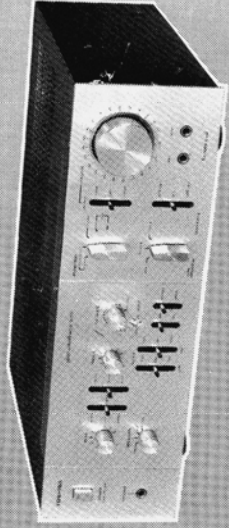


# TOSHIBA

## STEREO AMPLIFIER

# SB 620



### SPECIFICATIONS

<p>■ <b>Main-Amplifier</b> Continuous output: (Both channel drive)</p>	<p>20 Hz ~ 20 kHz (8Ω) 62W + 62W (4Ω) 70W + 70W (8Ω) 65W + 65W (4Ω) 75W + 75W-</p>	<p>Frequency characteristic: 10 Hz ~ 50 kHz +0dB (AUX) -1dB</p>
<p>Distortion factor:</p>	<p>Total harmonics distortion 0.2% (at rated output) 0.05% (at 1W output) Cross modulation distortion 0.2% (at rated output) 0.05% (at 1W output)</p>	<p>0.05% BASS (100 Hz) ±10dB, (Turnover frequency: 400 Hz, 200 Hz) TREBLE (10 kHz) ±10dB, (Turnover frequency: 2.5 kHz, 5 kHz)</p>
<p>Frequency characteristic:</p>	<p>10 Hz ~ 80 kHz +0dB -1dB</p>	<p>LOW 15 Hz, 30 Hz (6dB/oct.) HIGH 20 kHz, 8 kHz (6dB/oct.) -10dB, -20dB</p>
<p>Output band width:</p>	<p>6 ~ 60 kHz 8Ω IHF 0.2% Both channel drive</p>	<p>9dB (100 Hz) 3.5dB (10 kHz) (30 ~ 15 kHz) ±0.2dB</p>
<p>Impedance:</p>	<p>1 V (50 kΩ)</p>	<p>(1 kHz) 400 mV (Higher harmonics distortion factor: 0.1%)</p>
<p>Residual noise:</p>	<p>Max. 0.5 mV (8Ω)</p>	<p>PHONO 73dB (IHF, short circuit, A network)</p>
<p>Damping factor:</p>	<p>Min. 30</p>	<p>AUX 90dB (IHF, short circuit, A network)</p>
<p>Speaker impedance:</p>	<p>4Ω ~ 16Ω (8Ω ~ 16Ω for A+B only)</p>	<p>AC 120 V 60 Hz or 220/240 V ~ 50 Hz</p>
<p>■ <b>Pre-Amplifier</b> Impedance:</p>	<p>PHONO 1 2.0 mV (50 kΩ) PHONO 2 2.0 mV TUNER 150 mV (50 kΩ) AUX 1, 2 150 mV (50 kΩ)</p>	<p>Power source voltage: 250W or 3A (for CSA model) 400W (220/240 V ~ 50 Hz) 500W (for BEAB model) 450 x 148 x 375 14 kg</p>
<p>Recording output:</p>	<p>TAPE REC 150 mV DIN 30 mV PRE OUT 1 V</p>	<p>Power consumption: 250W or 3A (for CSA model) 400W (220/240 V ~ 50 Hz) 500W (for BEAB model) 450 x 148 x 375 14 kg</p>
<p>Rated output:</p>		<p>Dimensions (mm): Weight:</p>

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# OPERATING CONTROLS

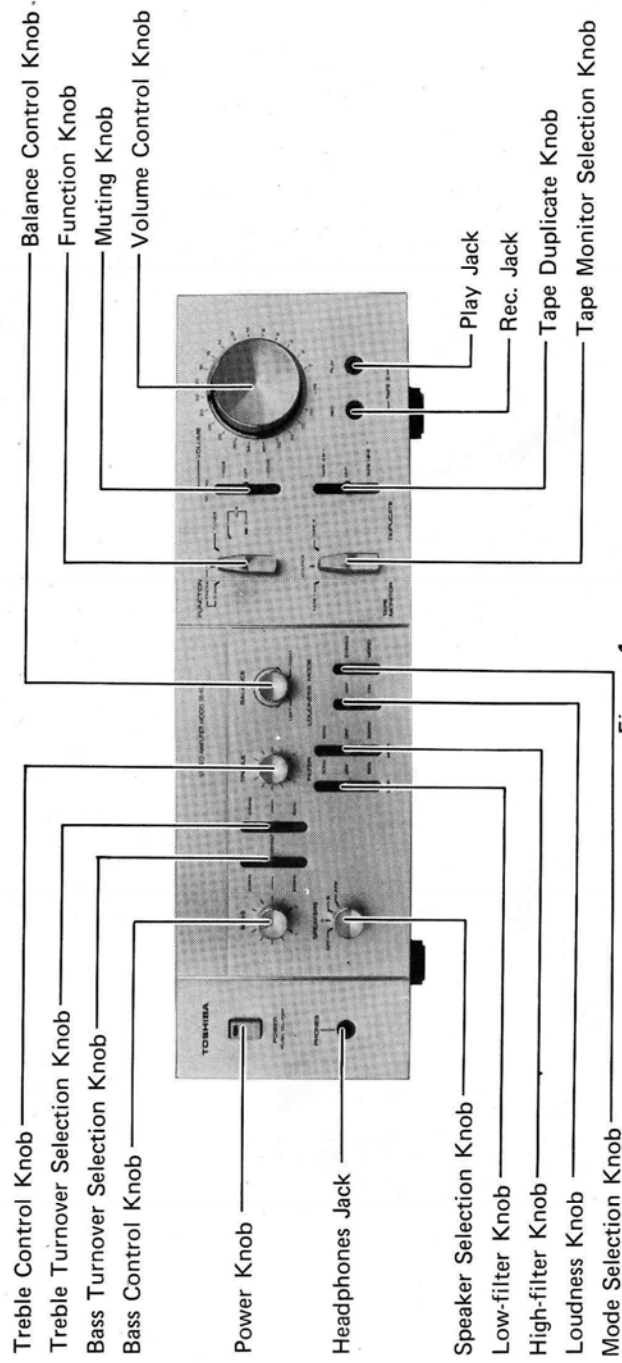


Figure 1.

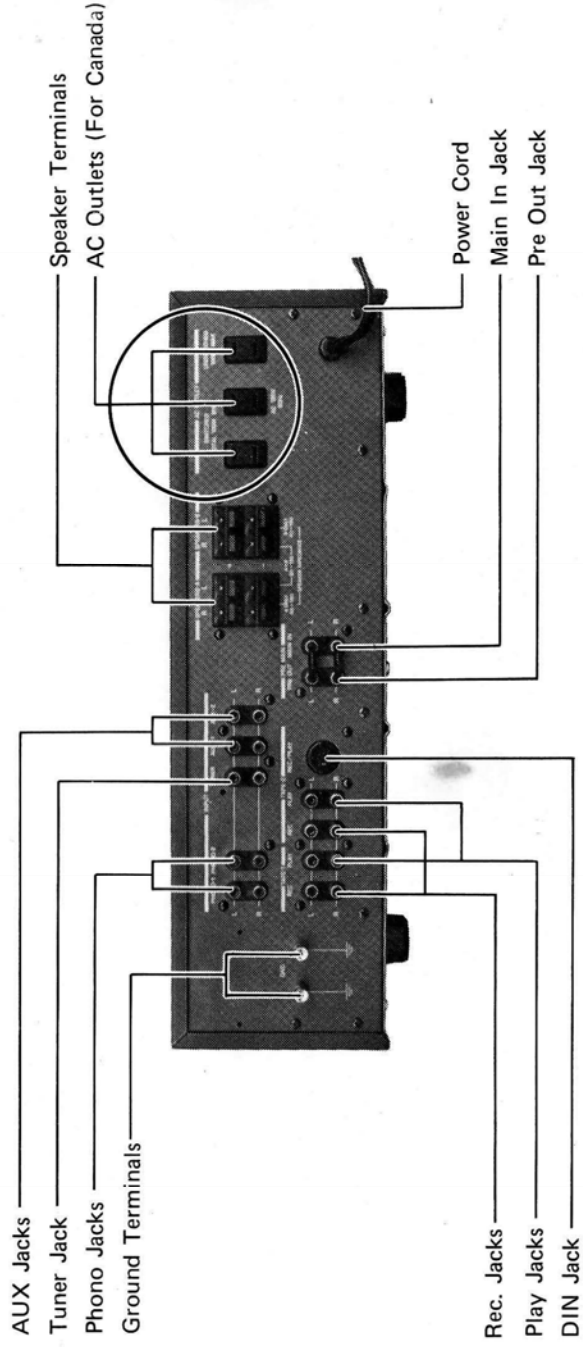


Figure 2.

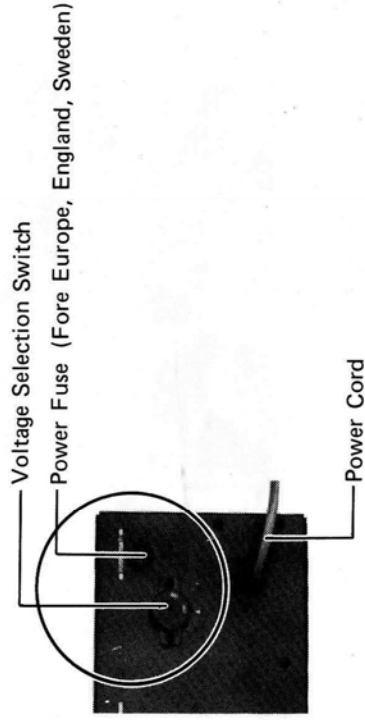


Figure 3.

## DISASSEMBLY INSTRUCTIONS

### TOP COVER REMOVAL

1. Remove four screws (A). See figure 4.

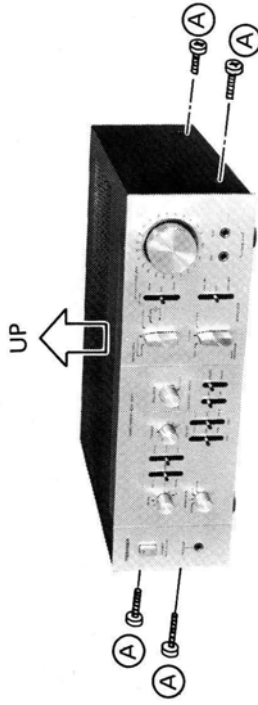


Figure 4.

### BOTTOM COVER REMOVAL

1. Remove five screws (B). See figure 5.

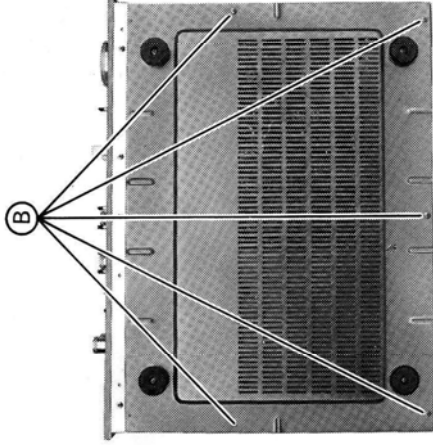


Figure 5.

### FRONT PANEL REMOVAL

1. Pull out the six knobs (C). See figure 6.
2. Remove three screws (D). See figure 7.
3. Remove three screws (E). See figure 8.

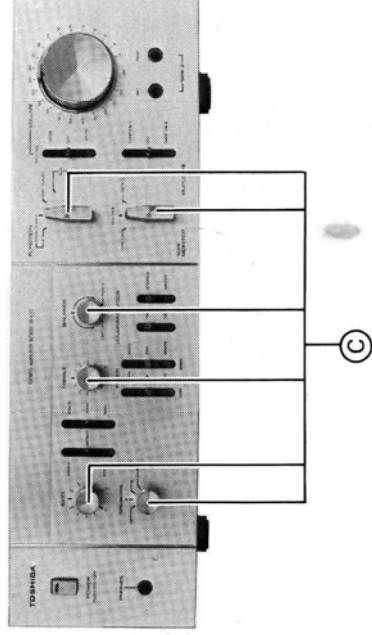


Figure 6.

