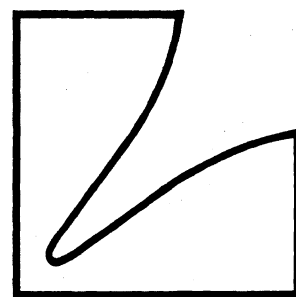
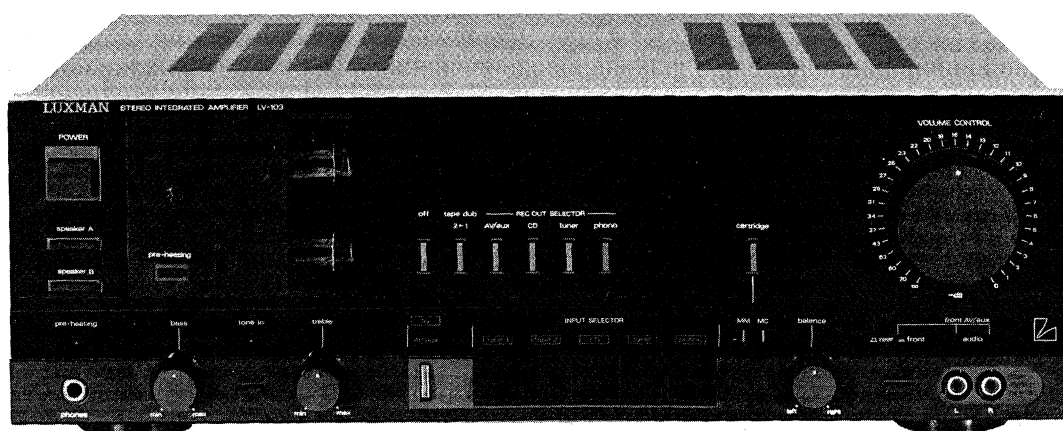


# SERVICE MANUAL



Stereo Integrated Amplifier

## LV-103



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## Specifications

Power-Output .....	50W (0.25% THD at 20 — 20 kHz)
Headphones Output .....	(50W/8 ohm — 1 kHz) 340mV $\pm$ 10%
Input Sensitivity (1 kHz) .....	TUNER: 150mV $\pm$ 10%, CD: 150mV $\pm$ 10%, TAPE-1, -2: 150mV $\pm$ 10%, AV (audio): 150mV $\pm$ 10%, PHONO (MM): 2.3mV $\pm$ 10%, PHONO (MC): 130 $\mu$ V $\pm$ 10%
Input Impedance (1 kHz) .....	TUNER: 45K ohm $\pm$ 10%, CD: 45K ohm $\pm$ 10%, TAPE-1, 2: 45K ohm $\pm$ 10%, AV (audio): 45K ohm $\pm$ 10%, PHONO (MM): 47K ohm $\pm$ 10%, PHONO (MC): 100 ohm $\pm$ 10%
Frequency Response .....	TUNER: 10 — 100 kHz +0.6—2.0 dB, CD: 10 — 100 kHz +0.6—2.0 dB, TAPE-1, -2: 10 — 100 kHz +0.6—2.0 dB, PHONO (MM/MC): 100 Hz $\pm$ 0.5 dB, PHONO (MM/MC): 10 Hz $\pm$ 0.5 dB, AV (audio): 10 — 100 kHz 10.6—2.0 dB
Signal to Noise Ratio (Input Terminal Shorted) .....	TUNER: 86 dB, CD: 86 dB, TAPE-1, -2: 86 dB, AV-1, -2: 86 dB, PHONO (MM): 68 dB, PHONO (MC): 46 dB
Power Supply .....	SK, SH: 220V (50 Hz), JK: 100V (60 Hz) SG: 240V (50 Hz), EZ: 120V (60 Hz)
Power Consumption .....	230W
Semiconductors .....	3 ICs, 31 Transistors, 8 FETs, 9 Zener Diodes, 23 Diodes, 2 Vacuum Tubes
Dimension .....	438(W) x 148(H) x 353(D) mm
Weight .....	10.0 kg

# Parts Locations and Disassembly Instructions

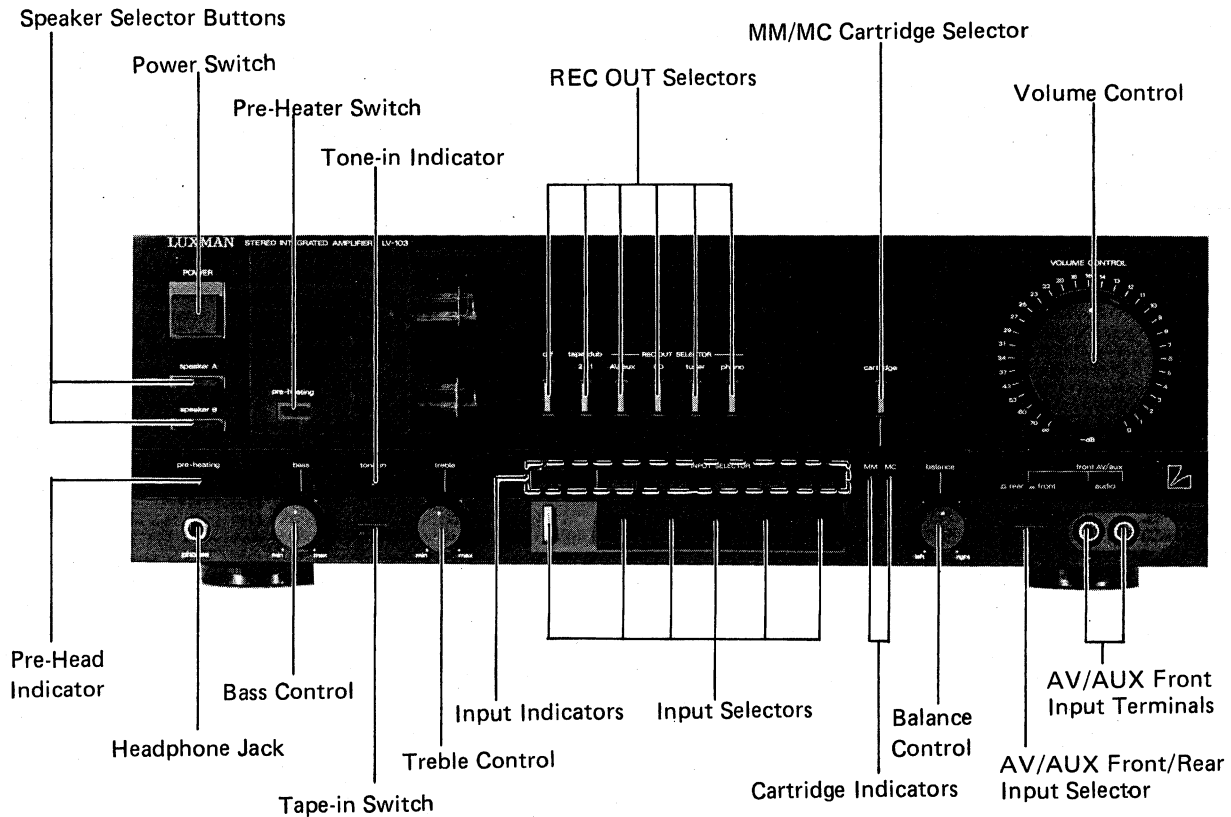


Figure 1

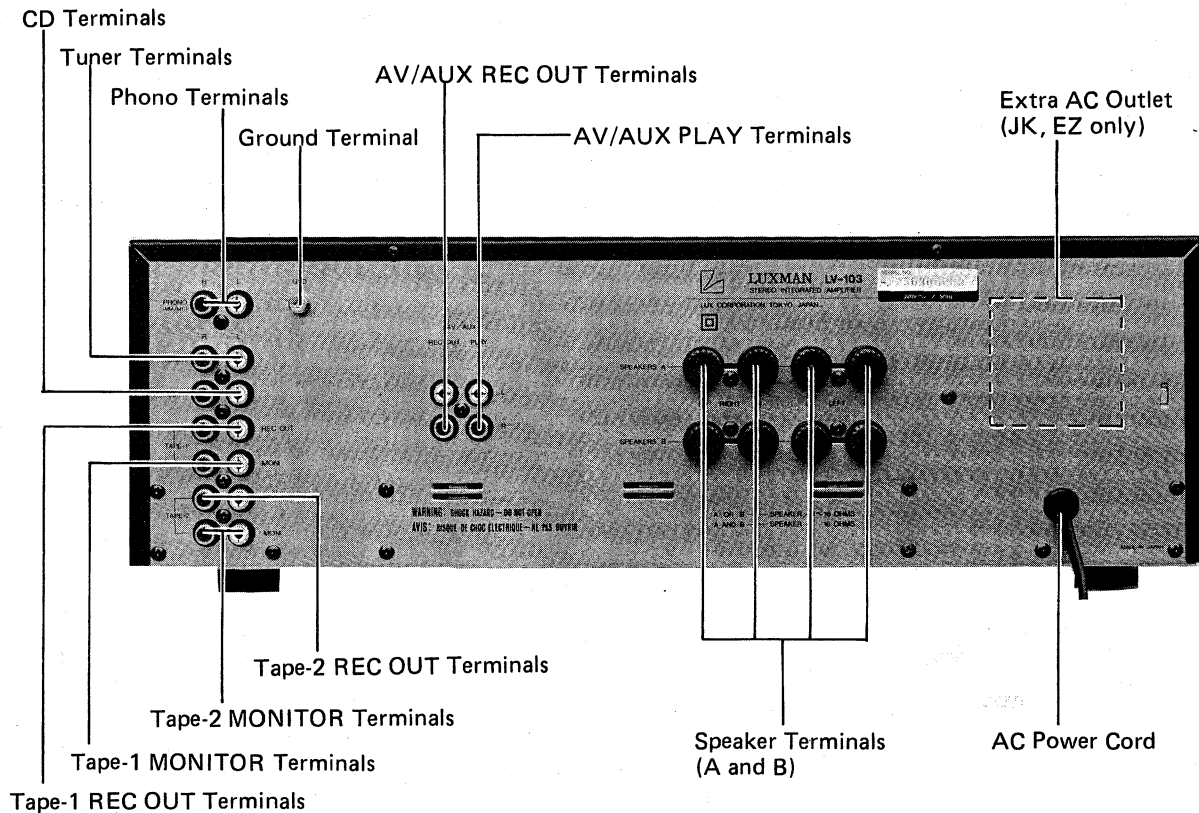


Figure 2

### 1. Removal of Top Cover

- (1) Remove six screws marked "○" as shown in Figures 3 and 4.
- (2) Pull out the Top Cover in the direction of the arrow as shown in Figure 3.

