

## DEPARTMENT OF THE ARMY TECHNICAL MANUAL

## ORGANIZATIONAL MAINTENANCE REPAIR PARTS

## AND SPECIAL TOOLS LISTS

WELDING MACHINE, ARC: AC/DC, 300 AMP,

TRANSFORMER RECTIFIER; CONSTANT CURRENT, BASE

MOUNTED (EUTECTIC CORP. MODEL MD301 FED)

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# SECTION I.

## INTRODUCTION

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### 1. Scope

This manual lists repair parts, special tools, test and support equipment required for the performance of organizational maintenance of the welding machine.

### 2. General

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

a. *Prescribed Load Allowance (PLA) - Section II.* A composite listing of the repair parts, special tools, test and support equipment having quantitative allowances for initial stockage at the organizational level.

b. *Repair Parts - section III.* A list of repair parts authorized for the performance of maintenance at the organizational level in figure and item number sequence.

c. *Special Tools, Test and Support Equipment - Section IV.* Not applicable.

d. *Federal Stock Number and Reference Number Index - Section V.* A list of Federal Stock Numbers in ascending numerical sequence followed by a list of reference numbers in ascending alpha-numeric sequence, cross-referenced to the illustration figure number and item number.

### 3. Explanation of Columns

The following provides an explanation of columns in the tabular lists in Sections II and III:

a. *Source, Maintenance, and Recoverability Codes (SMR).*

(1) Source code indicates the source for the listed items. Source codes are:

Code	Explanation
P	Repair parts, Special Tools and Test Equipment supplied from the GSA / DSA, or Army supply system and authorized for use at indicated maintenance categories.
P2	Repair parts, Special Tools and Test Equipment which are procured and stocked for insurance purposes because the combat or military essentiality of the end item dictates that a minimum quantity be available in the supply system.
M	Repair parts, Special Tools and Test Equipment which are not procured or stocked, as such, in the supply system but are to be manufactured at indicated maintenance levels.
A	Assemblies which are not procured or stocked as such, but are made up of two or more units. Such component units carry individual stock numbers and descriptions, are procured and stocked separately and can be assembled to

Code	Explanation
X	form the required assembly at indicated maintenance categories.
X1	Parts and assemblies that are not procured or stocked because the failure rate is normally below that of the applicable end item or component. The failure of such part of assembly should result in retirement of the end item from the supply system.
X2	Repair parts which are not procured or stocked. The requirement for such items will be filled by the next higher assembly or component.
G	Repair parts, Special Tools and Test Equipment which are not stocked and have no foreseen mortality. The indicated maintenance category requiring such repair parts will attempt to obtain the parts through cannibalization or salvage, the item may be requisitioned with exception data, from the end item manager, for immediate use.
	Major assemblies that are procured with PEMA funds for initial use only as exchange assemblies at DSU and GSU level. These assemblies will not be stocked above DS and GS level or returned to depot supply level.

(2) Maintenance code indicates the lowest category of maintenance authorized to install the listed item. The maintenance level codes are:

Code	Explanation
C	Operator or crew
O	Organizational maintenance

(3) Recoverability code indicates whether unserviceable items should be returned for recovery or salvage. Items not coded are expendable. Recoverability codes are:

Code	Explanation
R	Applied to Repair parts, (assemblies and components ) Special Tools and Test Equipment which are considered economically repairable at direct and general support maintenance levels. When the item is no longer economically repairable, it is normally disposed of at the GS level. When supply considerations dictate, some of these repair parts may be listed for automatic return to supply for depot level repair as set forth in AR 710-50. When so listed, they will be replaced by supply on an exchange basis.
S	Repair parts, Special Tools, Test Equipment and assemblies which are economically repairable at DSU and GSU activities and which normally are furnished by supply on an exchange basis. When items are determined by a GSU to be uneconomically repairable, they will be evacuated to a depot for evaluation and analysis before final disposition.

<i>Code</i>	<i>Explanation</i>
T	High dollar value recoverable Repair parts, Special Tools and Test Equipment which are subject to special handling and are issued on an exchange basis. Such items will be repaired or overhauled at depota maintenance activities only. No repair may be accomplished at lower levels.
U	Repair parts, Special Tools and Test Equipment specifically selected for salvage by reclamation units because of precious metal content, critical materials, high dollar value or reusable casings or castings.

*b. Federal Stock Number.* This column indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

*c. Description.* This column indicates the Federal item name and any additional description of the item required. Assembly components and sub-assemblies are indented under major assemblies. The abbreviation "w / e", when used as part of the nomenclature, indicates the Federal stock number includes all armament, equipment, accessories, and repair parts issued with the item. A part number or other reference number is followed by the applicable five-digit Federal supply code for manufacturers in parenthesis.

*d. Unit of Measure (U/M).* A two character alphabetic abbreviation indicating the amount or quantity of the item upon which the allowances are based, e.g., ft, ea, pr, etc.

*e. Quantity Incorporated in Unit.* This column indicates the quantity of the item used in the assembly group. A "V" appearing in this column in lieu of a quantity indicates that a definite quantity cannot be indicated (e.g., shims, spacers, etc.).

*f. Fifteen-Day Organizational Maintenance Allowance.*

(1) The allowance columns are divided into four subcolumns. Indicated in each subcolumn opposite the first appearance of each item is the total quantity of items authorized for the number of equipments supported. Subsequent appearances of the same item will have the letters "REF" in the allowance column. To locate the referenced item, locate the FSN or reference number in the index. The earliest figure and item number is the referenced item. Items authorized for use as required but not for initial stockage are identified with an asterisk in the allowance column.

(2) The quantitative allowance for organizational level of maintenance represents one initial prescribed load for a 15-day period for the number of equipments supported. Units authorized additional prescribed loads, multiply the number of prescribed loads by the quantity in the appropriate density column to determine the number of repair parts authorized.

(3) To determine allowances when supporting more than 100 of these equipments: First divide the number of equipments supported by 100 by moving the decimal two spaces left; second, multiply the result by the quantity in the 51-100 density column. Example, authorized allowance for 51-100 equipment is 40; for 150 equipments, multiply 40 by 1.50 or 60 parts authorized.

(4) Subsequent changes to allowances will be limited as follows: No change in the range of items is authorized. If additional items are considered necessary, recommendation should be forwarded to U. S. Army Mobility Equipment Command for exception or revision to the allowance list. Revisions to the range of items authorized will be made by the U. S. Army Mobility Equipment Command based upon engineering experience, demand data, or TAERS information.

*g. Illustration.* This column is divided as follows :

(1) *Figure number.* Indicates the figure number of the illustration in which the item is shown.

(2) *Item number.* Indicates the callout number used to reference the item in the illustration.

#### **4. Special Information**

a. Repair parts mortality has been based on 1500 hours of operation per year.

b. Parts which require manufacture or assembly at a category higher than that authorized for installation will indicate in the source column the higher category.

c. The following publication pertains to the welding machine and its components:

TM 5-3431-228-14. Operator, organizational,  
DS, and GS Main-  
tenance Manual

d. The illustrations in this manual are identical to the applicable illustrations published in the -35P, Direct and General Support and Depot Maintenance Repair Parts and Special Tools List manual, and the figure numbers are the same as appear in that manual. The -35P illustrations are given for a better understanding of the parts relationship, however, only those parts assigned maintenance code "O" are listed in the tabular portion and only these parts are authorized for requisitioning from this manual.

#### **5. How to Locate Repair Parts**

a. When Federal stock number or reference number is unknown:

(1) *First.* Using the table of contents, determine the assembly group within which the repair part belongs. This is necessary since

illustrations are prepared for assembly groups and listings are divided into the same groups.

(2) *Second*. Find the illustration covering the assembly group to which the repair part belongs.

(3) *Third*. Identify the repair part on the illustration and note the illustration figure and item number of the repair part.

(4) *Fourth*. Using the Repair Part Listing, find the assembly to which the repair part belongs and locate the illustration figure and item number noted on the illustration.

b. When the Federal stock number or reference number is known:

(1) *First*. Using the Index of Federal Stock Numbers and Reference Numbers, find the pertinent Federal stock number or reference number. This index is in ascending FSN sequence followed by a list of reference numbers in alpha-numeric sequence, cross-referenced to the illustration figure number and item number.

(2) *Second*. Using the Repair Part Listing, find the assembly group of the repair part and the illustration figure number and item number referenced in the Index of Federal Stock Numbers and Reference Numbers.

## 6. Federal Supply Codes for Manufacturers

<i>Code</i>	<i>Explanation</i>
00779	AMP, Inc., Harrisburg, Pa.
02660	Amphenol Corp., Broadview, Ill.
04009	Arrow-Hart and Hegeman Electric Co., Hartford, Conn.
04845	Automatic Switch Co., Madison, N. J.
08805	General Electric Co., Large Lamp Dept. Nela Park, Cleveland, Ohio
16166	Western Enterprises, Inc., Bay Village, Ohio

<i>Code</i>	<i>Explanation</i>
21632	Hollingsworth Solderless Terminal, Ft. Lauderdale, Fla.
30323	Illinois Tool Works, Inc., Chicago, Ill.
34463	Espe Mfg. Co., Schiller Park, Ill.
60399	Torrington Mfg. Co., Torrington, Conn.
62119	Universal Electric Co., Owosso, Mich.
71400	Bussmann Mfg., Div. McGraw-Edison, St. Louis, Mo.
71747	Chicago Hardware and Fixture Co., Franklin Park, Ill.
71785	Cinch Mfg. Co. and Howard B. Jones Div., Chicago, Ill.
72765	Drake Mfg. Co., Chicago, Ill.
74842	Illinois Lock Co., Wheeling, Ill.
74970	Johnson, E. F. Co., Waseca, Minn.
75543	Lavelle Rubber Co., Chicago, Ill.
75915	Littlefuse, Inc., Des Plaines, Ill.
77342	American Machine & Foundry Co., Potter & Brumfield Div. Princeton, Ind.
78553	Tinnerman Products, Inc., Cleveland, Ohio
79470	Weatherhead Co., The Cleveland, Ohio
82807	Milwaukee Resistor Co., Milwaukee, Wis.
90800	Hays Mfg. Co., Erie, Pa.
91929	Honeywell, Inc., Micro Switch Div., Freeport, Ill.
96073	Mid-States Welder Mfg. Co., Chicago, Ill.
96906	Military Standards Div., Directorate of Logistic Services, DSA

## 7. Recommendations for Maintenance Publication Improvement

Report of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to DA Publications) and forwarded direct to Commanding General, U. S. Army Mobility Equipment Command, ATTN: AMSME-MPP, 4300 Goodfellow Boulevard, St. Louis, Mo. 63120.

