TECHNICAL MANUAL

ORGANIZATIONAL, DIRECT SUPPORT AND

GENERAL SUPPORT MAINTENANCE REPAIR

PARTS AND SPECIAL TOOLS LIST

(INCLUDING DEPOT MAINTENANCE REPAIR

PARTS AND SPECIAL TOOLS)

FOR

MULTI PROGRAMMER HP6942A

HEADQUARTERS, DEPARTMENT OF THE ARMY
NOVEMBER 1984

TECHNICAL MANUAL

HEADQUARTERS
DEPARTMENT OF THE ARMY
No. 11-7440-312-24P

WASHINGTON, DC, *19 November 1984*

ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT

MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST

(INCLUDING DEPOT MAINTENANCE REPAIRS PARTS

AND SPECIAL TOOLS)

FOR

MULTIPROGRAMMER HP6942A

Current as of 7 August 1984

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 back of this manual direct to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: DRSEL-ME-MP, Fort Monmouth, NJ 07703-5007.
    In either case, a reply will be furnished direct to you.

Table of Contents

SECTION I

INTRODUCTION

---

1. Scope

This manual lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of organizational, direct support, and general support maintenance of the HP6942A. It authorizes the requisitioning, issue, and disposition of spares, repair parts and special tools as indicated by the source, maintenance and recoverability (SMR} codes.

2. General

This Repair Parts and Special Tools List is divided into the following sections:

a. Section II. Repair Parts List A list of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. The list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending numeric sequence, with the parts in each group listed in ascending item number sequence. Figure numbers are listed directly beneath the group header.

b. Section III. Special Tools List. Not applicable.

c. Section IV. National Stock Number and Part Number Index. A list, in National item identification number (NIIN) sequence, of all National stock numbered items appearing in the listing, followed by a list in alphameric sequence of all part numbers appearing in the listings. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance.

3. Explanation of Columns (Section II and III)

a. Item No. (Column (1)). Indicates the number used to identify items called out in the illustration.

b. SMR Code (Column (2)). The source, maintenance, and recoverability (SMR) code is a five-position code containing supply/requisitioning information, maintenance category authorization criteria, and disposition instruction, as shown in the following breakout:
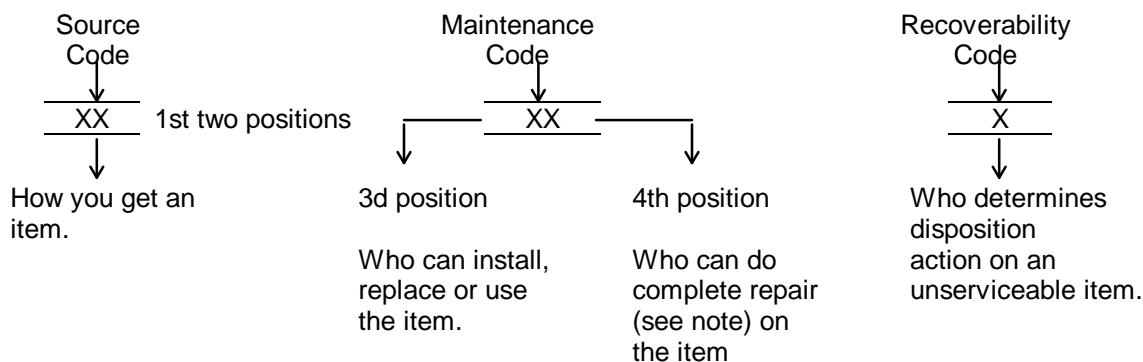
NOTE

Complete repair: Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

(1) *Source code.* The source code tells you how to get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follows:

1

Explanation

Code

PA
PB
PC
PD
PE
PF
PG

Stocked items; use the applicable NSN to request/requisition items with these source codes. They are authorized to the category indicated by the code entered in the third position of the SMR code.

*NOTE: Items coded PC are subject to deterioration.

KD
KF
KB

Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance category indicated in the third position of the SMR code. The complete kit must be requisitioned and applied.

MO- Made at org/ AVUM category
MF- Made at DS/ AVUM category
MH- Made at GS category
ML- Made at Specialized Repair Activity (SRA)
MD- Made at Depot

Explanation

Items with these codes are not to be requested/requisitioned individually. They must be made from bulk material which is identified by the part number in the description and usable on code (UOC) column and listed in the Bulk Material group of the repair parts list. If the item is authorized to you by the third position code of the SMR code, but the source code indicates it is made at a higher category, order the item from the higher category of maintenance.

AO- Assembled by org/AVUM category
AF- Assembled by DS/AVIM category
AH- Assembled by GS category
AL- Assembled by SRA
AD- Assembled by Depot

Explanation

Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the category of maintenance indicated by the source code. If the disposition code of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher category; order the item from the higher category of maintenance.

Code   Explanation

XA   -Do not requisition an "XA" coded item. Order its next higher assembly.
XB   -If an "XB" item is not available from salvage, order it using the FSCM and part number given.
XC   -Installation drawing, diagram, instruction sheet, field service drawing, that is identified by manufacturers part number.
XD   -Item is not stocked. Order an "XD" coded item through normal supply channels using the FSCM and part number given, if no NSN is available.

NOTE

Cannibalization or controlled exchange, when authorized, my be used as a source of supply for items with the above source codes, except for those source coded "XA" or those aircraft support items restricted by required tae of AR 750-1.

(2)   *Maintenance code*.   Maintenance codes tell you the category of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the SMR code as follows:

(a) The maintenance code entered in the third position tells you the lowest maintenance category authorized to remove, replace, and use an item.   The maintenance code entered in the third position will indicate authorization to one of the following categories of maintenance.

Code	Application/Explanation
C	-Crew or operator maintenance done within organizational or aviation maintenance.
O	-Organizational or aviation unit category can remove, replace, and use the item.
F	-Direct support or aviation intermediate category can remove, replace, and use the item.
H	-General support category can remove, replace, and use the item.
L	-Specialized repair activity can remove, replace, and use the item.
D	-Depot category can remove, replace, and use the item.