### 2. Removal of Front Panel

- (1) Remove the volume knob as shown in Figure 3.
- (2) Remove three screws marked "△" as shown in Figure 5.
- (3) Front panel can be removed by pulling it forward. But when the panel is engaged tightly, pull the panel end little by little, and the panel will be removed easily.

### 3. Removal of Front Escutcheon

- (1) After removal of Front Panel, remove three control knobs (bass, treble, balance), remove two hooks (a), and remove six screws marked "※" as shown in Figures 3, 4 and 6.
- (2) Disconnect all wires from the Front Escutcheon.
- (3) The Front Escutcheon with Function, Tone and Headphone P.C. Board can be removed completely.

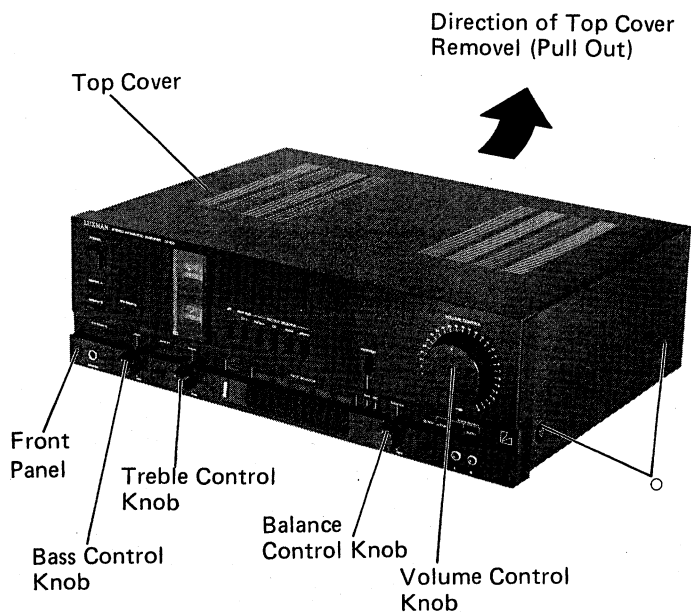


Figure 3

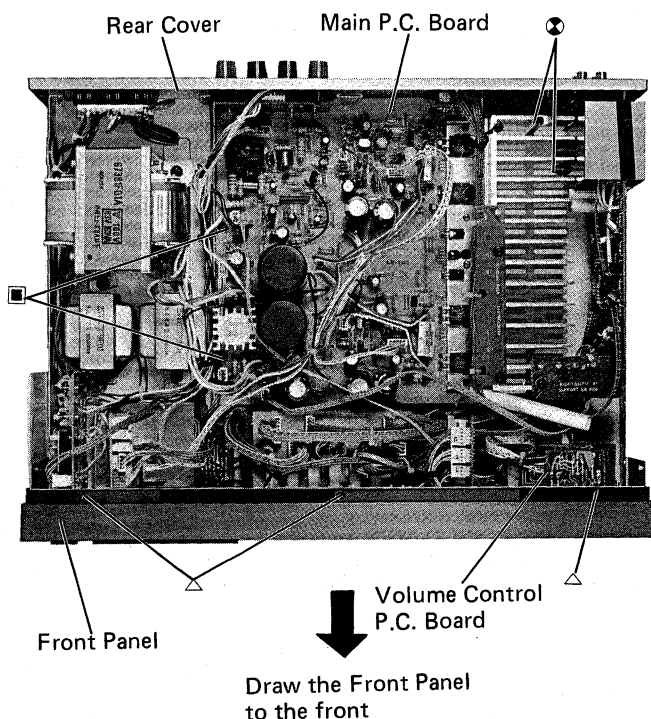


Figure 5

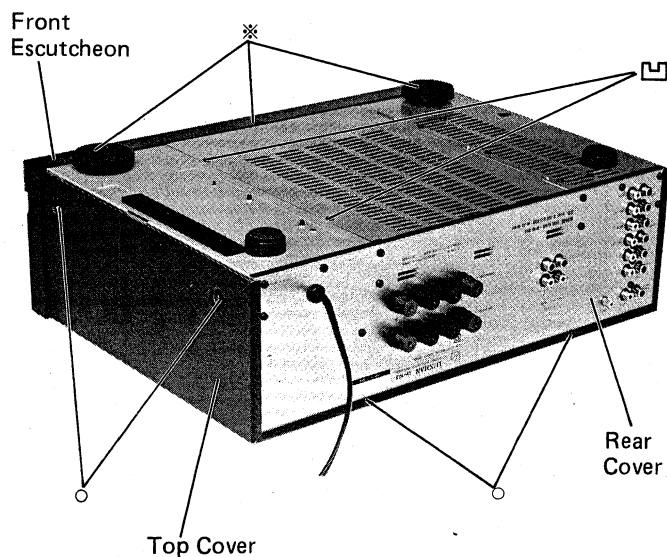


Figure 4



#### 4. Removal of Function LED P.C. Board

- (1) After removal of Front Escutcheon remove four hooks (b) as shown in Figure 7.

#### 5. Removal of Tone LED P.C. Board

- (1) After removal of Front Escutcheon remove two hooks (c) as shown in Figure 7.

#### 6. Removal of Headphone P.C. Board

- (1) After removal of Front Escutcheon remove two screws marked "◎" as shown in Figure 7.

#### 7. Removal of Front Chassis

- (1) After removal of Front Escutcheon remove seven screws marked "☆" as shown in Figure 8.
- (2) Remove Front Chassis upward and then proceed to items 7-1 ~ 9.

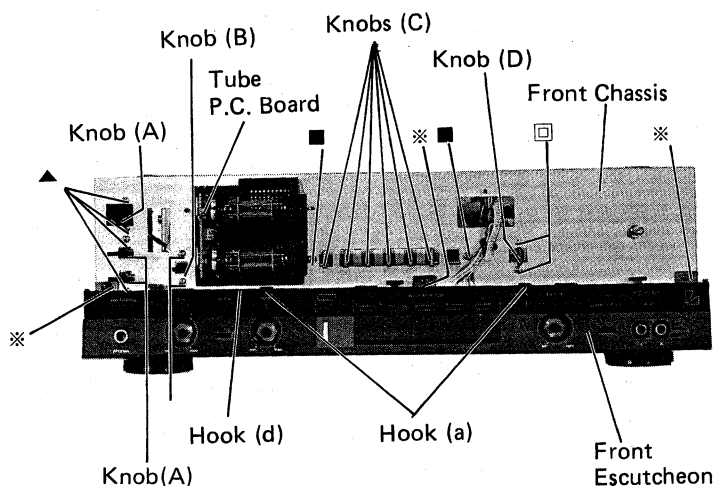


Figure 6

#### 7-1. Removal of Speaker Switch P.C. Board

- (1) Remove three knobs (A) and remove four screws marked "▲" as shown in Figure 6.
- (2) Disconnect all wires from the Speaker Switch P.C. Board.

#### 7-2. Removal of Heat-Up Switch P.C. Board

- (1) Remove one knob (B) and remove two screws marked "■" as shown in Figure 6.
- (2) Disconnect all wires from the Heat-Up Switch P.C. Board.

#### 7-3. Removal of Tube P.C. Board

- (1) Remove two screws marked "凸" as shown in Figure 9.
- (2) Remove one hook (d) as shown in Figure 6.
- (3) Disconnect all wires from the Tube P.C. Board.

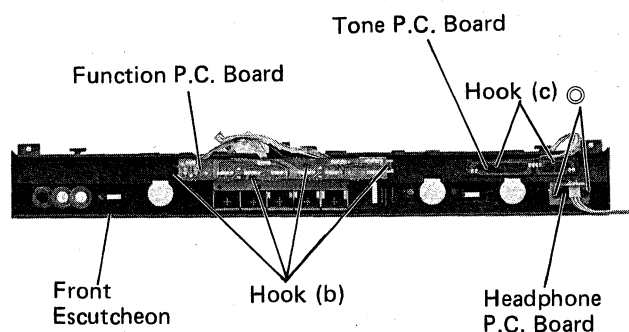


Figure 7

#### 7-4. Removal of Rec Selector P.C. Board

- (1) Remove two screws marked "■" and remove six knobs (C) as shown in Figure 6.
- (2) Disconnect all wires from the Rec Selector P.C. Board.

#### 7-5. Removal of MM/MC P.C. Board

- (1) Remove one knob (D) and remove two screws marked "□" as shown in Figure 6.
- (2) Disconnect all wires from the MM/MC P.C. Board.

#### 7-6. Removal of Volume Control P.C. Board

- (1) Remove one nut (A) and one washer (A) as shown in Figure 8.
- (2) Disconnect all wires from the Volume Control P.C. Board.

#### 7-7. Removal of Tone Control P.C. Board

- (1) Remove one knob (E) and six screws marked "○" as shown in Figure 8.
- (2) Remove two nuts (B) as shown in Figure 8.
- (3) Disconnect all wires from the Tone Control P.C. Board.