## SECTION II. PRESCRIBED LOAD ALLOWANCE

(1)	(2)	(3)
FEDERAL STOCK NUMBER	DESCRIPTION	15-DAY ORGANIZATIONAL MAINTENANCE ALLOWANCE (A) (B) (C) (D) 1-5 6-20 21-50 51-100
<b>GROUP 01 - FRAME AND CABINET</b>		
	NUT, SHEET SPRING C8109-8-4 (78553)	1 2 4 9
	SCREW, TAPPING, THREAD FORMING 634-2516-80-0024 (30323)	1 2 4 9
<b>GROUP 02 - VENTILATING SYSTEM</b>		
	RESISTOR, FIXED 19R1785 (96073)	1 1
<b>GROUP 03 - ELECTRONIC COMPONENTS</b>		
	FUSE, CARTRIDGE, 20 AMP 250 VOLT 314020 (75915)	1 1 2
	BUS BAR E 11G2200 (96073)	1
<b>GROUP 04 - ELECTRICAL CONTROLS AND ASSOCIATED PARTS</b>		
5930-578-2197	PIN, ROLL 7R2036-187X1 (96073)	1 1 2
	SWITCH, TOGGLE SPST AH20994LG (04009)	1 1
	SWITCH, MICROPOWER 13AT1 (91929)	1
	LAMP NE51H (08805)	1 1 2
	CAP AND NUT ASSEMBLY, LIGHT INDICATOR 25P52B323 (72765)	1
	WASHER 8R2306 (96073)	1 1 2
	SCREW 11R1209 (96073)	1 1 2
	BRIDGE, SPARK GAP 11G2241 (96073)	1 2

## SECTION II. PRESCRIBED LOAD ALLOWANCE (CONT)

(1) FEDERAL STOCK NUMBER	(2) DESCRIPTION	(3) 15-DAY ORGANIZATIONAL MAINTENANCE ALLOWANCE			
		(A) 1-5	(B) 6-20	(C) 21-50	(D) 51-100
	SCREW 11R139 (96073)	1	1	2	
5930-259-8619	SWITCH, BASIC YZ2RD (91929)			1	
	TIMER CHB38-31005 (77342)			1	
	THERMOSTAT ASSEMBLY 24G2012 (96073)			1	
	SWITCH, TOGGLE 80600BJ (04009)			1	
	SWITCH, DPDT 82605 (04009)			1	
<b>GROUP 05 - HYDRAULIC COMPONENTS</b>					
	VALVE ASSEMBLY, GAS AND WATER 22G1839-1 (96073)	1	1		
	VALVE, SOLENOID 8262C22 (04845)			1	
5325-290-4344	GROMMET, RUBBER 913 (75543)	1	2	4	
<b>GROUP 07 - ACCESSORIES</b>					
	TIMER, SEQUENTIAL CHB38-31005 (77342)			1	
	TIMER, SEQUENTIAL CHB38-31002 (77342)			1	

## SECTION III REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE

(1)	(2)	(3)	(4)	(5)	15-DAY ORGANIZATIONAL MAINTENANCE ALW					(7) ILLUSTRATION.		
					UNIT OF MEAS	QTY IN	(A)	(B)	(C)	(D)		
SMR CODE	FEDERAL STOCK NUMBER	DESCRIPTION	USABLE ON CODE		UNIT	1-5	6-20	21-50	51-100	(A)	(B)	
GROUP 01-FRAME AND CABINET												
X2-O-		NUT, EYE C185A (71747)		EA	2						1	1
X2-O-		COVER, CABINET 3G1817 (96073)		EA	1						1	2
P-O-	5305-757-8287	SCREW, TAPPING MS51851-43 (96906)		EA	18	*	*	*	*	*	1	3
X2-O-		SPACER 13G-1817 (96073)		EA	1						1	4
P-O-	5310-834-8732	NUT, HEXAGON MS35691-33 (96906)		EA	2	*	*	*	*	*	1	5
X2-O-		PANEL, RIGHT SIDE 3G2175A (96073)		EA	1						1	6
P-O-	5305-757-8292	SCREW, TAPPING, THREAD FORMING MS51851-44 (96906)		EA	16	*	*	*	*	*	1	7
X2-O-		HOUSING, FRONT 3G2250 (96073)		EA	1						1	8
P-O-	5310-757-6524	NUT, SHEET SPRING CB109-8-4 (78553)		EA	24	1	2	4	9	1	9	
P-O-	5305-716-6316	SCREW, TAPPING, THREAD FORMING 634-2516-80-0024 (30323)		EA	14	1	2	4	9	1	10	
X2-O-		PANEL, LEFT SIDE 3G2175B (96073)		EA	1						1	12
X2-O-		HOUSING, REAR 3G2286 (96073)		EA	1						1	13
X2-O-		LABEL, VOLTAGE 14R2332 (96073)		EA	1						1	14
GROUP 02-VENTILATING SYSTEM												
X2-O-		FAN MOTOR AND BLADE ASSEMBLY 11G2250 (96073)		EA	1						2	1
-P2O-	4140-738-9881	IMPELLER, FAN, CENTRIFUGAL N1420-3 (60399)		EA	1	*	*	*	*	*	2	2
X2-O-		HOUSING ASSEMBLY, FAN 13G2408 (96073)		EA	1						2	3
P-O-	5305-934-9751	NUT MS35650-302 (96906)		EA	4	*	*	*	*	*	2	4
P-O-	5310-851-2674	NUT, PLAIN, HEXAGON MS35691-1 (96906)		EA	8	*	*	*	*	*	2	5
P-O-	5310-582-5965	WASHER, LOCK MS35338-44 (96906)		EA	8	*	*	*	*	*	2	6
P-O-	5310-045-3296	WASHER, LOCK MS35338-43 (96906)		EA	4	*	*	*	*	*	2	7
X2-O-		STRAP, MOUNTING 13G2405 (96073)		EA	1						2	8
P-O-	5905-472-3577	RESISTOR, FIXED 19R1785 (96073)		EA	2	*	*	1	1	1	2	9
P-O-	5305-622-9483	SCREW, MACHINE MS35265-81 (96906)		EA	4	*	*	*	*	*	2	10
P-O-	5305-021-3616	SCREW, CAP, HEXAGON HEAD MS35307-305 (96906)		EA	4	*	*	*	*	*	2	11
X2-O-		BUS BAR 29G1986-8 (96073)		EA	1						2	12

## SECTION III REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REF NUMBER & MFR CODE	USABLE ON CODE	(4)	(5)	(6) 15-DAY ORGANIZATIONAL MAINTENANCE ALW				(7) ILLUSTRATION: (A) FIG. NO. (B) ITEM NO.	
				UNIT OF MEAS	QTY INC IN	(A)	(B)	(C)	(D)		
P-O-		MOTOR, FAN CB2J016-230V (62119)		EA	1	*	*	*	*	2	13
-P2O-	5940-156-7135	TERMINAL, LUG 31256 (00779)		EA	2	*	*	*	*	2	14
-P2O-	6150-451-3010	BUS BAR LEADS 29G1960-2 (96073)		EA	1	*	*	*	*	2	15
		GROUP 03 - ELECTRONIC COMPONENTS									
-P-O-	5310-851-2674	NUT, PLAIN, HEXAGON MS35691-1 (96906)		EA	4	REF	REF	REF	REF	4	11
-P-O-	5310-477-0332	WASHER, NONMETALLIC 1-562-125-910 (34463)		EA	8	*	*	*	*	6	6
-P-O-	5310-809-4061	WASHER, FLAT MS27183-15 (96906)		EA	8	*	*	*	*	6	7
-P-O-	5310-851-2674	NUT, PLAIN, HEXAGON MS35691-1 (96906)		EA	5	REF	REF	REF	REF	6	9
-P-O-	5305-021-3616	SCREW, CAP, HEXAGON HEAD MS35307-305 (96906)		EA	5	REF	REF	REF	REF	6	10
-P2O-	5910-472-3882	BUS BAR 11G1284 (96073)		EA	1	*	*	*	*	6	19
-P-O-	5310-582-5965	WASHER, LOCK MS35338-44 (96906)		EA	4	REF	REF	REF	REF	6	20
-P-O-	5305-719-3997	SCREW, CAP, HEXAGON HEAD MS35307-303 (96906)		EA	3	*	*	*	*	7	10
X2-O-		BUS BAR 29G1986-1 (96073)		EA	1					7	11
-P-O-	5310-582-5965	WASHER, LOCK MS35338-44 (96906)		EA	26	*	*	*	*	7	12
-P-O-	5310-851-2674	NUT, PLAIN, HEXAGON MS35691-1 (96906)		EA	16	*	*	*	*	7	13
-P-O-	5305-940-9426	SCREW, CAP, HEXAGON HEAD MS35309-357 (96906)		EA	2	*	*	*	*	7	22
-P-O-	5310-637-9541	WASHER, LOCK MS35338-46 (96906)		EA	2	*	*	*	*	7	25
X2-O-		BUS BAR 29G1986-7 (96073)		EA	1					7	24
X2-O-		PLATE, IDENTIFICATION 14R771 (96073)		EA	1					7	26A
X2-O-		PLATE, IDENTIFICATION 14R109 (96073)		EA	1					7	26B
-P-O-	5305-021-3616	SCREW, CAP, HEXAGON HEAD MS35307-305 (96906)		EA	3	*	*	*	*	7	30
X2-O-		BUS BAR 29G1986-6 (96073)		EA	1					7	31
X2-O-		FUSEHOLDER ASSEMBLY 11G2209 (96073)		EA	1					7	32
X2-O-		FUSEHOLDER HKP (71400)		EA	1					7	33
-P-O-	5920-280-8539	FUSE, CARTRIDGE 20 AMP 250 VOLT 314020 (75915)		EA	1	*	1	1	2	7	34
-P2O-	6150-451-8388	LEAD ASSEMBLY W14-25S441 (96073)		EA	1	*	*	*	*	7	35

