

ILLUSTRATED PARTS BREAKDOWN MANUAL

2767A
LINE PRINTER



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HEWLETT  PACKARD

ILLUSTRATED PARTS BREAKDOWN MANUAL

2767A

LINE PRINTER



Serial Numbers Prefixed: 976-, 1309-

FOREWORD

This manual contains an illustrated parts breakdown and disassembly procedures for the Hewlett-Packard 2767A Line Printer (model 2310 Line Printer manufactured by Data Products Corporation). This manual also applies to HP option 015, which is the 230-volt 50-hertz version of the line printer.

The content of this manual was prepared by the Data Products Corporation.

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SECTION IX

MECHANICAL ILLUSTRATIONS

9-1 INTRODUCTION

9-2 This volume of the Model 2310 Technical Manual contains illustrations that provide information for removing and replacing assemblies, sub-assemblies, and detail parts on the Model 2310 LINE/PRINTER. Additional illustrations include disassembly of assemblies and sub-assemblies, and circuit card replaceable parts location diagrams.

9-3 Replaceable items are identified and listed in disassembly sequence (except where sequence of disassembly cannot be maintained). Assembly of the Model 2310 LINE/PRINTER, assemblies, sub-assemblies, and detail parts is the reverse order of disassembly. Attaching hardware and select items are shown removed but are not identified. These are items that must be removed to allow for the removal of a replaceable item.



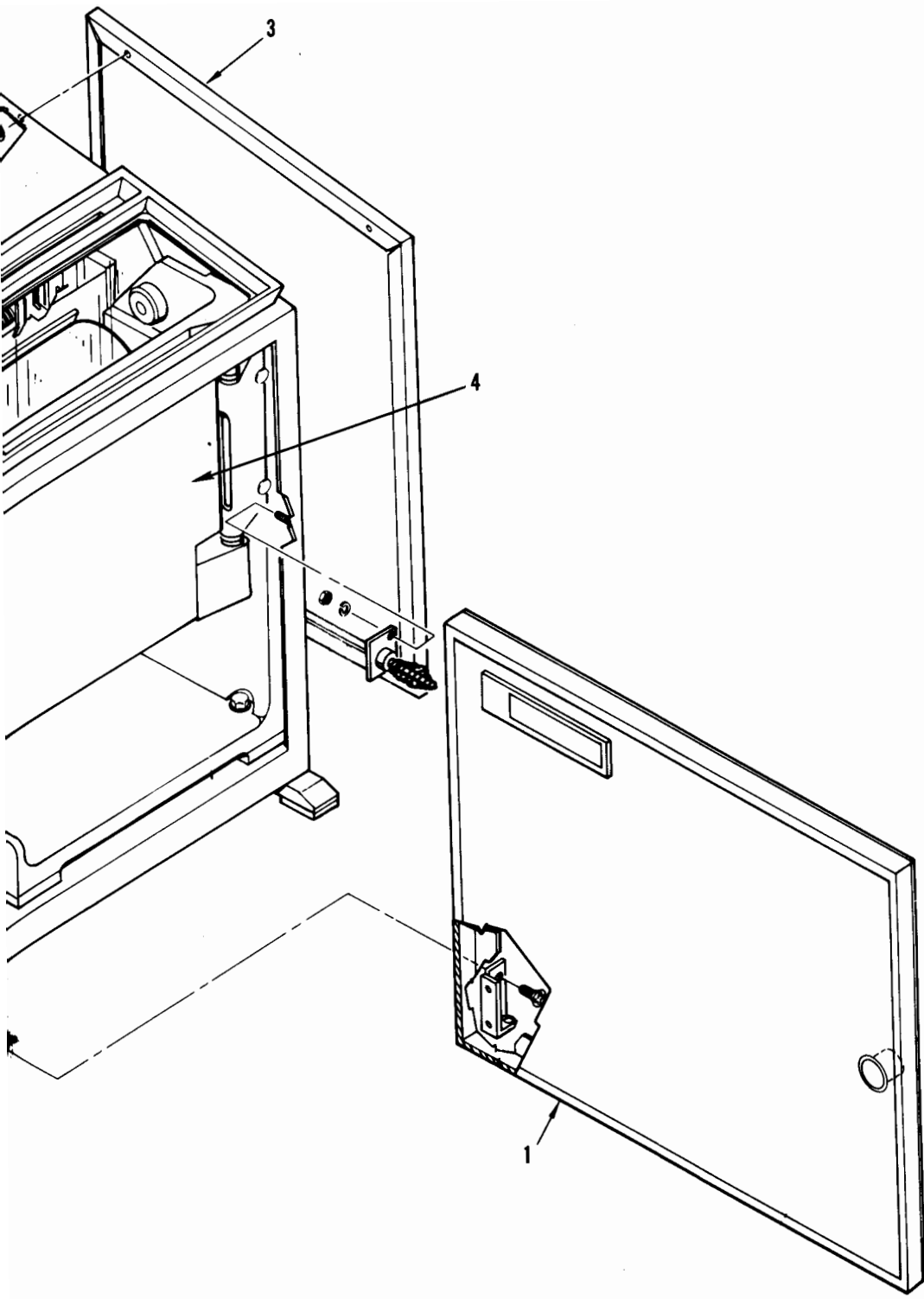
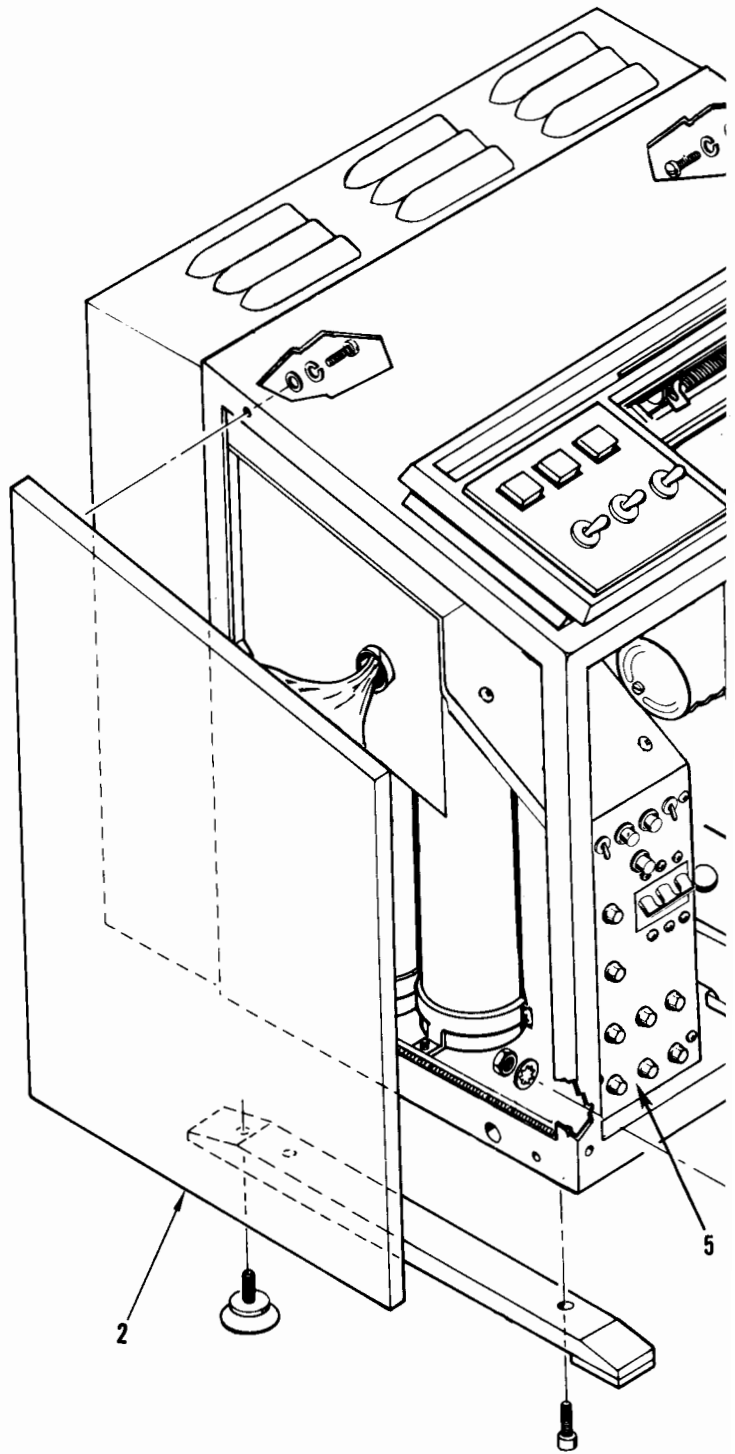


Figure 9-1. Line/Printer Assembly
(Sheet 1 of 2)



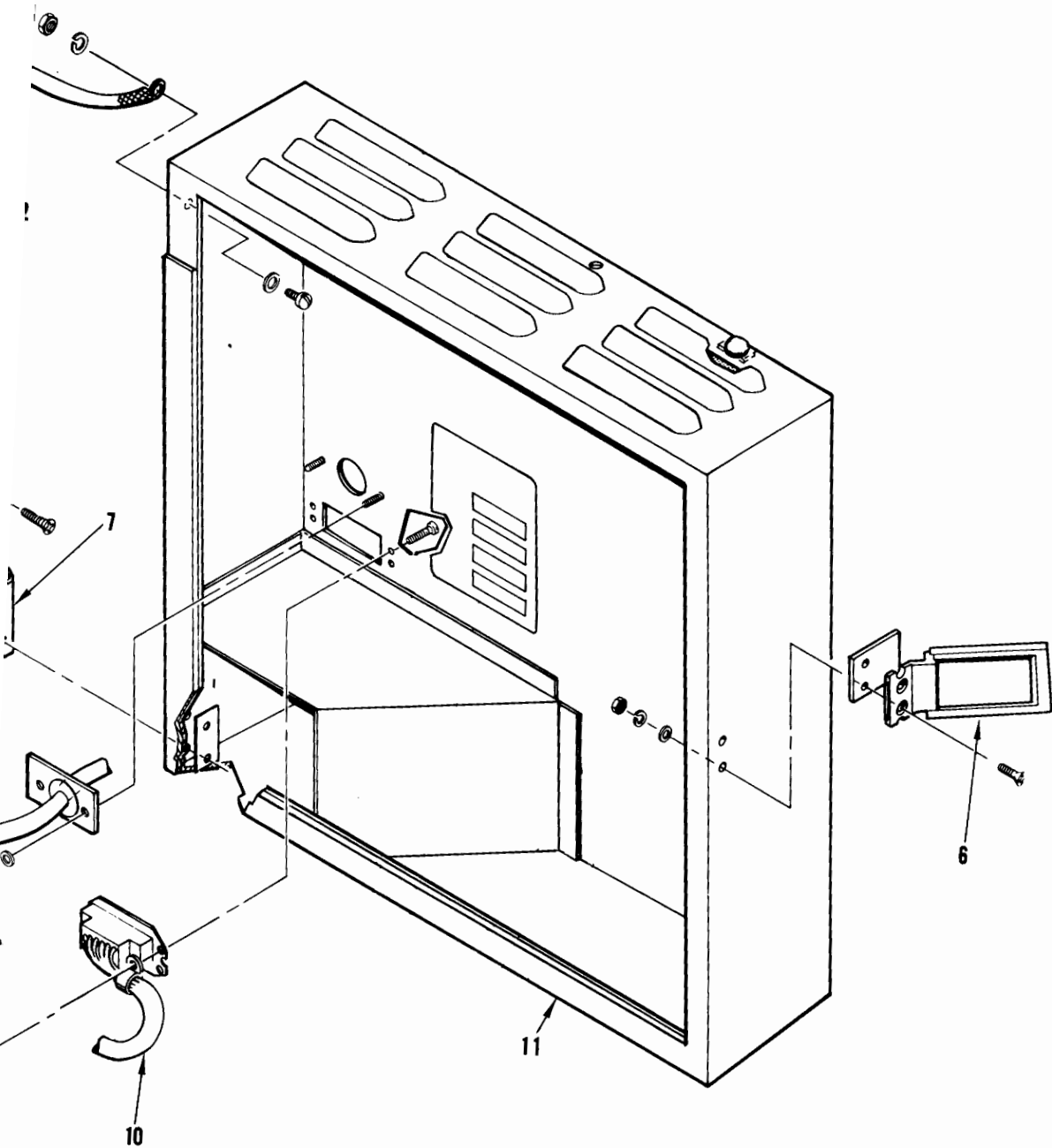


Figure 9-1. Line/Printer Assembly
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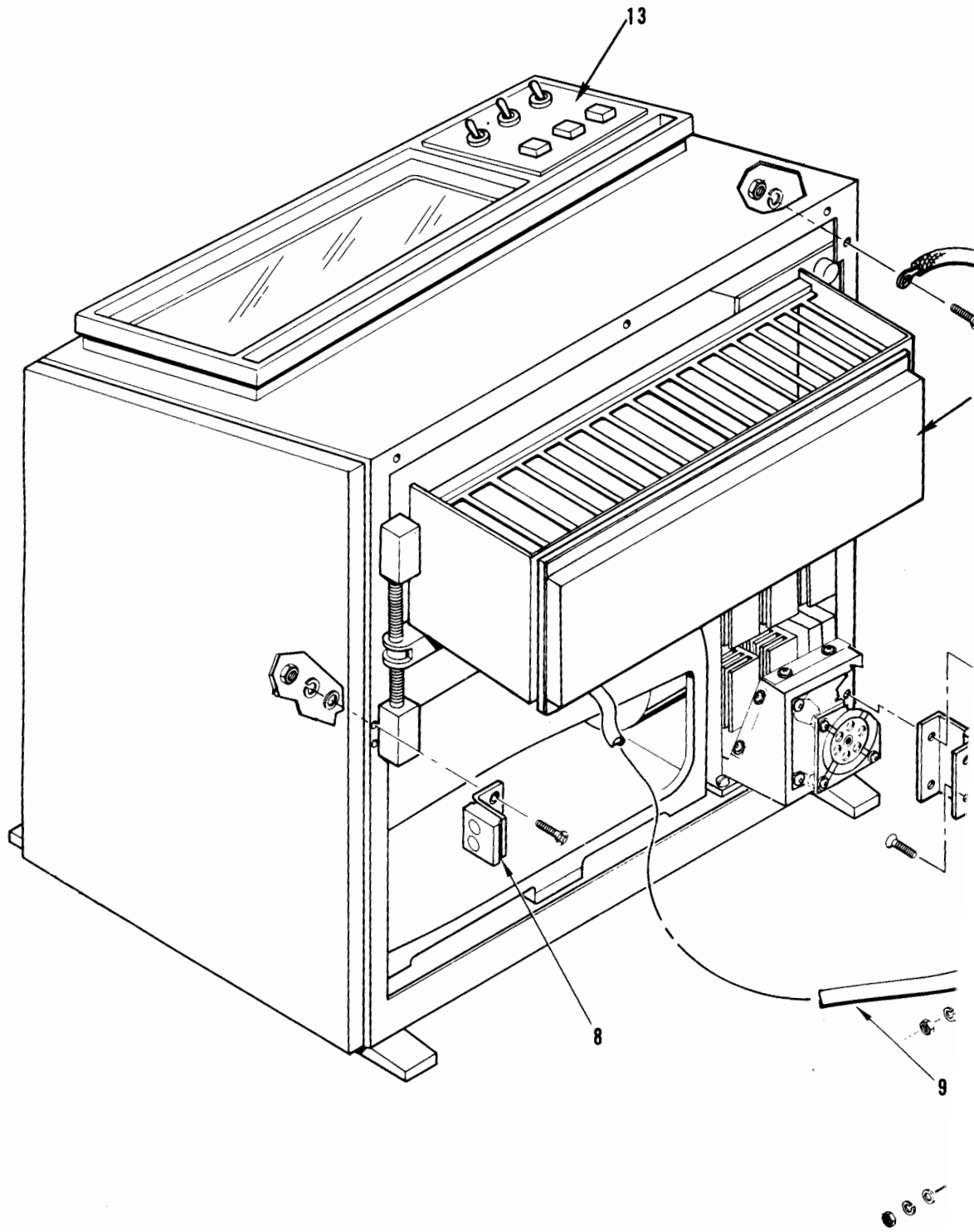


TABLE 9-1. LINE/PRINTER Assembly

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-1	LINE PRINTER Assembly, Model 2310, 64-Character		219600-1	1
	LINE PRINTER Assembly, Model 2310, 96-Character		219600-2	1
-1	Panel, Front		212610-1	1
-2	Panel, Side		212610-4	1
-3	Panel, Side		212610-5	1
-4	Character Drum Gate Assembly, 64-Character (See figure 9-10 for details)		212710-1	1
	Character Drum Gate Assembly, 96-Character (See figure 9-12 for details)		215370-1	1
-5	Power Supply Assembly		216470-1	1
-6	Latch, Rear Panel		800474-002	1
-7	Hinge, Rear Panel		800484-001	2
-8	Bracket, Rear Latch		218830-1	1
-9	Cord Set, Power, 3-pin AC Plug		800347-001	1
-10	Cable Assembly, I/O		212846-2	1
-11	Panel, Rear		212610-3	1
-12	Card Cage Assembly (See figure 9-14 for details)		212800-2	1
-13	Control Panel Assembly (See figure 9-4 for details)		212612-1	1

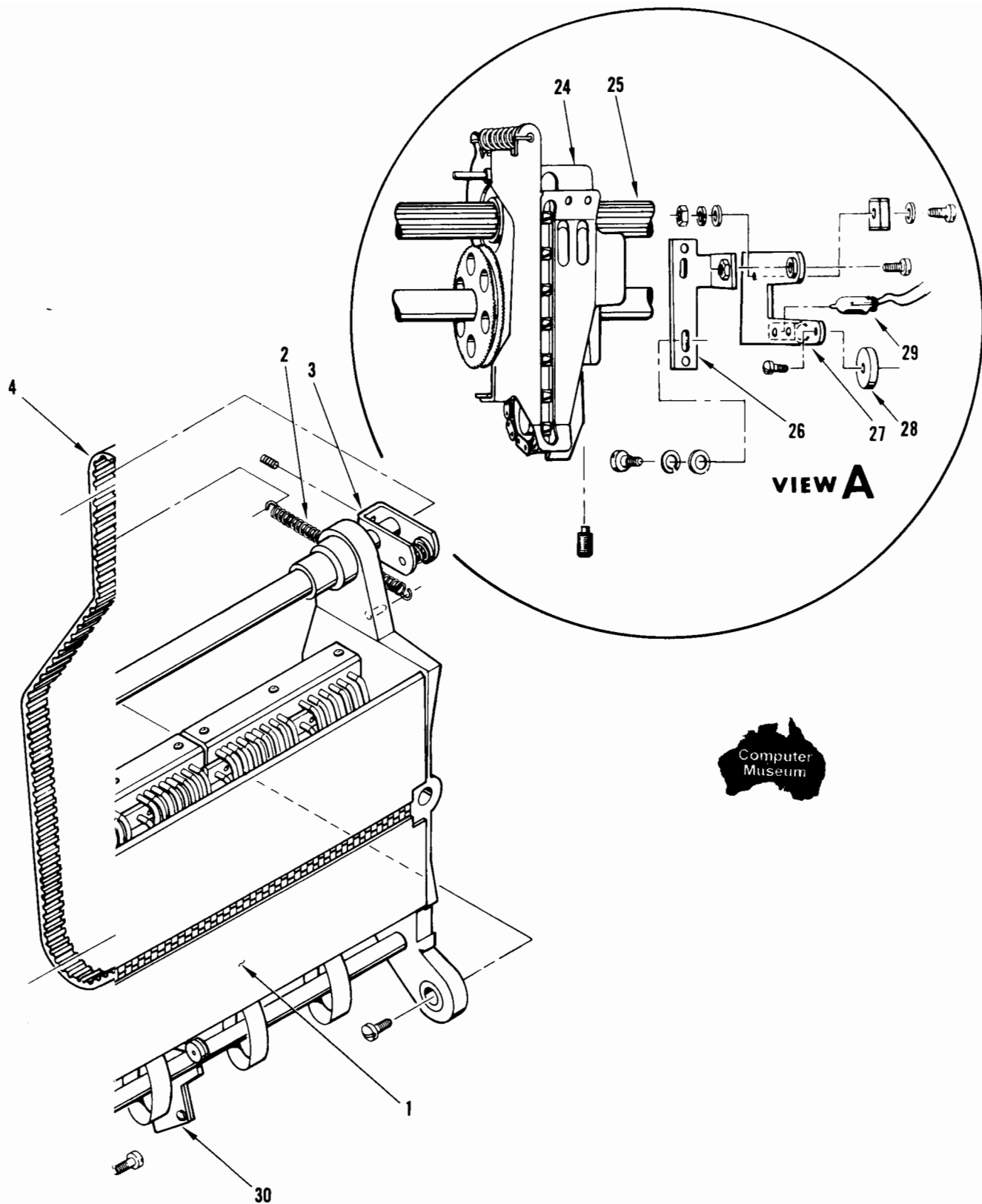


Figure 9-2. Mechanics Assembly



TABLE 9-2. Mechanics Assembly

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-2	Mechanics Assembly (64-Character)		212630-1	1
	Mechanics Assembly (96-Character)		215368-1	1
-1	Hammer Bank Assembly (See figure 9-15 for details)		215793-1	1
-2	Spring, Copies Control		800328-001	2
-3	Clamp Assembly, Copies Control		212767-1	1
-4	Belt, Timing, Paper Drive		212653-1	1
-5	Paper Drive Sub-Assembly (See figure 9-7 for details)		212670-1	1
-6	Sprocket, 18G, Tractor Drive		212654-1	1
-7	Pin, Taper, No. 2/0 X 3/4		800326-002	1
-8	Washer, Spring, Belleville Type		800295-001	2
-9	Housing, Bearing, Tractor Drive		212656-1	1
-10	Washer, Wavey, Spring		800468-001	2
-11	Snap Ring, Ball Bearing		800196-003	2
-12	Bearing, Ball		800196-003	2
-13	Vertical Paper Adjustment Assy (See figure 9-8 for details)		212690-1	1
-14	Washer, Flat, Brass		800469-150	1
-15	Nut, Lock, Tractor Drive		212657-1	1
-16	Spring		212720-1	
-17	Ring, Retaining, External		800253-039	1
-18	Bearing, Ball, Radial		800196-002	1

TABLE 9-2. Mechanics Assembly (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
-19	Retainer, "E" Type		800254-050	1
-20	Lock, Tractor		212669-1	1
-21	Screw, Socket Hd, Set, 6-32 X 3/16 Lg		800275-303	1
-22	Tractor Assembly		201562-1	1
-23	Shaft, Tractor Support		212659-1	1
-24	Tractor Assembly		205495-2	1
-25	Shaft, Tractor Drive		212658-1	1
-26	Bracket, Switch		213669-1	1
-27	Plate, Switch Mounting		213670-1	1
-28	Knob, Bracket		213671	1
-29	Switch, Mercury, 115VAC, 2A		800222-001	1
-30	Switch Assembly, Paper Out, Lower (See figure 9-15 for details)		214959-1	1

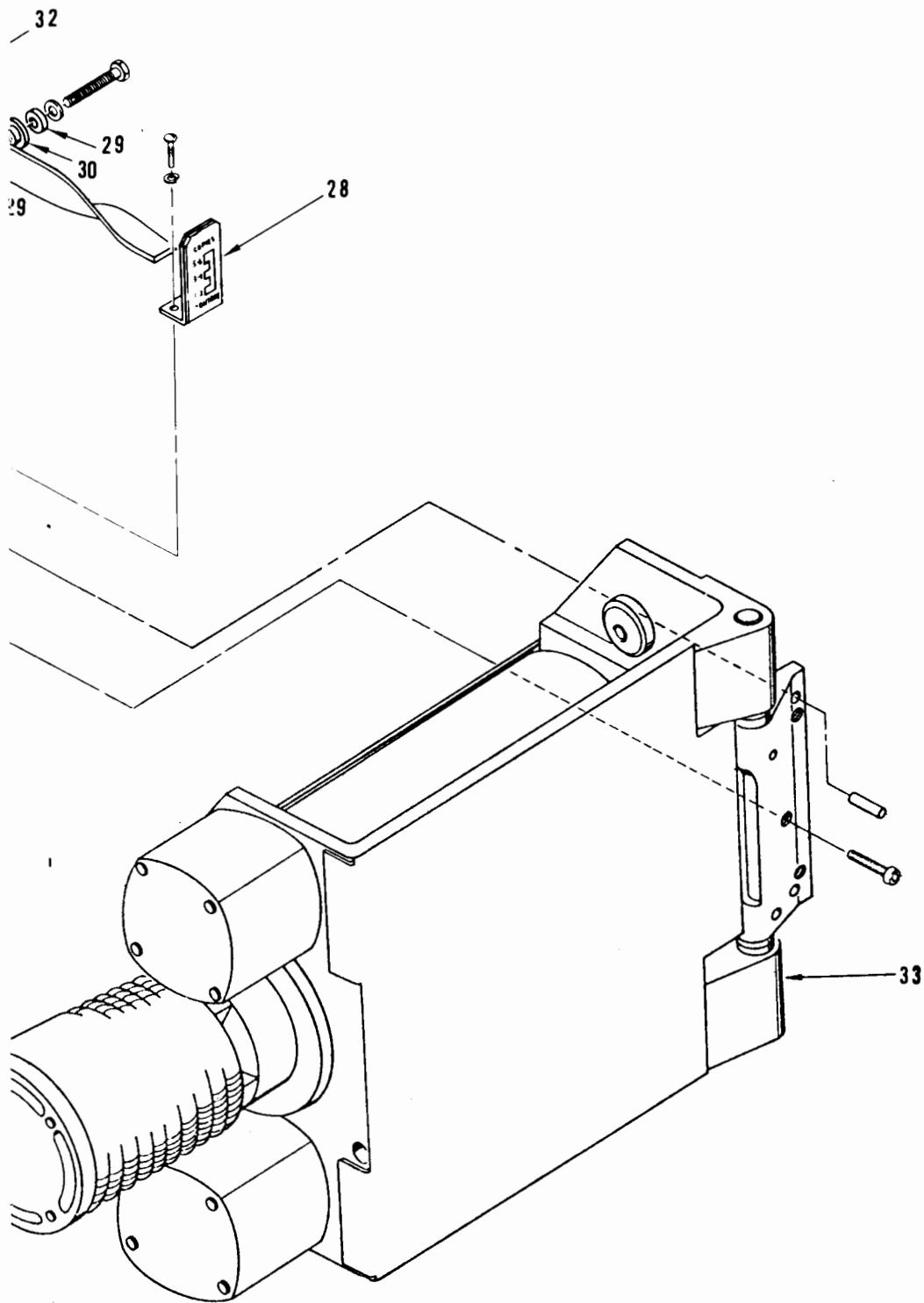
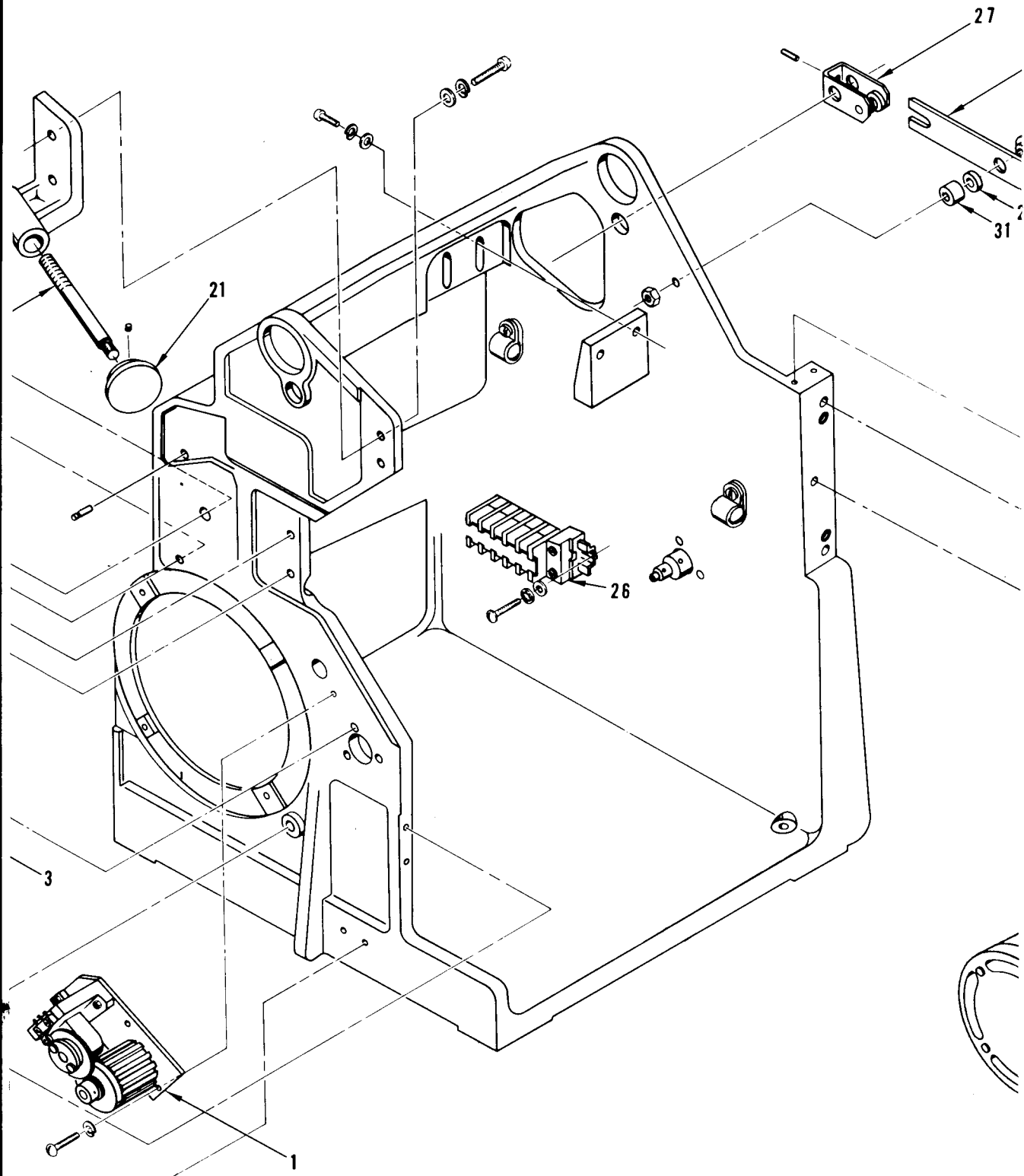


Figure 9-3. Mechanics Frame Assembly



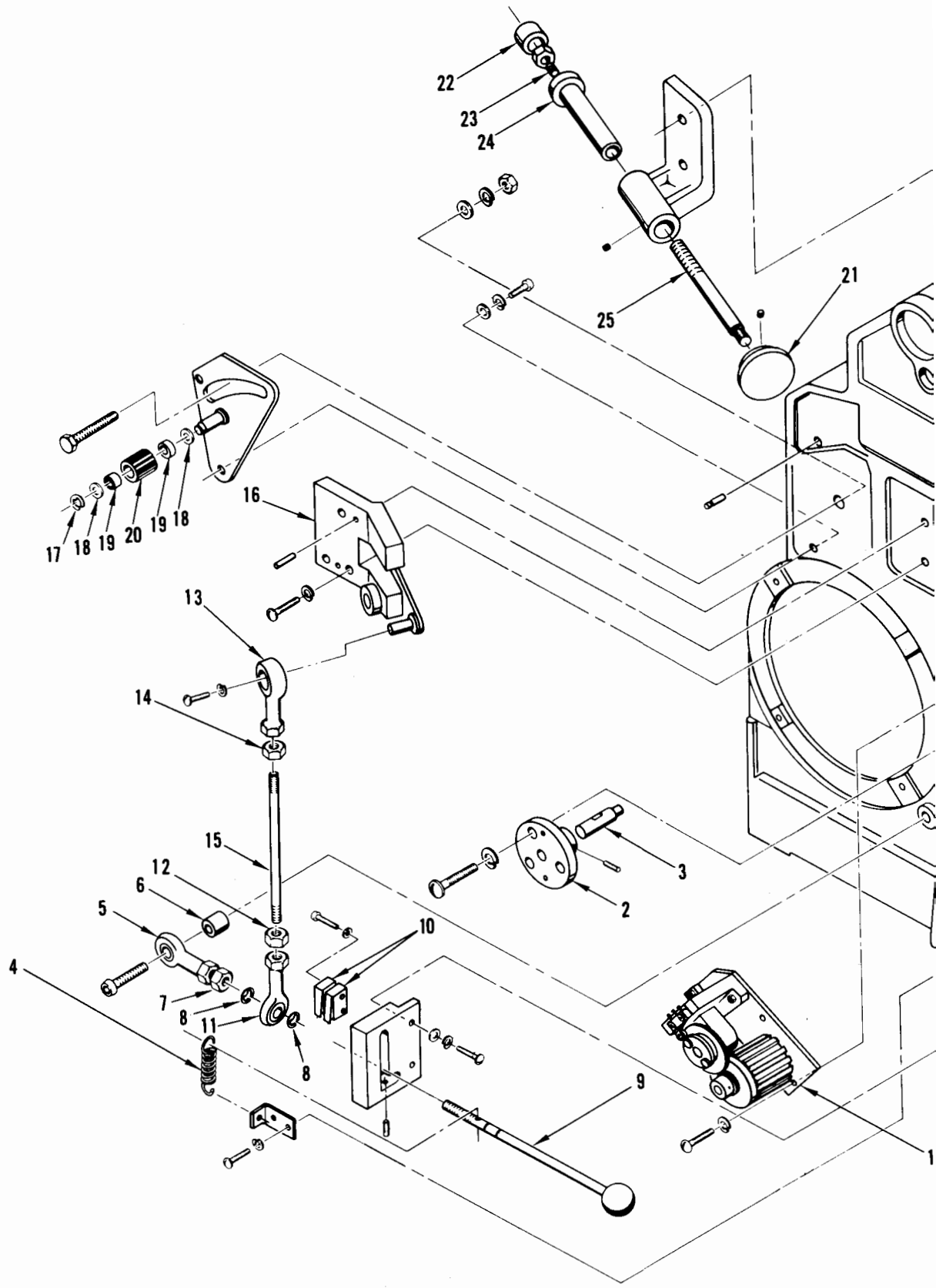


TABLE 9-3. MECHANICS FRAME ASSEMBLY


Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-3	Mechanics Frame Assembly (64-Character)		212650-1	1
	Mechanics Frame Assembly (96-Character)		215369-1	1
-1	Top Of Form Assembly (See Figure 9-5 For Details)		212660-1	1
-2	Support, Hammer Bank		212688-1	2
-3	Pivot, Hammer Bank Adjustment		212706-1	2
-4	Spring, Latch		212715-1	1
-5	Rod, End, Spherical Bearing, RH Thread		800297-001	1
-6	Spacer, 0.257 I.D. X 0.50 O.D. X 0.500 Lg		800298-002	1
-7	Nut, Hex, Jam, 1/4-28, RH Thread		800329-006	1
-8	Ring, Retaining, 0.218 I.D.		800254-025	2
-9	Lever Assembly, Latch		212719-1	1
-10	Switch, Snap, Miniature		800129-001	2
-11	Rod, End, Spherical Bearing, LH Thread		800297-003	1
-12	Nut, Hex, Jam, 1/4-28, LH Thread		800362-014	1
-13	Link, Latch		212708-1	1
-14	Nut, Hex, Jam, RH Thread, KP/4-28		800329-006	1
-15	Link, Latch	212708-1	1	
-16	Latch, Female Sub-Assembly (See Figure 9-6 For Details)	212700-1	1	

