

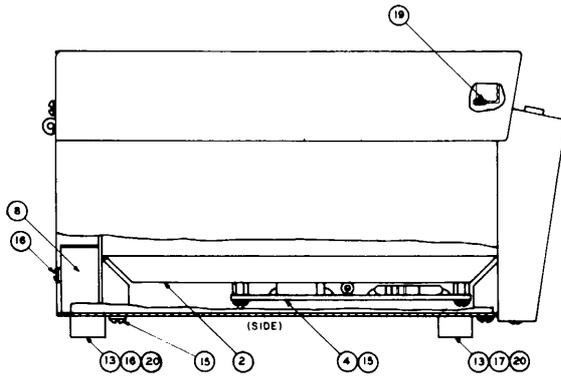
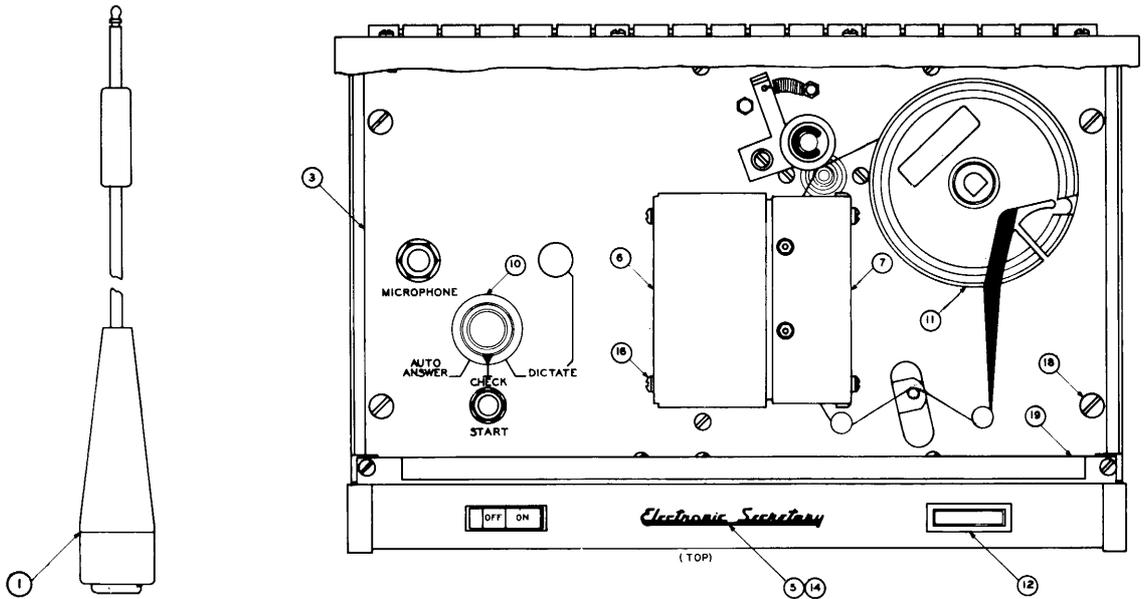
ELECTRONIC SECRETARY[®] MODEL AO-3
REPLACEMENT PARTS

1. GENERAL

- 1.01 This Section is reissued to make changes indicated in Figure 6.
- 1.02 This section contains ordering information

for the replaceable parts of the Electronic Secretary[®] Model AO-3. Each replaceable part is listed with its order number and quantity required per instrument. Each part listing is preceded by an item number which is keyed to a numbered callout in an associated illustration.

[®] Registered Trademark, Automatic Electric Company.



ITEM	PART NO.	QTY	DESCRIPTION
1	WW-4342-1B	1	ASS'Y. MICROPHONE
2	WW-5796-1E	1	ASS'Y. WRG. CHASSIS (SEE FIG. 12)
3	WW-5799-1D	1	ASS'Y. WRG. MOTOR (SEE FIG. 5)
4	WW-5152-1D	1	ASS'Y. CIRCUIT BOARD (SEE FIG. 11)
5	WW-3424-10K	1	ESCUTCHEON
6	WW-5050-11A	1	COVER, FRONT
7	WW-5051-11A	1	COVER, TERMINAL BLOCK
8	WW-5056-11A	1	COVER, TELEPHONE
9	WW-3591-12D	1	CABINET (SEE FIG. 2)
10	WW-5428-29A	1	KNOB
11	WW-5088-44A	1	CARTRIDGE, TAPE (SEE NOTE 3)
12	WW-5082-46A	1	JEWEL
13	WW-1034-48A	4	FEET, RUBBER
14	WW-1468-2	2	NUT, SPEED
15	WW-3089-3	7	8-32 X 1/8 BHMS
16	WW-3600-3	8	8-32 X 1/8 BHMS
17	WW-1483-3	2	8-32 X 3/8 FHMS
18	WW-1408-3	4	10-32 X 1/2 BHMS
19	WW-2220-48A	2	CHANNEL, RUBBER 1/2
20	WW-1452-2	4	NUT, HEX. 8-32 X 1/2

- NOTES:
1. LUGS OF ITEM 12 TO BE BENT BACK AGAINST FRONT PANEL TO RETAIN.
 2. ITEMS 19 TO BE CEMENTED IN PLACE. NO ADHESIVE TO SHOW OR SURFACE TO BE DAMAGED FROM SAME.
 3. REPLACES 15-756 AT SERIAL NO. 48001

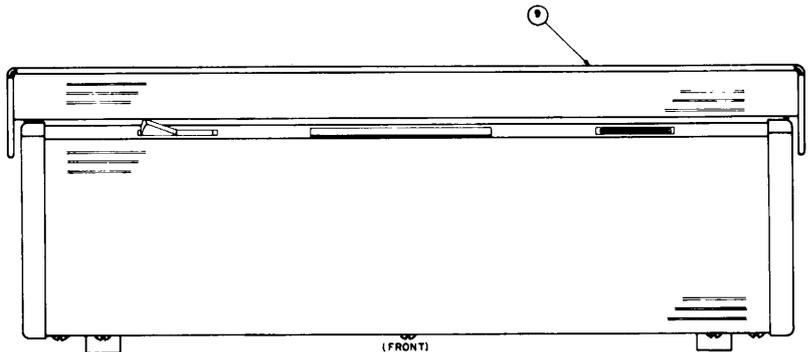
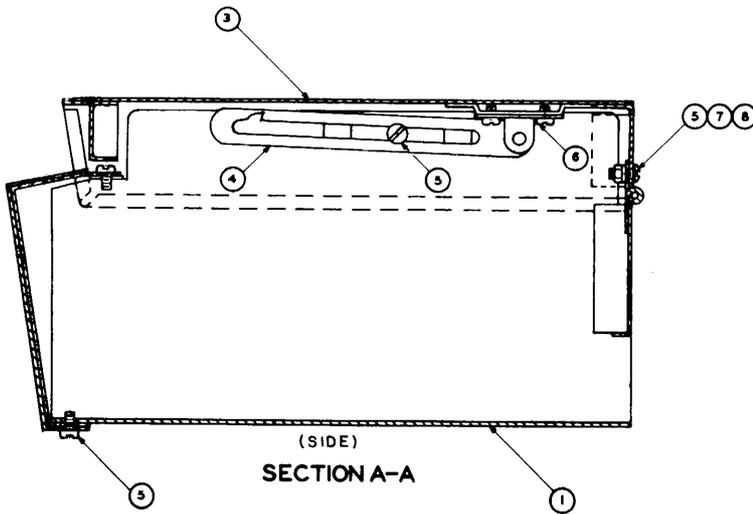
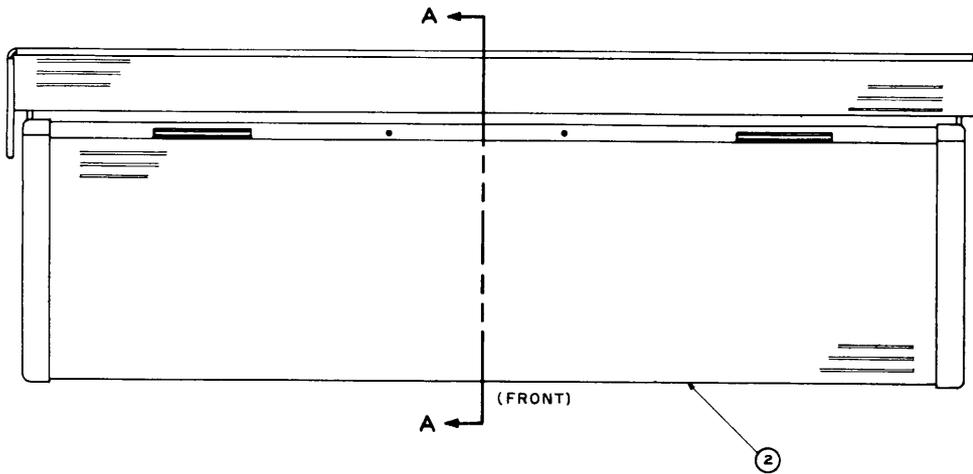
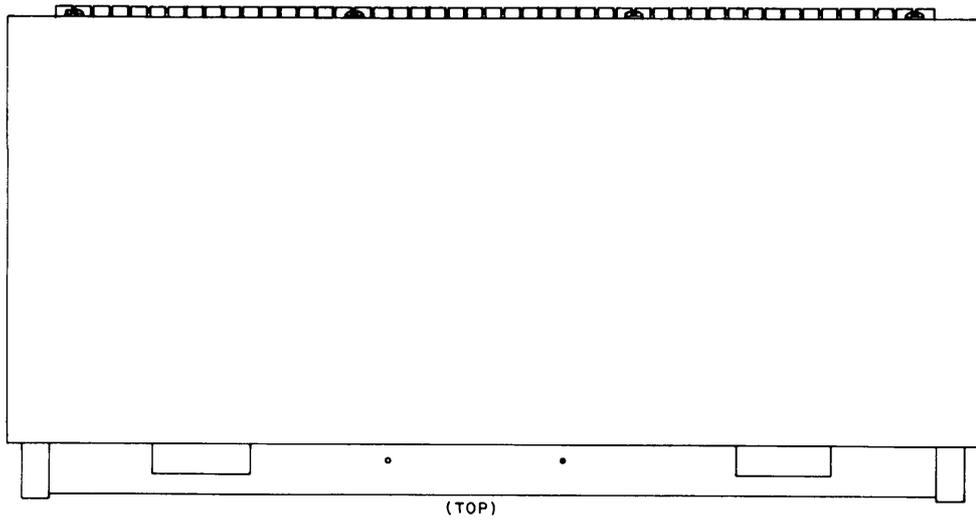


