

1627 Plotter Model 1 and Model 2

**IBM**<sup>®</sup>

Parts Catalog

**1627**

**ILLUSTRATED PARTS  
CATALOG**

**PLOTTER  
MODEL 1 AND MODEL 2  
1627**

28 February 1964

**DATA PROCESSING DIVISION  
INTERNATIONAL BUSINESS MACHINES CORPORATION  
112 EAST POST ROAD, WHITE PLAINS, N.Y.**

## CONTENTS

Heading	Page
List 1      MAIN ASSEMBLY MODEL 1 . . . . .	1
List 2      MAIN ASSEMBLY MODEL 2 . . . . .	7
List 3      PLOTTER DRIVER CIRCUIT BOARD MODEL 1 AND 2 . . . . .	14
List 4      POWER SUPPLY ASSEMBLY MODEL 1 AND 2 . . . . .	20
List 5      TERMINAL BOARD ASSEMBLY MODEL 1 AND 2 . . . . .	23
List 6      TERMINAL BOARD ASSEMBLY MODEL 1 AND 2 . . . . .	23

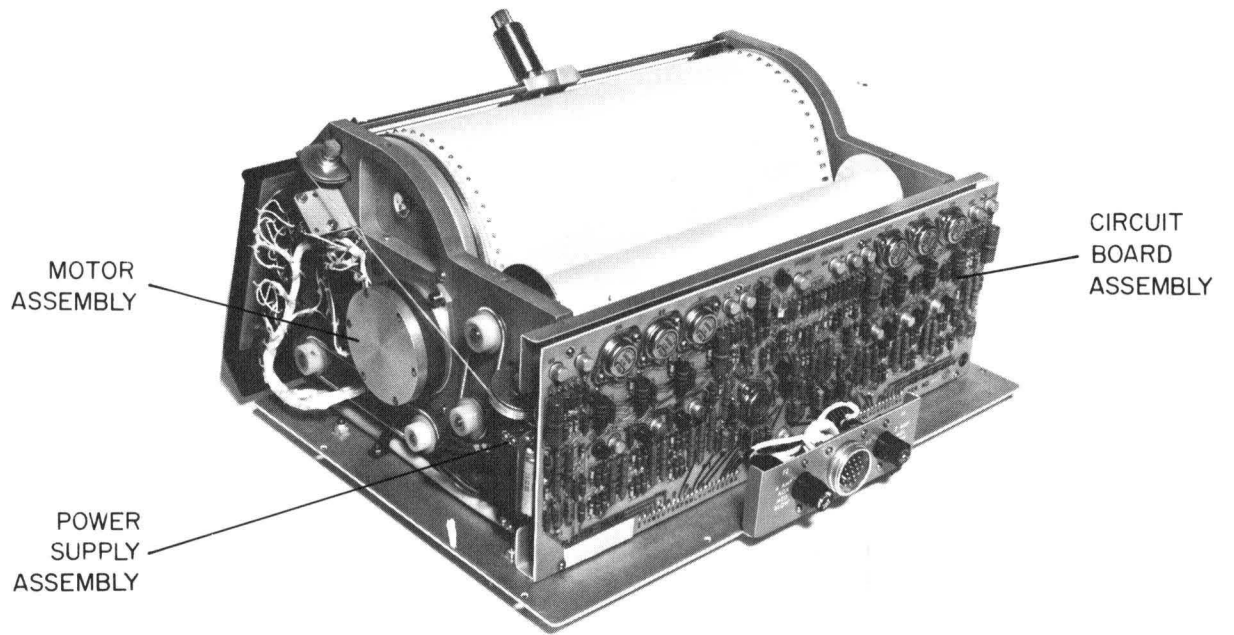
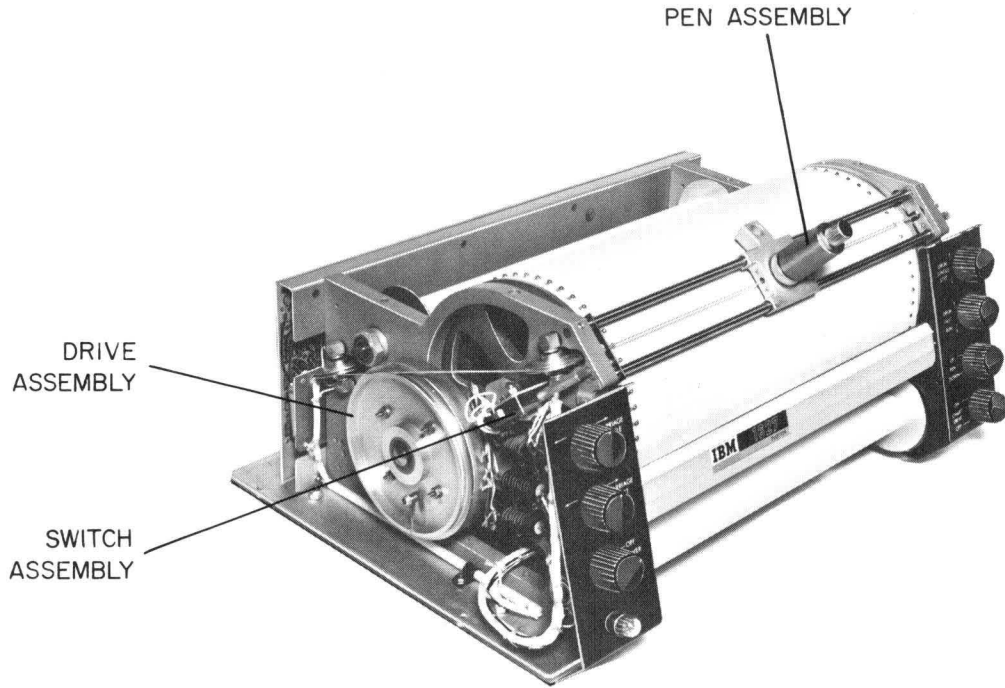
## ILLUSTRATIONS

Figure	Page	
1	MAIN ASSEMBLY MODEL 1 (Sheet 1 of 2) (See List 1) . . . . .	2
	MAIN ASSEMBLY MODEL 1 (Sheet 2 of 2) (See List 1) . . . . .	4
2	MAIN ASSEMBLY MODEL 2 (Sheet 1 of 4) (See List 2) . . . . .	6
	MAIN ASSEMBLY MODEL 2 (Sheet 2 of 4) (See List 2) . . . . .	10
	MAIN ASSEMBLY MODEL 2 (Sheet 3 of 4) (See List 2) . . . . .	11
	MAIN ASSEMBLY MODEL 2 (Sheet 4 of 4) (See List 2) . . . . .	13
3	PLOTTER DRIVER CIRCUIT BOARD MODEL 1 AND 2 (Sheet 1 of 2) (See List 3) . . . . .	16
	PLOTTER DRIVER CIRCUIT BOARD MODEL 1 AND 2 (Sheet 2 of 2) (See List 3) . . . . .	17
4	POWER SUPPLY ASSEMBLY MODEL 1 AND 2 (Sheet 1 of 2) (See List 4) . . . . .	18
	POWER SUPPLY ASSEMBLY MODEL 1 AND 2 (Sheet 2 of 2) (See List 4) . . . . .	19
5	TERMINAL BOARD ASSEMBLY MODEL 1 AND 2 (Sheet 1 of 1) (See List 5) . . . . .	22
6	TERMINAL BOARD ASSEMBLY MODEL 1 AND 2 (Sheet 1 of 1) (See List 6) . . . . .	22

FOR MAIN ASSEMBLIES  
SEE LIST 1



TYPE 1627 MODEL 1 AND MODEL 2 PLOTTER - COVER VIEW, SHEET 1 OF 2



TYPE 1627 MODEL I AND MODEL 2 PLOTTER - FRONT AND REAR VIEW. SHEET 2 OF 2.

