

SHOP PROCEDURES - REPLACEMENT PARTS
ELECTRONIC SECRETARY[®] MODEL SP-2

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1. GENERAL

1.01 This Section contains the maintenance drawings of the Model SP-2. Each drawing shows how the items in its parts list fit together to form the assembly identified by the figure caption. Except for Figure 1, each caption consists of three parts: the assembly name, part number, and the figure reference to the next higher assembly.

2. PARTS BREAKDOWN

2.01 The drawings are cross-referenced in the order of mechanical breakdown. Starting with the parts list in Figure 1, each item making up the final assembly is identified by part number and description or a figure reference which extends the dis-assembly.

3. ORDERING A PART

3.01 The parts list on each maintenance drawing provides part number and description which are necessary when ordering a replacement part. Each part listing is preceded by an item number which is keyed to a numbered callout on the drawing.

NOTE: A part number is not shown for some items in the parts list. Instead, another figure number is referenced which is a maintenance drawing of that particular assembly whose part number is not shown in the parts list. This is done to prevent an unnecessary order for a whole assembly when, in most cases, only one of its parts need be replaced. To order a whole assembly, use the part number shown in the caption of the figure for that assembly.

SEP 28 1967

ITEM	PART NO.	QTY.	DESCRIPTION
1		1	ASSY. CABINET SP-2 (SEE FIG. 3)
2		1	ASSY. CHASSIS W/D (SEE FIG. 20)
3		1	ASSY. MOTORBOARD W/D (SEE FIG. 4)
4	WW-5381-45D	1	FACE PLATE SP-2
5	WW-4731-62A	1	WINDOW, ANN.
6	WW-4730-62A	1	WINDOW, MESSAGE
7	WW-4735-27D	1	NAMEPLATES SP-2
8	WW-4627-29B	1	KNOB, CONTROL
9	WW-4761-29A	1	KNOB, SP-2
10		1	ASSEM. MIC. (SEE FIG. 2)
11	WW-1202-26K	1	COVER, TEL. BLK.
12	WW-5045-27A	1	NAMEPLATE SER. NO.
13	WW-1493-2	4	8-32 NUT
14	WW-4462-3	2	8-32 x 1/4 PTHMS
15	WW-1492-2	3	6-32 NUT
16	WW-5386-3	3	6-32 x 1/2 HHMS

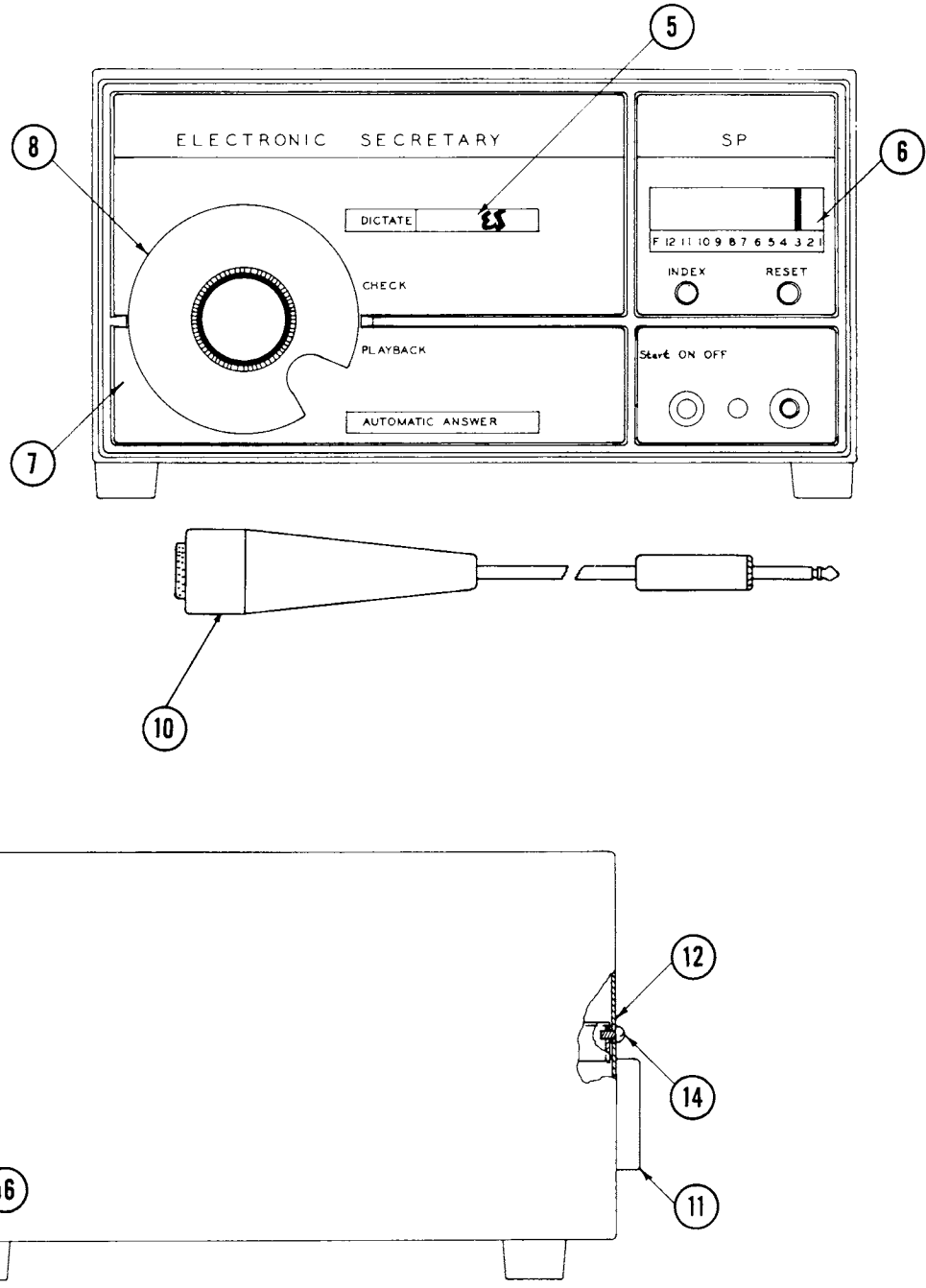


Figure 1. Final Assembly - Model SP-2, WW-762-15.

ITEM	PART NO.	QTY.	DESCRIPTION
1	WW-1186-31A	1	PLUG, MICROPHONE
2	WW-4265-39	1	MICROPHONE, MAGNETIC

NOTE:
1. EQUIPPED WITH TRANSFORMER FOR 1500 OHMS
OUTPUT IMPEDANCE ASTATIC CORP. OR EQUIV.

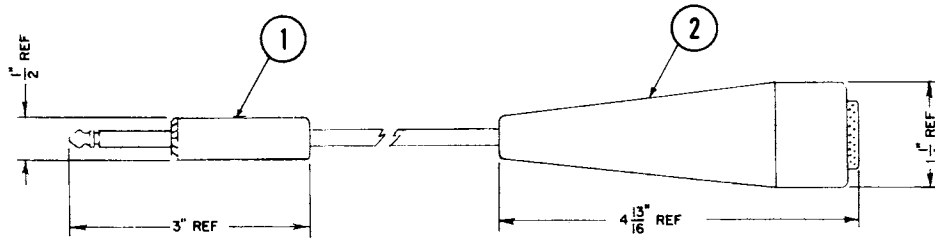


Figure 2. Assembly, Magnetic Microphone, WW-4342-1
(Part of Final Assembly, Figure 1).

ITEM	PART NO.	QTY.	DESCRIPTION
1	WW-4701-12D	1	CABINET
2	WW-4702-12C	1	CABINET BOTTOM
3	WW-1492-2	4	6-32 KEPS
4	WW-1403-3	4	6-32 x 1/2 RHMS
5	WW-4153-48A	4	FOOT, POLYETHYLENE
6	WW-1353-4	4	WASHER

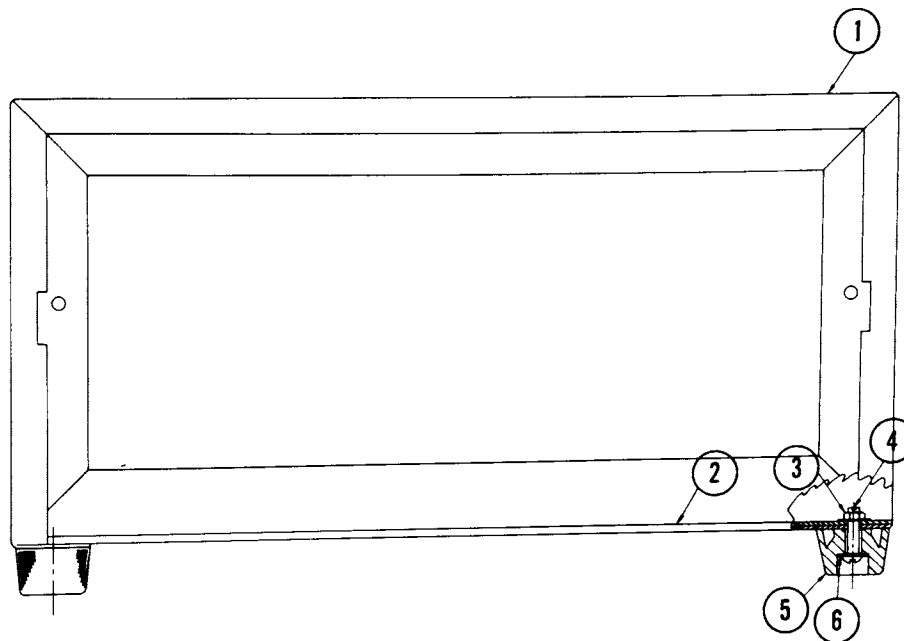


Figure 3. Cabinet Assembly, WW-4703-1D (Part of Final Assembly, Figure 1).