TABLE 9-3. MECHANICS FRAME ASSEMBLY (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
-17	Ring, Retaining, "E" Type		800254-025	1
-18	Spacer		212685-1	2
-19	Bearing, Needle		800273-001	2
-20	Sprocket		212683-1	1
-21	Knob, Knurled		800301-001	1
-22	Pad, Swivel		800327-001	1
-23	Screw, Set, Hex Socket, Cup Point, 1/4-20 X 5/8 Lg		800275-610	1
-24	Sleeve, Vertical Paper Adjustment		212778-1	1
-25	Screw, Vertical Paper Adjustment		212697-1	1
-26	Terminal Block Assembly		800280-001	1
-27	Clamp Assembly, Copies Control		212767-1	1
-28	Plate, Detent, Copies Control		212763-1	1
-29	Washer, Neoprene, 0.250 I.A. X 0.562 O.D. X 0.125 Thick		800408-001	2
-30	Bushing, Nylon		212646-1	1
-31	Spacer, 1/2 O.D. X 1/4 I.D. X 5/16 Lg		800298-003	1
-32	Lever, Copies Control		212765-1	1
-33	Drum Gate Assembly, 64-Character (See Figure 9-10 For Details)		212710-1	1

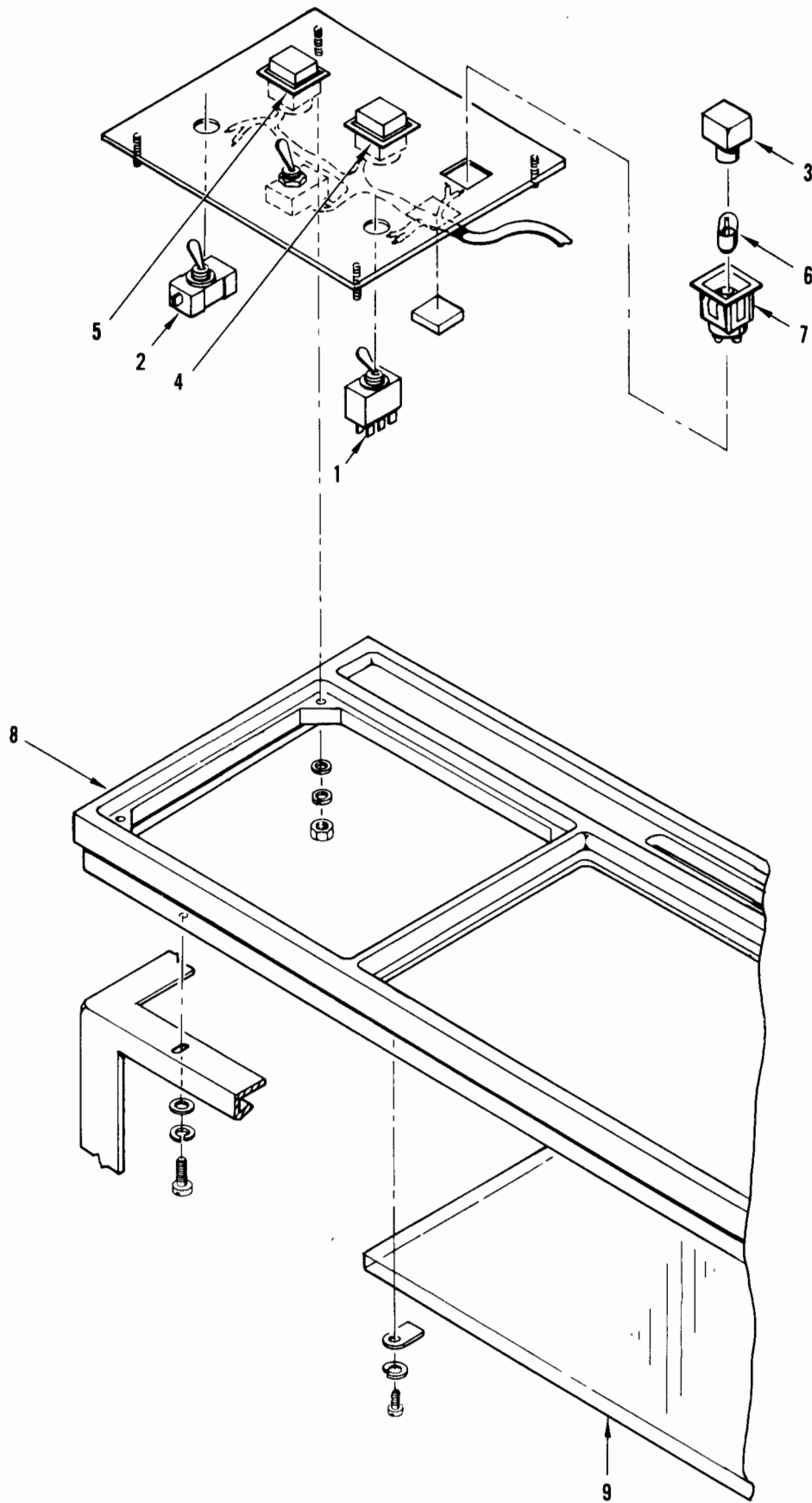


Figure 9-4. Control Panel Assembly

TABLE 9-4. CONTROL PANEL ASSEMBLY

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-4	Control Panel Assembly		212612-1	1
-1	Switch, Toggle, 125V, 5 Amp	S1	800306-001	1
-2	Switch, Toggle 125V, 6A	S2, S3	800305-002	2
-3	Cap, Power, Red		800309-001	1
-4	Cap, Ready, White		800309-002	1
-5	Cap, On Line, White		800309-003	1
-6	Lamp, 28V, 40MA, 1000H		800163-003	3
-7	Indicator Base	XDS1, XDS2, XDS3	800308-001	3
-8	Bezel		212610-7	1
-9	Window, Glass		212614-1	1

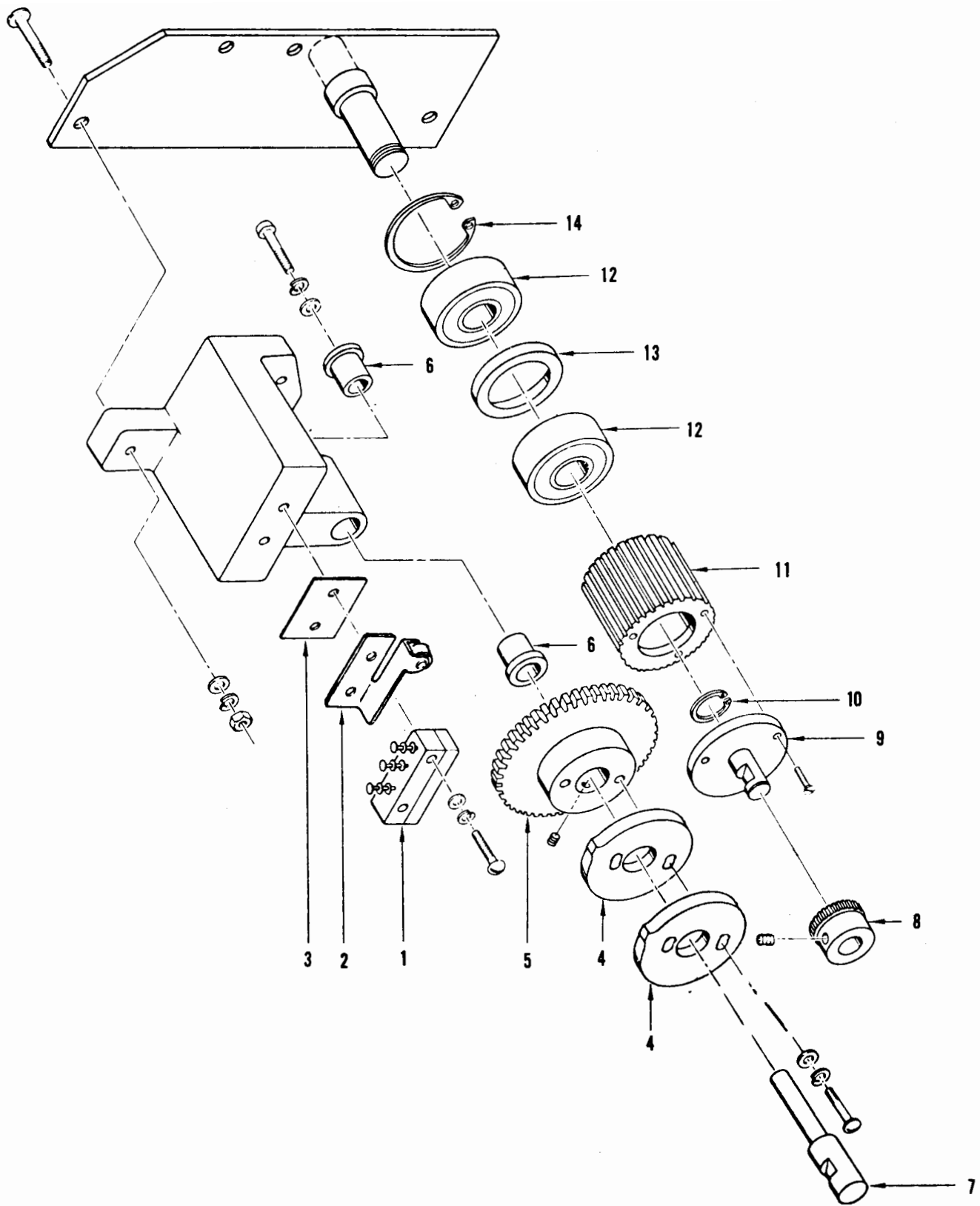


Figure 9-5. Top of Form Assembly

TABLE 9-5. TOP OF FORM SUB-ASSEMBLY

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-5	Top Of Form Sub-Assembly		212660-1	1
-1	Switch, Micro, SPDT		800129-001	1
-2	Actuator, Leaf & Roller		800130-001	1
-3	Insulator, Switch		800129-001	
-4	Cam, Top Of Form		212663-1	2
-5	Gear, Spur, Delrin, 108-Teeth		214837-1	1
-6	Bushing, Flanged, Oilless		800185-002	2
-7	Shaft, Top Of Form		212668-1	1
-8	Gear, Spur, 44-Teeth		800508-044	1
-9	Mount, Gear		212666-1	1
-10	Ring, Retaining, External		800253-035	1
-11	Sprocket, 22G, Top Of Form		212664-1	1
-12	Bearing, Ball, Radial, Type 30		800181-001	2
-13	Spacer, Bearing, Top Of Form		212665-1	1
-14	Ring, Retaining, Internal		800252-102	1

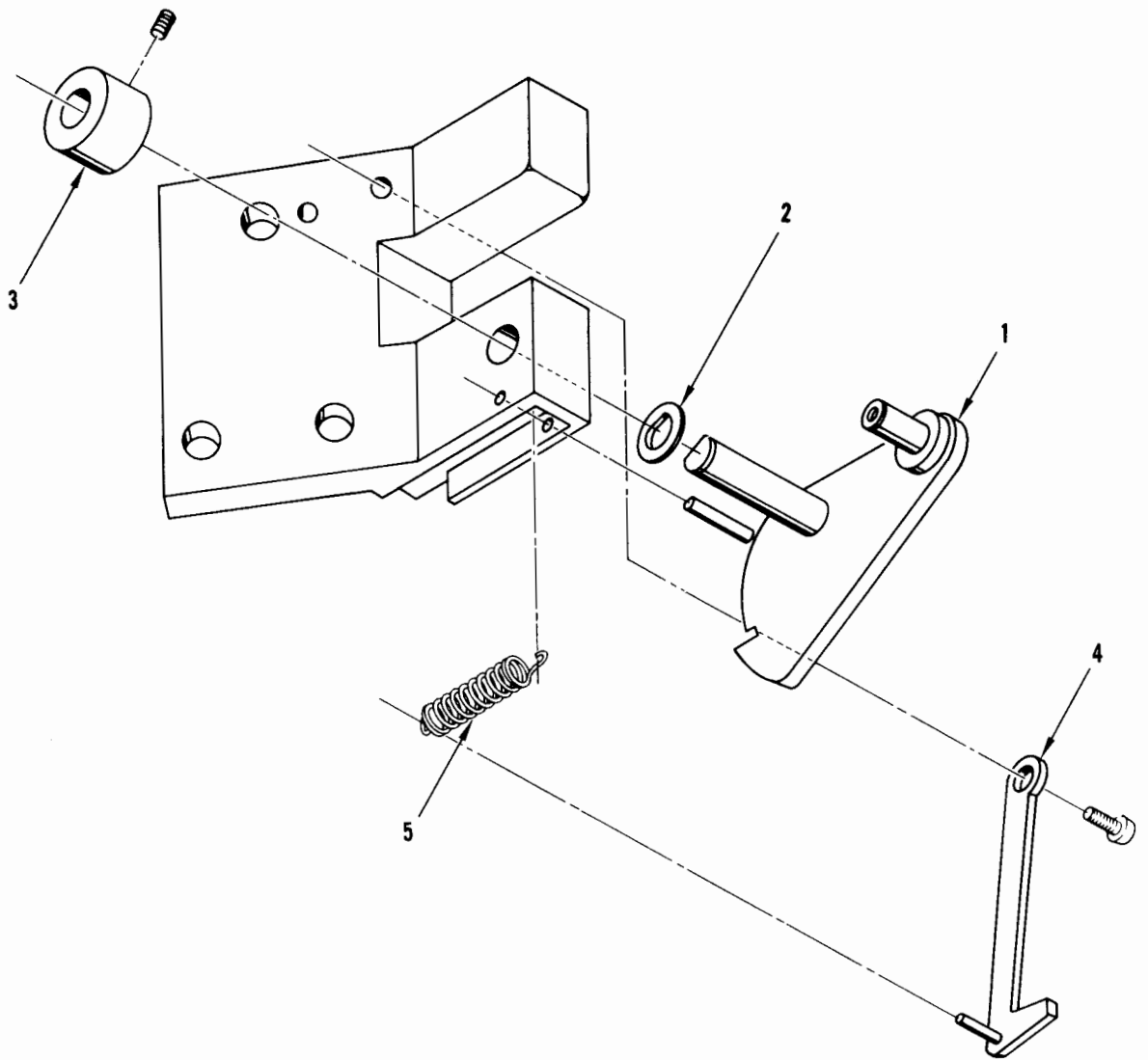


Figure 9-6. Female Latch Sub-Assembly

TABLE 9-6. FEMALE LATCH SUB-ASSEMBLY

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-6	Latch, Female Sub-Assembly		212700-1	1
-1	Pawl, Latch, Drum Gate		212702-1	1
-2	Washer, Flat, Nylon, 0.331 I.D. X 0.52 O.D.		800292-001	1
-3	Collar, Set Screw, 5/16 I.D.		800291-001	1
-4	Latch, Detent, Sub-Assembly		212703-1	1
-5	Spring		212705-1	1

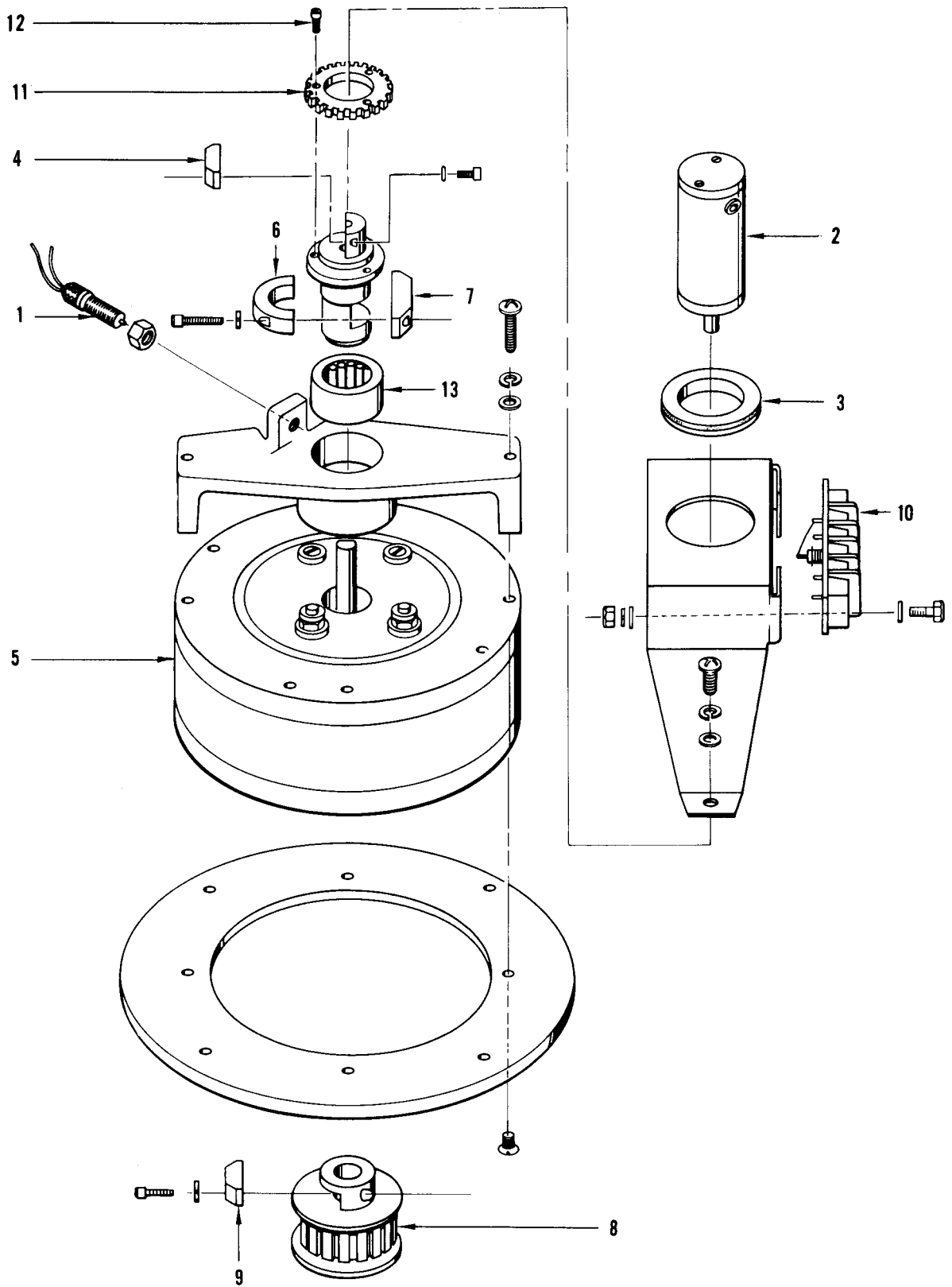


Figure 9-7. Paper Drive Sub-Assembly

TABLE 9-7. PAPER DRIVE SUB-ASSEMBLY

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-7	Paper Drive Sub-Assembly		212670-1	1
-1	Transducer, Magnetic Pick-Up (PUI) 1.4 Lg X 0.44 Dia		800153-001	1
-2	Tachometer, Electric, 7V/1000 RPM		800013-001	1
-3	Grommet, Rubber, 1.5 I.D. X 2.06 O.D.		800085-002	1
-4	Retainer, Shaft, Tachometer		212847-1	1
-5	Motor, Electric, D.C.		800537-001	1
-6	Yoke, Coupling		212672-1	1
-7	Bar, Yoke, Coupling		212758-1	1
-8	Sprocket, 27G, Paper Drive		212675-1	1
-9	Clamp, Motor Shaft		212676-1	
-10	Temperature Sensor Assembly		218215-1	1
-11	Wheel, Code, 36 Teeth		212678-1	1
-12	Screw, Flat Head, 100 , 2-56 X 3/16 Lg		800072-103	3
-13	Clutch, Roller		800276-006	1

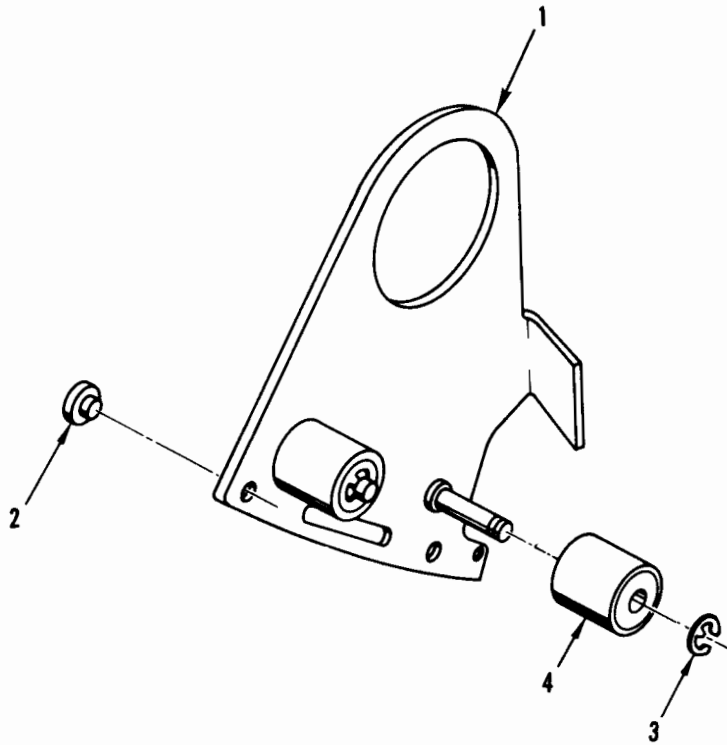


Figure 9-8. Vertical Paper Adjust Assembly

TABLE 9-8. VERTICAL PAPER ADJUST ASSEMBLY

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-8	Vertical Paper Adjustment Assy		212690-1	1
-1	Bracket, Vertical Paper Adj		212691-1	1
-2	Button, Vertical Paper Adj		212775-1	2
-3	"E" Ring, Retaining		800254-025	2
-4	Roller, Phasing, Delrin		212692-1	2

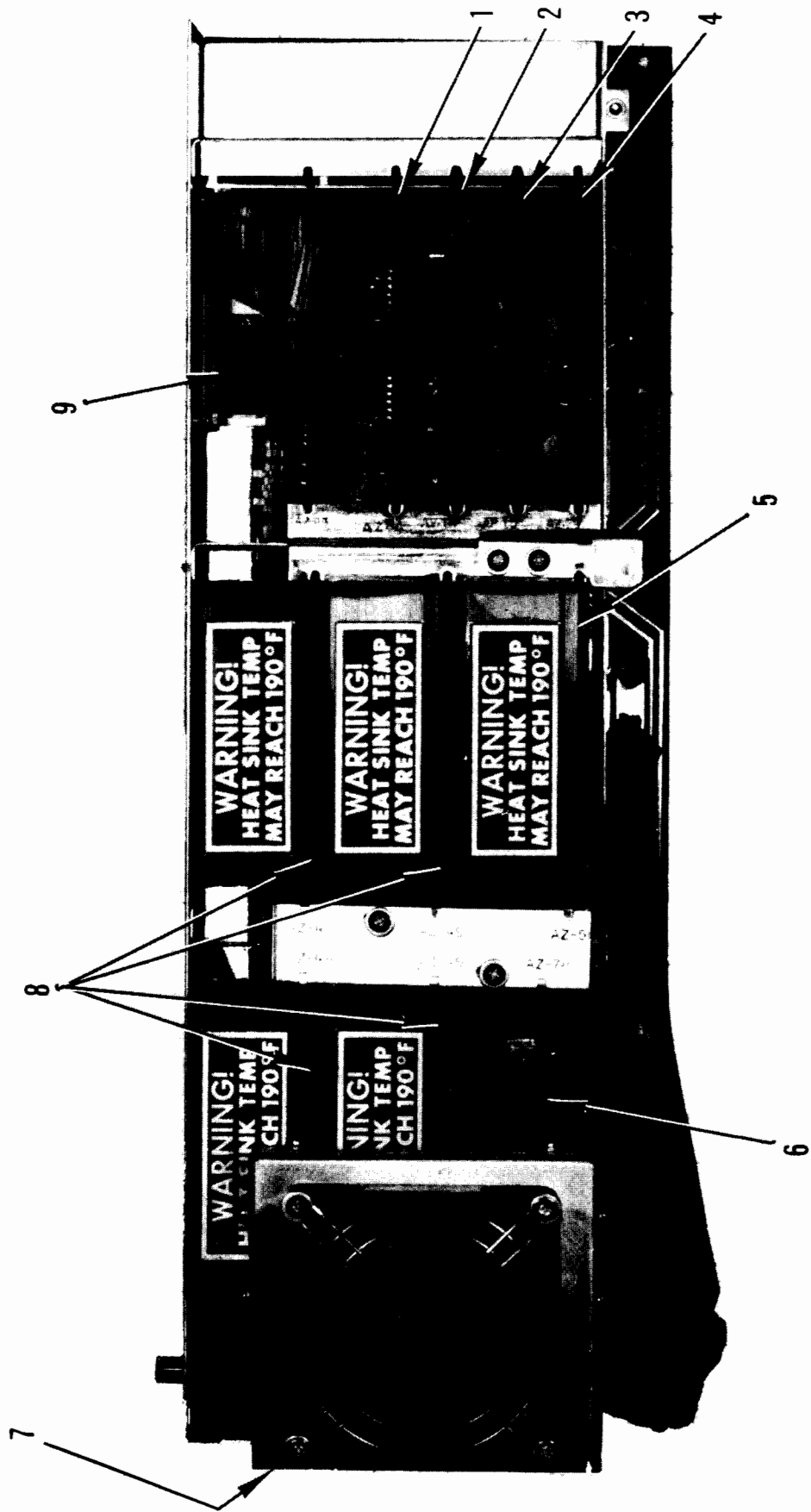
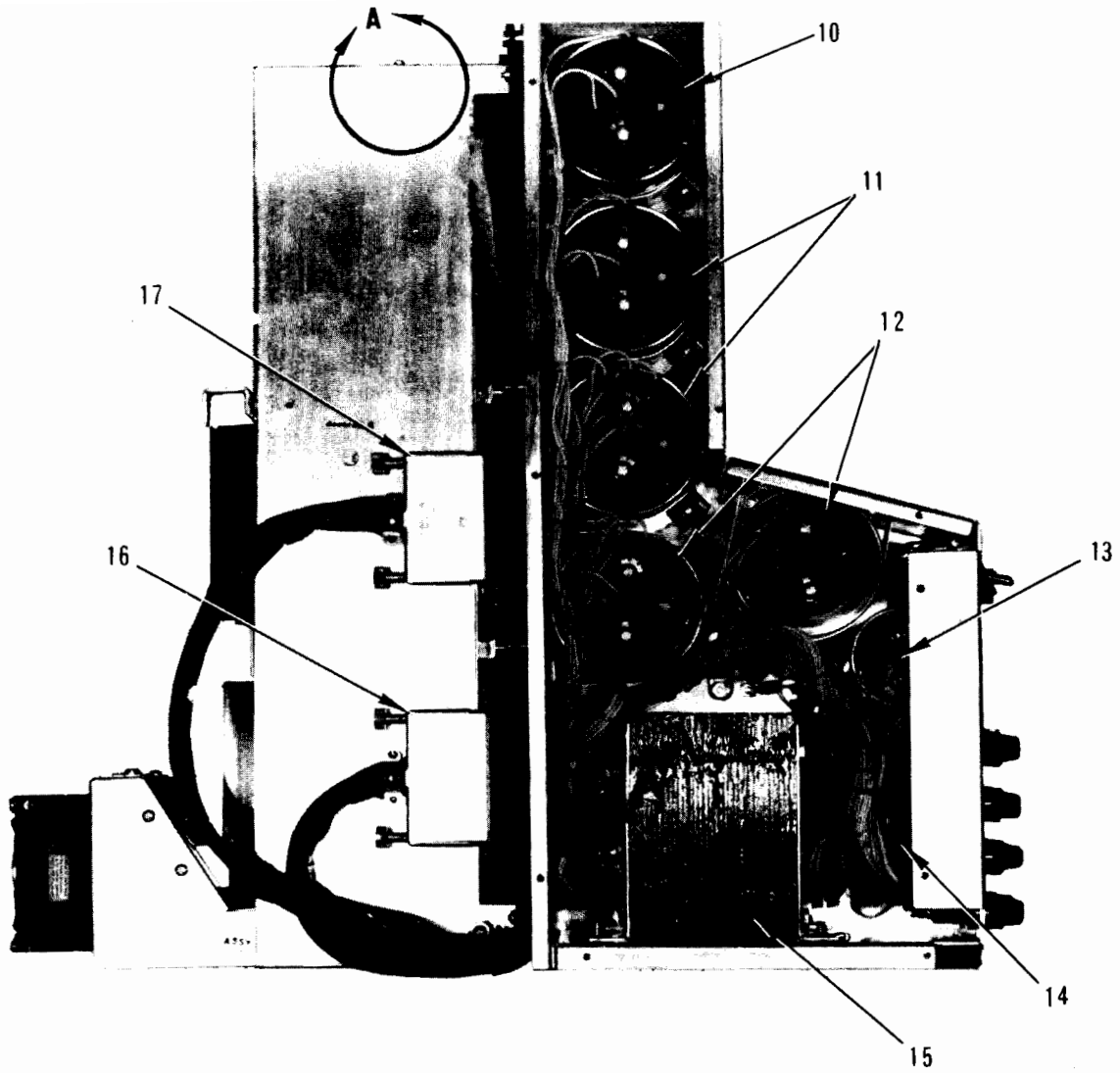


Figure 9-9. Power Supply (Sheet 1 of 3)



DETAIL A

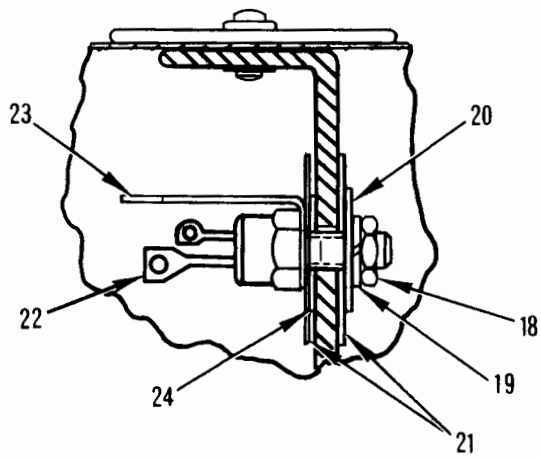


Figure 9-9. Power Supply (Sheet 2 of 3)