(b)   The maintenance code entered in the fourth position tells whether or not the item is to be repaired and identifies the lowest maintenance category with the capability to do complete repair (i.e., perform all authorized repair functions). This position will contain one of the following maintenance codes.

NOTE

Some limited repair may be done on the item at a lower category of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.

Code	Application/Explanation
O	-Organizational or aviation unit is the lowest category that can do complete repair of the item.
F	-Direct support or aviation intermediate is the lowest category that can do complete repair of the item.
H	-General support is the lowest category that can do complete repair of the item.
L	Specialized repair activity (designate the specialized repair activity) is the lowest category that can do complete repair of the item.
D	-Depot is the lowest category that can do complete repair of the item.
Z	-Nonreparable. No repair is authorized.
B	-No repair is authorized. (No parts or special tools are authorized for the maintenance of a "B" coded item). However, the item may be reconditioned by adjusting, lubricating, etc., at the user category.

(3)   *Recoverability code*.   Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the SMR Code as follows:

Recoverability Codes	Application/Explanation
Z	-Nonreparable Item. When unserviceable, condemn and dispose of the item at the category of maintenance shown in the third position of SMR Code.
O	-Reparable item. When uneconomically reparable, condemn and dispose of the item at organizational or aviation unit category.
F	-Reparable item. When uneconomically reparable, condemn and dispose of the item at direct support or aviation intermediate category.
H	-Reparable item. When uneconomically reparable, condemn and dispose of the item at general support category.
D	-Reparable item. When beyond lower category repair capability, re turn to depot. Condemnation and disposal of item not authorized below depot category.
L	-Reparable item. Condemnation and disposal not authorized below specialized repair activity (SRA).
A	-Item requires special handling or condemnation procedures because of specific reasons (e.g., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/ directives for specific instructions.

c. FSCM (Column (3)). The Federal Supply Code for Manufacturer (FSCM) is a 5-digit numeric code which is used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

d. Part Number (Column (4)). Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

NOTE

When you use a NSN to requisition an item, the item you receive may have a different part number from the part ordered.

e. Description and Usable on Code (UOC) (Column (5)). This column includes the following information.

(1) The Federal item name and, when required, a minimum description to identify the item.

(2) he statement "END OF FIGURE" appears just below the last item description in Column (5) for a given figure in both section II and section III.

f. Qty (Column (6)). Indicates the quantity of the item used in the breakout shown on the illustration figure, which is prepared for a functional group, subfunctional group, or an assembly.

4. Explanation of Columns (Section IV)

a. National Stock Number (NSN) Index.

(1) *Stock number column.* This column lists the NSN by National item identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN. When using this column to locate an item, ignore the first four digits of the NSN. When requisitioning items use the complete NSN (13 digits).

(2) *Fig. column.* This column lists the number of the figure where the item is identified/located. The illustrations are in numerical sequence in sections II and III.

(3) *Item column.* The item number identifies the item associated with the figure listed in the adjacent Fig. column. This item is also identified by the NSN listed on the same line.

b. Part Number Index. Part numbers in this index are listed by part number in ascending alphameric sequence.

(1) *FSCM column.* This column lists the Federal supply code for manufacturer (FSCM).

(2) *Part number column.* This column indicates the part number assigned to the item.

(3) *Stock number column.* This column lists the National stock number for the associated part number and manufacturer identified in the part number and FSCM columns to the left.

(4) *Fig. Column.* This column lists the number of the figure where the item is identified/located in sections II and III.

(5)   Item column The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

5. Special Information

a. Short Form PPL. This Repair Parts and Special Tools List is a short form RPSTL. All repair parts will be listed in the next revision.

b. Associated Publications. The publications listed below pertain to the HP6942A and its components: TM 11-7440-312-13-1, Multiprogrammer HP6942A (To be published). TM 11-7440-312-13-2, Multiprogrammer HP6942A (To be published).

c. National Stock Numbers. National stock numbers (NSN's) that are missing from P source coded items have been applied for and will be added to this TM by future change/revision when they are entered in the Army Master Data File (AMDF). Until the NSN's are established and published, submit exception requisitions to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: DRSEL-MM, Fort Monmouth, NJ 07703-5007 for the part required to support your equipment.

6. How to Locate Repair Parts

a. When National stock number or part number is not known.

(1)   *First.* Using the table of contents, determine the assembly group or subassembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and listings are divided into the same groups.

(2)   *Second.* Find the figure covering the assembly group or subassembly group to which the item belongs.

(3)   *Third.* Identify the item on the figure and note the item number.

(4)   *Fourth.* Refer to the Repair Parts List for the figure to find the part number for the item number noted on the figure.

(5)   *Fifth.* Refer to Part Number Index to find the NSN, if assigned.

b. When National stock number or part number is known.

(1)   *First.* Using the index of National stock numbers and part numbers, find the pertinent National stock number or part number. The NSN index is in National item identification number (NIIN) sequence (para 4a(1)). The part numbers in the part number index are listed in ascending alphameric sequence (para 4b). Both indexes cross-reference you to the illustration figure and item number of the item you are looking for.

(2)   *Second.* After finding the figure and item number, verify that the item is the one you're looking for, then locate the item number in the repair parts list for the figure.

7. Abbreviations.

Not applicable

(Next printed page is 7)

FRONT

(FRONT)