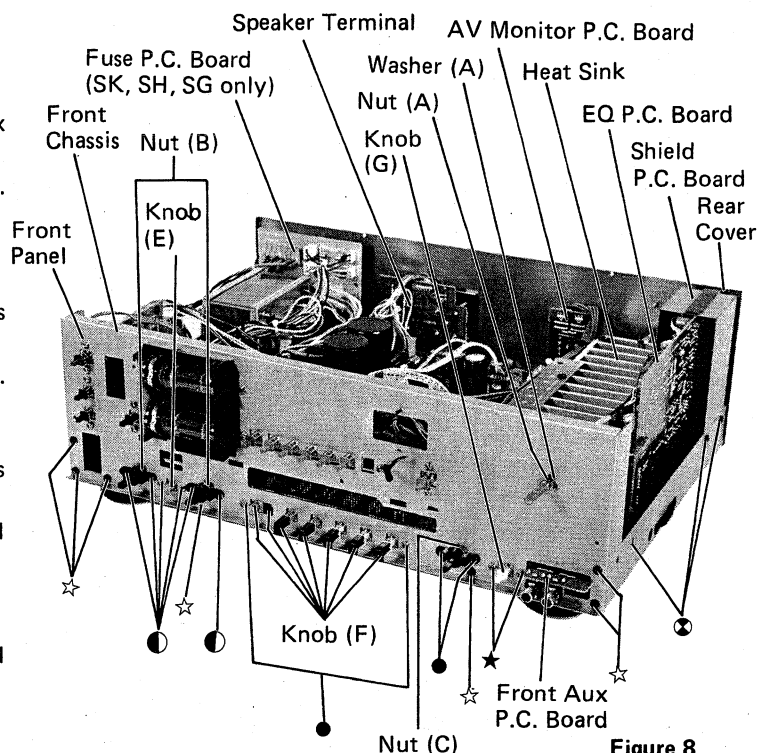


Figure 8

### 7-8. Removal of Function P.C. Board

- (1) Remove six knobs (F) and remove four screws marked "●" as shown in Figure 8.
- (2) Remove one nut (C) as shown in Figure 8.
- (3) Disconnect all wires from the Function P.C. Board.

### 7-9. Removal of Front Aux P.C. Board

- (1) Remove one knob (G) and remove two screws marked "★" as shown in Figure 8.
- (2) Disconnect all wires from the Front Aux P.C. Board.

### 8. Removal of AV Monitor P.C. Board

- (1) Remove one screw marked "☒" as shown in Figure 10.
- (2) Disconnect all wires from the P.C. Board.

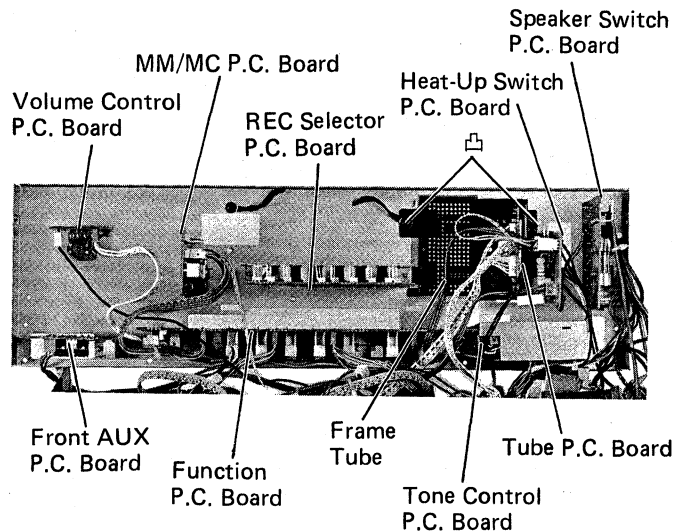


Figure 9

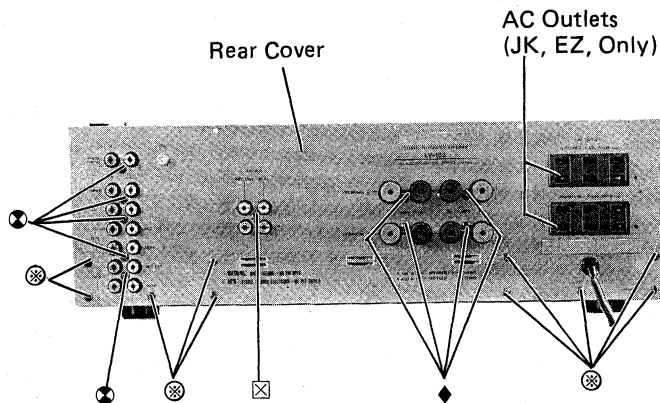


Figure 10

### 9. Removal of EQ P.C. Board

- (1) Remove ten screws marked "⊗" as shown in Figures 5, 8 and 10.
- (2) Disconnect all wires from the EQ P.C. Board.

### 10. Removal of Speaker Terminal P.C. Board

- (1) Remove four screws marked "◆" as shown in Figure 10.
- (2) Disconnect all wires from the Speaker Terminal P.C. Board.

### 11. Removal of Rear Cover (JK, EZ only)

- (1) After removal of EQ P.C. Board, remove ten screws marked "⊗" as shown in Figure 10.
- (2) Disconnect all wires from the AC outlet.

### 11. Removal of Rear Cover and Fuse P.C. Board (SK, SH, SG only)

- (1) After removal of EQ P.C. Board, remove one screw marked "◇" and one hook (e) as shown in Figure 12.
- (2) Disconnect all wires from the Fuse P.C. Board.
- (3) Remove ten screws marked "△" as shown in Figure 10.

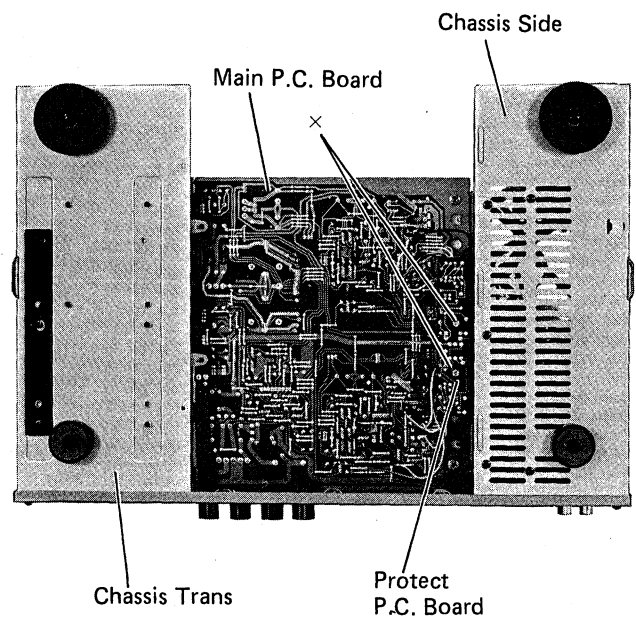


Figure 11

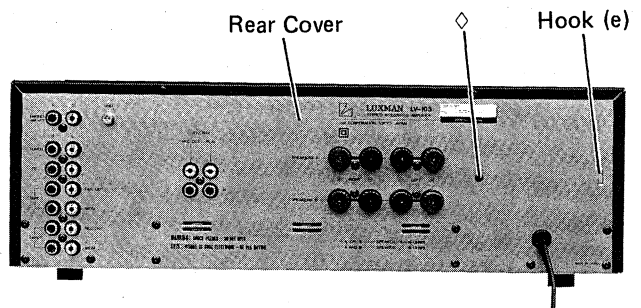


Figure 12

## 12. Removal of Protect P.C. Board

- (1) Remove two screws marked "☐" as shown in Figure 4.
- (2) After removal of bottom chassis, remove two screws marked "#" as shown in Figure 11.
- (3) Disconnect all wires from the Protect P.C. Board.

## 13. Removal of Main P.C. Board

- (1) After removal of EQ P.C. Board and rear cover, remove four screws marked "■" as shown in Figures 5 and 13.
- (2) Disconnect all wires from the Main P.C. Board.

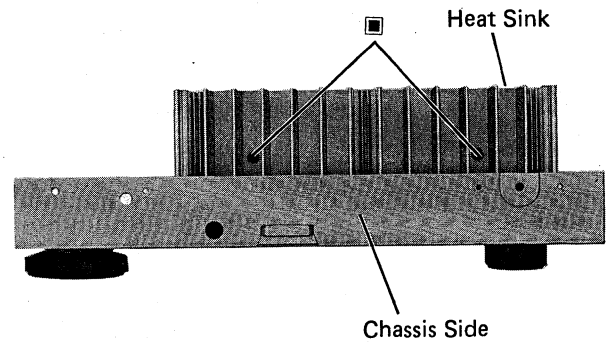


Figure 13

# Adjustment Procedures

## 1. Connection

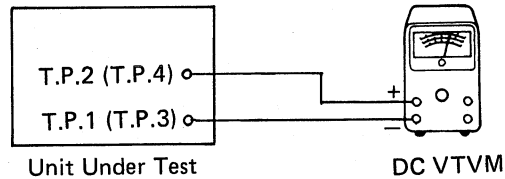


Figure 14

## 2. Control Setting

Power Switch . . . . . ON  
 Volume Control . . . . . Min (fully left)  
 Treble Control . . . . . Center  
 Bass Control . . . . . Center

Balance Control . . . . . Center  
 Pre-heating Switch . . . . . ON  
 Others . . . . . OFF