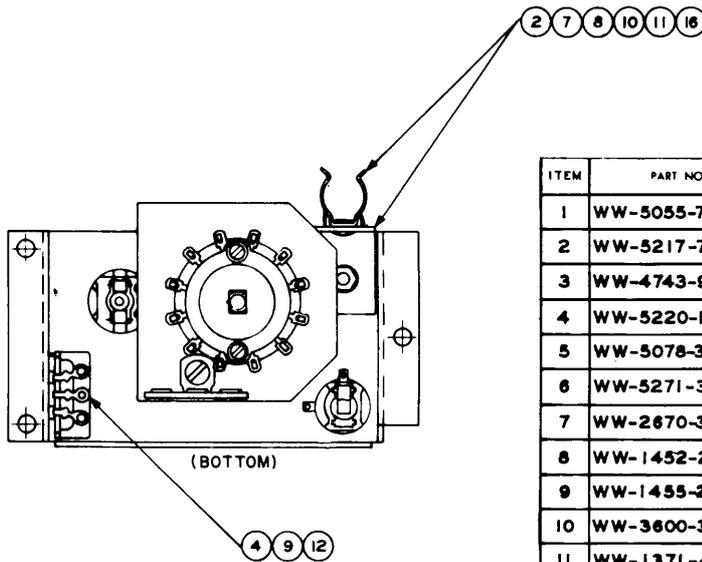
Figure 1. Final assembly.



ITEM	PART NO.	QTY	DESCRIPTION				
1	WW-3589-12D	1	CABINET BASE				
2	WW-4527-12C	1	FRONT PANEL				
3	WW-3590-11C	1	COVER				
4	WW-5475-7A	1	SUPPORT, FALL				
5	WW-3089-3	9	6-32 X 1/4 BHMS				
6	WW-5527-3	2	6-32 X 3/8 BHMS				
7	WW-1371-4	4	WASHER, ** 6 INT. STAR				
8	WW-1452-2	4	NUT, HEX 6-32 X 1/4				

NOTES:
 1. CLEARANCE BETWEEN ITEMS 1 & 2 IS INTENTIONAL.
 DO NOT TIGHTEN SCREWS HOLDING ITEM 2 TO
 ELIMINATE CLEARANCE.

Figure 2. Cabinet, WW-3591-12D (part of final assembly, figure 1).



ITEM	PART NO	QTY	DESCRIPTION			
1	WW-5055-7B	1	FRAME, SWITCH			
2	WW-5217-7A	1	BRACKET, LAMP			
3	WW-4743-9	1	JACK, MIC.			
4	WW-5220-14	1	POTENTIOMETER, 10K.			
5	WW-5078-32C	1	SWITCH, ROTARY			
6	WW-5271-32A	1	SWITCH, PUSH BUTTON			
7	WW-2670-34A	1	CLAMP			
8	WW-1452-2	2	NUT, HEX. 6-32			
9	WW-1455-2	4	NUT, HEX. $\frac{3}{8}$ -32			
10	WW-3600-3	2	SCREW, 6-32 X $\frac{3}{16}$ BH.			
11	WW-1371-4	2	WASHER, NO. 6 I. STAR			
12	WW-1363-4	4	WASHER, $\frac{3}{8}$ FLAT			
13	WW-1357-4	1	WASHER, $\frac{3}{8}$ FIBRE			
14	WW-1356-4	1	WASHER, $\frac{3}{8}$ SHOULDER			
15	WW-1356-4	1	WASHER, $\frac{3}{8}$ I. STAR			
16	WW-1025-5	1	RIVET (FOR REPLACEMENT ORDER ITEMS 8,10,11)			
17	WW-1651-24	1	LUG, SOLDER			
18	WW-1203-26	1	TERM. STRIP AGA			

NOTE:

- ITEM NO. 5 TO BE WIRED BEFORE ASSEMBLY TO ITEM NO. 1. REFER TO I 4517.
- USED ON: WW-4517-1E
WW-5722-1E
WW-5796-1E

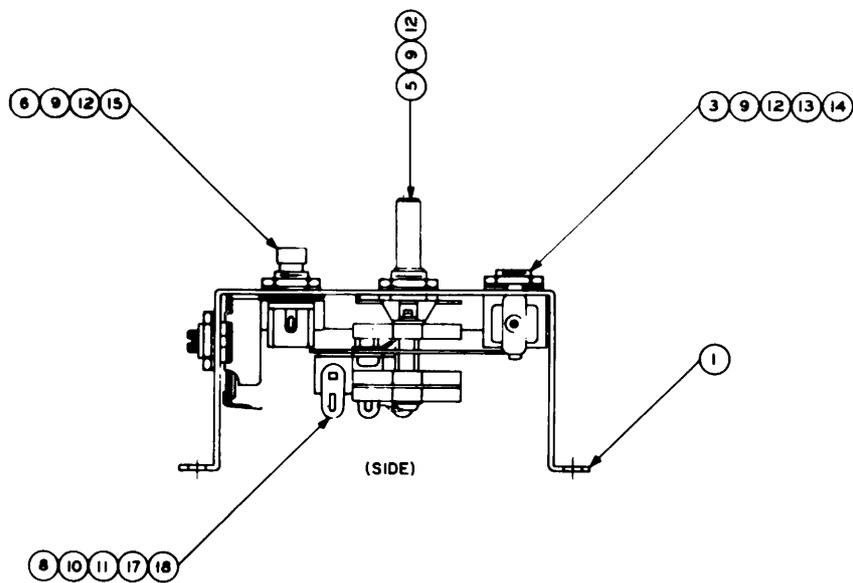


Figure 3. Switchframe mounting assembly, WW-5106-1C (part of wiring-chassis, figure 12).

SECTION 997-400-800
ISSUE 2

ITEM	PART NO.	QTY	DESCRIPTION			
1	WW-5794-22D	1	CHASSIS, ASS'Y TT-3			
2	WW-5063-7A	1	BRACKET, SEL. BRIDGE			
3	WW-1925-5	12	RIVET	(FOR REPLACEMENT ORDER ITEMS 7, 15, 41)		
4	WW-1121-9	1	SOCKET, 8 PIN			
5	WW-1106-9	1	SOCKET, 4 PIN			
6	WW-1651-24	1	LUG, GROUND			
7	WW-1371-4	23	WASHER, NO. 6 I. STAR			
8	WW-1009-5	1	GROMMET $\frac{3D}{8}$			
9	WW-1008-5	2	GROMMET $\frac{1D}{2}$			
10	WW-1205-26	6	TERM. STRIP AADAA			
11	WW-3427-26	1	TERM. STRIP AAGAA			
12	WW-3407-9	1	FUSE HOLDER			
13	WW-3397-3	3	SCREW, 6-32x $\frac{3}{8}$ BHM.			
14	WW-3600-3	12	SCREW, 6-32x $\frac{5}{16}$ BHM.			
15	WW-1452-2	10	NUT, 6-32 x $\frac{1}{4}$ HEX.			
16	WW-4231-20	1	CHOKE FILTER			
17	WW-5065-20	1	TRANSFORMER, POWER			
18	WW-1353-4	1	WASHER, NO. 6 FLAT			
19	WW-5793-11B	1	CHASSIS HOUSING			
20	WW-2670-34	1	CLAMP, CAPACITOR			
21	WW-5073-26	1	TERMINAL BLOCK			
22	WW-1095-34	1	CABLE CLAMP			
23	WW-2054-35	1	BUSHING, STRAIN			
24	WW-1402-3	2	SCREW, 4-36x $\frac{3}{8}$ RHM.			
25	WW-3392-4	4	WASHER, NO. 4 I. STAR			
26	WW-1451-2	4	NUT, 4-36x $\frac{1}{4}$ HEX.			
27	WW-5061-36	6	PILLAR, $\frac{1}{4}$ HEX.			
28	WW-4227-9	1	SOCKET, P. C. BOARD			
29	WW-1403-3	2	SCREW, 6-32x $\frac{1}{2}$ RHM.			
30	WW-1354-4	4	WASHER, NO. 6 S. LOCK			
31	WW-5068-20	1	COIL, LOADING			
32	WW-5066-20	1	TRANSFORMER, LINE			
33	WW-2061-37	1	RECTIFIER, SEL. BRIDGE			
34	WW-1429-3	1	SCREW, 6-32x $1\frac{5}{8}$ RHM.			
35	WW-1208-26	1	TERM. STRIP DAA			
36	WW-1204-26	1	TERM. STRIP AADA			
37	WW-5067-20	1	TRANSFORMER			
38	WW-4252-49	1	RELAY, DC. 10,000 Ω			
39	WW-5079-49	1	RELAY, DC. 1000 Ω			
40	WW-5080-49	1	RELAY, DC. 6500 Ω			
41	WW-3089-3	6	SCREW, 6-32x $\frac{1}{4}$ BHM.			
42	WW-1217-26	1	TERM. STRIP DA			
43	WW-4569-37	1	DIODE, ZENER			
44	WW-4946-4	1	WASHER, NO. 10 I. STAR			
45	WW-1469-2	1	NUT, 10-32x $\frac{3}{8}$ HEX.			
46	WW-5223-9	2	SOCKET, TRANSISTOR			
47	WW-5185-3	4	SCREW, 2-56x $\frac{3}{16}$ RHM.			
48	WW-1374-4	4	WASHER, NO. 2 I. STAR			
49	WW-1467-2	4	NUT, 2-56x $\frac{3}{16}$ HEX.			
50	WW-1104-9	1	FUSE HOLDER			
51	WW-5393-53A	3	INSULATOR			
52	WW-5168-27C	1	NAME PLATE			
53	WW-1352-4	4	WASHER, NO. 4 FLAT			
54	WW-1372-4	1	WASHER, RUBBER			
55	WW-1373-4	1	WASHER, $\frac{1}{2}$ " I. STAR			
56	WW-1462-2	1	NUT, HEX. $\frac{1}{2}$ " - 24			