ITEM	PART NO.	QTY.	DESCRIPTION
1	WW-4669-1D	1	ASSY. MOTORBOARD
CA1	WW-4746-25C	1	HARNESS
CR3	WW-4114-3T	1	DIODE
J-1	WW-4742-9	1	SOCKET, 22 PIN
R-32	WW-2375-13	1	RESISTOR, 1000 10W
R-33	WW-4120-13	1	RESISTOR, 10 5W
R-34	WW-2375-13	1	RESISTOR, 1000 10W
X	WW-1227-30	AR	SLEEVING
X	WW-1230-30	AR	SLEEVING
1	*	1	ASSY. MOTORBOARD (SEE FIG. 5)
R-35	WW-4188-6	1	RESISTOR 22 1/2W
C-29	WW-1530-17	1	CAPACITOR .05 600V
D-20	WW-4102-25	2"	WIRE WH. -OR.
D-21	WW-4560-25	2 3/4	WIRE WH.

NOTES:
 WW-4669-1D EFF. SERIAL NO. 39250 TO 40249
 * EFF. SERIAL NO. 40250

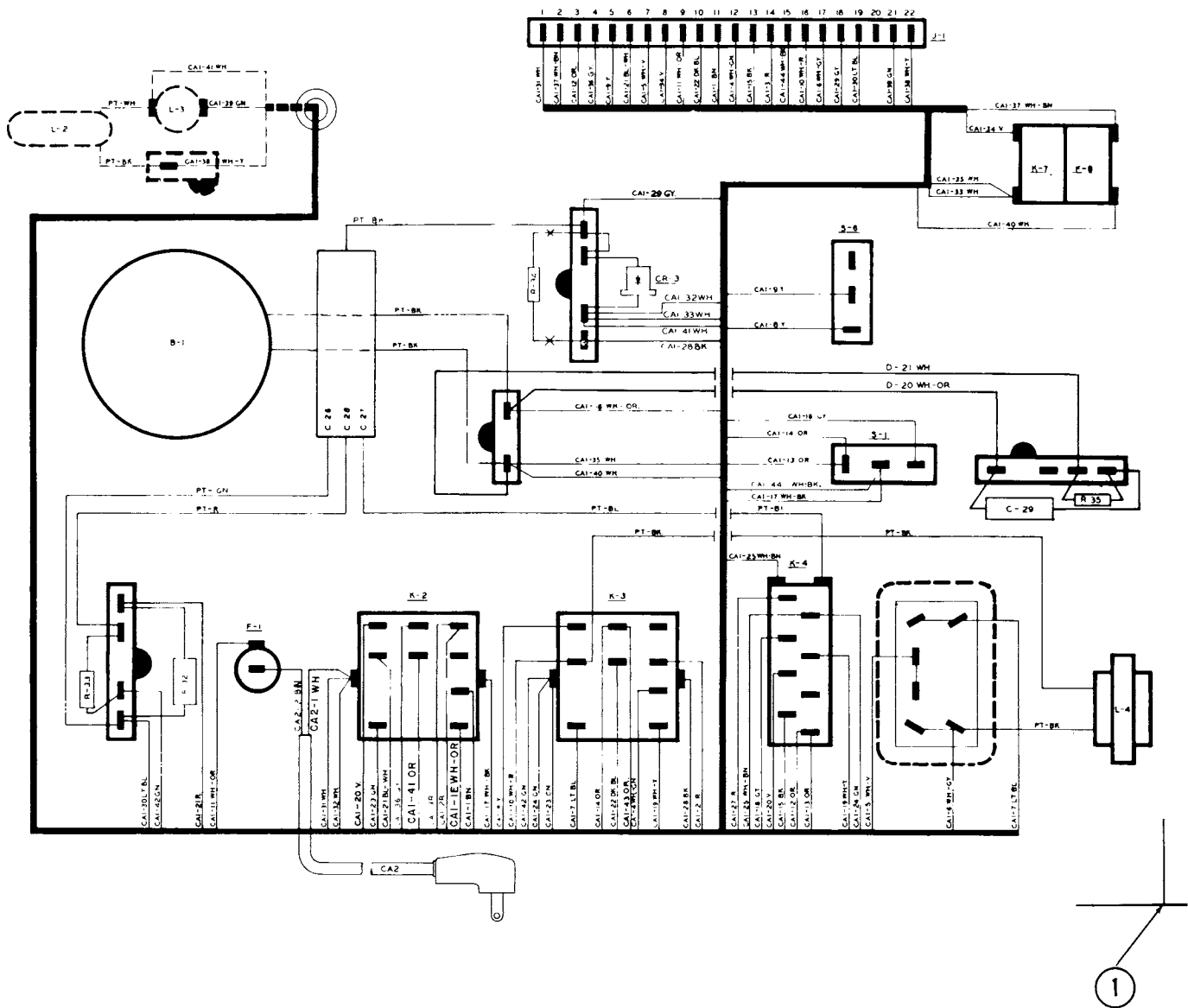
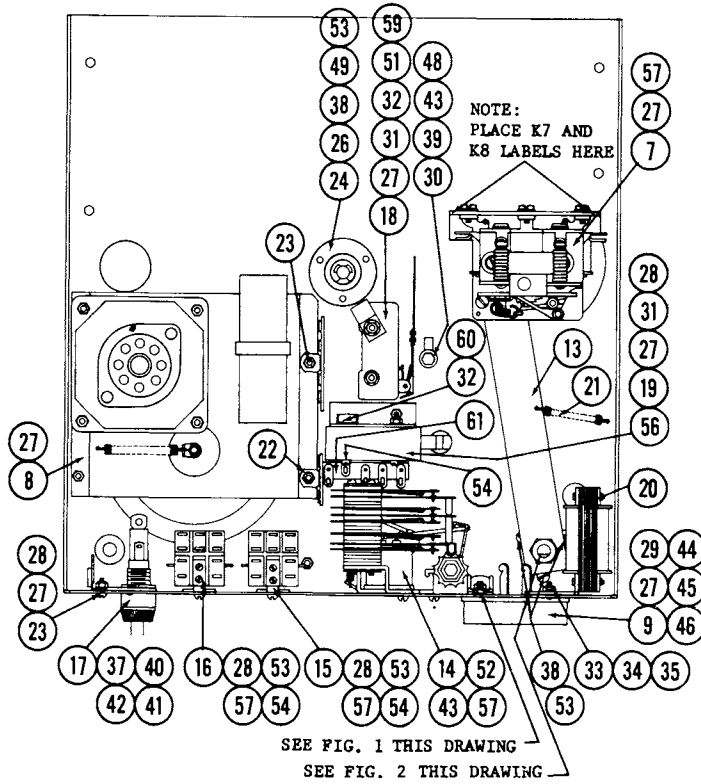
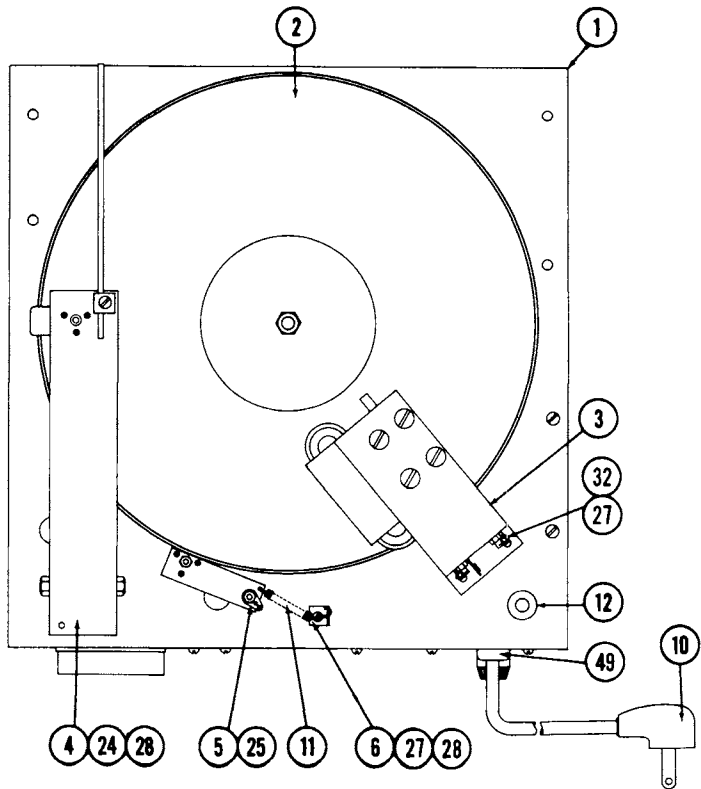


Figure 4. Motorboard Wiring, WW-4705-1 (Part of Final Assembly, Figure 1).