## SECTION III REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE (CONTINUED)

(1)	(2)	(3)		(4)	(5)	(6) 15-DAY ORGANIZATIONAL MAINTENANCE ALW					(7) ILLUSTRATIONS		
						UNIT OF MEAS	QTY INC IN	(A)	(B)	(C)	(D)		
SMR CODE	FEDERAL STOCK NUMBER	DESCRIPTION	REF NUMBER & MFR CODE	USABLE ON CODE		UNIT	QTY IN	(A)	(B)	(C)	(D)	(A) FIG. NO.	(B) ITEM NO.
-P-O-	5306-011-6549	SCREW, CAP, HEXAGON HEAD MS35309-34 (96906)				EA	1	*	*	*	*	7	44
-P-O-	5310-903-3996	NUT, PLAIN, HEXAGON MS51969-2 (96906)				EA	2	*	*	*	*	7	45
-P-O-	5310-724-4218	NUT, PLAIN, HEXAGON MS51970-1 (96906)				EA	28	*	*	*	*	7	47
-P2O-	5940-432-7437	LINK, VOLTAGE CHANGE 11G2229 (96073)				EA	4	*	*	*	*	7	48
-P-O-	5305-080-7336	SCREW, MACHINE MS35265-86 (96906)				EA	2	*	*	*	*	7	49
-P-O-	5310-809-4058	WASHER, FLAT MS27183-10 (96906)				EA	2	*	*	*	*	7	50
X2-O-		TTERMINAL BOARD 8R2301 (96073)				EA	1					7	51
-P-O-	5305-550-3934	SCREW, CAP, HEXAGON HEAD MS35309-308 (96906)				EA	14	*	*	*	*	7	52
-P-O-	5305-543-5828	SCREW, CAP, HEXAGON HEAD MS35309-306 (96906)				EA	2	*	*	*	*	7	59
-P-O-	6150-451-1240	BUS BAR-E 11G2200 (96073)				EA	2	*	*	*	1	7	60
		GROUP 04 - ELECTRICAL CONTROLS AND ASSOCIATED PARTS											
		HOUSING, FRONT (SEE 8, FIG. 1)						REF				8	1
-P2O-		HANDLE, SWITCH 1G1989 (96073)				EA	2	*	*	*	*	8	6
-P-O-		PIN, ROLL 7R2036-187X1 (96073)				EA	2	*	1	1	2	8	7
X2-O-		BUS BAR 29G1986-4 (96073)				EA	1					8	10
-P-O-		SCREW, CAP, HEXAGON HEAD MS35309-306 (96906)				EA	2	REF	REF	REF	REF	8	11
X2-O-		BUS BAR 29G1986-3 (96073)				EA	1					8	12
-P-O-	5310-087-7493	WASHER, FLAT MS27183-13 (96906)				EA	2	*	*	*	*	8	13
-P-O-	5310-851-2674	NUT, PLAIN, HEXAGON MS35691-1 (96906)				EA	2	*	*	*	*	8	14
X2-O-		BUS BAR 29G1986-5 (96073)				EA	1					8	16
X2-O-		BUS BAR 29G1986-2 (96073)				EA	1					8	17
X2-O-		PLUG, BANANA, INSULATED 108-0302 (74970)				EA	2					9	6
X2-O-		PLUG AND GAP ASSEMBLIES 264-11-02-030-5A (71785)				EA	1					9	7
X2-O-		CONNECTOR, PLUG, ELECTRICAL 86CP8 (02660)				EA	1					9	10
X2-O-		LOCK, DOOR D5425C-S (74842)				EA	1					9	14
-P-O-	5930-797-3732	SWITCH, TOGGLE, SPST AH20994LG (04009)				EA	4	*	*	1	1	9	15
X2-O-		DECAL 14R2306 (96073)				EA	1					9	16
-P-O-	5930-646-4360	SWITCH, MICRO POWER 13AT1 (91929)				EA	1	*	*	*	1	9	17
-P2O-	6210-469-6714	LIGHT, INDICATOR 5100-202-323 (72765)				EA	3	*	*	*	*	9	18

## SECTION III REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE (CONTINUED)

(1)	(2)	(3)		(4)	(5)	(6) 15-DAY ORGANIZATIONAL					(7) ILLUSTRATIONS		
						UNIT OF MEAS	QTY IN	MAINTENANCE	ALW	(A)	(B)		
SMR CODE	FEDERAL STOCK NUMBER	DESCRIPTION	REF NUMBER & MFR CODE	USABLE ON CODE		1-5	6-20	21-50	51-100	(A)	(B)	FIG. NO.	ITEM NO.
-P-O-	6240-682-3411	LAMP NE51H (08805)			EA	3	*	1	1	2	9	19	
-P-O-		CAP AND NUT ASSEMBLY LIGHT INDICATOR 25P52B323 (72765)			EA	3	*	*	*	1	9	20	
-P2O-	3431-134-8104	SPARK GAP ASSEMBLY 11G2243 (969073)			EA	1	*	*	*	*	9	21	
-P-O-	5305-207-2297	SCREW, CAP, HEXAGON HEAD MS35307-312 (96906)			EA	2	*	*	*	*	9	22	
-P-O-	5310-809-3078	WASHER, FLAT MS27183-11 (96906)			EA	4	*	*	*	*	9	23	
-P-O-	5310-477-0333	WASHER 8R203 (96073)			EA	8	*	1	1	2	9	24	
-P-O-	5305-582-5807	SCREW, MACHINE MS35265-28 (96906)			EA	2	*	*	*	*	9	25	
-P-O-	5305-716-6312	SCREW 11R1209 (96073)			EA	2	*	1	1	2	9	26	
-P-O-	3431-451-1000	BRIDGE, SPARK GAP 11G2241 (96073)			EA	2	*	*	1	2	9	27	
-P-O-	5305-716-6313	SCREW 11R139 (96073)			EA	2	*	1	1	2	9	28	
X2-O-		TUBE 8G2305 (96073)			EA	2					9	29	
-P-O-	3431-451-6010	PLATFORM 11G2242 (96073)			EA	1	*	*	*	*	9	30	
-P-O-		WASHER, LOCK MS35338-44 (96906)			EA	2	REF	REF	REF	REF	9	31	
-P-O-	5310-851-2674	NUT, PLAIN, HEXAGON MS35691-1 (96906)			EA	2	REF	REF	REF	REF	9	32	
X2-O-		BRACKET, SPARK GAP 13G1833 (96073)			EA	1					9	34	
X2-O-		INSULATOR, SWITCH 8G2311 (96073)			EA	1					9	50	
-P-O-	5930-543-0839	SWITCH, BASIC YZ2RD (91929)			EA	1	*	*	*	1	9	51	
-P-O-	5945-452-0944	TIMER CHB38-31005 (77342)			EA	2	*	*	*	1	9	54	
-P2O-		CONNECTOR, RECEPTACLE, ELECTRICAL 264-12-02-013-1A (71785)			EA	1	*	*	*	*	10	2	
-P-O-	5930-410-6136	SWITCH, TOGGLE SPST AH20994LG (04009)			EA	1	REF	REF	REF	REF	10	3	
X2-O-		TERMINAL, LUG S09131 (26132)			EA	6					10	4	
-P2O-	5940-245-5949	TERMINAL, LUG 30997 (00779)			EA	7	*	*	*	*	10	6	
X2-O-	5940-199-5949	TERMINAL, LUG 30993 (00779)			EA	10	REF	REF	REF	REF	10	7	
-P-O-	5930-472-3578	THERMOSTAT ASSEMBLY 24G2012 (96073)			EA	1	*	*	*	1	10	8	
-P-O-		JACK, PIN 78-1L (02660)			EA	2	*	*	*	*	10	10	
X2-O-		TERMINAL, LUG 31256 (00779)			EA	2					10	11	
-P-O-		SWITCH, TOGGLE 80600BJ (04009)			EA	1	*	*	*	1	10	12	

## SECTION III REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE (CONTINUED)

(1)	(2)	(3)	(4)	(5)	(6)	15-DAY ORGANIZATIONAL MAINTENANCE ALW				(7)	(A) FIG. NO.		(B) ITEM NO.	
SMR CODE	FEDERAL STOCK NUMBER	DESCRIPTION	USABLE ON CODE	UNIT OF MEAS	QTY IN	(A)	(B)	(C)	(D)					
-P-O-	5310-934-4747	NUT, PLAIN, HEXAGON MS35649-262 (96906)		EA	9	*	*	*	*		11	2		
-P-O-	5310-082-1404	WASHER, FLAT MS27183-6 (96906)		EA	3	*	*	*	*		11	3		
-P-O-	5310-045-4007	WASHER, LOCK MS35338-41 (96906)		EA	7	*	*	*	*		11	4		
-P-O-	5305-514-7506	SCREW, MACHINE MS35265-26 (96906)		EA	2	*	*	*	*		11	8		
-P-O-	5930-655-1515	SWITCH DPDT 82605 (04009)		EA	1	*	*	*	1		11	20		
-P-O-	5305-582-5808	SCREW, MACHINE MS35265-31 (96906)		EA	4	*	*	*	*		11	22		
-P-O-	5305-543-5198	SCREW, MACHINE MS35265-36 (96906)		EA	1	*	*	*	*		11	25		
<b>GROUP 05 - HYDRAULIC COMPONENTS</b>														
-P-O-		VALVE ASSEMBLY, GAS AND WATER 22G1839-1 (96073)		EA	1	*	*	1	1		12	1		
X2-O-		ADAPTER 3200X4 (79470)		EA	1						12	2		
-P-O-	5310-088-5285	WASHER, FLAT MS27183-20 (96906)		EA	8	*	*	*	*		12	3		
X2-O-		ADAPTER 15A (16166)		EA	2						12	4		
X2-O-		ADAPTER AW15 (16166)		EA	1						12	5		
-P2O-	5935-171-3001	PLUG, PIN 71-1L (02660)		EA	2	*	*	*	*		12	6		
-P-O-		VALVE, SOLENOID 8262C22 (04845)		EA	2	*	*	*	1		12	7		
-P2O-		ELBOW, PIPE 22R1759 (96073)		EA	4	*	*	*	*		12	8		
-P-O-	5325-290-4344	GROMMET, RUBBER 913 (75543)		EA	1	*	1	2	4		12	9		
X2-O-		PLATE, MOUNTING 3G1831 (96073)		EA	1						12	10		
-P-O-		SCREW, TAPPING, THREAD FORMING MS51851-43 (96906)		EA	4	REF	REF	REF	REF		12	11		
<b>GROUP 06 - REMOTE CONTROL</b>														
-P2O-		FOOT CONTROL, TYPE D 20-904 (82807)		EA	1	*	*	*	*		13	1		
-P-O-	5305-757-8122	SCREW, TAPPING, THREAD FORMING MS51851-64 (96906)		EA	4	*	*	*	*		13	55		
-P-O-	5310-809-4058	WASHER, FLAT MS27183-10 (96906)		EA	4	REF	REF	REF	REF		13	56		
<b>GROUP 07 - ACCESSORIES</b>														
X2-O-		STRAINER 2400-0001-114 (90800)		EA	1						14	1		
X2-O-		NIPPLE 3326X4 (79470)		EA	1						14	2		
-P-O-		TIMER, SEQUENTIAL CHB38-31005 (77342)		EA	1	*	*	*	*		14	3		

## SECTION III REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REF NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY IN	(6) 15-DAY ORGANIZATIONAL MAINTENANCE ALW				(7) ILLUSTRATION: (A) FIG. (B) ITEM NO. NO.	
					(A)	(B)	(C)	(D)		
-P-O-		TIMER, SEQUENTIAL CKB38-31002 (77342)	EA	1	*	*	*	1	14	4
-P2O-	6150-451-3113	CABLE ASSEMBLY, ELECTRODE 29G2060 (96073)	EA	1	*	*	*	*	14	5
-P2O-	6150-451-3014	CABLE, ASSEMBLY, GROUND 29G2061 (96073)	EA	1	*	*	*	*	14	9