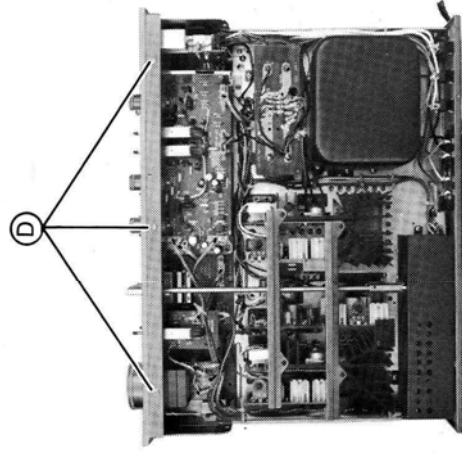


Figure 7.

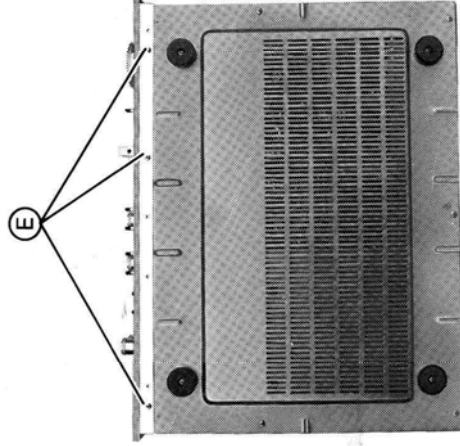


Figure 8.

## ADJUSTMENTS INSTRUCTIONS

### 1. Power Voltage Adjustment

1. Connect the positive (+) lead of a meter which allows to measure DC140V to orange colored terminal of 3P SOCKET which is connected to TONE P.C. Board and negative lead to blue colored terminal. (Insert 3P SOCKET into TONE P.C. Board (76) and connect its clip to chassis.)
2. Turn VR01 on SUPPLY P.C. Board with screwdriver, and adjust it so the reading on meter is 140V.
3. After finishing voltage adjustment, remove the equipment and insert 3P SOCKET (7) into TONE P.C. Board (76).
4. After adjustment, fix the screw.

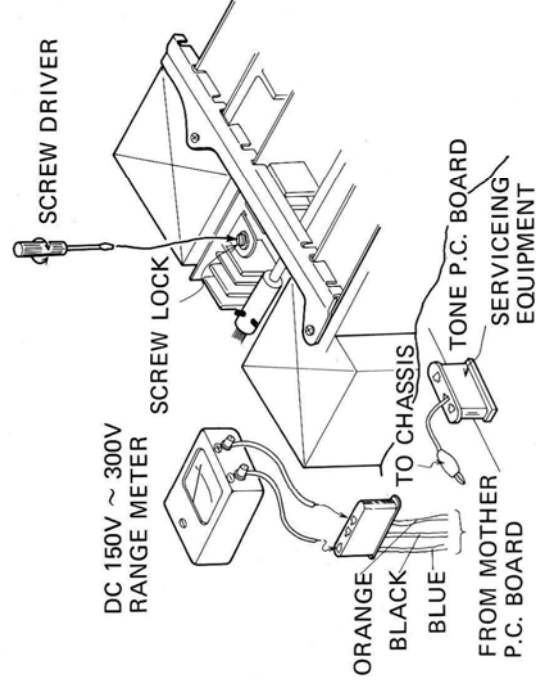


Figure 9.

### 2. Idle Current Adjustment

1. Connect a meter to test point and adjust VR01 with screwdriver so the reading on meter is 0.0044V.
2. The allowable voltage range is from 0.0033V to 0.0055V.
3. Adjustment must be made on both channels.
4. After adjustment, fix the screw.

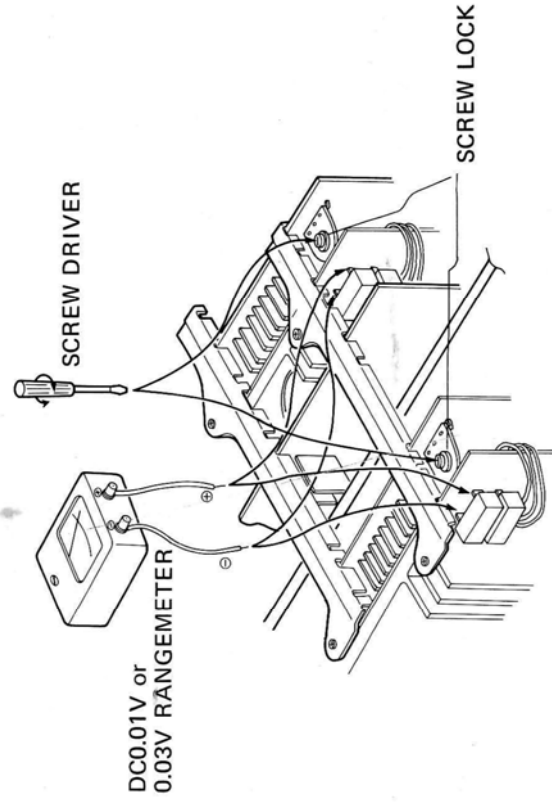
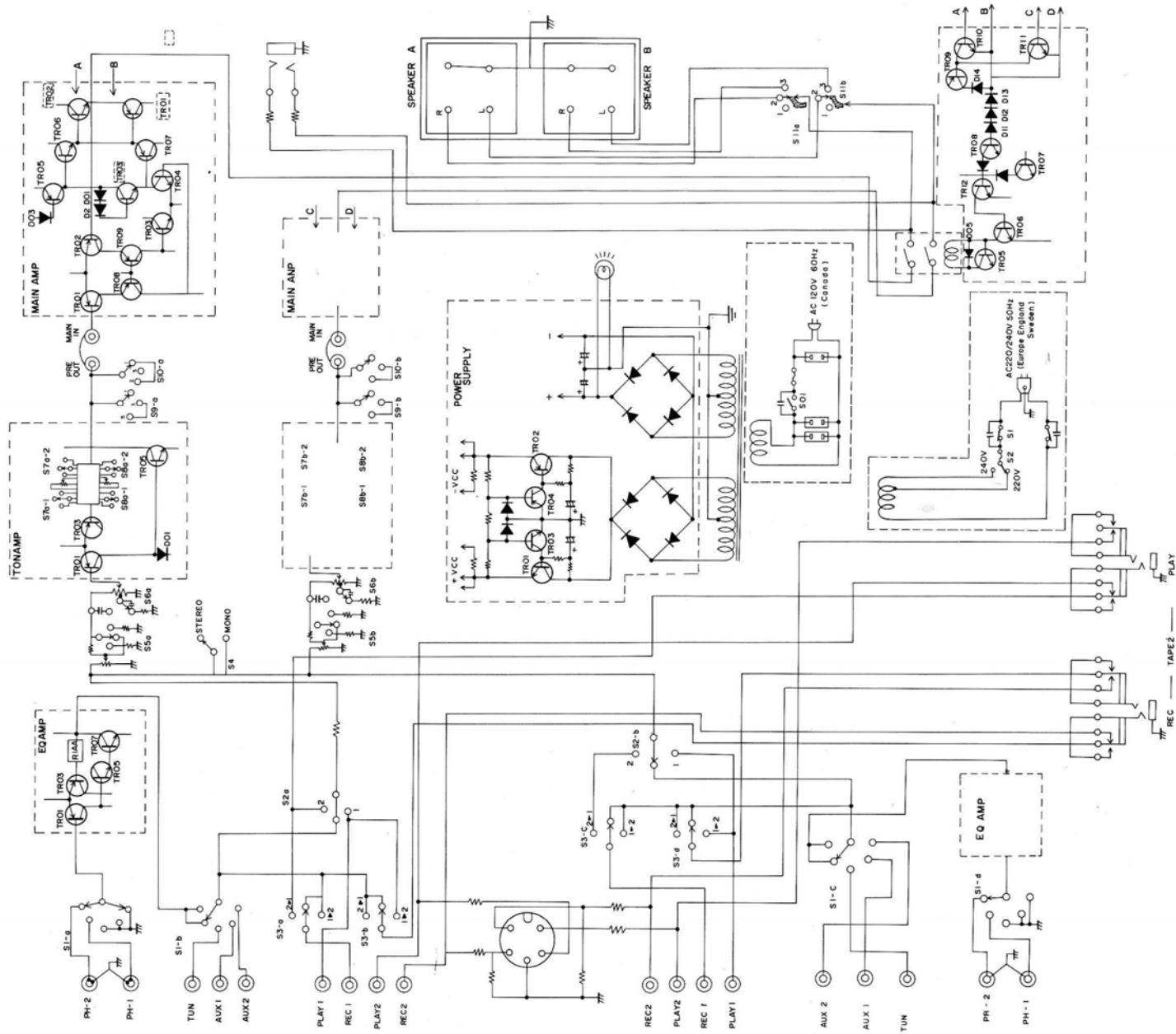


Figure 10.

BLOCK DIAGRAM



- S 1-a ~ d FUNCTION (PHONO 02, PHONO 01, TUNER, AUX 1, AUX 2)
- S 2-a ~ b TAPE MONITOR (TAPE 1, SOURCE, TAPE 2)
- S 3-a ~ d DUPLICATE (TAPE 2 1, OFF, TAPE 1 2)
- S 4 MODE (STEREO, MONO)
- S 5-a ~ b MUTING (-10 dB, OFF, -20 dB)
- S 6-a ~ b LOUDNESS (OFF, ON)
- S 7-a ~ b TURNOVER (TREBLE) (2.5 kHz, DEFEAT, 5 kHz)
- S 8-a ~ b TURNOVER (BASS) (400 Hz, DEFEAT, 200 Hz)
- S 9-a ~ b HIGH FILTER (8 kHz, OFF, 20 kHz)
- S 10-a ~ b LOW FILTER (30 Hz, OFF, 15 Hz)
- S 11-a ~ b SPEAKERS (OFF, A, B, A+B)