A1
8

A2
7

A3
6

A4
1

9

10

11

A14
2

A5
3

A6
4
5
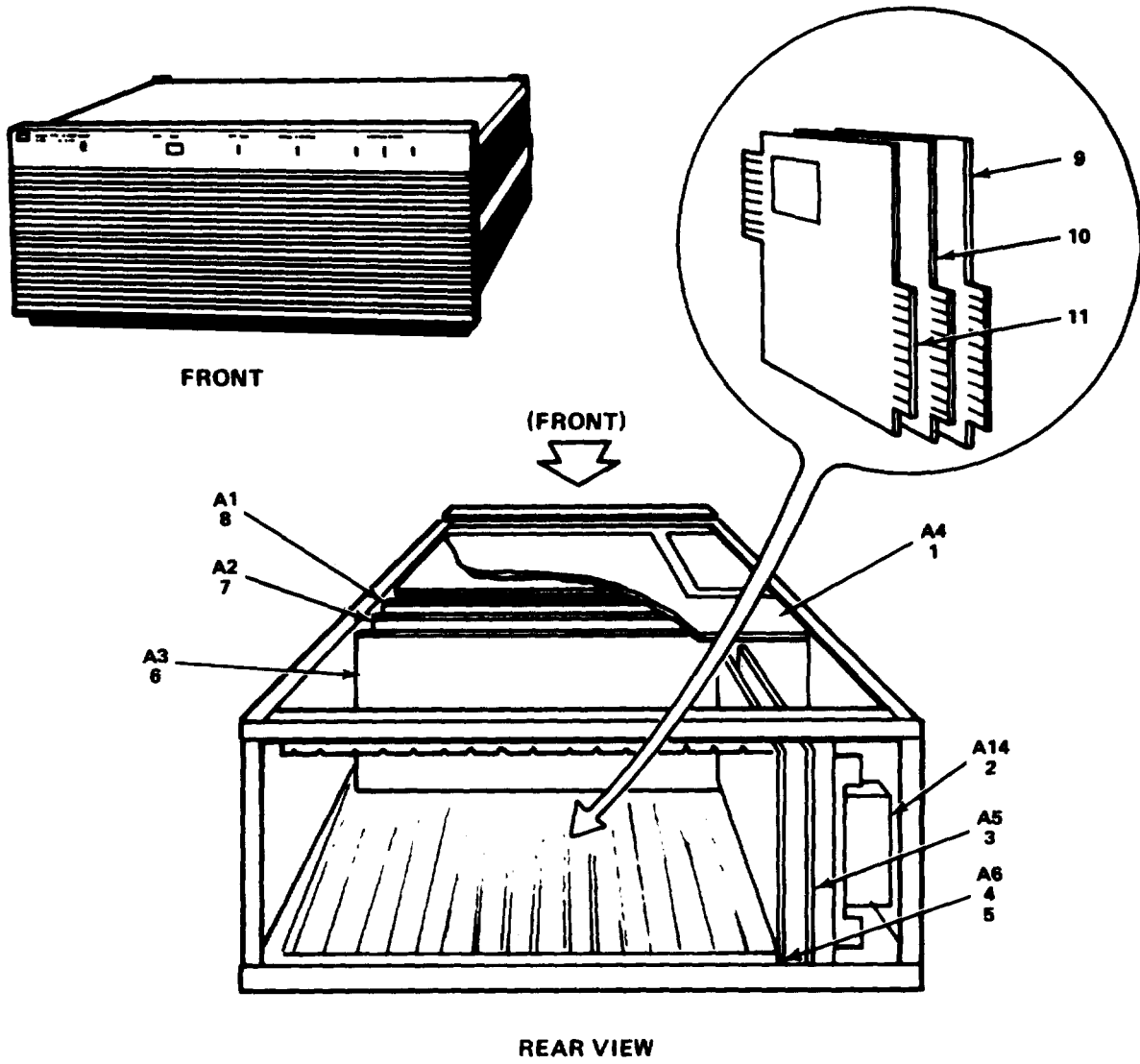
REAR VIEW

Figure 1. Multiprogrammer, 6942A (Sheet 1 of 2)

A11
12

A12
13

A10
20

B1
14

A7
19

T1
15

A8
18

A9
17

A13
16
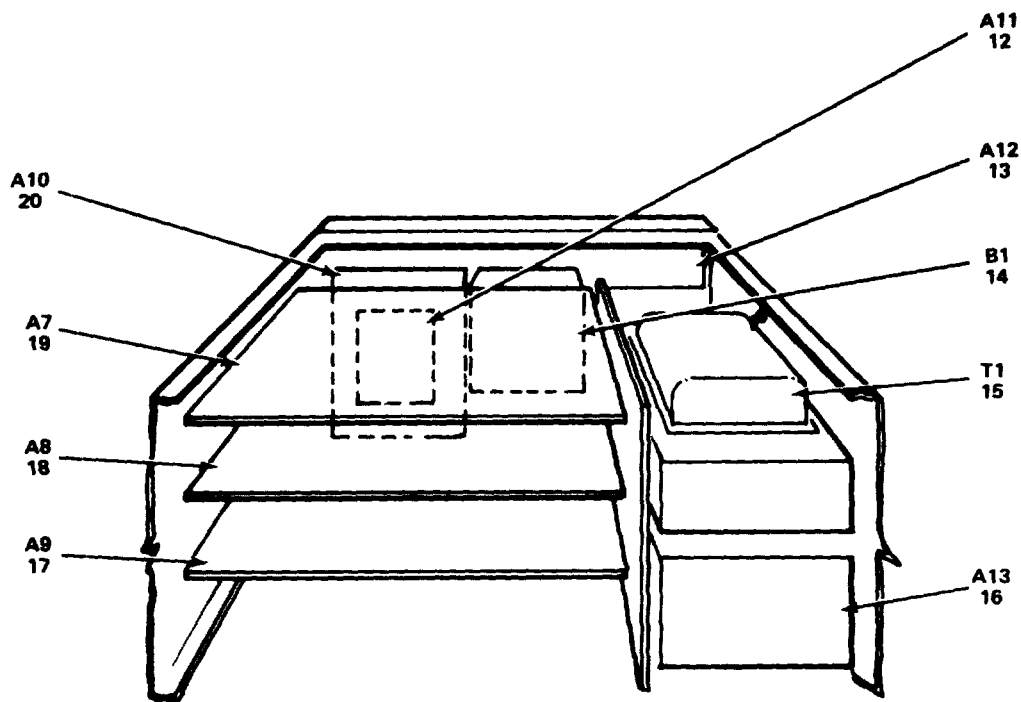
REAR VIEW

EL9HD-7

Figure 1. Multiprogrammer, 6942A (Sheet 2 of 2)