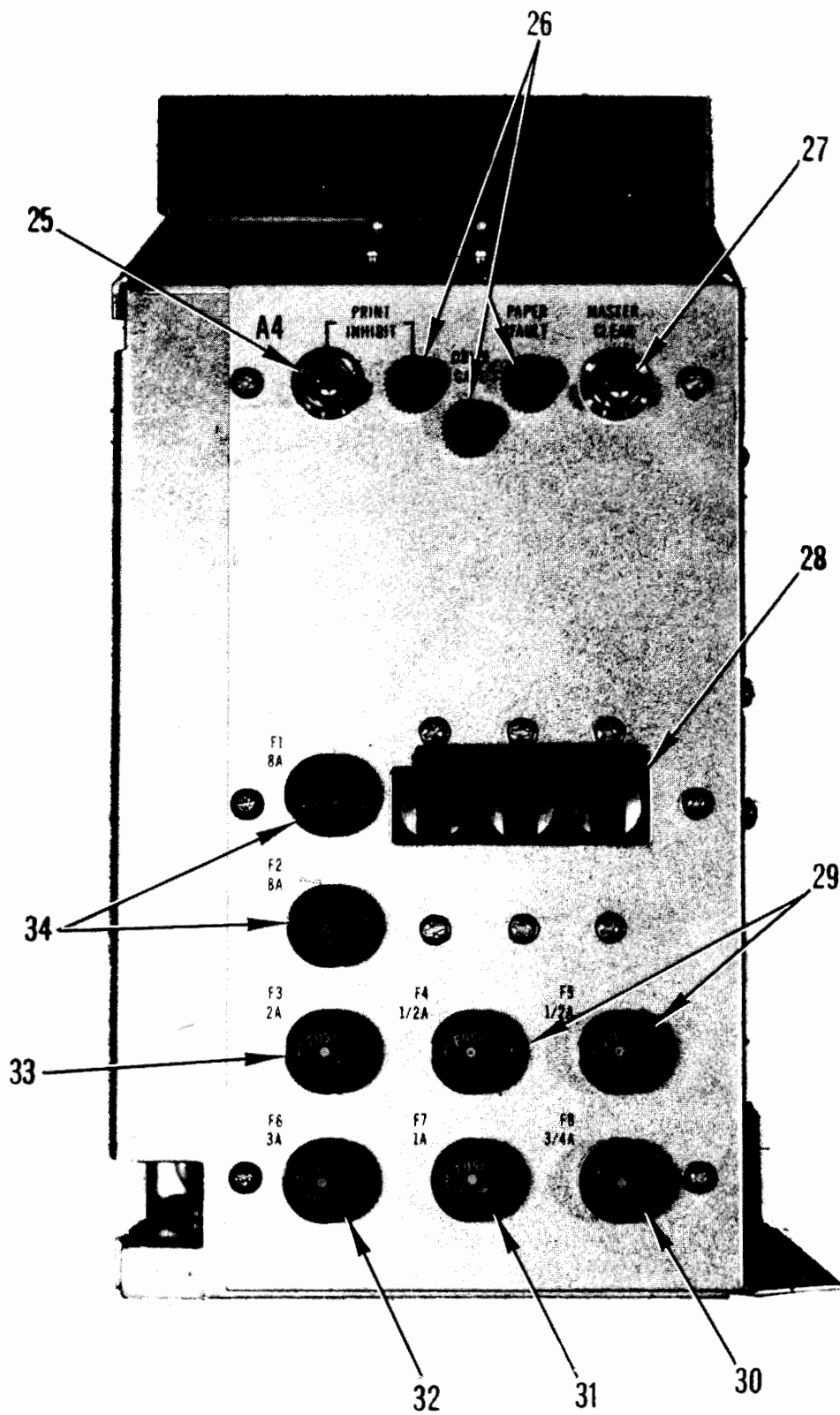


Figure 9-9. Power Supply (Sheet 3 of 3)

TABLE 9-9. POWER SUPPLY ASSEMBLY

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-9	Power Supply Assembly		216470-1	1
-1	Circuit Card Assembly, AZ-84 Ribbon Control	A3	216525-1	1
-2	Circuit Card Assembly, AV-10 Voltage Regulator	A2	212495-1	1
-3	Circuit Card Assembly, AP-10 Paper Feed Control	A1	212480-1	1
-4	Circuit Card Assembly, AZ-79 SCR Commutating Board	A4	216205-1	1
-5	Circuit Card Assembly, AZ-51 Negative Paper Feed Power Ampl	A5	215290-1	1
-6	Circuit Card Assembly, AZ-78 Birdge Board	A10	216200-1	1
-7	Blower Cartridge Assembly	B1	216471-1	1
-8	Circuit Card Assembly, AZ-49 +5V, +12V, +28V, Pos Paper Feed Power Ampl	A6,A7,A8,A9	215285-1	4
-9	Connector, Female	J2	800202-018	1
-10	Capacitor, 22,000 Uf, 75V	C1	800092-757	1
-11	Capacitor, 31,000 Uf, 40V	C2,C3	800092-406	1
-12	Capacitor, 47,000 Uf, 25V	C4,C5	800092-256	2
-13	Capacitor, 9,000 Uf, 50V	C6	800092-504	1
-14	Capacitor, 0.1 Uf, 1000VDC	C7,C8	800685-104	2
-15	Transformer	T1	800535-001	1
-16	Connector, Plug	P4	800261-041	1
-17	Connector, Plug	P3	800201-041	1

TABLE 9-9. POWER SUPPLY ASSEMBLY (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
-18	Nut		800329-6	6
-19	Lockwasher, Int tooth, No. 6		800076-003	6
-20	Washer, Flat, No. 1/4		800075-006	6
-21	Washer, Mica		800341-3	12
-22	SCR, Thyristor	Q1,Q2,Q3,Q4, Q6	800192-001	5
-23	Terminal Lug		800324-001	6
-24	Washer, Nylon		800342-1	6
-25	Switch, Toggle	S1	800303-001	1
-26	Lamp	DS1, DS2, DS3	800163-003	3
-27	Switch, Toggle (MOM.)	S2	800305-002	1
-28	Circuit Breaker	CBI	800343-001	1
-29	Fuse, 1/2A	F4, F5	800316-005	2
-30	Fuse, 3/4A	F8	800316-007	1
-31	Fuse, 1A	F7	800316-010	1
-32	Fuse, 3A	F6	800316-030	1
-33	Fuse, 2A	F3	800316-020	1
-34	Fuse, 8A, 125V	F1, F2	800762-001	2



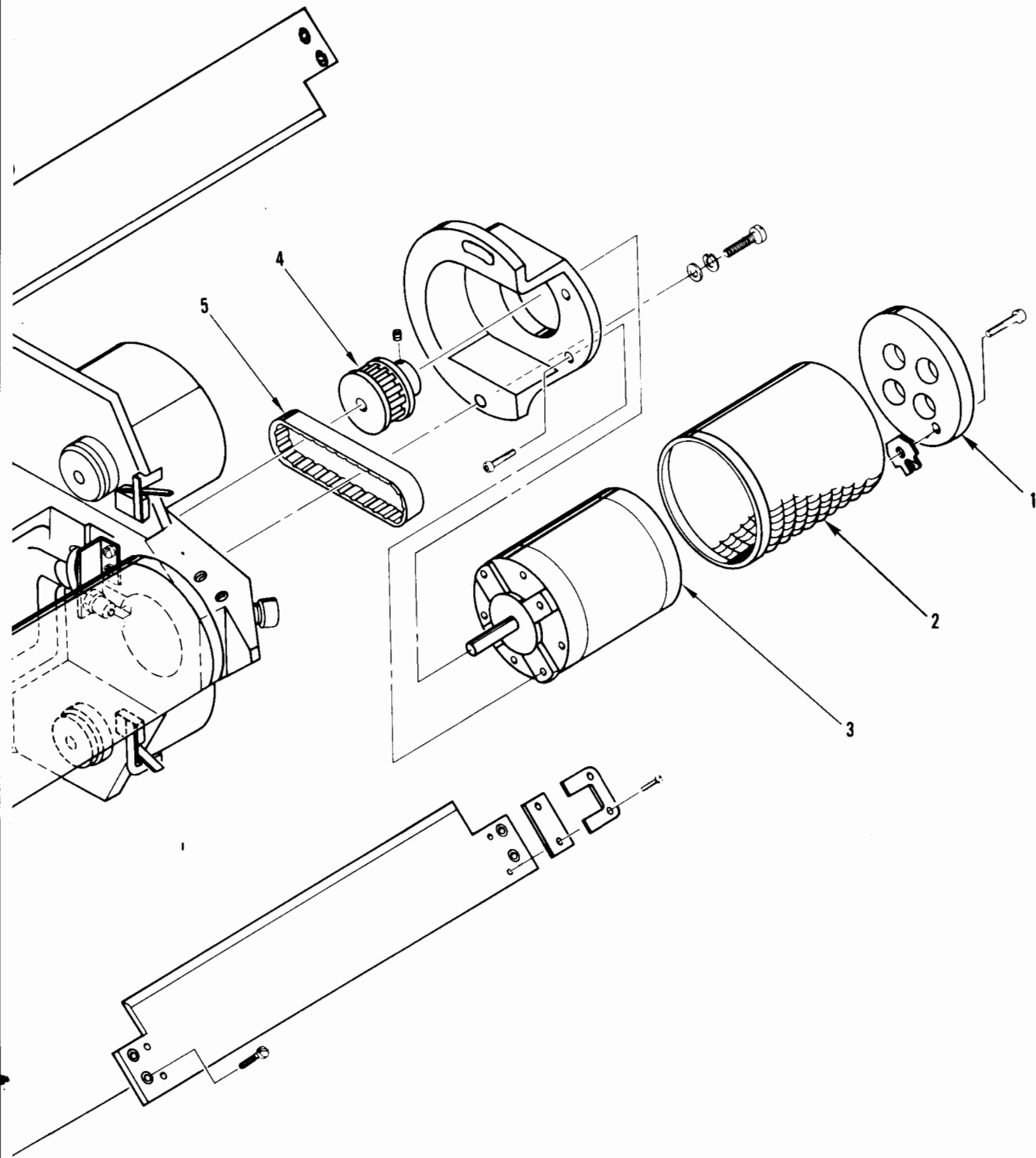
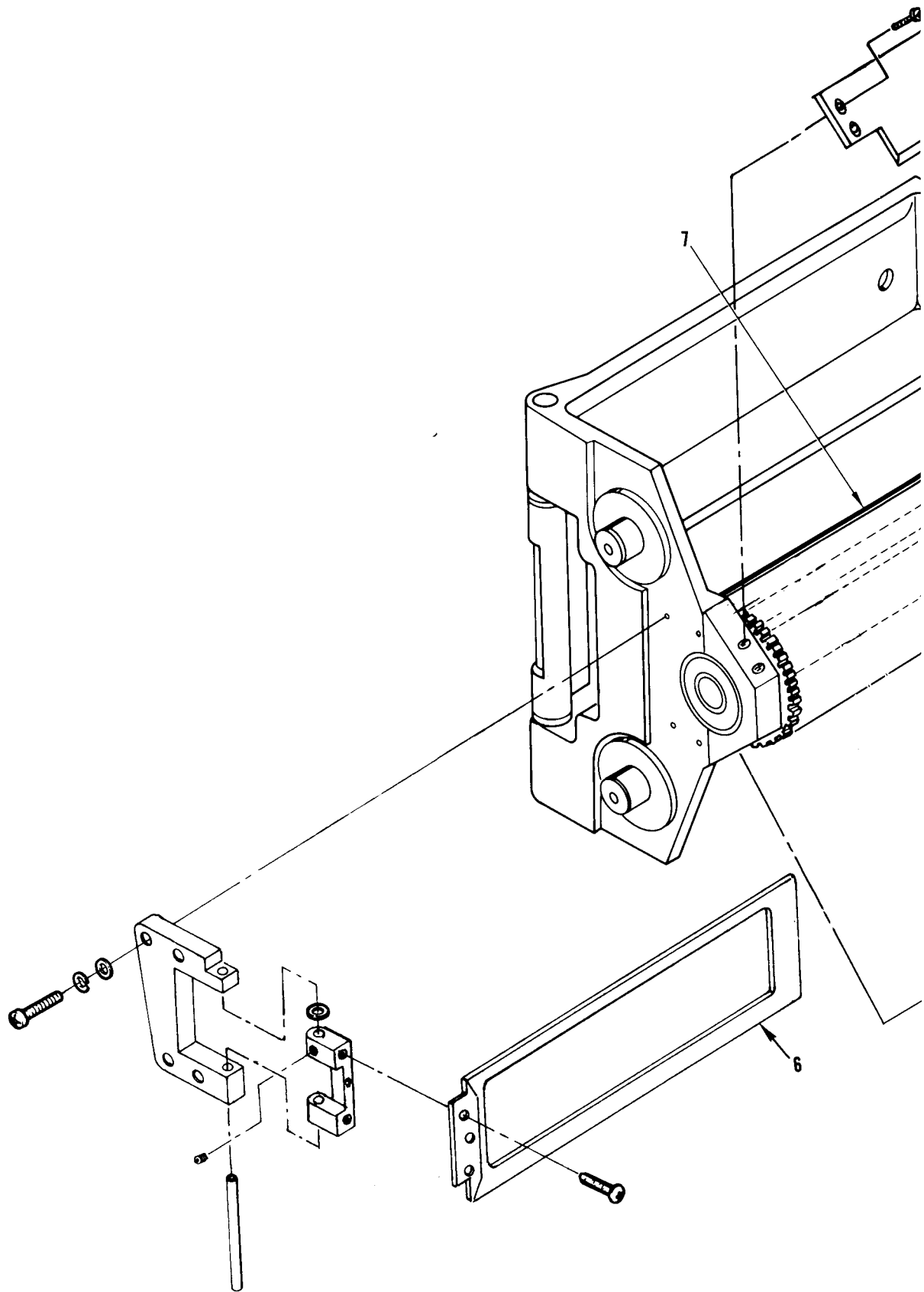


Figure 9-10. Drum Gate Assembly,
64-Character
(Sheet 1 of 3)



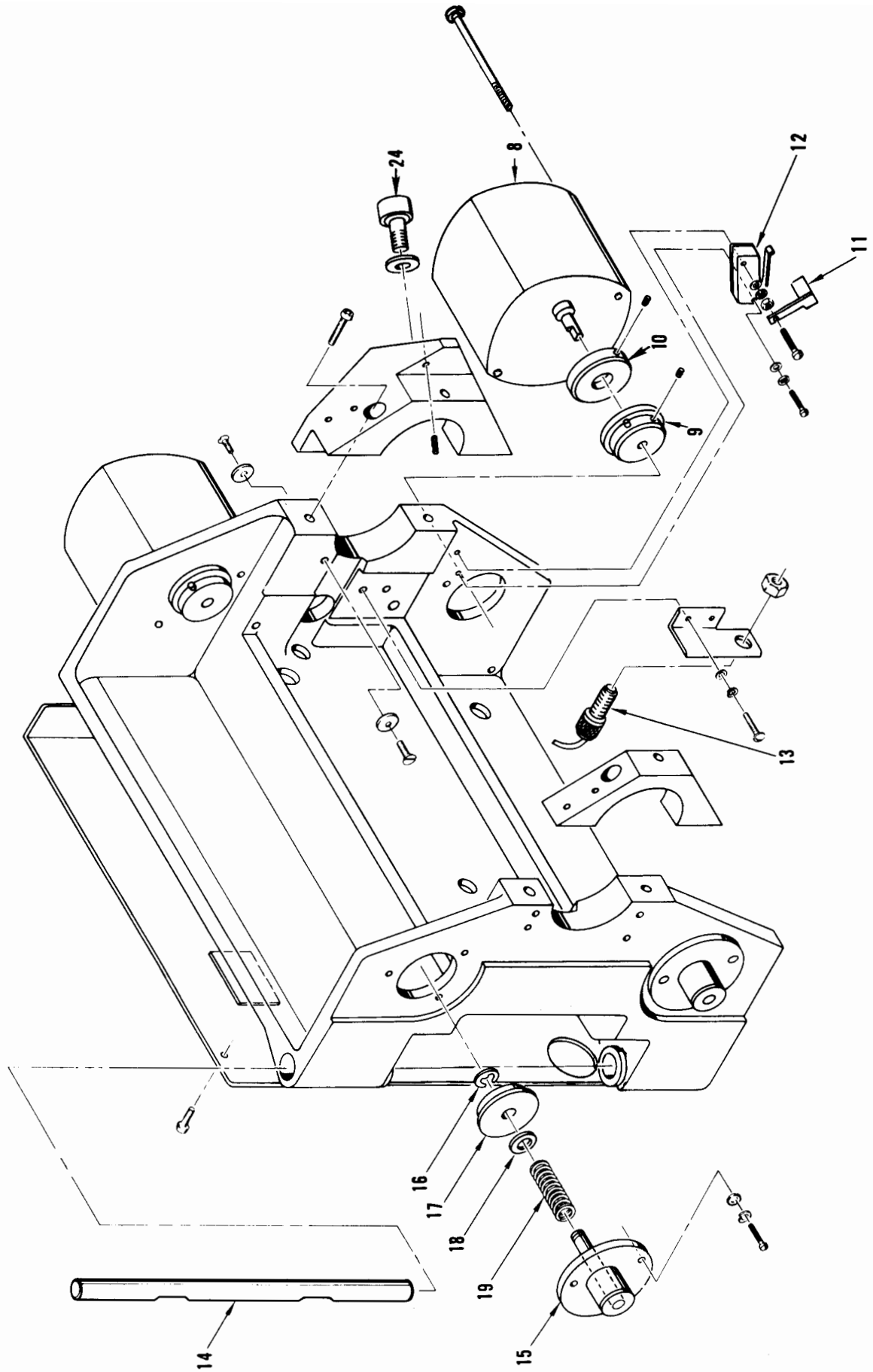


Figure 9-10. Drum Gate Assembly, 64-Character (Sheet 2 of 3)

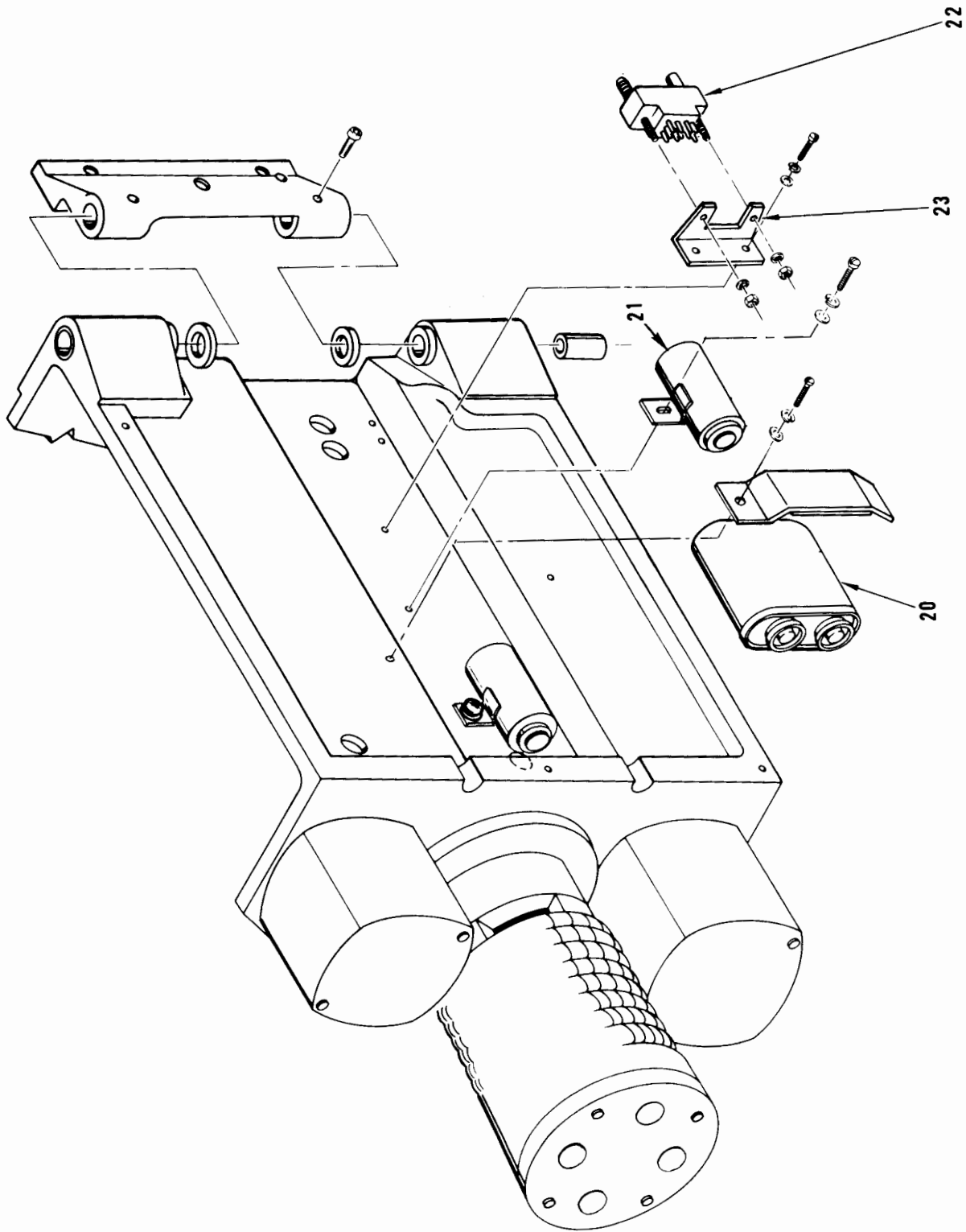


Figure 9-10. Drum Gate Assembly, 64-Character (Sheet 3 of 3)

TABLE 9-10. DRUM GATE ASSEMBLY, 64-CHARACTER


Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-10	Drum Gate Machined Assembly		212740-1	1
-1	End Cap-Motor		213800-1	1
-2	Heat Sink-Motor		213799-1	1
-3	Motor, AC, 1/20 HP	B1	800899-001	1
-4	Sprocket, Drive Drum Motor		212712-3	1
-5	Belt		800299-001	1
-6	Guide Assy, Ribbon and Paper		212621-1	1
-7	Drum Sub-Assembly (See figure 9-11 for details)		212730-1	1
-8	Motor, AC Geared	B2, B3	800264-001	2
-9	Holder, Ribbon Fixed		212745-1	2
-10	Spacer, Ribbon Motor		212747-1	2
-11	Bracket-Switch (Top)		213798-1	1
	Bracket-Switch (Bottom)		213798-2	1
-12	Switch	S1, S2	206840-1	2
-13	Transducer	PU1, PU2	800153-001	2
-14	Pin, Hinge		212711-1	1
-15	Flange, Ribbon		212743-1	2
-16	Ring, Retaining, "E" Type		800254-025	2
-17	Holder, Ribbon Floating		212746-1	2
-18	Washer, Flat, 1/4		800718-006	2
-19	Spring		800279-002	2
-20	Capacitor, 4 MFD, 370VAC	C1	800183-001	1

TABLE 9-10. DRUM GATE ASSEMBLY, 64-CHARACTER (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
-21	Capacitor, 1 Uf, 220VAC	C2,C3	800154-001	2
-22	Connector Receptacle	J1	800262-018	1
-23	Bracket, Connector		212617-1	1
-24	Bearing, Cam-Follower		800220-001	1

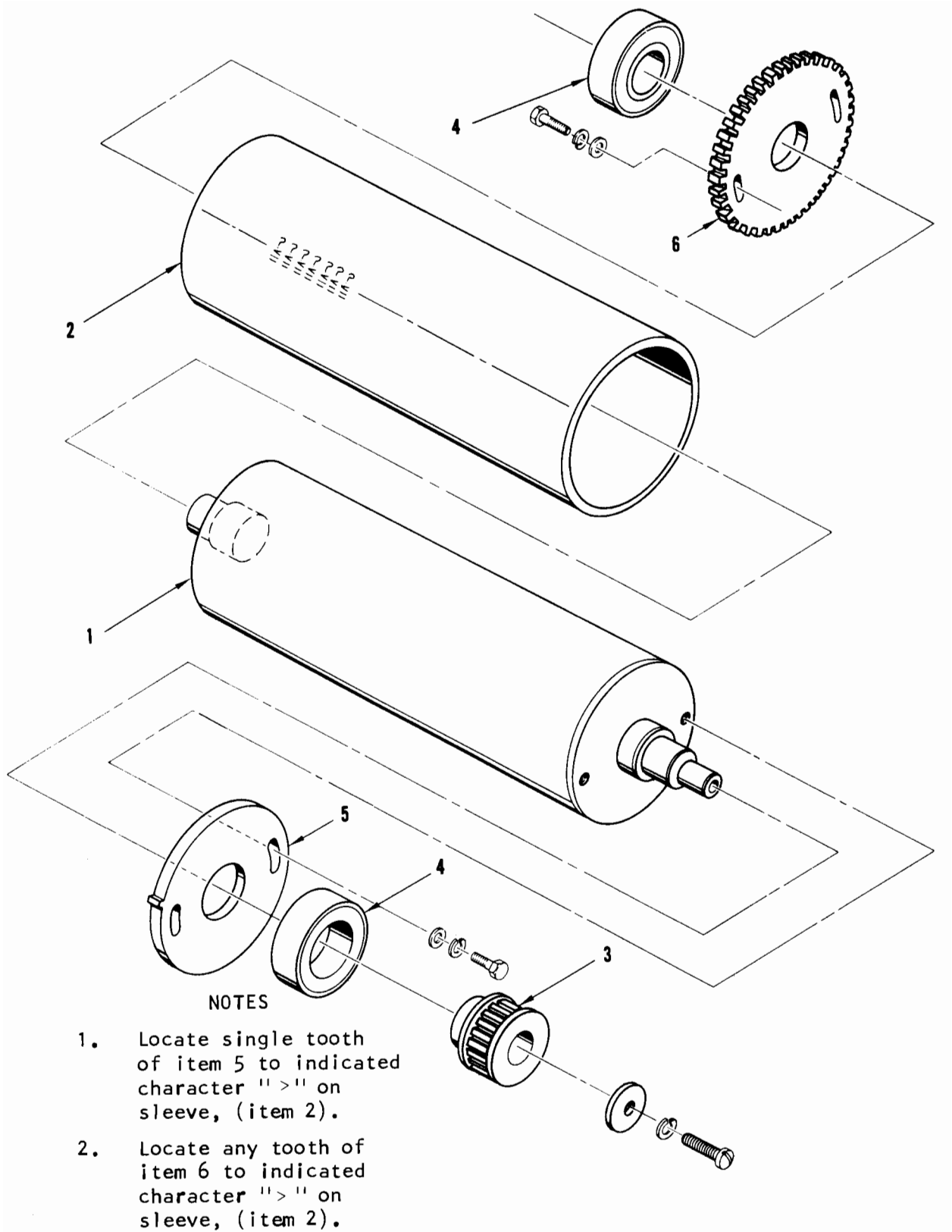


Figure 9-11. Drum Sub-Assembly, 64-Character

TABLE 9-11. DRUM SUB-ASSEMBLY, 64-CHARACTER

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-11	Drum Sub-Assembly (64-Character)		212730-1	1
-1	Core, Character Drum		212731-1	1
-2	Sleeve, Character Drum		212734-1	1
-3	Sprocket, Drive, Character Drum		212712-2	1
-4	Bearing, Ball, Radial		800196-001	2
-5	Wheel, Code, Single Tooth, Drum Positioner (See Notes)		212716-1	1
-6	Wheel, Code, Character Drum (See Notes)		212717-1	1

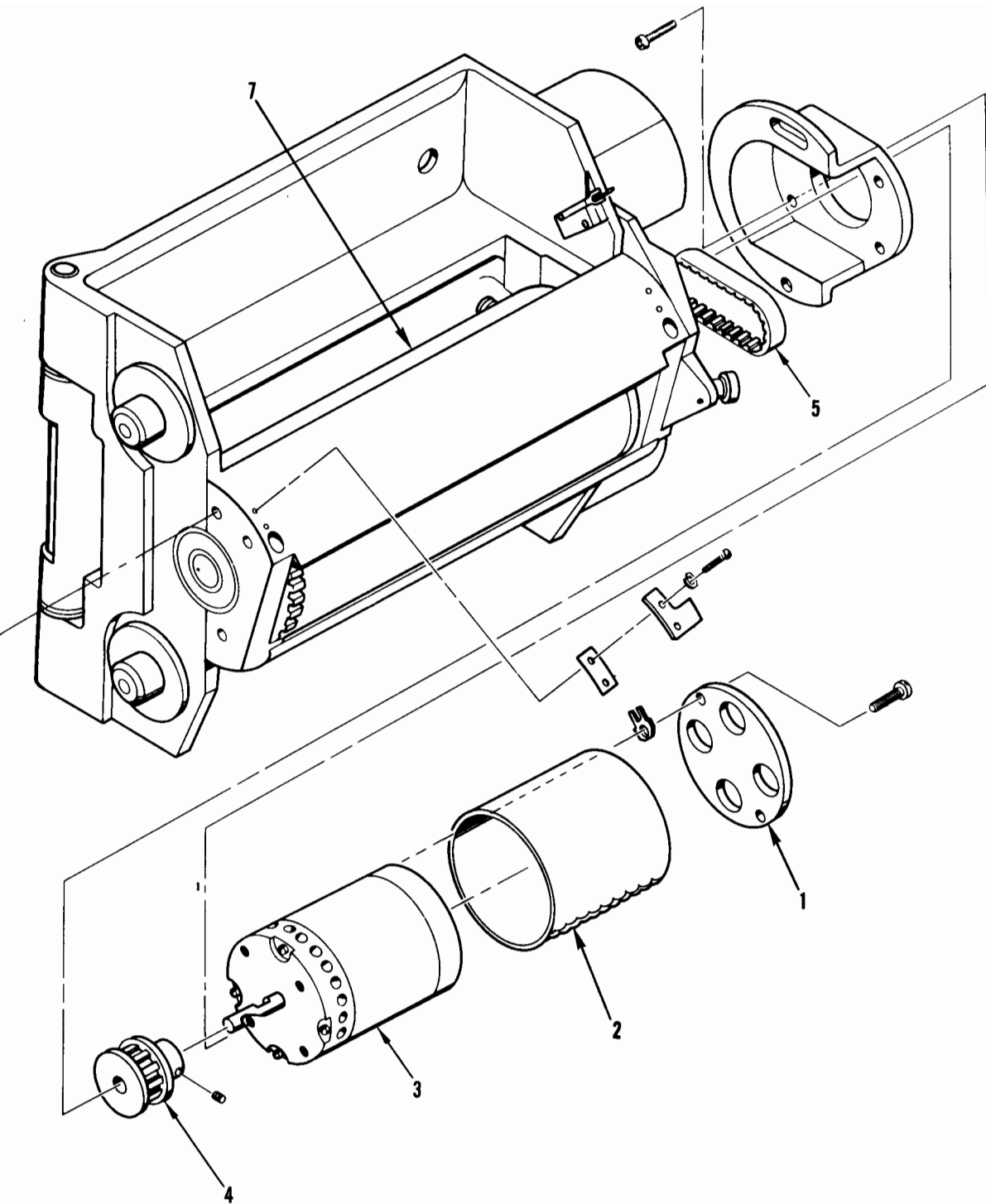
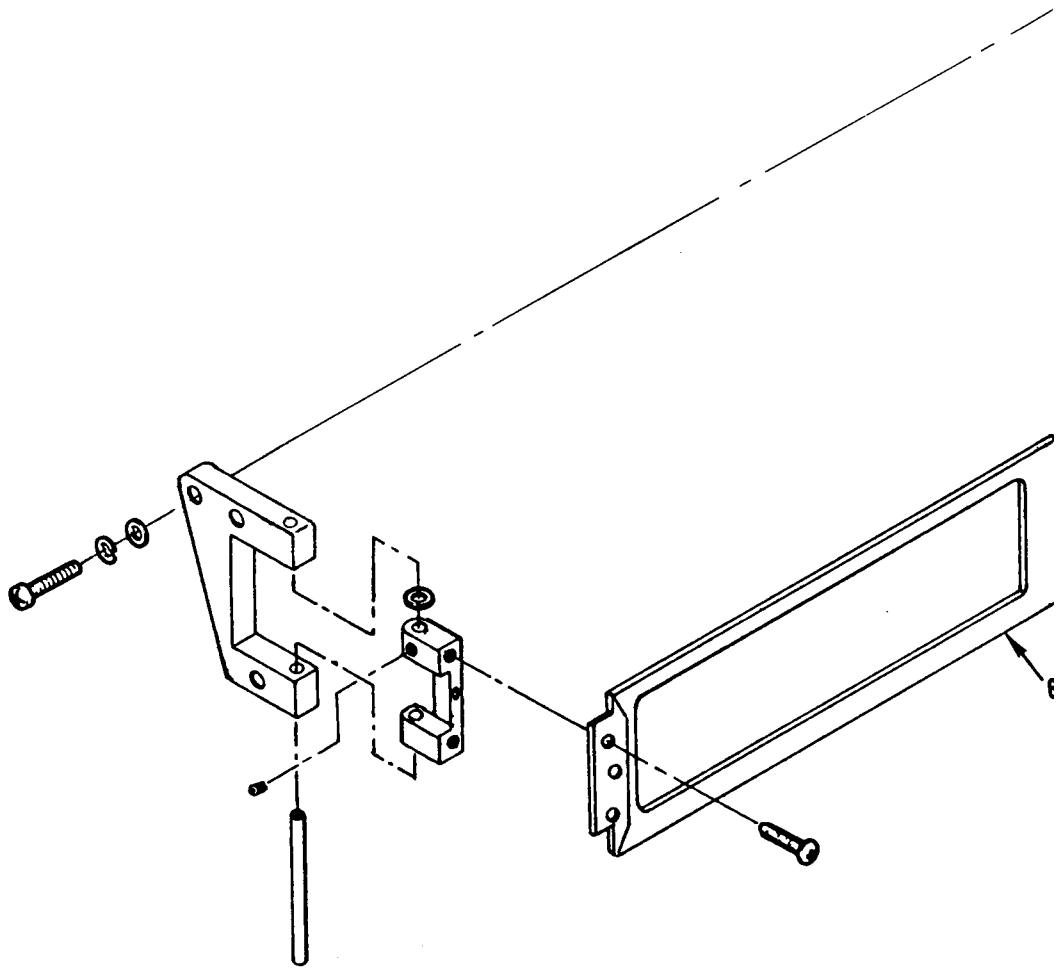


