E-1

This appendix is a list of reference designations. The listing is limited to EETF TADS/PNVS Augmentation Equipment major assemblies, circuit card assemblies, and cable assemblies used in this manual.

E-2. REFERENCE DESIGNATIONS

E-2

Reference designations identify functional relationships of assemblies to their subassemblies, components, and parts. The unique combination of numbers and letters, used as reference designations, allows you to trace the generation of a part to component, subassembly or major assembly.

The listing is presented in reference designation sequence. The name in the Nomenclature column is the common name for item listed. Refer to paragraph 1-4 for a cross reference to official nomenclature.

Cable assemblies used in this equipment may or may not have a prefix before the letter “W”. Major items of equipment prefixes are as follows:

Equipment	Reference Designation
Electronic Station	1
Electro-optical Test Bench Set	2
Dayside Test Bench	2A1
Test Console Test Bench	2A2
Nightside Test Bench	2A3

Section II. REFERENCE DESIGNATION LIST

Reference Designation	Nomenclature	part Number
1	Electronic Station	13082701-29
1A1	Control Unit Assembly	13082765-19
1A2	488 Controller Power Supply Assembly	13082835
1A2A1	Controller CCA	SN488B
1A2A2	Controller CCA	SN488B
1A2A3	Controller CCA	SN488B
1A2A4	Controller CCA	SN488B
1A3	Programmable Power Supply Assembly	13082766
1A3PS1	Power Supply	ATE36-3M
1A3PS2	Power Supply	ATE36-3M
1A3PS3	Power Supply	ATE75-1.5M
1A3PS4	Power Supply	ATE75-1.5M
1A4	DC Power Supply Assembly	13082761
1A4PS1	Power Supply	BKF 28-4
1A4PS2	Power Supply	BKF15-6
1A4PS3	Power Supply	BKF15-6
1A4PS4	Power Supply	BKF5-11
1A5	AC Control Panel Assembly	13082834-39
1A6	Blower Assembly	KP729A
1A7	PMT Controller	Model 33-2124
1A9	Extender Assembly	13082763-29
1A9A1	HP-IB Extender	37203A
1A9A2	HP-IB Extender	37203A

Section II. REFERENCE DESIGNATION LIST (cont)

Reference Designation	Nomenclature	Part Number
1A10	Disc/Tape Drive Assembly	13082477
1A11	Digital Computer Assembly	13231746
1A11A1	Control Store CCA	HP12205A
1A11A2	Sequencer CCA	HP12201A
1A11A3	Data Path CCA	HP12202A
1A11A4	Cache CCA	HP12203A
1A11A5	Memory Controller CCA	HP12204A
1A11A6	Memory CCA	HP12221A
1A11A7	HPIB CCA	HP12209A
1A11A8	Asynchronous Interface CCA	HP12005B/002
1A11A9	IEEE Interface CCA	13081742
1A11A10	Priority Jumper CCA	HP12012A
1A11A11	HPIB CCA	HP12209A
1A11A12	Parallel Interface	13081431
1A11A13	Buffer CCA	13081483
1A12	Blower Assembly	KP729A
1A13	Cable Entry Panel	13083424
1A14	Cable Entry Panel	13083423
1W1	Harness Assembly (includes the following cables: 1W2, 1W4, 1W5, 1W6, 1W15, 1W16)	
1W2	Cable Assembly	13083433
1W3	Cable Assembly	13083438-19
1W4	Cable Assembly	13083434-9

section II. REFERENCE DESIGNATION LIST (cont)

Reference Designation	Nomenclature	Part Number
1W5	Cable Assembly	13083436
1W6	Cable Assembly	13083437
1W7	Cable Assembly	13083439
1W8	Cable Assembly	13083712
1W9	Cable Assembly	13083539
1W13	Cable Assembly	13083721
1W15	Cable Assembly	13083434-19
1W16	Cable Assembly	13083434-29
1W17	Cable Assembly	13083435-29
1W18	Cable Assembly	13083058-59
1W19	Cable Assembly	13083058-49
1W23	Cable Assembly	13082754
1W24	Cable Assembly	13082754-19
1W25	Cable Assembly	13083721-19
1W26	Cable Assembly	13081895
1W27	Cable Assembly	13081895-19
1W28	Cable Assembly	13081895-29
1W31	Cable Assembly	13083447
1A3W31	Cable Assembly	13081477-89
1A3W32	Cable Assembly	13081477-99
1A3W33	Cable Assembly	13081477-109
1A3W34	Cable Assembly	13081477-119
1A5W30	Cable Assembly	13081477-79