# ELECTRICAL PARTS LOCATIONS

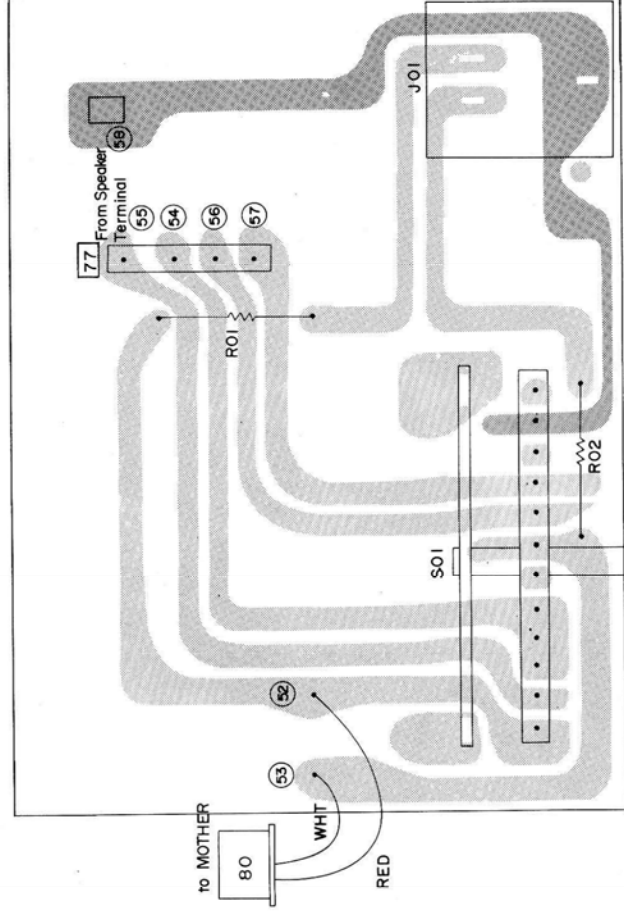


Figure 9. Solder Side of Speaker P.C. Board

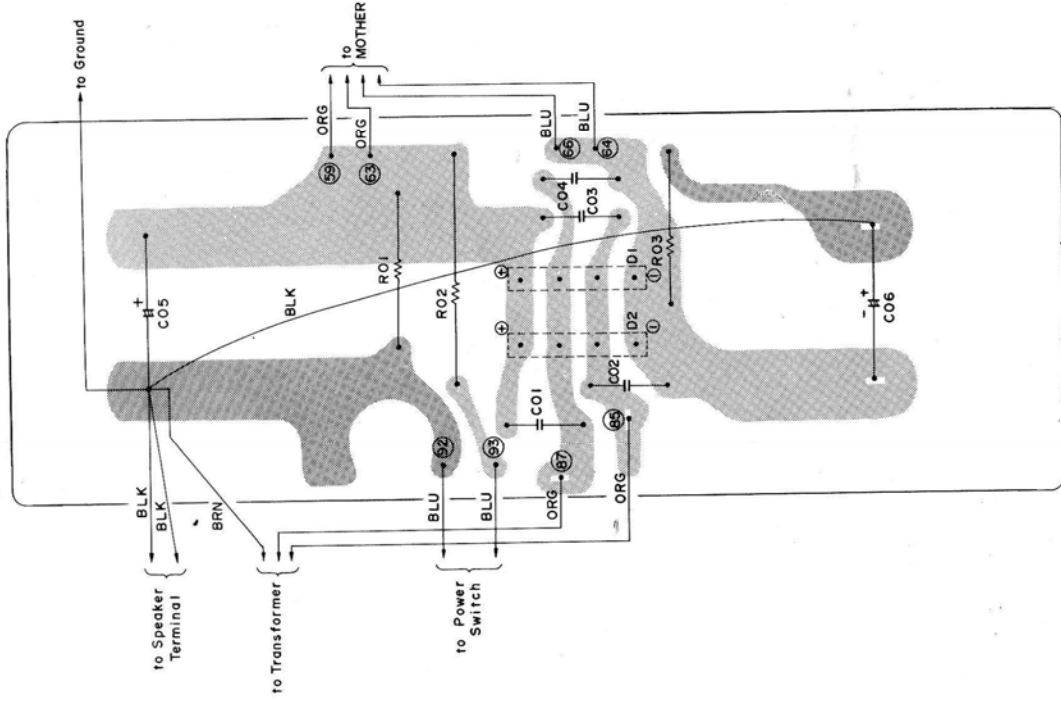


Figure 10. Solder Side of Power Supply Amplifier P.C. Board (SPLY-C33)

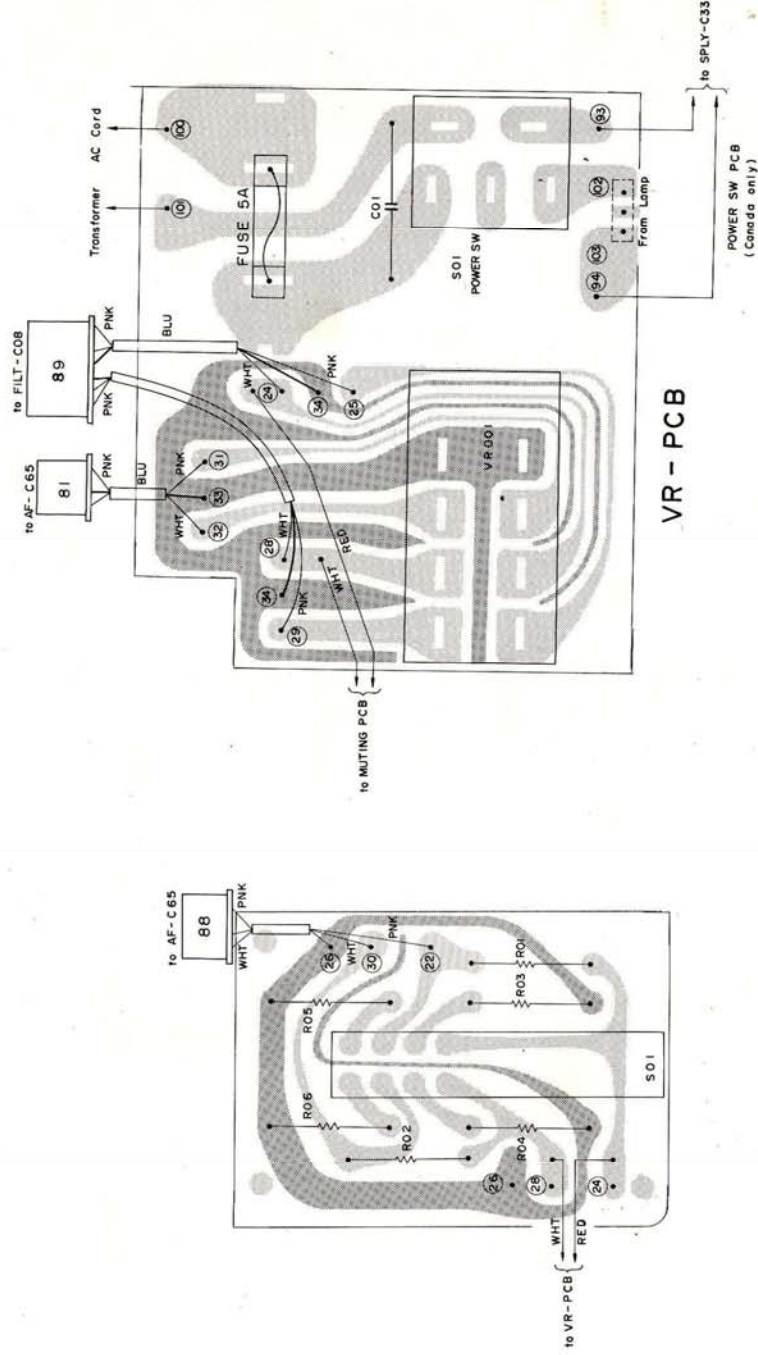


Figure 11. Solder Side of Muting P.C. Board

Figure 12. Solder Side of Power Switch P.C. Board & Solder Side of VR-P.C. Board

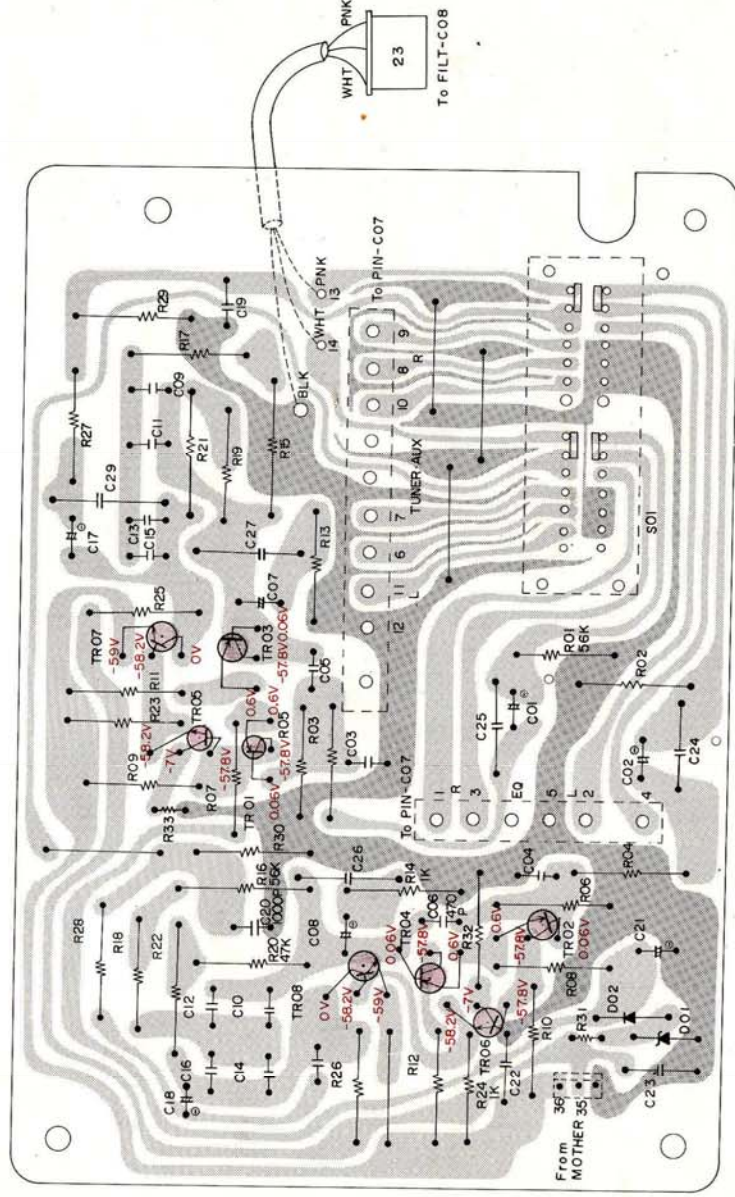


Figure 13. Solder Side of EQ-Amplifier P.C. Board (AF-C64)



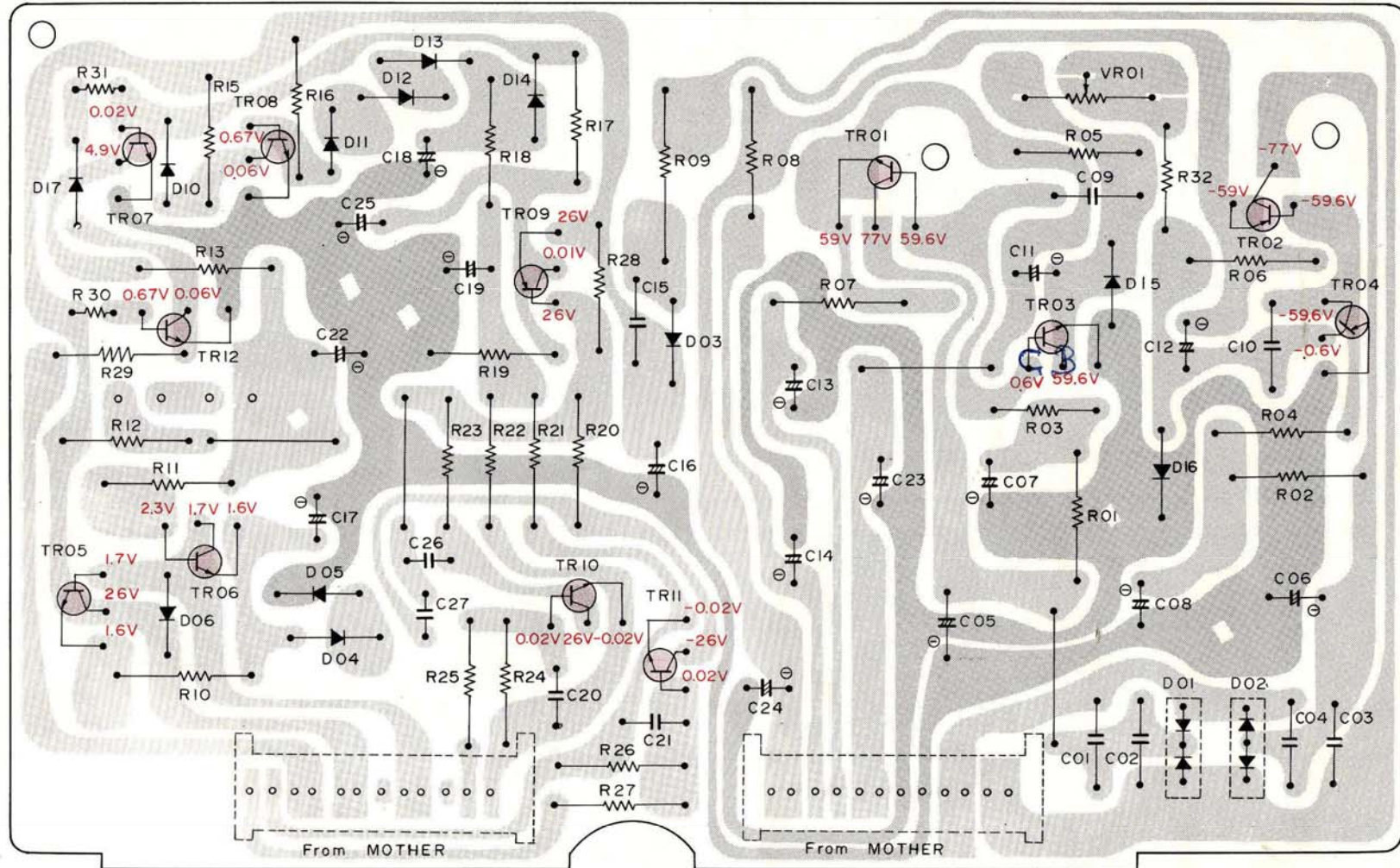


Figure 14. Solder Side of Supply Protector Amplifier P.C. Board (SPLY-C34)