Figure 9-12. Drum Gate Assembly,
96-Character
(Sheet 1 of 3)



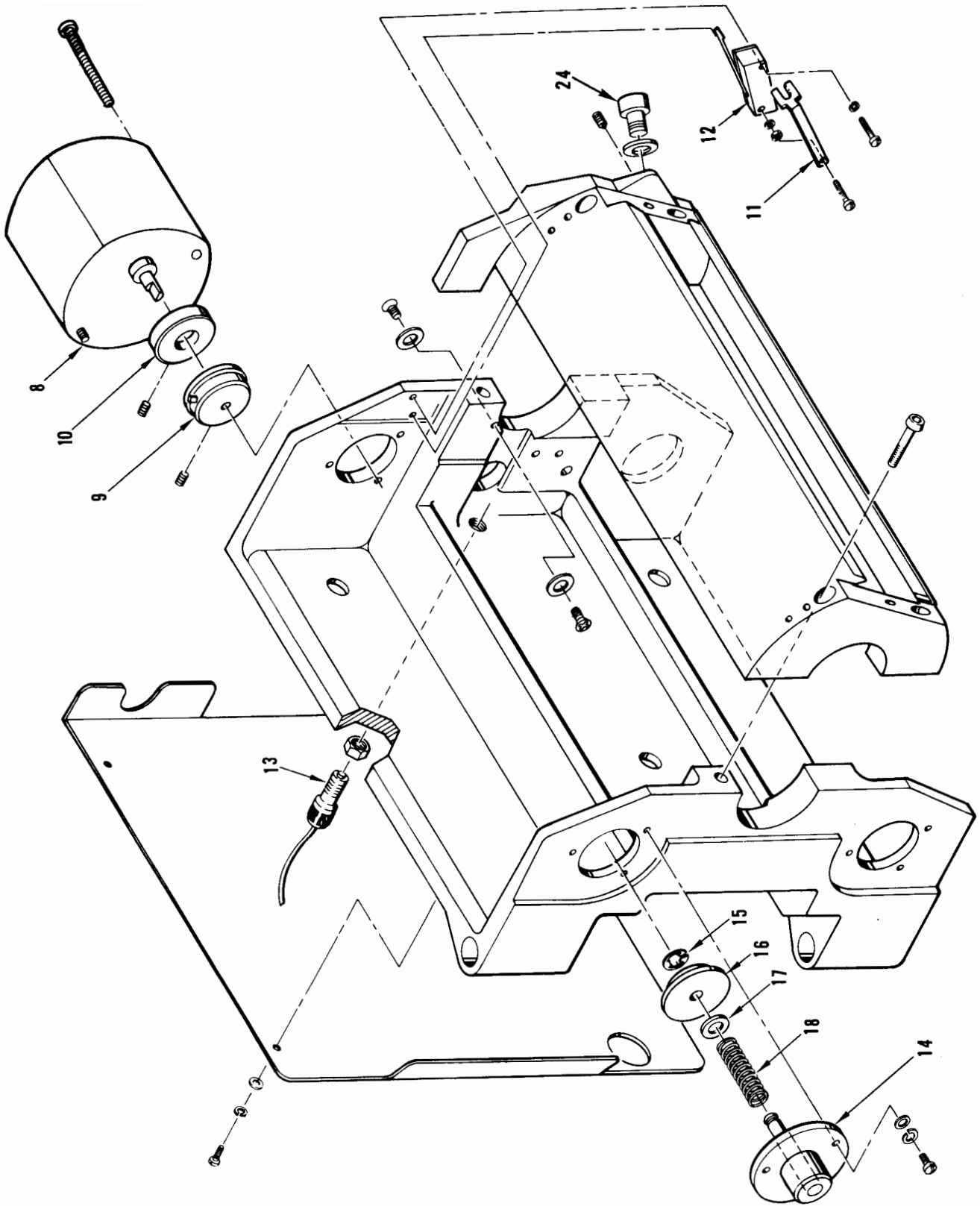


Figure 9-12. Drum Gate Assembly, 96-Character (Sheet 2 of 3)

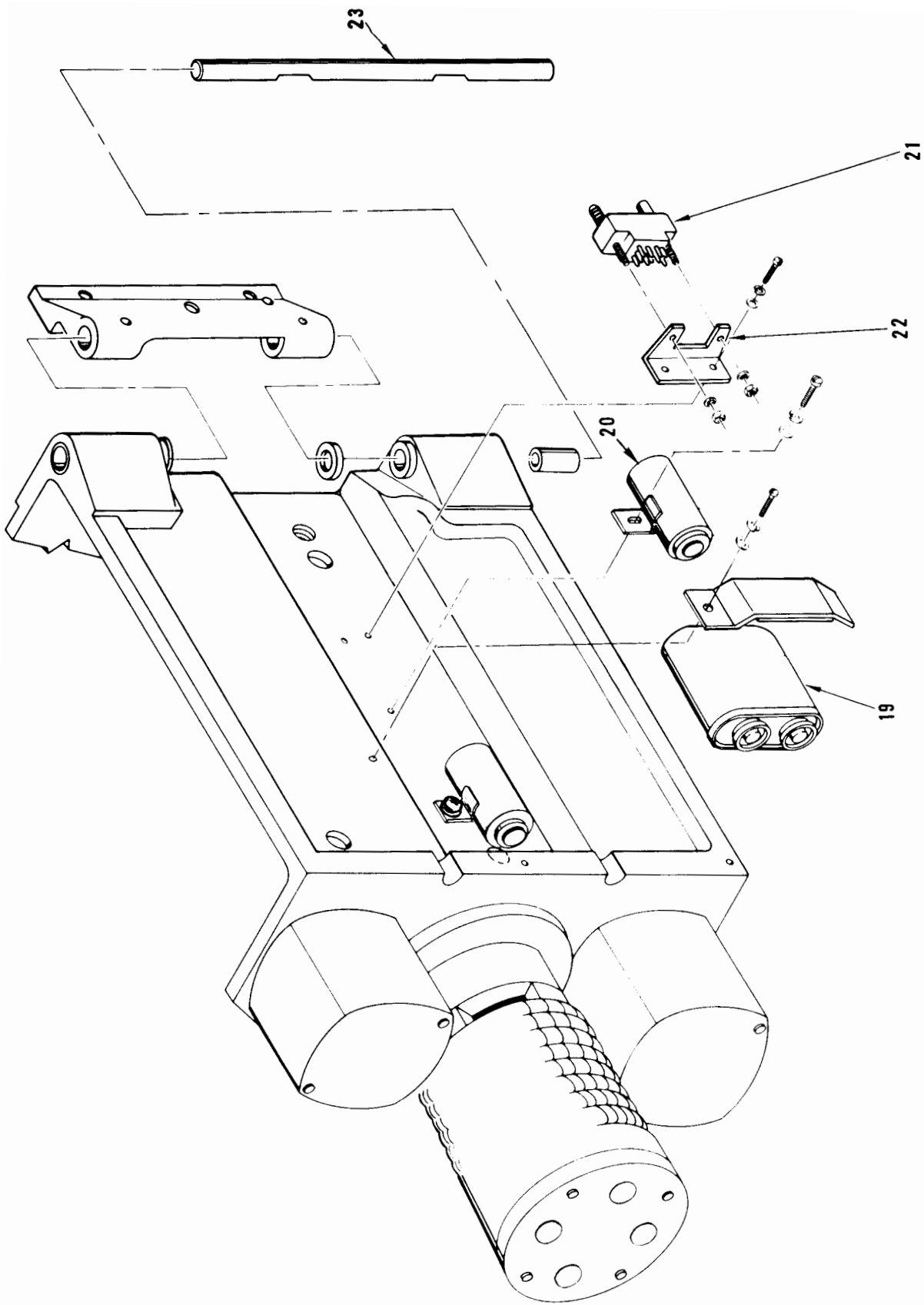


Figure 9-12. Drum Gate Assembly, 96-Character (Sheet 3 of 3)

TABLE 9-12. DRUM GATE ASSEMBLY, 96-CHARACTERS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-12	Drum Gate Assembly, 96 Characters		215370-1	1
-1	End Cap - Motor		213800-1	1
-2	Heat Sink - Motor		213799-1	1
-3	Motor, AC, 1/20 HP	B1	800899-001	1
-4	Sprocket, Drive Drum Motor		215603-1	1
-5	Belt		800299-002	1
-6	Paper Guide		215597-1	1
-7	Drum Sub-Assembly (See figure 9-13 for details)		215361-1	1
-8	Motor, AC Gear Reduced	B2, B3	800264-001	2
-9	Holder, Ribbon Fixed		212745-1	2
-10	Spacer, Ribbon Motor		212747-1	2
-11	Bracket, Switch		215598-1	2
-12	Switch	S1, S2	800679-002	2
-13	Transducer	PU1, PU2	800153-001	2
-14	Flange, Ribbon		212743-1	2
-15	Retaining Rings, "E" Type		800254-025	2
-16	Holder, Ribbon Floating		212746-1	2
-17	Washer, Flat, 1/4		800278-004	2
-18	Spring		800279-002	2
-19	Capacitor, 4 MFD, 370VAC	C1	800183-001	1
-20	Capacitor, 1 MFD, 220VAC	C2, C3	800154-001	2
-21	Connector Receptacle	J1	800262-018	1

TABLE 9-12. DRUM GATE ASSEMBLY, 96-CHARACTERS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
-22	Bracket, Connector		212617-1	1
-23	Pin, Hinge		212711-1	1
-24	Bearing, Cam-Follower		800220-001	1

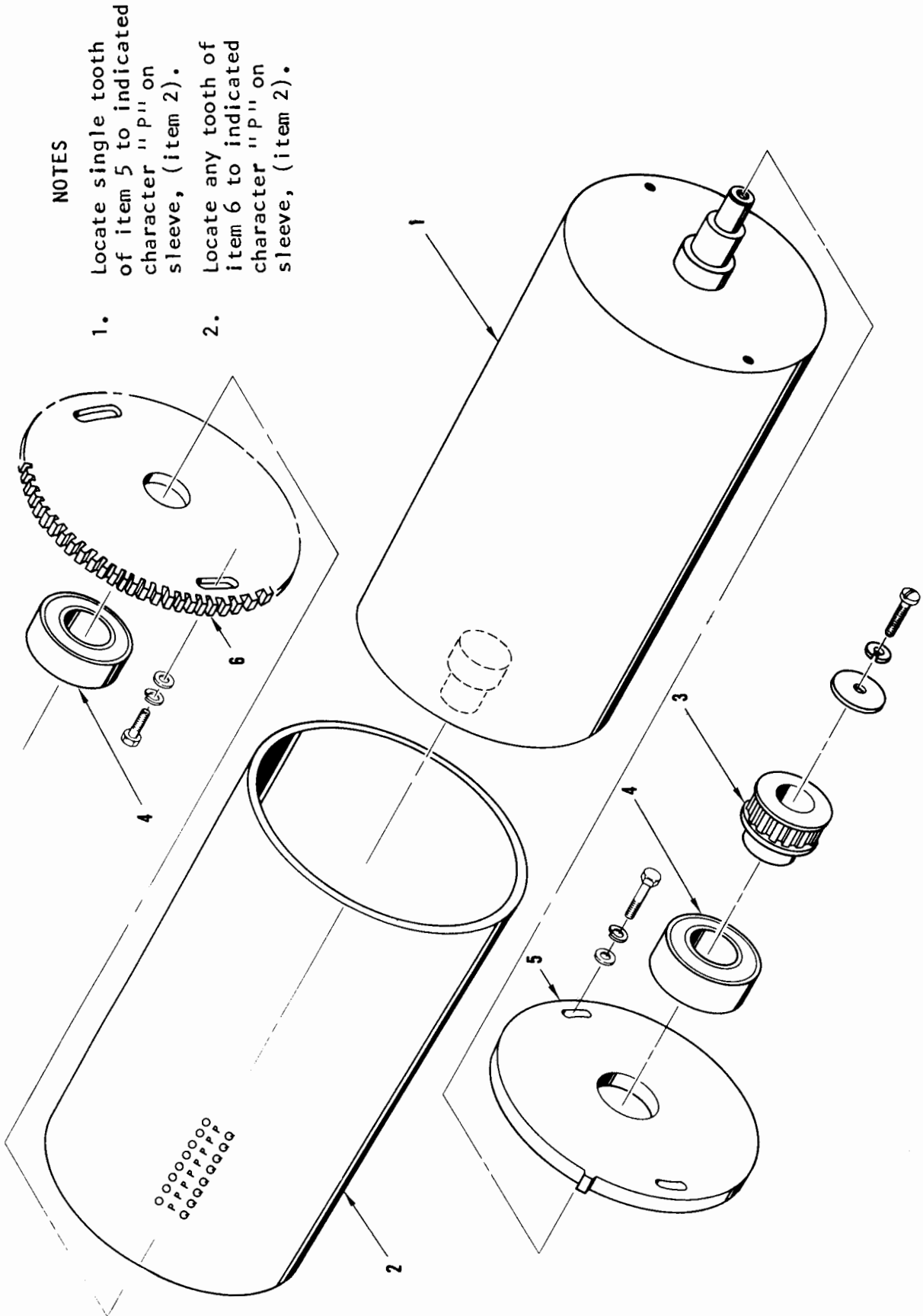


Figure 9-13. Drum Sub-Assembly, 96-Character

TABLE 9-13. DRUM SUB-ASSEMBLY, 96-CHARACTER

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-13	Drum Sub-Assembly (96-Character)		215361-1	1
-1	Core, Character Drum		215604-1	1
-2	Sleeve, Character Drum		215360-1	1
-3	Sprocket, Drive, Character Drum		215603-4	1
-4	Bearing, Ball Radial		800196-001	2
-5	Wheel, Code, Single Tooth, Drum Positioner (See Notes)		215601-1	1
-6	Wheel, Code, Drum Positioner (See Notes)		215602-1	1

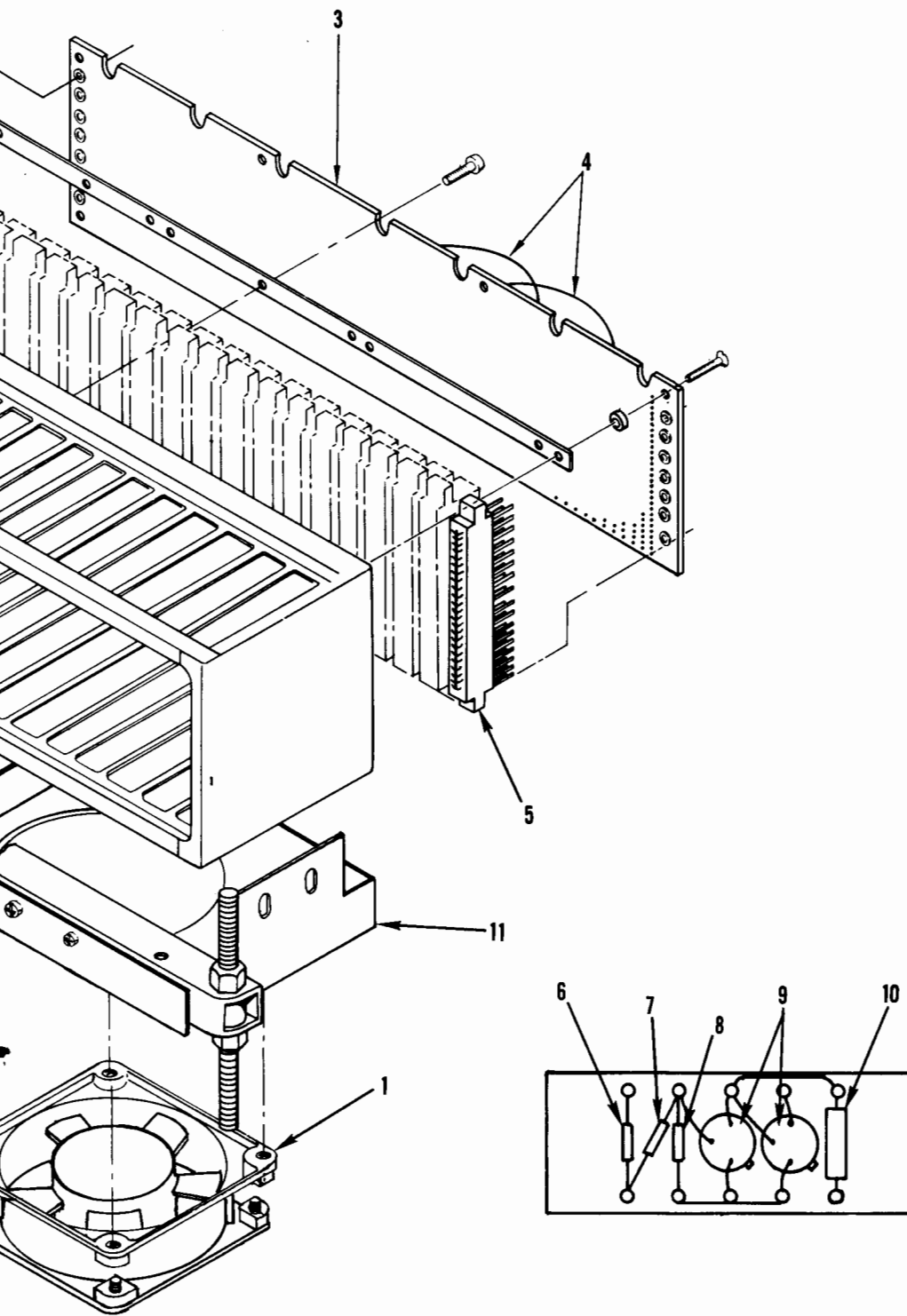


Figure 9-14. Card Cage Assembly
9-49/50

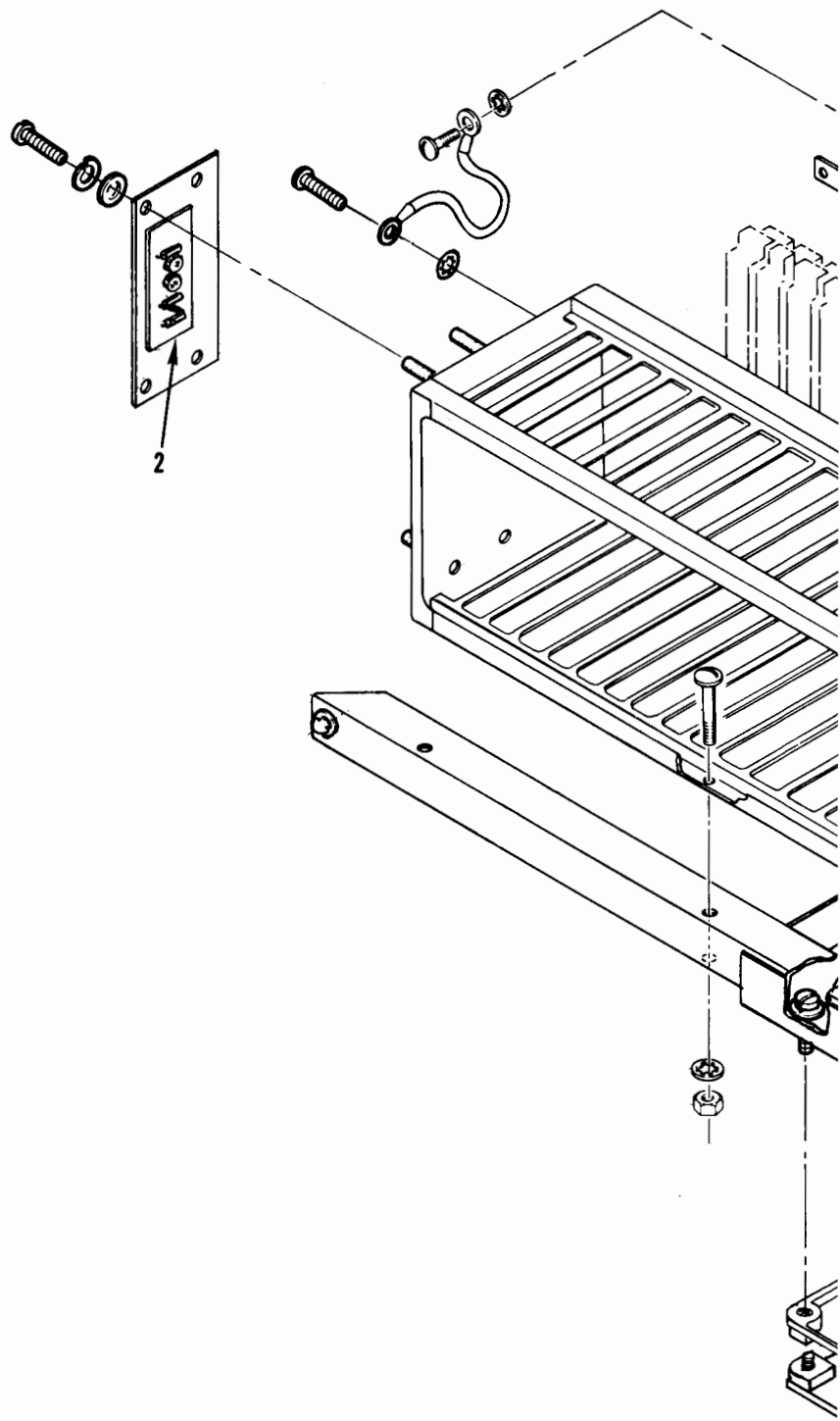


TABLE 9-14. CARD CAGE ASSEMBLY

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-14	Card Cage Assembly		212800-2	Ref
-1	Fan, Electric	B1	800131-001	1
-2	Comp Bd Assy, +12V Monitor	TB1	214278-1	1
-3	Back Panel - Wired Assembly		212801-2	1
-4	Wire, Solid, 30 AWG		800069-630	A/R
-5	Connector, 60 pin (part of 212801-2)		800042-001	26
-6	Diode, Zener	CR1	800187-001	1
-7	Resistor, 470 Ohms, 5%, 1/4W	R1	800030-471	1
-8	Resistor, 100 Ohms, 5%, 1/4W	R2	800030-101	1
-9	Transistor	Q1, Q2	800231-001	2
-10	Resistor, 1.8 Ohms, 1%, 3W	R3	800084-187	1
-11	Chassis, Blower Mount		230881-1	1

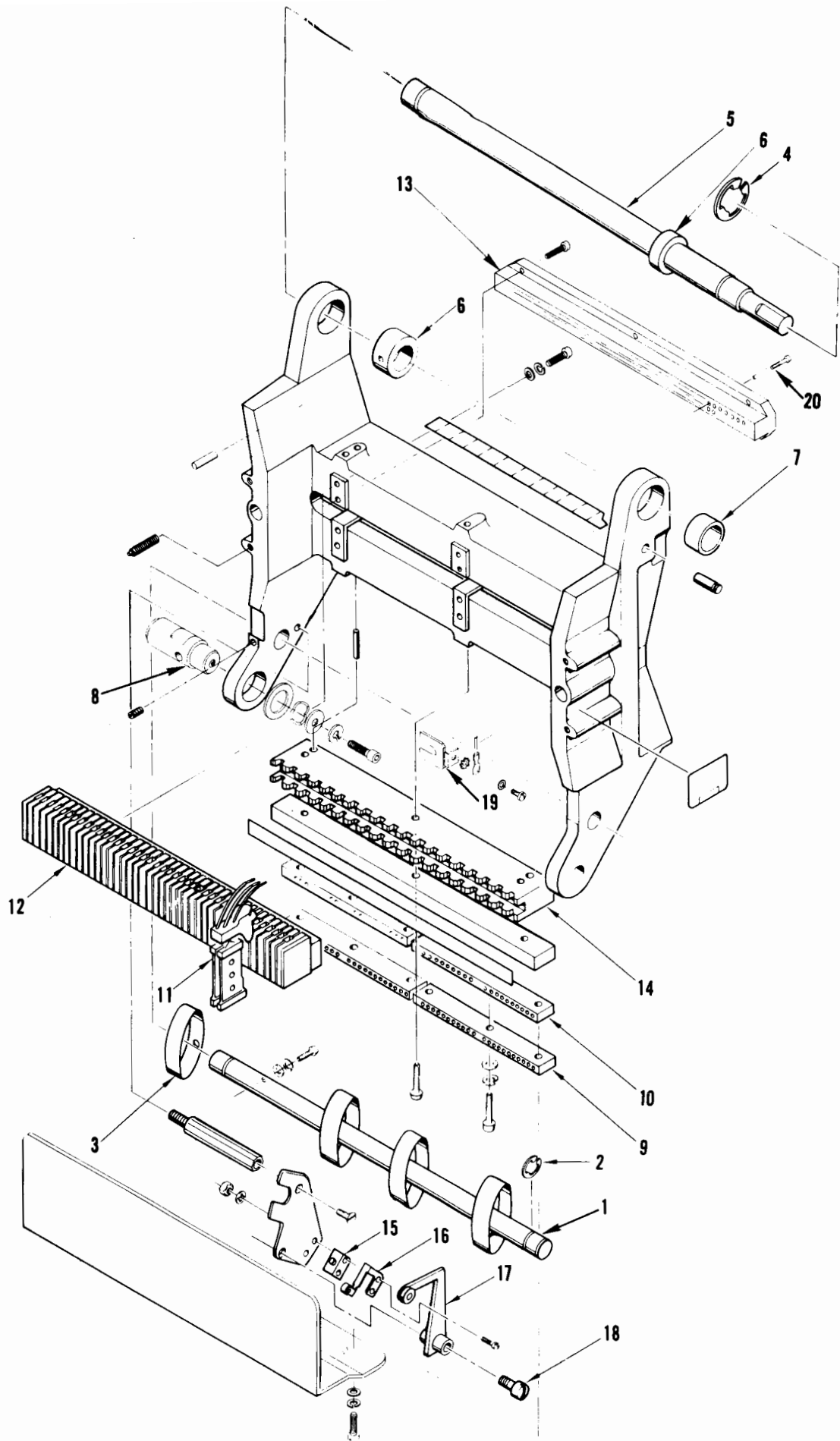


Figure 9-15. Hammer Bank Assembly

TABLE 9-15. HAMMER BANK ASSEMBLY

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-15	Hammer Bank Assembly		215793-1	1
-1	Shaft, Paper Tensioner		215934-1	1
-2	Ring, Retaining, "E" Type		800254-050	2
-3	Spring		212782-1	4
-4	Ring, Retaining, "E" Type		800254-075	2
-5	Shaft, Eccentric		215935-1	1
-6	Eccentric, Copies Control		212791-1	2
-7	Bearing, Bronze, Sleeve Type, Oil-less, 7/8 O.D. X 3/4 I.D. X 0.62 Lg		800225-005	2
-8	Pivot, Adjustable		212706-1	1
-9	Connector, Taper Pin		800361-003	4
-10	Connector, Taper Pin		800361-004	4
-11	Hammer Module Assembly		208504-1	40
-12	Magnet Assembly		208463-1	2
-13	Backstop Bar		219890-1	1
-14	Baseplate		215936-1	2
-15	Switch, Micro, Insulated SPDT		800129-001	1
-16	Actuator, Arm (With Roller)		800130-001	1
-17	Arm Assembly		212647-1	1
-18	Screw, Shoulder, 8-32 X 0.313 Lg		800223-805	1
-19	Window, Cover		230827-1	1
-20	Screw, Backstop		208563-1	80



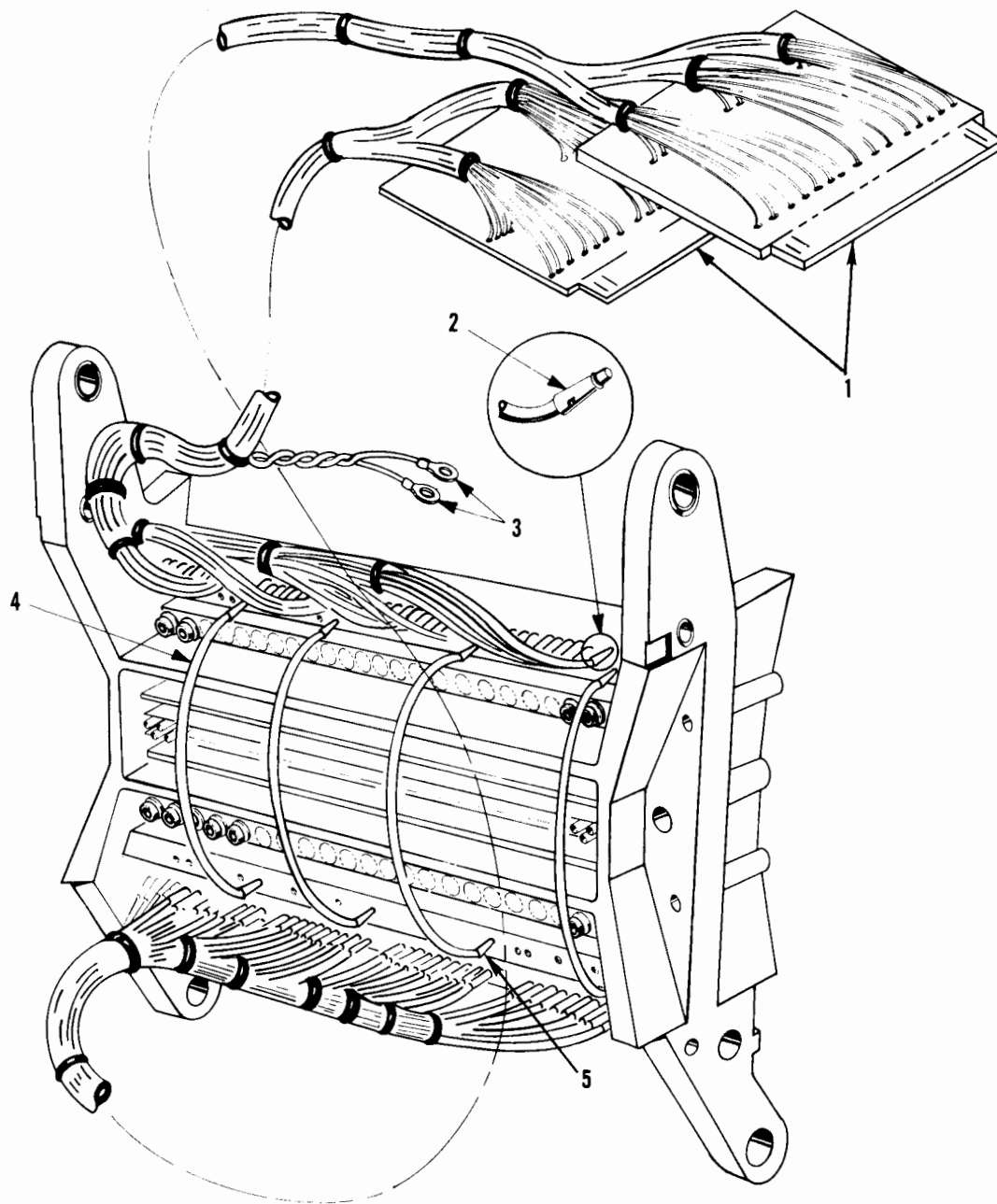
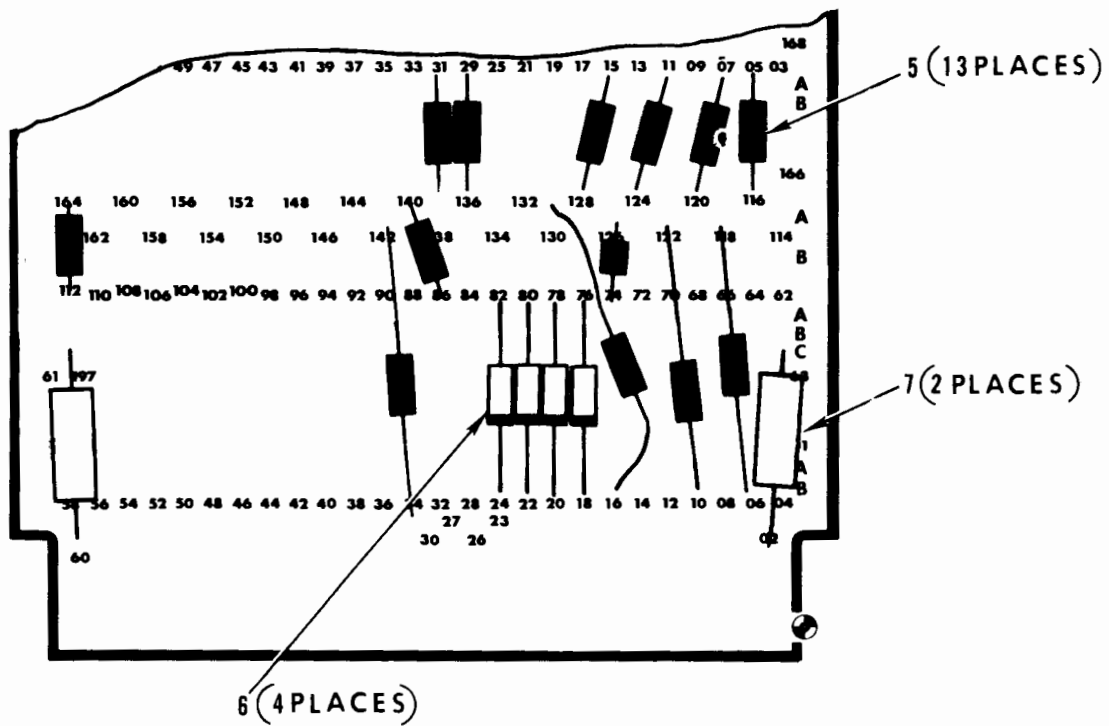
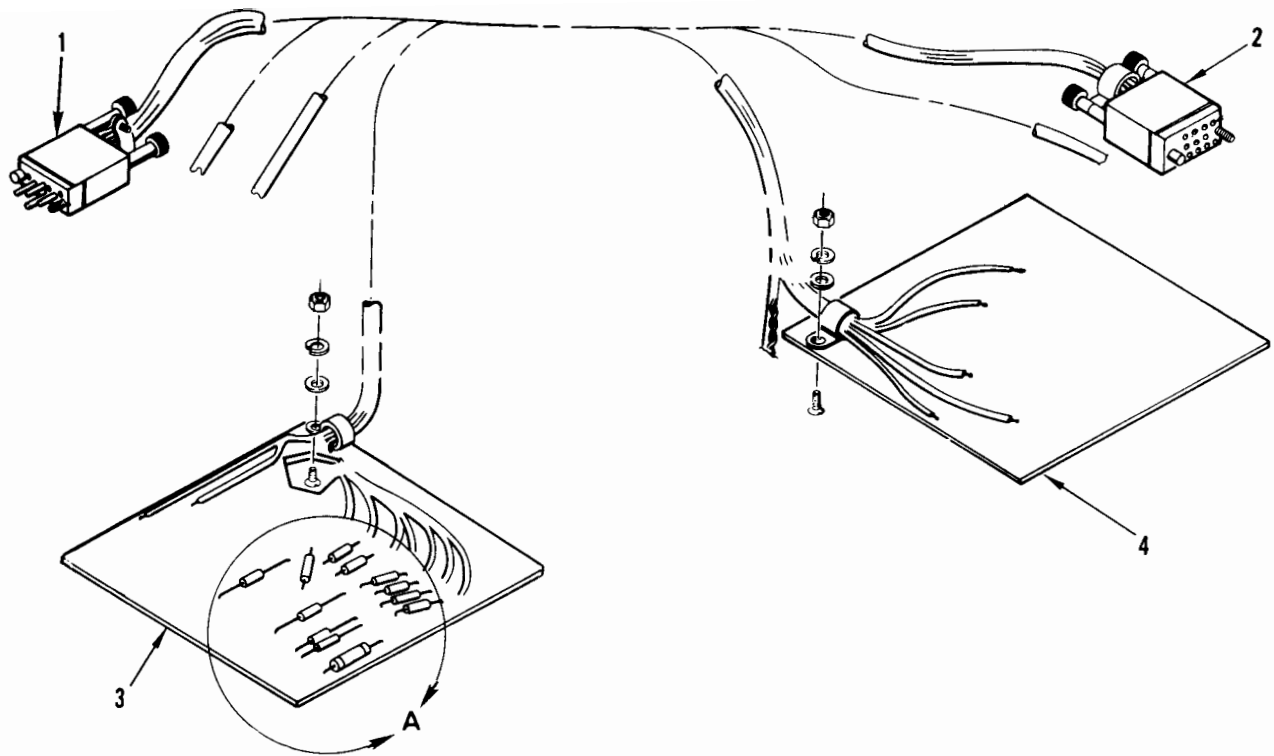