ITEM	PART NO.	QTY.	DESCRIPTION
1		1	ASSY. MOTORBOARD (SEE FIG. 19)
2		1	ASSY. TURNTABLE (SEE FIG. 6)
3		1	ASSY. ERASE MAGNET (SEE FIG. 8)
4		1	ASSY. TONE ARM (SEE FIG. 11)
5		1	ASSY. RIM HEAD (SEE FIG. 12)
6	WW-4632-7A	1	BRACKET, SPRING ADJ.
7		1	ASSY. STEPPER (SEE FIG. 13)
8		1	ASSY., DRIVE (SEE FIG. 15)
9		1	TERMINAL BLOCK
10	WW-2311-26B	1	PLUG & CABLE
11	WW-3054-33A	1	SPRING
12	WW-1009-5	1	GROMMET
13	WW-4649-29A	1	ASSY. CAM ARM
14	WW-4693-49	1	RELAY, RATCHET
15	WW-1081-49B	1	RELAY
16	WW-5441-49B	1	RELAY
17	WW-1104-9A	1	FUSE HOLDER
18	WW-1134-32A	1	SWITCH
19	WW-4689-7A	1	BRACKET
20	WW-4704-20B	1	COIL, INDUCTION
21	WW-3053-33A	1	SPRINGS
22	WW-1213-26K	1	TERM. STRIP
23	WW-1205-26K	2	TERM. STRIP
24	WW-4620-1B	2	ASSY., CAPSTAN BEAR.
25	WW-3208-34A	1	"E" RING
26	WW-3209-34A	1	"E" RING
27	WW-1492-2	20	NUT, 6-32 x 1/4
28	WW-1438-3	6	SCREW, 6-32 x 5/16
29	WW-1404-3	1	SCREW, 6-32 x 1/2
30	WW-2152-3	1	SCREW, 8-32 x 3/4
31	WW-1407-3	3	SCREW, 6-32 x 1
32	WW-1353-4	8	WASHER #6 FLAT
33	WW-4364-4	3	WASHER
34	WW-2244-4	2	WASHER, #4 FLAT
35	WW-2296-5K	2	RIVET
36	WW-1491-2	1	NUT
37	WW-1007-46B	1	FUSE 3 AMP.
38	WW-3397-3	6	SCREW, 6-32 x 3/8
39	WW-3827-5A	1	EYELET
40	WW-1372-4	1	WASHER, RUBBER
41	WW-1373-4	1	WASHER
42	WW-1462-2	1	NUT
43	WW-1393-4	3	WASHER, #8 INT. STAR
44	WW-2088-53	1	GASKET, RUBBER
45	WW-2076-52	1	INSULATOR
46	WW-2869-3	2	SCREW, 6-32 x 5/8
47	WW-2054-35	1	STRAIN RELIEF
48	WW-1494-2	1	NUT, 8-32 x 5/16
49	WW-1365-4	1	WASHER, FLAT 5/16 I. D.
50	WW-2123-34	1	CLAMP, CABLE 1/4
51	WW-3717-3	1	SCREW, 6-32 x 1 1/8
52	WW-1430-3	2	SCREW, 8-32 x 1/4
53	WW-1371-4	8	WASHER, INT. TOOTH, #6
54	WW-1355-4	3	WASHER, EXT. TOOTH, #6
55	WW-3723-3	1	SCREW, 6-32 x 7/8
56	WW-5197-32A	1	SWITCH
57	WW-2331-52A	1	MARKING TAPE
	WW-2332-52A	1	MARKING TAPE
	WW-2333-52A	1	MARKING TAPE
	WW-2334-52A	1	MARKING TAPE
	WW-2337-52A	1	MARKING TAPE
	WW-2338-52A	1	MARKING TAPE
58	WW-4304-4	1	WASHER INT. STAR
59	WW-4328-34	1	CLAMP
60	WW-5385-34	1	CLAMP
61	WW-3426-26K	1	TERM. STRIP



NOTE:
REPLACES WW-4669-1D EFF. SERIAL NO. 40250

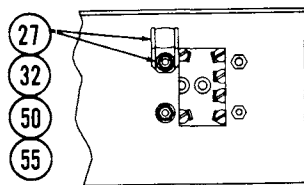


FIG. 1

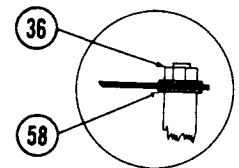


FIG. 2

Figure 5. Assembly, Motorboard - WW-5380-1D (Part of Assembly, Figure 4).

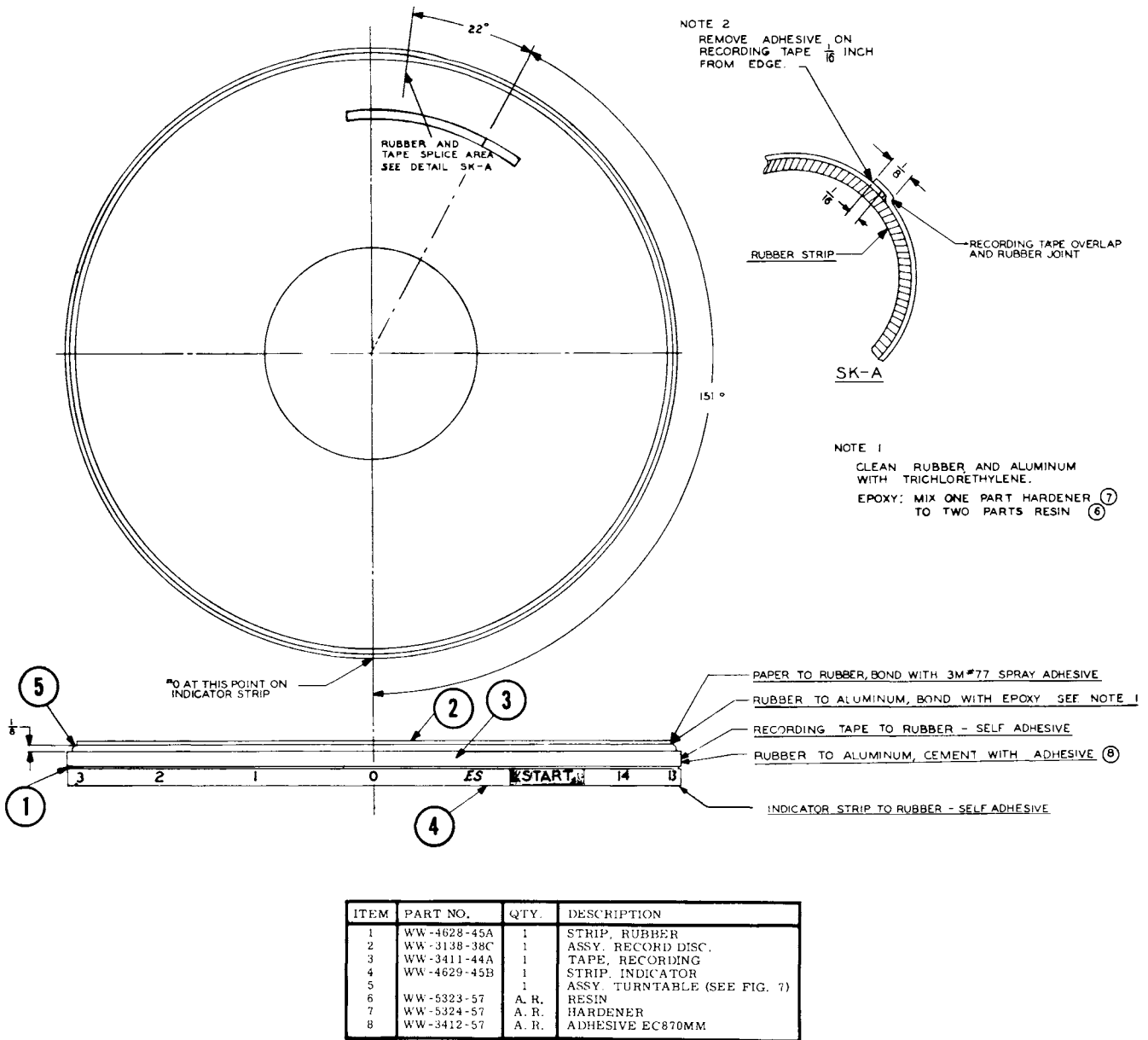


Figure 6. Assembly, Tape Binding for SP-2, WW-4630-1C (Part of Assembly, Figure 5).

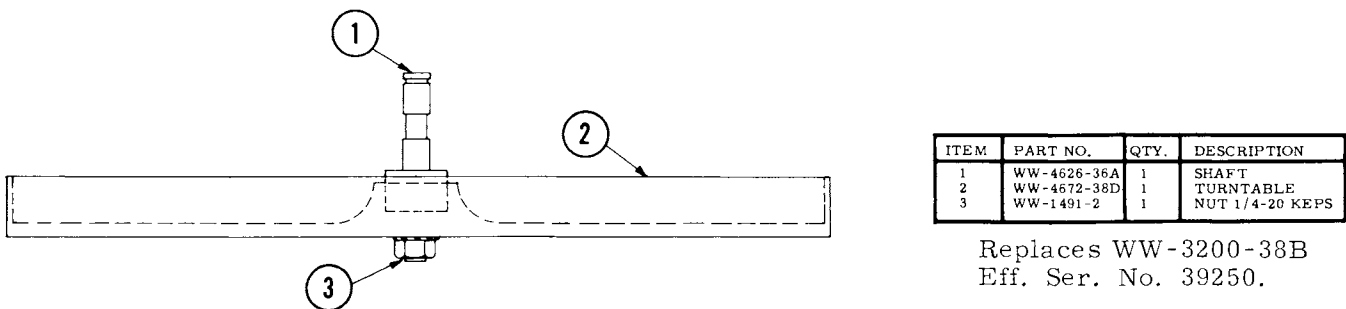


Figure 7. Assembly, Turntable, WW-4621-1B (Part of Assembly, Figure 6).

ITEM	PART NO.	QTY.	DESCRIPTION
1	WW-4637-7A	1	BRACKET
2	WW-1211-26K	1	TERM STRIP
3	WW-1438-3C	1	SCREW RH 6-32 x 5/16
4	WW-1355-4C	1	WASHER #6 EXT. STAR
5	WW-3254-58A	1	BRUSH
6	WW-4631-7A	1	BRACKET
7	WW-3234-7A	1	BRACKET
8	WW-3348-20A	1	ERASE COIL
9	WW-3387-3C	4	SCREW BH 6-32 x 3/8
10	WW-1492-2	6	NUT 6-32 x 1/2
11		1	ASSY. DISC. ERASE MAGNET (SEE FIG. 9)
12	WW-2294-5	1	RIVET 1/8 x 5/32
13		1	ASSY. BRACKET & SCREW (SEE FIG. 10)

Replaces WW-3471
Eff. Ser. No. 39250.