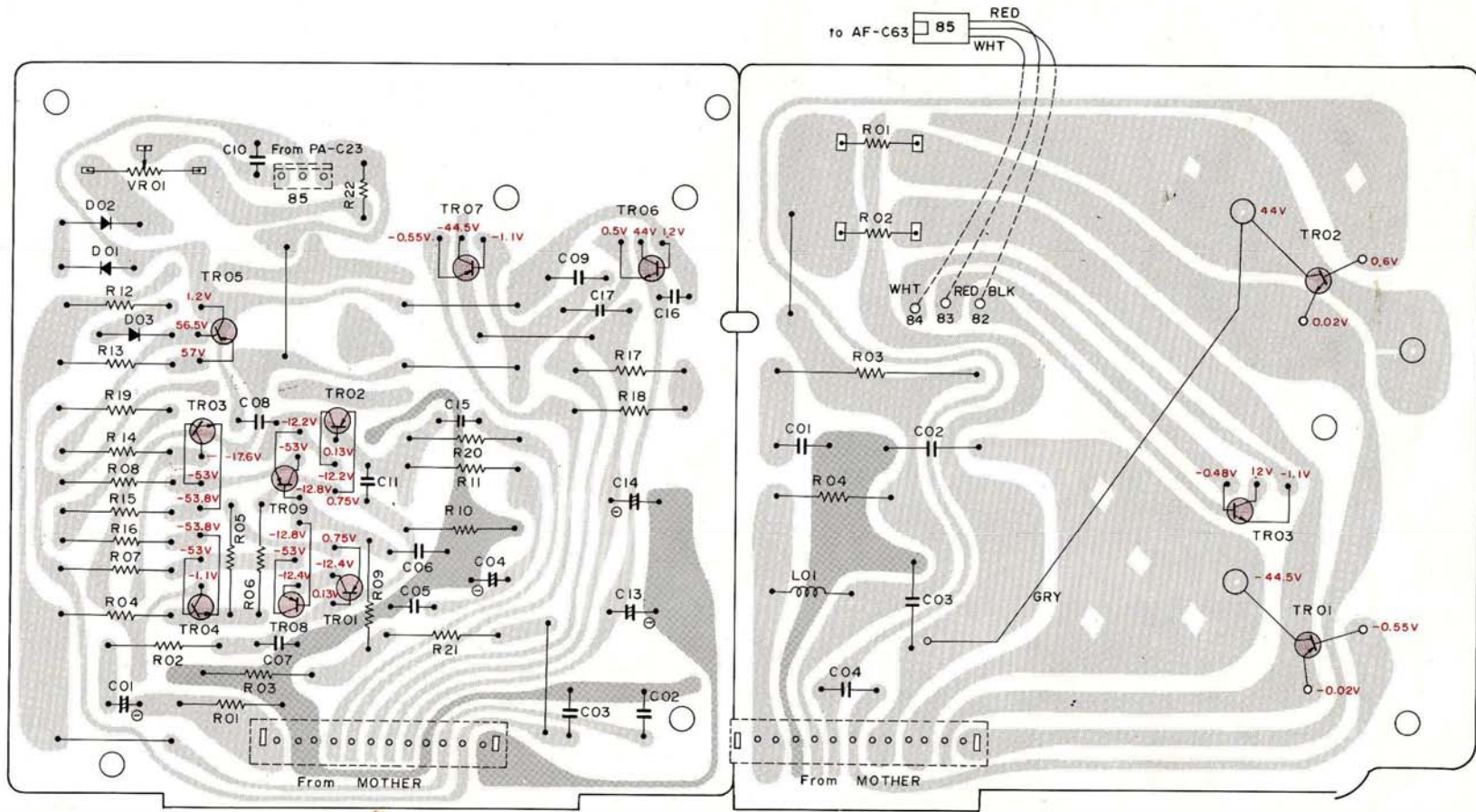


Figure 15. Solder Side of Driver Amplifier P.C. Board (AF-C63) & Solder Side of Power Amplifier P.C. Board (PA-C23)

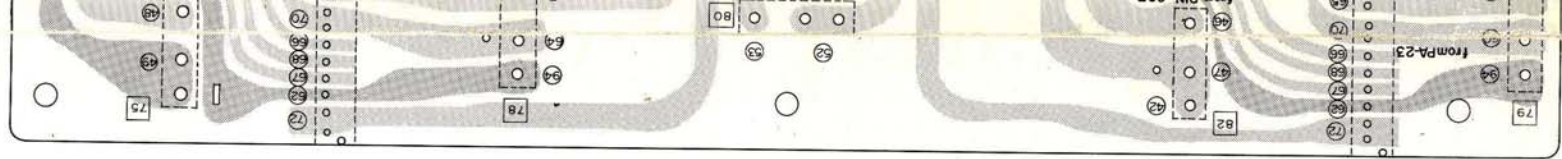
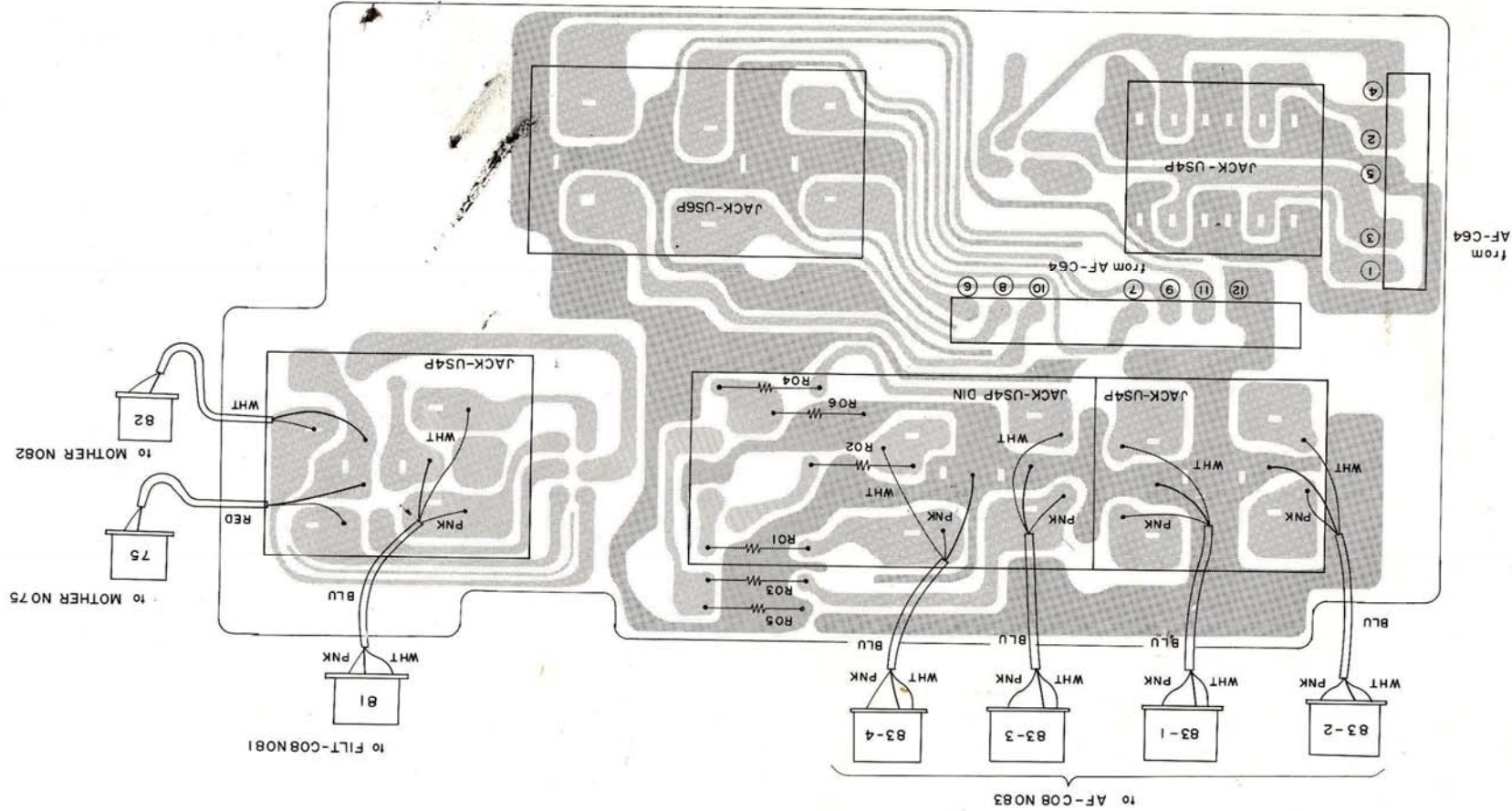
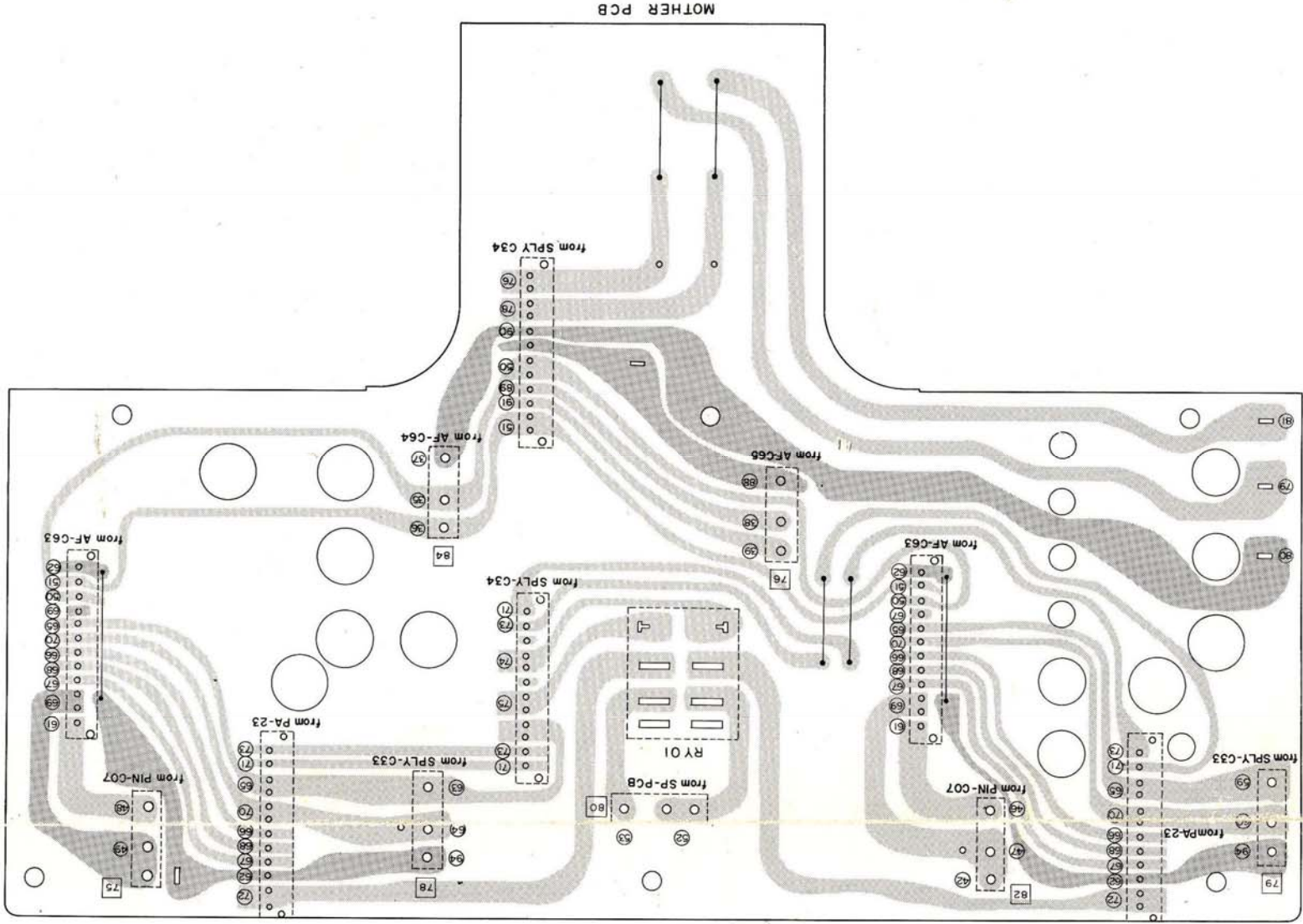
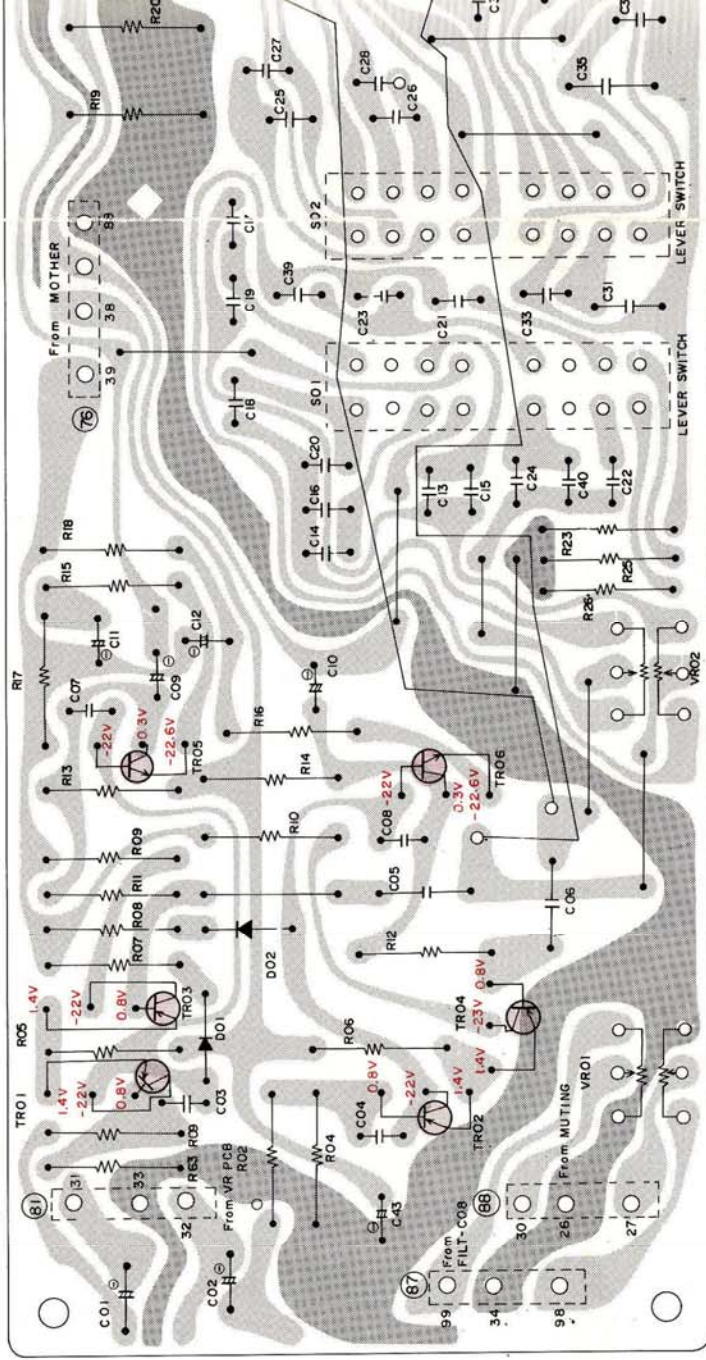