## List 1

MAIN ASSEMBLY MODEL 1  
(See Figure 1 for Illustration)

Index No.	Part No.	Item	Units Per Assy
0	2162198	Plotter assembly, Model 1	1
1	2161925	Rod, carriage	2
2	2161926	Cover	1
3	2161927	Pulley	2
4	2161928	Pulley	2
5	2161929	Support	8
6	2161930	Shaft	4
7	2161931	Panel, RH	1
8	2161932	Panel, LH	1
9	2161933	Spring	2
10	2161934	Bracket	1
11	2161935	Cabinet	1
12	2161936	Pan, paper	1
13	2161937	Actuator	2
14	2161938	Bracket	2
15	2161939	Support, RH	1
16	2161940	Support, LH	1
17	2161941	Base	1
18	2161942	Cover	1
19	2161943	Shield	2
20	2161944	Angle, RH	1
21	2161945	Angle, LH	1
22	2161946	Support	2
23	2161947	Shaft	1
24	2161948	Spring	1
25	2161949	Spring	1
26	2161950	Drum shaft subassembly	1
27	2161951	Push rod subassembly	1
28	2161953	Drive pulley subassembly	1
29	2161954	Idler pulley subassembly	3
30	2161955	Step motor	2
31	2161956	Idler spool, paper roll	2
32	2161957	Drive spool, paper roll	2
33	2161991	Carriage and cables subassembly	1
35	2161958	Holder, bearing	4
36	2161959	Washer spring	4
37	2161961	Knob	3
38	2161960	Knob	4
41	2161962	Pulley subassembly	1

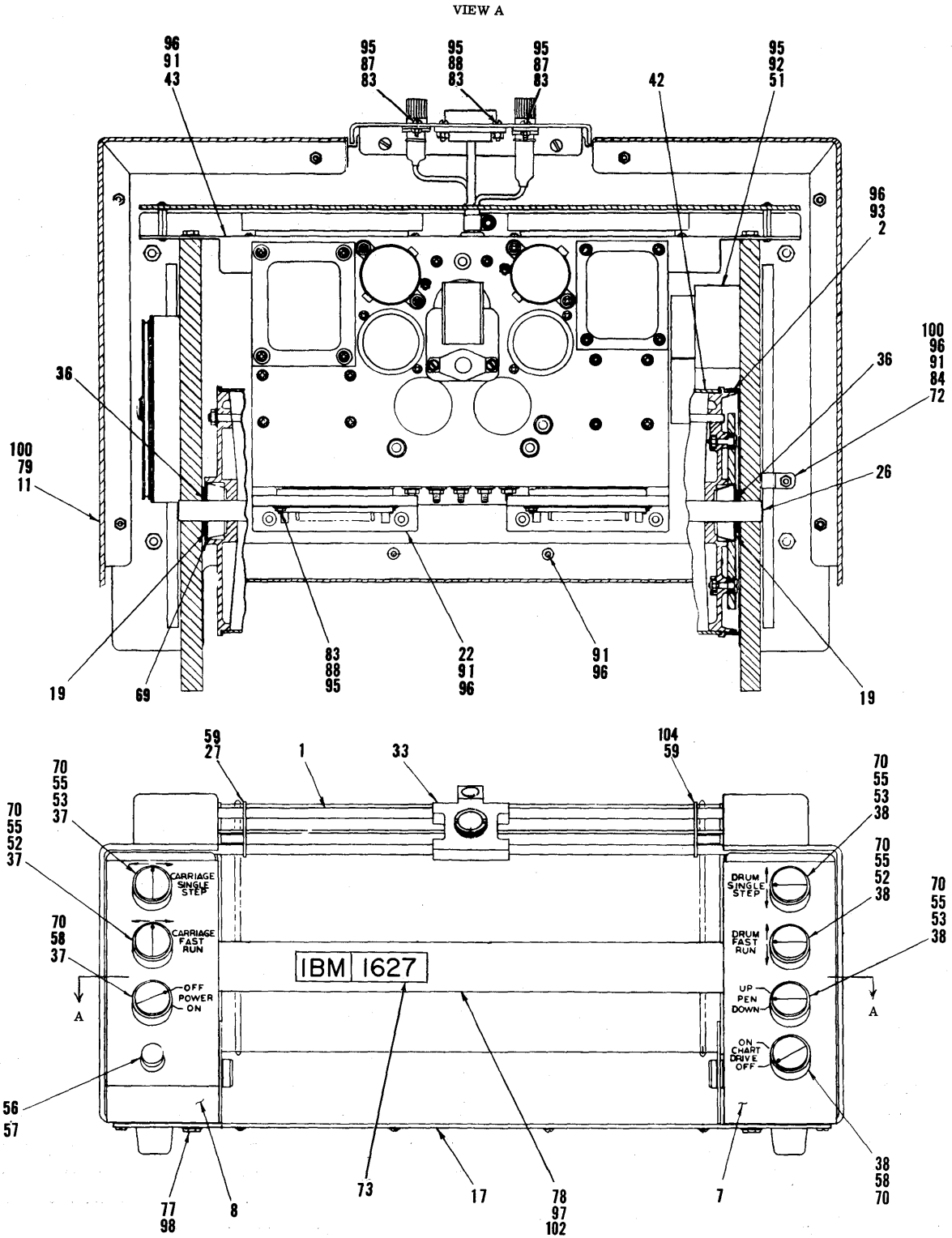
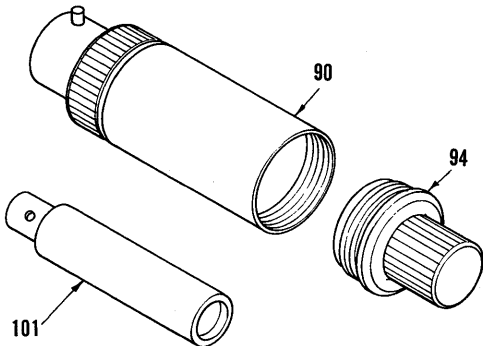


FIGURE 1. MAIN ASSEMBLY MODEL I. SHEET 1 OF 2. SEE LIST 1.

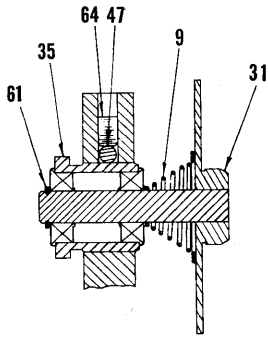
## MAIN ASSEMBLY MODEL 1 (Cont)

Index No.	Part No.	Item	Units Per Assy
42	2161920	Drum replacement kit	1
42.1	2161963	Drum assembly (Do not order REF. ONLY)	
43	2161964	Power supply assembly (see list 4)	1
44	2161965	Holder	1
45	2161966	Holder	1
46	2161967	Terminal strip	1
47	2162016	Nylon ball 5-32 dia.	4
48	2161968	Board assembly	1
49	2161969	Stand off	4
50	2161970	Terminal board	1
51	2162017	Motor - 115 v	2
52	2161975	Switch	1
53	2161976	Switch	1
54	2162018	Switch	2
55	2162019	Washer, keyed	5
56	2162020	Lamp assembly	1
57	2162021	Lamp	1
58	2172048	Switch	1
59	467574	Snap ring, beryllium copper, 3/16 in. external	2
60	454088	Snap ring, stainless steel, 1/2 in. external	1
61	103689	Snap ring, stainless steel, 5/16 in. external	2
62	2162022	Resistor	6
63	173937	Set screw, socket head, 8-32 x 3/16, cup point	2
64	311546	Set screw, socket head, 10-32 x 1/4, cup point	8
65	425075	Set screw, socket head, 1/4-20 x 1/2, cup point	2
66	2162023	Bumper, rubber	4
67	2162026	Washer, fiber	16
68	2162024	Stand off	2
69	2162025	Bearing, class No. 3	1
70	159952	Lockwasher	9
71	2162028	Spring, cadmium plated	1
72	2162027	Cable clip	2
73	2162239	Name plate	1
74	2162029	Lug	4
75	358670	Nut	4
76	216128	Nut	1
77	2172044	Screw, hex head	4
78	38266	Screw, cap, 10-32 x 1/2	8
79	35739	Screw, binder head, 6-32 x 7/16	8
80	2172045	Screw, hex head	6
81	2172046	Screw, fillister head	4
82	2101821	Screw, truss head, 10-32 x 5/8	4
83	37913	Nut, plain, 4-40	16