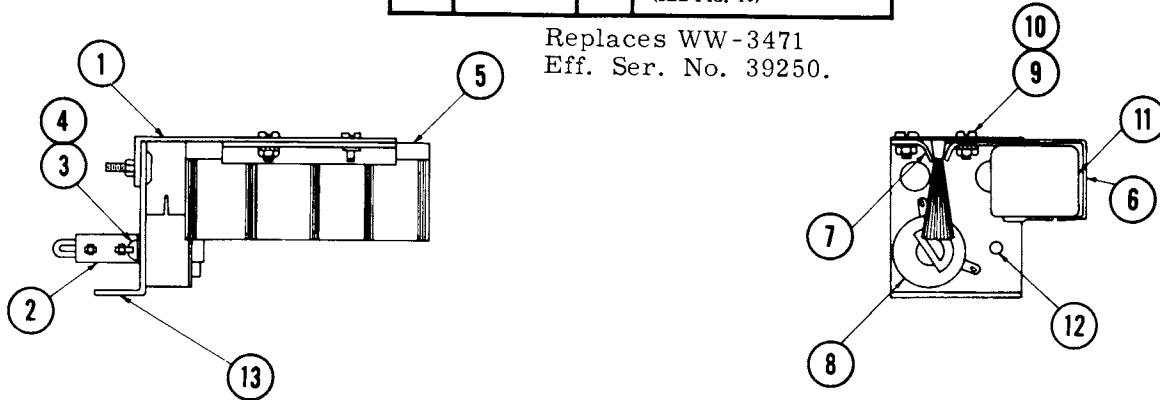


Figure 8. Assembly, Erase Magnet, WW-4670-1B (Part of Assembly, Figure 5).

ITEM	PART NO.	QTY.	DESCRIPTION
1		1	LAMINATIONS
2	WW-3285-53A	1	BOBBIN
3		1	COIL WINDING
4	WW-3233-7A	1	BRACKET
5		1	INSULATED WRAP- AROUND COVERING
6		1	20 GA. C. R. S. WRAPPER

NOTES:

1. THE ELECTROMAGNET SHOULD PRODUCE 1000 TO 1200 GAUSSSES, 1/16 AWAY FROM THE POLE FACE.
2. 115 VOLTS AC, 60 CPS.
3. MAXIMUM TEMPERATURE RISE 60° C. (1 MIN. ON & 1 MIN. OFF)
4. MAGNET TO WITHSTAND 1250 VOLTS FOR 1 MINUTE BETWEEN COIL & BRACKET.
5. WRAPPER (ITEM 6) TO BE CAD. PLATED.

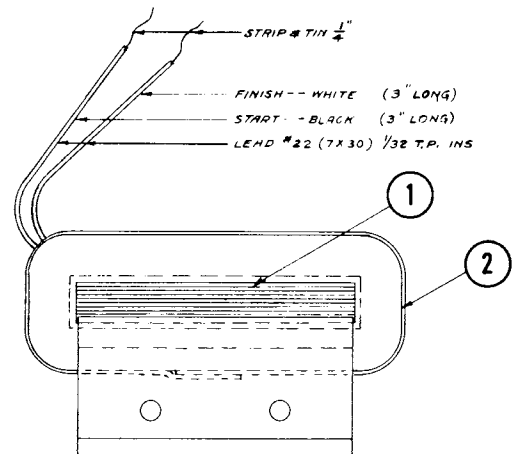
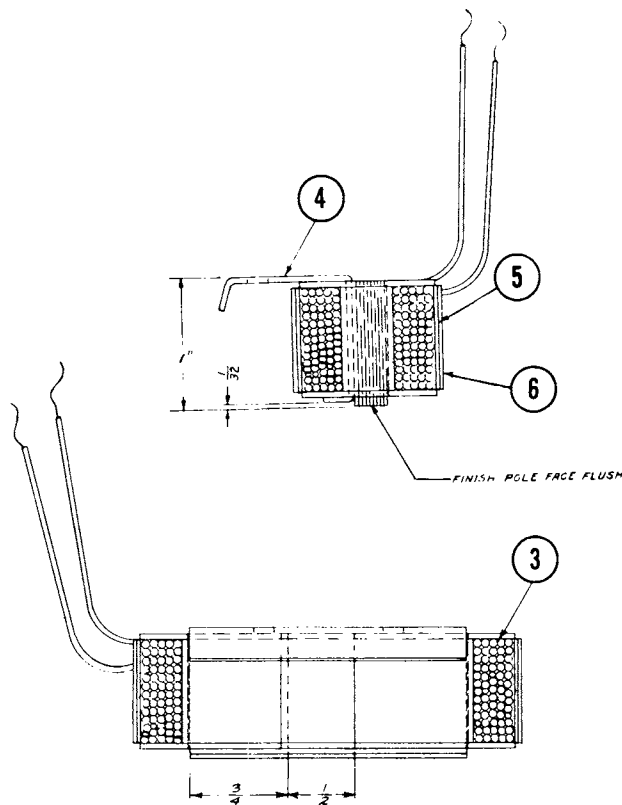
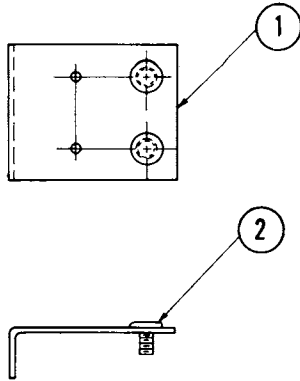


Figure 9. Disc, Erase Magnet, WW-3292-1C (Part of Assembly, Figure 8).



ITEM	PART NO.	QTY.	DESCRIPTION
1	WW-4635-7A	1	BRACKET
2	WW-3587-3A	2	OHIO WELD SCREW

Replaces WW-3594-1A
Eff. Ser. No. 39250.

Figure 10. Assembly, Bracket and Weld Screw, WW-4638-1 (Part of Assembly, Figure 8).

ITEM	PART NO.	QTY.	DESCRIPTION
1	WW-4657-56	1	ARM, SP-2
2	WW-5771-1	1	ASSEMBLY BRACKET, DISC HEAD
3	WW-4691-56	1	ARM, POINTER
4	WW-3253-44	1	HEAD, RECORD & P. B.
5	WW-4331-34	2	PIN CLIP
6	WW-4654-45	1	PIVOT PLATE
7	WW-5182-7A	1	BRACKET, SPRING
8	WW-4652-36	1	SHAFT, MESSAGE ARM
9	WW-5189-34	1	ROLLPIN
10	WW-5181-33	1	SPRING
11	WW-4692-34	1	RETAINER, CABLE
12	WW-4754-9	1	SOCKET
13	WW-4755-11	1	SHIELD
14	WW-1734-25	10 1/2"	CABLE
15	WW-3209-34	1	RETAINING RING
16	WW-4690-3	2	10-32 x 3/8 SET SCREW
17	WW-5998-3	1	6-32 x 3/8 HFHCS
18	WW-1440-3	1	6-32 x 1/4 HEX HEAD
19	WW-1433-3	3	4-36 x 1/8 SET SCREW
20	WW-1469-2	2	10-32 x 3/8 HEX NUT
21	WW-1492-2	1	6-32 x 1/4 HEX NUT
22	WW-1482-2	1	6-32 x 1/4 STOP NUT
23	WW-1496-2	1	1/4-20 NUT
24	WW-1355-4	3	WASHER, #6 EXT STAR
25	WW-1365-4	1	WASHER, FLAT 1/2 O. D.

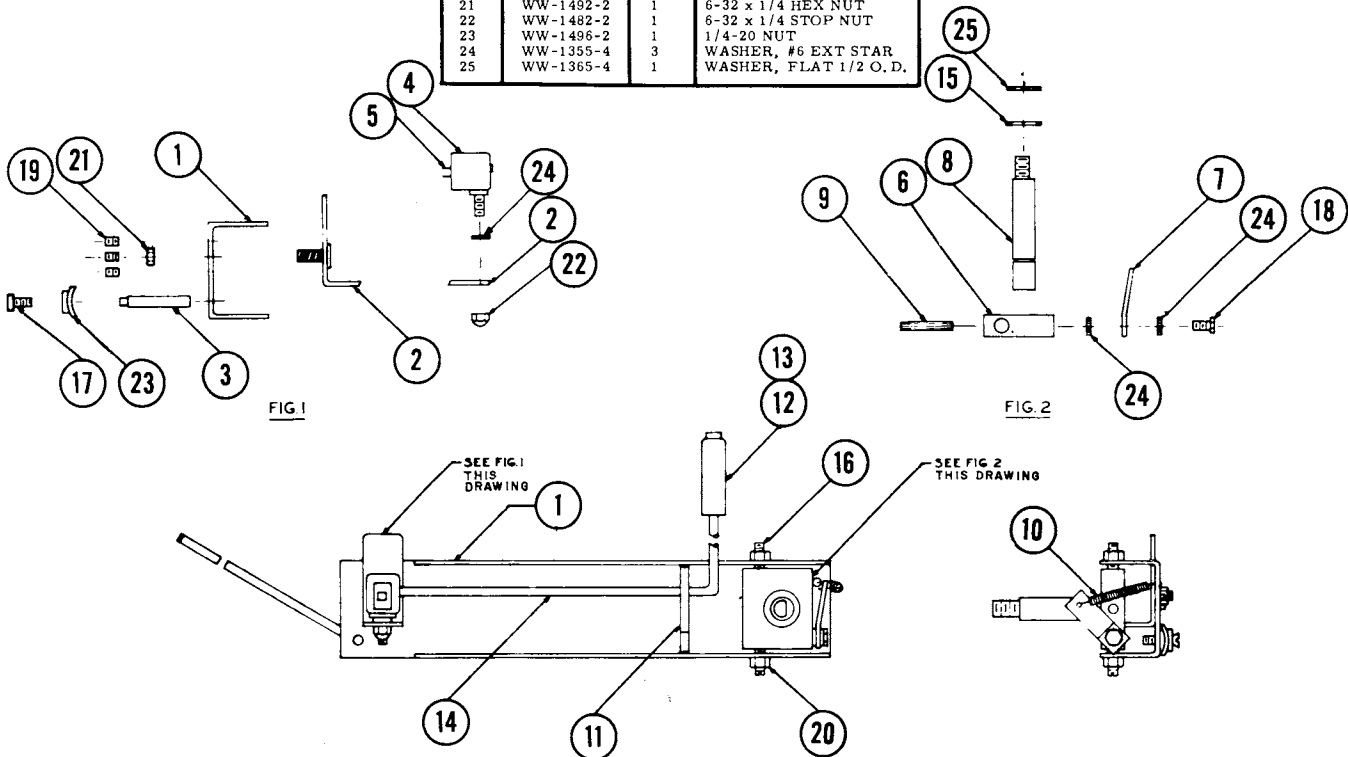


Figure 11. Assembly, Tone Arm, WW-4682-1 (Part of Assembly, Figure 5).