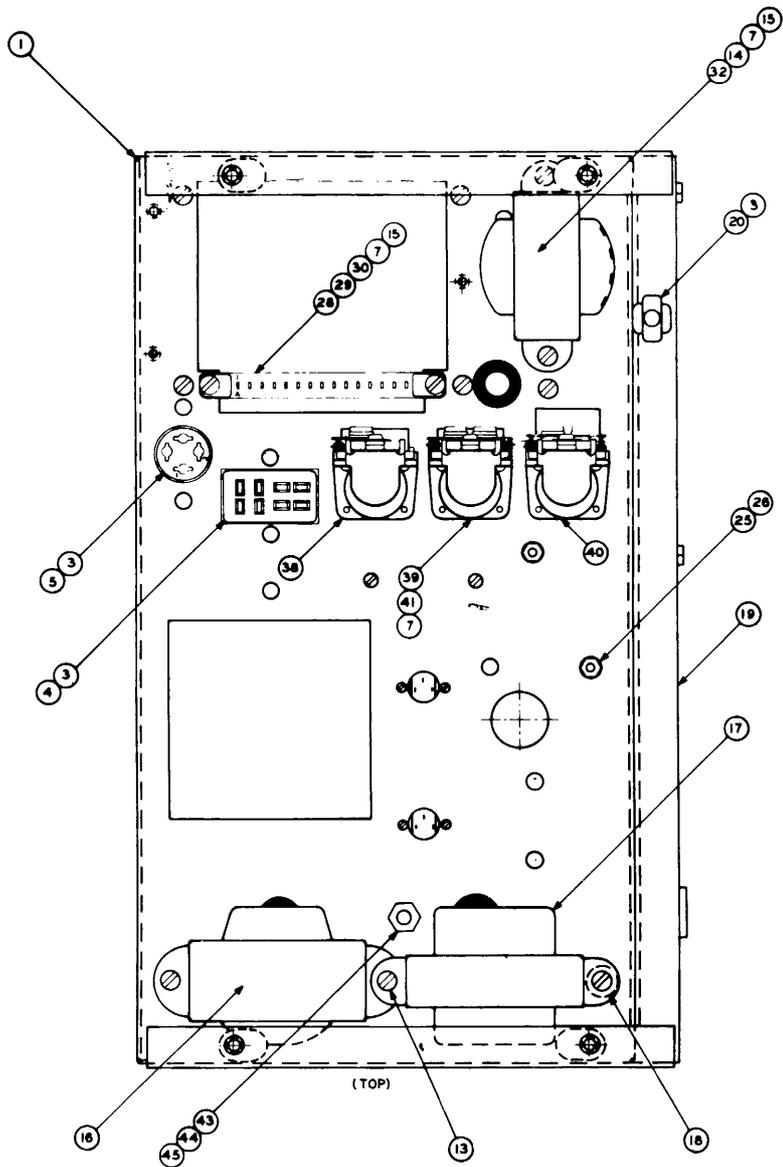
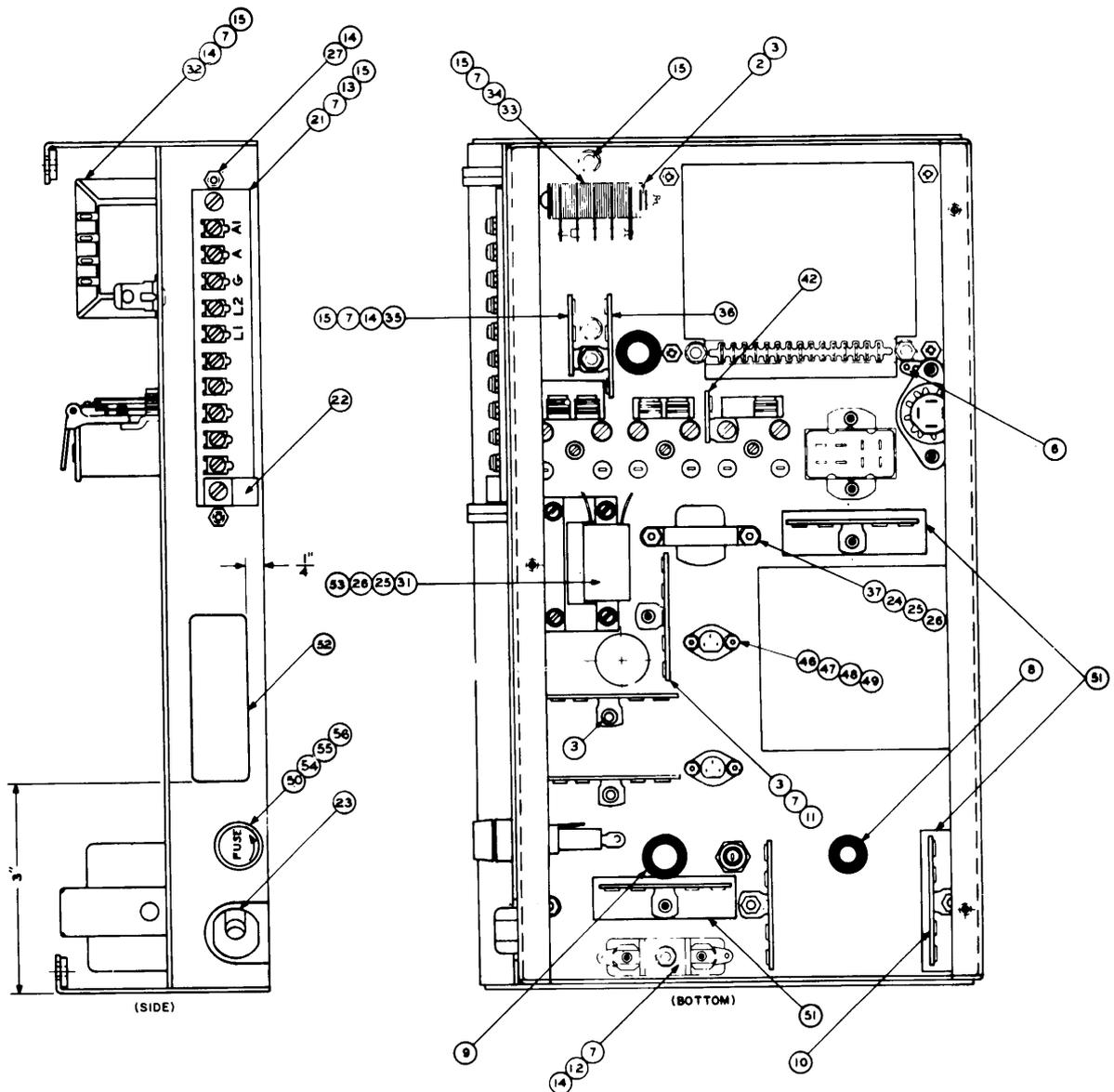


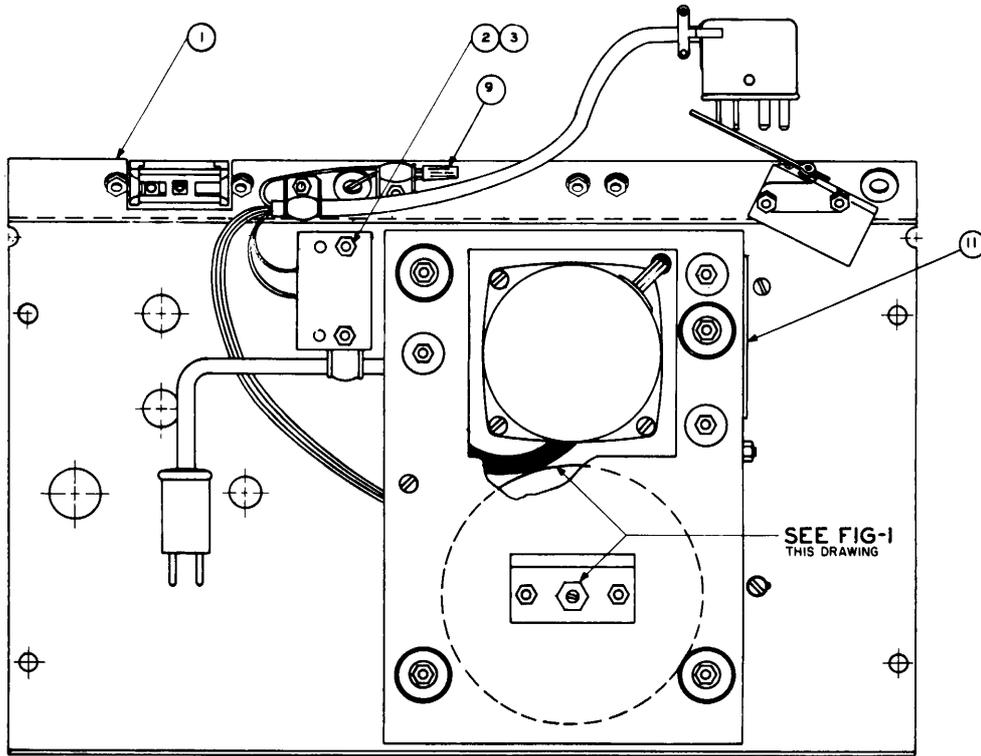
Figure 4. Chassis assembly, WW-5795-1D (part of wiring-chassis, figure 12).



NOTES:

- 1.- ITEMS 1 THROUGH 18 TO BE ASSEMBLED IN ORDER LISTED.
- 2.- RIVETED TERMINAL STRIPS TO BE PARALLEL WITH CHASSIS EDGES AS GAUGED BY EYE.
- 3.- LUGS ON ITEM 5 TO BE SHORTENED TO $\frac{1}{4}$ " LENGTH EXPOSED FROM MOLDED HOUSING (ONE WIRE HOLE REMAINING) PRIOR TO WIRING.
- 4.- ITEM 50 TO BE POSITIONED SO THAT SIDE LUG EXTENDS ALONG HORIZONTAL AXIS WITHIN 5° (GAUGED BY EYE) AS SHOWN.
- 5.- REPLACES ID4516 AT SERIAL NO. 48001

Figure 4. (Continued.)



NOTES: 1. ITEM 11 TO BE INSTALLED OVER C-25 AFTER WIRING.
 2. THIS DWG. REPLACES ID4523 AT SER. NO. 48001.