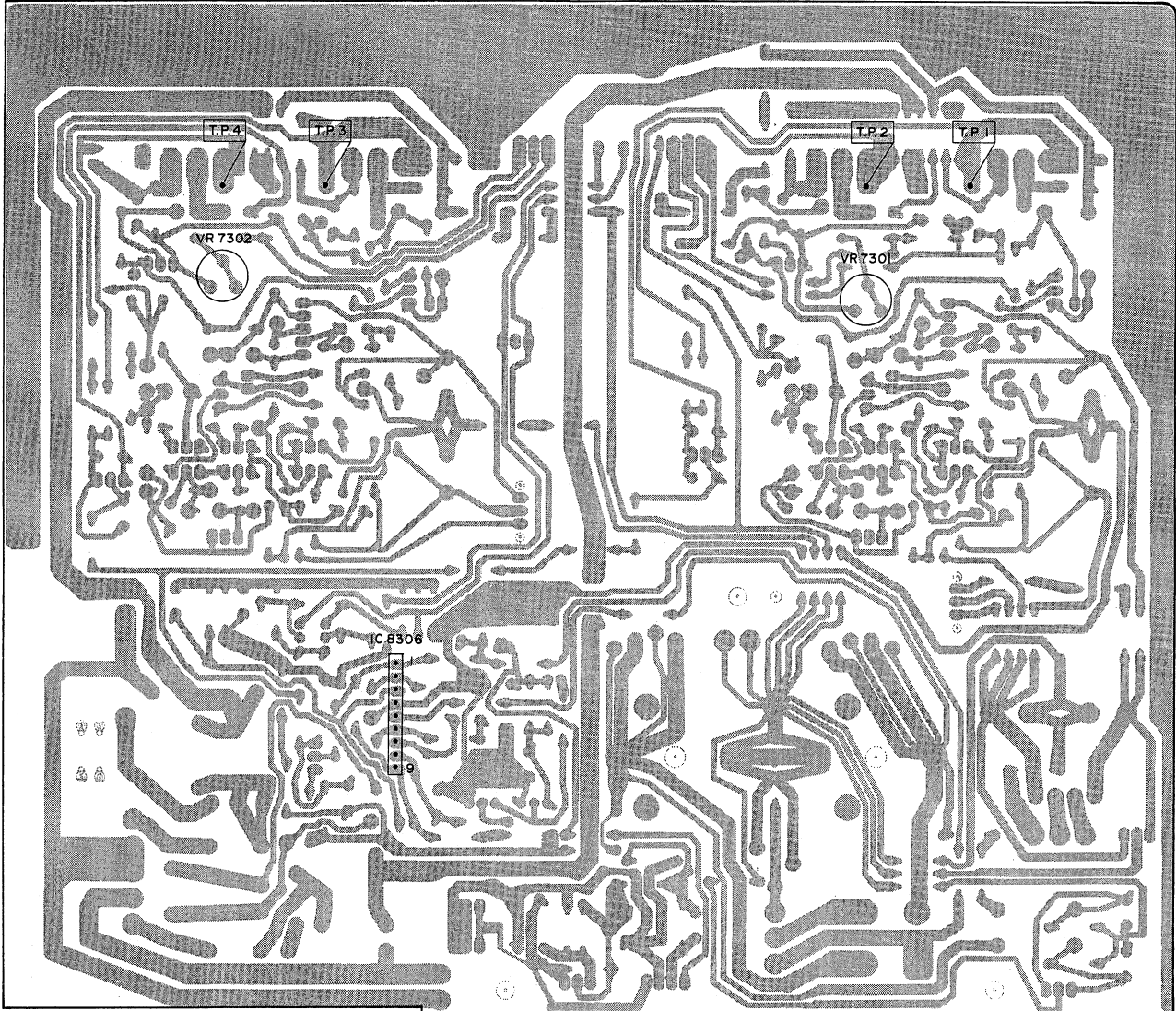
## 3. Adjustment

### (1) Idle Current Adjustment

Adjust VR7301 (VR7302) so that voltage reading of 45mV is obtained between T.P.1 (T.P.3) – T.P.2 (T.P.4).

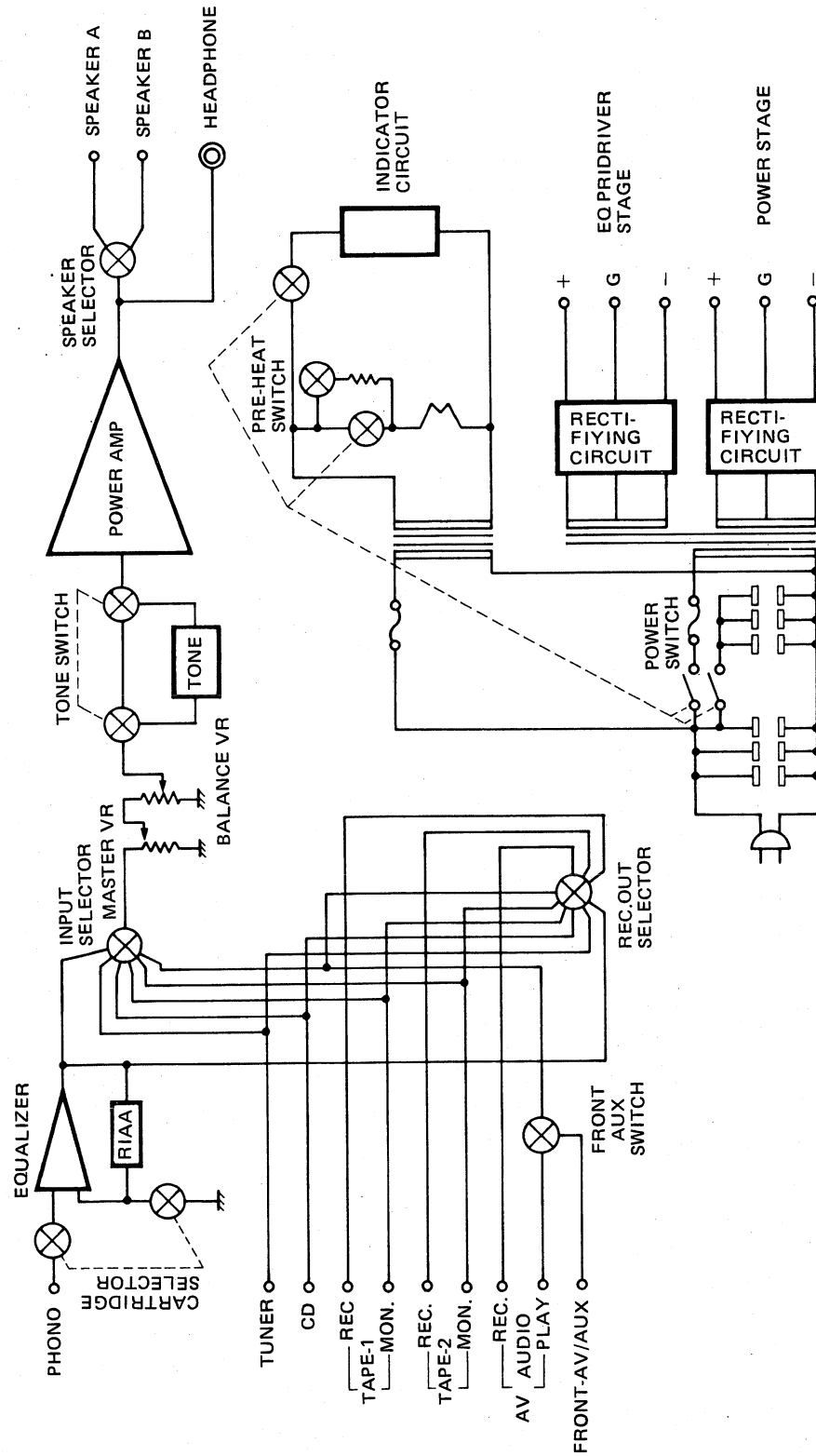
**Note:** This adjustment should be made 30 minutes after the power on (voltage variation stopped).