Figure 16. Solder Side of Pin Jack P.C. Board (PIN-C07) & Solder Side

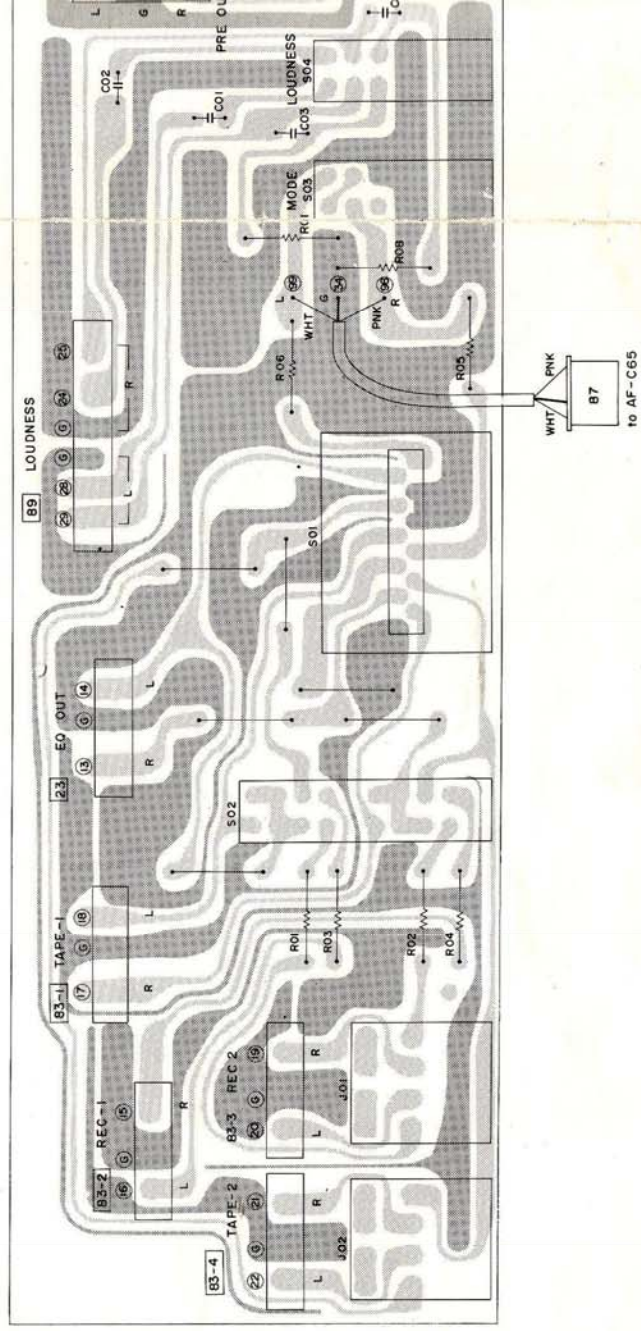


IN-C07) & Solder Side of Mother P.C. Board



CCT-AF-C65

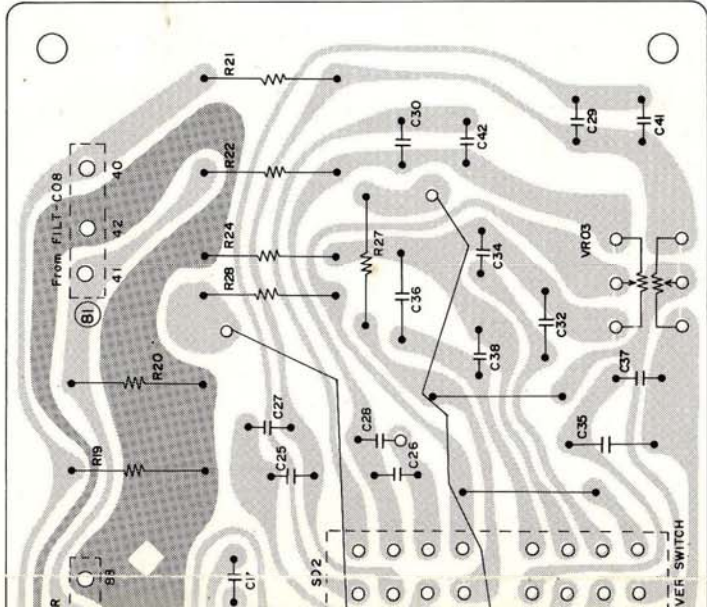
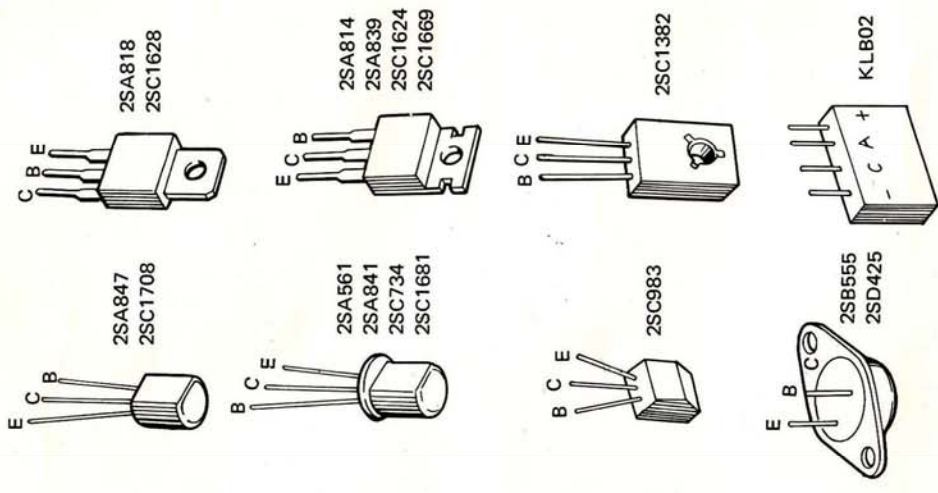
Figure 17. Solder Side of Tone Amplifier P.C. Board



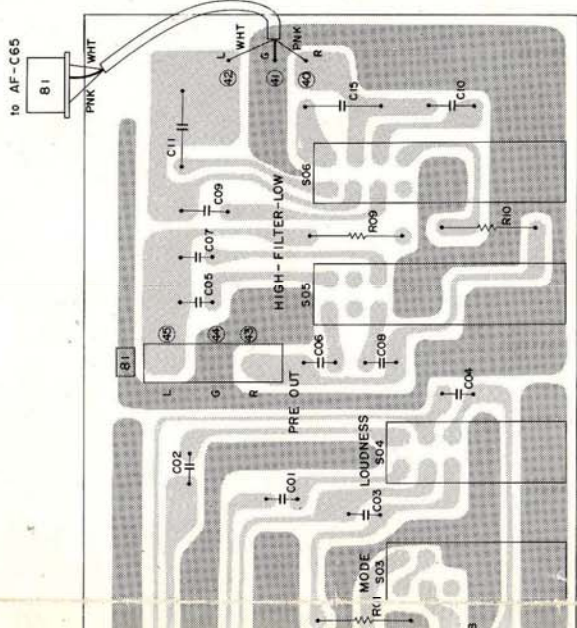
CCT-FILT-C08

Figure 18. Solder Side of Filter Amplifier P.C. Board

TRANSISTOR BASE DIAGRAMS



Amplifier P.C. Board (AF-C65)



Amplifier P.C. Board (FILT-C08)

SWITCH POSITIONS

Function	Switch	Position
Monitor	Switch	PHONO-2
Duplicate	Switch	TAPE-1
Mode	Switch	TAPE-1 → 2
Loud Ness	Switch	STEREO
Filter	Switch	OFF
Filter	Switch	20 kHz
	Switch	15 Hz
Turn Over	Switch	DEFEAT
Turn Over	Switch	DEFEAT
Muting	Switch	-20dB
Speaker	Switch	OFF