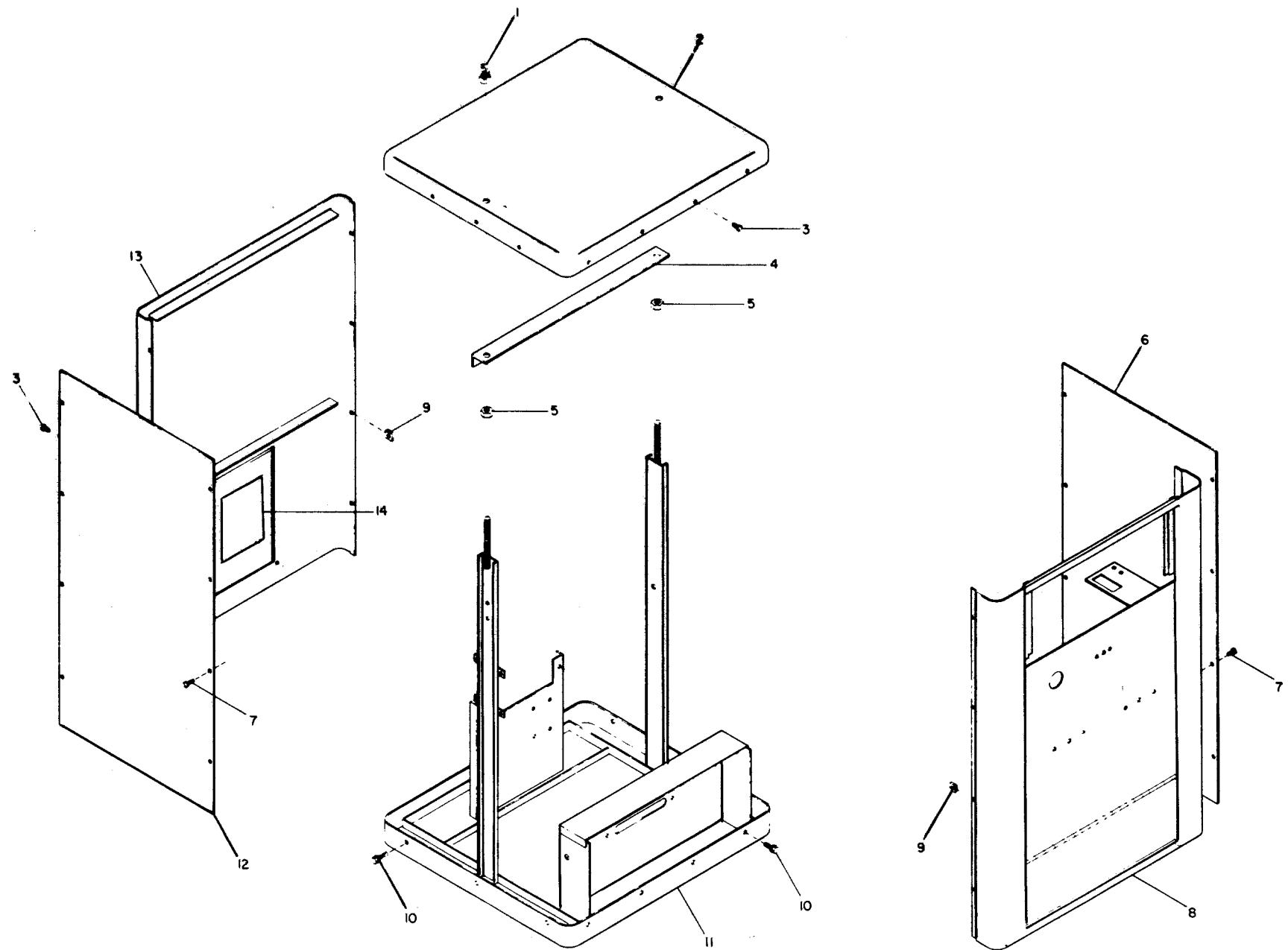
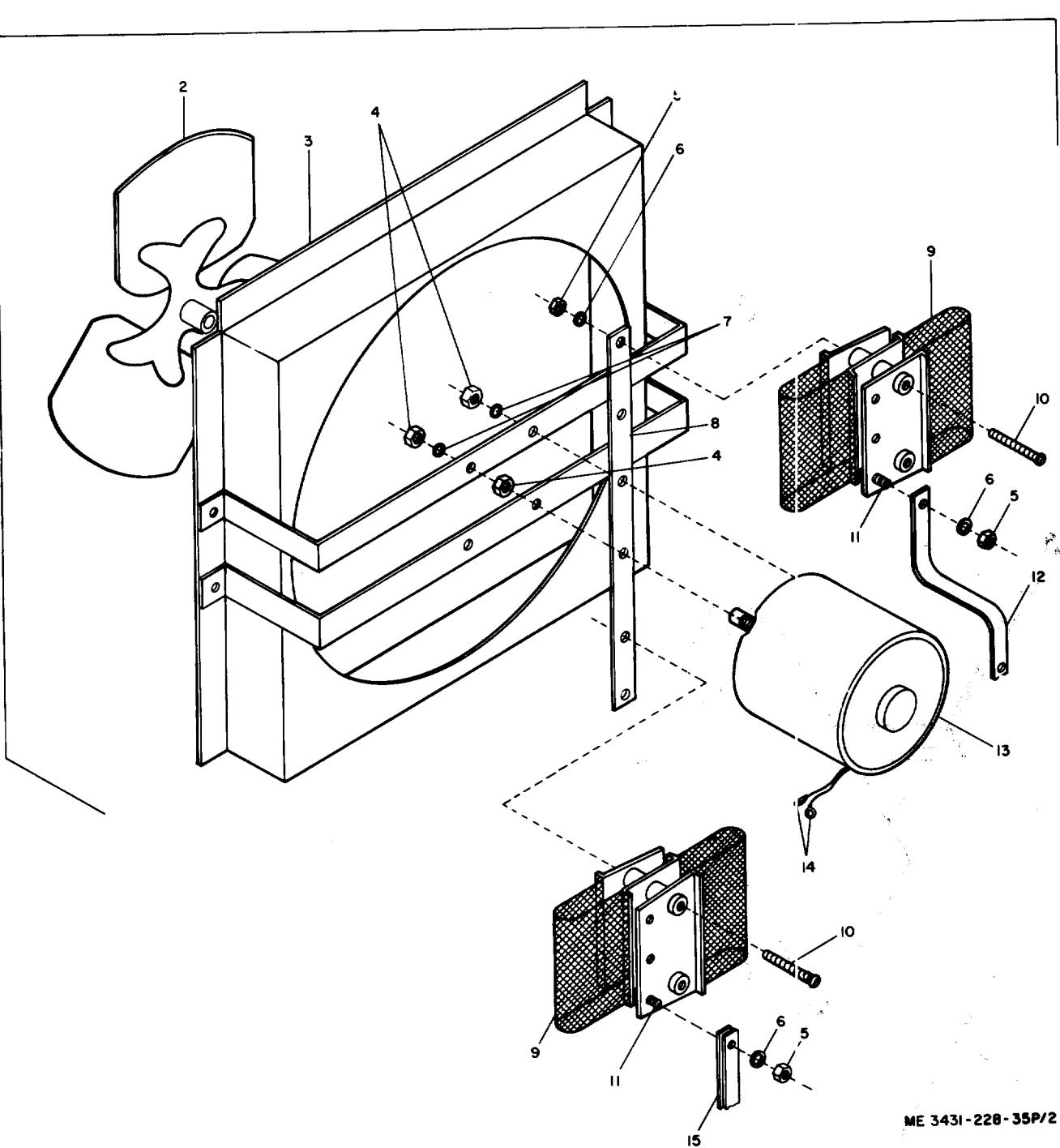


Figure 1. Frame and cabinet.

ME 343I-228-35P/I



ME 343I-228-35P/2

Figure 2. Fan and motor.

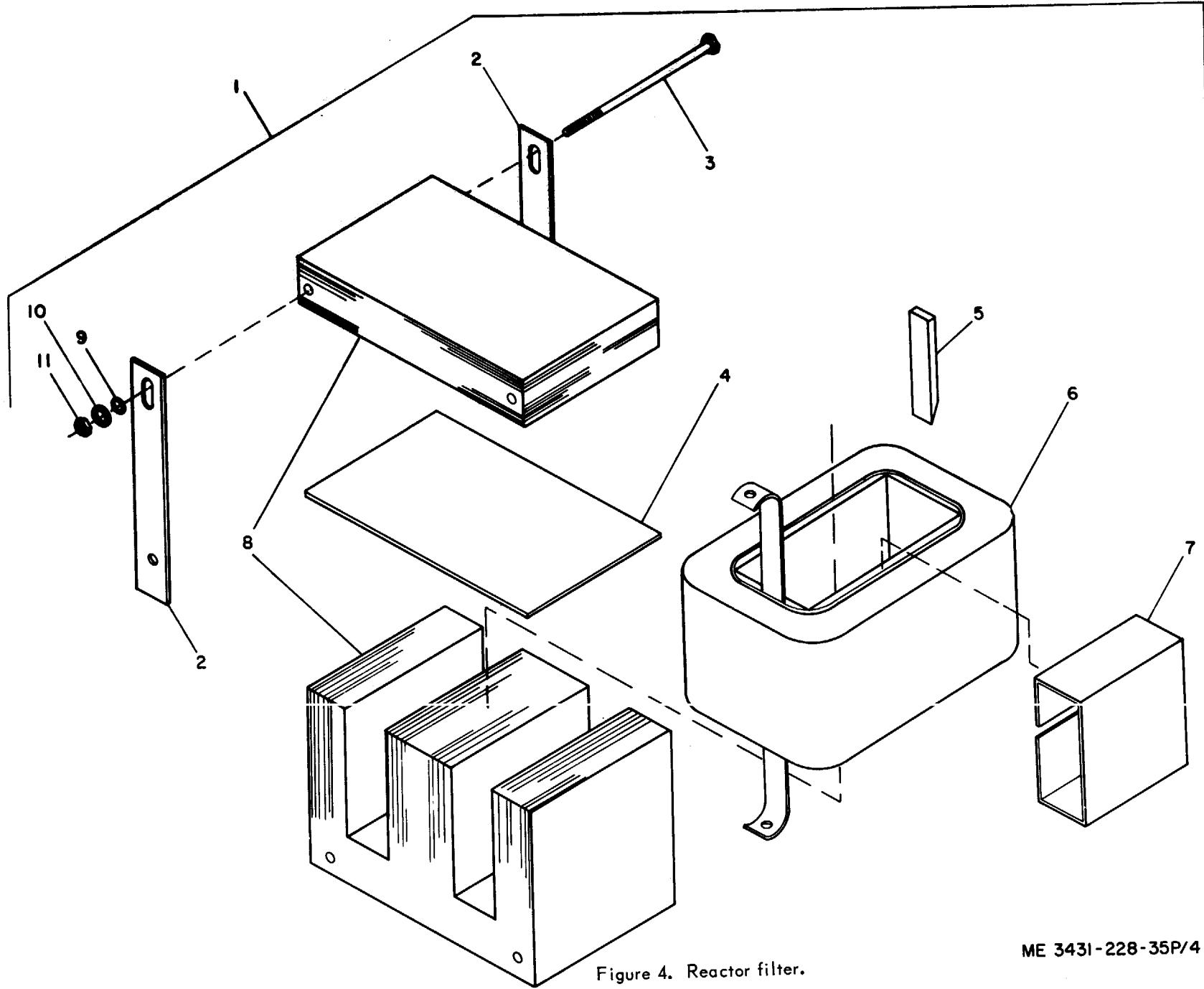


Figure 4. Reactor filter.