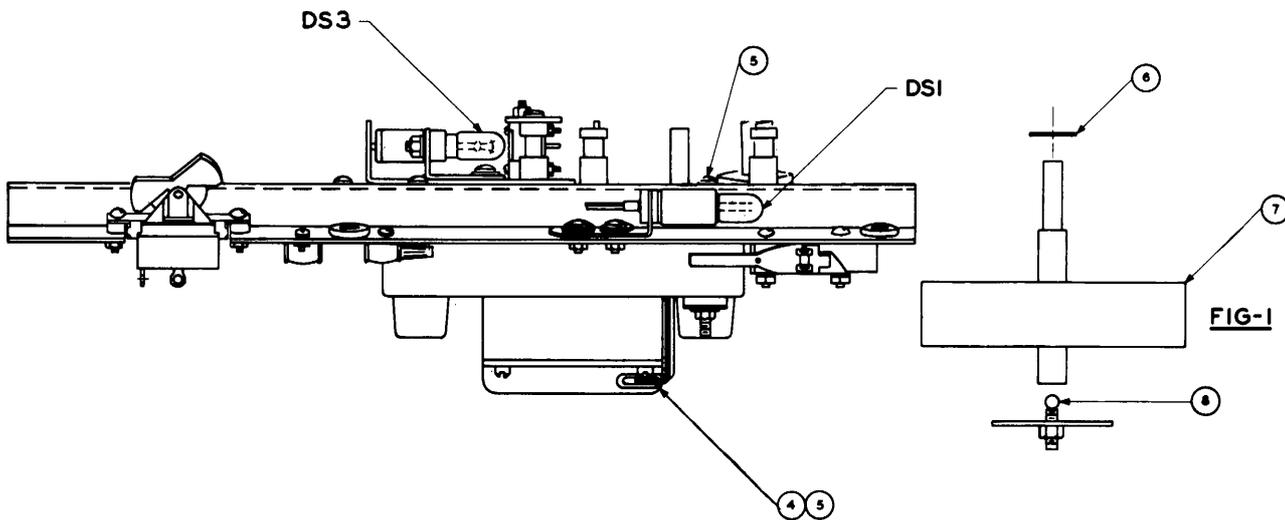


Figure 5. Motorboard wiring assembly, WW-5799-1D (part of final assembly, figure 1).

ITEM	PART NO.	QTY	DESCRIPTION		
1	WW-5798-1	1	ASS'Y. MOTORBOARD (SEE FIG. 6)		
2	WW-5395-53A	1	INSULATOR, TER. BLOCK		
3	WW-1452-2	2	NUT, 6-32 X 1/4 HEX.		
4	WW-5797-1	1	ASS'Y. MOTOR FRAME (SEE FIG. 10)		
5	WW-3600-3	4	SCREW, 6-32X5/16 BHM.		
6	WW-1357-4	A.R.	WASHER, FIBRE		
7	WW-3147-1B	1	ASS'Y. FLYWHEEL		
8	WW-5058-35A	1	BEARING, BALL THRUST		
9	WW-1471-2	1	NUT, WIRE		
10	WW-1679-24	2	LUG, SPADE		
11	WW-5838-53A	1	INSULATOR		
DS1	WW-1169-51	1	BULB, NE51H		
DS3	WW-3114-46	1	BULB, 1047		
Z	WW-4756-30	8	SLEEVING (MINIMUM ORDER 3 FEET)		
CA3	WW-5528-1	1	ASSY. CABLE		
CA4	WW-5496-1A	1	ASS'Y. CABLE		
D1	WW-1256-25	1	RED, 6" LONG		
D2	WW-2871-25	1	BROWN, 14" LONG		
	WW-5109-54D	REF.	SCHEMATIC		

MINIMUM ORDER
25 FEET PER ITEM

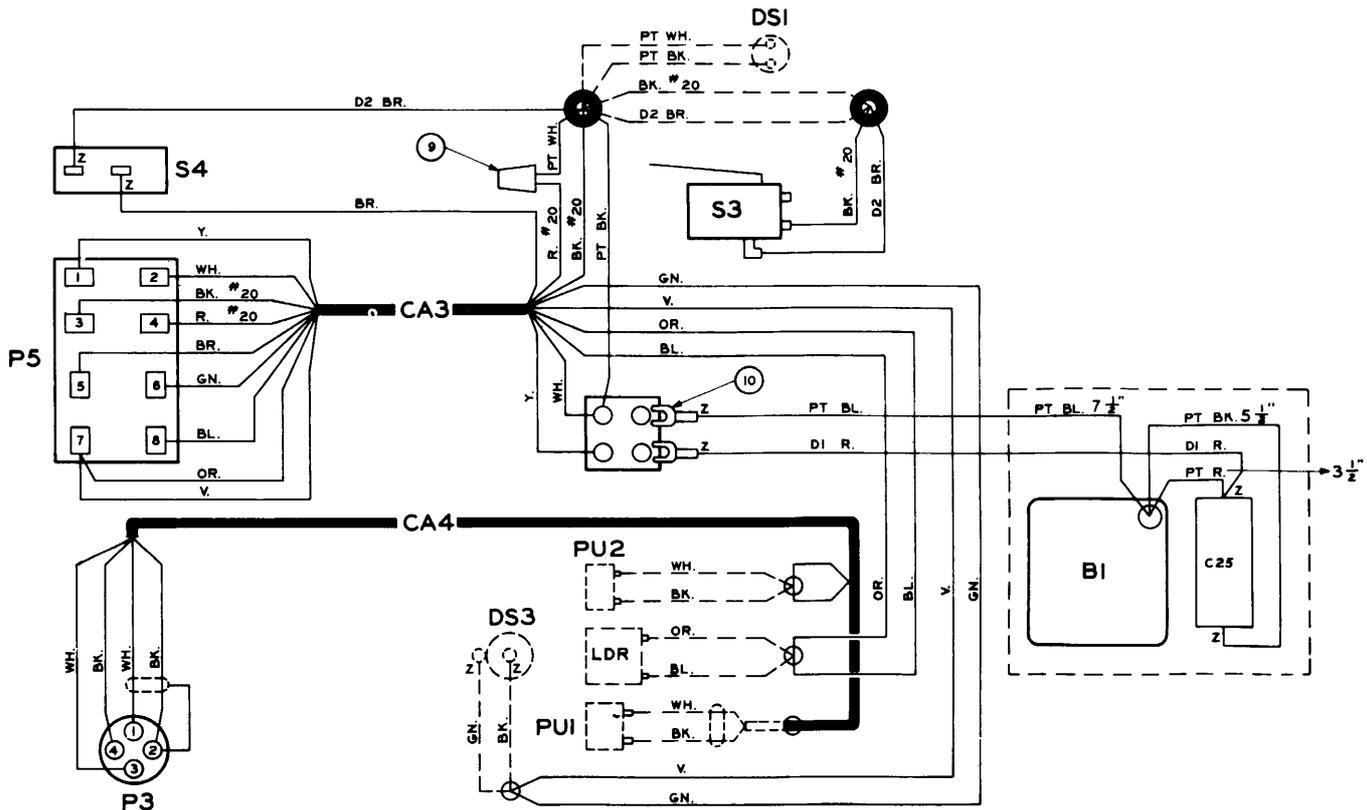


Figure 5. (Continued.)

SECTION 997-400-800
ISSUE 2

ITEM	PART NO.	QTY	DESCRIPTION
1	WW-5801 -45	1	MOTORBOARD
2	WW-5049-11B	1	HOUSING, BASE
3	WW-5048 -45	1	PLATE, HEAD MTG.
4	WW-5392 -44	1	HEAD, RECORD-PLAY
5	WW-5184- 1B	1	ASS'Y,PHOTOCELL HSG.(SEE FIG.7)
6	WW-4446 -44	1	HEAD, ERASE
7	WW-5062 -7A	1	BRACKET, LAMP
8	WW-1109 - 9	1	SOCKET, LAMP
9	WW-3844 -1B	1	ASS'Y,PRESSURE ROLLER (SEE FIG.8)
10	WW-5059-36A	1	SHAFT
11	WW-2326 - 4	5	WASHER, FIBRE
12	WW-3231 -33	1	SPRING
13	WW-3238-35A	1	BEARING, SELF ALIGN.
14	WW-3240-34A	2	RETAINER, BEARING
15	WW-1047-36A	1	PILLAR, CARTRIDGE
16	WW-5264-35A	1	SPACER, ANGLE
17	WW-4124-34A	1	PIN, ROLL
18	WW-5703-36A	2	PILLAR, TAPE GUIDE
19	WW-5072 - 9	1	SOCKET
20	WW-5077 -32	1	SWITCH, POWER SPST
21	WW-3419-35A	2	SPACER, 3/16
22	WW-5060 -36	2	PILLAR,TAPE GUIDE
23	WW-1095 -34	2	CLAMP, CABLE 1/4
24	WW-2123 -34	3	CLAMP, CABLE 1/4
25	WW-1220 -26	1	BLOCK, TERMINAL
26	WW-1403 - 3	5	SCREW, 6-32x1/2 RHM
27	WW-3600 - 3	16	SCREW, 6-32x5/6 BHM
28	WW-2860 - 3	2	SCREW, 6-32x3/4 BHM.
29	WW-2866 - 3	1	SCREW, 6-32x1 BHM
30	WW-1362 - 4	4	WASHER, NO.6 FLAT 3/8
31	WW-1353 - 4	2	WASHER, NO.6 FLAT 7/16
32	WW-3089 - 3	2	SCREW, 6-32x1/4 BHM
33	WW-1371 - 4	20	WASHER, NO.6 I.STAR
34	WW-1452 - 2	15	NUT, HEX. 6-32x1/4
35	WW-5185 - 3	2	SCREW, 2-56x3/16 RHM
36	WW-5218-36A	1	PILLAR, STOP
37	WW-5219-36A	2	PILLAR, SPRING
38	WW-1009 - 5	2	GROMMET, 3/8
39	WW-3500-32A	1	SWITCH
40	WW-4273-36A	1	ACTUATOR
41	WW-5394 - 3	2	SCREW, 4-36x3/4
42	WW-3392 - 4	2	WASHER, NO.4 I.STAR
43	WW-1451 - 2	2	NUT, HEX. 4-36x1/4
44	WW-5395 -53	1	INSULATOR, TER.BLOCK
45	WW-5396-53A	1	INSULATOR, SWITCH
46	WW-5791 -56	1	TAPE TENSION ARM
47	WW-3215-36K	1	SHAFT
48	WW-5843 - 3	1	SCREW, 6-32x 1-1/4 BHM
49	WW-5692 -36	1	PILLAR, TAPE TENSION
50	WW-3232 -33	1	SPRING
51	WW-5842 -46	1	JEWEL
52	WW-5844 - 2	1	NUT, HEX.
53	WW-6096 -45	1	PLATE, BEARING