## Adjustment Locations



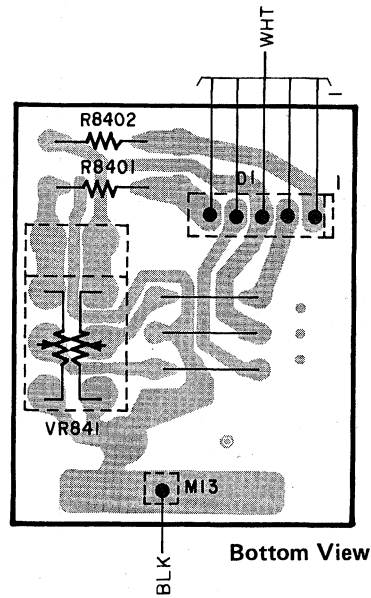
Main P.C. Board

# Block Diagram

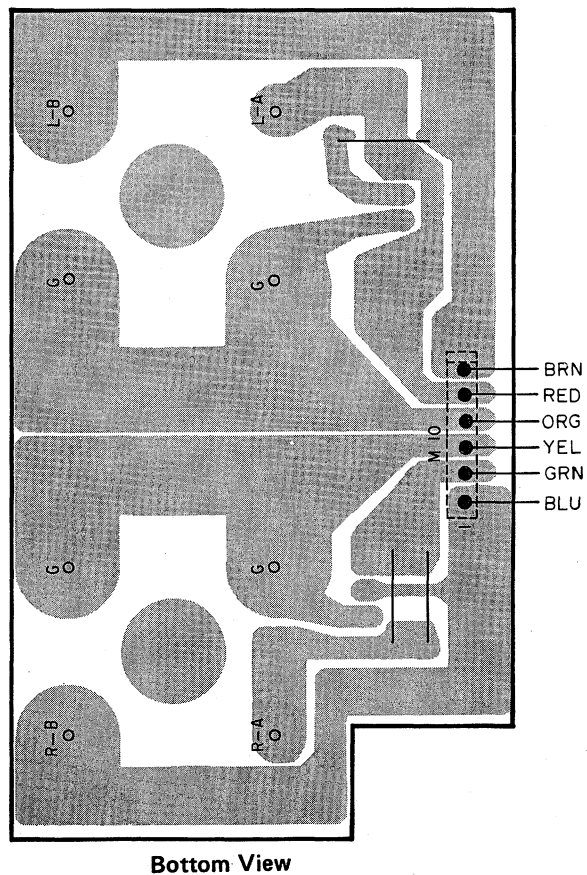


## Parts Layout on P.C. Boards

### • Volume Control P.C. Board

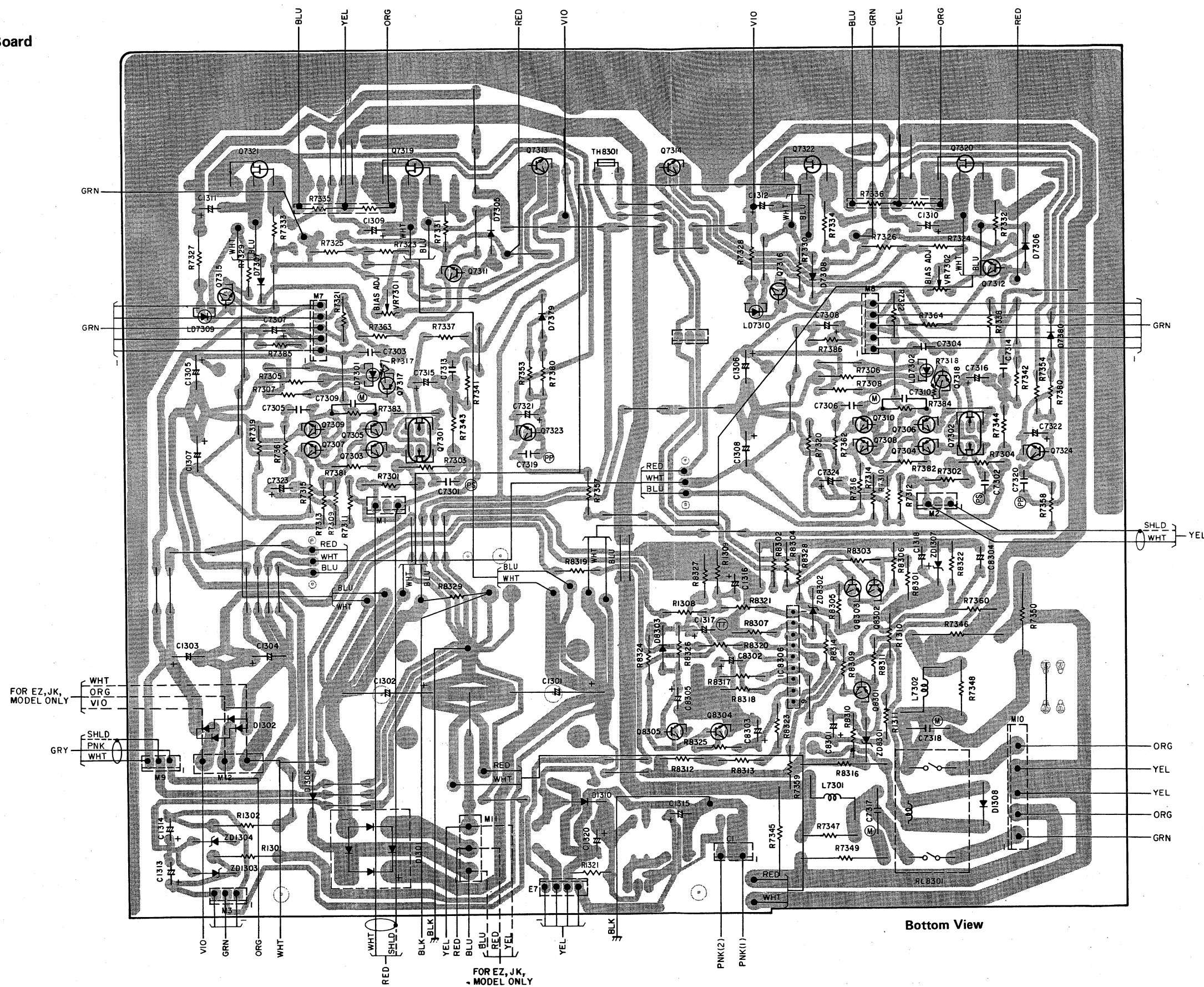


### • Speaker Terminal P.C. Board





• Main P.C. Board



IC8306	07303/7304	07305/7306	07307/7308	07309/7310	07311/7312	07313/7314	07315/7316	07317/7318	07323/7324	08301	08302
E	-5.4V	-5.4V	-11.4V	-11.4V	1.4V	-1.6V	-51V	113.0V	0V	52V	1.4V
C	-11.0V	-11.0V	-11.0V	-11.3V	5.2V	1.4V	-1.6V	-0.30V	62V	-0.75V	12.0V
B	-6.0V	-6.0V	-13.4V	-13.4V	2.0V	-1.0V	-50.4V	113.6V	0V	52V	1.4V

07301/7302	07319/7320	07321/7322
IN	NF	
S	-0.3V	0.022V
G	0V	1.4V
D	-5.4V	-5.2V

08303	08304	08305
E	1.4V	0V
C	2.0V	0V
B	12.0V	0.6V

IC8306	1	2	3	4	5	6	7	8	9
1	0.75V	0V	0V	0V	-0.75V	1.0V	0V	1.4V	0V
2	0V	0V	0V	0V	0V	0V	0V	0V	0V
3	0V	0V	0V	0V	0V	0V	0V	0V	0V
4	0V	0V	0V	0V	0V	0V	0V	0V	0V
5	0V	0V	0V	0V	0V	0V	0V	0V	0V
6	0V	0V	0V	0V	0V	0V	0V	0V	0V
7	0V	0V	0V	0V	0V	0V	0V	0V	0V
8	0V	0V	0V	0V	0V	0V	0V	0V	0V
9	0V	0V	0V	0V	0V	0V	0V	0V	0V