ME 3431-228-35P/4

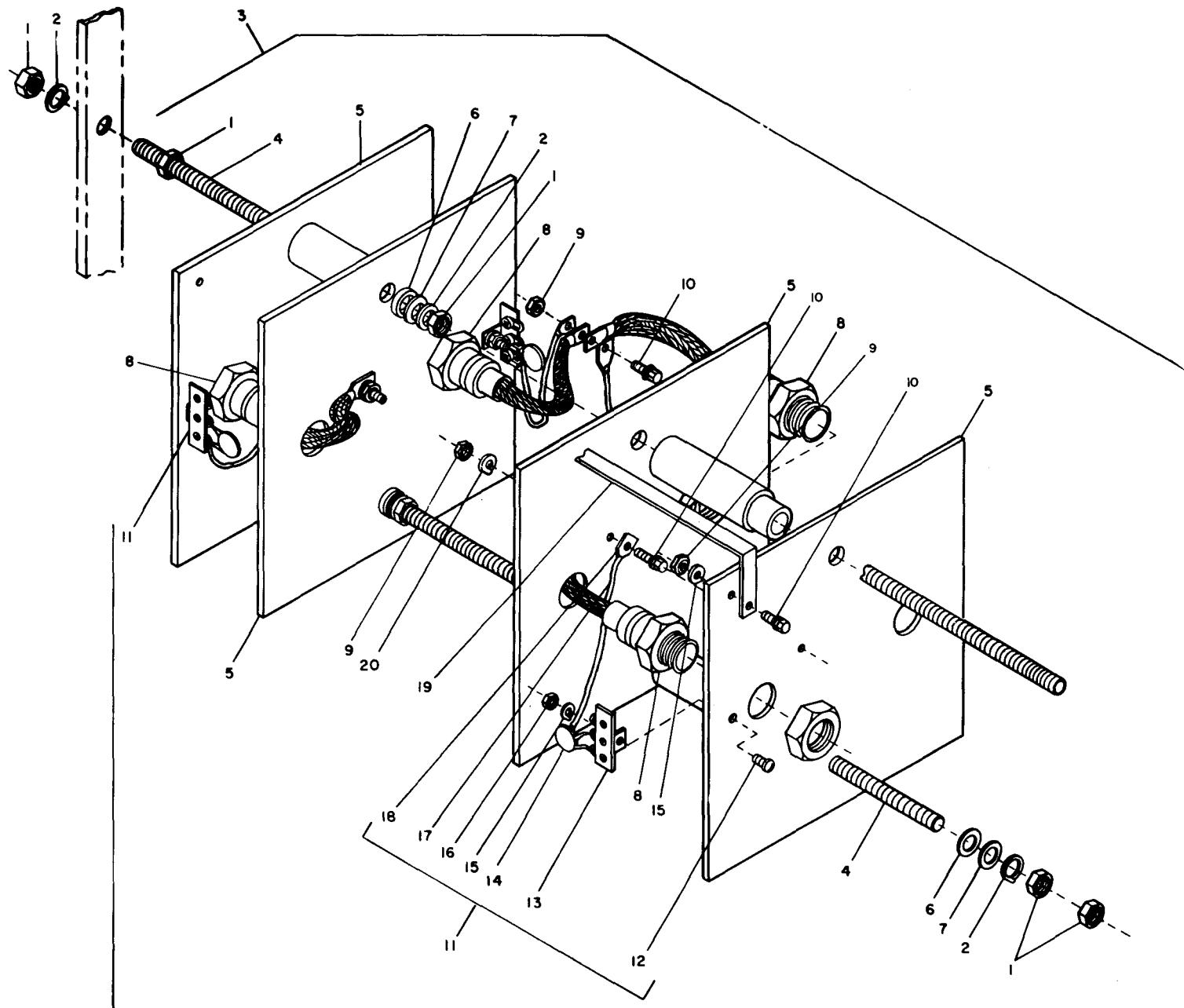


Figure 6. Rectifier assembly.

ME 343I-228-35P/6

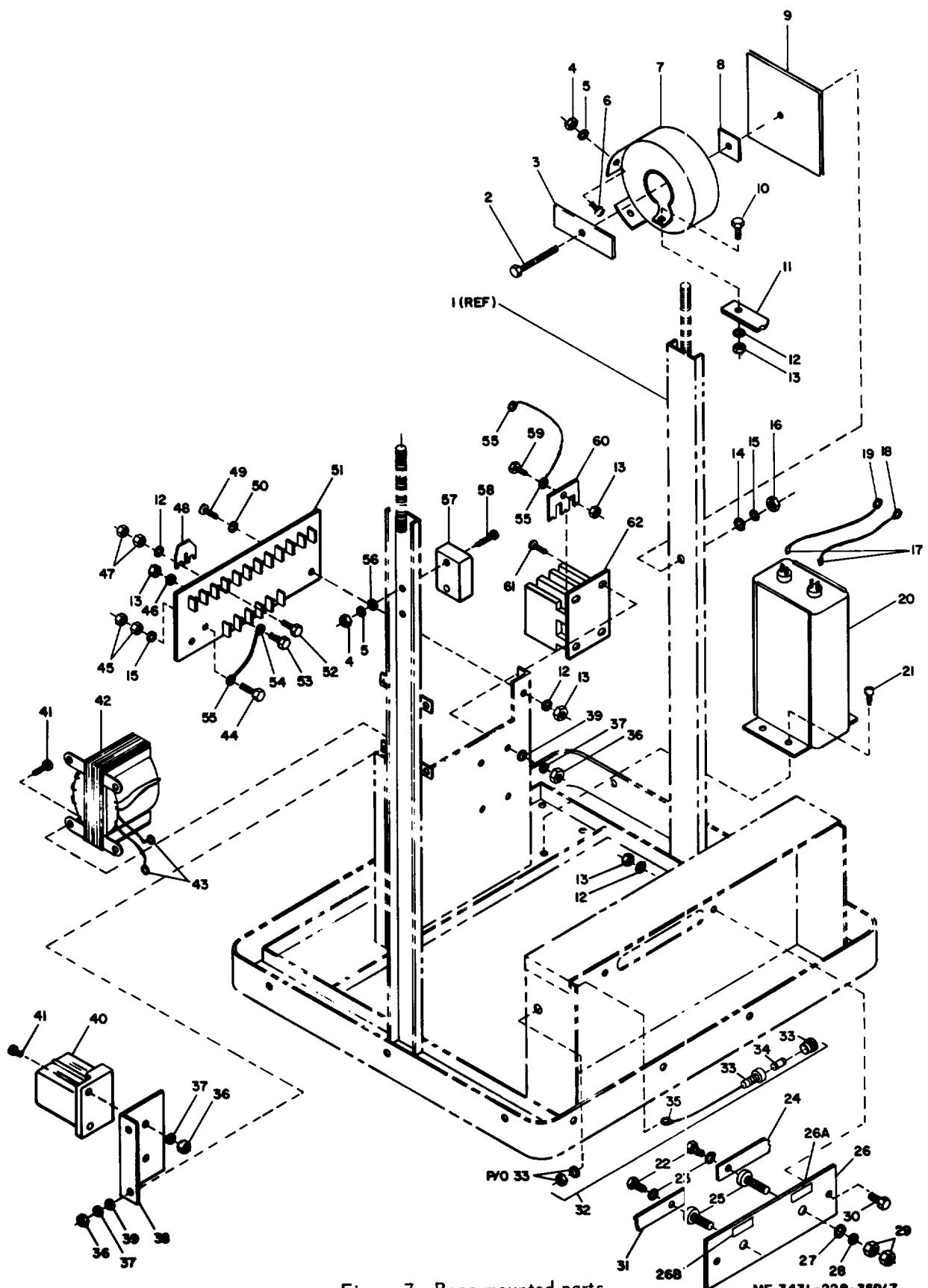


Figure 7. Base mounted parts.