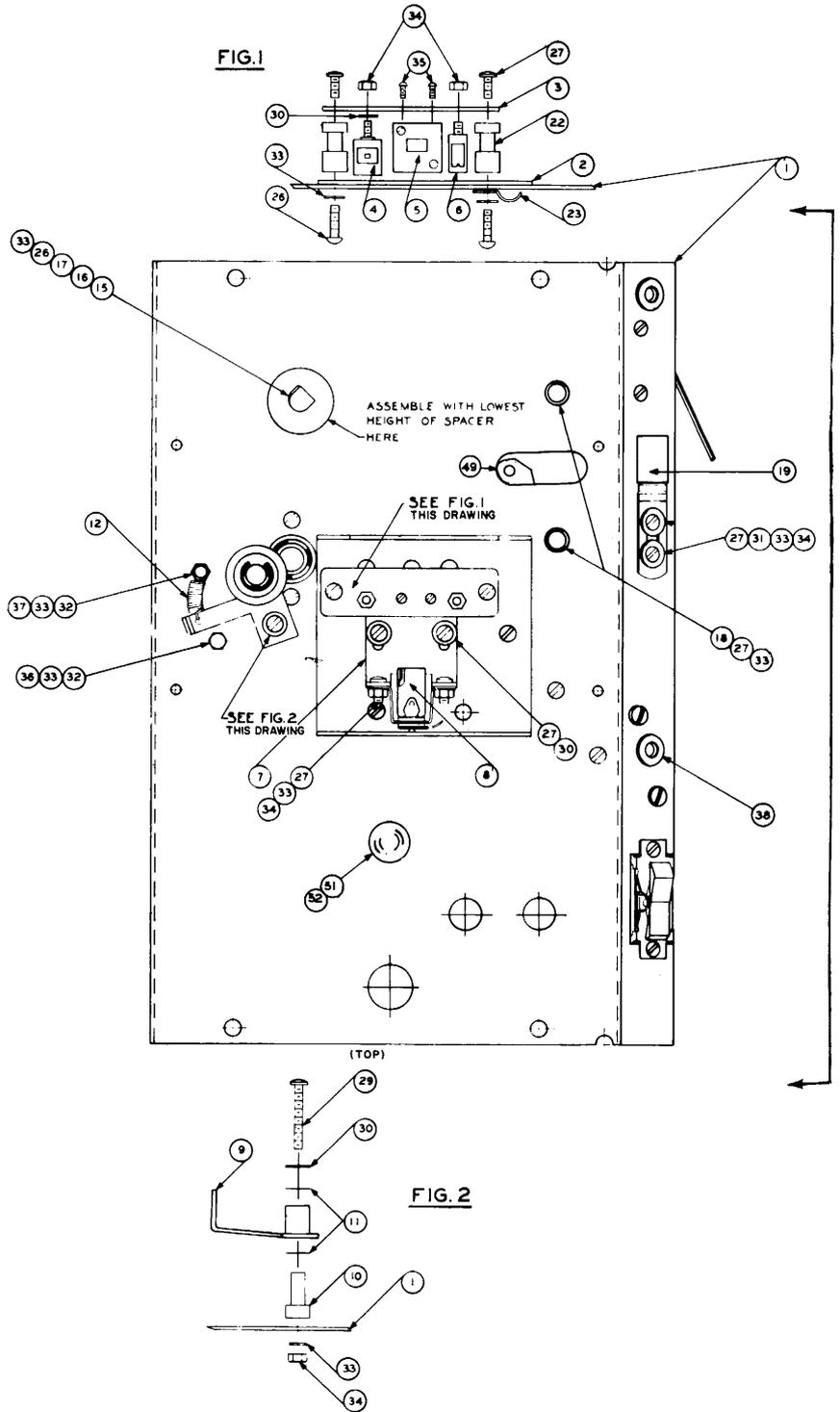


Figure 6. Motorboard assembly, WW-5798-1 (part of motorboard wiring assembly, figure 5).

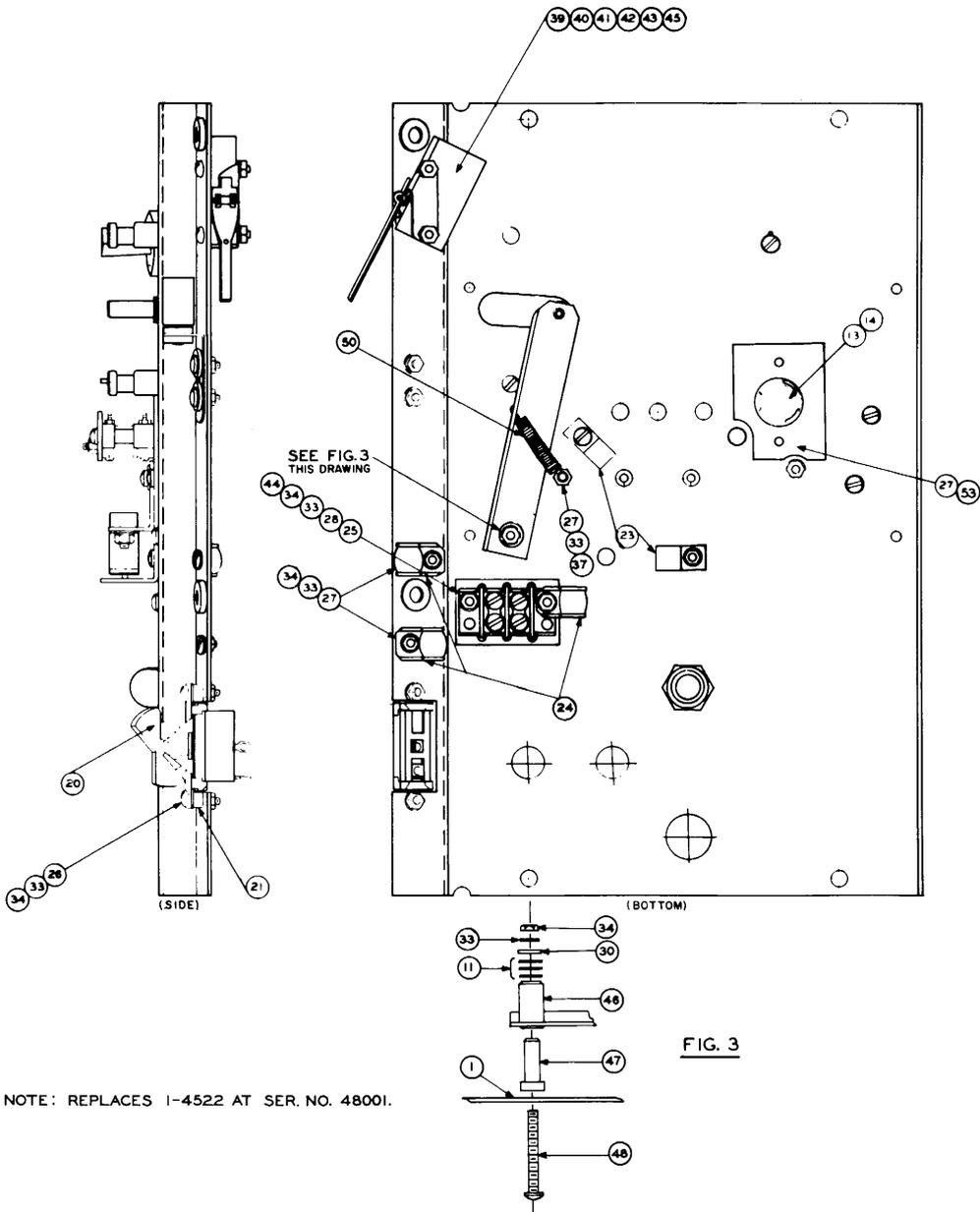


Figure 6. (Continued.)

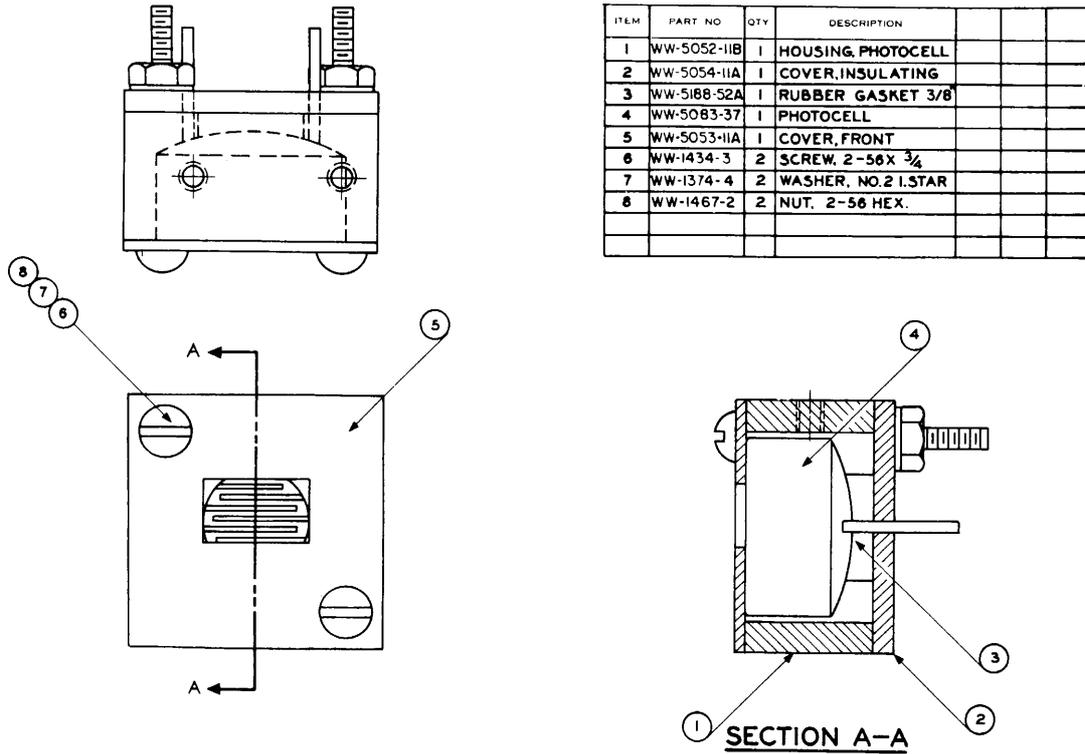


Figure 7. Photocell housing assembly, WW-5184-1B (part of motorboard assembly, figure 6).