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 00 MULTIPROGRAMMER 6942A(HP)	
				FIG. 1 MULTIPROGRAMMER, 6942A	
1	PAFDD	28480	06942-60001	CIRCUIT CARD ASSEMB...	1
2	PAFZZ	28480	5060-2190	MODULE ASSEMBLY, LIN	1
3	PAFDD	28480	06942-60024	CIRCUIT CARD ASSEMB...	1
4	PAFDD	28480	06942-60020	CIRCUIT CARD ASSEMB...	1
5	PAFDD	28480	14700-60020	CIRCUIT CARD ASSEMB...	1
6	PAFDD	28480	06942-60021	CIRCUIT CARD ASSEMB...	1
7	PAFDD	28480	06942-60023	CIRCUIT CARD ASSEMB...	1
8	PAFDD	28480	06942-60022	CIRCUIT CARD ASSEMB...	1
9	PAFDD	28480	69771A	COMPARATOR CARD...	1
10	PAFDD	28480	69731A	DIGITAL OUTPUT	1
11	PAFDD	28480	697906	MEMORY CARDS..	1
12	PAFDD	28480	5060-2785	CIRCUIT CARD ASSEMB...	1
13	PAFDD	28480	5060-2778	CIRCUIT CARD ASSEMB...	1
14	PAFZZ	28480	3160-0341	FAN, TUBEAXIAL	1
15	PAFZZ	28480	5080-1917	TRANSFORMER, POWER	1
16	PAFDD	28480	5060-2779	CIRCUIT CARD ASSEMB...	1
17	PAFDD	28480	5060-2768	CIRCUIT CARD ASSEMB...	1
18	PAFDD	28480	5060-2766	CIRCUIT CARD ASSEMB...	1
19	PAFDD	28480	5060-2767	CIRCUIT CARD ASSEMB...	1
20	PAFDD	28480	5020-2769	CIRCUIT CARD ASSEMB...	1

END OF FIGURE
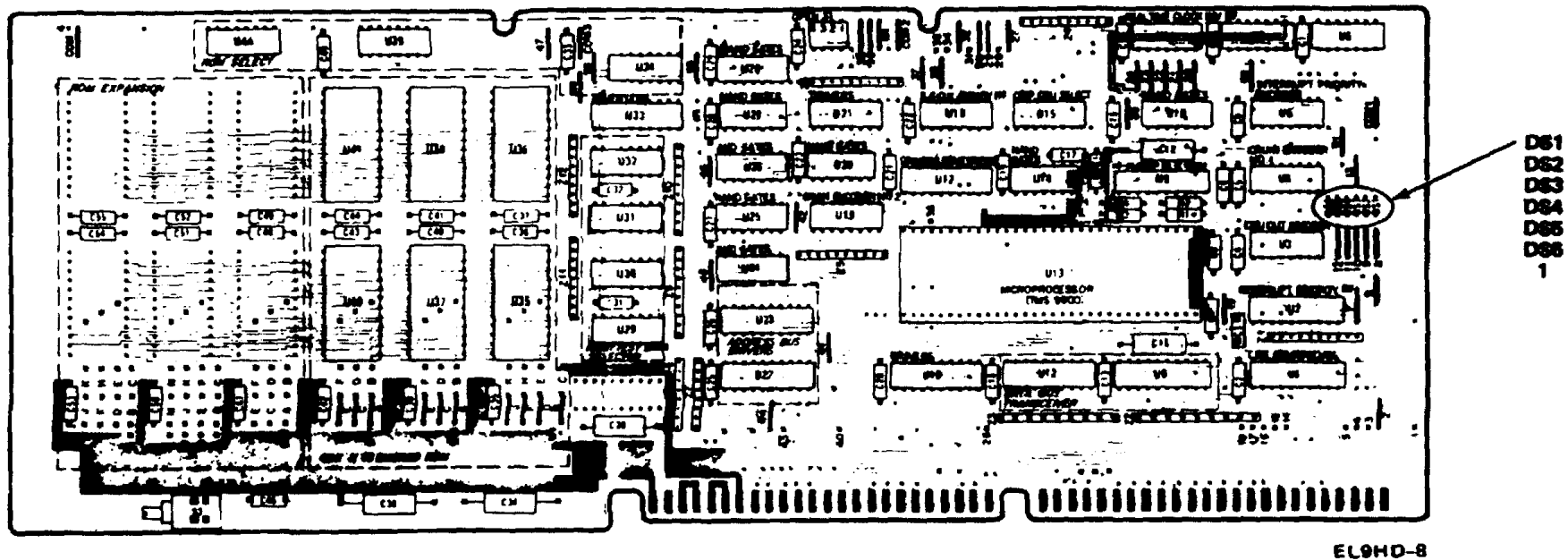
Figure 2. CCA, CPU/ROM, 06942-60022, A1

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 01 CPU/ROM BOARD ASSY 06492-60022 AI	
				FIG. 2 CCA, CPU/ROM 06942-6022 A1	
1	PADZZ	28480	1990-0728	LENS, LIGHT	6
				END OF FIGURE	