Figure 9-16. Hammer Bank Harness Assembly

TABLE 9-16. HAMMER BANK HARNESS ASSEMBLY

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-16	Hammer Bank Harness (Odd Number - A3P23)		211700-2	1
	Hammer Bank Harness (Even Number - A3P24)		211700-1	1
-1	Printed Wiring Board, Plug Card, AZ-14		213056-1	2
-2	Taper Pin, Crimp, Lug, Tab Receptacle		800352-002	80
-3	Lug, Terminal Ring Tongue		800170-002	2
-4	Wire, Jumper, Hammer Bank		215703-1	4
-5	Taper Pin, Contact		800573-001	12



DETAIL A

Figure 9-17. Main Harness Assembly

TABLE 9-17. MAIN HARNESS ASSEMBLY

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-17	Main Harness Assembly		216491-1	1
-1	Connector, Plug	A2A1P1	800261-018	1
-2	Connector, Plug	A4P2	800201-018	1
-3	Printed Wiring Board, AZ-14 Cable Plug	A3P26	213056-1	1
-4	Printed Wiring Board, AZ-85 Cable Plug	A4P1	216478-1	1
-5	Resistor, 1K, $\pm 5\%$, 1/4W		800030-102	13
-6	Diode		800095-001	4
-7	Capacitor, .01 Uf, $\pm 10\%$, 100V		800039-103	2

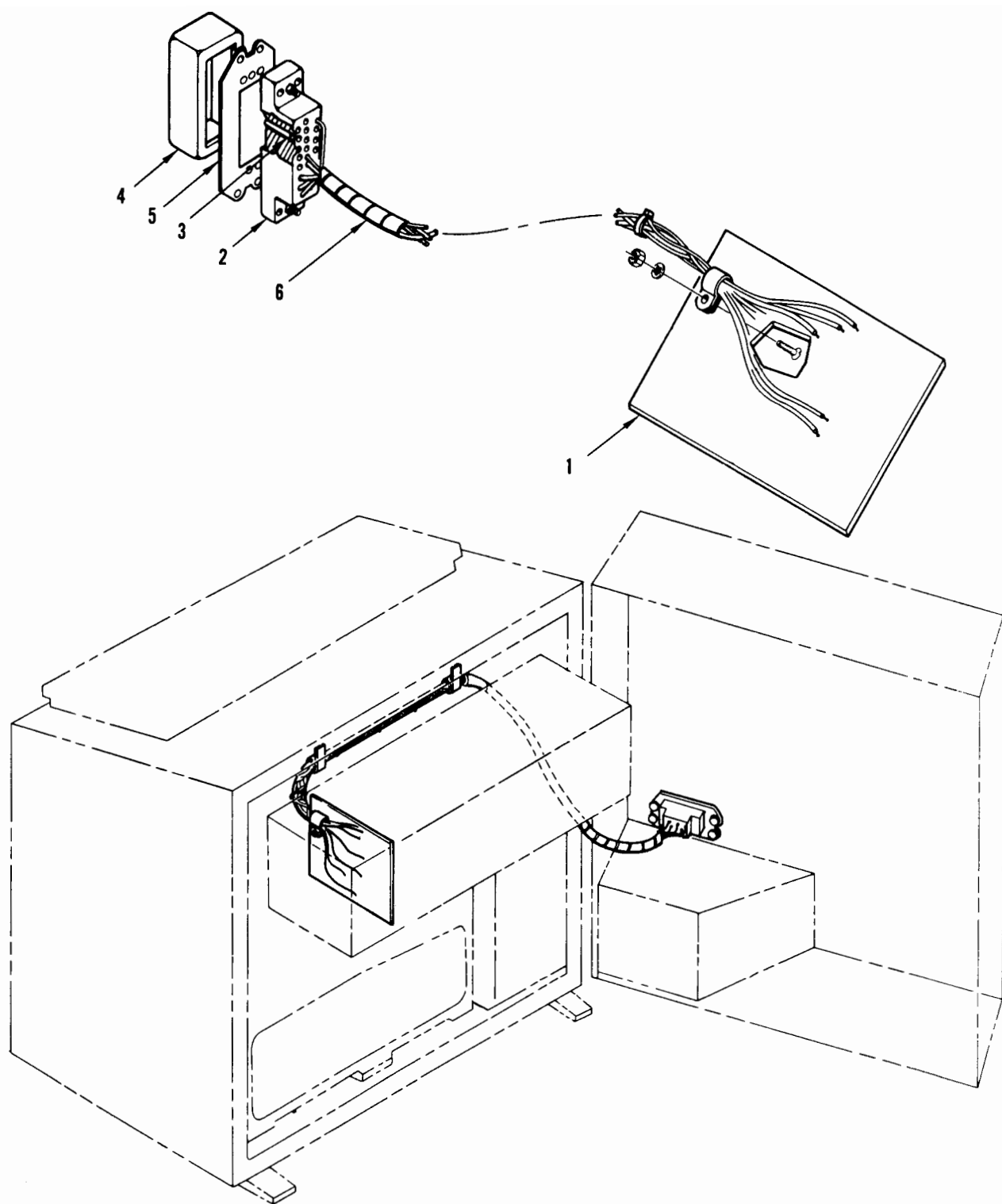


Figure 9-18. In/Out Harness Assembly

TABLE 9-18. IN/OUT HARNESS ASSEMBLY

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-18	Harness Assembly, In And Out (A3P25)		212846-1	1
-1	Printed Wiring Board, Cable Plug AZ-14 (A3P25)		213056-1	1
-2	Connector Body Assembly		800202-050	1
-3	Contact, Female		800203-124	32
-4	Shell Receptacle, Non-Polarized		800313-050	1
-5	Mounting Plate, Bulkhead		800314-050	1
-6	Cable, Twisted, 15-Pairs, 26 AWG, 0.400 Dia, Overall Shield, PVC Jacket		800353-001	A/R

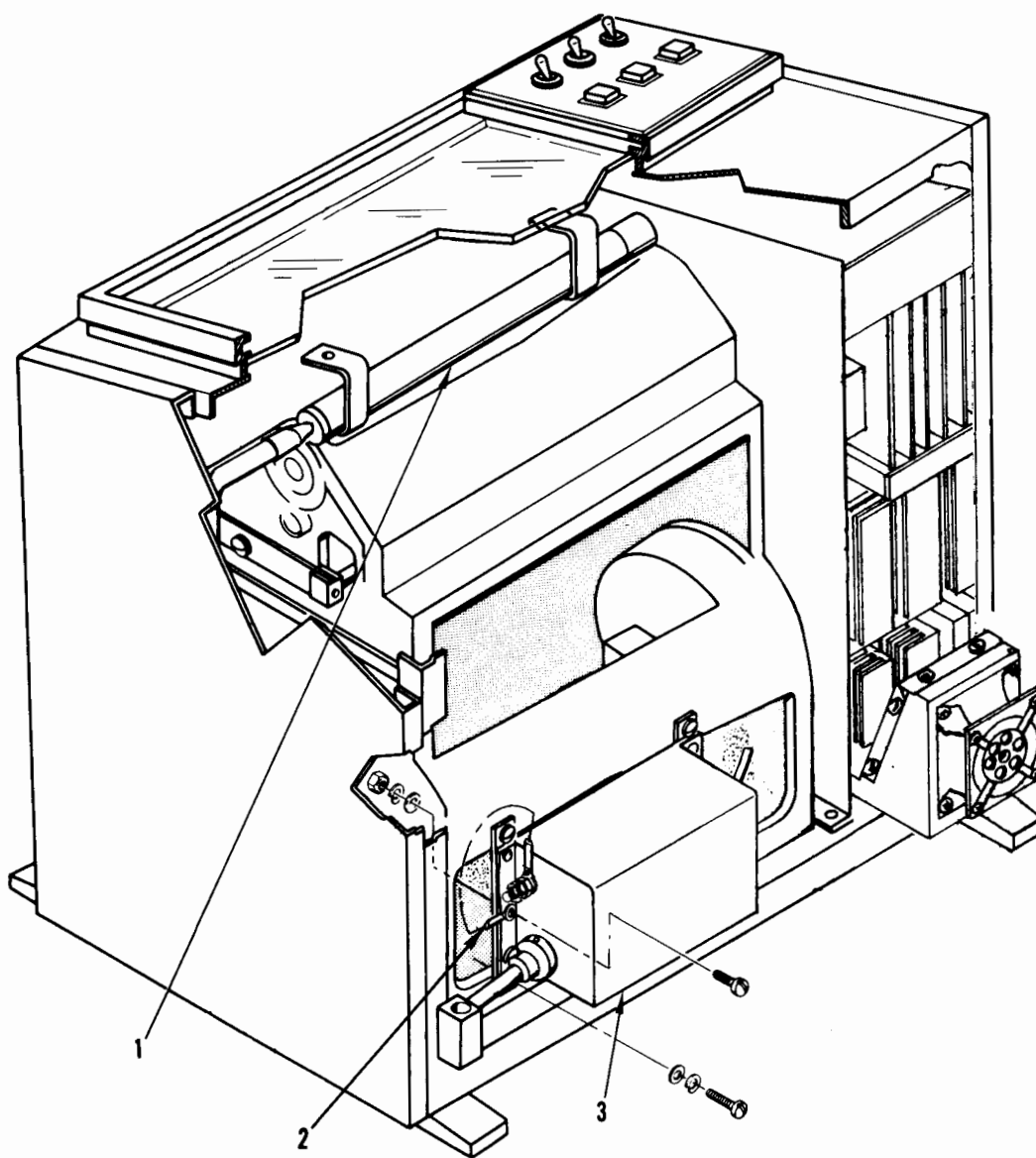


Figure 9-19. Static Eliminator Assembly

TABLE 9-19. STATIC ELIMINATOR ASSEMBLY

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-19	Static Eliminator Assembly		214826	1
-1	Bar, Static Eliminator		800574-001	1
-2	Ground Strap		107524-7	1
-3	Transformer, 115V, 50/60 Hz, 5000V, 0.3 Amp	A6	800575-001	1

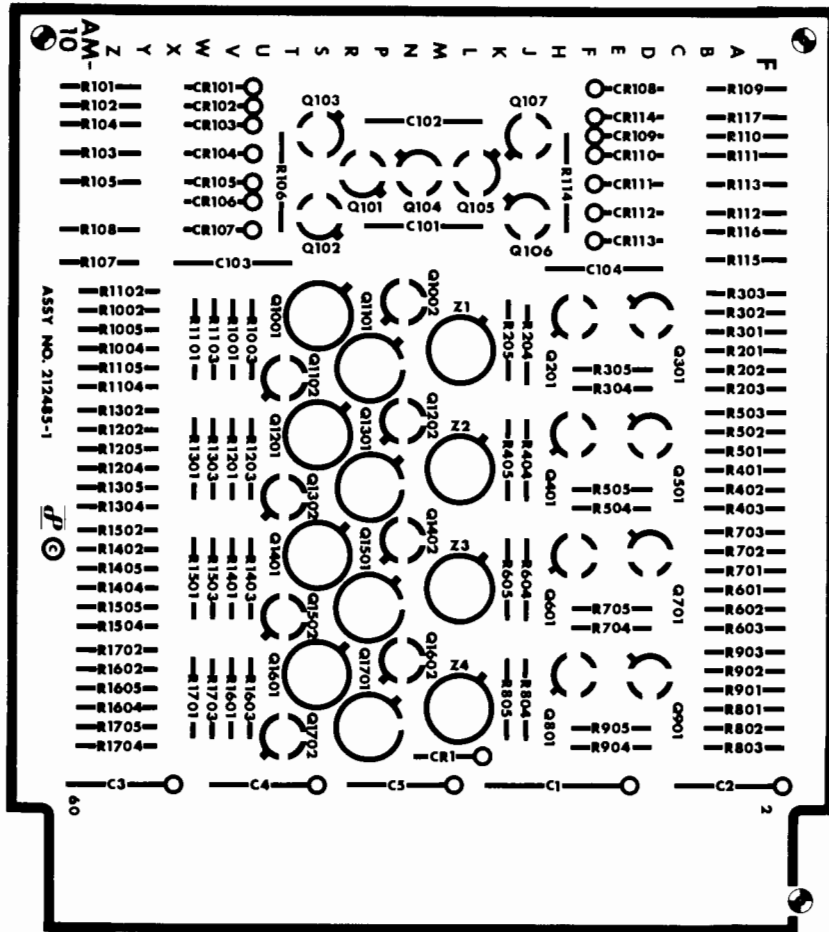


Figure 9-20. Character Memory, AM-10, Circuit Card Assembly

TABLE 9-20. CHARACTER MEMORY AM-10 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-20	Circuit Card Assembly, AM-10 Character Memory		212485	Ref
	Printed Wiring Board		212486-1	1
	Capacitor, 2.2 Uf, 10%, 50V	C1	800090-225	1
	Capacitor, 2.2 Uf, 10%, 20V	C2,C4,C5	800041-225	3
	Capacitor, 4.7 Uf, 20%, 10V	C3	800091-475	1
	Capacitor, 150 pf, 5%, 500V	C101,C102	800038-151	2
	Capacitor, .01 Uf, 10%, 100V	C103,C104	800039-103	2
	Diode	CR1,CR101 Thru CR114	800743-001	15
	Resistor, 2.7K, 5%, 1/4W	R101,R109, R1003,R1103, R1203,R1303, R1403,R1503, R1603,R1703	800030-272	10
	Resistor, 1.5K, 5%, 1/4W	R102,R107, R111,R115, R201,R301, R401,R501, R601,R701, R801,R901	800030-152	12
	Resistor, 22K, 5%, 1/4W	R103,R112	800030-223	2
	Resistor, 82 Ohm, 5%, 1/4W	R104,R113	800030-820	2
	Resistor, 6.8K, 5%, 1/4W	R105,R116	800030-682	2
	Resistor, 2.2K, 5%, 1/2W	R106,R114	800031-222	2
	Resistor, 100K, 5%, 1/4W	R108,R117	800030-104	2
Resistor, 3.3K, 5%, 1/4W	R110	800030-332	1	

TABLE 9-20. CHARACTER MEMORY AM-10 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Resistor, 1K, 5%, 1/4W	R202, R302, R402, R502, R602, R702, R802, R902, R1004, R1005, R1104, R1105, R1204, R1205, R1304, R1305, R1404, R1405, R1504, R1505, R1604, R1605, R1704, R1705	800030-102	24
	Resistor, 15K, 5%, 1/4W	R203, R303, R403, R503, R603, R703, R803, R903	800030-153	8
	Resistor, 10K, 5%, 1/4W	R204, R205, R304, R305, R404, R405, R504, R505, R604, R605, R704, R705, R804, R805, R904, R905	800030-103	16
	Resistor, 8.2K, 5%, 1/4W	R1001, R1101, R1201, R1301, R1401, R1501, R1601, R1701	800030-822	8
	Resistor, 4.7K, 5%, 1/4W	R1002, R1102, R1202, R1302, R1402, R1502, R1602, R1702	800030-472	8
	Transistor	Q101, Q104, Q105, Q201, Q301, Q401, Q501, Q601, Q701, Q801, Q901, Q1002, Q1102, Q1203, Q1302, Q1402,	800132-001	19

TABLE 9-20. CHARACTER MEMORY AM-10 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
		Q1502, Q1602, Q1702		
	Transistor	Q102, Q103, Q106, Q107	800946-001	4
	Transistor	Q1001, Q1101, Q1201, Q1301, Q1401, Q1501, Q1601, Q1701	800089-001	8
	Terminal	TP-Z	800155-002	1
	Integrated Circuit Memory	Z1, Z2, Z3, Z4	800232-001	4
	Transipad		800099-001	8
	Spacer		800240-003	4

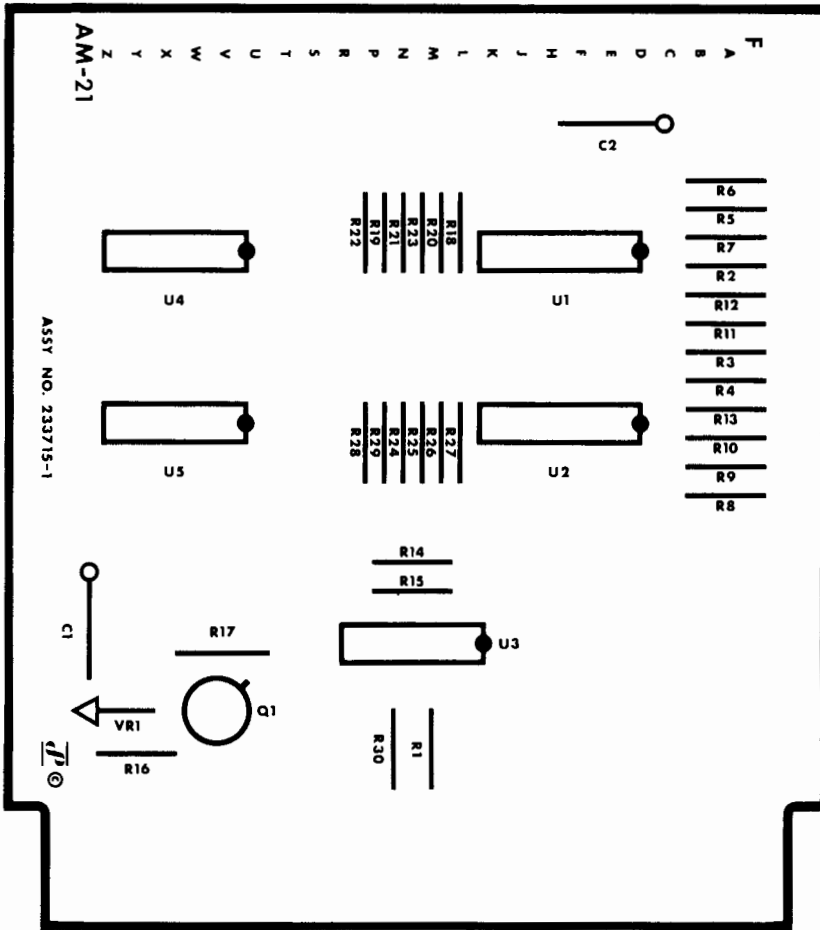


Figure 9-21. Character Memory, AM-21, Circuit Card Assembly

TABLE 9-21. CHARACTER MEMORY AM-21 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-21	Circuit Card Assembly, AM-21 Character Memory		233715	Ref
	Printed Wiring Board		233716-1	1
	Capacitor, 4.7 Uf, 20%, 10V	C1	800091-475	1
	Capacitor, 1 Uf, 10%, 50V	C2	800090-105	1
	Transistor	Q1	800515-001	1
	Resistor, 1K, 5%, 1/4W	R1, R30	800030-102	2
	Resistor, 1.5K, 5%, 1/4W	R2 Thru R15	800030-152	14
	Resistor, 330 Ohm, 5%, 1/4W	R16	800030-331	1
	Resistor, 220 Ohm, 5%, 1/2W	R17	800031-221	1
	Resistor, 6.8K, 5%, 1/4W	R18 Thru R29	800030-682	12
	Terminal	TP-Z	800155-002	1
	Integrated Circuit	U1, U2	800951-001	2
	Integrated Circuit	U3	800024-001	1
	Integrated Circuit	U4, U5	800387-001	2
	Diode, Zener	VR1	800691-001	1
Spacer, Transistor		800099-001	1	

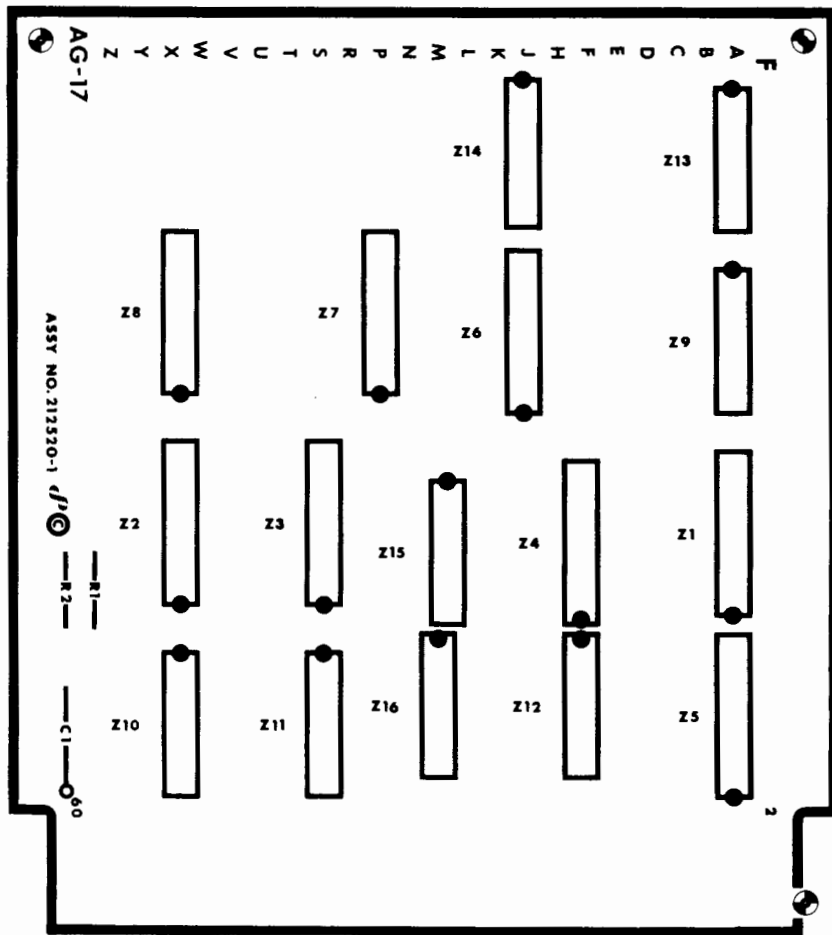


Figure 9-22. Logic Gate 1, AG-17, Circuit Card Assembly

TABLE 9-22. LOGIC GATE I AG-17 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-22	Circuit Card Assembly, AG-17 Logic Gate I		212520	Ref
	Printed Wiring Board		212521-1	1
	Capacitor, Tantalum, 4.7 Uf, 20%, 10V	C1	800091-475	1
	Resistor, Metal Film, 1K, 5%, 1/4W	R1,R2	800030-102	2
	Terminal	TP-Z	800155-002	1
	Dual J-K Flip-Flop			
	Dual 2 Wide, 2 Input And/Or	Z9 Thru Z12, Z16	800026-001	5
	Quad 2 Input Nand Gate	Z13,Z14	800024-001	2
8 Input Nand Gate	Z15	800021-001	1	

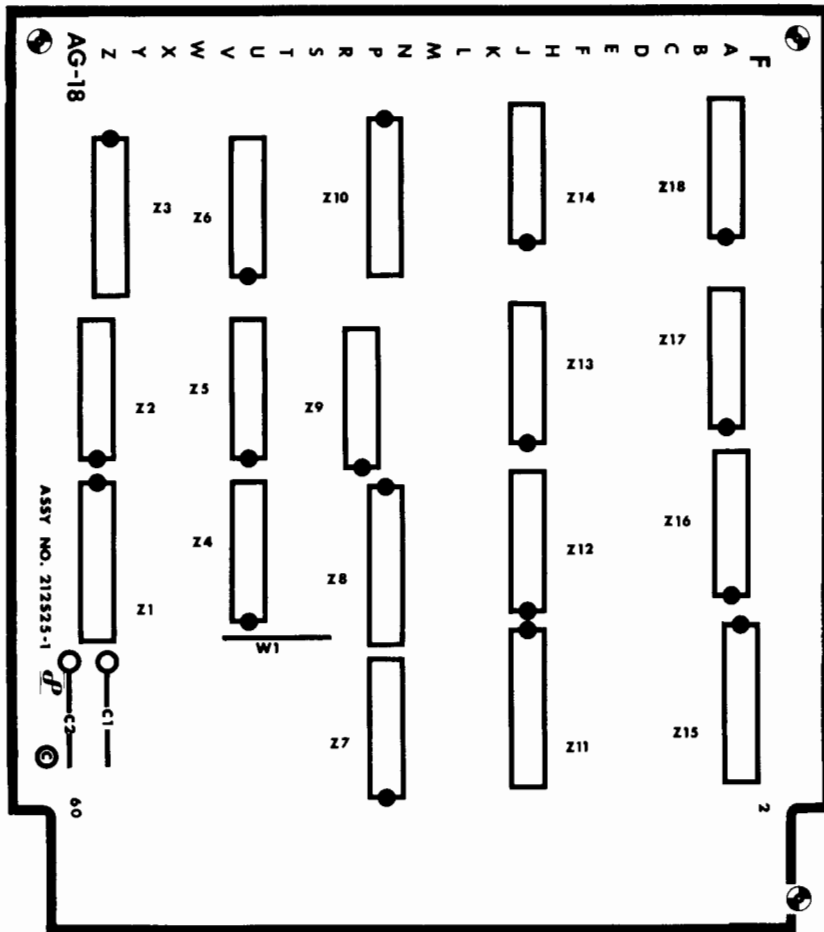


Figure 9-23. Logic Gate II, AG-18, Circuit Card Assembly

TABLE 9-23. LOGIC GATE 11 AG-18 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-23	Circuit Card Assembly, AG-18 Logic Gate 11		212525	Ref
	Printed Wiring Board		212526-1	1
	Capacitor, Tantalum, 4.7 Uf, 20%, 10V	C1,C2	800091-475	2
	Terminal	TP-Z	800155-002	1
	Wire, Bare, Tinned, 20 AWG	W1	800156-020	A/R
	Dual J-K Flip-Flop	Z1,Z3,Z8,Z10,Z11,Z15	800081-001	6
	Quadruple 2 Input Nand Gate	Z5,Z13	800023-001	2
	Triple 3 Input Nand Gate	Z5,Z13	800023-001	2
	Quadruple 2 Input Nor Gate	Z7,Z14,Z17,Z18	800080-001	4
	Sleeving, Teflon		800157-020	A/R

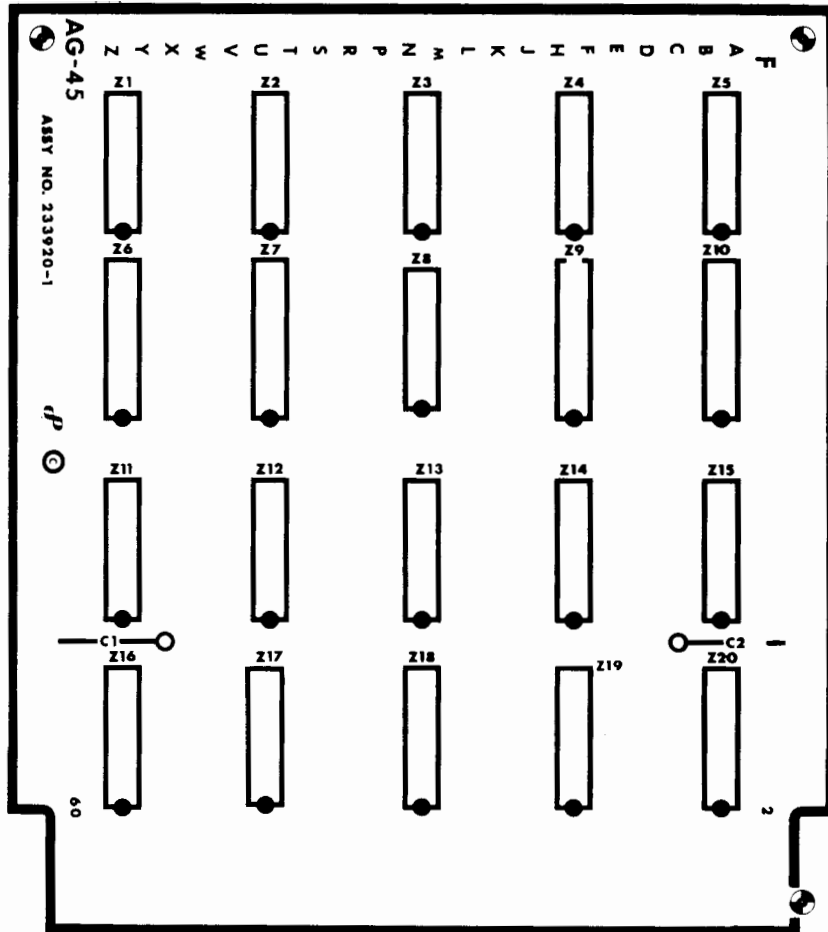


Figure 9-24. Logic Gate III, AG-45, Circuit Card Assembly

TABLE 9-24 LOGIC GATE III AG-45 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-24	Circuit Card Assembly, AG-45 Logic Gate III		233920	Ref
	Printed Wiring Board		233921-1	1
	Capacitor, 4.7 Uf, 20%, 10V	C1,C2	800091-475	2
	Terminal	TP-Z	800155-002	1
	Integrated Circuit	Z1,Z2,Z3,Z4	800021-001	4
	Integrated Circuit	Z5,Z8,Z11,Z12,Z13,Z14,Z20	800024-001	7
	Integrated Circuit	Z6,Z7,Z9,Z10	800081-001	4
	Integrated Circuit	Z15,Z19	800023-001	2
	Integrated Circuit	Z16,Z17	800080-001	2
Integrated Circuit	Z18	800022-001	1	