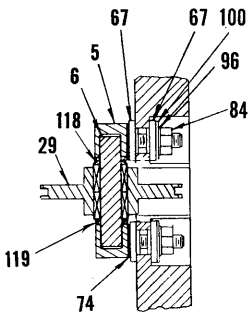




PEN HOLDER ASSEMBLY  
PART NO. 2172132



SECTION C-C



SECTION B-B

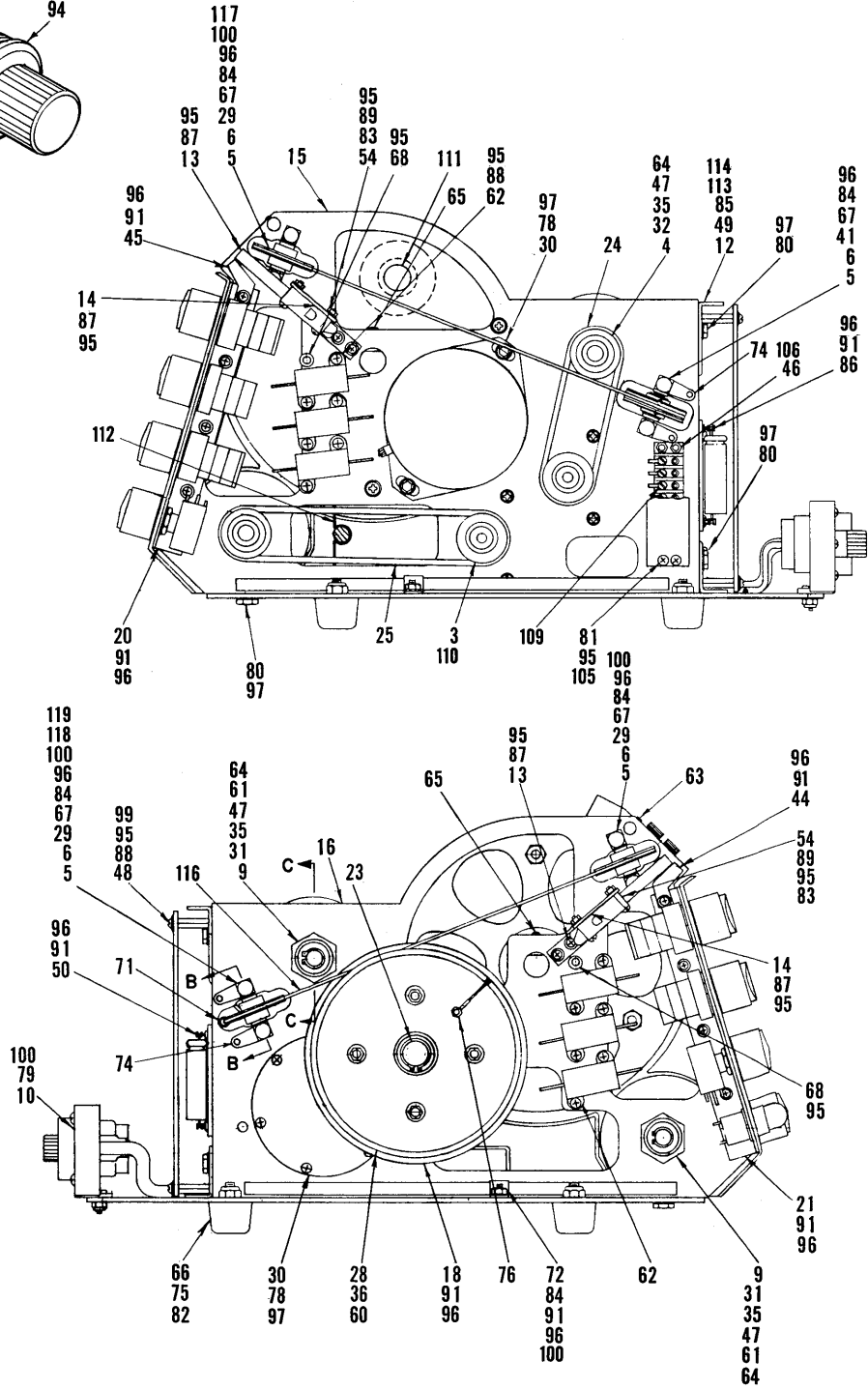


FIGURE 1. MAIN ASSEMBLY MODEL I. SHEET 2 OF 2. SEE LIST 1.

## MAIN ASSEMBLY MODEL 1 (Cont)

Index No.	Part No.	Item	Units Per Assy
84	38051	Nut, plain, 6-32	10
85	52522	Screw	4
86	2161971	Terminal board	1
87	338238	Screw	24
88	236550	Screw	26
89	438551	Screw	4
90	2172133	Body, pen holder	1
91	81693	Screw	30
92	322550	Screw	4
93	322551	Screw	3
94	2172134	Top, pen holder	1
95	150209	Lockwasher	52
96	62031	Lockwasher	41
97	56121	Lockwasher	14
98	65756	Lockwasher	4
99	257985	Washer	6
100	257986	Washer	18
101	2172135	Plunger, pen holder	1
102	2161972	Tear bar	1
104	2161952	Push-rod subassembly	1
105	2161974	Shield	1
106	2161973	Stud	4
109	2162030	Lug	8
110	112055	Set screw 8-32 x 1/4	2
111	2162031	Button	1
112	2161977	Clamp	1
113	2162239	Name plate	1
114	2172047	Rivet	4
116	2162060	Cable replacement kit	1
117	2162032	Washer	4
118	2161979	Washer, spring	4
119	2161980	Washer	4

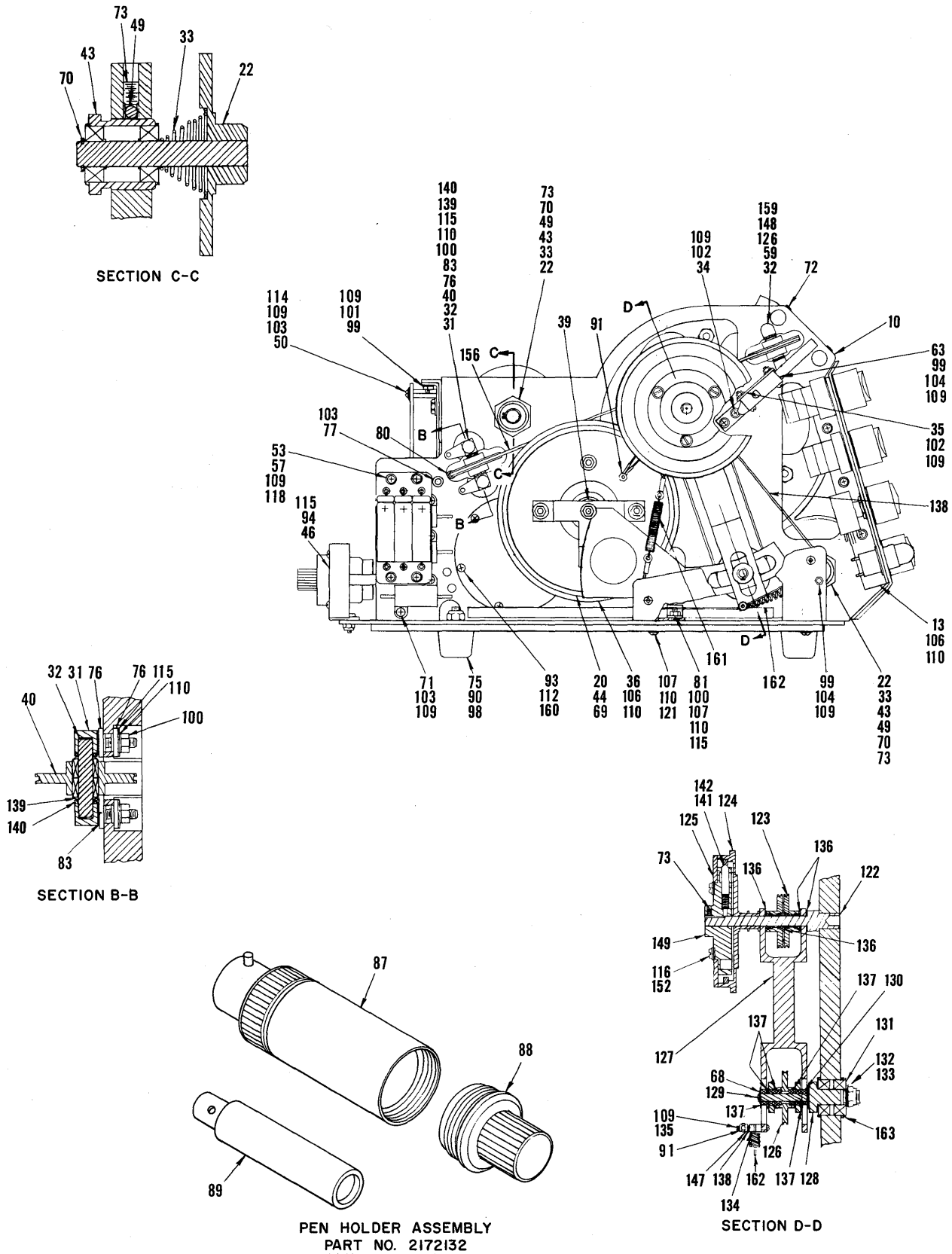


FIGURE 2. MAIN ASSEMBLY MODEL 2. SHEET 1 OF 4. SEE LIST 2.