Section II. REFERENCE DESIGNATION LIST (cont)

Reference Designation	Nomenclature	Part Number
2	Electro-Optical Test Bench Set	13082704-39
W1	Cable Assembly	13083336-39
W2	Cable Assembly	13083337-19
W3	Cable Assembly	13083338-19
W4	Cable Assembly	13083341-19
W5	Cable Assembly	13083342-19
W6	Cable Assembly	13083339-19
W7	Cable Assembly	13083343-19
W8	Cable Assembly	13081971-19
W9	Cable Assembly	13083345-19
W10	Cable Assembly	13083336-49
W11	Cable Assembly	13083336-59
W12	Cable Assembly	13081972-19
W13	Cable Assembly	13081454-19
W14	Cable Assembly	13081482-19
W15	Cable Assembly	13081477-159
W16	Cable Assembly	13081477-169
W17	Cable Assembly	13081477-179
W24	Cable Assembly	13081892-39
W27	Cable Assembly	13081856-19
W28	Cable Assembly	13081857-19
W29	Cable Assembly	13081853-19
W30	Cable Assembly	13081859-19
W41	Cable Assembly	13081477-189

Section II. REFERENCE DESIGNATION LIST (cont)

Reference Designation	Nomenclature	Part Number
2A1	Dayside Test Bench	13082800-89
2A1A1	Adapter Panel Assembly	13231890
2A1A1	Optical Signal Analyzer (ALT)	13082799-29
2A1A1A3	Photon Emitter Assembly	13081922
2A1A1A4	Bracket Assembly	13083489-19
2A1A1A5	Main Access Door Interlock Switch	13081425
2A1A1A6	Power Supply Assembly	13081943-19
2A1A1A7	Photomultiplier and Bracket Assembly	13083875
2A1A1A8	Electrical Filter Interface Assembly	13082137
2A1A1A9	Tray Assembly (part of TPS)	13083532
2A1A2A11	PMT Access Door Interlock	13081425-19
2A1A1A12	Relay Assembly	13081497
2A1A1A14	Filter and Detector Assembly	13083919-19
2A1A2	Inner Module	13082806-59
2A1A2A1	Optics Assembly	13082867-19
2A1A2A1A1	Laser Test Module	13083358-19
2A1A2A1A1A1	Laser Simulator Assembly	13082827-19
2A1A2A1A1A1A1	Laser Simulator Assembly	13081423
2A1A2A1A1A1A3	Laser Detector Assembly	13081402
2A1A2A1A1A8	Translator	13083425
2A1A2A1A1A15	CID Video Camera	13082029-19
2A1A2A2	Shutter Assembly	13083321
2A1A2A3	Radiometer Assembly	13081410-19
2A1A2A4	Dayside Sensor Mount Assembly	13083383-29
2A1A2A4A10	Sensor Mount Assembly	13082824-59

Section II. REFERENCE DESIGNATION LIST (cont)

Reference Designation	Nomenclature	Part Number
2A1A2A6	Laser Fold Mirror Assembly	13082862
2A1A2A6A8	Translator Assembly	13083425
2A1A2A10	Filter Wheel/Motor Assembly	13083555
2A1A2A11	Lamp Holder Assembly	13081573
2A1A2A12	Automatic Focus Control Assembly	13082888
2A1A2A13	Beam Sampler Assembly	13083382-39
2A1A2A17	Cable Entry Panel	13082806-15
2A1A2A19	Laser Protective Cover Assembly	13083360-49
2A1A3	Indirect View Display	13078701
2A1A3A1	CRT Module Assembly	13078250
2A1A3A2	Housing and Circuit Card Assembly	13078050
2A1A3A2A4	Video Pre-Amp CCA	13078270
2A1A3A2A5	Bit Pattern Gen CCA	13078310
2A1A3A2A6	Vert Sync CCA	13078070
2A1A3A2A7	Horiz #1 CCA	13078330
2A1A3A2A8	Horiz #2 CCA	13078350
2A1A3A2A9	Relay Driver CCA	13078280
2A1A3A3	HVPS Mod Assembly	13078090
2A1A3A4	Fan Assembly	13078230
2A1A3A12	LVPS Mod Assembly	13078110
2A1A3A13	Vert Out CCA	13078390
2A1A3A14	Video Out CCA	13078410
2A1A3A15	Focus-Regulation CCA	13078130
2A1A4	Cable Entry Panel	13081729

Section II. REFERENCE DESIGNATION LIST (cont)