- **Tone/LED P.C. Board**

LD8612

4

EB

YEL

ORG

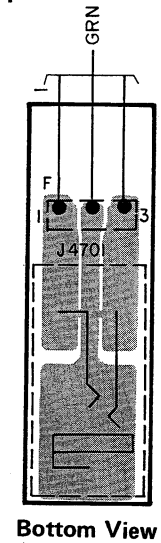
RED

BRN

LD8611

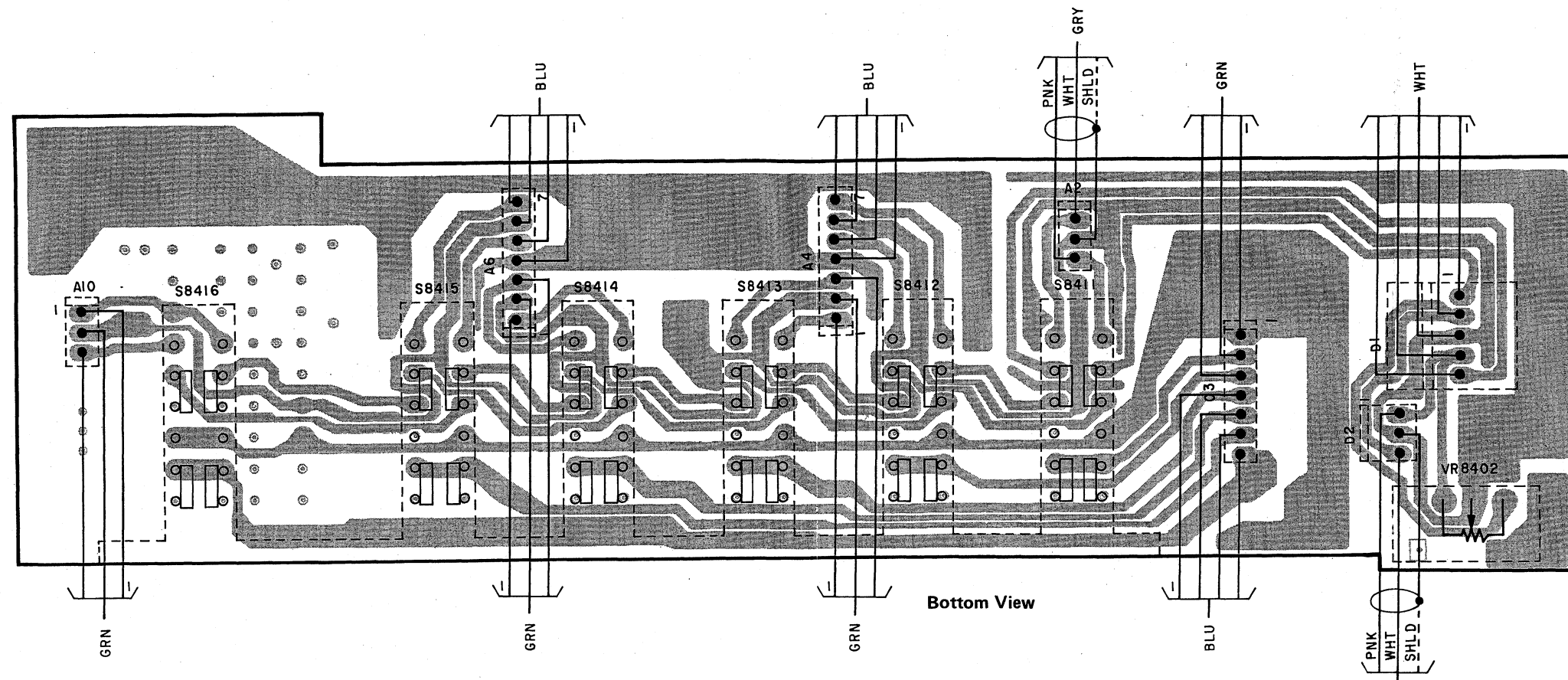
Bottom View

- **Headphone P.C. Board**

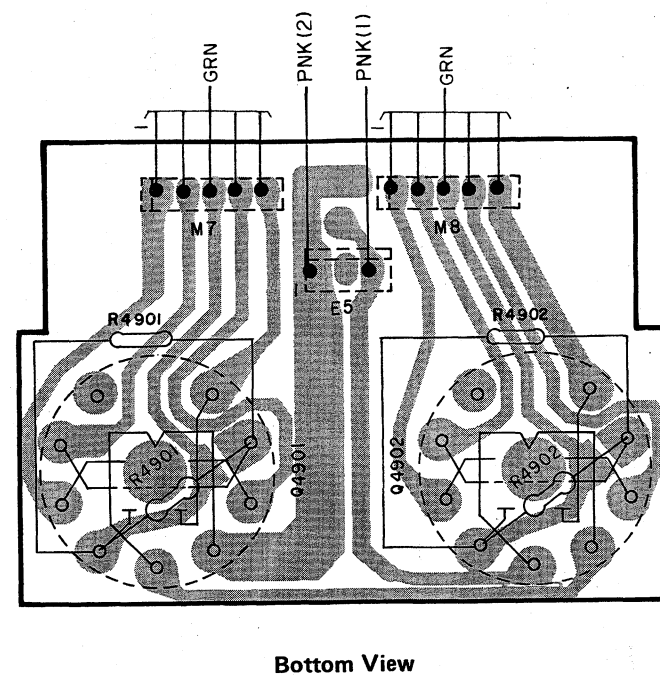




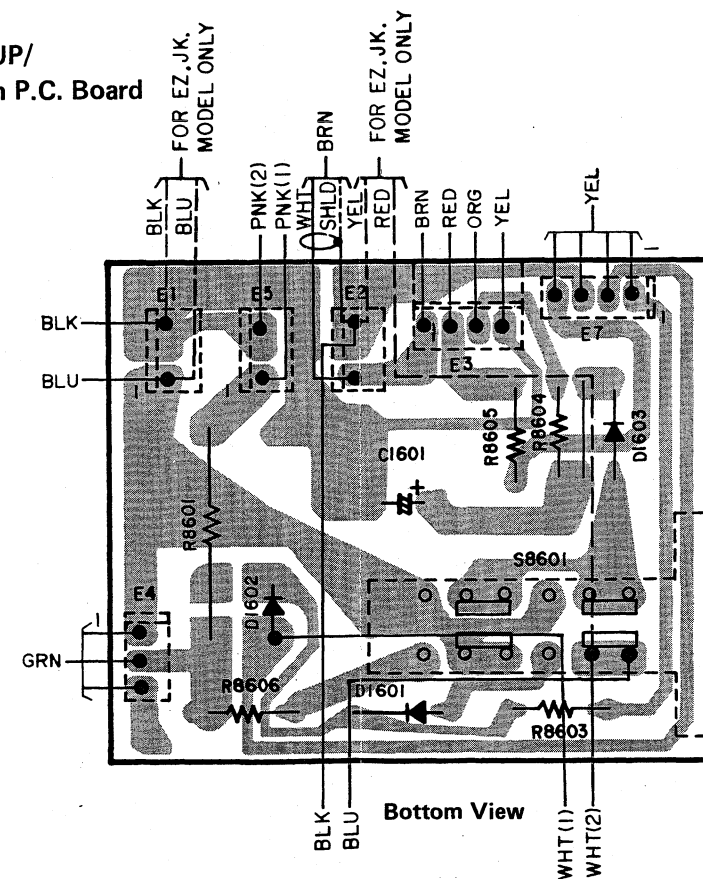
• Function P.C. Board



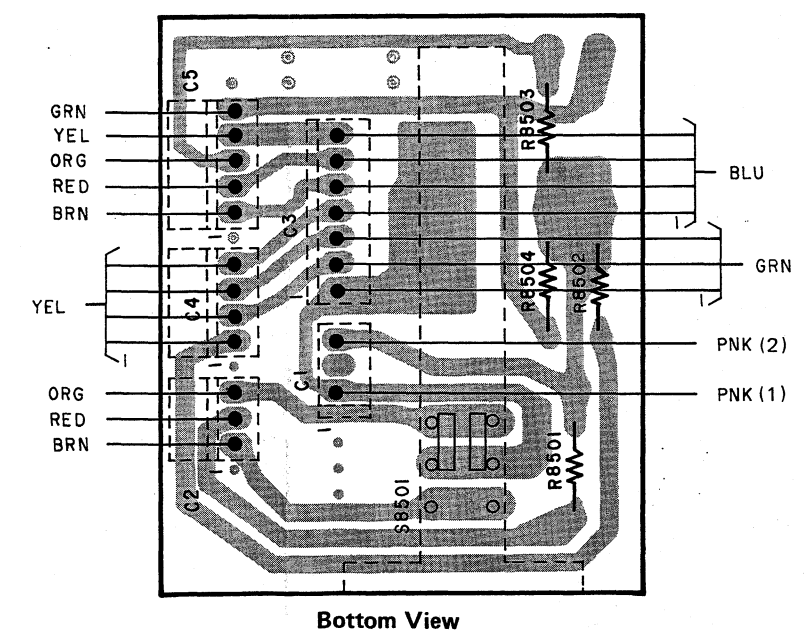
• Tube P.C. Board