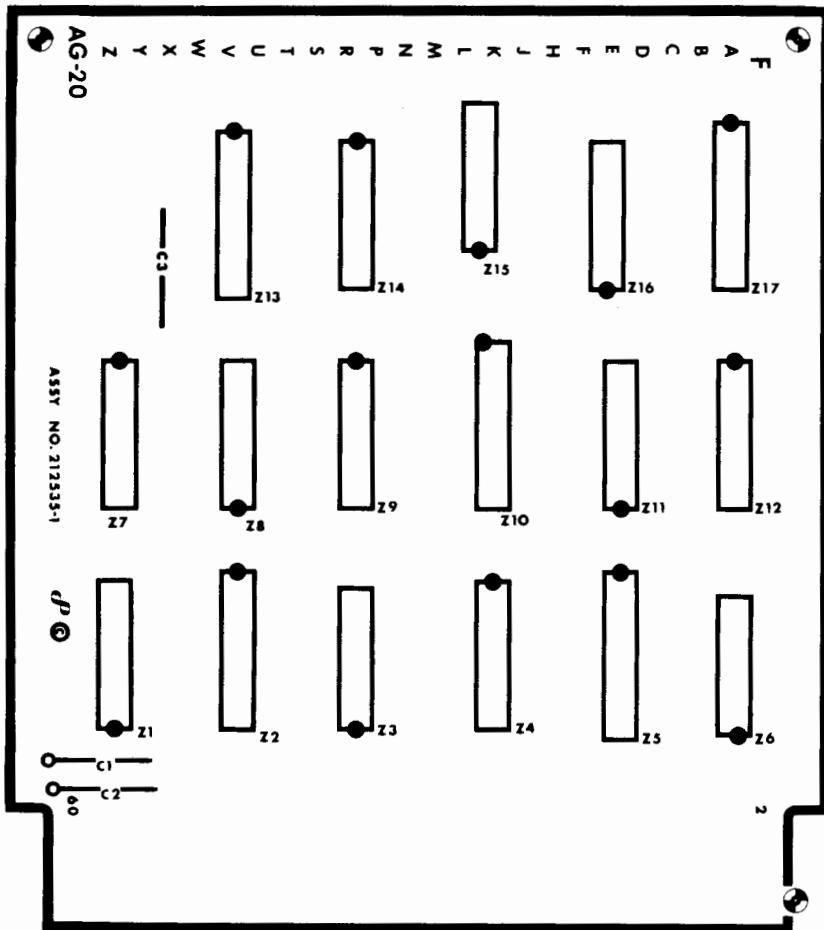


Figure 9-25. Logic Gate IV, AG-20, Circuit Card Assembly

TABLE 9-25. LOGIC GATE IV AG-20 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-25	Circuit Card Assembly, AG-20 Logic Gate IV		212535	Ref
	Printed Wiring Board		212536-1	1
	Capacitor, 4.7 Uf, 20%, 10V	C1,C2	800091-475	2
	Capacitor, .001 Uf, 10%, 200V	C3	800039-102	1
	Terminal	TP-Z	800155-002	1
	Single 8 Input Nand Gate	Z1	800021-001	1
	Dual J-K Flip Flop	Z2,Z5,Z10, Z13,Z17	800081-001	5
	Quadruple 2 Input Nand Gate	Z3,Z6,Z11, Z16	800024-001	4
	Dual 4 Input Nand Gate	Z4,Z14	800022-001	2
	Triple 3 Input Nand Gate	Z7,Z8,Z15	800023-001	3
	Quadruple 2 Input Nor Gate	Z9,Z12	800080-001	2

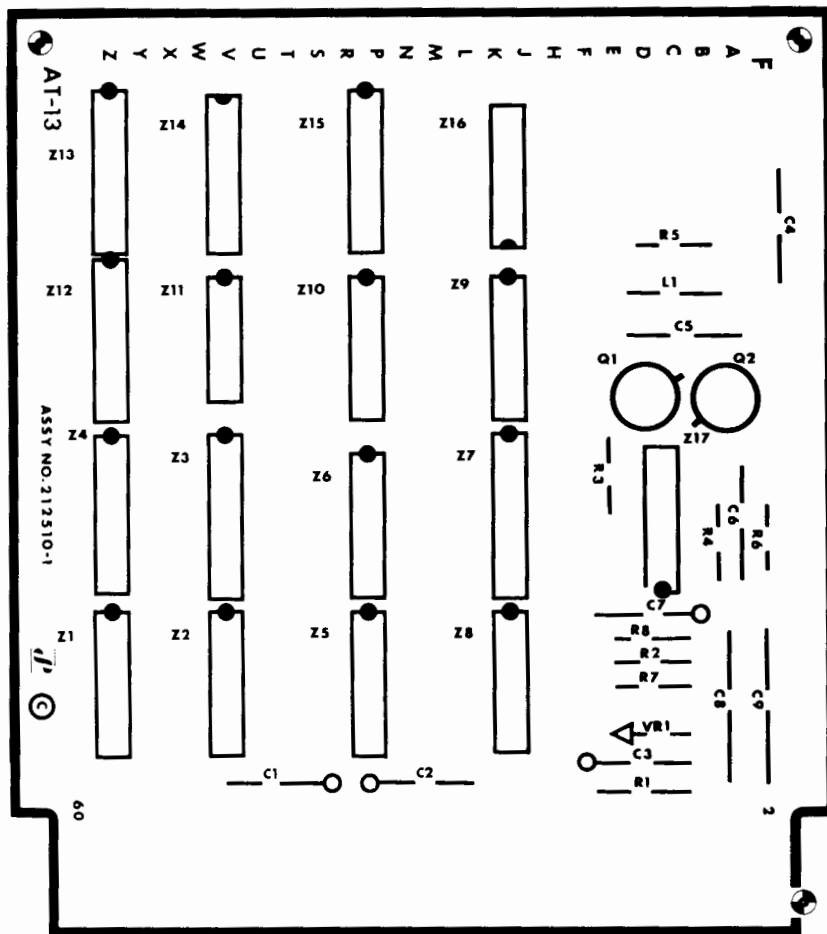


Figure 9-26. Timing Control, AT-13, Circuit Card Assembly

TABLE 9-26. TIMING CONTROL AT-13 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-26	Circuit Card Assembly, AT-13 Timing Control		212510	Ref
	Printed Wiring Board		212511-1	1
	Capacitor, 4.7 Uf, 20%, 10V	C1,C2	800091-475	2
	Capacitor, 2.2 Uf, 10%, 20V	C3,C7	800041-225	2
	Capacitor, 120 pf, 5%, 500V	C4	800038-121	1
	Capacitor, .0015 Uf, 10%, 200V	C5,C6	800039-152	2
	Capacitor, .015 Uf, 10%, 100V	C8,C9	800039-153	2
	Inductor, 56 Uh, 5%	L1	800001-563	1
	Diode	VR1	800187-001	1
	Resistor, 270 Ohm, 5%, 1/2W	R1	800031-271	1
	Resistor, 10K, 5%, 1/4W	R2,R7	800030-103	2
	Resistor, 4.7K, 5%, 1/4W	R3,R4	800030-472	2
	Resistor, 1K, 5%, 1/4W	R5,R6	800030-102	2
	Transistor	Q1,Q2	800132-001	2
	Terminal	TP-Z	800155-002	1
	Quadruple 2 Input Nand Gate	Z1,Z2,Z5,Z6, Z8,Z10,Z16	800024-001	7
	Dual J-K Flip Flop	Z3,Z4,Z7,Z12, Z13,Z14,Z15	800081-001	7
	Triple 3 Input Nand Gate	Z9	800023-001	1
	Quadruple 2 Input Nor Gate	Z11	800080-001	1
	Diff Comparator	Z17	800186-001	1

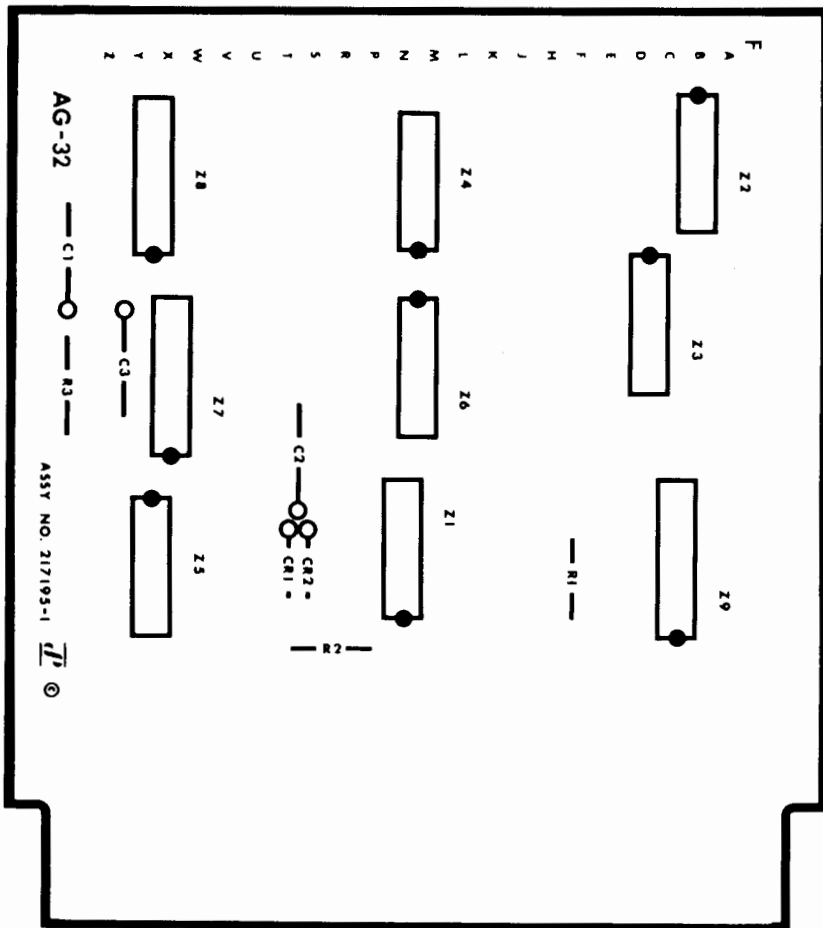


Figure 9-27. Delay Control and Gates, AG-32, Circuit Card Assembly

TABLE 9-27. DELAY CONTROLS & GATES AG-32 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-27	Circuit Card Assembly, AG-32 Delay Controls & Gates		217195	Ref
	Printed Wiring Board		217196-1	1
	Capacitor, 4.7 Uf, 20%, 10V	C1,C2	800091-475	2
	Capacitor, 1 Uf, 10%, 20V	C3	800041-105	1
	Diode	CR1,CR2	800093-001	2
	Resistor, 1K, 5%, 1/4W	R1	800030-102	1
	Resistor, 10K, 5%, 1/4W	R2	800030-103	1
	Resistor, 14.7K, 1%, 1/4W	R3	800082-160	1
	Terminal	TP-Z	800155-002	1
	Integrated Circuit	Z1,Z2,Z3	800024-001	3
	Integrated Circuit	Z4	800020-001	1
	Integrated Circuit	Z5,Z6	800387-001	2
	Integrated Circuit	Z7	800491-001	1
	Integrated Circuit	Z8	800386-001	1
Integrated Circuit	Z9	800081-001	1	



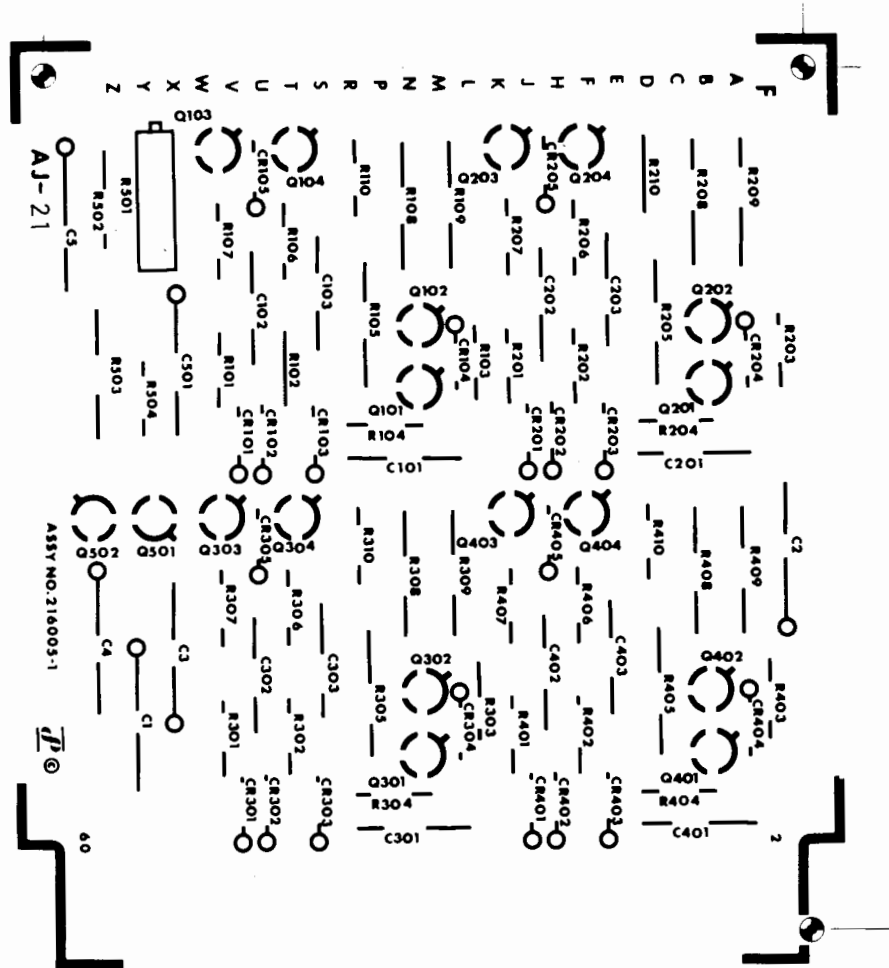


Figure 9-28. Driver, AJ21, Circuit Card Assembly

TABLE 9-28. DRIVER AJ-21 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-28	Circuit Card Assembly, AJ-21 Driver		218334-1	Ref
	Printed Wiring Board		216006-1	1
	Capacitor, 4.7 Uf, $\pm 10\%$, 50V	C1	800090-475	1
	Capacitor, 4.7 Uf, $\pm 10\%$, 20V	C2, C3, C4, C5, C501	800041-475	5
	Capacitor, 47 Pf, $\pm 5\%$, 500V	C102, C202, C302, C402, C101, C201, C301, C401	800038-470	8
	Capacitor, 68 Pf, $\pm 5\%$, 500V	C103, C203, C303, C403	800038-680	4
	Resistor, 3.9K, $\pm 5\%$, 1/4W	R103, R203, R303, R403	800030-392	4
	Resistor, 3.3K, $\pm 5\%$, 1/4W	R102, R202, R302, R402	800030-332	4
	Resistor, 1.0K, $\pm 5\%$, 1/4W	R110, R210, R310, R410, R504	800030-102	5
	Resistor, 2.2K, $\pm 5\%$, 1/4W	R101, R201, R301, R401	800030-222	4
	Resistor, 470 Ohm, $\pm 1\%$, 3W	R105, R205, R305, R405	800084-326	4
	Resistor, 820 Ohm, $\pm 5\%$, 1/4W	R106, R206, R306, R406	800030-821	4
	Resistor, 100 Ohm, $\pm 5\%$, 1W	R108, R208, R308, R408, R109, R209, R309, R409	800032-101	8
	Resistor, 27 Ohm, $\pm 5\%$, 1/2W	R502	800031-270	1

TABLE 9-28. DRIVER AJ-21 ASSEMBLY REPLACEABLE PARTS

(Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Resistor, 6.8 Ohm, $\pm 1\%$, 3W	R503	800084-380	1
	Potentiometer, 2K	R501	800150-202	1
	Transistor	Q101, Q201, Q301, Q401, Q103, Q203, Q303, Q403	800132-001	8
	Transistor	Q102, Q202, Q302, Q402	800089-001	4
	Transistor	Q104, Q204, Q304, Q404	800133-001	4
	Transistor	Q501, Q502	800088-001	2
	Diode	CR101 Thru CR401, CR102 Thru CR402, CR103 Thru CR403, CR104 Thru CR404, CR105 Thru CR405	800093-001	20
	Transipad		800099-001	6
	Terminal	TP-Z	800155-002	1
	Resistor, 1.5K, 5%, 1/4W	R104, R107, R204, R407, R304, R307, R404, R407	800030-152	8

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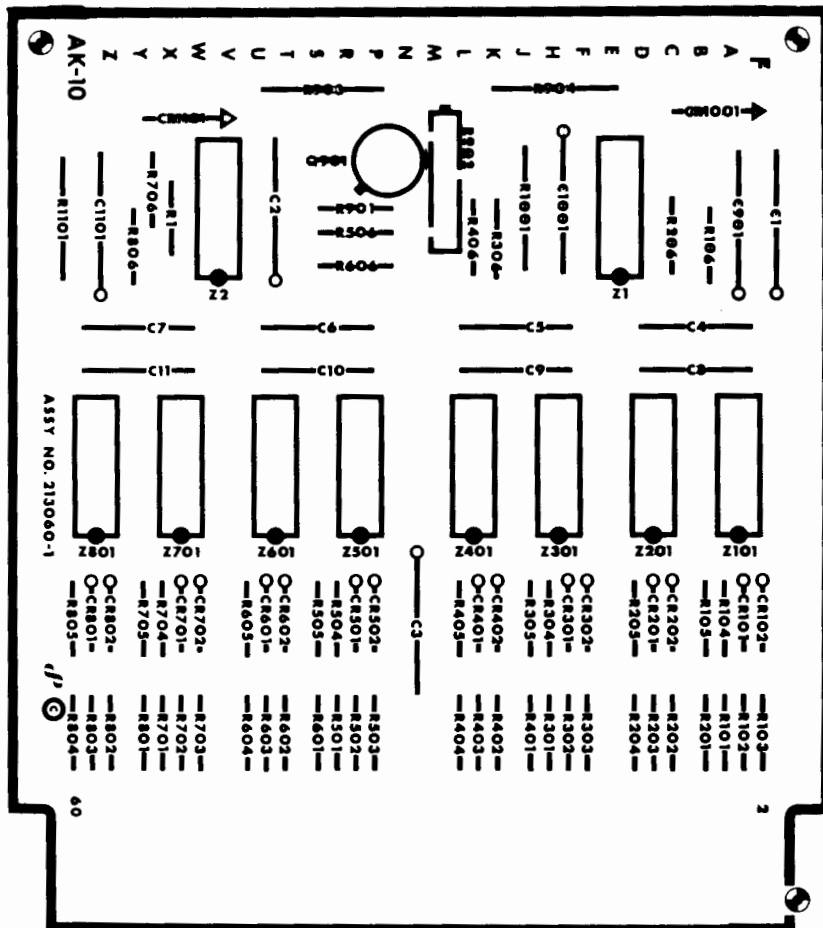


Figure 9-31. Receiver, AK-10, Circuit Card Assembly

TABLE 9-31. RECEIVER AK-10 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-31	Circuit Card Assembly, AK-10 Receiver		213060	Ref
	Printed Wiring Board		213061-1	1
	Capacitor, 0.01 Uf, 10%, 100V	C4,C5,C6,C7, C8,C9,C10,C11	800039-103	8
	Capacitor, 6.8 Uf, 10%, 20V	C1,C2,C3, C1001,C1101	800041-685	5
	Capacitor, 6.8 Uf, 10%, 50V	C901	800090-685	1
	Diode	CR101,CR102, CR201,CR202, CR301,CR302, CR401,CR402, CR501,CR502, CR601,CR602, CR701,CR702, CR801,CR802	800093-001	16
	Diode, Zener	CR1001,CR1101	800592-001	2
	Resistor, 1K, 5%, 1/4W	R1	800030-102	1
	Resistor, 10K, 5%, 1/4W	R101,R201, R301,R401, R501,R601, R701,R801	800030-103	8
	Resistor, 15K, 5%, 1/4W	R102,R103, R202,R203, R302,R303, R402,R403, R502,R503, R602,R603, R702,R703, R802,R803	800030-153	16
	Resistor, 3.3K, 5%, 1/4W	R106,R206, R306,R406, R506,R606, R706,R806	800030-332	8

TABLE 9-31. RECEIVER AK-10 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Resistor, 820 Ohm, 5%, 1/4W	R901	800030-821	1
	Resistor, 8.2K, 5%, 1/4W	R104, R105, R204, R205, R304, R305, R404, R405, R504, R505, R604, R605, R704, R705, R804, R805	800030-822	16
	Resistor, 180 Ohm, 5%, 1W	R1001, R1101	800032-181	2
	Resistor, 56 Ohm, 5%, 1W	R903	800032-560	1
	Resistor, 330 Ohm, 1%, 3W	R904	800084-277	1
	Potentiometer, 5K, 1W	R902	800150-502	1
	Transistor	Q901	800231-001	1
	Integrated Circuit, Quad 2 Input Nand Gate	Z1, Z2	800024-001	2
	Differential Comparator	Z101, Z201, Z301, Z401, Z501, Z601, Z701, Z801	800186-001	8
	Transipad		800099-001	1
	Terminal	TP-Z	800155-002	1

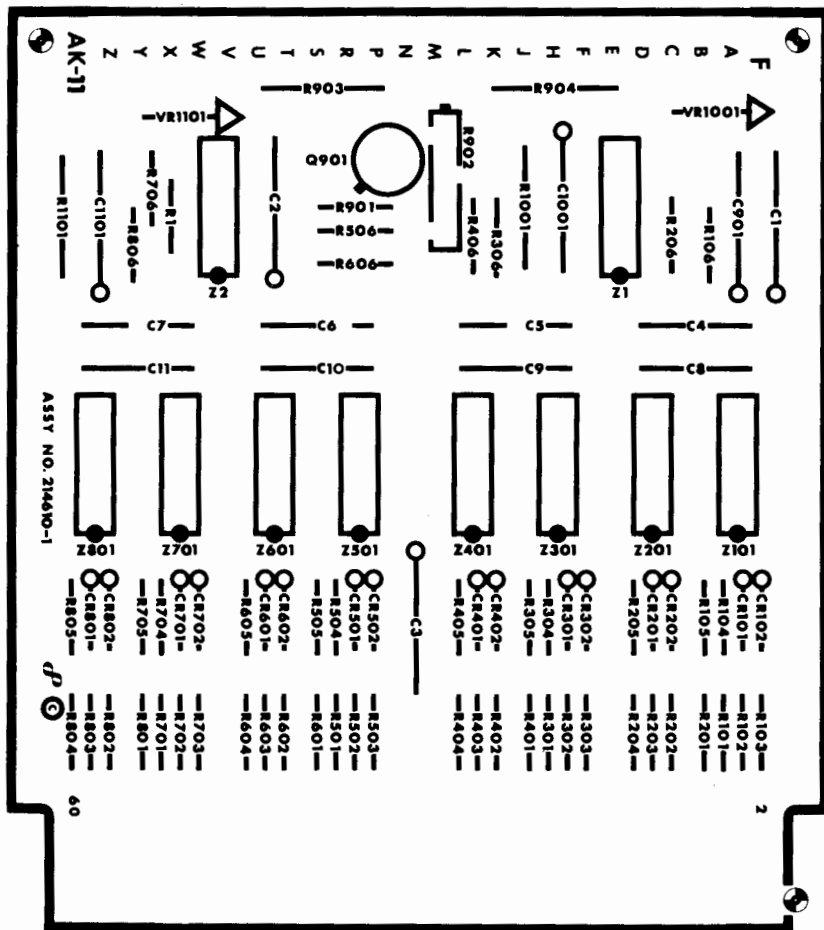


Figure 9-32. Inverting Receiver, AK-11, Circuit Card Assembly

TABLE 9-32. INVERTING RECEIVER AK-11 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-32	Circuit Card Assembly, AK-11 Inverting Receiver		214610	Ref
	Printed Wiring Board		214611-1	1
	Capacitor, 0.01 Uf, 10%, 100V	C4,C5,C6,C7, C8,C9,C10,C11	800039-103	8
	Capacitor, 6.8 Uf, 10%, 20V	C1,C2,C3, C1001,C1101	800041-685	5
	Capacitor, 4.7 Uf, 10%, 50V	C901	800090-475	1
	Diode	CR101,CR102, CR201,CR202, CR301,CR302, CR401,CR402, CR501,CR502, CR601,CR602, CR701,CR702, CR801,CR802	800093-001	16
	Diode, Zener	VR1001,VR1101	800592-001	2
	Resistor, 1K, 5%, 1/4W	R1	800030-102	1
	Resistor, 10K, 5%, 1/4W	R101,R201, R301,R401, R501,R601, R701,R801	800030-103	8
	Resistor, 15K, 5%, 1/4W	R102,R103, R202,R203, R302,R303, R402,R403, R502,R503, R602,R603, R702,R703, R802,R803	800030-153	16
	Resistor, 3.3K, 5%, 1/4W	R106,R206, R306,R406, R506,R606, R706,R806	800030-332	8

TABLE 9-32. INVERTING RECEIVER AK-11 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Resistor, 820 Ohm, 5%, 1/4W	R901	800030-821	1
	Resistor, 8.2K, 5%, 1/4W	R104,R105, R204,R205, R304,R305, R404,R405, R504,R505, R604,R605, R704,R705, R804,R805	800030-822	16
	Resistor, 180 Ohm, 5%, 1W	R1001,R1101	800032-181	2
	Resistor, 56 Ohm, 5%, 1W	R903	800032-560	1
	Resistor, 330 Ohm, 1%, 3W	R904	800084-277	1
	Potentiometer, 5K, 1W	R902	800150-502	1
	Transistor	Q901	800088-001	1
	Differential Comparator	Z101,Z201, Z301,Z401, Z501,Z601, Z701,Z801	800186-001	8
	Integrated Circuit, Quad 2 Input Nand Gate	Z1,Z2	800024-001	2
	Transipad		800099-001	1
	Terminal	TP-Z	800155-002	1

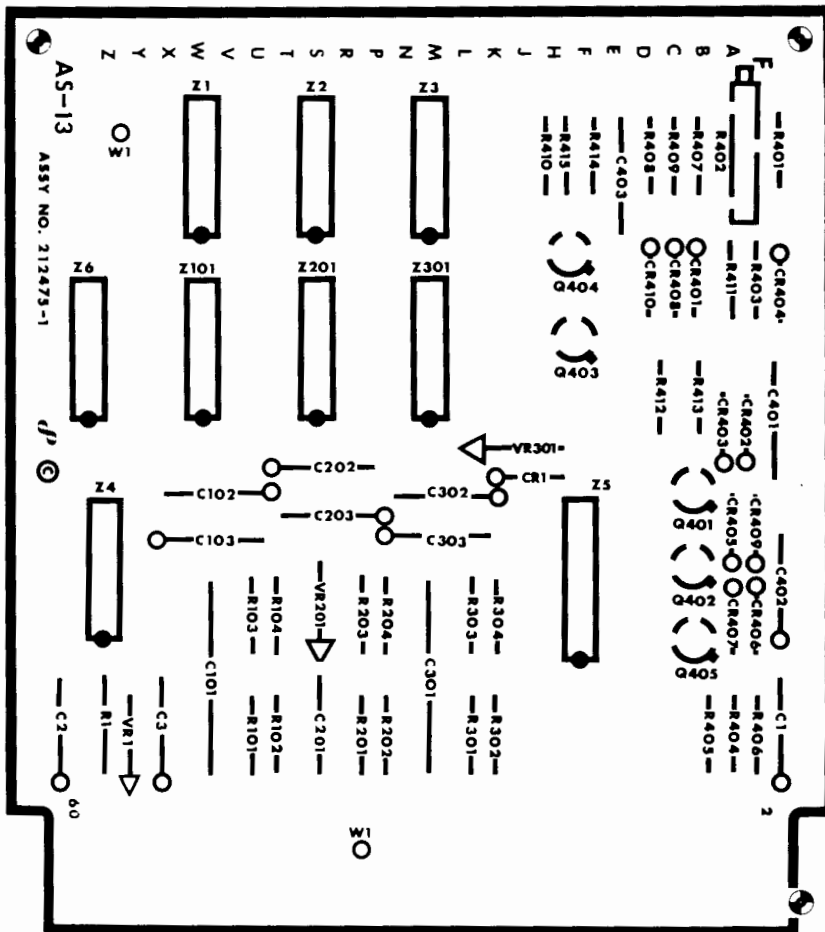


Figure 9-33. Transducer Amplifier, AS-13, Circuit Card Assembly

TABLE 9-33. TRANSDUCER AMPLIFIER AS-13 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-33	Circuit Card Assembly, Transducer Amplifier		212475	Ref
	Printed Wiring Board		212476-1	1
	Capacitor, 2.2 Uf, $\pm 10\%$, 20V	C1,C3,C102, C103,C202, C203,C302, C303	800041-225	8
	Capacitor, 4.7 Uf, $\pm 20\%$, 10V	C2	800091-475	1
	Capacitor, .1 Uf, $\pm 10\%$, 100V	C101,C301	800039-104	2
	Capacitor, .001 Uf, $\pm 10\%$, 200V	C201	800039-102	1
	Capacitor, .0015 Uf, $\pm 10\%$, 200V	C401,C403	800039-152	2
	Capacitor, .047 Uf, $\pm 10\%$, 20V	C402	800041-473	1
	Diode, Silicon Switching	CR1,CR401 Thru CR410	800093-001	11
	Diode, Zener	VR1	800187-001	1
	Diode, Zener	VR201,VR301	800999-001	2
	Resistor, 270 Ohm, $\pm 5\%$, 1/2W	R1	800031-271	1
	Resistor, 100 Ohm, $\pm 5\%$, 1/4W	R101,R201, R301,R405	800030-101	4
	Resistor, 220 Ohm, $\pm 5\%$, 1/4W	R102	800030-221	1
	Resistor, 3.9K, $\pm 5\%$, 1/4W	R103,R202, R203,R302, R303,R304	800030-392	6
	Resistor, 12K, $\pm 5\%$, 1/4W	R104,R204	800030-123	2
	Resistor, 4.7K, $\pm 5\%$, 1/4W	R401	800030-472	1
Potentiometer, 10K	R402	800150-103	1	

TABLE 9-33. TRANSDUCER AMPLIFIER AS-13 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Resistor, 2.2K, $\pm 5\%$, 1/4W	R403, R406, R407	800030-222	3
	Resistor, 1K, $\pm 5\%$, 1/4W	R404, R408, R410, R414, R415	800030-102	5
	Resistor, 1.5K, $\pm 5\%$, 1/4W	R409	800030-152	1
	Resistor, 10K, $\pm 5\%$, 1/4W	R411, R412, R413	800030-103	3
	Transistor, NPN	Q401 Thru Q405	800132-001	5
	Terminal	TP-Z	800155-002	1
	Wire, Insulated	W1	800069-630	A/R
	Quad 2 Input Nand Gate	Z1, Z2, Z3, Z4, Z6	800024-001	5
	Integrated Circuit, Dual J-K Flip Flop	Z5	800081-001	1
	Differential Comparative	Z101, Z201, Z301	800186-001	3

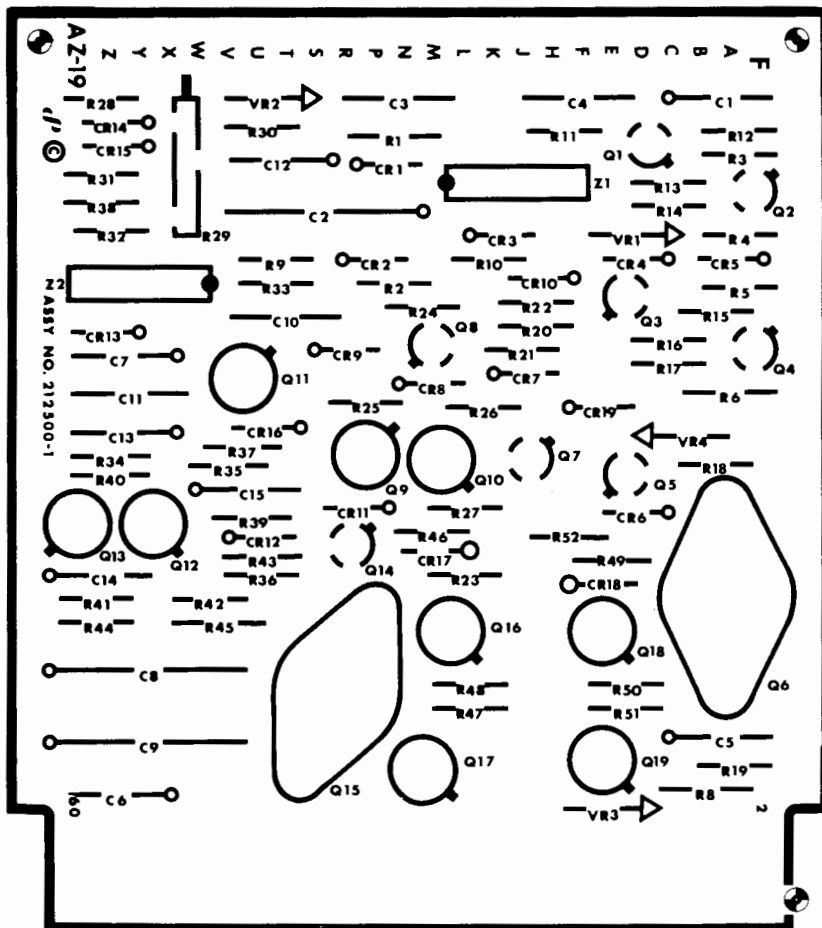


Figure 9-34. Hammer Interlock, AZ-19, Circuit Card Assembly

TABLE 9-34. HAMMER INTERLOCK AZ-19 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-34	Circuit Card Assembly, AZ-19 Hammer Interlock		212500	Ref
	Printed Wiring Board		212501-1	1
	Capacitor, 1 Uf, 10%, 50V	C1	800090-105	1
	Capacitor, 150 Uf, 10%, 10V	C2,C8,C9	800040-157	3
	Capacitor, 10 pf, 5%, 500V	C3	800038-100	1
	Capacitor, 5 pf, 5%, 500V	C4	800038-050	1
	Capacitor, 2.2 Uf, 10%, 20V	C5,C7,C12,C13	800041-225	4
	Capacitor, v.7 Uf, 10%, 10V	C6,C14,C15	800040-475	3
	Capacitor, 470 pf, 5%, 500V	C10	800038-471	1
	Capacitor, 22 pf, 5%, 500V	C11	800038-220	1
	Diode	CR1 Thru CR19	800093-001	19
	Diode, Zener (9.1V)	VR1	800188-001	1
	Diode, Zener (5.6V)	VR2,VR3,VR4	800187-001	3
	Resistor, 470K, 5%, 1/2W	R1	800031-474	1
	Resistor, 22K, 5%, 1/4W	R2	800030-223	1
	Resistor, 5.6K, 5%, 1/4W	R3,R9,R27, R48,R51	800030-562	5
	Resistor, 4.7K, 5%, 1/4W	R4,R19	800030-472	2
	Resistor, 8.2K, 5%, 1/4W	R5	800030-822	1
	Resistor, 3.3K, 5%, 1/2W	R6	800031-332	1
	Resistor, 1 Ohm, 1%, 1W	R8,R45	800210-100	2
Resistor, 3.9K, 5%, 1/4W	R10,R24	800030-392	2	
Resistor, 2.2K, 5%, 1/4W	R11,R22,R40	800030-222	3	