ITEM	PART NO.	QTY.	DESCRIPTION
1	WW-3204-56A	1	ARM FOR RIM HD.
2	WW-4633-36A	1	SHAFT FOR RIM HD.
3	WW-3253-44	1	RECORD, PLAYBACK HEAD
4	WW-1375-4	1	WASHER
5	WW-1651-24	1	SOLDER LUG
6	WW-1433-3	3	4-36 ALLEN SET SCREW
7	WW-1452-2	1	6-32 HEX. NUT
8	WW-1492-2	1	NUT
9	WW-4754-9	1	SOCKET
10	WW-4755-11	1	SHIELD
11	WW-1734-25	1	CABLE - 10 1/2"
12	WW-4331-34	2	CLIP

Replaces WW-3435-1A
Eff. Ser. No. 39250.

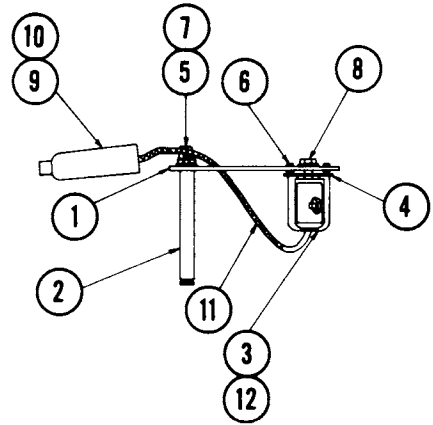


Figure 12. Assembly, Rim Head, WW-5651-1 (Part of Assembly, Figure 5).

ITEM	PART NO.	QTY.	DESCRIPTION
1		1	STEPPER (SEE FIG. 14)
2	WW-3173-29A	1	CAM
3	WW-1355-4C	1	WASHER (STAR)
4	WW-3397-3C	1	SCREW (6-32 x 3/8)
* 5	WW-4636-7A	1	BRACKET
6	WW-3271-4C	1	WASHER (TEFLON)
7	WW-3272-4A	2	WASHER (STEEL)
8	WW-1430-3C	3	R. H. SCREW (8-32 x 1/4)
9	WW-1393-4C	3	WASHER (STAR)
* 5	WW-5382-7A	1	BRACKET

* WW-4636-7A EFF. SER. NO. 39250 to 40249
WW-5382-7A EFF. SER. NO. 40250

Replaces WW-3400-1B
Eff. Ser. No. 39250.

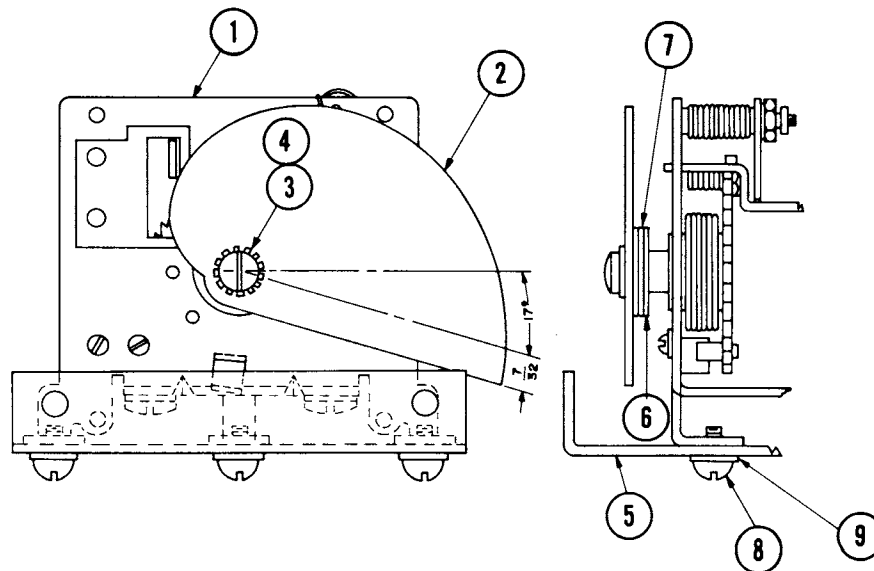


Figure 13. Assembly, Stepper, WW-4671-1B (Part of Assembly, Figure 5).

ITEM	PART NO.	QTY.	DESCRIPTION
1	WW-3269-49B	1	STEPPER MODIFICATION
2	WW-3265-7A	1	BRACKET
3	WW-3266-45A	1	PLATE
4	WW-1351-4C	2	#4 S. L. WASHER
5	WW-1402-3C	2	4-36 R. H. SCREW

NOTES:

1. VOLTAGE ON COIL - 105 V. AC
2. TORQUE OUTPUT IN POSITION #1 - 85 IN. /OZ.
3. TORQUE OUTPUT IN POSITION #13 - 35 IN. /OZ.
4. TO SET STEPPER IN POSITION #1, ROTATE THE STUD ON RATCHET WHEEL IN A CLOCKWISE POSITION (VIEWED FROM "A") UNTIL STUD IS LOCATED AGAINST BRACKET WW-3265-7A.

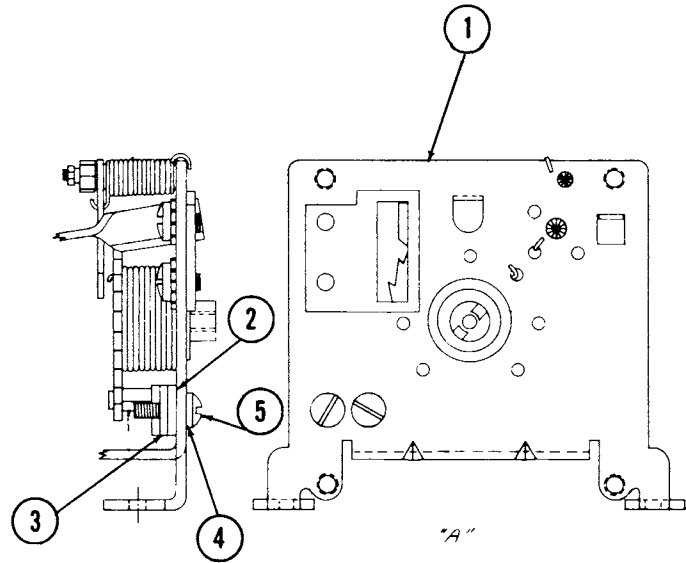
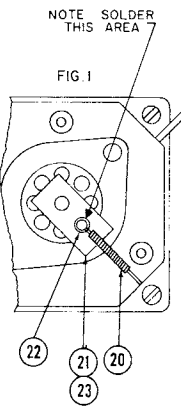
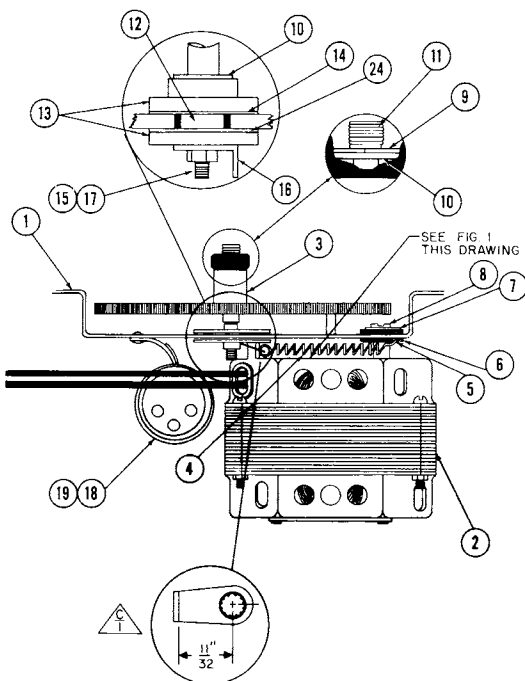


Figure 14. Assembly, Stepper Modification, WW-3267-23B (Part of Assembly, Figure 13).



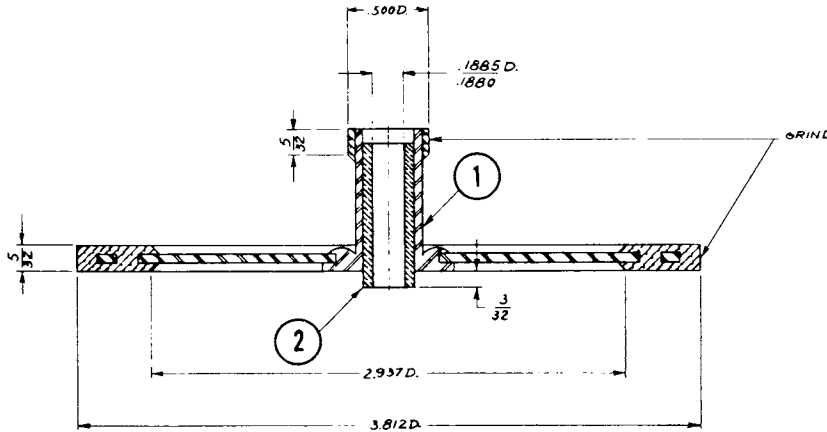
ITEM	PART NO.	QTY.	DESCRIPTION
1	WW-4655-7B	1	BRACKET
2	WW-4668-44A	1	MOTOR
3	WW-3433-33A	1	IDLER ASSY. (SEE FIG. 16)
4	WW-3388-5K	3	SPRING
5	WW-3383-5A	3	EYELET
6	WW-1375-4A	3	GROMMET
7	WW-3088-3C	3	WASHER (STEEL)
8	WW-3189-4C	1	6-32 x 1/16 SCREW
9	WW-3190-4C	2	WASHER (FIBRE)
10	WW-1938-34A	1	RETAINING SPRING
11	WW-2986-35A	1	SPACER, SHAFT
12	WW-2987-4A	2	WASHER (STEEL)
13	WW-2988-4A	1	SHIM
14	WW-2935-36A	1	IDLER SHAFT
15	WW-1651-24	1	SOLDER LUG.
16	WW-1452-2C	1	6-32 HEX NUT
17	WW-1925-5B	1	RIVET
18	WW-5377-18A	1	CAPACITOR
19	WW-5390-33A	1	SPRING, BRAKE
20	WW-5389-48A	1	BRAKE FELT
21	WW-1761-5	1	EYELET
22	WW-3922-57	AR	LUBRICANT
23	WW-5702-4A	1	SHIM
24			

Replaces WW-3430-1B
 Eff. Ser. No. 39250.