## List 2

MAIN ASSEMBLY MODEL 2  
(See Figure 2 for Illustration)

Index No.	Part No.	Item	Units Per Assy
0	2162199	Plotter assembly Model 2	1
1	2161924	Rod, carriage	2
2	2162062	Cover	1
4	2162063	Pulley	2
5	2162064	Panel, RH	1
6	2162065	Panel, LH	1
7	2162066	Cabinet	1
8	2162067	Pan, paper	1
9	2162068	Support, RH	1
10	2162069	Support, LH	1
11	2162070	Base	1
12	2162071	Angle, RH	1
13	2162072	Angle, LH	1
14	2162073	Support	2
15	2162074	Spring	2
16	2162075	Spring	2
17	2162076	Drum shaft subassembly	1
18	2162077	Push rod subassembly	1
19	2162078	Push rod subassembly	1
20	2162079	Drive pulley subassembly	1
22	2162080	Idler spool	2
23	2162081	Drive spool	2
24	2162082	Carriage and cable assembly	1
25	2161960	Knob	4
26	2161961	Knob	3
28	2162083	Panel, RH	1
29	2162084	Panel, LH	1
30	2162085	Pulley, special	1
31	2161929	Support	4
32	2161930	Shaft	3
33	2161933	Spring	2
34	2161937	Actuator	2
35	2161938	Bracket	2
36	2161942	Cover	1
37	2161943	Shield	2
38	2161946	Bracket	2
39	2161947	Shaft	1
40	2161954	Idler pulley	1
41	2162086	Step motor	1

## MAIN ASSEMBLY MODEL 2 (cont)

Index No.	Part No.	Item	Units Per Assy
42	(not used)		
43	2161958	Holder, bearing	4
44	2161959	Washer spring	6
45	(not used)		
46	2162087	Bracket	1
47	2161964	Power supply	1
48	2172001	Terminal strip	1
49	2162016	Nylon ball	4
50	2161968	Board assembly	1
51	2161969	Stand off	4
52	2161921	Drum replacement kit	1
52.1	2172002	Drum assembly (Do not order for REF. ONLY)	
53	2172003	Board assembly	2
54	2172004	Support	2
55	2172005	Tear bar	1
56	2162240	Name plate	1
57	2172006	Spacer	8
58	2172007	Shaft	1
59	2172008	Support	2
63	2162018	Switch	2
64	2162019	Keyed washer	5
65	2162020	Lamp assembly	1
66	2162021	Lamp	1
68	467574	Snap ring	7
69	454088	Snap ring	1
70	103689	Snap ring	2
71	2162022	Resistor	6
72	123780	Set screw	4
73	176246	Set screw	8
74	2172116	Set screw	2
75	2162023	Bumper	4
76	2162026	Washer	8
77	2162024	Stand off	2
78	2162025	Bearing	1
79	159952	Lockwasher	9
80	2172009	Spring	1
81	2162027	Cable clip	3
83	2162029	Lug	4

## MAIN ASSEMBLY MODEL 2 (Cont)

Index No.	Part No.	Item	Units Per Assy
84	2161975	Switch	2
85	2161976	Switch	3
86	2172048	Switch	2
87	2172133	Body, pen holder	1
88	2172134	Top, pen holder	1
89	2172135	Plunger, pen holder	1
90	358670	Nut	4
91	216128	Nut	2
92	2172117	Screw, hex head	4
93	38266	Screw, cap	8
94	35739	Screw, binder head	10
95	2172045	Screw, hex head	4
96	2172118	Screw, hex head	6
97	2172046	Screw	4
98	438601	Screw, truss head	4
99	2172054	Nut, plain	29
100	257187	Nut, plain	7
101	52522	Screw	10
102	338238	Screw	12
103	236550	Screw	26
104	438551	Screw	5
	u		
106	81693	Screw	17
107	322550	Screw	14
108	322551	Screw	3
109	150209	Lockwasher	70
110	62031	Lockwasher	38
112	56121	Lockwasher	18
113	65756	Lockwasher	4
114	2172052	Washer	6
115	2172053	Washer	17
116	2172120	Screw	3
117	2172121	Lockwasher	6
118	2172122	Screw	8
119	438550	Screw	5
120	2172123	Screw	6
121	2172012	Bracket	1
122	2172013	Shaft	1
123	2172014	Pulley	2
124	2172015	Pulley, adjustment	1
125	2172016	Plate	1

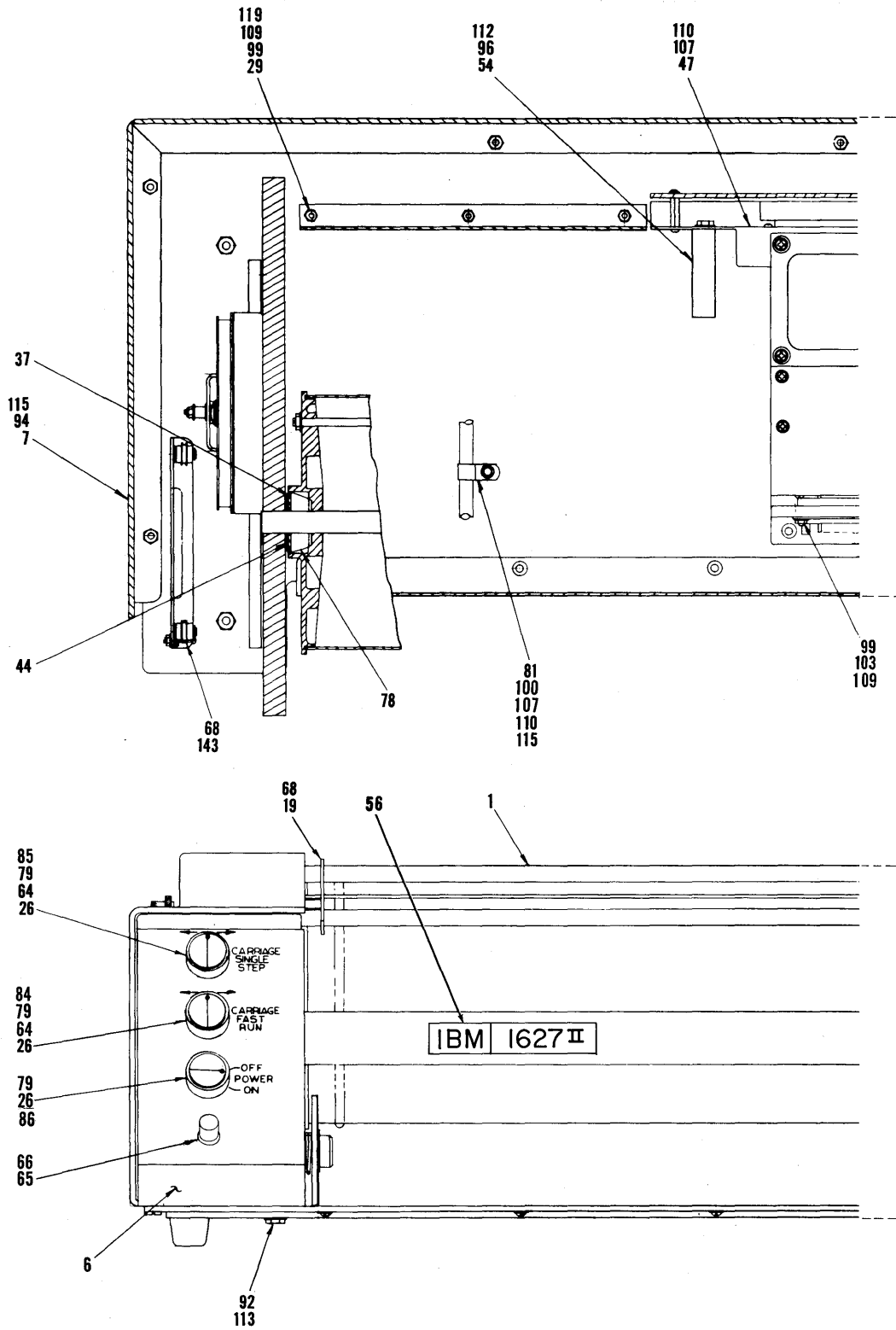


FIGURE 2. MAIN ASSEMBLY MODEL 2. SHEET 2 of 4. SEE LIST 2.