11

DS6
DS5
DS4
DS3
DS2
DS1
1
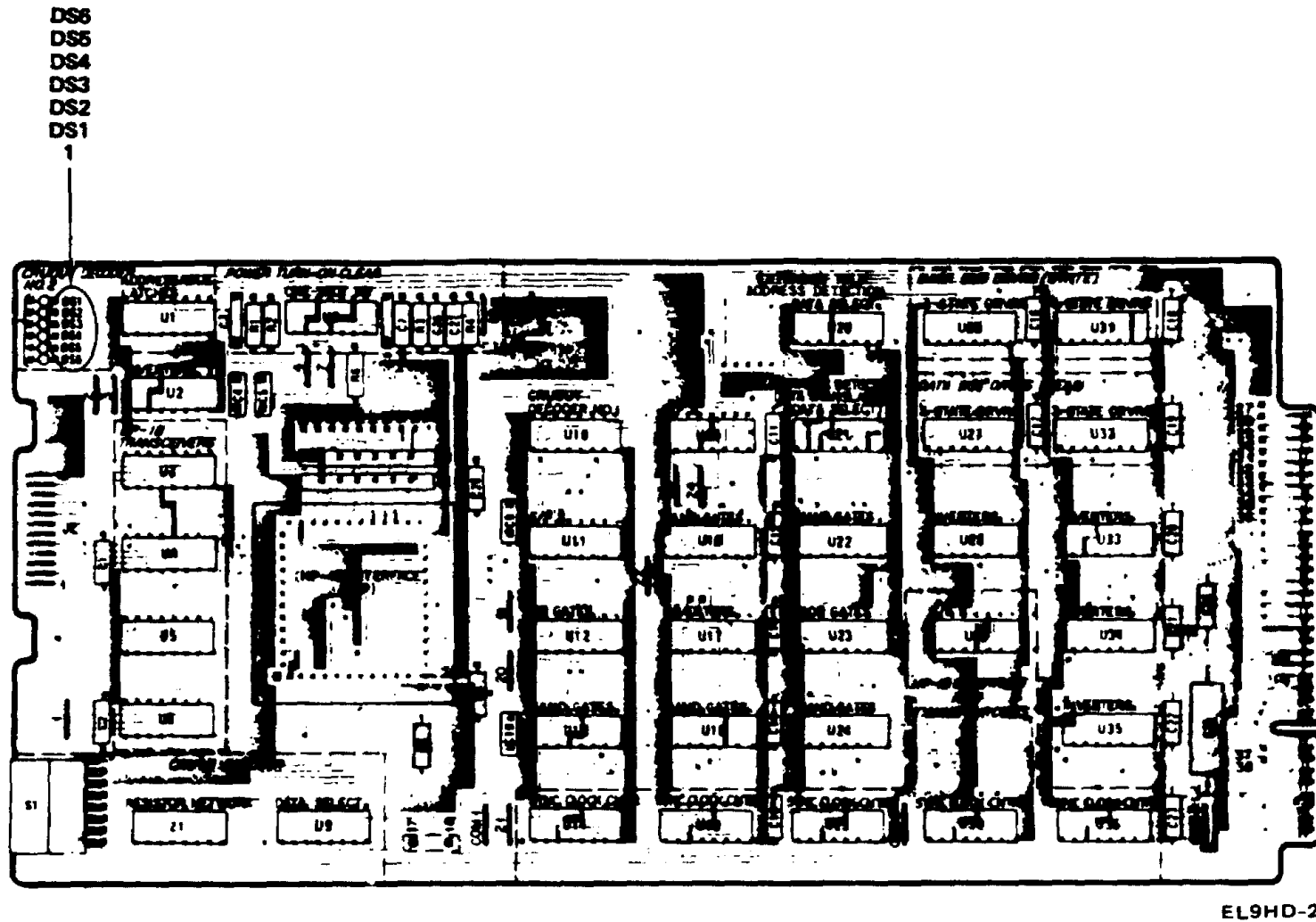
Figure 3. CCA, HP-IB Interface, 06942-60024, A5

EL9HD-2

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 HP-IB INTERFACE BOARD ASSY 06942-60024 AS	
				FIG. 3 CCA, HP-IB INTERFACE 06942-60024 A5	
1	PADZZ	28480	1990-0728	LENS, LIGHT	6