Figure 15. Assembly, Drive, WW-4648-1B (Part of Assembly, Figure 5).

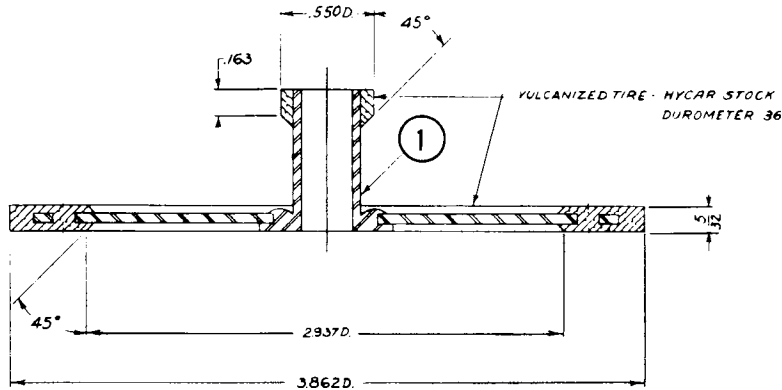
NOTE

- NOTE: 1. $3.812D$, $.500D$, & $\frac{.1885D}{.1880}$ TO BE CONCENTRIC WITHIN $.003$ T.I.R.
2. VERTICAL WOBBLE ON IDLER NOT TO EXCEED $.010$ AT THE OUTSIDE EDGE.



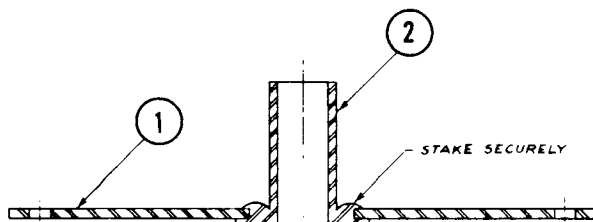
ITEM	PART NO.	QTY.	DESCRIPTION
1		1	ASSY.-DISC & TIRE (SEE FIG. 17)
2	WW-2968-35A	1	BEARING

Figure 16. Assembly, Idler, WW-2946-38B (Part of Assembly, Figure 15).



ITEM	PART NO.	QTY.	DESCRIPTION
1		1	ASSY.-DISC. & HUB (SEE FIG. 18)

Figure 17. Assembly, Disc and Tire, WW-3429-1B (Part of Assembly, Figure 16).



ITEM	PART NO.	QTY.	DESCRIPTION
1	WW-2967-38A	1	DISC.
2	WW-2966-35A	1	HUB

Figure 18. Assembly Hub and Disc, WW-3438-1B (Part of Assembly, Figure 17).

ITEM	PART NO.	QTY.	DESCRIPTION
1	WW-5378-45D	1	MOTORBOARD
2	WW-3645-3	8	OHIO WELD SCREW
3	WW-4634-35A	1	BEARING

NOTE:
 1. ITEM NO. 3 TO BE STAKED AFTER FINISH.

Replaces WW-4659-1D
 Eff. Ser. No. 40250.

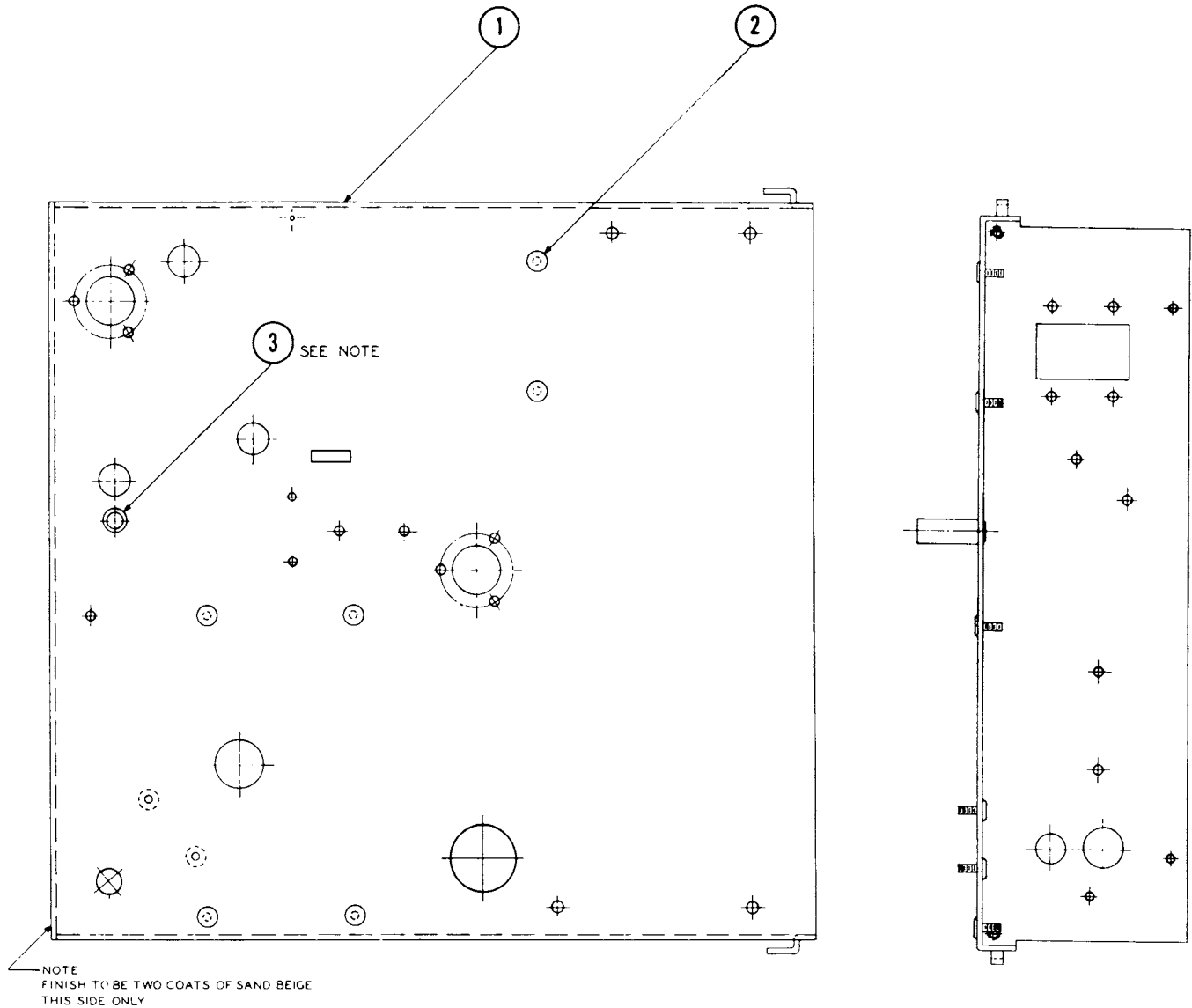


Figure 19. Assembly, Motorboard Weld, WW-5379-1D (Part of Assembly, Figure 5).

ITEM	PART NO.	LENGTH IN.	QTY.	DESCRIPTION
1			1	ASSY. CHASSIS (SEE FIG. 21)
C-19	WW-4720-17		1	CAPACITOR 2 MF. 200 V.
C-30	WW-4717-17		1	CAP. 01 MF. 200 V.
C-31	WW-4717-17		1	CAP. 01 MF. 200 V.
D-1	WW-2023-25	7 1/2	1	TWISTED PAIR
D-2	WW-4312-25	13	1	SHIELD
D-3	WW-2125-1		1	SHIELD, PLUG ASSY.
D-4	WW-2125-1		1	SHIELD, PLUG ASSY.
D-5	WW-1255-25	4 3/4	1	BROWN
D-6	WW-1262-25	3 3/4	1	SLATE
D-7	WW-1260-25	3 1/2	1	BLUE
D-8	WW-1260-25	1 1/2	1	BLUE
D-9	WW-1266-25	3 1/2	1	WHITE-BLACK
D-10	WW-1258-25	3 3/4	1	YELLOW
D-11	WW-1264-25	3	1	WHITE-RED
D-12	WW-1261-25	4	1	VIOLET
D-13	WW-1257-25	4 1/2	1	ORANGE
D-14	WW-1268-25	4	1	WHITE-GREEN
D-15	WW-1723-25	2 3/4	1	BARE
D-16	WW-1259-25	3	1	GREEN
D-17	WW-1257-25	2 1/2	1	ORANGE
D-18	WW-1257-25	3 1/2	1	ORANGE
D-19	WW-1257-25	2 1/4	1	ORANGE
D-20	WW-1263-25	9 3/8	1	WHITE
D-21	WW-1254-25	3 1/4	1	BLACK
X1	WW-1220-30		A.R.	SLEEVE
X	WW-1228-30		A.R.	SLEEVE
D-22	WW-1267-25	1 3/4	1	WHITE-BLUE
D-23	WW-1260-25	3 3/4	1	BLUE