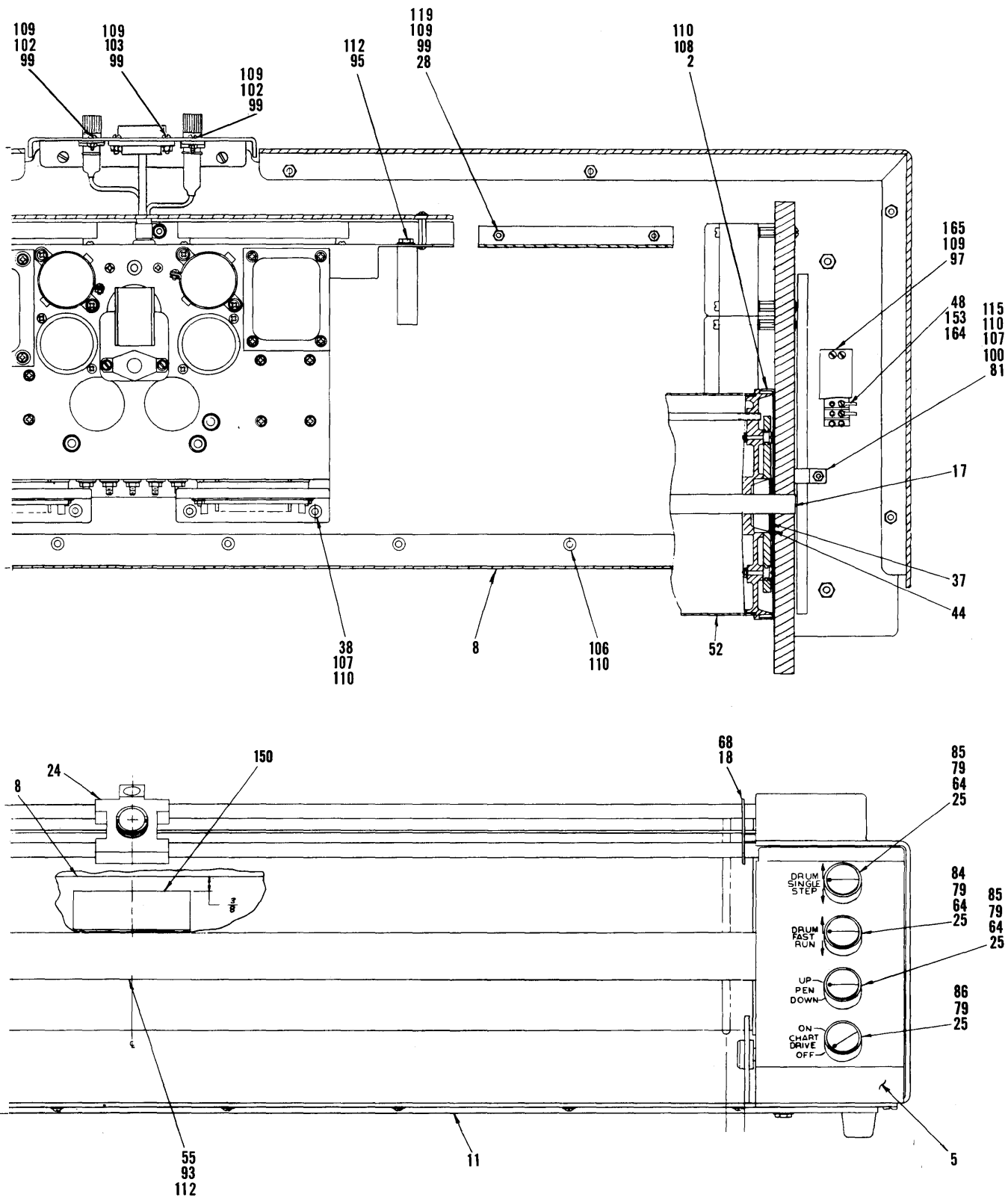


FIGURE 2. MAIN ASSEMBLY MODEL 2. SHEET 3 OF 4. SEE LIST 2.



## MAIN ASSEMBLY MODEL 2 (Cont)

Index No.	Part No.	Item	Units Per Assy
126	2172017	Pulley, idler	3
127	2172018	Arm, adjustment	1
128	2172019	Sector	1
129	2172020	Shaft	1
130	2172021	Bearing	4
131	2172022	Bearing	2
132	2172023	Washer	1
133	2172124	Nut	1
134	2172024	Spacer	1
135	2172125	Screw	1
136	2172126	Washer	7
137	2172127	Washer	5
138	2161923	Cable replacement kit	1
139	2161979	Washer	4
140	2161980	Washer	4
141	2172026	Spring	1
142	2172027	Pin	1
143	2172028	Pulley	2
144	2172029	Pulley	1
145	2172030	Shaft	1
146	2172031	Snap ring	1
147	2172032	Spacer	1
148	2162032	Washer	4
149	2172033	Hub	1
150	2162240	Name plate	1
152	2172128	Washer	3
153	2162030	Lug	6
154	2162031	Button	1
155	2161977	Clamp	1
156	2161923	Cable replacement kit	1
157	2172035	Motor, subassembly	2
158	2172129	Washer	1
159	2172130	Washer	4
160	2161955	Step motor	1
161	2162028	Spring	1
162	2172036	Spring	1
163	2172037	Spacer	1
164	2161973	Stud	4
165	2172038	Shield	1

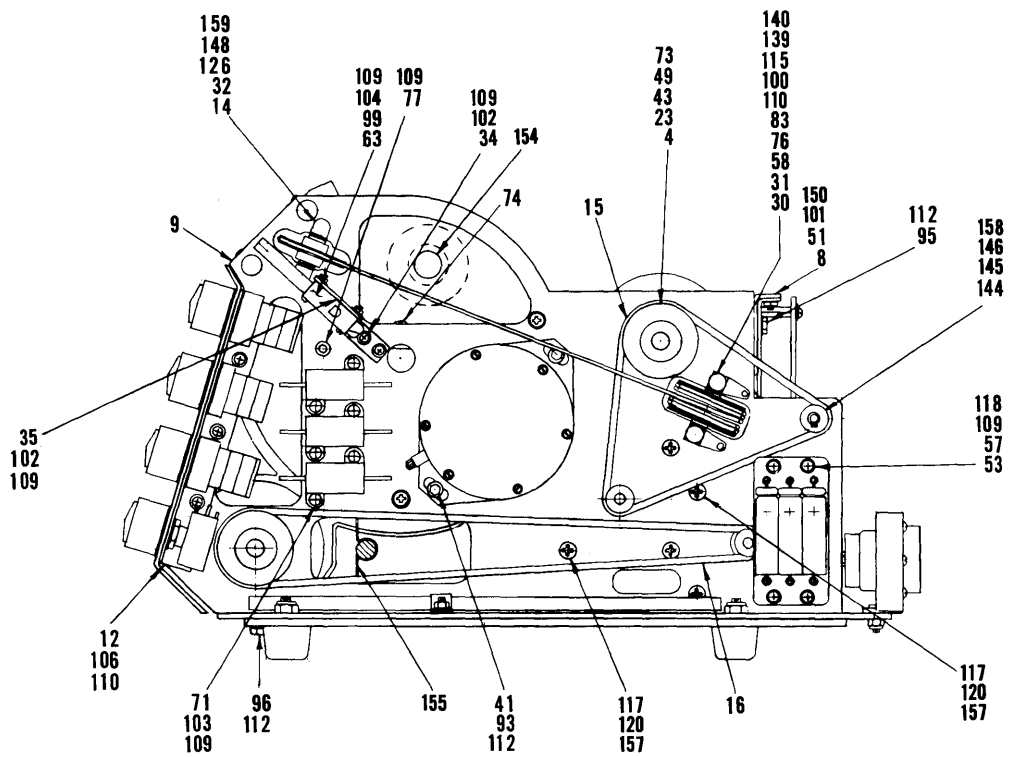


FIGURE 2. MAIN ASSEMBLY MODEL 2. SHEET 4 OF 4. SEE LIST 2.