Reference Designation	Nomenclature	Part Number
2A1A5	Cable Entry Panel	13081729-19
2A1A6	Laser Power Supply Assembly	13081582
2A1A6A1	Electronic Box Assembly	13082272
2A1A7	Laser Power Meter	460-1A
2A1A8	Radiometer Head	460-2
2A1M23	Cable Assembly	13081892-19
2A1W25	Cable Assembly	13081853
2A1W26	Cable Assembly	13081893
2A1W31	Cable Assembly	13081855-19
2A1W32	Cable Assembly	13081854
2A1W34	Cable Assembly	13231420
2A1W36	Cable Assembly	13081864
2A1W37	Cable Assembly	13081863-29
2A1W45	Cable Assembly	13081518
2A1W77	Cable Assembly	13231422
2A1W78	Cable Assembly	13231422-19
2A1W93	Cable Assembly	13081853-19
2A1A1W1	Cable Assembly	13081945
2A1A1W4	Cable Assembly	13081979
2A1A1W5	Cable Assembly	13081934
2A1A1W6	Cable Assembly	13083449
2A1A1W7	Cable Assembly	13081936
2A1A1W8	Cable Assembly	13081937
2A1A1W9	Cable Assembly	13081938

Section II. REFERENCE DESIGNATION LIST (cont)

Reference Designation	Nomenclature	Part Number
2A1A1W1O	Cable Assembly	13081946-19
2A1A1W11	Cable Assembly	13081940
2A1A1W12	Cable Assembly	13081941
2A1A1W13	Cable Assembly	13081942
2A1A1W14	Cable Assembly	13081944
2A1A1W15	Cable Assembly	13081947-19
2A1A1W16	Cab e Assembly	13083214
2A1A2W1	Cab e Assembly	13082256
2A1A2W22	Cab e Assembly	13081892-89
2A1A2W33	Cable Assembly	13081860
2A1A2W40	Cable Assembly	13081865-19
2A1A2W47	Cable Assembly	13082263-59
2A1A2W51	Cable Assembly	13082263-99
2A1A2W52	Cable Assembly	13082263-109
2A1A2W53	Cable Assembly	13082263-49
2A1A2W54	Microcircuit and Heat Sink Assembly	13081588-39
2A1A2W55	Microcircuit and Heat Sink Assembly	13081588-49
2A1A2W91	Cable Assembly	13081860-19
2A1A2W95	Cable Assembly	13231760
2A1A2A1W48	Cable Assembly	13082263-69
2A1A2A1W49	Cable Assembly	13082263-79
2A1A2A1W50	Cable Assembly	13082263-89
2A1A2A1A1A1W41	Cable Assembly	13081866-19

Section II. REFERENCE DESIGNATION LIST (cont)

Reference Designation	Nomenclature	Part Number
2A1A2A1A1A1A1W76	Cable Assembly	13083960
2A1A2A1A1A15	Camera/Bracket Assembly	13082029-19
2A1A2A2W2	Cable Assembly	13082243
2A1A2A2W4	Cable Assembly	13082241
2A1A2A3W41	Cable Assembly	13081892-49
2A1A2A3W42	Cable Assembly	13081892-59
2A1A2A3W43	Cable Assembly	13081892-69
2A1A2A3W44	Cable Assembly	13081892-79
2A1A2A4W5	Cable Assembly	13082257
2A1A2A4W43	Cable Assembly	13082263-29
2A1A2A4W44	Cable Assembly	13082263-19
2A1A2A4W75	Cable Assembly	13082263
2A1A2A4A1OW14	Cable Assembly	13082261
2A1A2A1OW46	Cable Assembly	13082264
2A1A2A1OW53	Cable Assembly	13082263-49
2A1A2A11W19	Cable Assembly	13082266
2A2	Test Console Test Bench	13082795-39
2A2A1	Programmable Digitizer	13231817
2A2A1A1	Interface Assembly	13083325
2A2A1A56	IEEE - 488 Interface CCA	6298-01
2A2A2	VHF Cable Entry Panel	13082442
2A2A3	Optical Signal Generator Assembly	13231679
2A2A3A1	Relay Bracket Assembly	13231678
2A2A3A2	Light Shield Assembly	13231553

Section II. REFERENCE DESIGNATION LIST (cont)