SCHEMATIC DI

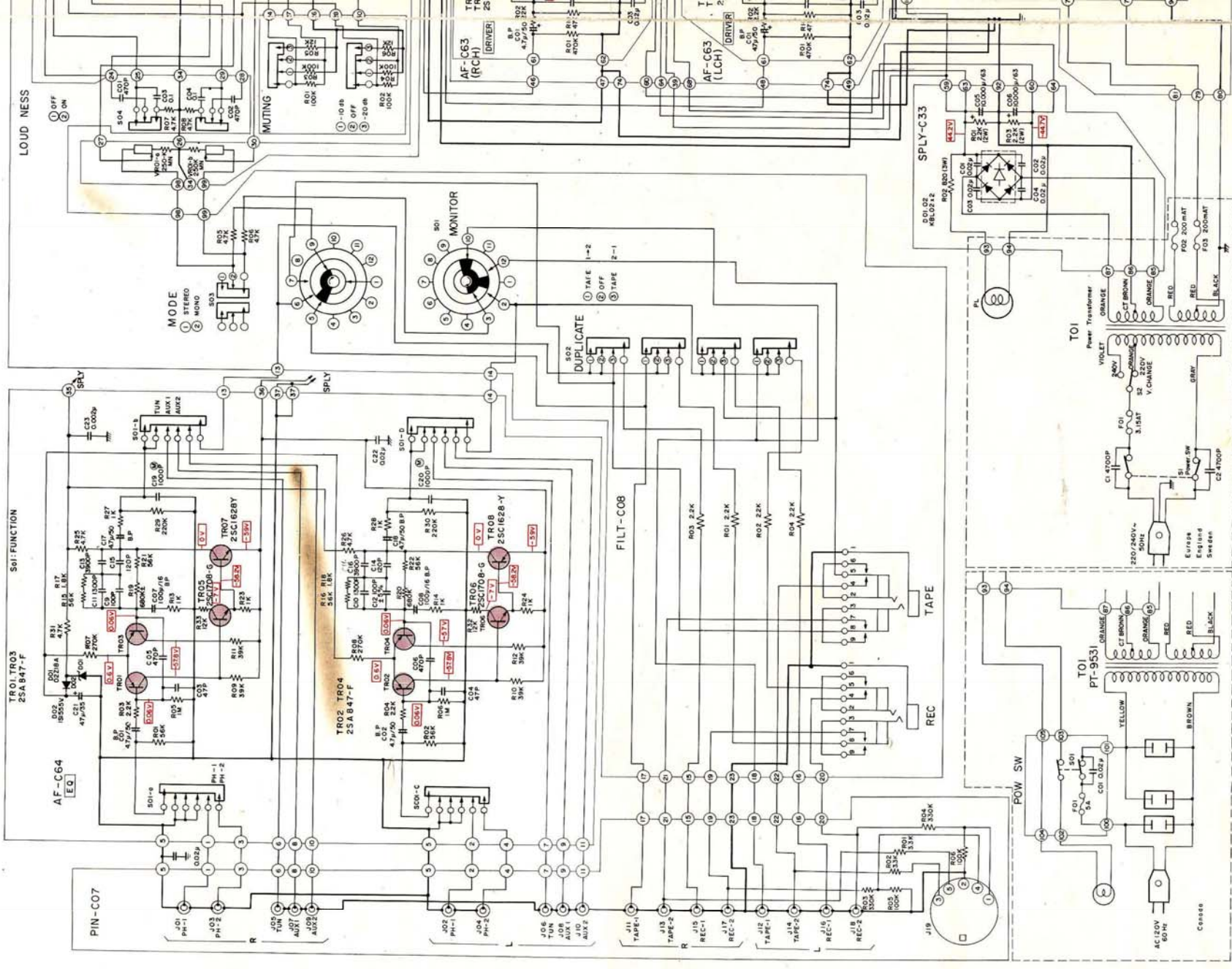
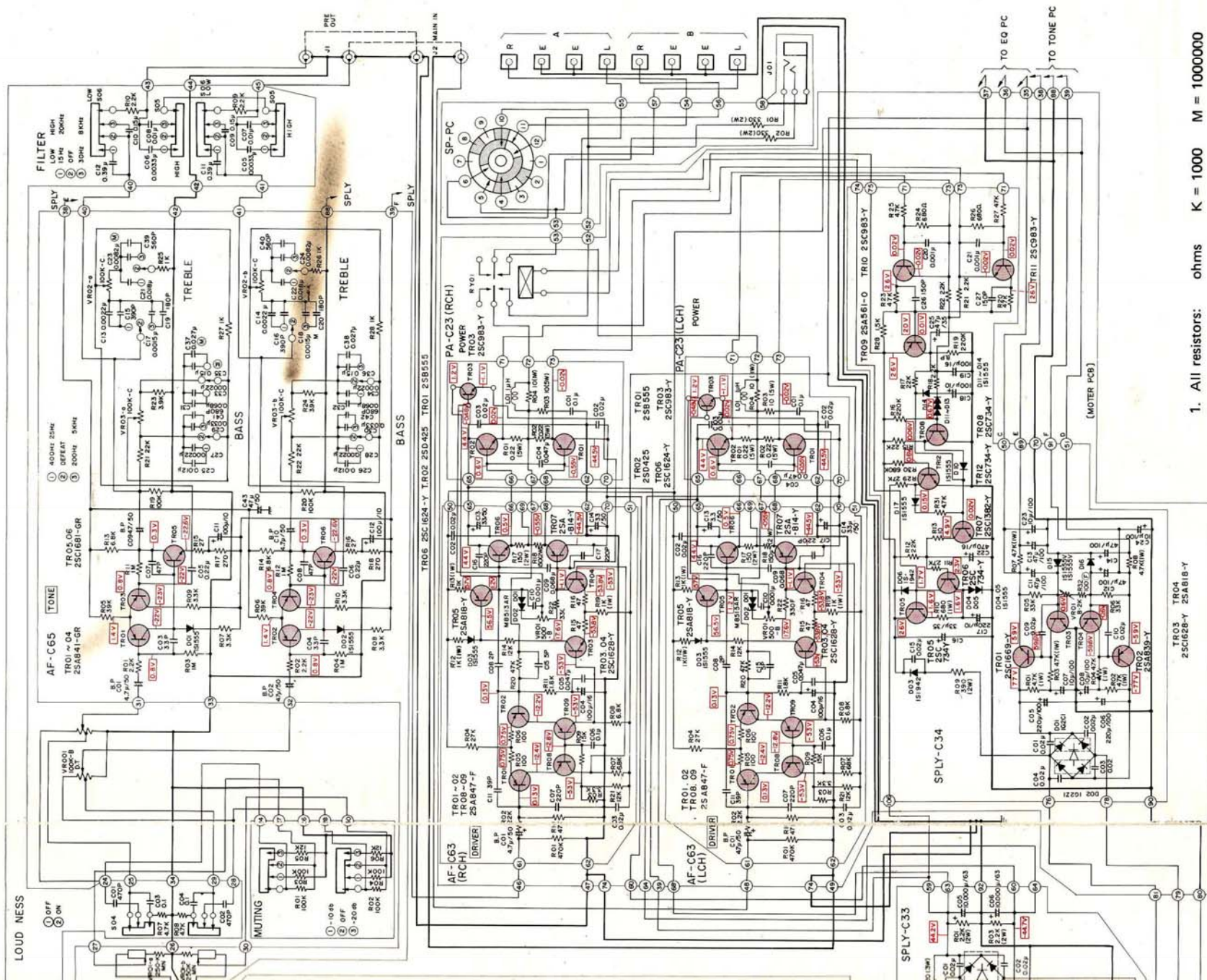


Figure 19.

# SCHEMATIC DIAGRAM



1. All resistors: ohms K = 1000 M = 1000000
2. All capacitors:  $\mu\text{F}$



SB-620

SB-620

EXPLODED VIEW

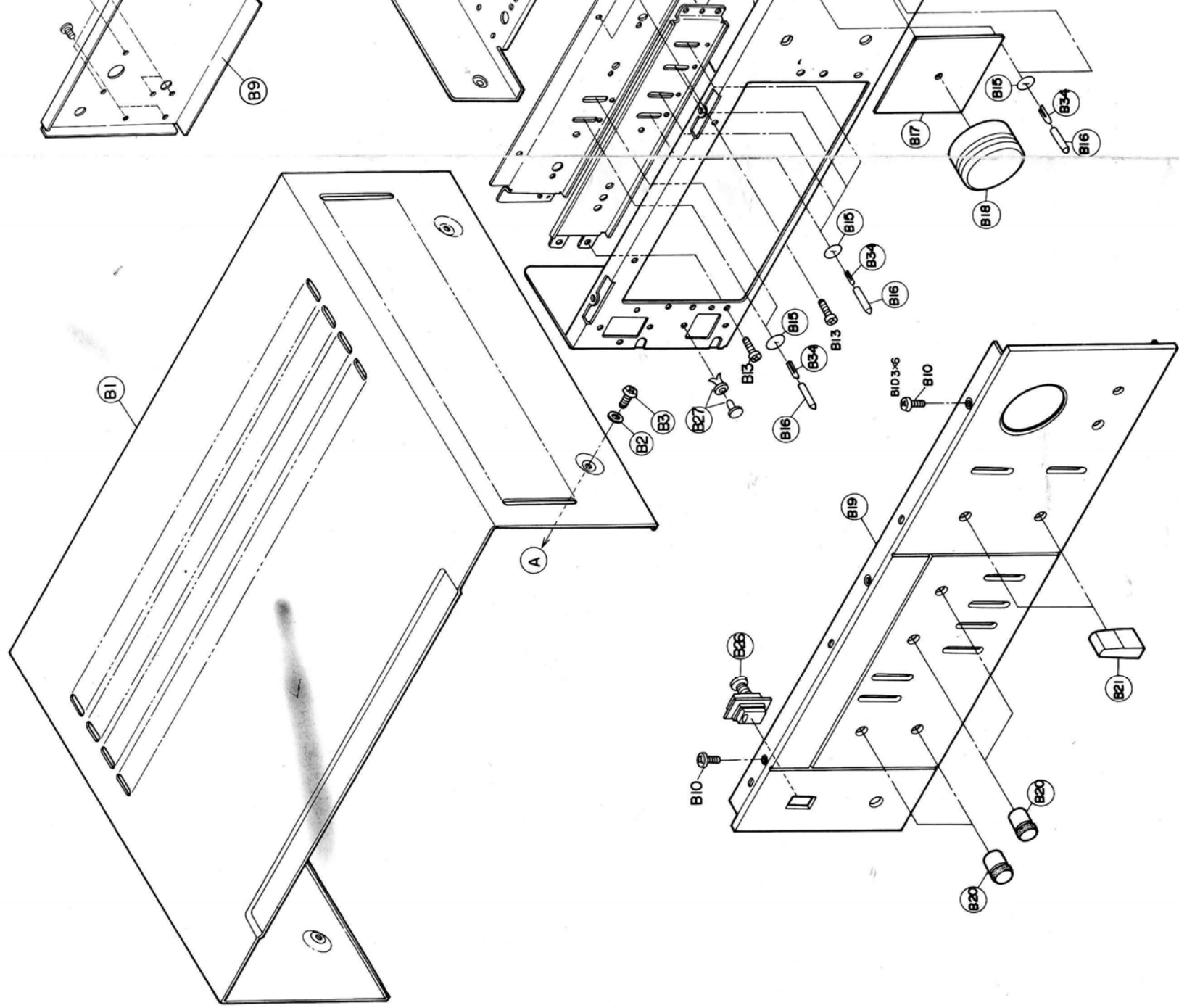


Figure 20.