## List 3

PLOTTER DRIVER CIRCUIT BOARD MODEL 1 AND 2  
(See Figure 3 for Illustration)

Ref. Desig.	Part No.	Item	Units Per Assy
	2161968	Circuit board assembly	1
	2161989	Circuit board, etched, black epoxy glass laminate .093 x 16-1/16 in., with 2 oz., copper both sides	1
TP1 thru TP6	2162041	Terminal, test point	6
P1, P2	2161990	Connector, electrical	2
	81693	Screw, RH, 6-32 x 3/8	14
	257187	Nut, plain, 6-32	14
	257986	Washer, flat, No. 6	14
	2162035	Sleeving, No. 24 AWG, 6 ft.	As req'd
Q1, Q2, Q3, Q6, Q9, Q12, Q13, Q17, Q19, Q20, Q21, Q22, Q23, Q26, Q29, Q32, Q33	2162042	Transistor	17
Q4, Q7, Q10, Q14, Q15, Q18, Q24, Q27, Q30	2162043	Transistor	9
Q5, Q8, Q11, Q16, Q25, Q28, Q31	2162044	Transistor	7
CR1 thru CR20, CR22 thru CR51	2162045	Diode	50
CR21	2162012	Diode	1
R58, R60	2162046	Resistor, 10 ohm $\pm$ 5%, 1/2 W	2
R5, R44 R92, R131	2162047	Resistor, 22K $\pm$ 5%, 1/2 W	4
R4, R43 R91, R130	2162048	Resistor, 15K $\pm$ 5%, 1/2 W	4
R1, R40, R61, R64, R86, R88, R127	2162049	Resistor, 1K $\pm$ 5%, 1/2 W	7
R12, R51, R66, R73, R76, R84, R99, R138	2162050	Resistor, 2.2K $\pm$ 5%, 1/2 W	8
R8, R9, R10, R47, R48, R49, R55, R56, R57, R59, R71, R79, R95, R96, R97, R134, R135, R136	2162051	Resistor, 3.3K $\pm$ 5%, 1/2 W	18

## PLOTTER DRIVER CIRCUIT BOARD MODEL 1 AND 2 (cont)

Ref. Desig.	Part No.	Item	Units Per Assy
R7, R18, R25, R30, R32, R35, R36, R46, R62, R74, R77, R94, R105, R112, R117, R119, R122, R123, R133	2162052	Resistor, 1.5K $\pm$ 5%, 1/2 W	19
R6, R14, thru R17, R19, R21, thru R24, R26, R28, R29, R31, R33, R34, R37, R38, R45, R53, R54, R68, R83, R93, R101 thru R104, R106, R108 thru R111, R113, R115, R116, R118, R120, R121, R124, R125, R132	2162053	Resistor, 10K $\pm$ 5%, 1/2 W	42
R3, R42, R69, R70 R75, R78, R81, R82	2162054	Resistor, 6.8K $\pm$ 5%, 1/2 W	10
R90, R129, R20, R27, R39, R63, R107, R114, R126	2162055	Resistor, 560 ohm $\pm$ 5%, 2 W	7
C13	2162056	Capacitor, 6.8 mfd $\pm$ 20%, 35 V	1
C2, C11, C19, C28	2162057	Capacitor, 0.1 mfd $\pm$ 20%, 200 V	4
C1, C3 thru C10, C12, C14 thru C18, C20 thru C27, C29	2162058	Capacitor, 0.01 mfd $\pm$ 20%, 200 V	24
C30 thru C41	2162059	Capacitor, 820 uuf, 500 V	12

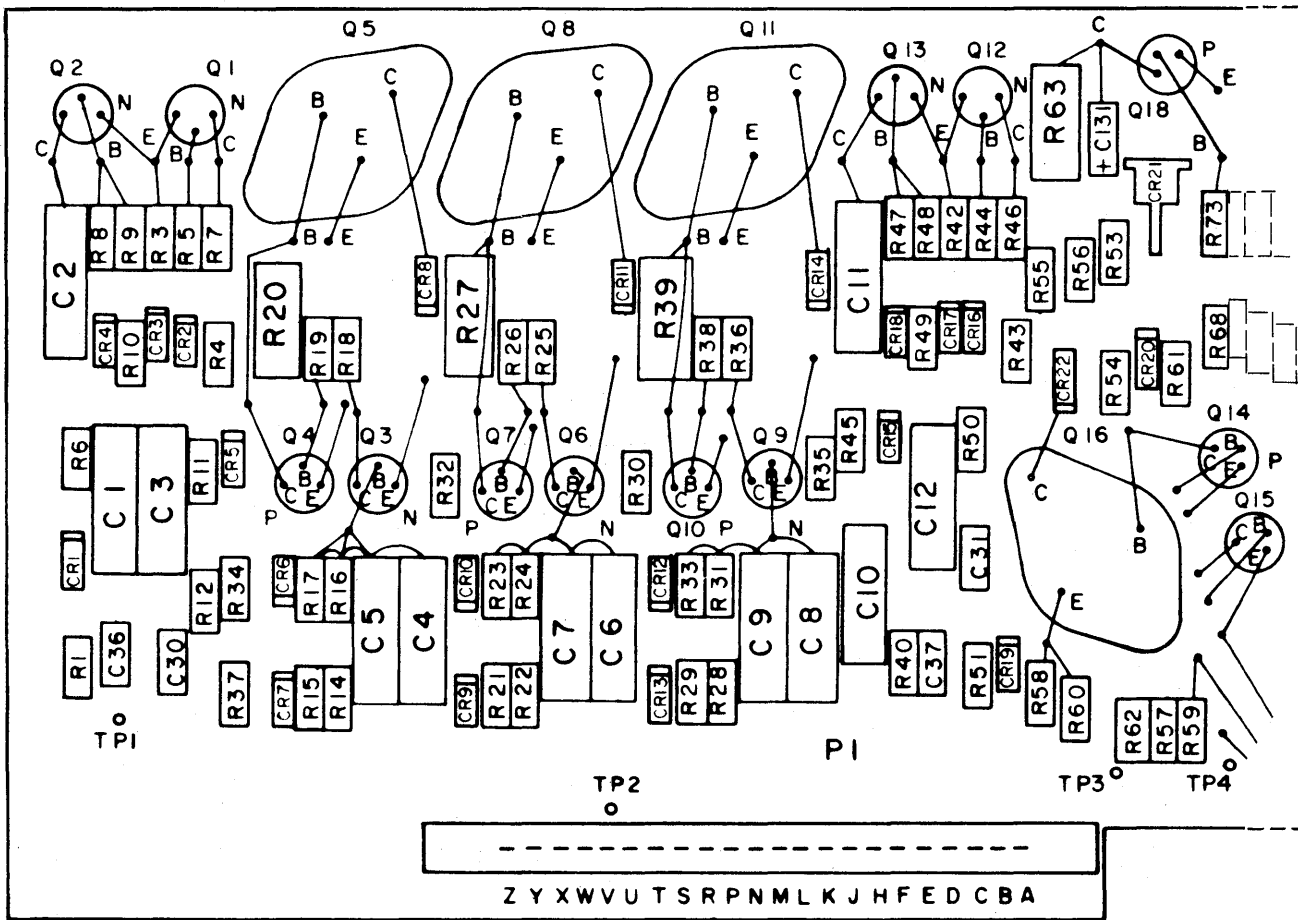


FIGURE 3. PLOTTER DRIVER CIRCUIT BOARD MODEL I AND 2. SHEET 1 OF 2. SEE LIST 3.