Reference Designation	Nomenclature	Part Number
2A2A3A3	Integrator Sensor Assembly	13231574
2A2A3A4	Amplifier-Detector Assembly	13231677
2A2A3A5	Integrating Sphere	LM3-343-D
2A2A3W1	Cable Assembly	13231565
2A2A4	Test Adapter Panel Assembly	13231668-19
2A2A4A1	Relay Assembly	13083063
2A2A5	Blank Panel	13082836
2A2A6	Multiprogrammer Assembly	13081880-19
2A2A7	Electronics Drawer Assembly	13082764-39
2A2A7A1	Video Signal Generator Case Assembly	13082244
2A2A7A3	Camera Head Control Unit	13083700-2
2A2A7A4	Relay Assembly	13081572
2A2A7A5	Heat Sink Assembly	13081564
2A2A7A6	Electronic Equipment Chassis Assembly	13082840-19
2A2A7A6A1	Motor Control Driver CCA	13082741
2A2A7A6A2	Motor Control Logic CCA	13082735
2A2A7A6A3	Motor Control MUX CCA	13082732
2A2A7A6A4	Temperature Measurement CCA	13082738
2A2A7A6A5	FIFO Memory CCA	13082717-19
2A2A7A6A7	Bus Multiplexer CCA	13082714
2A2A7A6A8	Programmable Pulse Generator CCA	13083050-19
2A2A7A6A9	Programmable Pulse Generator II CCA	13231595
2A2A7A6A10	Programmable Pulse Generator Analog CCA	13081471-19

Section II. REFERENCE DESIGNATION LIST (cont)

Reference Designation	Nomenclature	Part Number
2A2A8	Extender Assembly	13082763
2A2A10	Matrix Switch Assembly	13081925
2A2A11	Multiprogrammer Extender Assembly	13081879
2A2A12	Switch Controller Assembly	13081427-19
2A2A12A2	Main Control CCA	13081427-2
2A2A13	Analog to Digital Converter Assembly	13081746
2A2A14	Cable Entry Panel	13082258
2A2A15	Blower Assembly	13081787
2A2W1	Cable Assembly	13082356
2A2W2	Cable Assembly	13082357-19
2A2W3	Cable Assembly	13082351
2A2W4	Cable Assembly	13082358
2A2W5	Cable Assembly	13082352
2A2W6	Cable Assembly	13082360
2A2W7	Cable Assembly	13082353
2A2W8	Cable Assembly	13082324
2A2W9	Cable Assembly	13082325
2A2W10	Cable Assembly	13083443
2A2W11	Cable Assembly	13082328
2A2W13	Cable Assembly	13082331
2A2W14	Cable Assembly	13082333
2A2W15	Cable Assembly	13082334
2A2W16	Cable Assembly	13083443-19
2A2W17	Cable Assembly	13082330-19

Section II. REFERENCE DESIGNATION LIST (cont)

Reference Designation	Nomenclature	Part Number
2A2W18	Cable Assembly	13082344
2A2W19	Cable Assembly	13082354
2A2W20	Cable Assembly	13083428
2A2W21	Cable Assembly	13083448
2A2W22	Cable Assembly	13083448-19
2A2W24	Cable Assembly	13081692-19
2A2W25	Cable Assembly	13082480
2A2W26	Cable Assembly	13081531
2A2W27	Cable Assembly	13081506
2A2W28	Cable Assembly	13081506-19
2A2W30	Cable Assembly	13081434
2A2W31	Cable Assembly	13081466
2A2W32	Cable Assembly	13081466-19
2A2W33	Cable Assembly	13081466-29
2A2W34	Cable Assembly	13081496
2A2W35	Cable Assembly	13081496-19
2A2W36	Cable Assembly	13081496-29
2A2W37	Cable Assembly	13081477
2A2A3W1	Cable Assembly	13231565
2A2A7W1	Cable Assembly	13083302
2A2A7W2	Cable Assembly	13083302-19
2A2A7W3	Cable Assembly	13082326
2A2A7W38	Cable Assembly	13081477-19
2A2A7W39	Cable Assembly	13081477-29

Section II. REFERENCE DESIGNATION LIST (cont)