- NOTES:
- A. STRIP AND TIN ALL WIRES 1/4", BOTH ENDS.
 - B. STRIP COVERING 3/4", SHIELD TO EXTEND 1/2", STRIP AND TIN INNER CONDUCTOR 1/2"
 - C. STRIP COVERING 5/8", SHIELD TO EXTEND 1/2", STRIP AND TIN INNER CONDUCTOR 1/4"
 - D. STRIP COVERING 1", SHIELD TO EXTEND 1", STRIP AND TIN RED CONDUCTOR 1/4", BLACK CONDUCTOR TO EXTEND 3/4", STRIP AND TIN 1/4"
 - E. STRIP COVERING 1 1/4", SHIELD TO EXTEND 1/2", STRIP AND TIN RED AND BLACK CONDUCTORS 1/4"

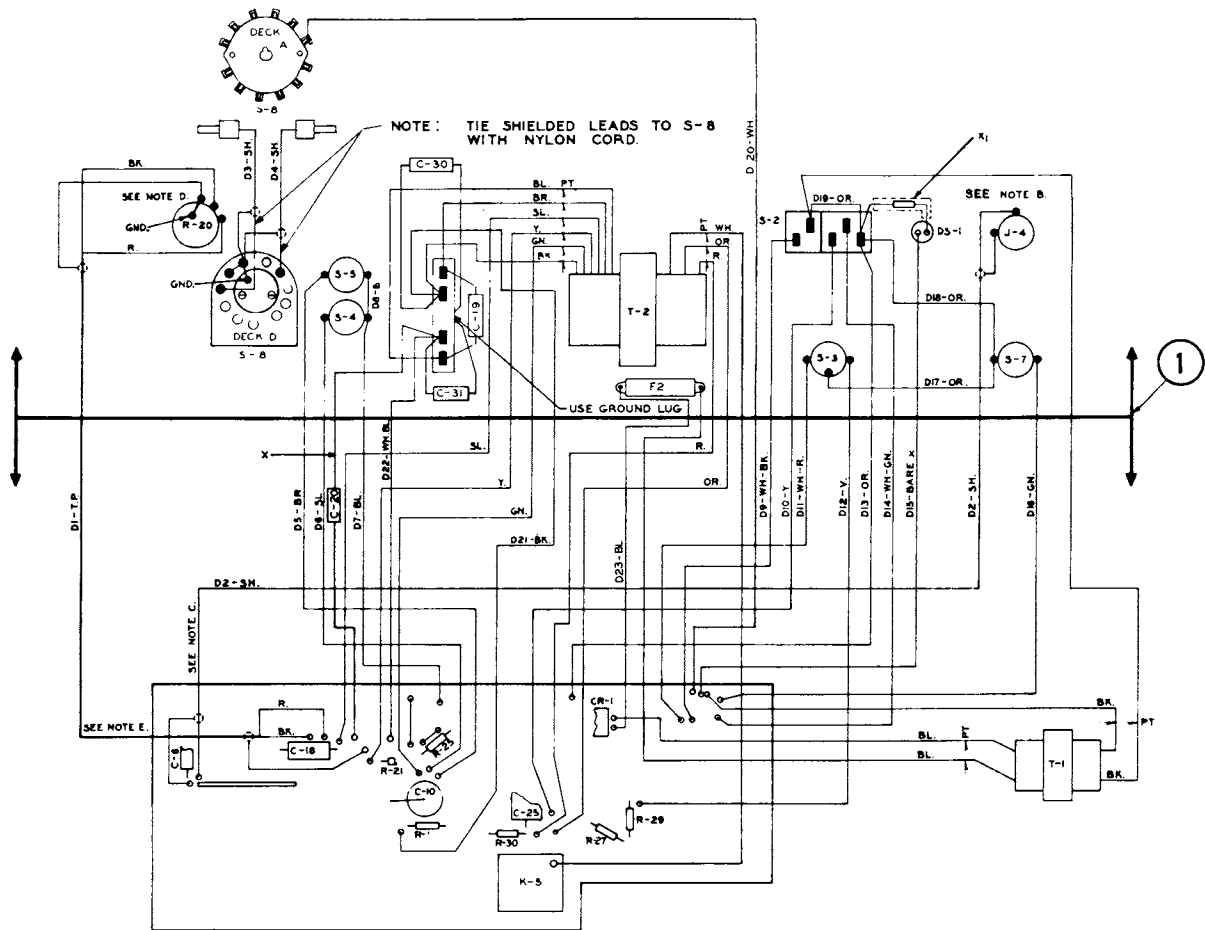


Figure 20. Chassis Wiring, WW-5044-1D (Part of Final Assembly, Figure 1).

ITEM	PART NO.	QTY.	DESCRIPTION
1	WW-4675-1D	1	CHASSIS, RIVETING
2	WW-4697-1E	1	ASSY. PRT. -BOARD
3	WW-1402-3	5	SCREW 4-36 x 3/8
4	WW-1453-2	7	NUT 3/8 - 32
5	WW-1464-2	1	NUT 15/32 - 32
6	WW-1495-2	1	NUT RETAINER
7	WW-2295-5K	2	RIVET
8	WW-1492-3	5	NUT, KEPS 6-32
9	WW-1925-5B	1	RIVET 1/8 x 5/32
10	WW-1352-4	2	WASHER FLAT
11	WW-4709-20B	1	POWER - TRANS.
12	WW-4708-20B	1	LINE - TRANS.
13	WW-4751-46	1	NEON BULB
14	WW-4737-32	2	SWITCH - RED
15	WW-4738-32	1	SWITCH - BLACK
16	WW-4739-32	1	SWITCH - C
17	WW-4740-32	1	SWITCH - POWER
18	WW-1358-4	1	INSULATED WASH.
19	WW-1363-4	1	STEEL WASHER
20	WW-1205-26K	1	TERMINAL STRIP
21	WW-4707-14D	1	POT
22	WW-4743-9	1	JACK - MIC
23	WW-1357-4	1	INSULATED WASH.
24	WW-1363-4	A. R.	WASHER
25	WW-1373-4	1	WASHER, INT. STAR 1/2
26	WW-1455-2	3	NUT 3/8-32, FINISH
27	WW-2331-52A	1	MARKING TAPE
	WW-2335-52A	1	MARKING TAPE
	WW-2336-52A	1	MARKING TAPE
28	WW-1356-4B	1	LINE TRANS.
29	WW-3782-4	5	WASHER INT. STAR MOUNT ON BACK SIDE OF SW.
30	WW-6456-24	1	LUG, GROUND
31	WW-3407-9	1	HOLDER, FUSE
32	WW-1371-4	1	WASHER, #6 EX. STAR
33	WW-3600-3	1	SCREW, 6-32 x 5/16
34	WW-3579-46	1	FUSE, 1/4 A
2		1	ASSY. PRINTED BRD. (SEE FIG. 22)
12	WW-5388-20B	1	LINE TRANS.

Eff. Ser. No. 40250.

- * WW-4697-1E EFFECTIVE SERIAL NO. 39250 TO 40249
- * WW-5387-1E EFFECTIVE SERIAL NO. 40250
- * WW-4708-20B EFFECTIVE SERIAL NO. 39250 TO 40249
- * WW-5388-20B EFFECTIVE SERIAL NO. 40250

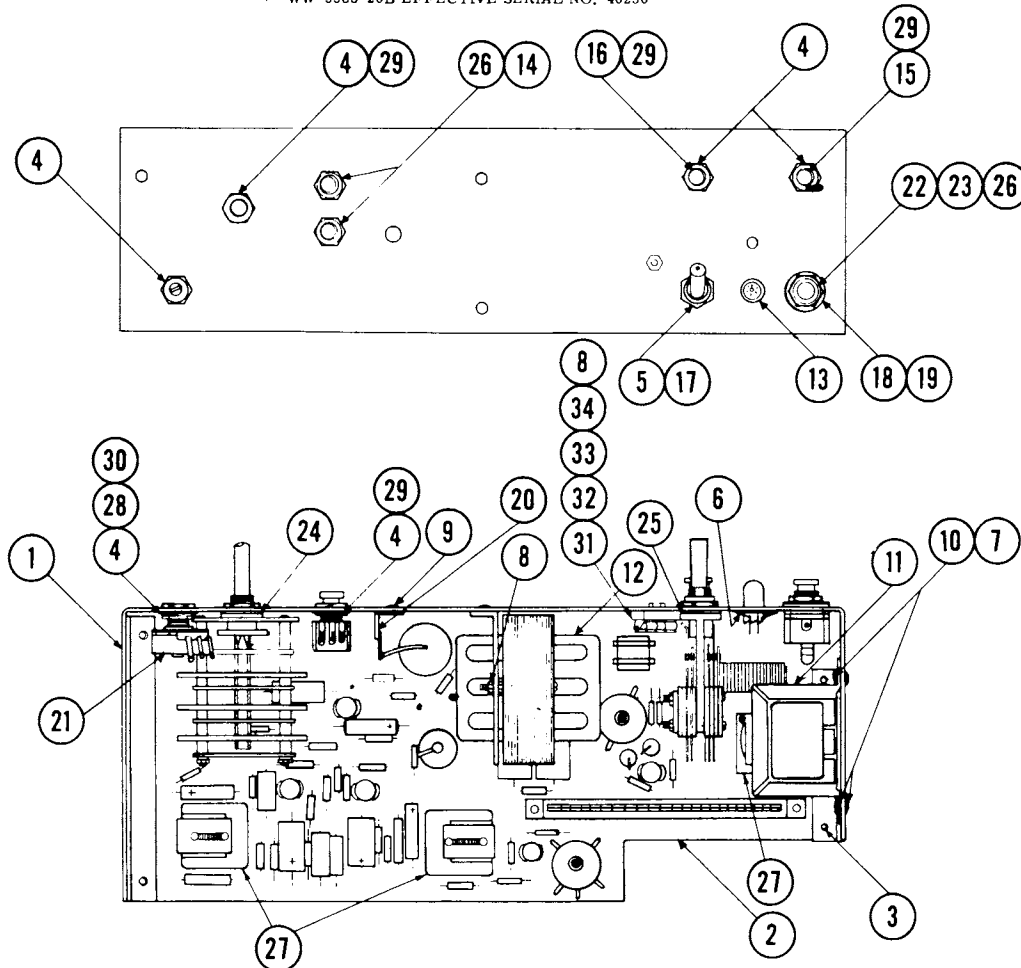


Figure 21. Assembly, Chassis, WW-4698-1 (Part of Assembly, Figure 20).