SB-620

VIEW

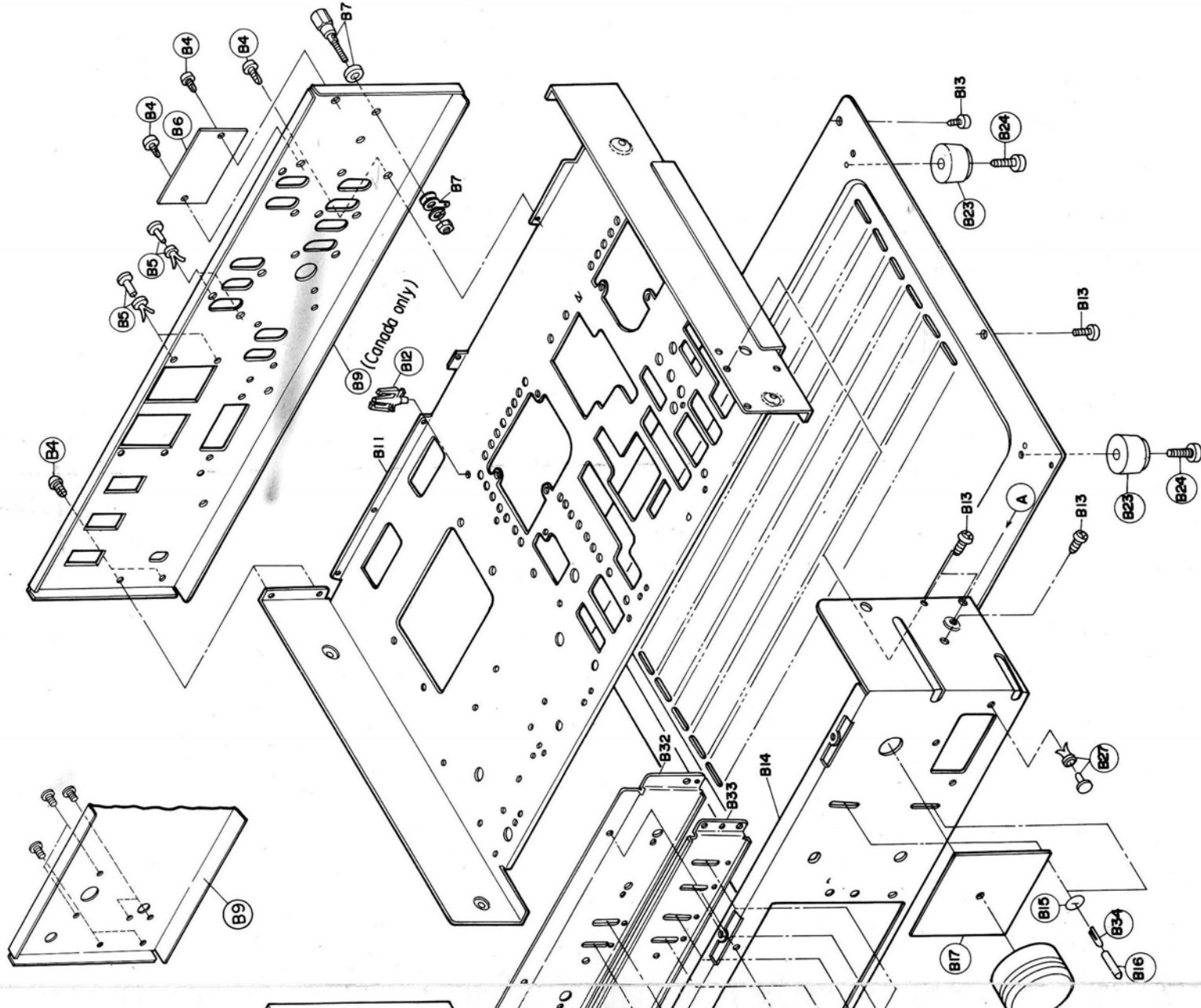


Figure 20.

## PARTS LIST

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
<b>TRANSISTORS AND DIODES</b>					
<b>CCT-SPLY-C34</b>					
TR01		Transistor, 2SC1669-Y			
TR02		Transistor, 2SA839-Y			
TR03		Transistor, 2SC1628-Y-O/Y			
TR04		Transistor, 2SA818-Y-O/Y			
TR05, 06, 08, 12		Transistor, 2SC734-Y			
TR07		Transistor, 2SC1382-Y			
TR09		Transistor, 2SA561-O			
TR10, 11		Transistor, 2SC983-Y			
<b>CCT-AF-C65</b>					
TR01, 02, 03, 04		Transistor, 2SA841-GR			
TR05, 06		Transistor, 2SC1681-GR			
<b>CCT-AF-C64</b>					
TR01, 02, 03, 04	22114417	Transistor, 2SA847-F			
TR05, 06	22114438	Transistor, 2SC1708-G			
TR07, 08		Transistor, 2SC1628-Y-O/Y			
<b>CCT-AF-C63 (LEFT &amp; RIGHT)</b>					
TR01, 02 08, 09	22114417	Transistor, 2SA847-F			
TR03, 04		Transistor, 2SC1628-Y-O/Y			
TR05		Transistor, 2SA818-Y-O/Y			
TR06		Transistor, 2SC1624-Y			
TR07		Transistor, 2SA814-Y			
<b>CCT-PA-C23 (LEFT &amp; RIGHT)</b>					
TR01		Transistor, 2SB555-O			
TR02		Transistor, 2SD425-O			
TR03		Transistor, 2SC983-Y			
<b>CCT-AF-C63 (LEFT &amp; RIGHT)</b>					
D01, 02		Diode, M8513A-R			
D03		Diode, 1S1555V			
<b>CCT-AF-C64</b>					
D01		Diode, 02Z18A			
D02		Diode, 1S1555V			
<b>CCT-AF-C65</b>					
D01, 02		Diode, 1S1555V			
<b>CCT-SPLY-C33</b>					
D01, 02	22115293	Diode, KBL02			
<b>CCT-SPLY-C34</b>					
D01		Diode, 1G2C1			
<b>ELECTRICAL PARTS</b>					
<b>CCT-AF-C64</b>					
S01	22146964	Switch, Rotary, Function			
<b>CCT-SP-PC</b>					
S01	22146727	Switch, Rotary, Speaker			
<b>MUTING-PC</b>					
S01	22146764	Switch, Lever, Muting			
<b>CCT-AF-FILT-C08</b>					
S01	22146995	Switch, Rotary, Monitor			
S02	22146763	Switch, Lever, Duplicate			
S03, 04	22146762	Switch, Lever, Mode			
S05, 06	22146764	Switch, Lever, Filter			
<b>CCT-AF-C65</b>					
S01, 02	22146767	Switch, Lever, TONE			
S1	22146204	Switch, Power, PUSH (Europe, England, Sweden)			
S2	22146759	Switch, Power, PUSH (Canada)			
	22146707	Switch, Rotary, Voltage (Europe, England, Sweden)			
<b>J01, 02, 03, } 04 }</b>					
	22163446	Jack, US4P-S, PHONO			
<b>J05, 06, 07, } 08, 09, 10 }</b>					
	22163444	Jack, US6P, TUN, AUX			
<b>J1, 2, 11, 12, } 15, 16 }</b>					
	22163443	Jack, US4P, REC, TAPE-1			
<b>J13, 14, 17, } 18, 19 }</b>					
	22163445	Jack, US4P-DIN, REC, TAPE-2			
J01	22163519	Jack, Headphones, 6D-H.P			
J01, 02	22163520	Jack, TAPE, REC, 6D			
PL	22113424	Lamp, Indicator, 50mA, 8V			
T01	22223085	Transformer, Power, PT-2151 (Europe, England, Sweden)			
	22223084	Transformer, Power, PT-2150 (Canada)			
L01	22210107	Coil, 1 $\mu$ H, LH1101			
F01	22144326	Fuse, 5A/250V (Canada)			

Symbol No.	Part No.	Description
F01	22144310	Fuse, 3.15AT, 250V (Europe, England, Sweden)
F02, 03	22144331	Fuse, 200mA T, 250V (Europe, England, Sweden)
E1	22165075	Holder, Fuse (Europe, England, Sweden)
E2	22165082	Holder, Fuse-2P (Europe, England, Sweden)
E3	22148625	Relay
E4	22176286	Cord, Power, E2ES (Europe)
	22176547	Cord, Power, B3S (England)
	22176540	Cord, Power, CLASS1 (Sweden)
	22176549	Cord, Power, EPHS (Canada)
E5	22167453	Connector, AC (Canada)
E6	22162265	Terminal, 8P, Speaker
E7	22754352	Terminal, Ground

## CAPACITORS

All capacitors are 50WV, J =  $\pm 5\%$ , Mylar unless otherwise noted. D =  $\pm 0.5PF$ , G =  $\pm 2\%$ , K =  $\pm 10\%$ , M =  $\pm 20\%$ , Z =  $-20+80\%$ , BP = Non Polarity, L = Low Noise

Symbol No.	Part No.	Description
AF-C64		
C01	22440148	4.7 $\mu$ F, 35V, Electrolytic
C02	22440148	4.7 $\mu$ F, 35V, Electrolytic
C03	22362470	47PF, K, Ceramic
C04	22362470	47PF, K, Ceramic
C05	22343471	470PF, Z, Ceramic
C06	22343471	470PF, Z, Ceramic
C07	22440096	100 $\mu$ F, 16V, BP, Electrolytic
C08	22440096	100 $\mu$ F, 16V, BP, Electrolytic
C09	22381101	100PF, Polystyrene
C10	22321076	1300PF, 100V, G, Polystyrene
C11	22321076	1300PF, 100V, G, Polystyrene
C12	22381101	100PF, Polystyrene
C13	22321077	3900PF, 100V, G, Polystyrene
C14	22381121	120PF, Polystyrene
C15	22381121	120PF, Polystyrene
C16	22321077	3900PF, 100V, G, Polystyrene
C17	22440148	4.7 $\mu$ F, 16V, BP, Electrolytic
C18	22440148	4.7 $\mu$ F, 16V, BP, Electrolytic
C19	22371102	1000PF
C20	22371102	1000PF
C21	22447470	47 $\mu$ F, 35V, Electrolytic
C22	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C23	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
AF-C65		
C01	22440148	4.7 $\mu$ F, BP, Electrolytic

Symbol No.	Part No.	Description
C02	22440148	4.7 $\mu$ F, BP, Electrolytic
C03	22362330	33PF, K, Ceramic
C04	22362330	33PF, K, Ceramic
C05	22371224	0.22 $\mu$ F
C06	22371224	0.22 $\mu$ F
C07	22362470	47PF, K, Ceramic
C08	22362470	47PF, K, Ceramic
C09	22440148	4.7 $\mu$ F, BP, Electrolytic
C10	22440148	4.7 $\mu$ F, BP, Electrolytic
C11	22443101	100 $\mu$ F, 10V, Electrolytic
C12	22443101	100 $\mu$ F, 10V, Electrolytic
C13	22371222	0.0022 $\mu$ F
C14	22371222	0.0022 $\mu$ F
C15	22381391	390PF, Polystyrene
C16	22381391	390PF, Polystyrene
C17	22371152	0.0015 $\mu$ F
C18	22371152	0.0015 $\mu$ F
C19	22381181	180PF, Polystyrene
C20	22381181	180PF, Polystyrene
C21	22371183	0.018 $\mu$ F
C22	22371183	0.018 $\mu$ F
C23	22371822	0.0082 $\mu$ F
C24	22371822	0.0082 $\mu$ F
C25	22371123	0.012 $\mu$ F
C26	22371123	0.012 $\mu$ F
C27	22371222	0.0022 $\mu$ F
C28	22371222	0.0022 $\mu$ F
C29	22371333	0.033 $\mu$ F
C30	22371333	0.033 $\mu$ F
C31	22371683	0.068 $\mu$ F
C32	22371683	0.068 $\mu$ F
C33	22371222	0.0022 $\mu$ F
C34	22371222	0.0022 $\mu$ F
C35	22371154	0.15 $\mu$ F
C36	22371154	0.15 $\mu$ F
C37	22371273	0.027 $\mu$ F
C38	22371273	0.027 $\mu$ F
C39	22381561	560PF, Polystyrene
C40	22381561	560PF, Polystyrene
C41	22381681	680PF, Polystyrene
C42	22381681	680PF, Polystyrene
C43	22447470	47 $\mu$ F, Electrolytic
AF-C63 (LEFT & RIGHT)		
C01	22440148	4.7 $\mu$ F, BP, Electrolytic
C02	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C03	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C04	22440096	100 $\mu$ F, 16V, BP, Electrolytic
C05	22342475	0.047 $\mu$ F, Ceramic
C06	22373104	0.1 $\mu$ F, M
C07	22362221	220PF, K, Ceramic
C08	22361209	2PF, D, Ceramic
C09	22373683	0.068 $\mu$ F, M