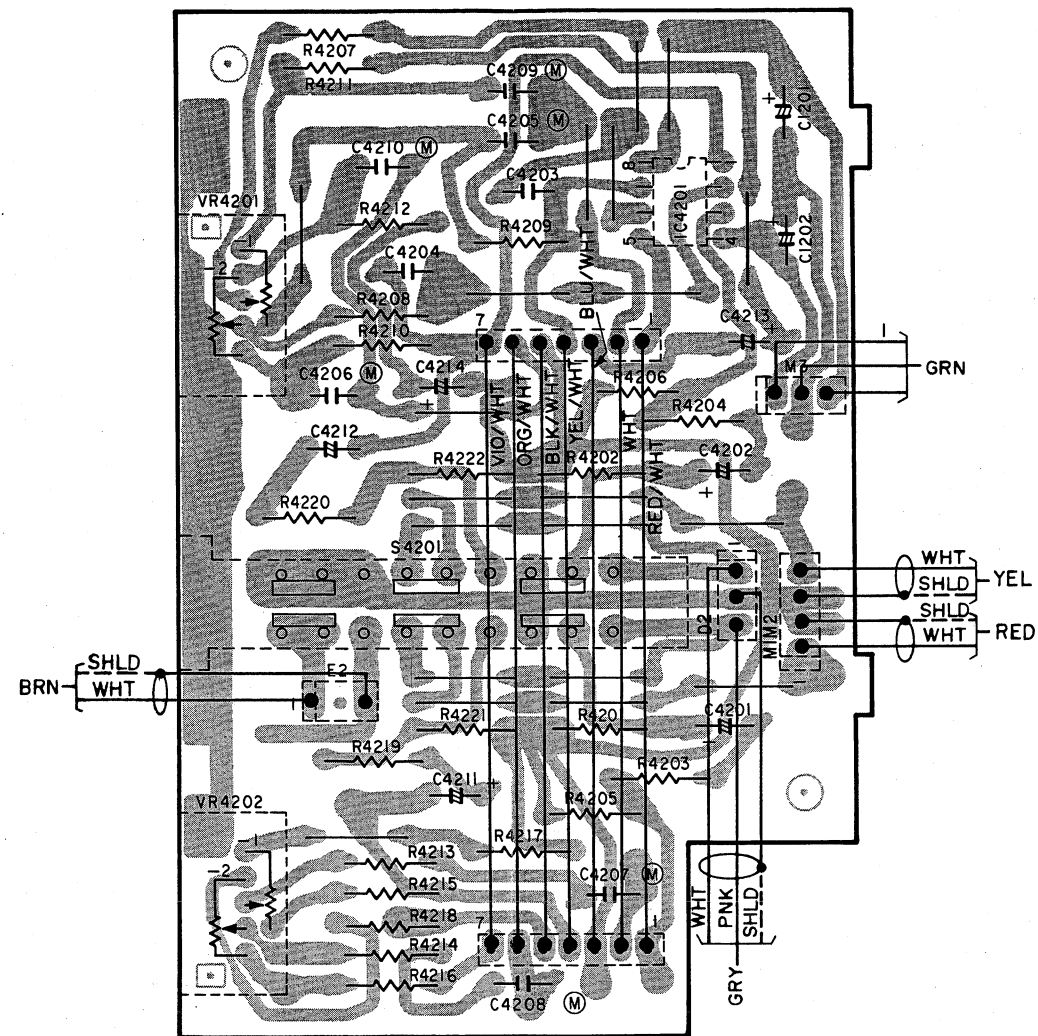
• Heat-UP/  
Switch P.C. Board



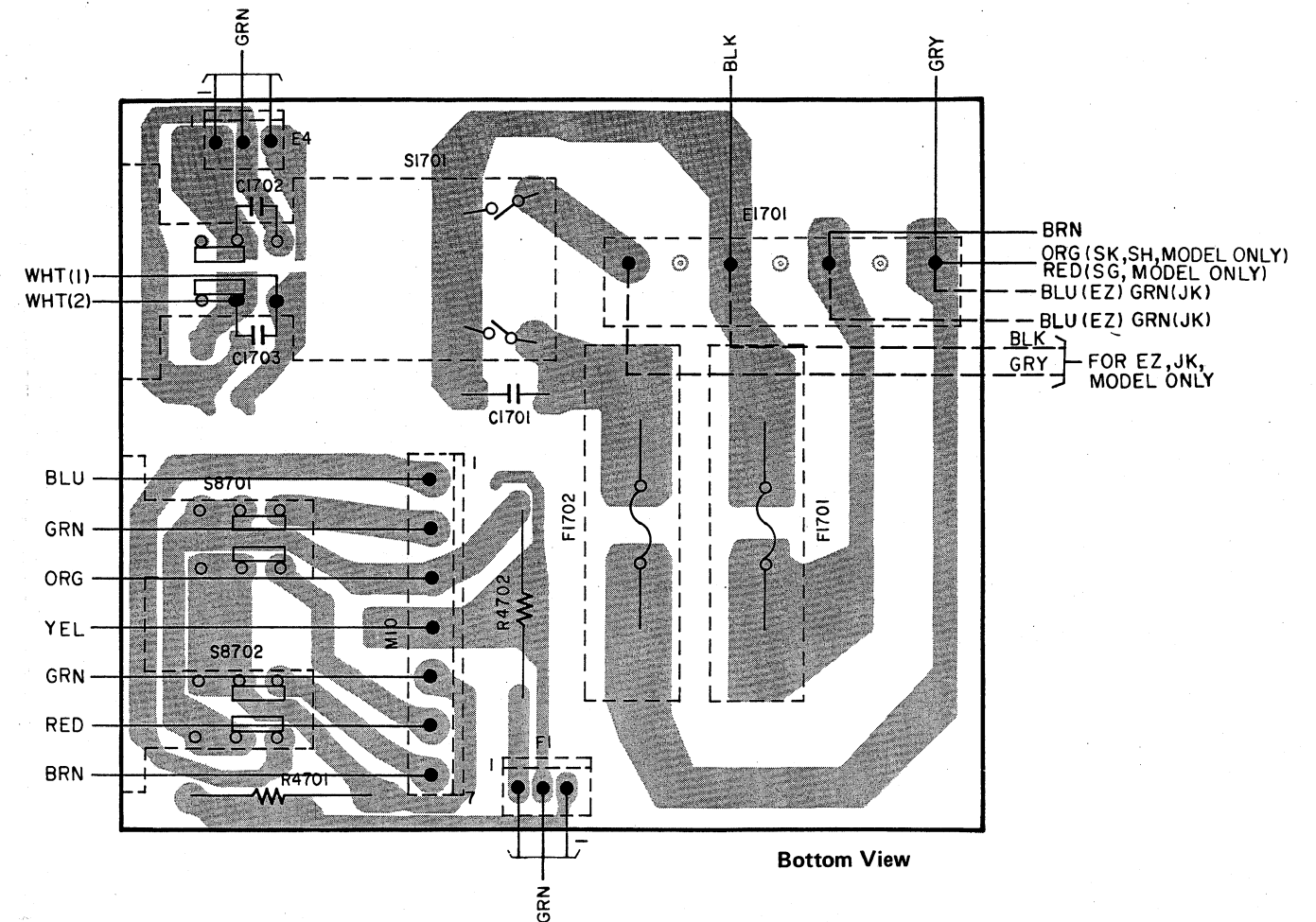
• MM/MC P.C. Board



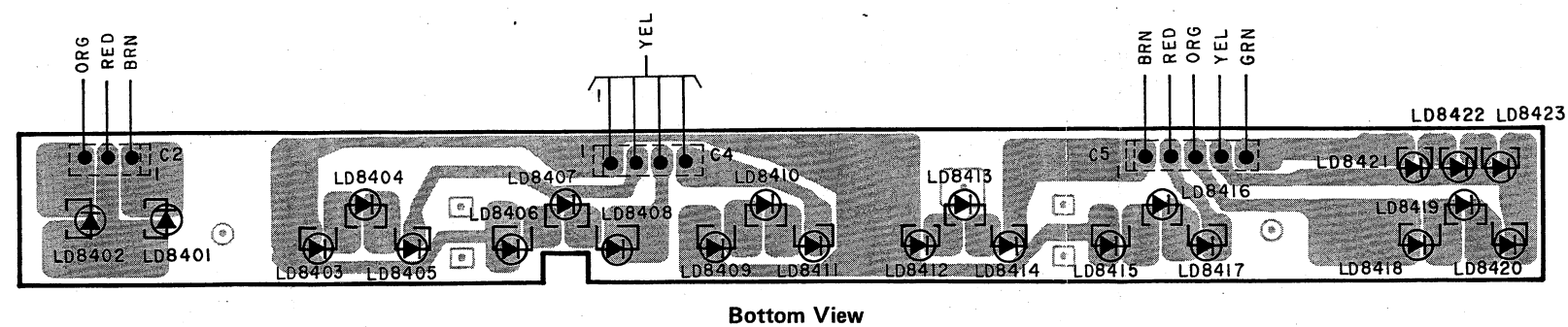
## ● Tone Control P.C. Board



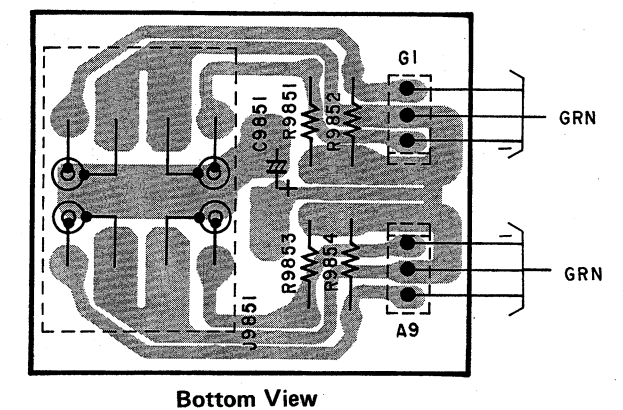
## ● Speaker/Switch P.C. Board



## ● Function/LED P.C. Board



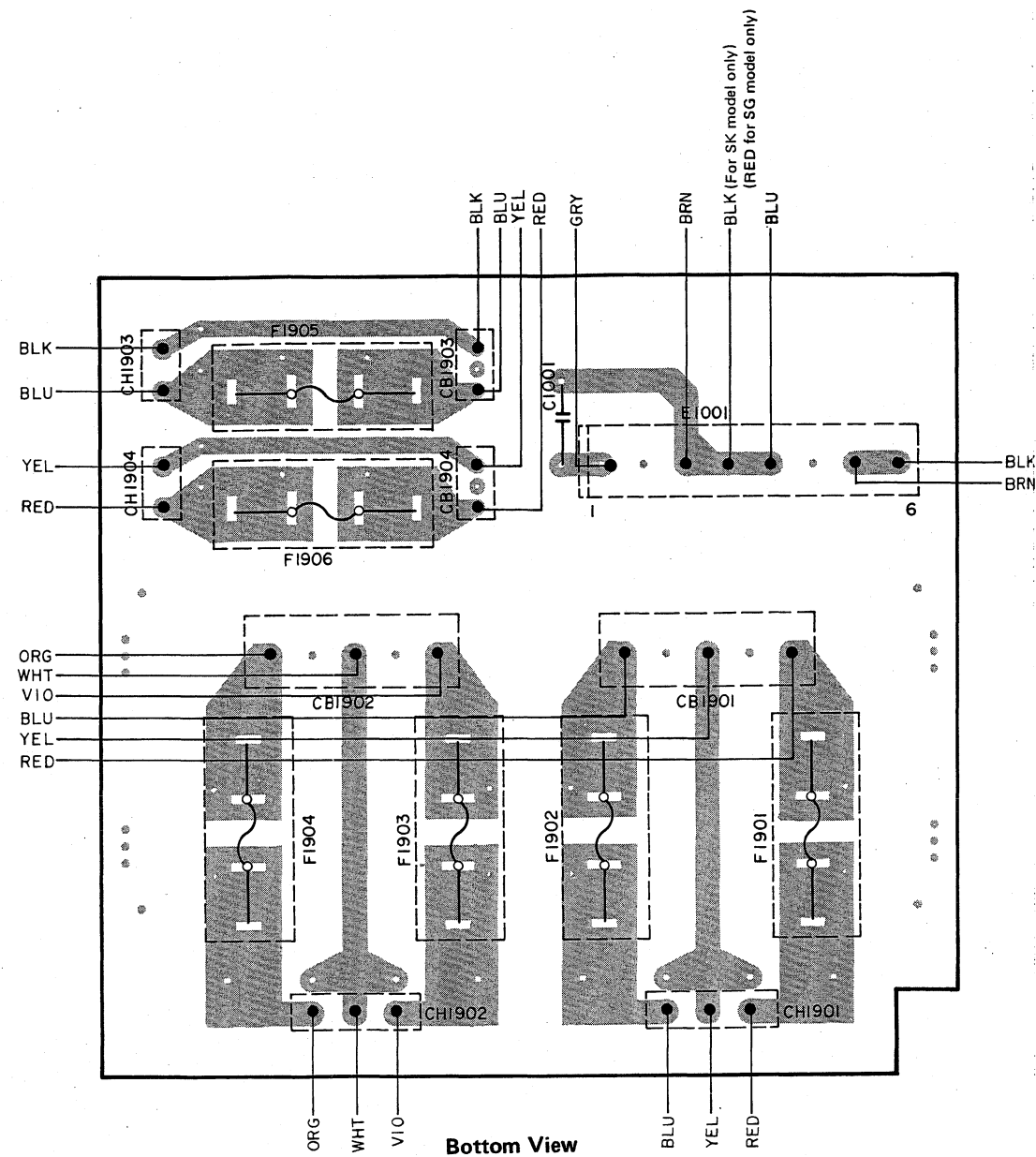