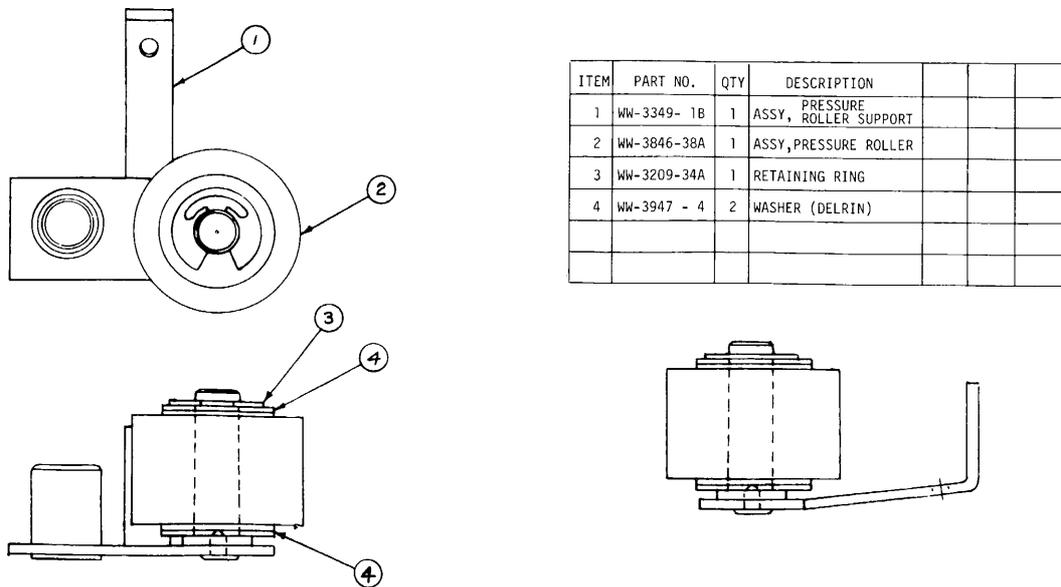
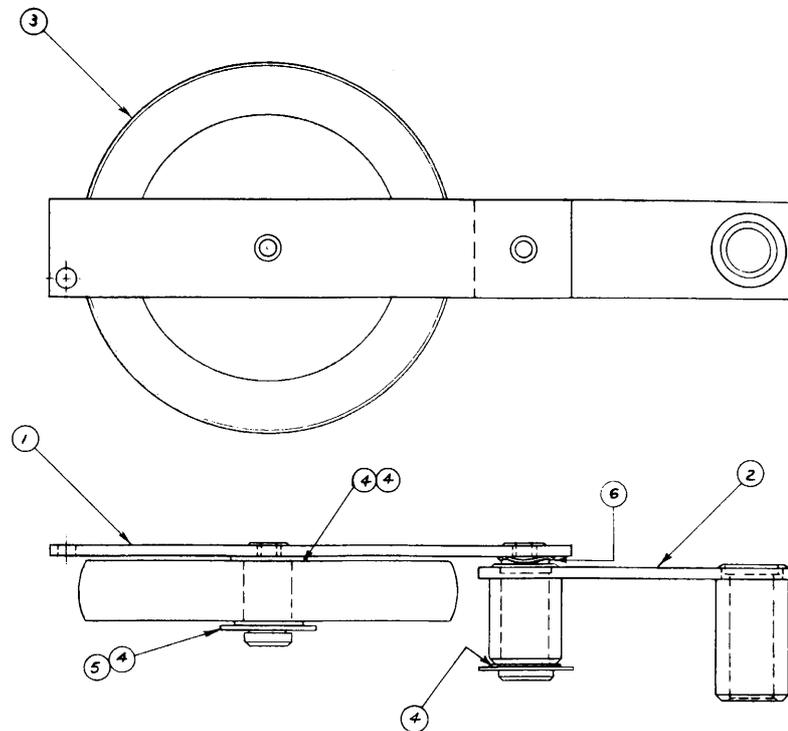


Figure 8. Pressure roller assembly, WW-3844-1B (part of motorboard assembly, figure 6).



ITEM	PART NO.	QTY	DESCRIPTION			
1	WW-3224- 1A	1	ASS'Y-IDLER SUPPORT			
2	WW-3223- 1A	1	ASS'Y-PIVOT BRACKET			
3	WW-3229-38B	1	ASS'Y-WHEEL,DR.IDLER			
4	WW-2326 - 4	4	WASHER, FIBRE FLAT			
5	WW-1061- 34	2	CLIP, HAIR PIN			
6	WW-2525 - 4	1	WASHER, TENSION			

Figure 9. Idler linkage assembly, WW-3268-1B (part of motorframe assembly, figure 10).

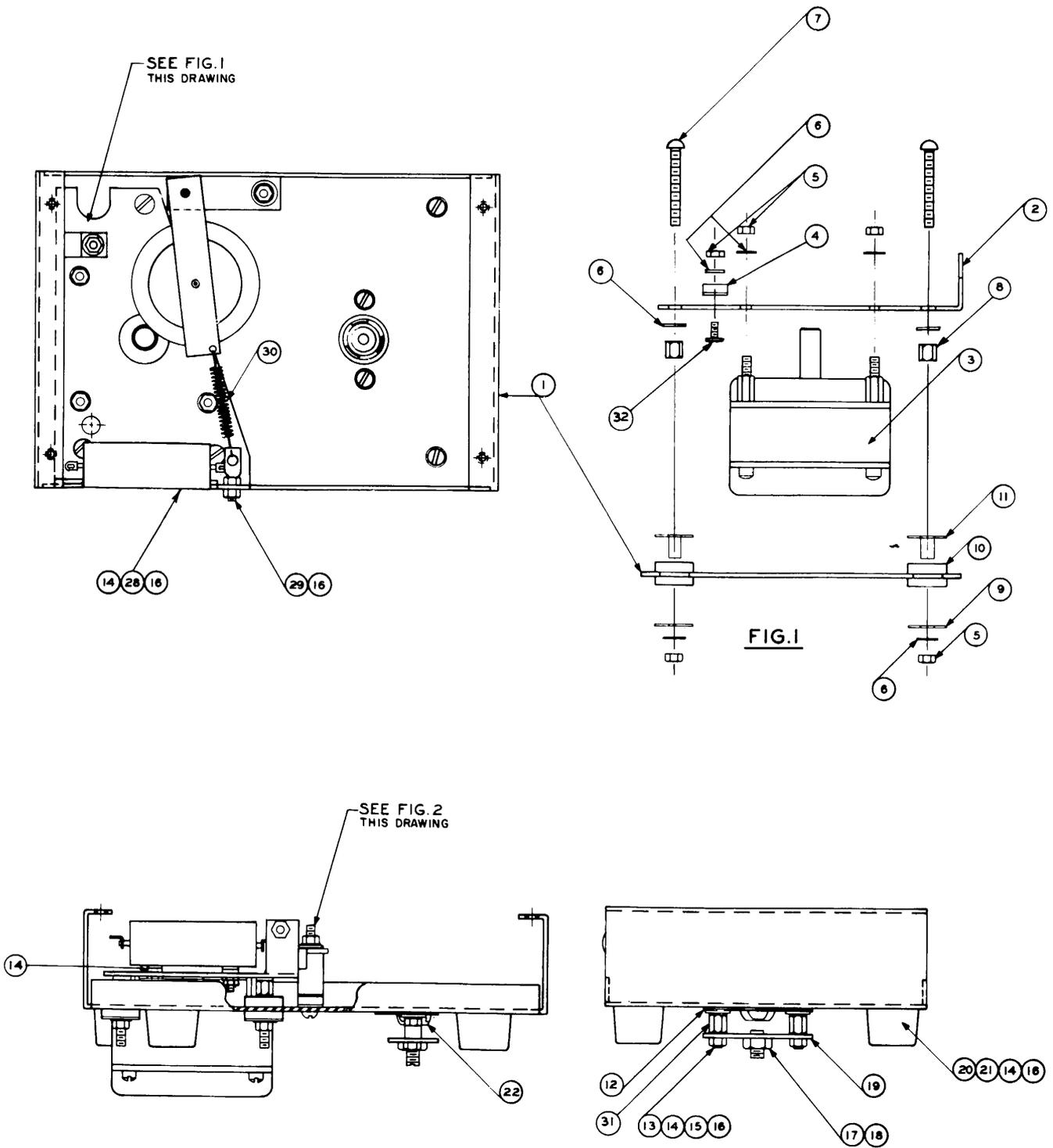


Figure 10. Motorframe assembly, WW-5797-1 (part of motorboard wiring assembly, figure 5).