ME 3431-228-36P/7

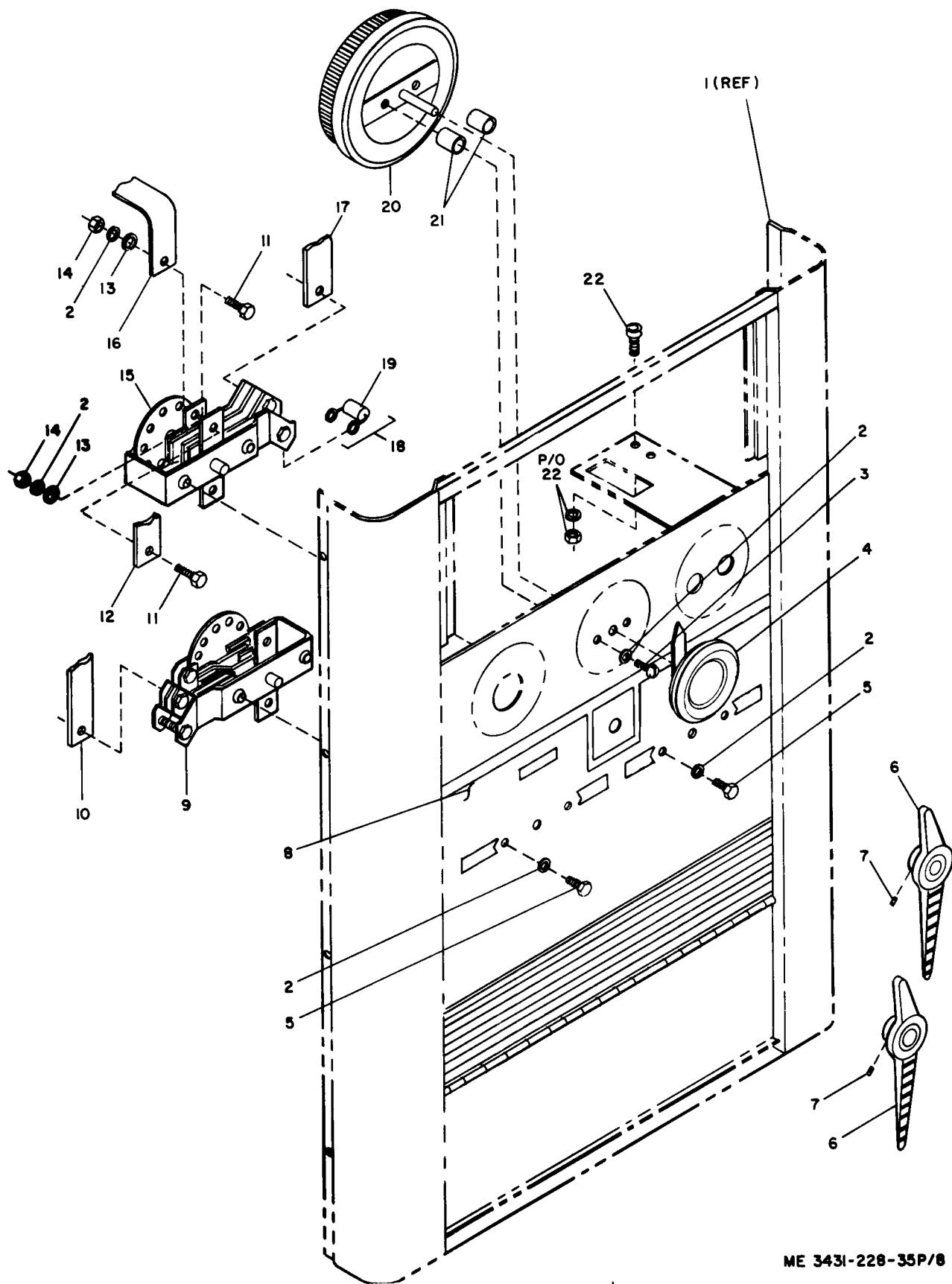
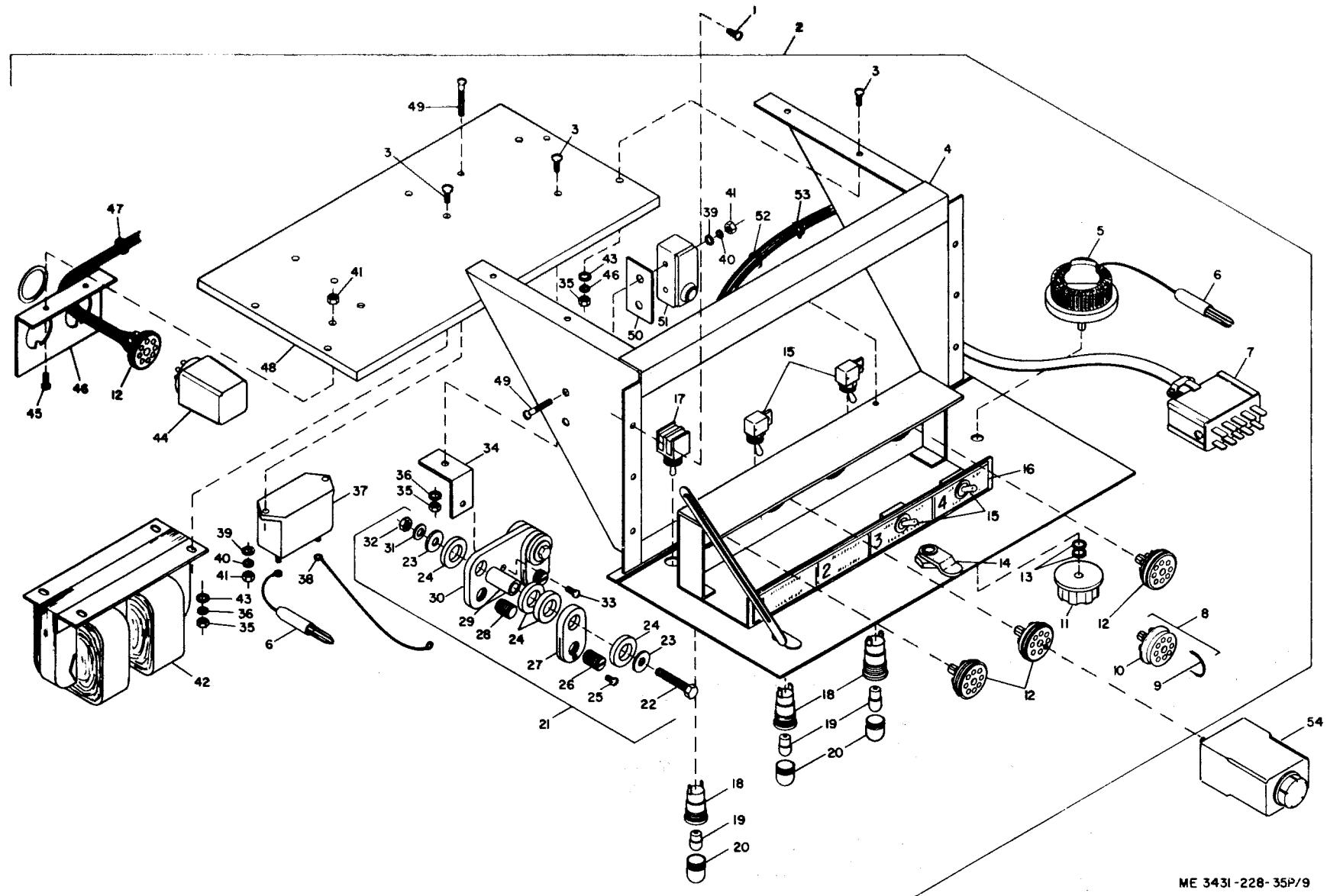
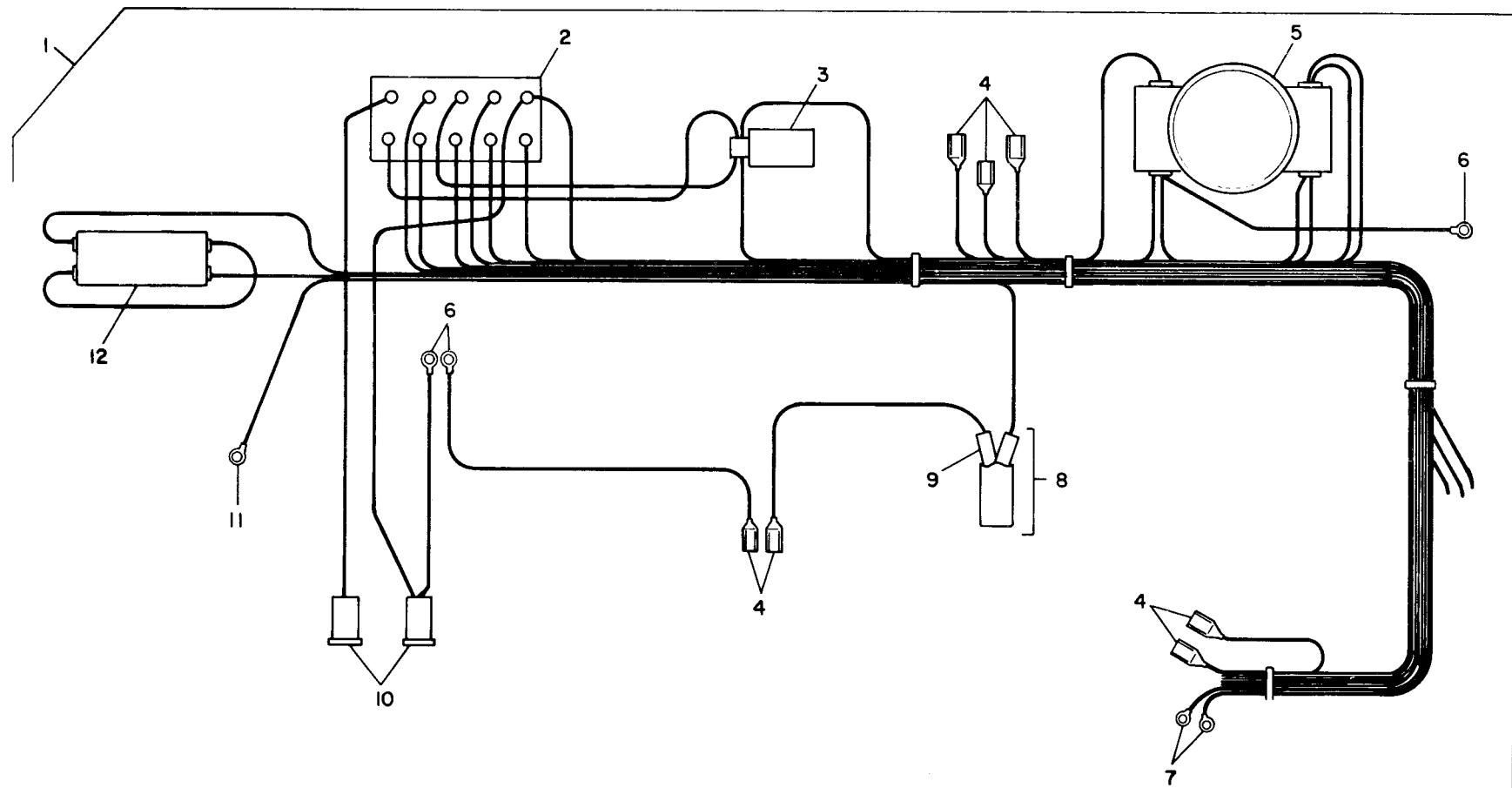