Symbol No.	Part No.	Description
C10	22373102	0.001 $\mu$ F, M
C11	22362390	39PF, K, Ceramic
C13	22448330	33 $\mu$ F, Electrolytic
C14	22448330	33 $\mu$ F, Electrolytic
C15	22361509	5PF, D, Ceramic
C16	22362221	220PF, K, Ceramic
C17	22362221	220PF, K, Ceramic
<b>SPLY-C34</b>		
C01	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C02	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C03	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C04	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C05	22440095	220 $\mu$ F, 100V, Electrolytic
C06	22440095	220 $\mu$ F, 100V, Electrolytic
C07	22440037	10 $\mu$ F, 100V, Electrolytic
C08	22440037	10 $\mu$ F, 100V, Electrolytic
C09	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C10	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C11	22440036	47 $\mu$ F, 100V, Electrolytic
C12	22440036	47 $\mu$ F, 100V, Electrolytic
C13	22440036	47 $\mu$ F, 100V, Electrolytic
C14	22440036	47 $\mu$ F, 100V, Electrolytic
C15	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C16	22448330	33 $\mu$ F, 35V, Electrolytic
C17	22443221	220 $\mu$ F, 10V, Electrolytic
C18	22443101	100 $\mu$ F, 10V, Electrolytic
C19	22440096	100 $\mu$ F, 16V, BP, Electrolytic
C20	22372102	0.001 $\mu$ F, K
C21	22372102	0.001 $\mu$ F, K
C22	22445471	470 $\mu$ F, 16V, Electrolytic
C23	22440037	10 $\mu$ F, 100V, Electrolytic
C24	22440037	10 $\mu$ F, 100V, Electrolytic
C25	22447470	47 $\mu$ F, 35V, Electrolytic
C26	22362151	150PF, K, Ceramic
C27	22362151	150PF, K, Ceramic
<b>FILT-C08</b>		
C01	22362471	470PF, K, Ceramic
C02	22362471	470PF, K, Ceramic
C03	22372104	0.1 $\mu$ F, K
C04	22372104	0.1 $\mu$ F, K
C05	22372332	0.0033 $\mu$ F, K
C06	22372332	0.0033 $\mu$ F, K
C07	22372103	0.01 $\mu$ F, K
C08	22372103	0.01 $\mu$ F, K
C09	22372154	0.15 $\mu$ F, K
C10	22372154	0.15 $\mu$ F, K
C11	22372394	0.39 $\mu$ F, K
C12	22372394	0.39 $\mu$ F, K
<b>PA-C23 (LEFT &amp; RIGHT)</b>		
C01	22373104	0.1 $\mu$ F, M

Symbol No.	Part No.	Description
C02	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C03	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C04	22342473	0.047 $\mu$ F, Z, Ceramic
<b>SPLY-C33</b>		
C01	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C02	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C03	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C04	22340032	0.02 $\mu$ F, 500V, Z, Ceramic
C05	22430049	10,000 $\mu$ F, 63V, Electrolytic
C06	22430049	10,000 $\mu$ F, 63V, Electrolytic
<b>POWER SWITCH</b>		
C01	22321206	0.022 $\mu$ F, 125V, M, Polystyrene (Canada)
C1	22340090	4700PF, 250V, Ceramic (Europe, England, Sweden)
C2	22340090	4700PF, 250V, Ceramic (Europe, England, Sweden)
<b>RESISTORS</b>		
All resistor are carbon film 1/4W, $\pm$ 5%, unless otherwise noted. K = 1,000 M = 1,000,000		
<b>AF-C64</b>		
R01	22570105	56K ohm, Metal Film
R02	22570105	56K ohm, Metal Film
R03	22570134	2.2K ohm, Metal Film
R04	22570134	2.2K ohm, Metal Film
R05	22570135	1M ohm, Metal Film
R06	22570135	1M ohm, Metal Film
R07	22570072	270K ohm, Metal Film
R08	22570072	270K ohm, Metal Film
R09	22570167	39K ohm, Metal Film
R10	22570167	39K ohm, Metal Film
R11	22570167	39K ohm, Metal Film
R12	22570167	39K ohm, Metal Film
R13	22570124	1K ohm, Metal Film
R14	22570124	1K ohm, Metal Film
R15	22545563	56K ohm
R16	22545563	56K ohm
R17	22545182	1.8K ohm
R18	22545182	1.8K ohm
R19	22570108	680K ohm, 1/2W, Metal Film
R20	22570108	680K ohm, 1/2W, Metal Film
R21	22570105	56K ohm, Metal Film
R22	22570105	56K ohm, Metal Film
R23	22545102	1K ohm
R24	22545102	1K ohm
R25	22570117	4.7K ohm, 1W, Metal Oxide Film
R26	22570117	4.7K ohm, 1W, Metal Oxide Film
R27	22545102	1K ohm

Symbol No.	Part No.	Description
R28	22545102	1K ohm
R29	22545224	220K ohm
R30	22545224	220K ohm
R31	22570117	4.7K ohm, 1W, Metal Oxide Film
AF-C65		
R01	22545222	2.2K ohm
R02	22545222	2.2K ohm
R03	22545105	1M ohm
R04	22545105	1M ohm
R05	22545393	39K ohm
R06	22545393	39K ohm
R07	22545332	3.3K ohm
R08	22545332	3.3K ohm
R09	22545332	3.3K ohm
R10	22545332	3.3K ohm
R11	22545105	1M ohm
R12	22545105	1M ohm
R13	22545682	6.8K ohm
R14	22545682	6.8K ohm
R15	22545270	27 ohm
R16	22545270	27 ohm
R17	22545271	270 ohm
R18	22545271	270 ohm
R19	22545104	100K ohm
R20	22545104	100K ohm
R21	22545223	22K ohm
R22	22545223	22K ohm
R23	22545392	3.9 ohm
R24	22545392	3.9K ohm
R25	22545102	1K ohm
R26	22545102	1K ohm
R27	22545102	1K ohm
R28	22545102	1K ohm
VR01	22651423	250K ohm, Variable (BALANCE)
VR02	22651431	100K ohm, Variable (TREBLE)
VR03	22651431	100K ohm, Variable (BASS)
AF-C63 (LEFT & RIGHT)		
R01	22545474	470K ohm
R02	22545222	2.2K ohm
R03	22545332	3.3K ohm
R04	22545273	27K ohm
R05	22545101	100 ohm
R06	22545101	100 ohm
R07	22545682	6.8K ohm
R08	22545682	6.8K ohm
R09	22545153	15K ohm
R10	22545473	47K ohm
R11	22545182	1.8K ohm
R12	22570140	1K ohm, 1W, Metal Oxide Film
R13	22570140	1K ohm, 1W, Metal Oxide Film
R14	22545123	12K ohm
R15	22545470	47 ohm
R16	22545470	47 ohm
R17	22570122	150 ohm, 2W, Metal Oxide Film
R18	22570122	150 ohm, 1W, Metal Oxide Film
R19	22570140	1K ohm, Metal Oxide Film
R20	22545473	47K ohm
R21	22545123	12K ohm
R22	22500115	330 ohm, 1/8W, Fusible
VR01	22658189	500 ohm, Semi-Fixed Variable (IDLING ADJUST)
PA-C23 (LEFT & RIGHT)		
R01	22500087	0.22 ohm, 5W, Wire Wound
R02	22500087	0.22 ohm, 5W, Wire Wound
R03	22500047	10 ohm, 5W, Wire Wound
R04	22570120	10 ohm, 1W, Metal Oxide Film
SPLY-C34		
R01	22570117	4.7K ohm, 1W, Metal Oxide Film
R02	22570117	4.7K ohm, 1W, Metal Oxide Film
R03	22570117	4.7K ohm, 1W, Metal Oxide Film
R04	22570117	4.7K ohm, 1W, Metal Oxide Film
R05	22545333	33K ohm
R06	22545333	33K ohm
R07	22570117	4.7K ohm, 1W, Metal Oxide Film
R08	22570117	4.7K ohm, 1W, Metal Oxide Film
R09	22570094	390 ohm, 2W, Metal Oxide Film
R10	22570008	680 ohm, 1W, Metal Oxide Film
R11	22545272	2.7K ohm
R12	22545223	22K ohm
R13	22545100	10 ohm
R15	22545223	22K ohm
R16	22545224	220K ohm
R17	22545223	22K ohm
R18	22545222	2.2K ohm
R19	22545224	220K ohm
R20	22545473	47K ohm
R21	22545222	2.2K ohm
R22	22545222	2.2K ohm
R23	22545473	47K ohm
R24	22545182	1.8K ohm
R25	22545472	4.7K ohm
R26	22545182	1.8K ohm
R27	22545472	4.7K ohm
R28	22545152	1.5K ohm
R29	22545273	27K ohm
R30	22555684	680K ohm
R31	22555472	47K ohm
R32	22500122	100 ohm, 1/8W, Fusible

Symbol No.	Part No.	Description
VR01	22658325	2K ohm, Semi-fixed Variable (VOLTAGE ADJUST)
<b>FILT-C08</b>		
R01	22545222	2.2K ohm
R02	22545222	2.2K ohm
R03	22545222	2.2K ohm
R04	22545222	2.2K ohm
R05	22545472	4.7K ohm
R06	22545472	4.7K ohm
R07	22545472	4.7K ohm
R08	22545472	4.7K ohm
R09	22545222	2.2K ohm
R10	22545222	2.2K ohm
<b>PIN-C07</b>		
R01	22545332	3.3K ohm
R02	22545332	3.3K ohm
R03	22545334	330K ohm
R04	22545334	330K ohm
R05	22545104	100K ohm
R06	22545104	100K ohm
<b>MUTING-PC</b>		
R01	22545104	100K ohm
R02	22545104	100K ohm
R03	22545104	100K ohm
R04	22545104	100K ohm
R05	22545123	12K ohm
R06	22545123	12K ohm
<b>SP-PC</b>		
R01	22570121	330 ohm, 2W, Metal Oxide Film
R02	22570121	330 ohm, 2W, Metal Oxide Film
<b>SPLY-C33</b>		
R01	22570023	2.2K ohm, 2W, Metal Oxide Film
R02	22570147	820 ohm, 3W, Metal Oxide Film
R03	22570023	2.2K ohm, 2W, Metal Oxide Film
VR001	22651436	100K ohm, Variable (VOLUME)
<b>CABINET PARTS</b>		
B1	22841123	Cover Ass'y, TOP
B3	22701324	Screw, BID, M4 x 12mm
B4	22701326	Screw, Tapping, M3 x 8mm
B5	22705022	Rivet, Plastic, 3 x 5.5mm
B6	22863894	Nameplate, (Sweden)
	22863893	Nameplate, (Canada)
	22864121	Nameplate, (Europe, England)
B9	22711458	Plate, Jack (Europe)

Symbol No.	Part No.	Description
	22711419	Plate, Jack (Sweden, England)
	22711418	Plate, Jack (Canada)
B16	22845211	Knob, Lever
B17	22756445	Mask Sheet, Volume
B18	22834848	Knob, 50.5mm, Volume
B19	22843523	Panel Ass'y
B20	22834842	Knob Ass'y
B21	22834851	Knob, Selector
B23	22874032	Foot
B24	22701437	Screw, Tapping M4 x 16mm
B26	22834849	Knob Ass'y, Power
B27	22705020	Rivet, Plastic, 3 x 4.5mm
B31	22756783	Bush (Europe)
B31	25845528	Bush, Power Cord (Canada)
	25845556	Bush, Power Cord (Sweden, England)
B34	22830050	Holder, Knob
B35	22950672	Label, Fuse 200mA (Europe, England, Sweden)
<b>ACCESSORIES</b>		
	22954378	Instruction Book Ass'y (Europe, Sweden)
	22954387	Instruction Book Ass'y (England)
	22954386	Instruction Book Ass'y (Canada)



**TOSHIBA**

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