ITEM	PART NO.	QTY	DESCRIPTION			
1	WW-4518-7C	1	FRAME, MECHANISM			
2	WW-5834-45E	1	PLATE, MOTOR MTG.			
3	WW-5057-44C	1	MOTOR			
4	WW-5431-34A	1	CLAMP, CABLE			
5	WW-1454-2	7	NUT, 8-32 NC-2			
6	WW-1393-4	10	WASHER, NO.8 I.STAR			
7	WW-5518-3	3	SCREW, 8-32x1 RHM			
8	WW-5835-36	3	PILLAR, 1/4 HEX x 1/4			
9	WW-1375-4	3	WASHER, FLAT 9/16 O.D.			
10	WW-2517-5	3	GROMMET			
11	WW-1068-5	3	EYELET			
12	WW-3240-34	2	RETAINER, BEARING			
13	WW-3734-3	2	SCREW, 6-32x 5/8 R.H.M.			
14	WW-1371-4	13	WASHER, NO.6 I.STAR			
15	WW-1353-4	2	WASHER, FLAT 7/16 O.D.			
16	WW-1452-2	11	NUT, 6-32 NC-2			
17	WW-5848-3	1	SCREW, 10-32x 3/8 SET			
18	WW-1469-2	1	NUT, 10-32 NF-2			
19	WW-4520-45A	1	PLATE, TRUST BEARING			
20	WW-5166-48	4	FOOT			
21	WW-1403-3	4	SCREW, 6-32x 1/2 R.H.M.			
22	WW-3238-35A	1	BEARING			
23	WW-1362-4	2	WASHER, 3/8 O.D.FLAT			
24	WW-2326-4	3	WASHER, FIBRE 1/4 I.D.			
25	WW-3215-36K	1	SHAFT, TAPE TRANS.			
26	WW-3268-1B	1	ASSY, IDLER LINKAGE (SEE FIG. 9)			
27	WW-1425-3	1	SCREW, 6-32x 1/4 R.H.M.			
28	WW-5086-17	1	CAPACITOR, IMF 400V.			
29	WW-5167-3	1	STUD, TENSION ADJUST			
30	WW-3230-33A	1	SPRING			
31	WW-5847-36	2	PILLAR, 1/4 HEX x 9/32			
32	WW-3601-3	1	SCREW, 8-32 x 3/8 BHM			
33	WW-1651-24	1	LUG, SOLDER NO.6			
34	WW-1652-24	1	LUG, SOLDER NO.8			

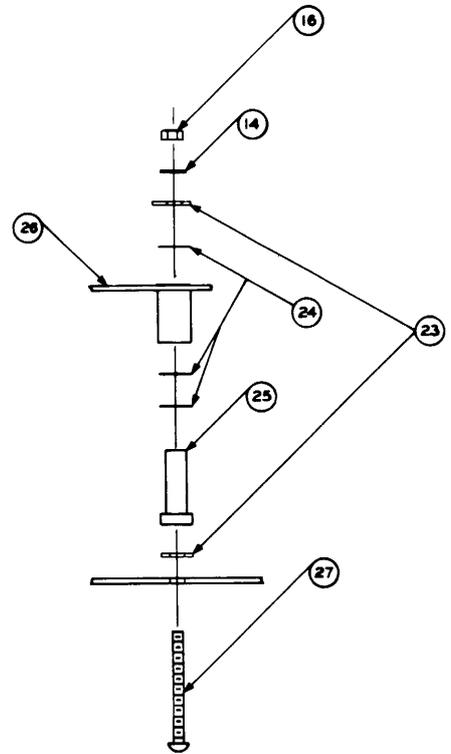


FIG. 2

NOTE : REPLACES ID-5064 AT SER. NO. 48001.

Figure 10. (Continued.)

SECTION 997-400-800
ISSUE 2

ITEM	PART NO.	QTY	DESCRIPTION
1	WW-5069-50	1	BOARD, ETCHED CKT
2	WW-5076-31	1	PLUG, 15PIN
3	WW-3243-9	5	SOCKET, TRANSISTOR
T-4	WW-3838-19	1	COIL, OSCILLATOR
Q-1, 2, 3	WW-4614-37	3	TRANSISTOR
Q-4, 5	WW-4514-37	2	TRANSISTOR, 2N1377
4	WW-1723-25	1	WIRE #22 BUS (REFER TO FIG. 12 ITEM 03)

ITEM	PART NO.	QTY	RESISTORS
R-1	WW-1841-6	1	RESISTOR, 100KΩ 1/2W
R-2	WW-1834-6	1	RESISTOR, 10KΩ 1/2W
R-3	WW-1829-6	1	RESISTOR, 1000Ω 1/2W
R-4	WW-4161-6	1	RESISTOR, 68Ω 1/2W
R-5	WW-1833-6	1	RESISTOR, 6800Ω 1/2W
R-6	WW-1841-6	1	RESISTOR, 100KΩ 1/2W
R-7	WW-1841-6	1	RESISTOR, 100KΩ 1/2W
R-8	WW-1834-6	1	RESISTOR, 10KΩ 1/2W
R-9	WW-1829-6	1	RESISTOR, 1000Ω 1/2W
R-10	WW-1833-6	1	RESISTOR, 6800Ω 1/2W
R-11			
R-12	WW-1834-6	1	RESISTOR, 10KΩ 1/2W
R-13	WW-2746-6	1	RESISTOR, 470Ω 1/2W
R-14			
R-15	WW-1854-6	1	RESISTOR, 2200Ω 1/2W
R-16	WW-4186-6	1	RESISTOR, 22Ω 1/2W
R-17	WW-1841-6	1	RESISTOR, 100KΩ 1/2W
R-18	WW-1841-6	1	RESISTOR, 100KΩ 1/2W
R-19	WW-1854-6	1	RESISTOR, 2200Ω 1/2W
R-20	WW-4186-6	1	RESISTOR, 22Ω 1/2W

ITEM	PART NO.	QTY	CAPACITORS
C-1	WW-4133-18	1	CAP ELECT 50MF 15V
C-2	WW-3281-18	1	CAP ELECT 10MF 25V
C-3	WW-3974-17	1	CAP PAPER .1MF 100V
C-4	WW-4133-18	1	CAP ELECT 50MF 15V
C-5	WW-4032-17	1	CAPPAPER.01MF 100V
C-6	WW-3281-18	1	CAP ELECT 10MF 25V
C-7	WW-3281-18	1	CAP ELECT 10MF 25V
C-8	WW-3969-17	1	CAPPAPER.022MF 100V
C-9	WW-3969-17	1	CAPPAPER.022MF 100V
C-10	WW-4142-17	1	CAPPAPER 45MF 100V
C-11	WW-3281-18	1	CAP ELECT 10MF 25V
C-12	WW-1532-17	1	CAPMICA 360MF 500V
C-13	WW-1533-17	1	CAP. .01MF 800V DISC

TO ORDER COMPLETE CIRCUIT BOARD ASSEMBLY
ORDER NUMBER I-5152

NOTES: 1. REVISION A. EFFECTIVE SERIAL NO.48501

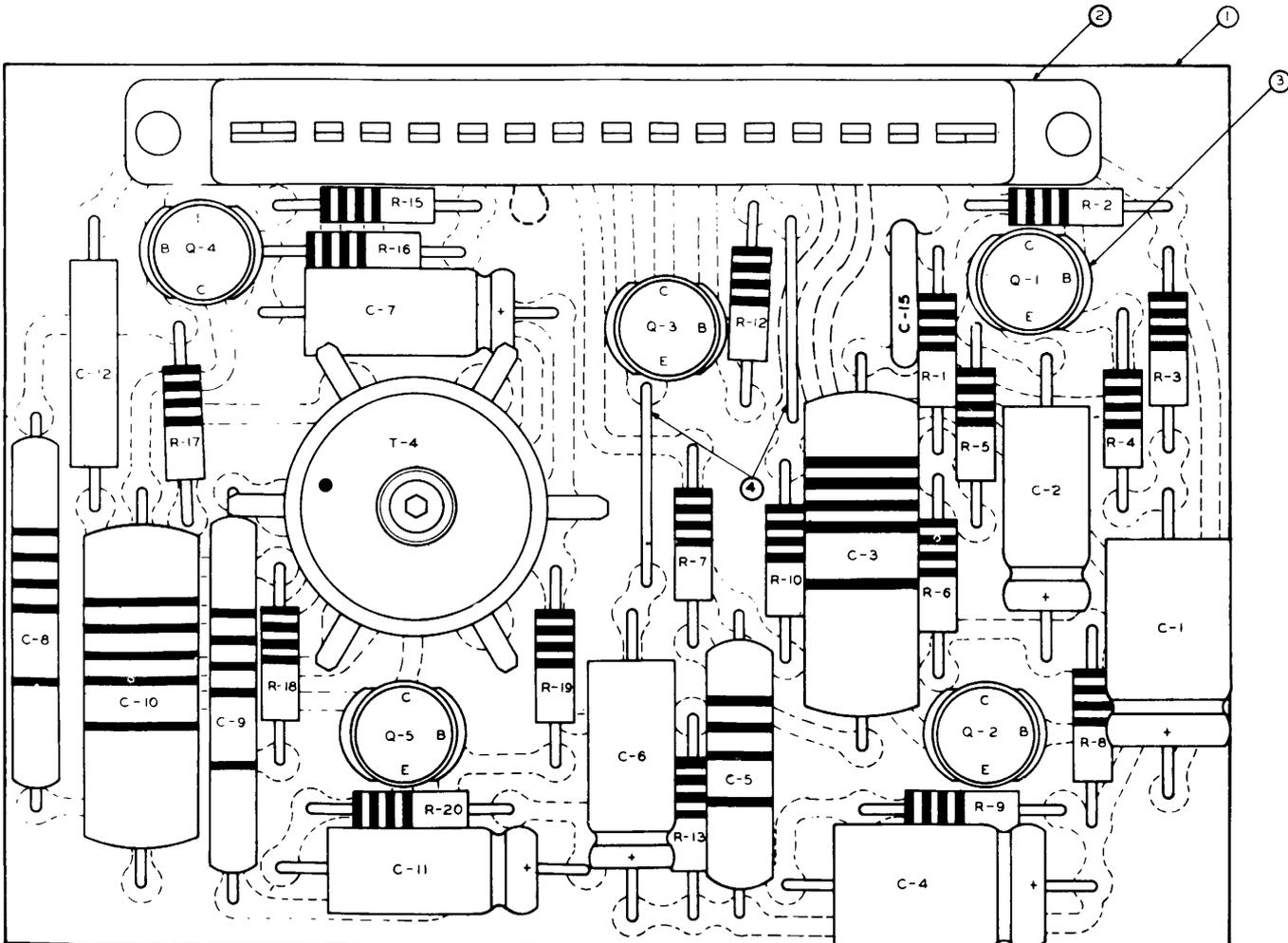
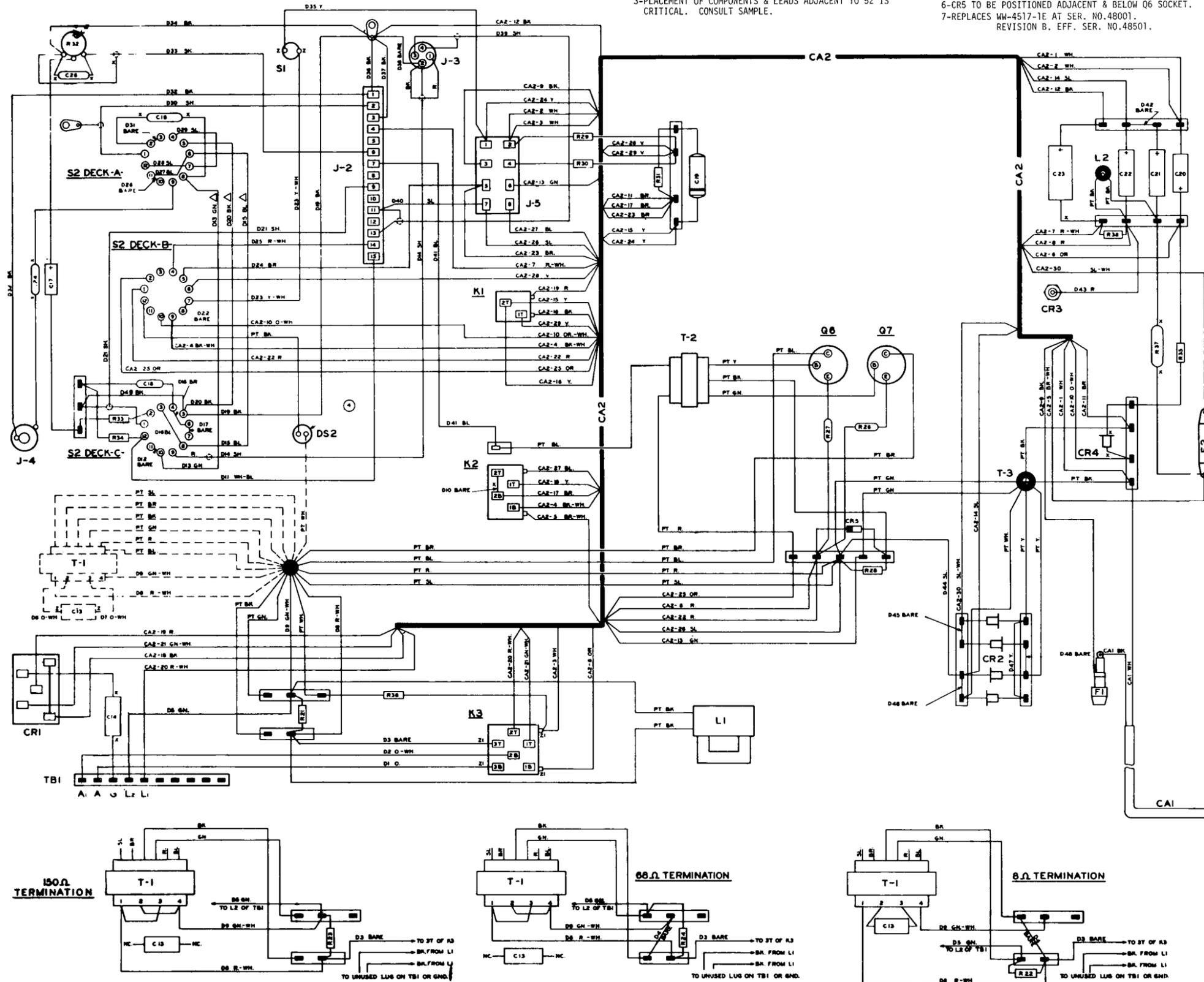