END OF FIGURE
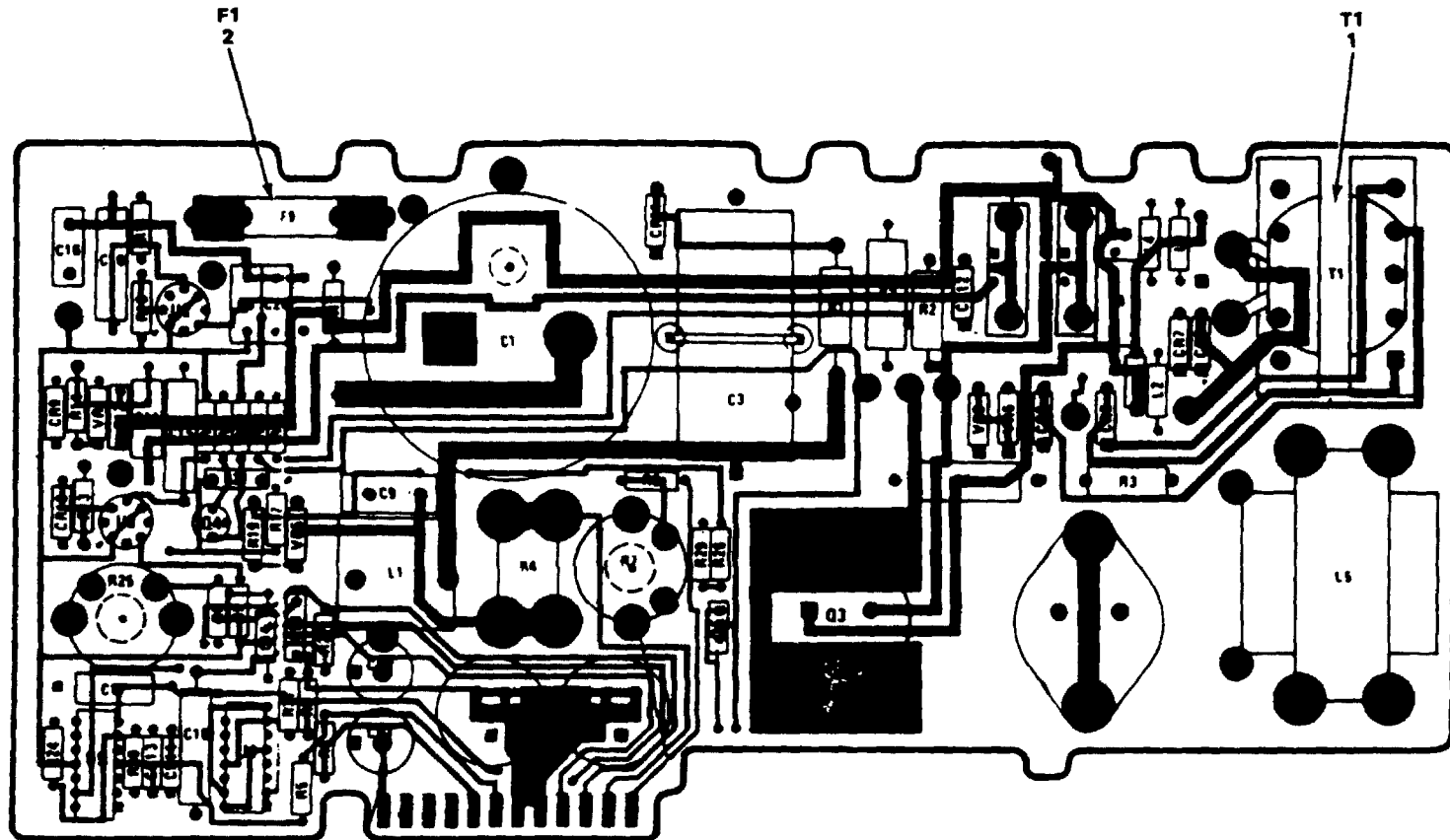
13

Figure 4. CCA, Top Power Supply, 5060-2767, A7

EL9HD-3

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 03 TOP POWER SUPPLY BOARD ASSY 5060-2767 A7	
				FIG. 4 CCA, TOP POWER SUPPLY 5060-2767 A7	
1	PADZZ	28480	5080-1916	TRANSFORMER, POWER	1
2	PADZZ	75915	312005	FUSE, CARTRIDGE...	1

END OF FIGURE

15
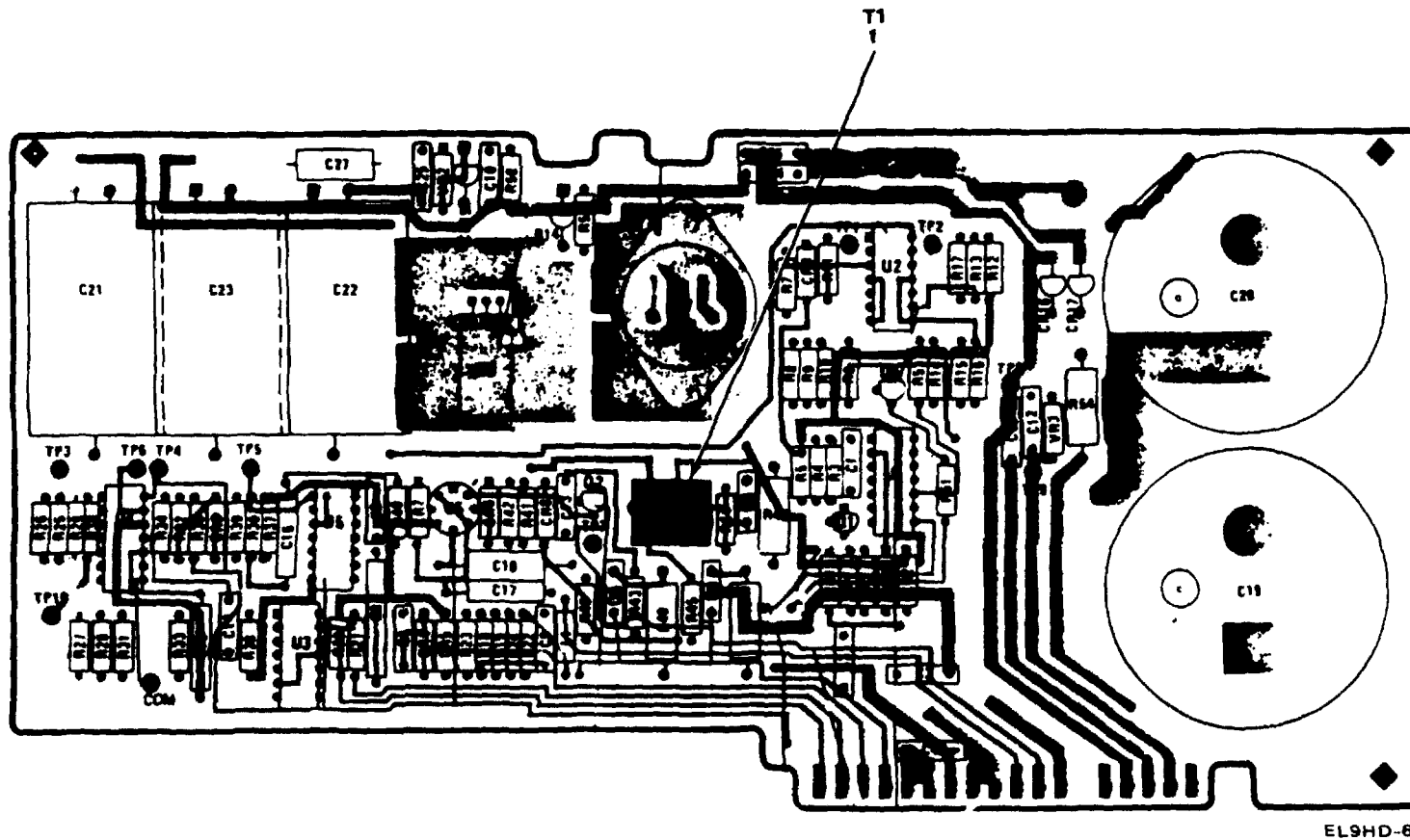
Figure 5. CCA, Middle Power Supply, 5060-2766, A8

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 04 MIDDLE POWER SUPPLY BOARD ASSY 5060-2766 A8	
				FIG. 5 CCA, MIDDLE POWER SUPPLY 5060-2766 A8	
1	PADZZ	28480	5080-1929	TRANSFORMER, POWER	1