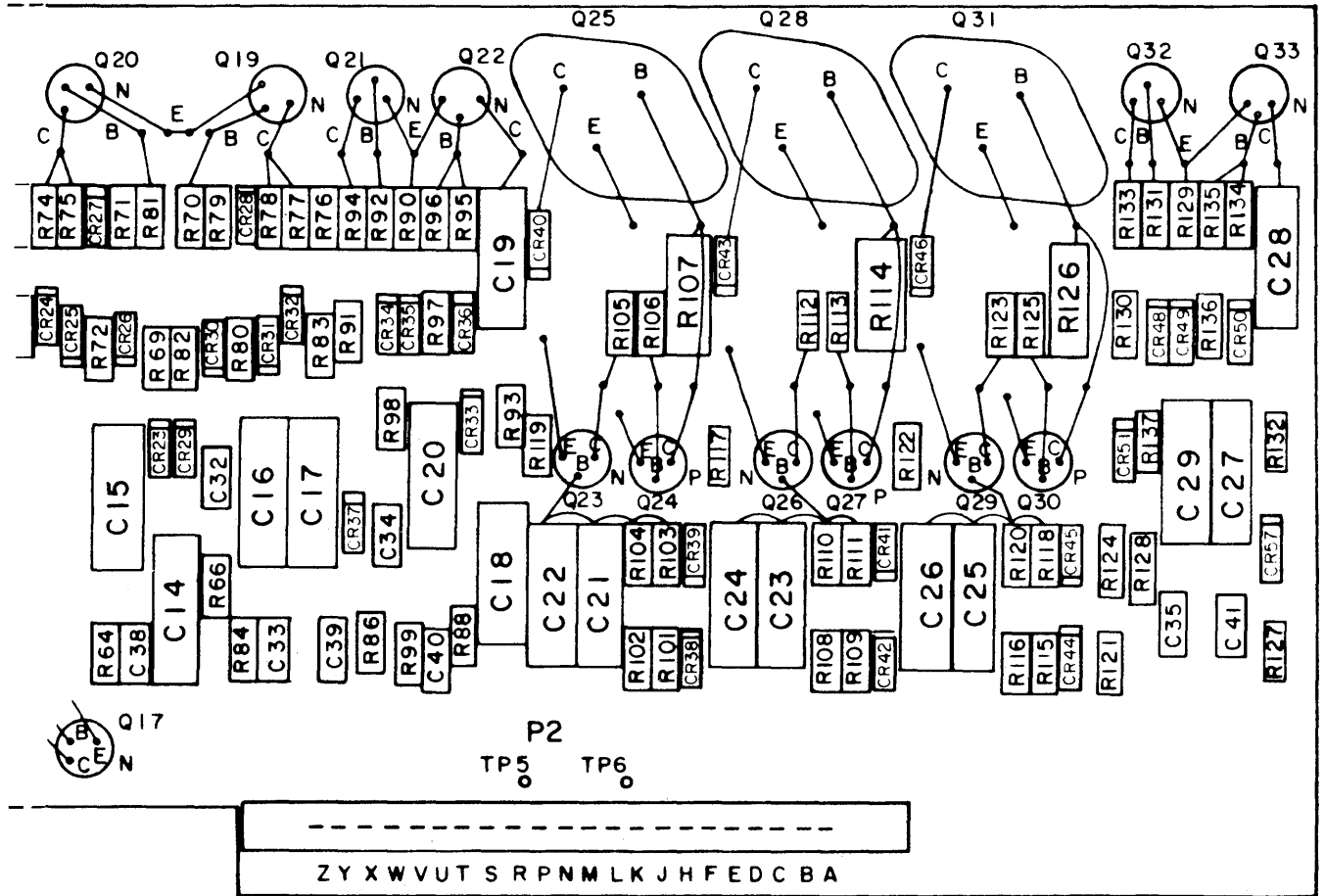


FIGURE 3. PLOTTER DRIVER CIRCUIT BOARD MODEL I AND 2. SHEET 2 OF 2. SEE LIST 3.

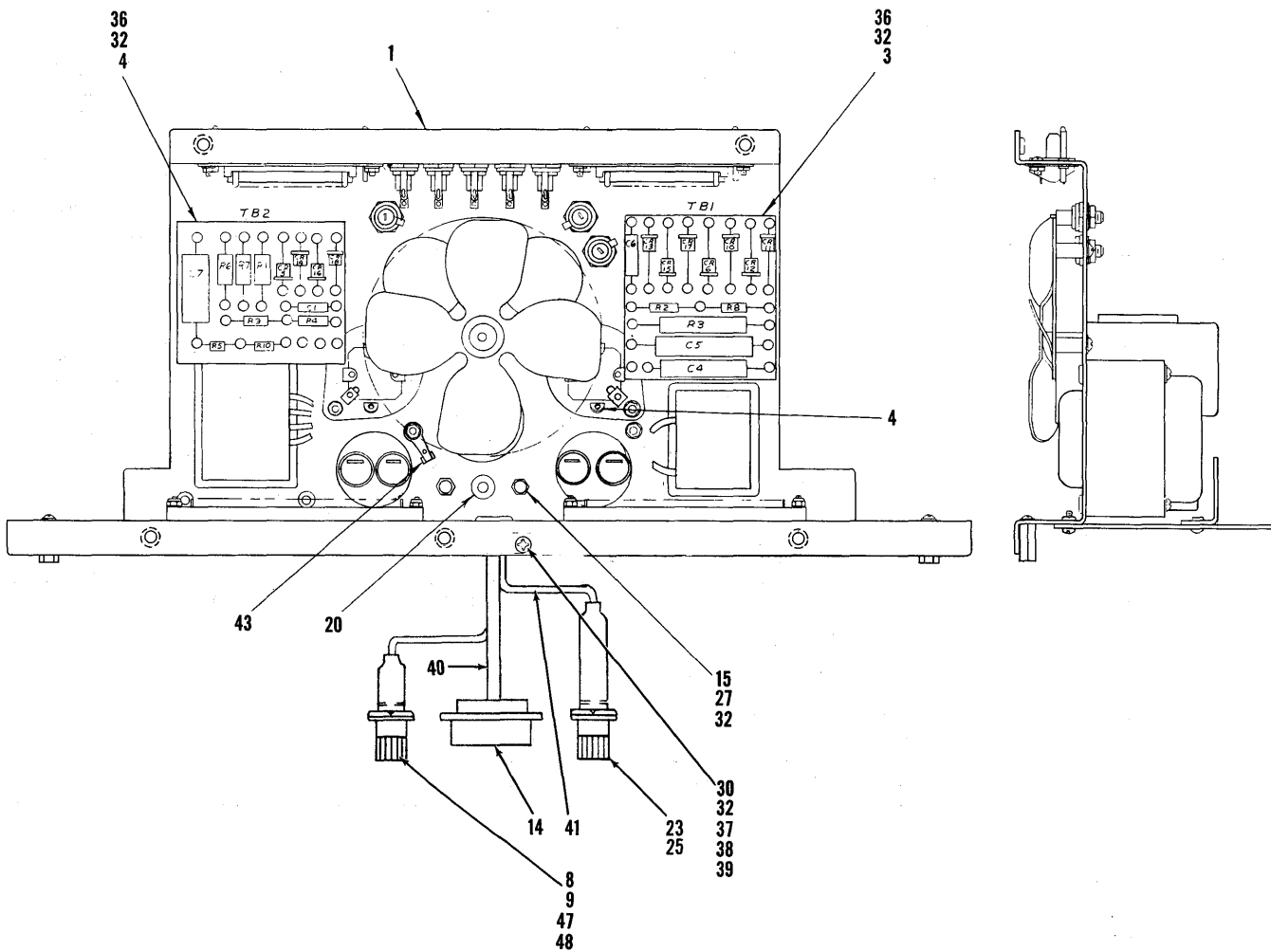


FIGURE 4. POWER SUPPLY ASSEMBLY MODEL I AND 2. SHEET 1 OF 2. SEE LIST 4.