Reference Designation	Nomenclature	Part Number
2A2A7W40	Cable Assembly	13081477-39
2A2A13W2	Cable Assembly	13082276-4
2A3	Nightside Test Bench	13082782-59
2A3A1	Nightside Optical Assembly	13082787-39
2A3A1A1	Heat Source Target Assembly	13082794-29
2A3A1A1A1	Heat Source Assembly	13082971
2A3A1A1A2	Heat Source Assembly	13082972
2A3A1A1A6	Target Wheel Sensor Assembly	13082812
2A3A1A1A7	Aperture Wheel Sensor Assembly	13082900
2A3A1A2	Shutter Assembly	13082817-19
2A3A1A3	Sensor Mount Assembly	13082824-49
2A3A1A15	Connector Bracket Assembly	13082020
2A3A1A16	Connector Bracket Assembly	13082024
2A3A1A17	Secondary Heat Source Assembly	13082165-19
2A3A4	Cable Entry Panel	13082026
2A3W1	Cable Assembly	13081964
2A3W2	Cable Assembly	13081965
2A3W3	Cable Assembly	13081966
2A3W4	Cable Assembly	13081967
2A3A1W5	Cable Assembly	13081968
2A3A1W6	Cable Assembly	13081969-19
2A3A1A1W13	Solenoid/Cable Assembly	13082262
2A3A1A1W14	Cable Assembly	13082262-19
2A3A1A1W15	Cable Assembly	13082263-119

Section II. REFERENCE DESIGNATION LIST (cont)

Reference Designation	Nomenclature	Part Number
2A3A1A1W16	Motor/Cable Assembly	13082264-29
2A3A1A1W17	Clutch/Cable Assembly	13081524-29
2A3A1A1W20	Optical Switch/Cable Assembly	13082263-129
2A3A1A1W21	Cable Assembly	13082900
2A3A1A1W22	Cable Assembly	13082812
2A3A1A1W24	Cable Assembly	13081588-19
2A3A1A1W25	Cable Assembly	13081588-29
2A3A1A1W26	Clutch/Cable Assembly	13081524-39
2A3A1A2W7	Cable Assembly	13082241-19
2A3A1A2W8	Cable Assembly	13082243-19
2A3A1A3W9	Cable Assembly	13081586
2A3A1A3W10	Cable Assembly	13082261-19
2A3A1A17W23	Microcircuit and Heat Sink Assembly	13081588
	NOTE The following cables are used to interconnect the Electro-optical Test Bench Set for testing.	
W1	Cable Assembly	13083164
W26	Temperature Probe	13081531
W64	Cable Assembly	13081836
W65	Cable Assembly	13081835
W66	Cable Assembly	13081837

APPENDIX F

UUT/TPS/INTERFACE DEVICE MATRIX

F-1. GENERAL F-1

This appendix provides two listings. The first list cross references the UUT to the test program software (tape, test program instructions, and TPS control number). The second list, in TPS control number sequence, includes all interface devices required to perform the test. This appendix is provided as a supplementary listing and should be used in that manner. The operator should follow the data displayed on the VDT.

F-2. UUT/TEST PROGRAM SOFTWARE/CONTROL NUMBER F-2

UUT Part No.	Test Program Software Part No.	Additional Instructions	Control No.
13074291	13082607-605	TM 9-6625-476-30	4
13074291-19	13082607-605	TM 9-6625-476-30	4
13074292	13082957-613	TM 9-6625-476-30	71
13074292-19	13082957-613	TM 9-6625-476-30	71
13074292-29	13082957-613	TM 9-6625-476-30	71
13075523-29	13082949-605		50
13075523-39	13082949-605		50
13075573	13081596-604		84
13075574	13081596-604		84
13075600	13081500-607	TM 9-6625-476-30	82
13075911	13081500-607	TM 9-6625-476-30	82
13075975	13081596-604		84
13075976	13081596-604		84
13075988	13082607-605	TM 9-6625-476-30	4
13075988-19	13082607-605	TM 9-6625-476-30	4
13075988-29	13082607-605	TM 9-6625-476-30	4
13075988-529	13082607-605	TM 9-6625-476-30	4
13076056-29	13082604-616	TM 9-6625-476-30	1
13076056-39	13082604-616	TM 9-6625-476-30	1
13076056-49	13082604-616	TM 9-6625-476-30	1
13076056-539	13082604-616	TM 9-6625-476-30	1
13076056-549	13082604-616	TM 9-6625-476-30	1
13076080	13081902-605		110
13076080-19			110
13076080-39			110
13076090	13081902-605		110
13076130-39	13082606-604	TM 9-6625-476-30	3
13076139	13081500-607	TM 9-6625-476-30	82