Figure 11. Circuit board assembly, WW-5152-1D (part of final assembly, figure 1).

NOTES: 1-ITEMS D12, D13, D15 THROUGH D31 INCL., C15, C16 and C24, TO BE WIRED TO 52 (32C5078) PRIOR TO 52 ASS'Y ON ITEM 2.
2-ITEMS D32 THROUGH D24 INCL., C17, C18, R33 AND R34 TO BE WIRED TO ITEM 2 PRIOR TO ITEM 1.
3-PLACEMENT OF COMPONENTS & LEADS ADJACENT TO 52 IS CRITICAL. CONSULT SAMPLE.
4-R22 USED WHEN WIRED FOR 8Ω ONLY.
R23 USED WHEN WIRED FOR 150Ω ONLY.
R24 USED WHEN WIRED FOR 68Ω ONLY.
5-A INDICATES WIRE PASSING THROUGH 52 SHIELD ADJ. TO TERMINAL CONCERNED.
6-CR5 TO BE POSITIONED ADJACENT & BELOW Q6 SOCKET.
7-REPLACES WW-4517-1E AT SER. NO.48001.
REVISION B. EFF. SER. NO.48501.



ITEM	PART NO.	QTY	DESCRIPTION	WIRE LENGTHS (MINIMUM ORDER)
1	WW-5796-1D	1	ASS'Y, CHASSIS (SEE FIG.4)	
2	WW-5106-1C	1	ASS'Y, SW FRAME MTG. (SEE FIG.3)	
3	WW-3089-3	3	SCREW, 6-32x1/4 BHM.	
4	WW-5071-9	1	SOCKET, MIN. BAY.	
F 12	WW-5490-46	2	FUSE, 3/8 AMP, 250 V.	
US 2	WW-1169-51	1	BULB, NEON, RESH	
CA 1	WW-1282-25	1	CABLE, POWER & PLUG	
CA 2	WW-5221-25C	1	HARNESS, TT-3	
X	WW-1227-30	4R	SLEEVEING, #22 (MINIMUM ORDER)	
Z1	WW-1230-30	4	SLEEVEING, #10x1/2" 3-FOOT LENGTHS	
Z	WW-1230-30	4	SLEEVEING, #10x1/2"	
WIRES (MINIMUM ORDER)				
ITEM	PART NO.	LENGTH	COLOR	25 FEET PER ITEM
D1	WW-4090-25	3 3/4	ORANGE	
D2	WW-4102-25	4 1/4	ORANGE-WHITE	
D3	WW-1723-25	5/8	BARE	
D4	WW-1723-25	1	BARE	
D5	WW-4089-25	2 1/2	GREEN	
D6	WW-4102-25	2	ORANGE-WHITE	
D7	WW-4102-25	3 1/2	ORANGE-WHITE	
D8	WW-4096-25	6	RED-WHITE	
D9	WW-4101-25	4 1/2	GREEN-WHITE	
D10	WW-1723-25	5/8	BARE	
D11	WW-4096-25	3	WHITE-BLUE	
D12	WW-1723-25	1/2	BARE	
D13	WW-4089-25	1 3/4	GREEN	
D14	WW-2023-25	4 3/4	SHIELDED T. PAIR	
D15	WW-4093-25	3 3/4	BLUE	
D16	WW-4093-25	3 3/4	BLUE	
D17	WW-1723-25	1/2	BARE	
D18	WW-4092-25	1 1/8	BROWN	
D19	WW-4557-25	1	BLACK	
D20	WW-4557-25	1 1/8	BLACK	
D21	WW-1276-25	3 3/4	SHIELDED	
D22	WW-1723-25	1/2	BARE	
D23	WW-5347-25	2 3/8	YELLOW-WHITE	
D24	WW-4092-25	3 3/4	BROWN	
D25	WW-4096-25	2 1/2	RED-WHITE	
D26	WW-1723-25	1/2	BARE	
D27	WW-4093-25	1 3/4	BLUE	
D28	WW-4088-25	3/4	SLATE	
D29	WW-4088-25	5/8	SLATE	
D30	WW-1276-25	3 3/4	SHIELDED	
D31	WW-1723-25	1/2	BARE	
D32	WW-4557-25	7 1/4	BLACK	
D33	WW-1276-25	3	SHIELDED	
D34	WW-4557-25	4 1/2	BLACK	
D35	WW-4558-25	4 3/4	YELLOW	
D36	WW-4557-25	1 1/2	BLACK	
D37	WW-4557-25	3/4	BLACK	
D38	WW-1723-25	1 1/4	BARE	
D39	WW-1276-25	8	SHIELDED	
D40	WW-4088-25	3 1/4	SLATE	
D41	WW-4093-25	3 1/2	BLUE	
D42	WW-1723-25	1	BARE	
D43	WW-4087-25	1 1/2	RED	
D44	WW-4088-25	4 1/2	SLATE	
D45	WW-1723-25	5/8	BARE	
D46	WW-1723-25	5/8	BARE	
D47	WW-4558-25	3	YELLOW	
D48	WW-1723-25	1	BARE	
D49	WW-4557-25	2 1/2	BLACK	
REF.	WW-5109-54D		SCHEMATIC	
C13	WW-3256-17	1	2 MF, 200 V.	
C14	WW-3455-17	1	.47 MF, 200 V.	
C15	WW-3974-17	1	1 MF, 100 V.	
C17	WW-3281-18	1	10 MF, 25 V.	
C18	WW-3971-17	1	.0066 MF, 100 V.	
C19	WW-1530-17	1	.05 MF, 600 V.	
C20	WW-4579-18	1	8 MF, 150 V.	
C21	WW-4725-18	1	500 MF, 25 V.	
C22	WW-5087-18	1	500 MF, 15 V.	
C23	WW-4132-18	1	250 MF, 15 V.	
C24	WW-3999-17	1	.047 MF, 100 V.	
C25	WW-3974-17	1	1 MF, 100 V.	
R21	WW-1854- 6	1	2200 Ω 1/2 W.	
R22	WW-5085-13	1	8 Ω 1/2 W.	
R23	WW-4184- 6	1	150 Ω 1/2 W.	
R24	WW-4161- 6	1	68 Ω 1/2 W.	
R26	WW-1853- 6	1	15 Ω 1/2 W.	
R27	WW-1853- 6	1	15 Ω 1/2 W.	
R28	WW-1831- 6	1	3300 Ω 1/2 W.	
R29	WW-1844- 6	1	220K Ω 1/2 W.	
R30	WW-2371- 6	1	33K Ω 1/2 W.	
R31	WW-4184- 6	1	150 Ω 1/2 W.	
R32	WW-1832- 6	1	4700 Ω 1/2 W.	
R34	WW-1834- 6	1	10K Ω 1/2 W.	
R35	WW-1829- 6	1	1000 Ω 1/2 W.	
R36	WW-1836- 6	1	22K Ω 1/2 W.	
R37	WW-5233-13	1	50 Ω 5 W.	
R38	WW-1827- 6	1	220 Ω 1/2 W.	
CR2	WW-4031-37	4	DIODE, 1N537	
CR4	WW-4114-37	1	DIODE, P15	
Q6, Q7	WW-5776-37	2	TRANSISTOR, 2N697	
CR-5	WW-5777-37	1	DIODE, 1N486	

Figure 12. Wiring-chassis assembly, WW-5796-1E (part of final assembly, figure 1).