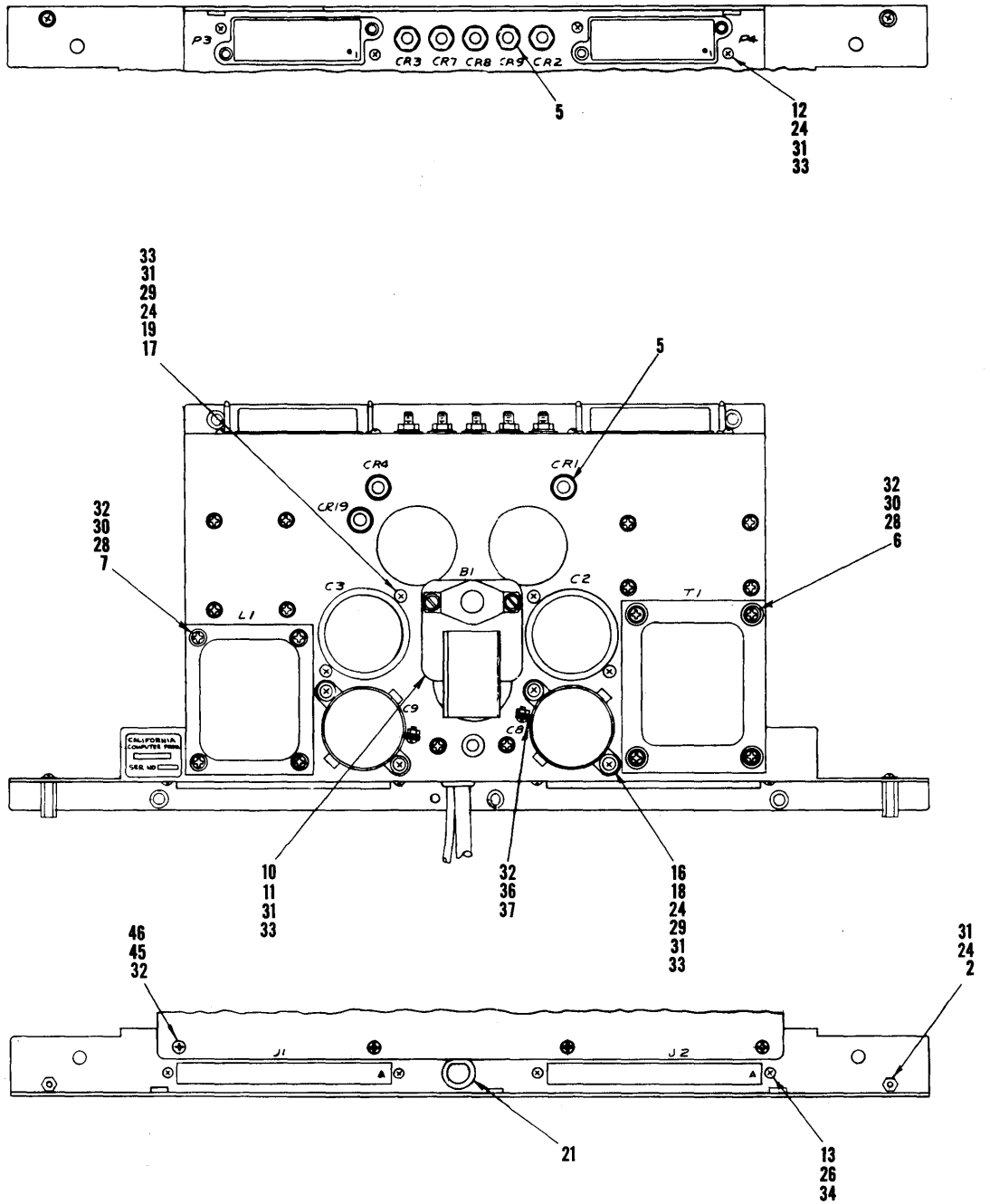


FIGURE 4. POWER SUPPLY ASSEMBLY MODEL I AND 2. SHEET 2 OF 2. SEE LIST 4.



List 4  
POWER SUPPLY ASSEMBLY MODEL 1 AND 2  
(See Figure 4 for Illustration)

Index No.	Ref. Desig.	Part No.	Item	Units Per Assy
0		2161964	Power Supply	1
1		2161984	Chassis	1
2		2161969	Stand off	2
3	TB1	2161985	Terminal board assembly (see list 5) for breakdown	1
4	TB2	2161987	Terminal board assembly (see list 6) for breakdown	1
5	CR1 thru CR4 CR7, CR8, CR9, CR19	2162033	Diode	8
6	T1	2162034	Transformer	1
7	L1	2161992	Choke	1
8	F1	332009	Fuse, 3 AG, 2 amp, slo-blo	1
9		2161993	Fuse holder	1
10	B1	2161994	Motor	1
11		2161995	Fan	1
12	P3, P4	2161996	Connector, electrical	2
13	J1, J2	2161997	Connector, electrical	2
14	P5	2161998	Connector, electrical	1
15		2161999	Terminal, insulated	2
16	C8, C9	2162000	Capacitor, 1.0 mfd, 330 vac	2
17	C2, C3	2162001	Capacitor, 500 mfd, 50 vdc	2
18		2162002	Clamp	2
19		2162003	Sleeve	2
20		2162004	Grommet	1
21		2162005	Grommet	1
23		2172136	Fuse 4 amp AGX	1
24		2172049	Screw	14
25		2172137	Fuse holder	1
26		438550	Screw	4
27		2172050	Screw	2
28		2172051	Screw	8
29		2172052	Washer	8
30		2172053	Washer	9
31		150209	Lockwasher	15
32		62031	Lockwasher	25
33		2172054	Nut	14
34		2172055	Nut	4
36		2172056	Screw	10
37		257187	Nut	3



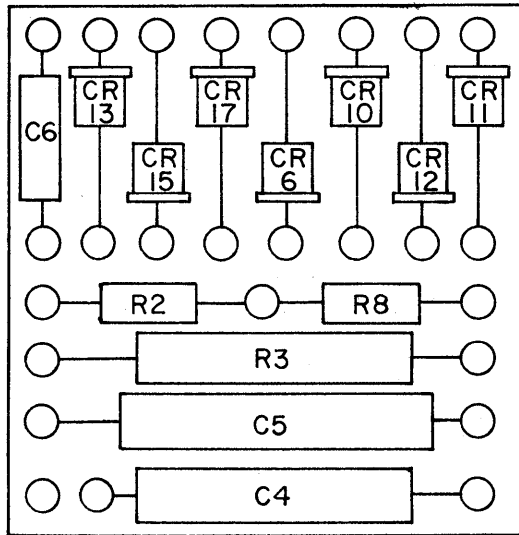


FIGURE 5. TERMINAL BOARD ASSEMBLY MODEL I AND 2. SEE LIST 5.

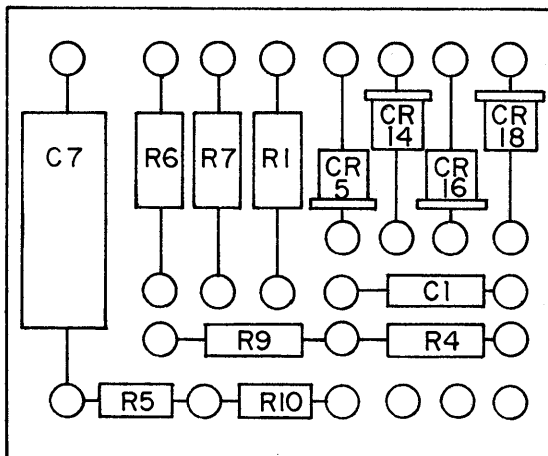


FIGURE 6. TERMINAL BOARD ASSEMBLY MODEL I AND 2. SEE LIST 6.

## List 5

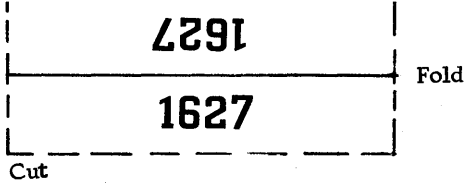
TERMINAL BOARD ASSEMBLY MODEL 1 AND 2  
(See Figure 5 for Illustration)

Ref. Desig.	Part No.	Item	Units Per Assy
	2161985	Terminal board assembly	1
TB1	2161986	Terminal board	1
C5	315967	Capacitor, .1 mfd, 400 vdc	1
C4	2162011	Capacitor, 200 mfd, 6 vdc	1
CR6, CR11 CR12, CR13, CR15, CR17	2162012	Diode, type IN536	6
CR10	2162013	Diode, Zener	1
R8	356740	Resistor, 270 ohm, 10%, 1/2 W	1
R2	300736	Resistor, 1 meg., 10%, 1/2 W	1
C6	2162014	Capacitor, 0.033 mfd, 20%, 200 vdc	1
R3	2162015	Resistor, 125 ohm, 10 W	1
	NP *	Buss wire	1
	2162036	Sleeving	1

## List 6

TERMINAL BOARD ASSEMBLY MODEL 1 AND 2  
(See Figure 6 for Illustration)

Ref. Desig.	Part No.	Item	Units Per Assy
	2161987	Terminal board assembly	1
CR5, CR14, CR16, CR18	2162012	Diode, type IN536	4
R1	2162037	Resistor, 360 ohm, 5%, 2 W	1
R6, R7	2162038	Resistor, 450 ohm, 5 W	2
R5	2162039	Resistor, 1K, 10%, 1/2 W	1
R10	300728	Resistor, 100K, 10%, 1/2 W	1
R4, R9	356740	Resistor, 270 ohm, 10%, 1/2W	2
C1	2162040	Capacitor, 6.8 mfd, 35 vdc	1
TB2	2161988	Terminal board	1
C7	315967	Capacitor, 0.1 mfd, 400 vdc	1
	NP *	Buss wire	1
	2162036	Sleeving	1
*NP - Non-procurable			



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