TABLE 9-34. HAMMER INTERLOCK AZ-19 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Resistor, 220 Ohm, 5%, 1/4W	R12,R35		
	Resistor, 1K, 5%, 1/4W	R13 Thru R16, R18,R20,R26, R34,R36,R39, R44,R47,R50	800030-102	13
	Resistor, 10K, 5%, 1/4W	R17,R25,R46, R49	800030-103	4
	Resistor, 2.7K, 5%, 1/4W	R21,R43	800030-272	2
	Resistor, 1.47K, 1%, 1/8W	R23	800011-159	1
	Resistor, 4.87K, 1%, 1/8W	R28	800011-334	1
	Potentiometer, 5K, 1W	R29	800150-502	1
	Resistor, 560 Ohm, 5%, 1/4W	R30		
	Resistor, 100K, 1%, 1/8W	R31		
	Resistor, 150K, 5%, 1/4W	R32	800030-154	1
	Resistor, 1.5K, 5%, 1/4W	R33	800030-152	1
	Resistor, 100 Ohm, 5%, 1/4W	R37,R42	800030-101	2
	Resistor, 10K, 1%, 1/8W	R38	800011-104	1
	Resistor, 150 Ohm, 5%, 1/4W	R41	800030-151	1
	Resistor, 3.83K, 1%, 1/8W	R52	800011-299	1
	Transistor	Q1 Thru Q4, Q7,Q8,Q14	800132-001	7
	Transistor	Q5	800019-001	1
	Transistor	Q6,Q15	800018-001	2
	Transistor	Q9,Q10,Q16 Thru Q19	800088-001	6
	Transistor	Q11,Q13	800089-001	2

TABLE 9-34. HAMMER INTERLOCK AZ-19 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Thyristor, SCR	Q12	800621-001	1
	Terminal	TP-Z	800155-002	1
	Amplifier, Operational	Z1,Z2	800195-001	2
	Transipad		800099-001	9
	Screw, Pan Hd, 6-32 x 5/16		800076-003	8
	Washer, Lock, Internal Tooth, No. 6		800076-003	8
	Nut, No. 6-32		800074-003	8
	Washer, Mica		800302-002	2

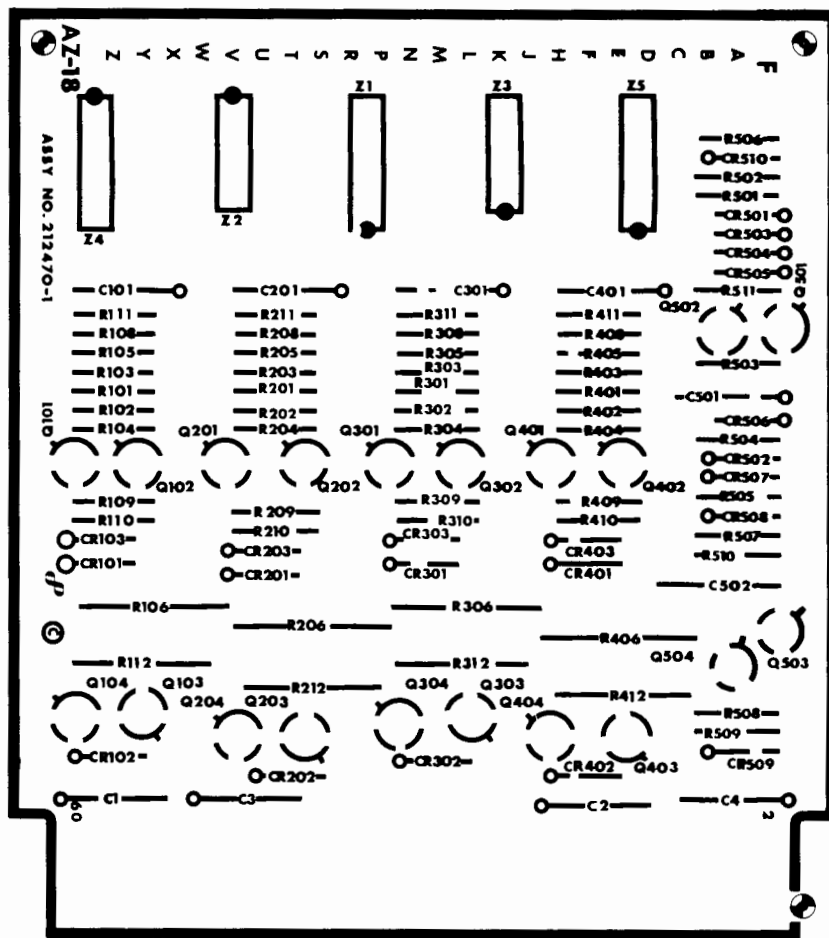


Figure 9-35. Zone Control, AZ-18, Circuit Card Assembly

TABLE 9-35. ZONE CONTROL AZ-18 ASSEMBLY REPLACEABLE PARTS


Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-35	Circuit Card Assembly, AZ-18 Zone Control		212470	Ref
	Printed Wiring Board		212471-1	1
	Capacitor, 4.7 Uf, 10V	C1	800091-475	1
	Capacitor, 2.2 Uf, 20V	C2, C3, C4	800041-225	3
	Capacitor, .47 Uf, 20V	C101, C201, C301, C401	800041-474	4
	Capacitor, .22 Uf, 20V, 5%	C501	800662-224	1
	Capacitor, 1500 pf, 200V	C502	800039-152	1
	Diode, Rectifier	CR101, CR201, CR203, CR301, CR303, CR401, CR103, CR403	800095-001	8
	Diode, Silicon, Switching	CR102, CR202, CR302, CR402 CR501 Thru CR510	800093-001	14
	Resistor, 470 Ohm, 5%, 1/4W	R101, R201, R301, R401	800030-471	4
	Resistor, 1K, 5%, 1/4W	R102, R202, R302, R402, R103, R203, R303, R403, R109, R209, R309, R409, R506, R510	800030-102	14
	Resistor, 12K, 5%, 1/4W	R104, R204, R304, R404, R105, R205, R305, R405, R507, R511	800030-123	10
Resistor, 5.6K, 5%, 2W	R106, R206, R306, R406	800033-562	4	

TABLE 9-35. ZONE CONTROL AZ-18 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Resistor, 10K, 5%, 1/4W	R108,R208, R308,R408, R509	800030-103	5
	Resistor, 270 Ohm, 5%, 1/4W	R110,R210, R310,R410	800030-271	4
	Resistor, 3.3K, 5%, 1/4W	R111,R211, R311,R411	800030-332	4
	Resistor, 2.7K, 5%, 3W	R112,R212, R312,R412	800084-250	4
	Resistor, 4.7K, 5%, 1/4W	R501,R502, R503,R505	800030-472	4
	Resistor, 14.7K, 1%, 1/8W	R504	800011-160	1
	Resistor, 2.2K, 5%, 1/4W	R508	800030-222	1
	Transistor	Q101,Q103, Q104,Q201, Q203,Q204, Q301,Q303, Q304,Q401, Q403,Q404	800019-001	12
	Transistor	Q102,Q202, Q302,Q402, Q501,Q502, Q503,Q504	800132-001	8
	Terminal	TP-Z	800155-002	1
	Dual J-K Flip Flop	Z1,Z4,Z5	800081-001	3
	Quad 2 Input Nand	Z2,Z3	800024-001	2

TABLE 9-36. HAMMER DRIVER AH-10 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-36	Circuit Card Assembly, AH-10		212465	Ref
	Printed Wiring Board		212466-1	1
	Capacitor, 2.2 Uf, 10%, 20V	C1,C3	800041-225	2
	Capacitor, 2.7 Uf, 20%, 10V	C2,C4	800091-475	2
	Capacitor, 390 pf, 5%, 500V	C101,C201, C301,C401	800038-391	4
	Capacitor, 0.22 Uf, 5%, 20V	C102,C202, C302,C402	800662-224	4
	Capacitor, 0.22 Uf, 5%, 50V	C103,C203, C303,C403	801024-224	4
	Resistor, 6.8K, 5%, 1/4W	R101,R201, R301,R401	800030-682	4
	Resistor, 22K, 5%, 1/4W	R102,R202, R302,R402	800030-223	4
	Resistor, 3.3K, 5%, 1/4W	R103,R203, R303,R403	800030-332	4
	Resistor, 10K, 1%, 1/8W	R104,R204, R304,R404	800011-104	4
	Resistor, 4.7K, 5%, 1/4W	R105,R205, R305,R405	800030-472	4
	Resistor, 12K, 5%, 1/4W	R106,R206, R306,R406	800030-123	4
	Resistor, 2.7K, 5%, 1/4W	R107,R207, R307,R407	800030-272	4
	Resistor, 562 Ohm, 1%, 1/8W	R108,R208, R308,R408	800011-354	4
	Resistor, 1K, 5%, 1/2W	R109,R209, R309,R409	800031-102	4

TABLE 9-36. HAMMER DRIVER AH-10 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Resistor, 274 Ohm, 1%, 1/8W	R110,R210, R310,R410	800011-249	4
	Resistor, 47 Ohm, 5%, 1/4W	R111,R211, R311,R411, R113,R213, R313,R413	800030-470	8
	Resistor, 2.00 Ohm, 1%, 1W	R112,R212, R312,R412	800210-205	4
	Diode	CR101,CR201, CR301,CR401, CR102,CR202, CR302,CR402	800093-001	8
	Diode	CR103,CR203, CR303,CR403, CR104,CR204, CR304,CR404, CR105,CR205, CR305,CR405, CR106,CR206, CR306,CR406, CR107,CR207, CR307,CR407, CR108,CR208, CR308,CR408	800095-001	24
	Transistor	Q101,Q201, Q301,Q401, Q102,Q202, Q302,Q402, Q103,Q203, Q303,Q403	800132-001	12
	Transistor	Q104,Q204, Q304,Q404	800019-001	4
	Transistor	Q105,Q205, Q305,Q405	800018-001	4
	Dual J K Flip Flop	Z1,Z2	800081-001	2

TABLE 9-36. HAMMER DRIVER AH-10 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Quad 2 Input Nand	Z3	800024-001	1
	Screw, Pan Head, 6-32 x 3/8		800647-306	4
	Washer, Lock, Internal Tooth, No. 6		800076-003	4
	Nut, No. 6		800074-003	4
	Washer, Mica		800302-002	4
	Terminal	TP-Z	800155-002	1

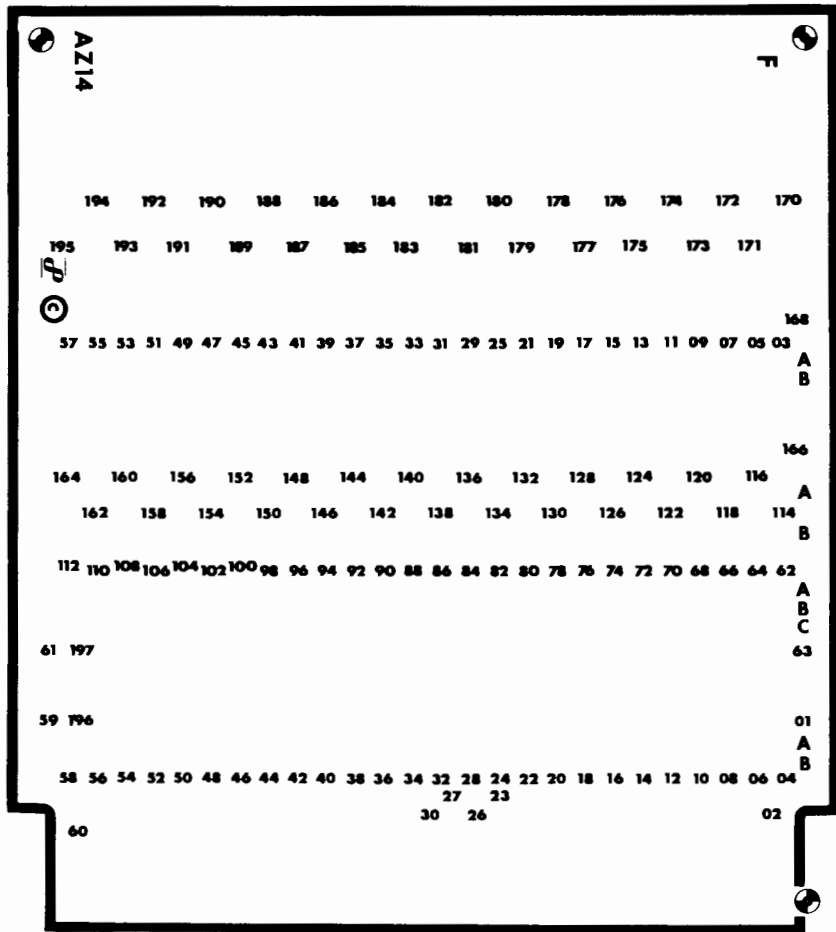


Figure 9-37. Cable Plug, AZ-14, Circuit Card Assembly (213056)

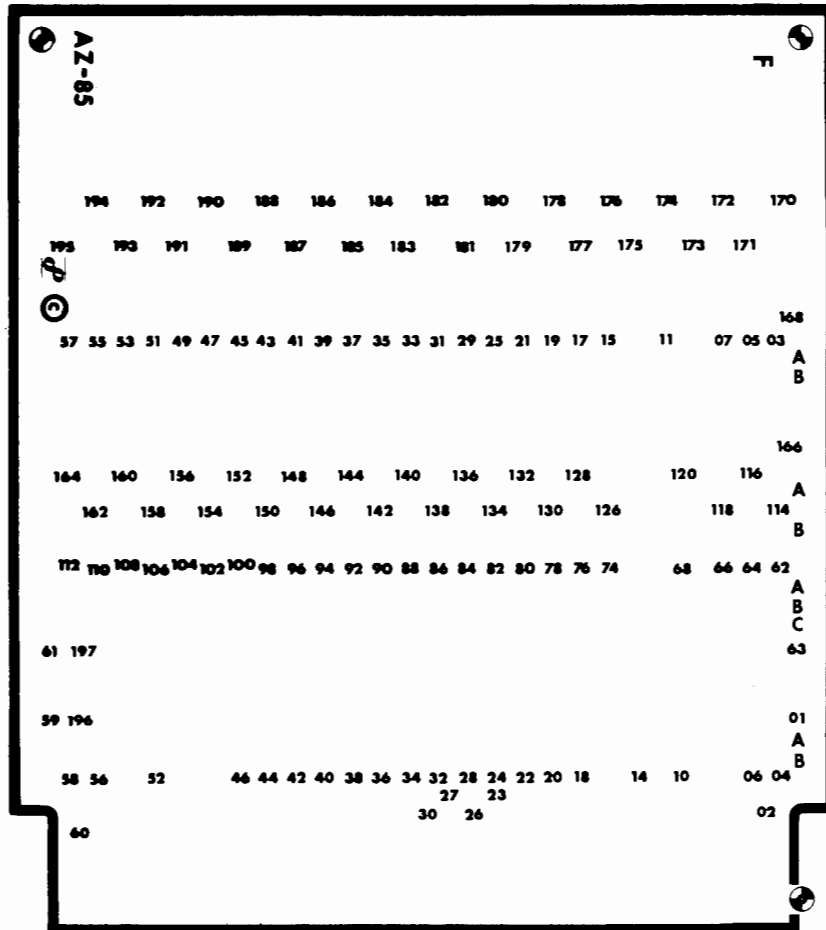


Figure 9-38. Cable Plug, AZ-85, Circuit Card Assembly (216478)

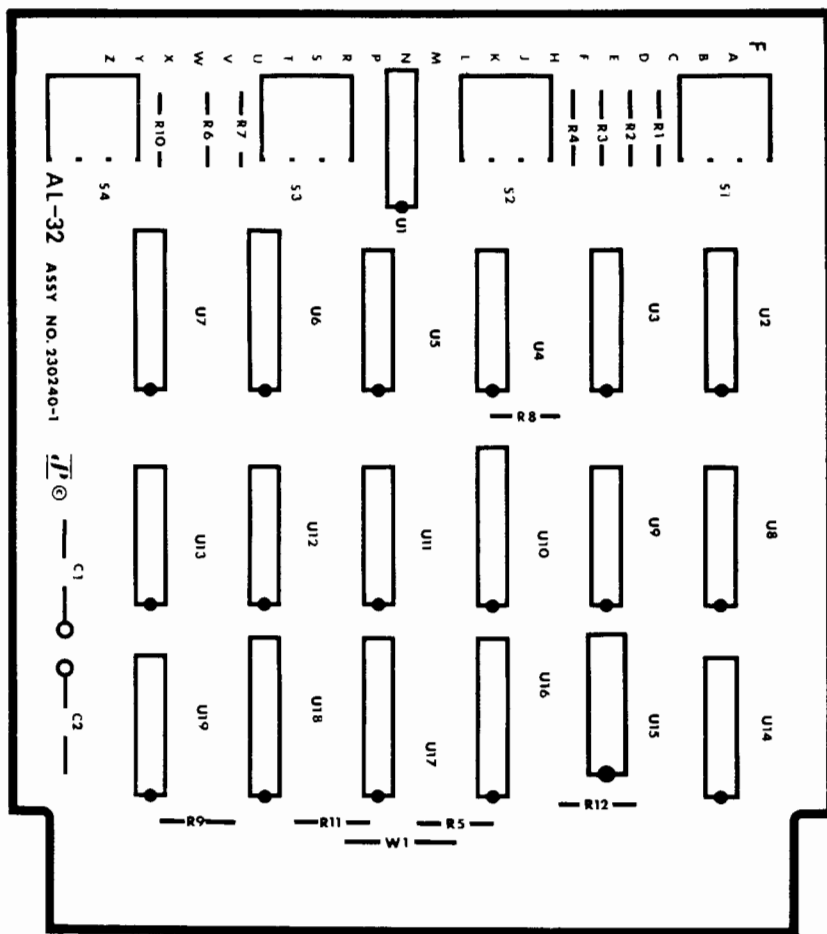


Figure 9-39. Self Test, AL-32, Circuit Card Assembly

TABLE 9-37. SELF-TEST AL-32 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-39	Circuit Card Assembly, AL-32 Self Test		230240	Ref
	Printed Wiring Board		230241-1	1
	Capacitor, 4.7 Uf, ±20%, 10V	C1,C2	800091-475	2
	Resistor, 1K, ±5%, 1/4W	R1,R2,R3,R4, R5,R6,R7,R8, R9,R10,R11, R12	800030-102	12
	Switch	S1,S2,S3,S4	800502-001	4
	Integrated Circuit	U1,U2,U8	800080-001	3
	Integrated Circuit	U3,U15	800024-001	2
	Integrated Circuit	U4,U11,U19	800020-001	3
	Integrated Circuit	U5	800023-001	1
	Integrated Circuit	U6,U7,U10	800386-001	3
	Integrated Circuit	U9	800387-001	1
	Integrated Circuit	U12,U13	800021-001	2
	Integrated Circuit	U14	800393-001	1
	Integrated Circuit	U16,U17,U18	800081-001	3
	Wire, Solid, 24 AWG	W1,W2	800156-024	A/R
Tubing, 24 AWG		800157-024	A/R	

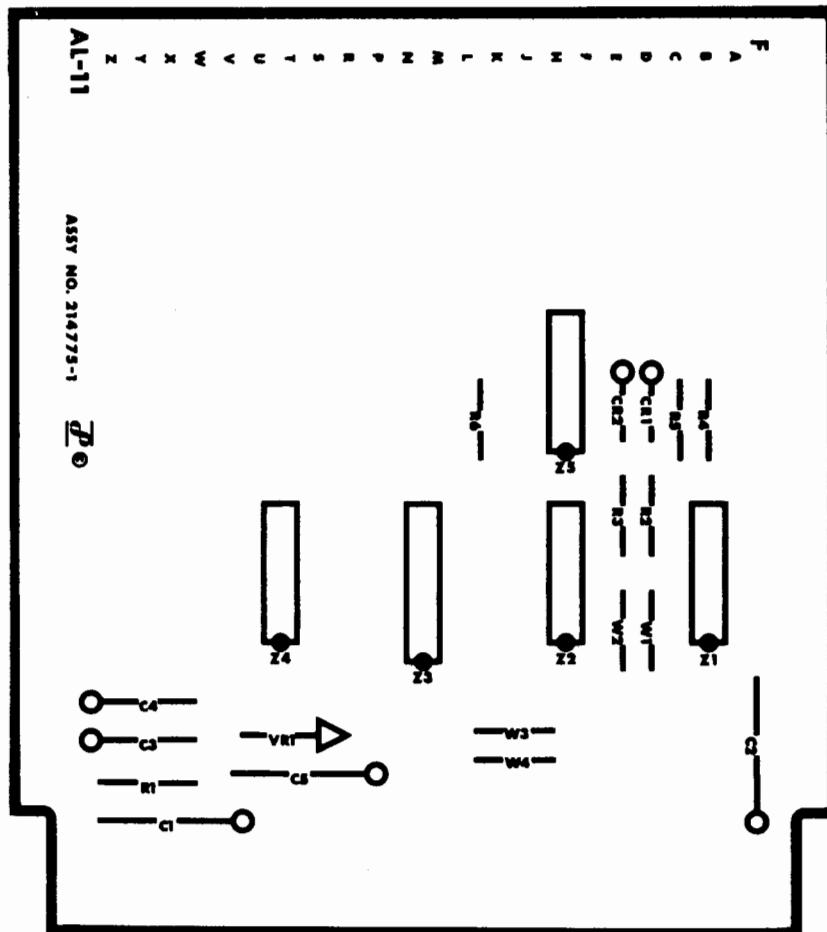


Figure 9-40. Parity, AL-11, Circuit Card Assembly

TABLE 9-38. PARITY AL-11 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-40	Circuit Card Assembly, AL-11 Parity		214775	Ref
	Printed Wiring Board		214776-1	1
	Capacitor, 6.8 Uf, 10%, 20V	C1,C2,C5	800041-685	3
	Capacitor, 4.7 Uf, 20%, 10V	C3,C4		
	Diode	CR1,CR2	800093-001	2
	Diode, Zener	VR1	800187-001	1
	Resistor, 330 Ohm, 5%, 1/2W	R1	800031-331	1
	Resistor, 15K, 5%, 1/4W	R2,R3	800030-153	2
	Resistor, 8.2K, 5%, 1/4W	R4,R5	800030-822	2
	Resistor, 3.3K, 5%, 1/4W	R6	800030-332	1
	Terminal	TP-Z	800155-002	1
	Integrated Circuit	Z1	800393-001	1
	Integrated Circuit	Z2	800024-001	1
	Integrated Circuit	Z3	800081-001	1
	Integrated Circuit	Z4	800080-001	1
	Integrated Circuit	Z5	800186-001	1
	Wire, Copper, Solid Bare, Tinned, 24 AWG	W1,W2,W3	800156-024	A/R
Tubing, Teflon, Thin Wall, 24 AWG	W1,W2,W2	800157-024	A/R	

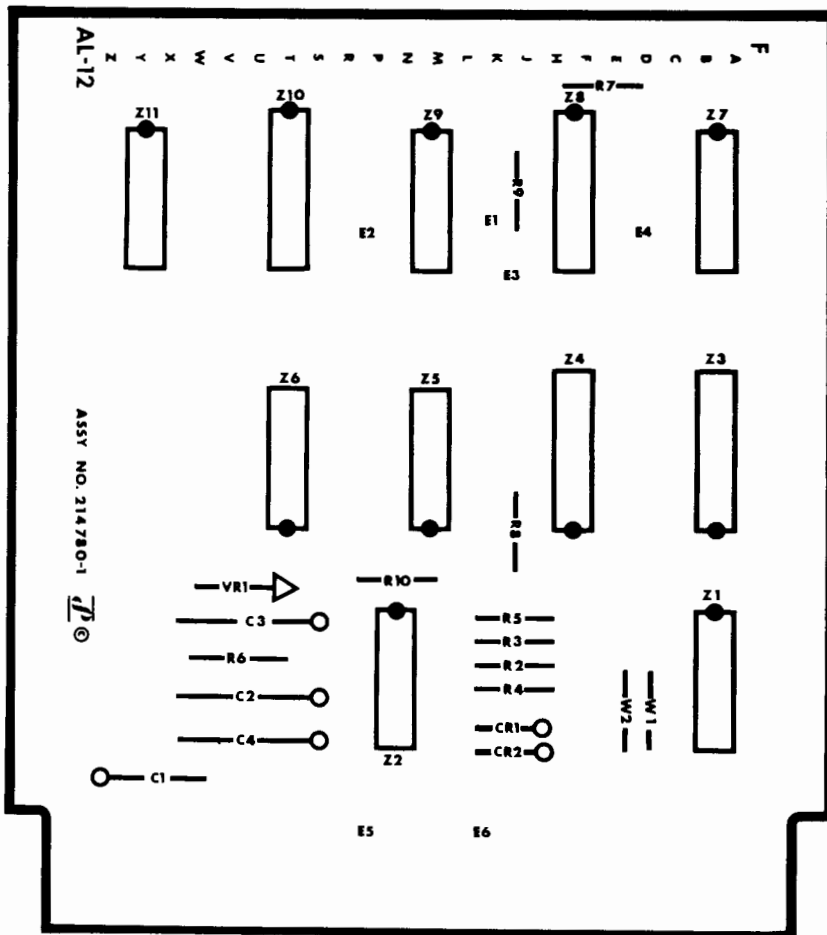


Figure 9-41. Zone Select, AL-12, Circuit Card Assembly

TABLE 9-39. ZONE SELECT AL-12 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-41	Circuit Card Assembly, AL-12 Zone Select		214780	Ref
	Printed Wiring Board		214781-1	1
	Capacitor, 4.7 Uf, 10V, 10%	C1	800040-475	1
	Capacitor, 6.8 Uf, 20V, 10%	C2,C3,C4	800041-685	3
	Diode	CR1,CR2	800093-001	2
	Diode, Zener	VR1	800187-001	1
	Resistor, 15K, 5%, 1/4W	R2,R3	800030-153	2
	Resistor, 8.2K, 5%, 1/4W	R4,R5	800030-822	2
	Resistor, 330 Ohms, 5%, 1/2W	R6	800031-331	1
	Resistor, 1K, 5%, 1/4W	R7,R8,R9	800030-102	3
	Resistor, 5.6K, 5%, 1/4W	R10	800030-562	1
	Terminal	TP-Z	800155-002	1
	Integrated Circuit	Z1,Z7,Z9,Z11	800024-001	4
	Integrated Circuit	Z2	800186-001	1
	Integrated Circuit	Z3,Z4,Z8,Z10	800081-001	4
	Integrated Circuit	Z5	800387-001	1
	Integrated Circuit	Z6	800080-001	1
	Wire, 24 AWG	W1,W2	800156-024	A/R
	Tubing, Teflon	W1,W2	800157-024	A/R

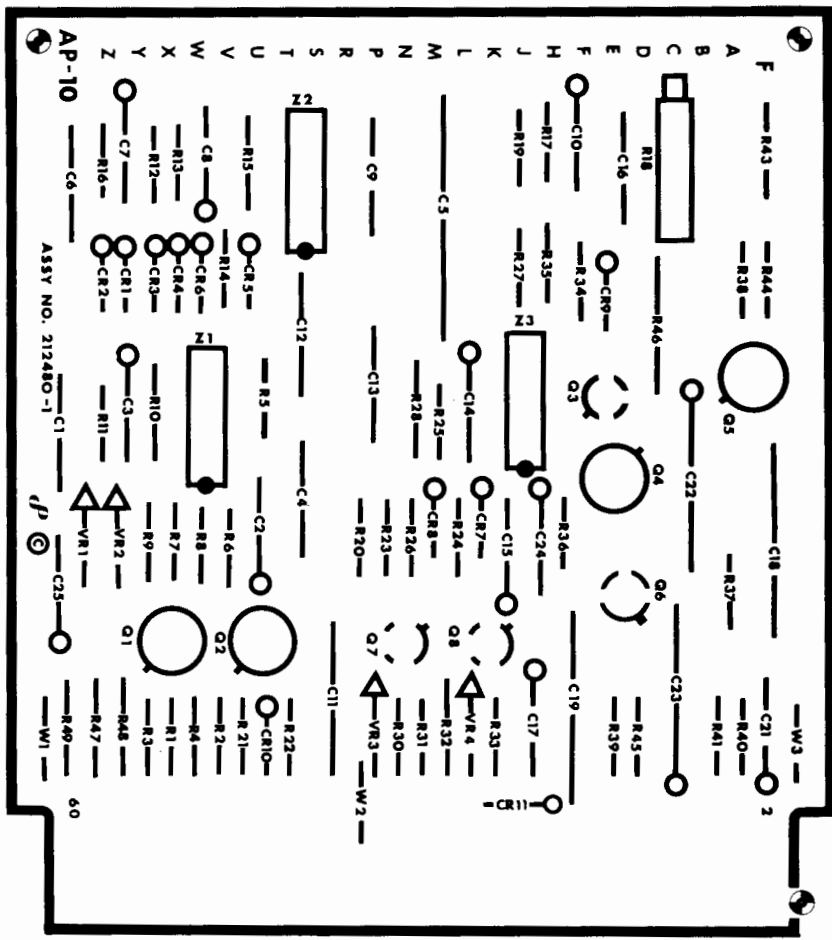


Figure 9-42. Paper Feed Control, AP-10, Circuit Card Assembly

TABLE 9-40. PAPER FEED CONTROL AP-10 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-42	Circuit Card Assembly, AP-10 Paper Feed Control		212480	Ref
	Printed Wiring Board		212481-1	1
	Capacitor, 150 pf, 5%, 500V	C1	800038-151	1
	Capacitor, 2.2 Uf, 10%, 20V	C2,C3,C7,C8, C10,C14,C15, C17,C24	800041-225	9
	Capacitor, 5 pf, 5%, 500V	C4	800038-050	1
	Capacitor, .22 Uf, 10%, 100V	C5	800039-224	1
	Capacitor, .0047 Uf, 10%, 200V	C6	800039-472	1
	Capacitor, 220 pf, 5%, 500V	C9	800038-221	1
	Capacitor, .047 Uf, 10%, 100V	C11	800039-473	1
	Capacitor, .1 Uf, 10%, 80V	C12	800542-104	1
	Capacitor, 180 pf, 5%, 500V	C13	800038-181	1
	Capacitor, 100 pf, 5%, 500V	C16	800038-101	1
	Capacitor, .022 Uf, 10%, 100V	C18,C19	800039-223	2
	Capacitor, 1 Uf, 10%, 50V	C21	800090-105	1
	Capacitor, 10 Uf, 10%, 50V	C22,C23	800090-106	2
	Capacitor, 4.7 Uf, 20%, 10V	C25	800091-475	1
	Diode	CR1,CR2,CR3, CR4,CR5,CR6, CR7,CR8,CR9, CR10,CR11	800093-001	11
	Diode, 9.1V, 5%	VR1,VR2	800188-001	2
	Diode, 5.6V, 5%	VR3,VR4	800187-001	2

TABLE 9-40 PAPER FEED CONTROL AP-10 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Resistor, 3.3K, 5%, 1/4W	R1,R2	800030-332	2
	Resistor, 1K, 5%, 1/4W	R3,R4,R31, R33,R35	800030-102	5
	Resistor, 2.15K, 1%, 1/8W	R5,R6,R7,R8, R9	800011-215	5
	Resistor, 1 Meg Ohm, 1%, 1/4W	R10,R15,R28	800082-106	3
	Resistor, 1.5K, 5%, 1/4W	R11,R16,R27	800030-152	3
	Resistor, 31.6K, 1%, 1/8W	R12,R13,R14	800011-272	3
	Resistor, 47 Ohm, 5%, 1/4W	R17,R26,R40, R41,R45	800030-470	5
	Potentiometer, 1K, 1W	R18	800150-102	1
	Resistor, 1.8K, 5%, 1/4W	R19	800030-182	1
	Resistor, 14.7K, 1%, 1/8W	R20	800011-160	1
	Resistor, 10K, 5%, 1/4W	R21	800030-103	1
	Resistor, 4.42K, 1%, 1/8W	R22	800011-320	1
	Resistor, 3.32K, 1%, 1/8W	R23	800011-278	1
	Resistor, 274K, 1%, 1/8W	R24	800011-252	1
	Resistor, 33K, 5%, 1/4W	R25	800030-333	1
	Resistor, 15K, 5%, 1/4W	R30	800030-153	1
	Resistor, 220 Ohm, 5%, 1/2W	R32	800031-221	1
	Resistor, 100 Ohm, 5%, 1/4W	R34	800030-101	1
	Resistor, 6.8K, 5%, 1/4W	R36	800030-682	1
	Resistor, 470 Ohm, 5%, 1/4W	R37,R39	800030-471	2
	Resistor, 82 Ohm, 5%, 1/4W	R38	800030-820	1