F-2. **UUT/TEST PR0GRAM SOFTWARE/CONTROL NUMBER (cont)** **F-2**

UUT Part No.	Test Program Software Part No.	Additional Instructions	Control No.
13076144	13082606-604	TM 9-6625-476-30	3
13076144-19	13082606-604	TM 9-6625-476-30	3
13076144-519	13082606-604	TM 9-6625-476-30	3
13076149	13081500-607	TM 9-6625-476-30	82
13076149-19	13081500-607	TM 9-6625-476-30	82
13076362-119	13082919-608		49
13076362-129	13082919-608		49
13076362-139	13082919-608		49
13076362-609	13082919-608		49
13079020	13082911-607		58
13079400-19	13082608-608		5
13080390	13081500-607	TM 9-6625-476-30	82
13080400	13081902-605		110
13080400-19	13081902-605		110
13080400-39	13081902-605		110
13080410	13081441-606		48
13080410-19	13081441-606		48
13080410-29	13081441-606		48
13080410-39	13081441-606		48
13080423	13081608-608		24
13080423-19	13081608-608		24
13080451-19	13082605-618	TM 9-6625-476-30	2
13080451-29	13082605-618	TM 9-6625-476-30	2

F-3. INTERFACE DEVICES REQUIRED FOR TESTING

Con-trol No.	TPS Number	Major Test Adapter	Circuit Card Assembly	Cable Set	Self Test Connectors	Test Fixtures
1	13082107-639	13083633-19	13082310 13082316 13231024-509	13081706(5) 13081706-29 13082730 13083092 13083093 13231031-509 13231435	13081998 13083091 13083091-19 13083963-349 13231027-509 13231028-509	13082064-39 13082747 13083098 13083129 13083157 13083603-19 13231204-509 13231262-509 13231666 31-008 I-250
2	13082106-649	13083633-19	13082050 13082310 13082316 13083641 13231525-19	13081706(5) 13082730 13083092 13083093 13083693-19 13231435	13081998-79 13083091 13083091-19 13083963-349 13083963-359	13082064-39 13082747 13083098 13083129 13083138 13083880-19 13231666 31-008 I-250

F-3. INTERFACE DEVICES REQUIRED FOR TESTING (cont)

Control No.	TPS Number	Major Test Adapter	Circuit Card Assembly	Cable Set	Self Test Connectors	Test Fixtures
3	13082108-609	13083633-19	13082315 13082318	13082730 13231735	13081998 13083679-29 13083679-39 13231730(3) 13231731 13231732(2) 13231739	13081927 13082064-39 13083098 13083956 326PZ 874A I-250
4	13082099-639	13083633-19	13082365 13082411 13083641	13081706(3) 13081706-29 13081706-69(2) 13082730 13083226 13083701 13083702 13230911 13231435	13083962-419 13083962-429 13083962-439 13083962-449 13083962-459 13083962-519 13083962-529 13083962-539 13083962-549 13083962-559 13083962-569 13083963-59	13083078-39 13083082 13083098 13083111(2) 13083117 13083119 13083489-29 13083557(2) 13230921 13231666 2-830126-5 31-008 I-250
5	13082103-619	13083633-19	13082414	13082730 13083728 13231670	13083972-19 13083972-29 13083972-39	
24	13082523-629	13083633-19	13082305 13082578 13083641	13082730 13083708	13083965-69	13082292 C1120-SP L5 PG-14T45
48	13082095-639	13083633-19	13082309-19 13082349 13082393 13082406	13081706-39 13081706-49 13081706-69(2) 13082466 13082730 13231470	13082467 13083962-249 13083962-259 13083962-269 13083970 13083970-19	TNA 2-75(2) 13082386 13231670

F-3. INTERFACE DEVICES REQUIRED FOR TESTIN6 (cont) F-3

Con-trol No.	TPS Number	Major Test Adapter	Circuit Card Assembly	Cable Set	Self Test Connectors	Test Fixtures
49	13082093-619	13083633-19	13231099-509 13231103-509 13231107-509 13231690	13081454-29 13081706 13081706-29(2) 13081706-39 13081706-49 13081706-59 13081706-69(3) 13082730 13082831-509	13083173-509 13083196-509 13083962-39 13083966-19 13083966-89 (2) 13083970 13083970-19 13083970-29 13231036-509 13231686	TNA 2-75(3) 13231670 13231266 13231666 31-008(2)
50	13082094-639	13083633-19	13231459 13231503	13082730 13231512 13231506 13231509	13083961-29 13083962-109 13083962-489 13231518	13231501 13231670
58	13082104-609	13083633-19	13081830 13082310 13082343 13082478	13081706 13081706-29 13081706-69 13081837 13082730 13231749	13081833 13083091 13083091-19 13231709 13231710 13231711 13231712 13231713 13231539	31-008 4119-50(3)