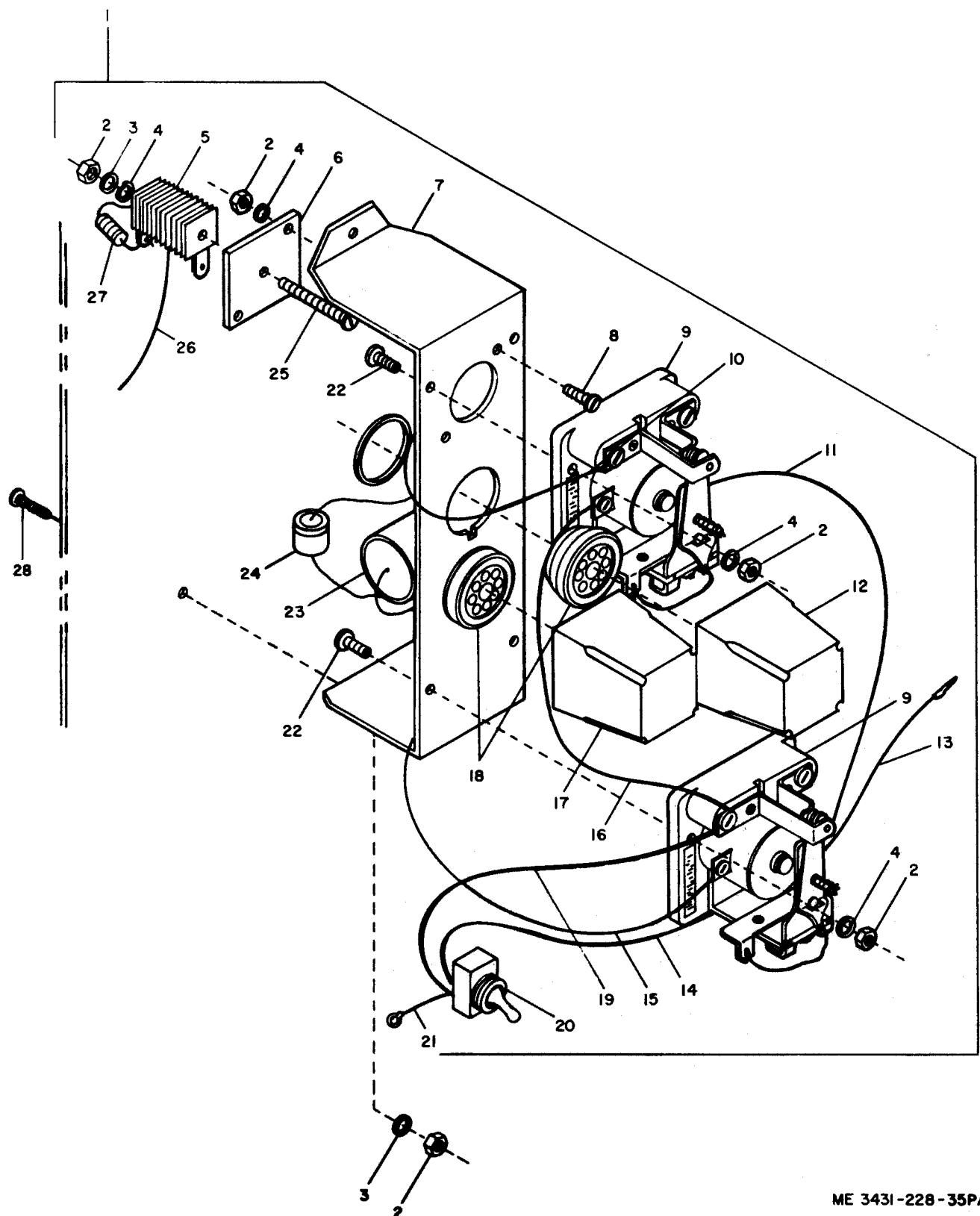
Figure 8. Front panel.





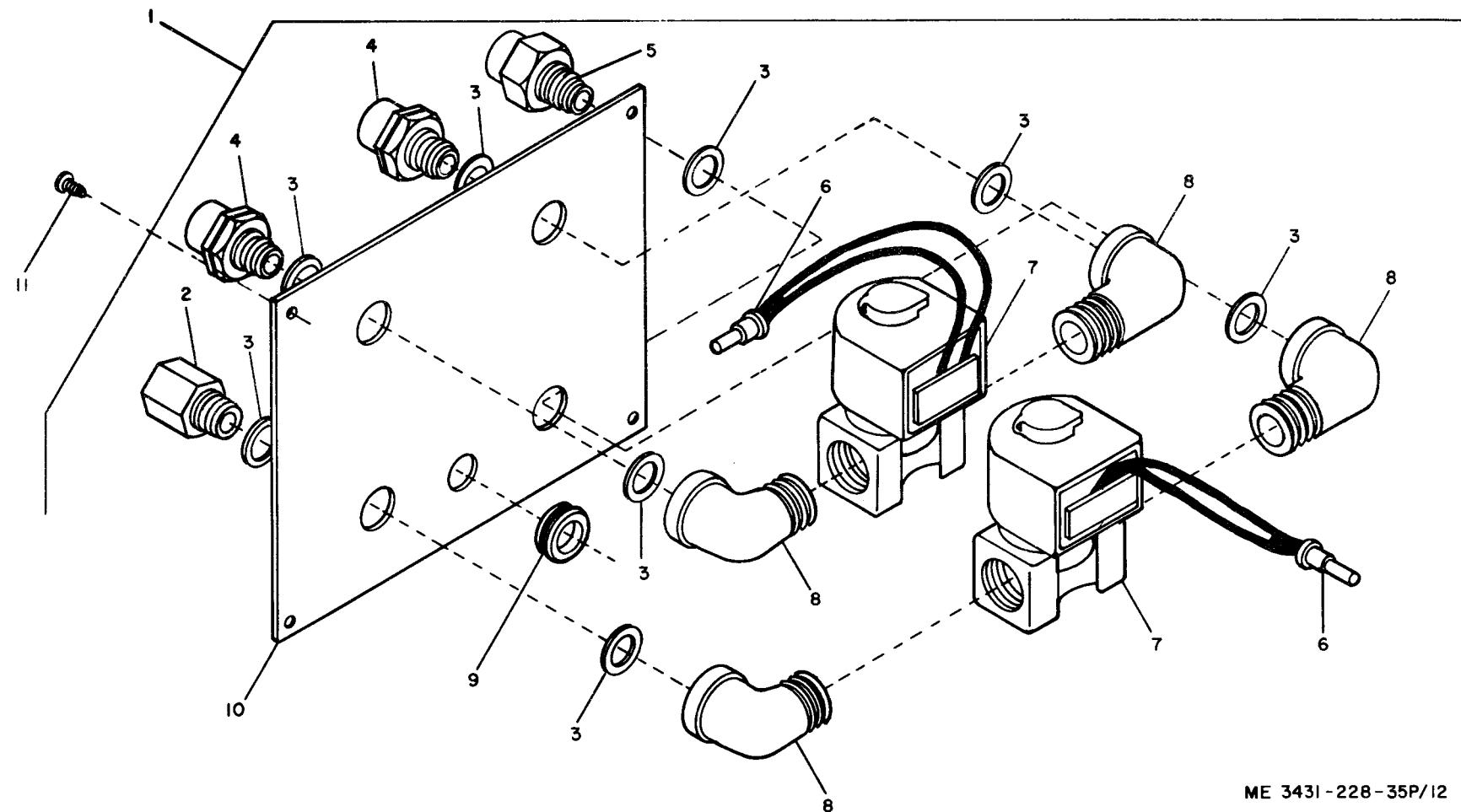
ME 343I-228-35P/10

Figure 10. Wiring harness.



ME 343I-228-35P/II

Figure 11. Pilot rectifier and relay assembly.



ME 343I-228-35P/12

Figure 12. Gas and water valve assembly.

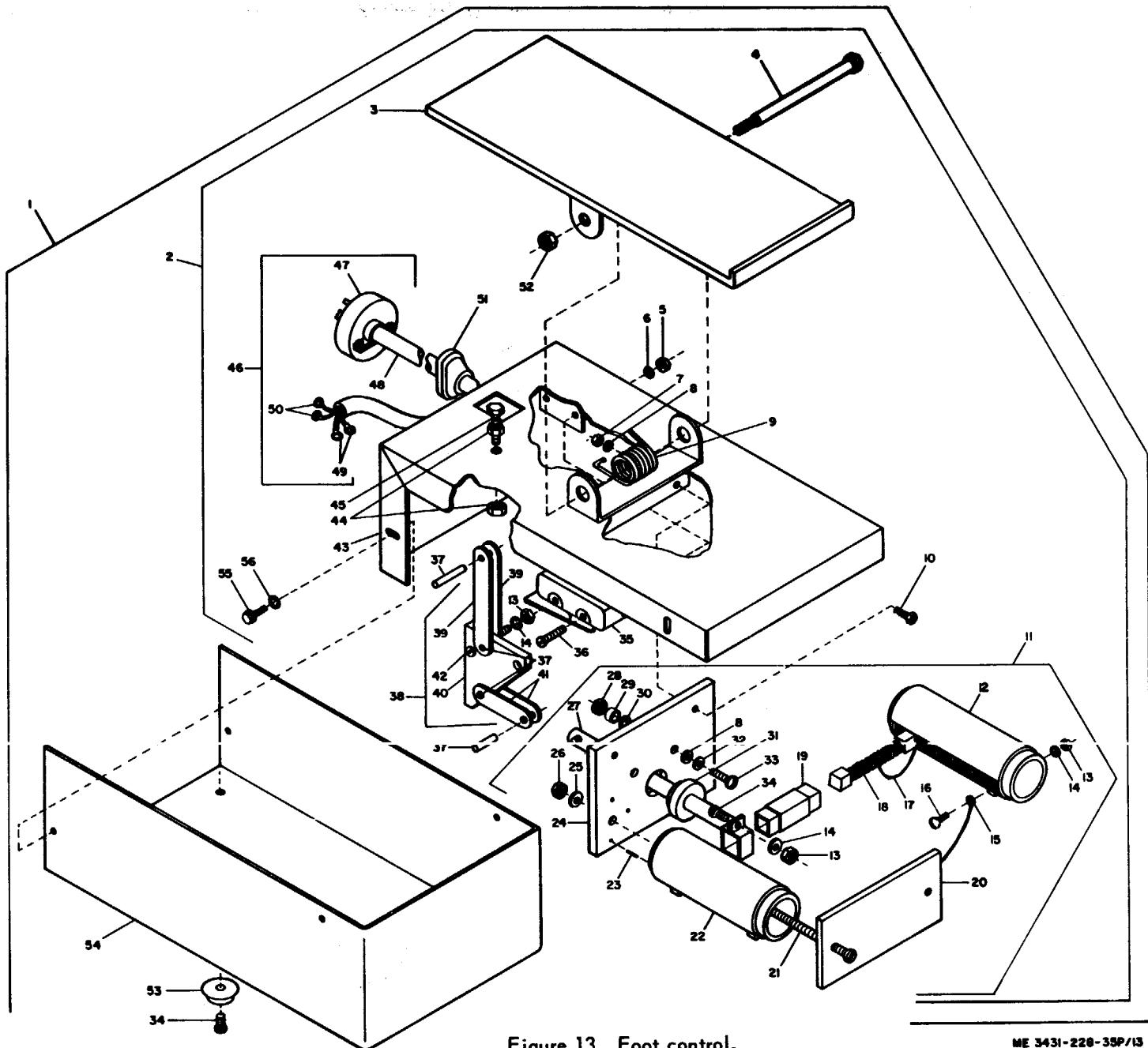
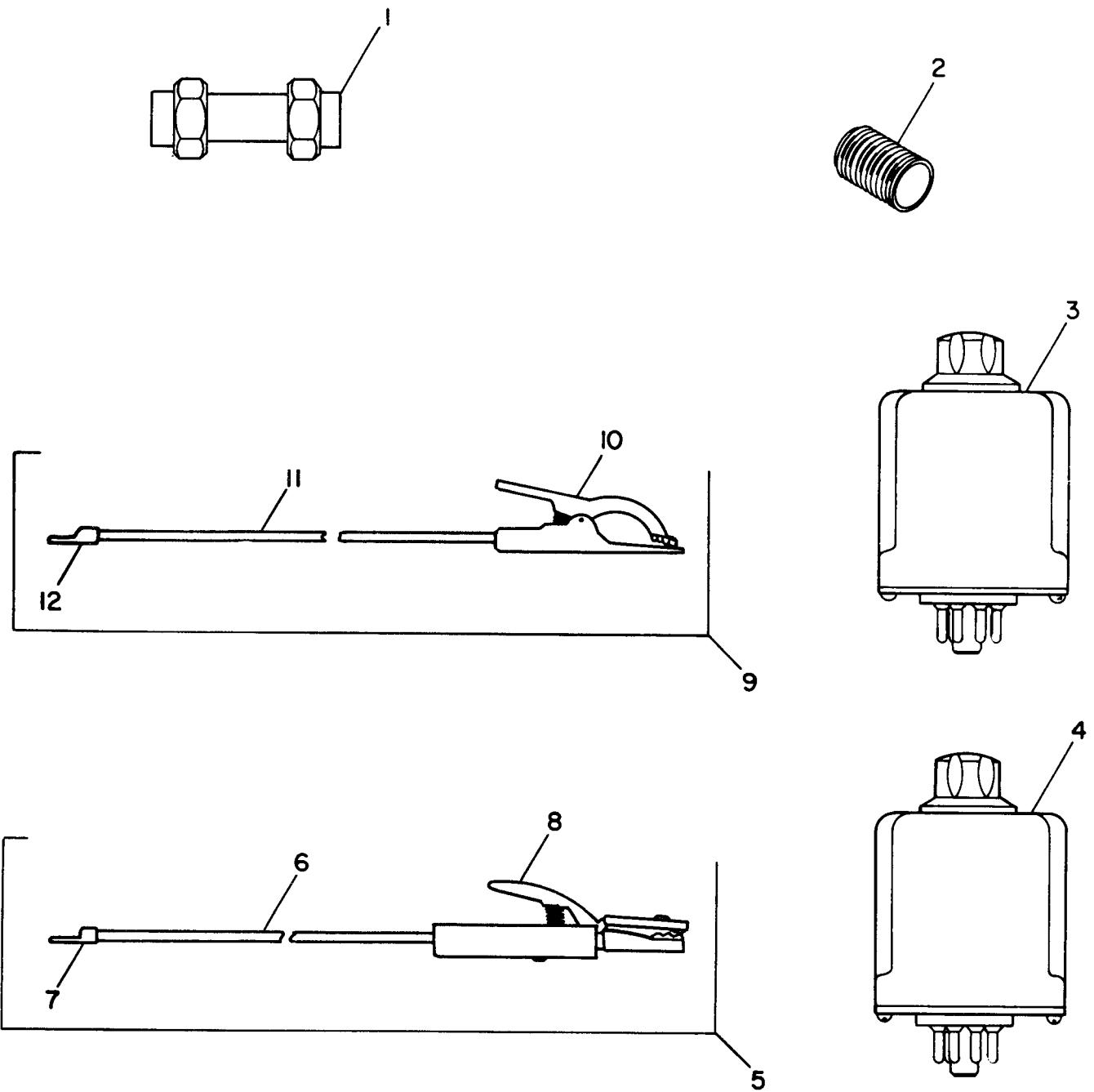