TABLE 9-40. PAPER FEED CONTROL AP-10 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Resistor, 330 Ohm, 5%, 1/2W	R43	800031-331	1
	Resistor, 33 Ohms, 5%, 1/4W	R44	800030-330	1
	Resistor, 3.3 Ohm, 1%, 3W	R46	800084-275	1
	Resistor, 150 Ohm, 5%, 1/2W	R47	800031-151	1
	Resistor, 470 Ohm, 5%, 1/2W	R48	800031-471	1
	Resistor, 10 Ohm, 5%, 1/2W	R49	800031-100	1
	Transistor	Q1,Q2,Q4,Q5	800089-001	4
	Transistor	Q3,Q6	800019-001	2
	Transistor	Q7,Q8	800132-001	2
	Terminal	TP-Z	800155-002	1
	Integrated Circuit, Operational Amplifier	Z1,Z2,Z3	800195-001	3
	Transipad		800099-001	4

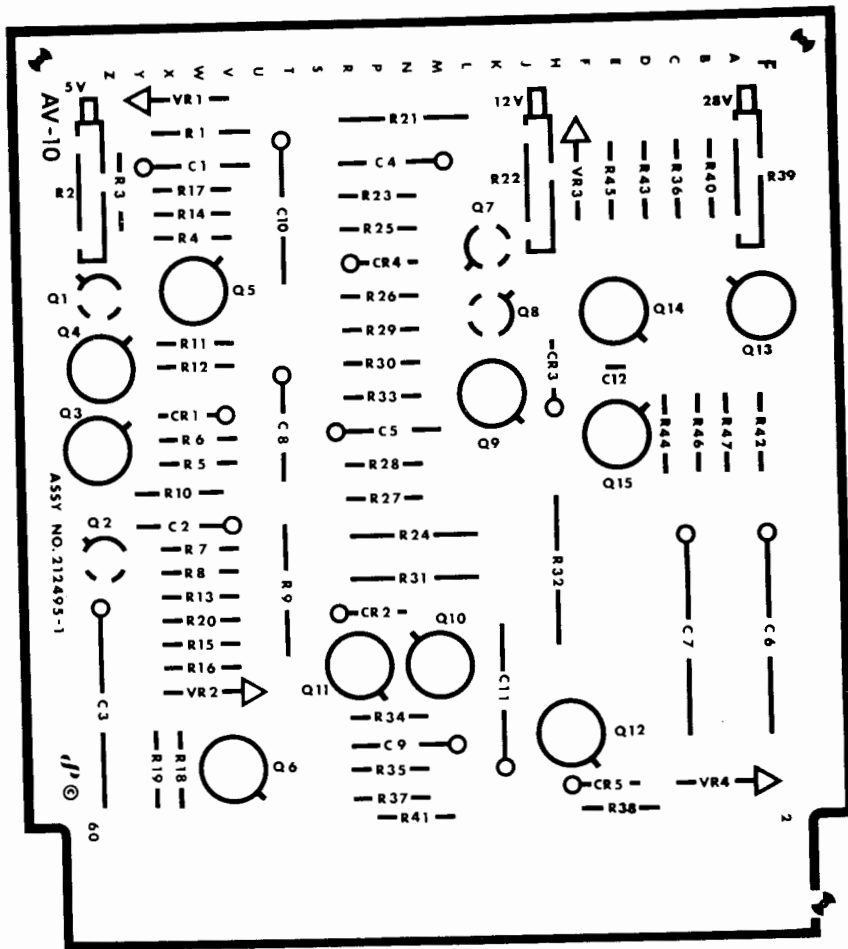


Figure 9-43. Voltage Regulator, AV-10, Circuit Card Assembly

TABLE 9-41. VOLTAGE REGULATOR AV-10 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-43	Circuit Card Assembly, AV-10 Voltage Regulator		212495	Ref
	Printed Wiring Board		212496-1	1
	Capacitor, 2.2 Uf, 10%, 20V	C1,C4	800041-225	2
	Capacitor, .22 Uf, 10%, 20V	C2	800041-224	1
	Capacitor, 100 Uf, 10%, 20V	C3,C6	800041-107	2
	Capacitor, 0.1 Uf, 10%, 20V	C5	800041-104	1
	Capacitor, 22 Uf, 10%, 50V	C7	800090-226	1
	Capacitor, .015 Uf, 10%, 20V	C8,C9	800041-153	2
	Capacitor, 2.2 Uf, 10%, 50V	C10,C11	800090-225	2
	Capacitor, 1200 pf, 10%, 200V	C12	800465-122	1
	Diode	CR1 Thru CR5	800093-001	5
	Diode, Zener	VR1,VR2,VR3	800187-001	3
	Diode, Zener	VR4	800189-001	1
	Resistor, 330 Ohm, 5%, 1/2W	R1	800031-331	1
	Resistor, Variable, 200 Ohm, 1W	R2,R22	800150-201	2
	Resistor, 330 Ohm, 5%, 1/4W	R3,R26,R33	800030-331	3
	Resistor, 220 Ohm, 5%, 1/4W	R4	800030-221	1
	Resistor, 150 Ohm, 5%, 1/4W	R5,R7,R16, R18,R28	800030-151	5
	Resistor, 1.8K, 5%, 1/4W	R6,R43	800030-182	2
	Resistor, 390 Ohm, 5%, 1/4W	R8,R23	800030-391	2
Resistor, 100 Ohm, 1%, 3W	R9	800084-102	1	

TABLE 9-41. VOLTAGE REGULATOR AV-10 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Resistor, 27 Ohm, 5%, 1/2W	R10	800031-270	1
	Resistor, 1.2K, 5%, 1/4W	R11	800030-122	1
	Resistor, 1K, 5%, 1/4W	R12, R15, R19, R35, R36, R37, R38	800030-102	7
	Resistor, 100 Ohm, 5%, 1/4W	R13, R17, R20, R41	800030-101	4
	Resistor, 82 Ohm, 5%, 1/4W	R14	800030-820	1
	Resistor, 470 Ohm, 5%, 1W	R21	800032-471	1
	Resistor, 1.2K, 5%, 1W	R24	800032-122	1
	Resistor, 680 Ohm, 5%, 1/4W	R25, R30	800030-681	2
	Resistor, 4.7K, 5%, 1/4W	R27	800030-472	1
	Resistor, 470 Ohm, 5%, 1/4W	R29	800030-471	1
	Resistor, 2.7K, 5%, 1W	R31	800032-272	1
	Resistor, 3.3K, 5%, 2W	R32	800033-332	1
	Resistor, 2.2K, 5%, 1/4W	R34, R40	800030-222	2
	Resistor, Variable, 1K, 1W	R39	800150-102	1
	Resistor, 12K, 5%, 1/4W	R42	800030-123	1
	Resistor, 18K, 5%, 1/4W	R44, R46	800030-183	2
	Resistor, 10K, 5%, 1/4W	R45, R47	800030-103	2
	Transistor	Q1, Q2, Q7, Q8	800132-001	4
	Transistor	Q3, Q5, Q6, Q9, Q11	800089-001	5
	Thyristor, SCR	Q4, Q10	800621-001	2

TABLE 9-41. VOLTAGE REGULATOR AV-10 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Thyristor, Triode	Q12	800190-001	1
	Transistor	Q13,Q14,Q15	800088-001	3
	Terminal	TP-Z	800155-002	1
	Transipad		800099-001	11

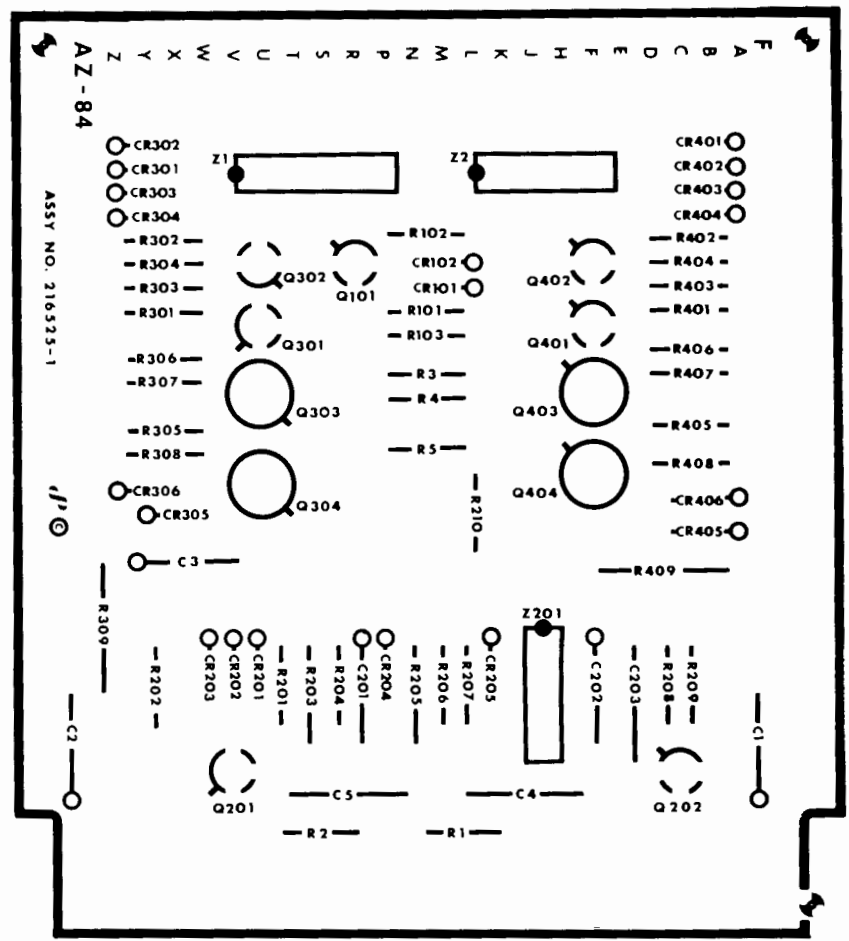


Figure 9-44. Ribbon Control, AZ-84, Circuit Card Assembly

TABLE 9-42. RIBBON CONTROL AZ-84 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-44	Circuit Card Assembly, AZ-84 Ribbon Control		216525	Ref
	Printed Wiring Board		216526-1	1
	Capacitor, 2.2 Uf, 10%, 20V	C1,C3,C201, C202	800041-225	4
	Capacitor, 4.7 Uf, 10%, 10V	C2	800040-475	1
	Capacitor, .01 Uf, 10%, 100V	C4,C5	800039-103	2
	Capacitor, 10 pf, 5%, 500V	C203	800038-100	1
	Diode, Silicon Switching	CR101,CR102, CR201,CR202, CR203,CR204, CR205,CR201, CR302,CR303, CR304,CR401, CR402,CR403, CR404	800093-001	15
	Diode IN4002	CR305,CR306, CR405,CR406	800095-001	4
	Resistor, 10 Ohm, 1%, 1/8W	R1,R2	800011-101	2
	Resistor, 1K, 5%, 1/4W	R3,R4,R5, R102,R103, R202,R204, R210,R302, R402	800030-102	10
	Resistor, 4.7K, 5%, 1/4W	R101	800030-472	1
	Resistor, 3.3K, 5%, 1/4W	R201,R301, R303,R401, R403	800030-332	5
	Resistor, 470K, 5%, 1/2W	R203,R205	800031-474	2
Resistor, 5.6K, 5%, 1/4W	R206,R207, R209	800030-562	3	

TABLE 9-42. RIBBON CONTROL AZ-84 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Resistor, 2.2K, 5%, 1/4W	R208	800030-222	1
	Resistor, 470 Ohm, 5%, 1/4W	R304,R404	800030-471	2
	Resistor, 12K, 5%, 1/4W	R305,R308, R405,R408	800030-123	4
	Resistor, 100 Ohm, 5%, 1/4W	R306,R307, R406,R407	800030-101	4
	Resistor, 4.6K, 1%, 3W	R309,R409	800084-355	2
	Transistor, Silicon Switching	Q101,Q201, Q202,Q301, Q302,Q401, Q402	800132-001	7
	Thyristor, Triode	Q303,Q304, Q403,Q404	800191-001	4
	Terminal	TP-Z	800155-002	1
	Integrated Circuit, Flip-Flop - Dual J-K	Z1	800081-001	1
	Integrated Circuit, Quad 2-Input Nand	Z2	800024-001	1
	Integrated Circuit, Amplifier Operational	Z201	800195-001	1
	Transipad		800099-001	4

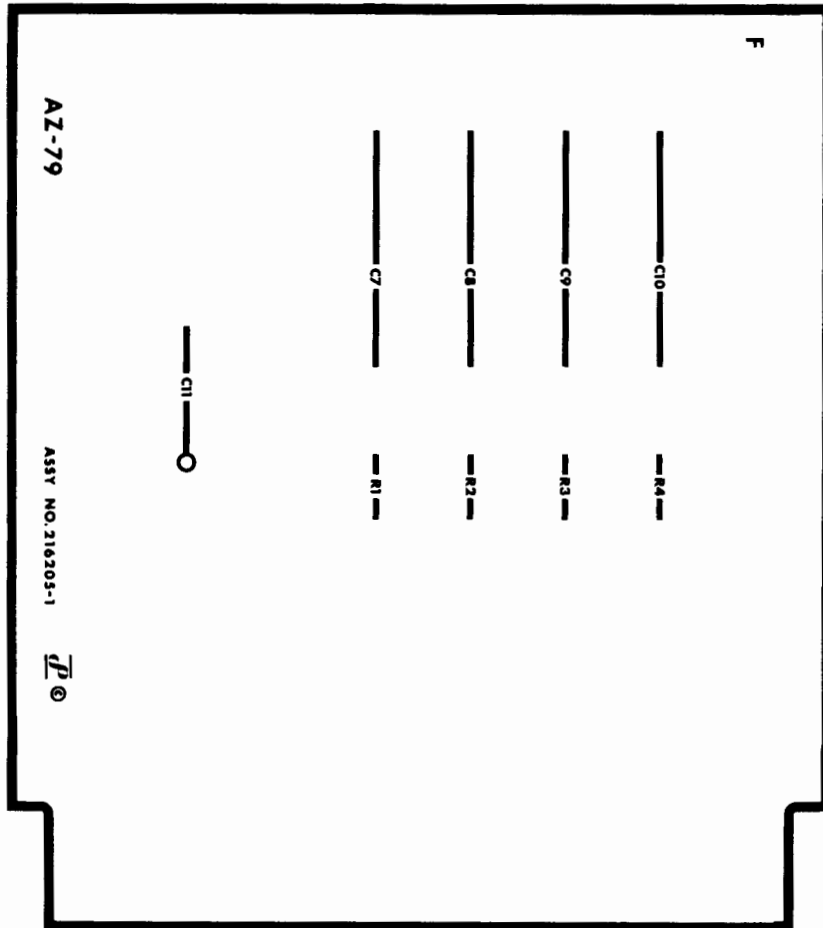


Figure 9-45. SCR Commutating Board, AZ-79, Circuit Card Assembly

TABLE 9-43. SCR COMMUTATING BOARD AZ-79 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-45	Circuit Card Assembly, AZ-79 SCR Commutating Board		216205	Ref
	Printed Wiring Board		216206-1	1
	Capacitor, .33 Uf, 10%, 100V	C7,C8,C9,C10	800635-334	4
	Capacitor, 2.2 Uf, 10%, 50V	C11	800090-225	1
	Resistor, 220 Ohm, 5%, 1/4W	R1,R2,R3,R4	800030-221	4

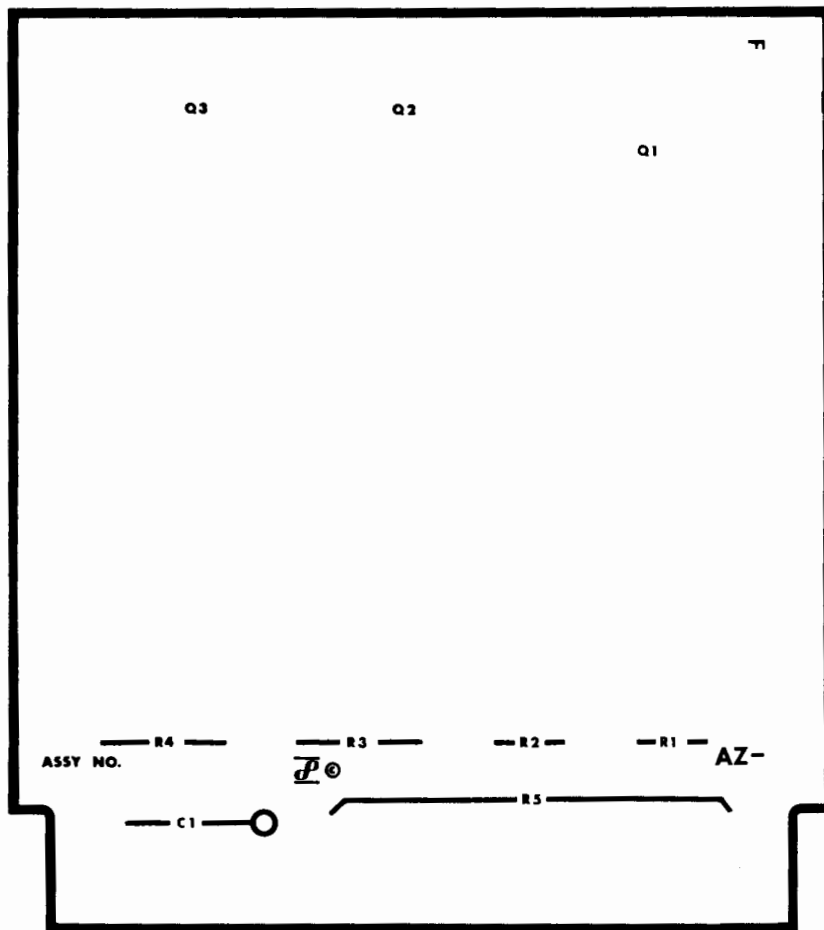


TABLE 9-44. POSITIVE PAPER FEED POWER AMPLIFIER AZ-49 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-46	Circuit Card Assembly, AZ-49 +5V, +12V, +28V, Positive Paper Feed Power Amplifier		215285	Ref
	Printed Wiring Board		215286-1	1
	Capacitor, 2.2 Uf, 10%, 50V	C1	800090-225	1
	Resistor, 100 Ohms, 5%, 1/4W	R1,R2	800030-101	2
	Resistor, 0.1 Ohms, 1%, 3W	R3,R4	800084-091	2
	Resistor, 0.2 Ohms, 1%, 10W	R5	800528-092	1
	Transistor	Q1	800018-001	1
	Transistor	Q2,Q3	800215-001	2
	Heat Sink		215421	1
	Screw, 6-32 x 1/4		800073-304	4
	Screw, 6-32 x 1/2		800073-308	6
	Nut, 6-32		800074-003	6
	Washer, No. 6, Flat		800075-003	4
	Washer, No. 6, Intl Lock		800076-003	16
	Washer, Mica		800302-001	4
	Washer, Mica		800302-002	2
	Silicone Compound		800205-001	A/R
	Spacer, Nylon		800426-002	12

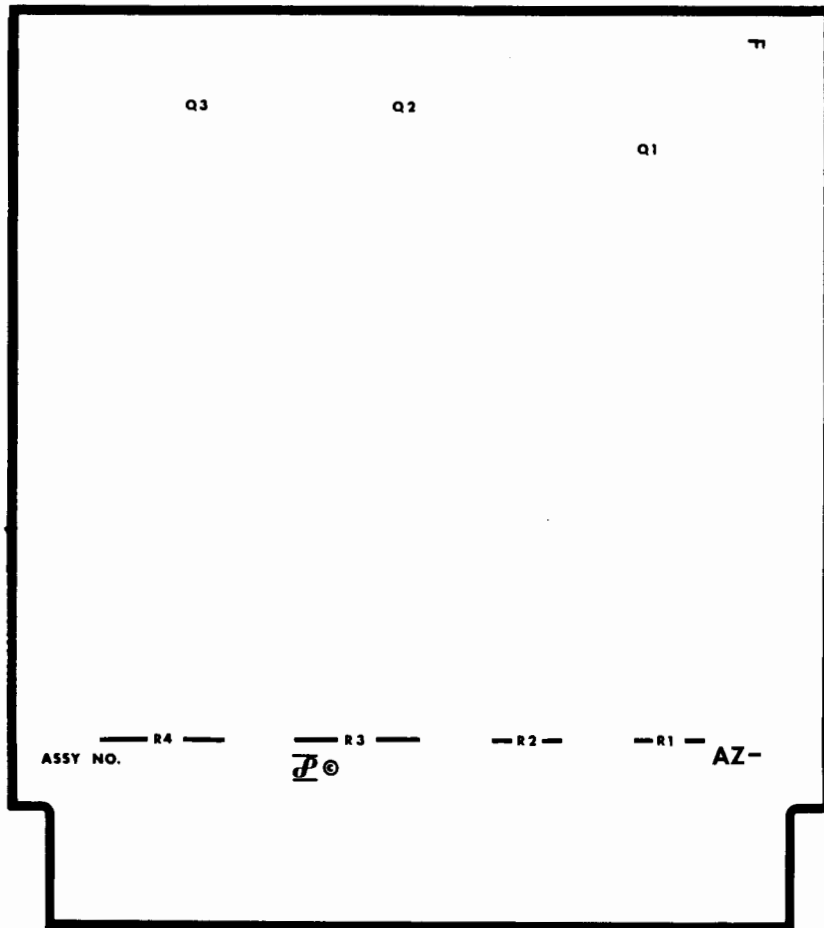


Figure 9-47. Negative Paper Feed Power Amplifier, AZ-51, Circuit Card Assembly

TABLE 9-45. NEGATIVE PAPER FEED POWER AMPLIFIER AZ-51 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-47	Circuit Card Assembly, AZ-51 Negative Paper Feed Power Ampl		215290	Ref
	Printed Wiring Board		215286-1	1
	Resistor, 100 Ohms, 5%, 1/4W	R1,R2	800030-101	2
	Resistor, 0.1 Ohms, 1%, 3W	R3,R4	800084-091	2
	Transistor	Q1	800018-001	1
	Transistor	Q2,Q3	800215-001	2
	Heat Sink		215421	1
	Screw, 6-32 x 1/4		800073-304	4
	Screw, 6-32 x 1/2		800073-308	
	Nut, 6-32		800074-003	6
	Washer, No. 6, Flat		800075-003	4
	Washer, No. 6, Intl Lock		800076-003	16
	Washer, Mica		800302-001	4
	Washer, Mica		800302-002	2
	Silicone Compound		800205-001	A/R
	Spacer, Nylon		800426-002	12

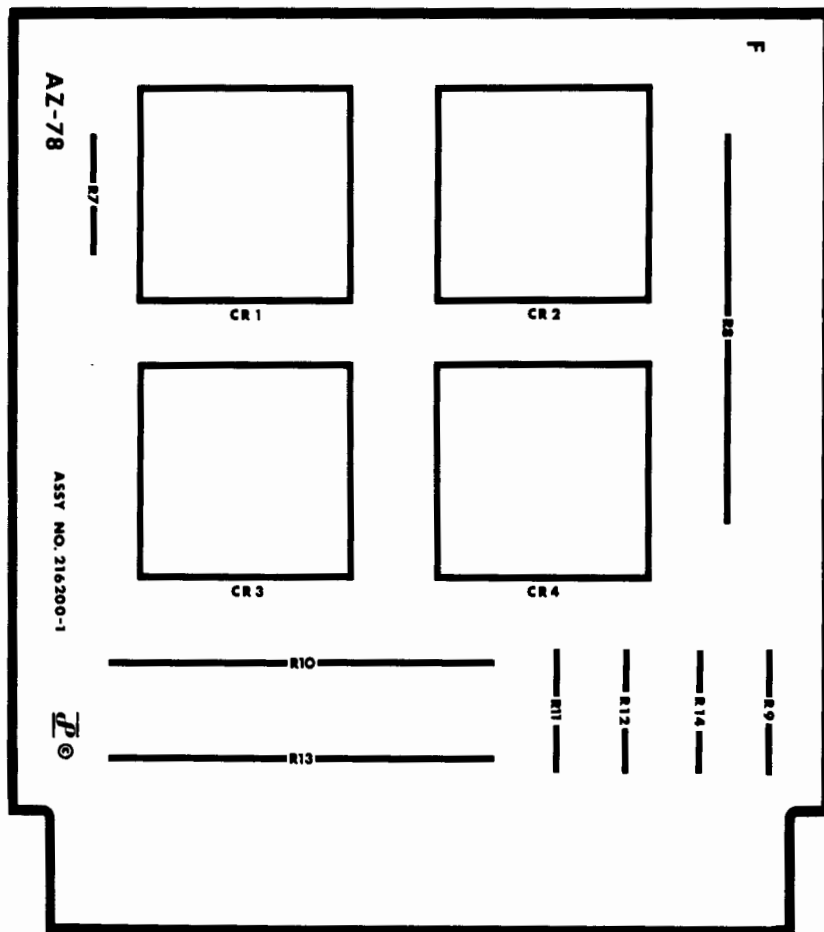


Figure 9-48. Bridge Board, AZ-78, Circuit Card Assembly

TABLE 9-46. BRIDGE BOARD AZ-78 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-48	Circuit Card Assembly, AZ-78 Bridge Board		216200	Ref
	Printed Wiring Board		216201-1	1
	Bridge Rectifier	CR1, CR2, CR3, CR4	800516-001	4
	Resistor, 3.3K, 1%, 3W	R7	800084-278	1
	Resistor, .1 Ohm, 5%, 10W	R8, R10, R13	800533-001	3
	Resistor, 1K, 5%, 1W	R9, R11, R14	800032-102	3
	Resistor, 1K, 1%, 3W	R12	800084-103	1
	Heat Sink, Rectifier		215434-1	4
	Screw, No. 6-32 x 3/4 Long		800073-312	4
	Nut, Hex, No. 6-32		800074-003	4
	Silicone Compound		800205-001	A/R

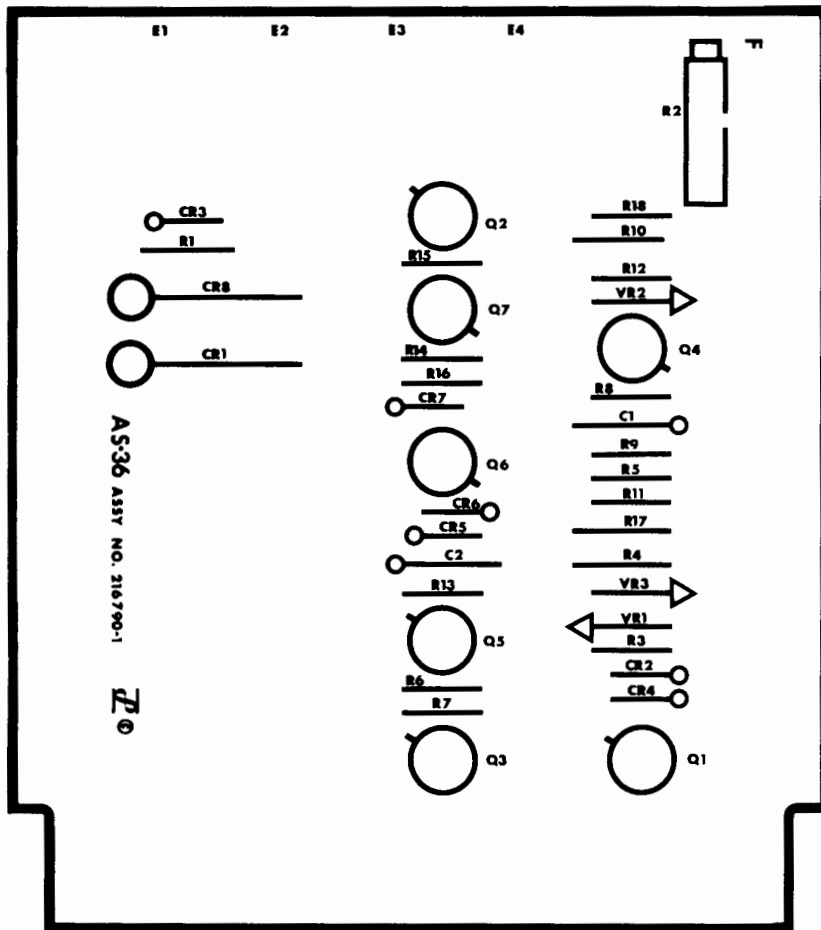


Figure 9-49. Hammer Current Monitor, AS-36, Circuit Card Assembly
9-136

TABLE 9-47. HAMMER CURRENT MONITOR AS-36 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-49	Circuit Card Assembly, AS-36 Hammer Current Monitor		216790	Ref
	Printed Wiring Board		216791-1	1
	Capacitor, .22 Uf, 5%, 20V	C1	800662-224	1
	Capacitor, 2.2 Uf, 10%, 10V	C2	800041-225	1
	Diode	CR1,CR8	800490-001	2
	Diode	CR2 Thru CR7	800093-001	6
	Transistor	Q1,Q3 Thru Q6	800231-001	5
	Transistor	Q2,Q7	800089-001	2
	Resistor, 1 0hm, 1%, 1W	R1	800210-100	1
	Resistor, Variable	R2	800150-201	1
	Resistor, 1.8K, 5%, 1/4W	R3	800030-182	1
	Resistor, 560 0hm, 5%, 1/2W	R4,R17	800031-561	2
	Resistor, 5.6K, 5%, 1/4W	R5	800030-562	1
	Resistor, 22K, 5%, 1/4W	R6	800030-223	1
	Resistor, 8.2K, 5%, 1/4W	R7	800030-822	1
	Resistor, 180 0hm, 5%, 1/4W	R8,R12	800030-181	2
	Resistor, 14.7K, 1%, 1/8W	R9	800011-160	1
	Resistor, 1K, 5%, 1/2W	R10	800031-102	1
	Resistor, 46.4K, 1%, 1/8W	R11	800011-328	1
	Resistor, 100 0hm, 5%, 1/4W	R13	800030-101	1
	Resistor, 4.7K, 5%, 1/4W	R14	800030-472	1
Resistor, 1K, 5%, 1/4W	R15,R16	800030-102	2	

TABLE 9-47. HAMMER CURRENT MONITOR AS-36 ASSEMBLY REPLACEABLE PARTS (Cont'd)

Figure & Index No.	Description	Reference Designator	Part No.	Qty
	Resistor, 150 Ohm, 5%, 1/4W	R18	800030-151	1
	Diode, Zener	VR1 Thru VR3	800187-001	3
	Spreader		800099-001	7

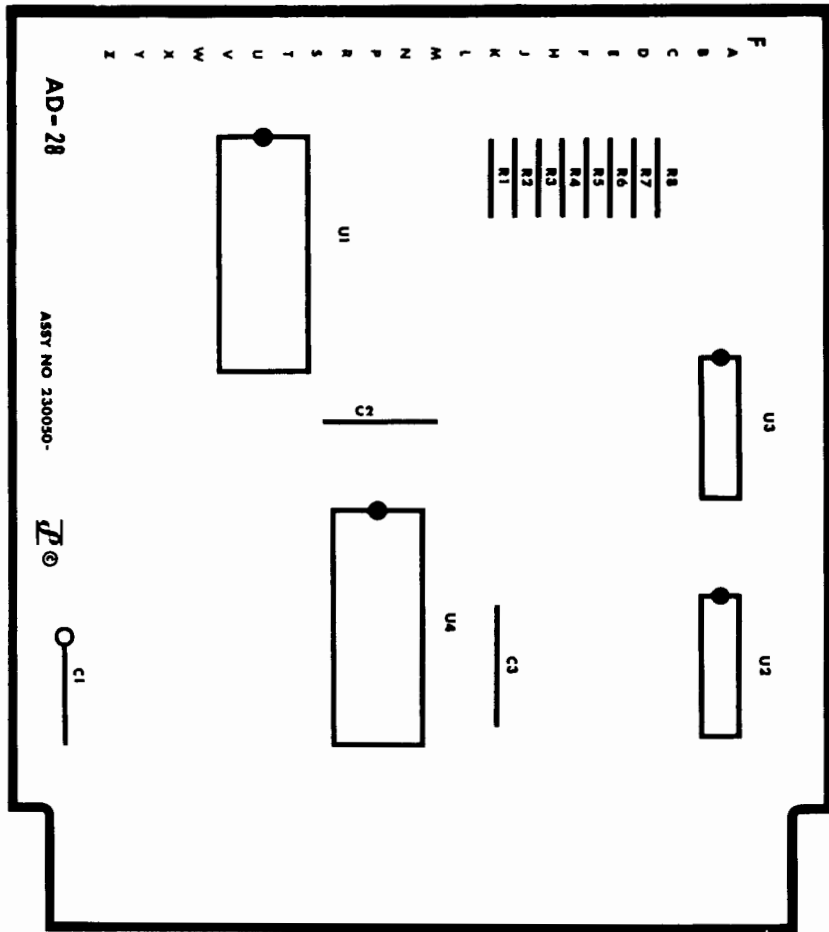


Figure 9-50. Code Conversion, AD-28, Circuit Card Assembly

TABLE 9-48. CODE CONVERSION AD-28 ASSEMBLY REPLACEABLE PARTS

Figure & Index No.	Description	Reference Designator	Part No.	Qty
Fig. 9-50	Circuit Card Assembly, AD-28 ROM Code Conversion		230050	Ref
	Printed Wiring Board		230051-1	1
	Capacitor, 4.7 Uf, 10%, 10V	C1	800040-475	1
	Capacitor, .01 Uf, 10%, 100V	C2,C3	800039-103	2
	Resistor, 1K, 5%, 1/4W	R1 Thru R8	800030-102	8
	Terminal	TP-Z	800155-002	1
	Integrated Circuit	U1	800814-002	1
	Integrated Circuit	U2	800081-001	1
	Integrated Circuit	U3	800024-001	1