F-3. INTERFACE DEVICES REQUIRED FOR TESTING (cont) F-3

Control No.	TPS Number	Major Test Adapter	Circuit Card Assembly	Cable Set	Self Test Connectors	Test Fixtures
71	13081533-629	13083633-19	13082365 13082411 13083641	13081706(3) 13081706-29 13081706-69(2) 13082730 13083702	13083962-109 13083962-419 13083962-429 13083962-439 13083962-449 13083962-459 13083962-469 13083962-479	13083078-39 13083098 13083110 13083114 13083115 31-008 I-250
82	13082433-629	13083633-19	13082310 13231581	13081706(5) 13081706-69(2) 13081706-79(3) 13081706-89(3) 13082730 13083092 13083093 13231598 13231655	13082458 13083091 13083091-19 13083679-29 13083679-49 13083962-459 13083962-549 13083962-579 13083966 13231756	13082747 13083078-39 13230910 13231558 13231653 13231654 13231659 13231666 31-008(6) M55339/15-00491
84	13082424-639	13083633-19	13082317	13082485 13082730	13083963-39	
110	13081901-629	13083633-19	13082339	13081706-69 13082730 13231473	13083963-339 13231098	13231057

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PIN: 061030-021

GLOSSARY

Section I. ABBREVIATIONS

AC	Alternating current
A/D	Analog to digital
APIC	Augmentation programmable interface connection
ATLAS	Abbreviated test language for all systems
AVIM	Aviation intermediate maintenance
AVUM	Aviation unit maintenance
AWG	American wire gage
BCD	Binary coded decimal
BIT	Binary digit
BYTE	A group of adjacent bits
BNC	Bayonet disconnect
CCA	Circuit card assembly
CID	Charge induced device
CMOS	Complimentary metal-oxide semiconductor
CP	Connection point
CPU	Central processing unit
CRT	Cathode ray tube
DBA	DBA Systems, Inc.
DC	Direct current
DIU	Dedicated interface unit
DMA	Direct memory access
DVO	Day sensor assembly vision optics
EBS	Electron bombarded semiconductor
ECS	Environmental control system
EETF	Electronic equipment test facility
EIR	Equipment improvement recommendations
EMI	Electro-magnetic interference
EO or E/O	Electro-optical
EPROM	Eraseable and programmable read-only memory
ESD	Electrostatic discharge
ESDS	Electrostatic discharge sensitve
ETI	Elapsed time indicator
FIFO	First-in-first-out
FIR	Far infrared
FLIR	Forward looking infrared
HDD	Heads down display
HOD	Heads out display
HP	Hewlett Packard
HP-IB	Hewlett Packard-interface bus
HVPS	High voltage power supply
HZ	Hertz

Section I. ABBREVIATIONS (cont)

IAT	Image automatic tracking
IC	Integrated circuit
ID	Interface device
IEEE	Institute of Electrical Electronic Engineers
I/O	Input/output
IR	Infrared
IVD	Indirect view display
KOHM	Kilohm
LASER	Light amplification by simulated emission of radiation
LED	Light emitting diode
LEU	Laser electronic unit
LRU	Line replaceable unit
LSI	Large scale integration
LTU	Laser transceiver unit
MAC	Maintenance allocation chart
MFOV	Medium field-of-view
MTF	Modulation transfer function
MUX	Multiplexer
NFOV	Narrow field-of-view
NIR	Near infrared
NSN	National stock number
OIA	Optical imager assembly
OIP	Optical improvement program
ORT	Optical relay tube
OSA	Optical signal analyzer
OSG	Optical signal generator
PFN	Pulse forming network
PIU	Programmable interface unit
PMCS	Preventive maintenance checks and services
PMT	Photomultiplier tube
PNVS	Pilot night vision sensor
PPG	Programmable pulse generator
PROM	Programmable read only memory
PRT	Platinum resistor thermometer
ROM	Read-only memory
RPSTL	Repair parts and special tools list
SOS	Silicone on sapphire
SPL	Splice
SRU	Shop replaceable unit
SSH	Simultaneous sample and hold
STM	Shield tie mechanical
STP	Shield tie point
TADS	Target acquisition designation sight
TAMMS	The army maintenance management system
TMDE	Test, measurement, and diagnostic equipment
TP	Test point
TPI	Test program instructions
TPS	Test program set
TRD	Test requirement document
UHF	Ultra-high frequency
UUT	Unit under test
VCP	Virtual control panel
VDT	Video display terminal
VSG	Video signal generator
WFOV	Wide field-of-view

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Section II. DEFINITION OF UNUSUAL TERMS