Figure 13. Foot control.

ME 3431-220-35P/13



**ME 343I-228-35P/14**

Figure 14. Accessories.

SECTION V. INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER  
CROSS-REFERENCE TO FIGURE AND ITEM NUMBER

Stock Number	Figure No.	Item No.	Stock Number	Figure No.	Item No.
3431-134-8104	9	21	5310-477-0333	9	24
3431-451-1000	9	27	5310-582-5965	2	6
3431-451-6010	9	30	5310-582-5965	6	20
4140-738-9881	2	2	5310-582-5965	7	12
5305-021-3616	2	11	5310-637-9541	7	23
5305-021-3616	6	10	5310-724-4218	7	47
5305-021-3616	7	30	5310-757-6524	1	9
5305-080-7336	7	49	5310-809-3078	9	23
5305-207-2297	9	22	5310-809-4058	7	51
5305-514-7506	11	8	5310-809-4058	13	56
5305-543-5198	11	25	5310-809-4061	6	7
5305-543-5828	7	59	5310-834-8732	1	5
5305-550-3934	7	52	5310-851-2674	2	5
5305-582-5807	9	25	5310-851-2674	4	11
5305-582-5808	11	22	5310-851-2674	6	9
5305-622-9483	2	10	5310-851-2674	7	13
5305-716-6312	9	26	5310-851-2674	8	14
5305-716-6313	9	28	5310-851-2674	9	32
5305-716-6316	1	10	5310-903-3996	7	45
5305-719-3997	7	10	5310-934-9747	11	2
5305-757-8122	13	55	5325-290-4344	12	9
5305-757-8287	1	3	5905-472-3577	2	9
5305-757-8292	1	7	5910-472-3582	6	19
5305-934-9751	2	4	5920-280-9539	7	34
5305-940-9426	7	22	5930-410-6136	10	3
5306-011-6549	7	44	5930-472-3578	10	8
5310-045-3296	2	7	5930-543-0839	9	51
5310-045-4007	11	4	5930-646-4360	9	17
5310-082-1404	11	3	5930-655-1515	11	20
5310-087-7493	8	13	5930-797-3732	9	15
5310-088-5285	12	3	5935-171-3001	12	6
5310-477-0332	6	6	5940-156-7135	2	14
			5940-199-5949	10	7

## SECTION IV. INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER

## CROSS-REFERENCE TO FIGURE AND ITEM NUMBER (CON'T)

Stock Number	Figure No.	Item No.	Stock Number	Figure No.	Item No.		
Reference No.	Mfg Code	Fig No.	Item No.	Reference No.	Mfg Code	Fig No.	Item No.
5940-245-5949	10		6150-451-3014	14	9		
5940-432-7437	7	48	6150-451-3113	14	5		
5945-452-0944	9	54	6150-451-8388	7	35		
6150-451-1240	7	60	6210-469-6714	9	18		
6150-451-3010	2	15	6240-682-3411	9	19		
AH20994LG	04009	9	15	MS35309-306	96906	7	59
AH20994LG	04009	10	3	MS35309-34	96906	7	44
AW15	16166	12	5	MS35309-357	96906	7	22
CB2J016-230V	62119	2	13	MS35309-8	96906	7	52
CHB38-31005	77342	9	54	MS35338-41	96906	11	4
CHB38-31005	77342	14	3	MS35338-43	96906	2	7
CKB38-31002	77342	14	4	MS35338-44	96906	2	6
C185A	71747	1	1	MS35338-44	96906	6	20
C8109-8-4	78553	1	9	MS35338-44	96906	7	12
D5425C-S	74842	9	14	MS35338-44	96906	9	31
HKP	71400	7	33	MS35338-45	96906	7	15
MS27183-10	96906	7	50	MS35338-46	96906	6	2
MS27183-10	96906	13	56	MS35338-46	96906	7	23
MS27183-11	96906	9	23	MS35649-62	96906	11	2
MS27183-13	96906	8	13	MS35650-302	96906	2	4
MS27183-15	96906	6	7	MS35691-1	96906	2	5
MS27183-20	96906	12	3				
MS27183-6	96906	11	3	MS35691-1	96906	4	11
MS35265-26	96906	11	8	MS35691-1	96906	6	9
MS35265-28	96906	9	25	MS35691-1	96906	7	13
MS35265-28	96906	13	34	MS35691-1	96906	8	14
MS35265-31	96906	11	22	MS35691-1	96906	9	32
MS35265-36	96906	11	25	MS35691-17	96906	6	1
MS35265-81	96906	2	10	MS35691-33	96906	1	5
MS35265-86	96906	7	49	MS51851-43	96906	1	3
MS35307-303	96906	7	10	MS51851-43	96906	12	11
MS35307-305	96906	2	11	MS51851-44	96906	1	7
MS35307-305	96906	6	10	MS51851-64	96906	13	55
MS35307-305	96906	7	30	MS51969-2	96906	7	45
MS35307-312	96906	9	22	MS51970-1	96906	7	47
MS35309-306	96906	8	11	NE51H	08805	9	19

SECTION V. INDEX--FEDERAL STOCK NUMBER AND REFERENCE NUMBER  
CROSS-REFERENCE TO FIGURE AND ITEM NUMBER (CONT)

Reference No.	Mfg Code	Fig No.	Item No.	Reference No.	Mfg Code	Fig No.	Item No.
N1420-3	60399	2	2	29G1986-1	96073	7	11
SST2	06383	9	52	29G1986-2	96073	8	17
S09131	26132	10	4	29G1986-3	96073	8	12
W14-25S441	96073	7	35	29G1986-4	96073	8	10
YZ2RD	91929	9	51	29G1986-5	96073	8	16
1-562-125-910	34463	6	6	29G1986-6	96073	7	31
1G1989	96073	8	6	29G1986-7	96073	7	24
108-0302	74970	9	6	29G1986-8	96073	2	12
11G1284	96073	6	19	29G2060	96073	14	5
11G2200	96073	7	60	29G2061	96073	14	9
11G2209	96073	7	32	3G1817	96073	1	2
11G2229	96073	7	48	3G1831	96073	12	10
11G2241	96073	9	27	3G2175A	96073	1	6
11G2242	96073	9	30	3G2175B	96073	1	12
11G2243	96073	9	21	3G2250	96073	1	8
11G2250	96073	2	1	3G2286	96073	1	13
11R1209	96073	9	26	30993	00779	10	7
11R139	96073	9	28	30997	00779	10	6
13AT1	91929	9	17	31256	00779	2	14
13G1817	96073	1	4	31256	00779	10	11
13G1833	96073	9	34	314020	75915	7	34
13G2405	96073	2	8	3200X4	79470	12	2
13G2408	96073	2	3	3326X4	79470	14	2
14R109	96073	7	26B	5100-202-323	72765	9	18
14R2306	96073	9	16	634-2516-80-00241	30323	1	10
14R2332	96073	1	14	7R2036	96073	8	7
14R771	96073	7	26A	71-1L	02660	12	6
15A	16166	12	4	78-1L	02660	10	10
19R1785	96073	2	9	8G2305	96073	9	29
20-904	82807	13	1	8G2311	96073	9	50
22G1839-1	96073	12	1	8R2301	96073	7	51
22R1759	96073	12	8	8R2306	96073	9	24
24G2012	96073	10	8	80600BJ	04009	10	12
2400-0001-114	90800	14	1	82605	04009	11	20
25P52B323	72765	9	20	8262C22	04845	12	7
264-11-02-030-5A	71785	9	7	86CP8	02660	9	10
264-12-02-013-1A	71785	10	2	913	75543	12	9
29G1960-2	96073	2	15				

**By Order of the Secretary of the Army:**

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# 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 dekagram = 10 grams = .35 ounce  
 1 hectogram = 10 dekagrams = 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
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