END OF FIGURE

17
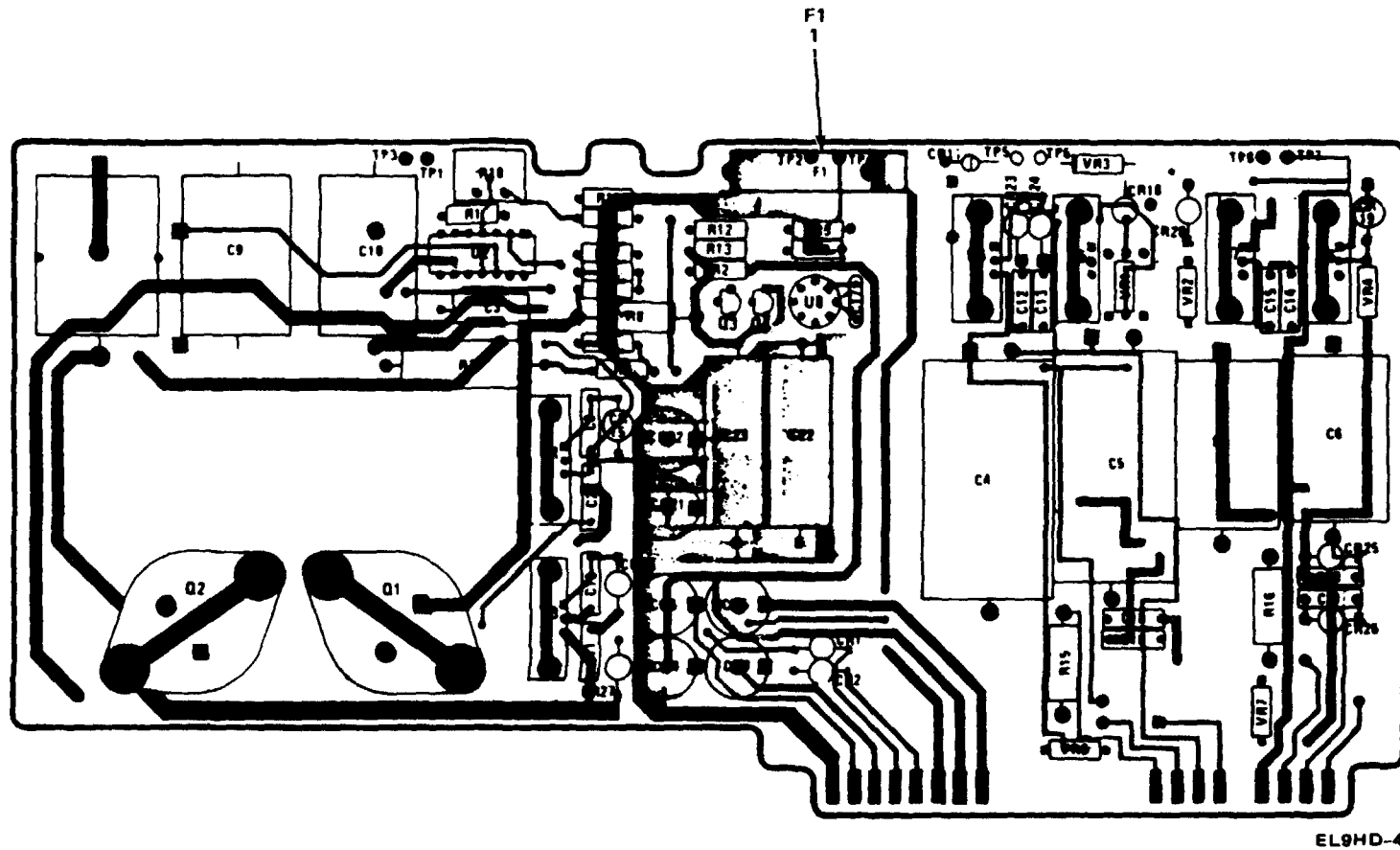
Figure 6. CCA, Bottom Power Supply, 5060-2768, A9

18

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 05 BOTTOM POWER SUPPLY BOARD ASSY 5060-2768 A9	
				FIG. 6 CCA, BOTTOM POWER SUPPLY 5060-2768 A9	
1	PADZZ	75915	2110-0003	FUSE, CARTRIDGE...	1
				END OF FIGURE	

19
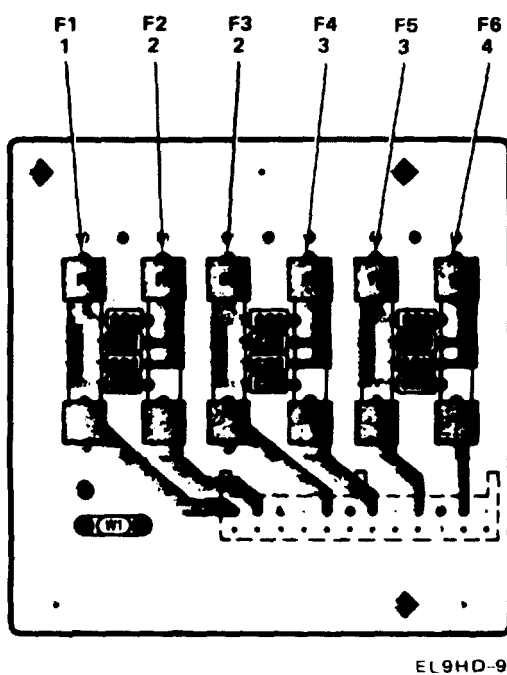
Figure 7. Fuse Board Assy, 5060-2785, All

20

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 06 FUSE BOARD ASSY 5060-2785 A11	
				FIG. 7 FUSE BOARD ASSY 5060-2785 A11	
1	PADZZ	81349	F02A250V1-1/2A	FUSE, CARTRIDGE...	1
2	PADZZ	75915	313001	FUSE, CARTRIDGE...	2
3	PADZZ	75915	313-500	FUSE, CARTRIDGE...	2
4	PADZZ	71400	MDL3/10	FUSE, CARTRIDGE...	1