Address	- A binary number designating a particular location.
Alinement	- The process of adjusting components of a system for proper interrelationship.
Ambient	- Surrounding (such as light or temperature).
Analog	- Continuously variable, rather than switching suddenly between certain levels.
Analog to digital converter	- A device which produces a digital output from an input in the form of continuously variable voltages.
Anode	- A positive electrode such as the plate of a vacuum tube.
Aperture	- An opening such as the opening in a photographic lens that admits the light.
Asynchronous	- Circuitry and operations without common clock signals.
Attenuate	- Reduce in amplitude.
Back porch	- In a composite picture signal, that portion which lies between the trailing edge of a horizontal sync pulse and the corresponding blanking pulse.
Binary coded decimal (BCD)	- A binary numbering system for representing each digit of a decimal number in groups of four bits.
Binary number system	- A method of writing numbers by using two numeral digits, O and 1.
Bit	- A binary digit, written as 1 for “yes” and O for "no".
Black-body	- An emitter for which total radiated energy and the spectral distribution of the energy are accurately known functions of temperature.
Blanking pulse	- A square wave used to switch off electronically a part of a television for a predetermined length of time.
Boresight	- The alinement of the optical system by the use of a fixed target.

Section II. DEFINITION OF UNUSUAL TERMS (cont)

Buffer	- A digital circuit with one input and one output. The output is the same as the input.
Bus	- Two or more conductors running in parallel, used for carrying information or voltages.
Byte	- A group of adjacent bits formed for convenience in transmitting and receiving data. Usually it takes more than on byte to make a word.
Clock	- The primary source of synchronizing signals in electronic computers.
Clock frequency	- In digital computers, the master frequency of periodic pulses that are used to schedule the operation of the computer.
Clock rate	- The rate at which a word or characters of a word (bits) are transferred from one internal computer element to another. Clock rate is expressed in cycles.
Collimator	- An optical device that creates a beam made of parallel rays of light used in testing and adjusting certain optical instruments.
Crowbar	- The action which effectively creates a high overload on the actuating part of the protective device. This crowbar action may be triggered by a slight increase in current or voltage.
Desiccant	- A drying agent.
EPROM	- An IC memory chip whose stored data can be read at random. The data can be erased and new data can be stored, but only by a special system other than the one in which the memory is used.
Flag	- A bit stored in a certain place, which the system uses as a “reminder” of something that has been done or something that needs to be done.
Flip-flop	- A building-block having two stable states that stores one bit by means of two gates “cross-coupled” as a latch, with the output of each forming an input to the other.

Section II. DEFINITION OF UNUSUAL TERMS (cont)

Fold mirror	A mirror assembly that can be moved to one or more positions.
???ay body	A radiating body whose spectral emissivity remains the same at all wavelengths. It is a constant ratio of less than unity to the ratio of a black-body radiator at the same temperature.
Gray scale	In a television system, a scale of brightness values ranging from maximum to minimum.
Infrared (IR)	A form of electromagnetic radiation similar to visible light and radio waves. It is generated by thermal agitation and radiated by everything with a temperature above absolute zero (-273°C). High temperatures increase the thermal agitation. Hence, the hotter the object, the greater the infrared radiation.
Integrated circuit (IC)	A small package with electrical terminals, containing a chip of silicon. The surface of the silicon is processed to form hundreds or thousands of transistors and other devices.
Laser	A device for transforming incoherent light of various frequencies of vibration into a very narrow, intense beam of coherent light.
Light-emitting diode (LED)	A sort of semiconductor “light bulb” made of a small piece of semiconductor material that makes a light when electric current is passed through it in a particular direction.
Programmable read-only memory (PROM)	An IC chip whose stored data can be read at random. The data is stored data can be read at random. The data is stored permanently and cannot be changed.
Random-access memory (RAM)	A memory with a number of storage locations, where words may be “written” (stored) or “read” (recovered) in any order at random.
Read-only memory (ROM)	A memory unit containing data permanently stored, which can be read at random.
Synchronous	Two or more things made to happen in a system at the same time, by means of a common clock signal.
Word	A group of bits or string of bits handled as a unit usually stored at a certain address in a random-access memory (RAM).

ALPHABETICAL INDEX

Subject, Para

A

Subject, Para

A (cont)

B

ALPHABETICAL INDEX (cont)

Subject, Para

B (cont)

C

Subject, Para

C (cont)

ALPHABETICAL INDEX (cont)

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5-189	5-40			Step 9 states "Remove four screws (24), washers (25), . . .". There are two additional washers that should be in the illustration; one under the screw (24) and one under the spacer (26).

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