ITEM	PART NO.	QTY.	DESC.	RESISTORS
R-1	WW-1844-6	1	220K	
R-2	WW-1834-6	1	10K	
R-3	WW-1841-6	1	100K	
R-4	WW-1829-6	1	1000	
R-5	WW-4161-6	1	68	
R-6	WW-1833-6	1	6800	
R-7	WW-1841-6	1	100K	
R-8	WW-1829-6	1	1000	
R-9	WW-1833-6	1	6800	
R-10	WW-1834-6	1	10K	
R-11	WW-1838-6	1	47K	
R-12	WW-3282-6	1	47	
R-13	WW-4727-6	1	18K	
R-14	WW-1841-6	1	100K	
R-15	WW-1835-6	1	15K	
R-16	WW-1835-6	1	15K	
R-17	WW-1827-6	1	220	
R-18	WW-1835-6	1	15K	
R-19	WW-3102-6	1	100K	5%
R-20				
R-21	WW-1835-6	1	15K	
R-22	WW-4744-6	1	39	
R-23	WW-2748-6	1	470	
R-24	WW-4066-6	1	470	5%
R-25	WW-1836-6	1	22K	
R-26	WW-4920-6	1	8200	5%
R-27	WW-1833-6	1	6800	
R-28	WW-5705-6	1	22K	5%
R-29	WW-1832-6	1	4700	
R-30	WW-4728-6	1	270	5%

ITEM	PART NO.	QTY.	DES. WIRES	NOTES
D-1	WW-1723-25	1-1/4	BARE	
D-2	WW-1723-25	1-1/8	BARE	
D-3	WW-1723-25	1-5/16	BARE	
D-4	WW-1723-25	11/16	BARE	
D-5	WW-1723-25	2-1/8	BARE	
D-6	WW-1723-25	7/8	BARE	
D-7	WW-1734-25	5-1/2	SHIELDED WIRE	B-C
D-8	WW-1290-25	1-1/2	BLACK	A
D-9	WW-1723-25	1-1/4	BARE	
D-10	WW-1723-25	1-1/4	BARE	
D-11	WW-1290-25	1-7/16	BLACK	A
D-12	WW-1256-25	2-1/4	RED	
D-13	WW-1263-25	5-5/8	WHITE	
D-14	WW-1254-25	1-3/4	BLACK	
D-15	WW-1254-25	2-1/8	BLACK	
D-16	WW-1263-25	2-3/4	WHITE	
D-17	WW-1256-25	2-1/2	RED	
D-18	WW-1723-25	7/8	BARE	A
D-19	WW-1259-25	2-5/8	GREEN	
D-20	WW-1723-25	3/8	BARE	
D-21	WW-1723-25	3/8	BARE	

Replaces WW-4697-1E
Eff. Ser. No. 40250.

ITEM	PART NO.	QTY.	DESCRIPTION
1	WW-5384-50E	1	ETCHED BOARD
CR-1	WW-4747-37	1	RECTIFIER
CR-2	WW-4748-37	1	RECTIFIER
K-1	WW-4696-49C	1	RELAY
K-5	WW-4695-49B	1	RELAY
K-6	WW-4695-49B	1	RELAY
L-1	WW-5043-20A	1	COIL
P-1	WW-4741-31	1	PLUG
Q-1	WW-4614-37B	1	TRANSISTOR
Q-2	WW-4614-37B	1	TRANSISTOR
Q-3	WW-4614-37B	1	TRANSISTOR
Q-4	WW-4614-37B	1	TRANSISTOR
Q-5	WW-4541-37	1	TRANSISTOR 2N1377
S-8	WW-4706-32B	1	SWITCH
T-3	WW-4625-19	1	TRANSFORMER
2	WW-3243-9	5	TRANSISTOR SOCKET
3	WW-1419-3	2	SCREW, 4-36
4	WW-1451-2	2	NUT, 4-36
5	WW-1351-4	2	WASHER, LOCK
6	WW-1227-30	AR	SLEEVING
RT-1	WW-4494-37	1	THERMISTOR

ITEM	PART NO.	QTY.	DES.	CAPACITOR
C-1	WW-4713-17	1	1 MF	100 V TUB
C-2	WW-3281-18	1	10 MF	25 V ELECT
C-3	WW-4133-18	1	50 MF	15 V ELECT
C-4	WW-4133-18	1	50 MF	15 V ELECT
C-5	WW-4717-17	1	01 MF	200 V TUB
C-6	WW-4717-17	1	01 MF	200 V TUB
C-7	WW-4714-17	1	008 MF	100 V TUB
C-8	WW-4135-18	1	15 MF	15 V ELECT
C-9	WW-3281-18	1	10 MF	25 V ELECT
C-10	WW-4132-18	1	250 MF	15 V ELECT
C-11	WW-4715-17	1	0088 MF	100 V TUB
C-12	WW-4715-17	1	0068 MF	100 V TUB
C-13	WW-4722-17	1	250 MMF	500 V MICA
C-14	WW-4723-17	1	200 MMF	500 V MICA
C-15	WW-4723-17	1	200 MMF	500 V MICA
C-16	WW-4724-17	1	5100 MMF	100 V MICA
C-17	WW-3281-18	1	10 MF	25 V ELECT
C-18	WW-4712-17	1	15 MF	100 V TUB
C-20	WW-4721-17	1	300 MMF	500 V MICA
C-21	WW-4712-17	1	15 MF	100 V TUB
C-22	WW-4712-17	1	15 MF	100 V TUB
C-23	WW-4719-17	1	47 MF	200 V TUB
C-24	WW-4725-18	1	500 MF	25 V ELECT
C-25	WW-4725-18	1	500 MF	25 V ELECT

- NOTES:
- A. STRIP BOTH ENDS 5/32"
 - B. STRIP COVERING & SHIELD 3/8" STRIP & TIN INNER CONDUCTOR 1/4"
 - C. STRIP COVERING 9/16", SHIELD TO EXTEND 1/4" STRIP & TIN INNER CONDUCTOR 1/4"
 - D.

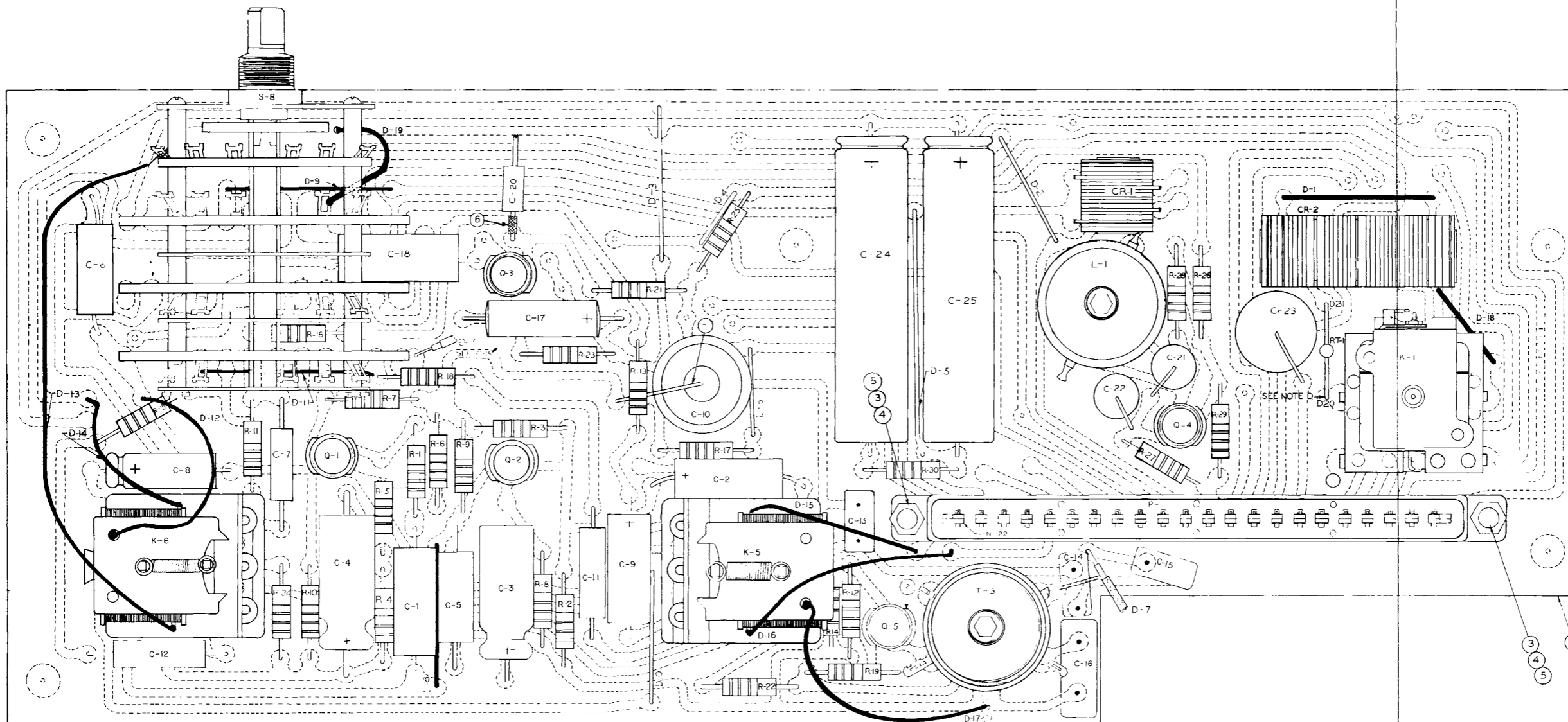
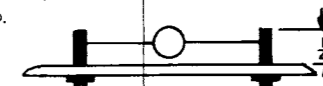


Figure 22. Assembly, PC Board, WW-5387-1
(Part of Assembly, Figure 21).