END OF FIGURE
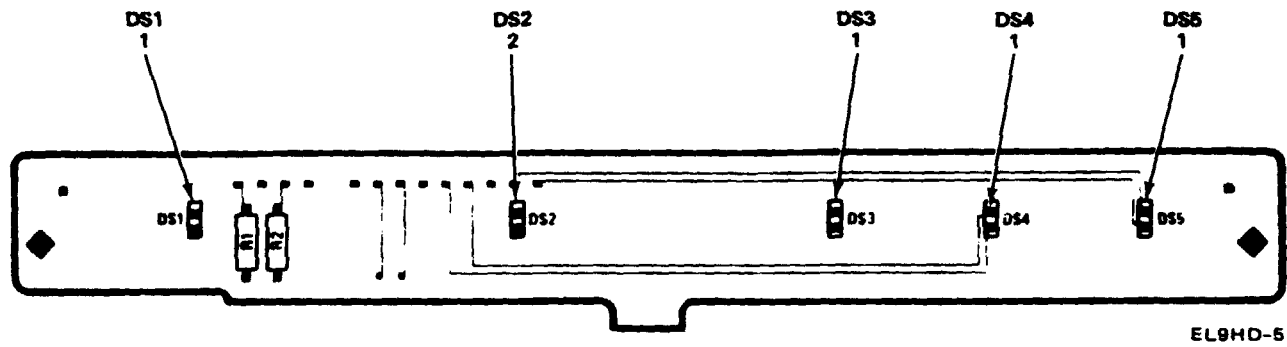
Figure 8. Display Board, 5060-2778, A12

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 07 DISPLAY BOARD ASSY 5060-2778 A12	
				FIG. 8 DISPLAY BOARD 5060-2778 A12	
1	PAFZZ	28480	1990-0631	LENS, LIGHT	4
2	PAFZZ	28480	1990-0681	DISPLAY, OPTOELECTRO	1
				END OF FIGURE	

NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5920-00-050-4953	7	1			
5920-00-235-8362	7	4			
5920-00-296-1519	4	2			
5920-00-284-9220	7	2			
5920-00-878-5571	7	3			
4140-01-108-5796	1	14			
5961-01-148-8520	8	2			
7035-01-160-0486	1	2			
5850-01-160-0523	2	1			
	3	1			
5850-01-160-0524	8	1			
7035-01-160-0532	1	8			
7035-01-160-0533	1	7			
7035-01-160-0534	1	6			
7035-01-160-0535	1	1			
7035-01-160-0536	1	3			
7035-01-160-0537	1	4			
7035-01-160-0538	1	17			
7035-01-160-0539	1	20			
7035-01-160-0540	1	12			
7035-01-160-0541	1	16			
7035-01-160-0542	1	13			
7035-01-160-0543	1	5			
7035-01-160-0544	1	19			
7035-01-160-0545	1	18			
7035-01-161-3738	1	9			
7035-01-161-3739	1	10			
5950-01-163-9054	4	1			
5950-01-163-9055	5	1			
5950-01-164-8468	1	15			

24

NATIONAL STOCK NUMBER AND PART NUMBER INDEX

PART NUMBER INDEX

FSCM	PART NUMBER	STOCK NUMBER	FIG.	ITEM
81349	F02A250V1-1/2A	5920-00-050-4953	7	1
71400	MDL3/10	5920-00-235-8362	7	4
28480	06942-60001	7035-01-160-0535	1	1
28480	06942-60020	7035-01-160-0537	1	4
28480	06942-60021	7035-01-160-0534	1	6
28480	06942-60022	7035-01-160-0532	1	8
28480	06942-60023	7035-01-160-0533	1	7
28480	06942-60024	7035-01-160-0536	1	3
28480	14700-60020	7035-01-160-0543	1	5
28480	1990-0631	5850-01-160-0524	8	1
28480	1990-0681	5961-01-148-8520	8	2
28480	1990-0728	5850-01-160-0523	2	1
			3	1
75915	2110-0003		6	1
75915	312005	5920-00-296-1519	4	2
75915	313-500	5920-00-878-5571	7	3
75915	313001	5920-00-284-9220	7	2
28480	3160-0341	4140-01-108-5796	1	14
28480	5020-2769	7035-01-160-0539	1	20
28480	5060-2766	7035-01-160-0545	1	18
28480	5060-2767	7035-01-160-0544	1	19
28480	5060-2768	7035-01-160-0538	1	17
28480	5060-2778	7035-01-160-0542	1	13
28480	5060-2779	7035-01-160-0541	1	16
28480	5060-2785	7035-01-160-0540	1	12
28480	5060-2790	7035-01-160-0486	1	2
28480	5080-1916	5950-01-163-9054	4	1
28480	5080-1917	5950-01-164-8468	1	15
28480	5080-1929	5950-01-163-9055	5	1
28480	69731A	7035-01-161-3739	1	10
28480	69771A	7035-01-161-3738	1	9
28480	697908		1	11

By Order of the Secretary of the Army:

<div align="right">

JOHN A. WICKMAN JR.
General United States Army
Chief of Staff

</div>

Official:

ROBERT M. JOYCE
Major General United States Army
The Adjutant General

Distribution:

To be distributed in accordance with Special List.

SOMETHING WRONG WITH PUBLICATION

THEN...JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL.

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER

PUBLICATION DATE

PUBLICATION TITLE

BE EXACT   PIN-POINT WHERE IT IS

PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.

IN THIS SPACE, TELL WHAT IS WRONG
AND WHAT SHOULD BE DONE ABOUT IT.

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER

SIGN HERE

DA ^FORM 1 JUL 79 **2028-2**

PREVIOUS EDITIONS ARE OBSOLETE.

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
1 decimeter = 10 centimeters = 3.94 inches
1 meter = 10 decimeters = 39.37 inches
1 dekameter = 10 meters = 32.8 feet
1 hectometer = 10 dekameters = 328.08 feet
1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
1 decigram = 10 centigrams = 1.54 grains
1 gram = 10 decigram = .035 ounce
1 decagram = 10 grams = .35 ounce
1 hectogram = 10 decagrams = 3.52 ounces
1 kilogram = 10 hectograms = 2.2 pounds
1 quintal = 100 kilograms = 220.46 pounds
1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliters = .34 fl. ounce
1 deciliter = 10 centiliters = 3.38 fl. ounces
1 liter = 10 deciliters = 33.81 fl. ounces
1 dekaliter = 10 liters = 2.64 gallons
1 hectoliter = 10 dekaliters = 26.42 gallons
1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

To change	To	Multiply by	To change	To	Multiply by
inches	centimeters	2.540	ounce-inches	Newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29,573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	Newton-meters	1.356	metric tons	short tons	1.102
pound-inches	Newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C