## ● AV Monitor P.C. Board



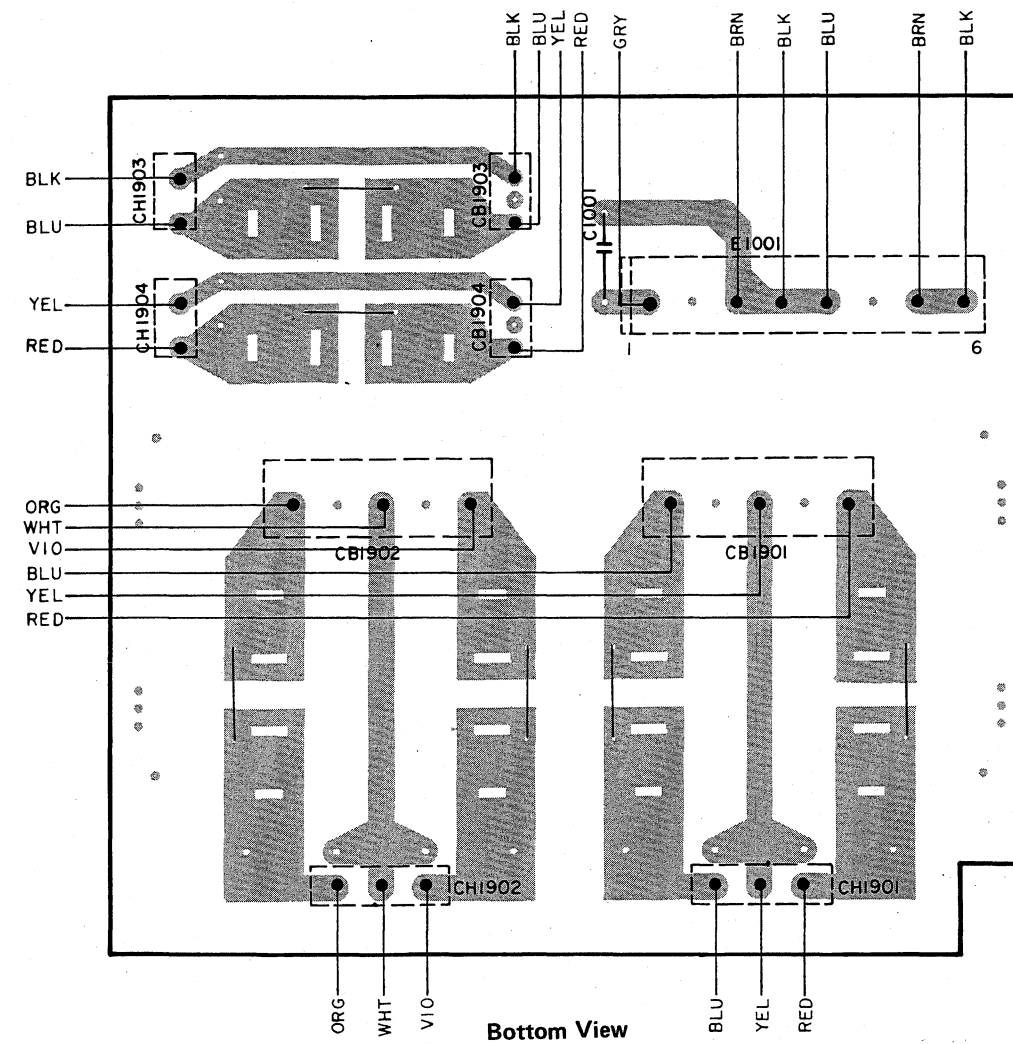




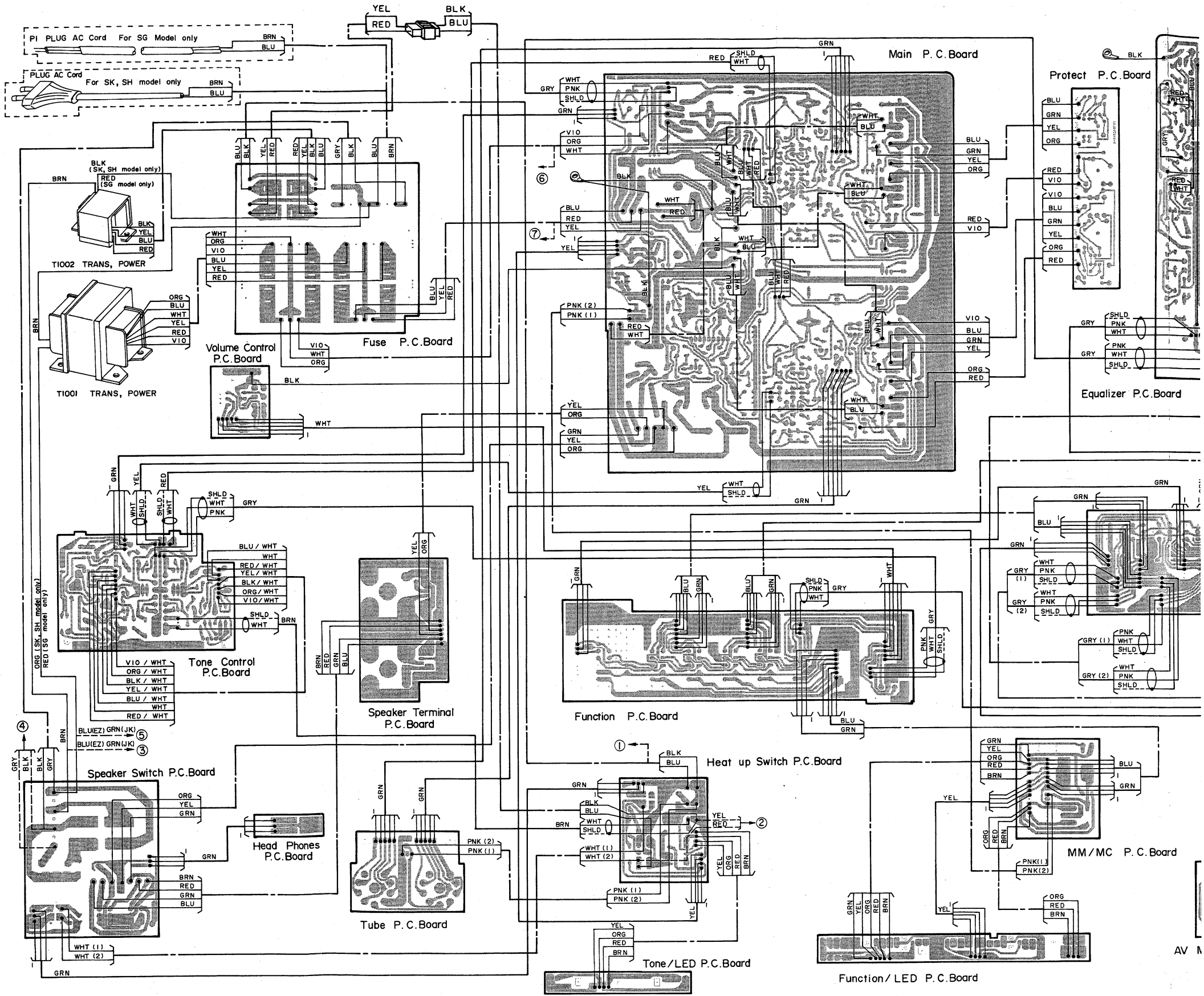
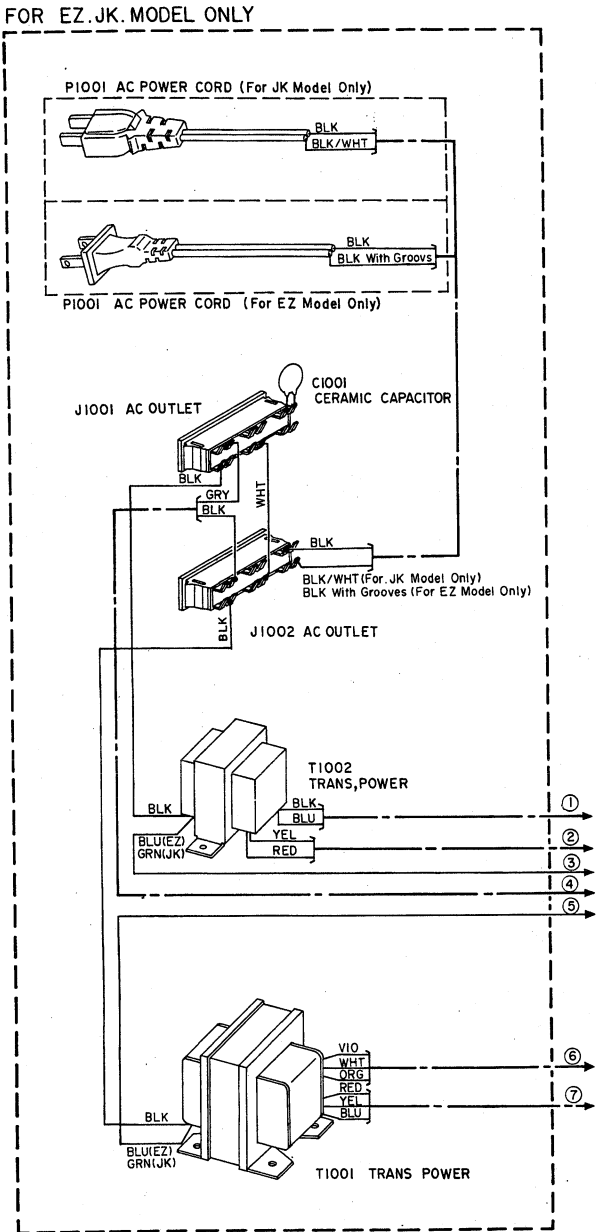
● Fuse P.C. Board (For SG, SK Model)



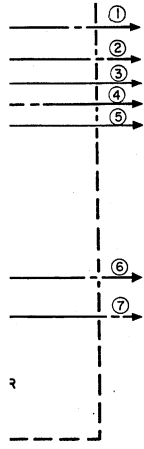
● Fuse P.C. Board (For SH Model)



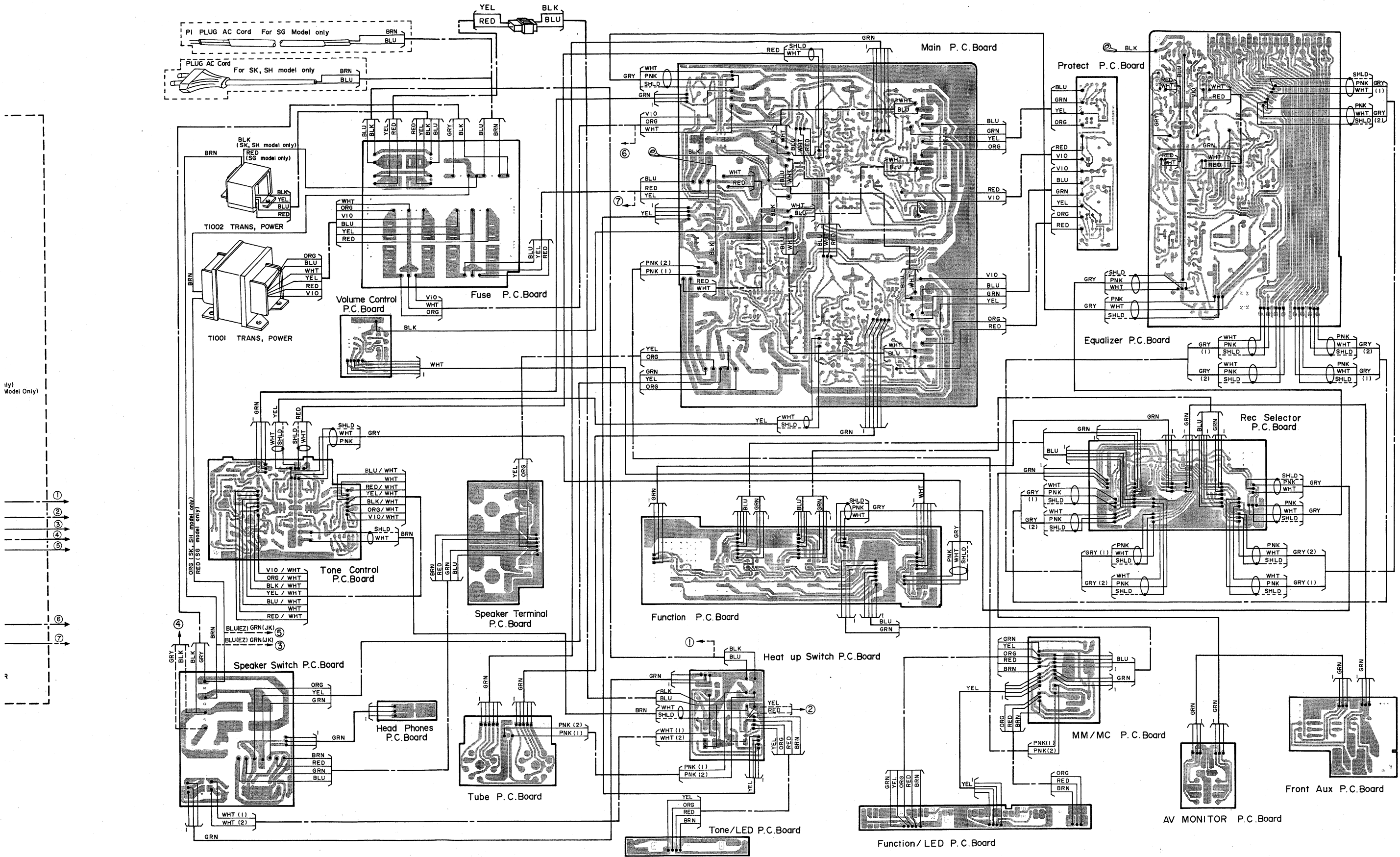
Wiring Diagram



ily)  
Model Only)

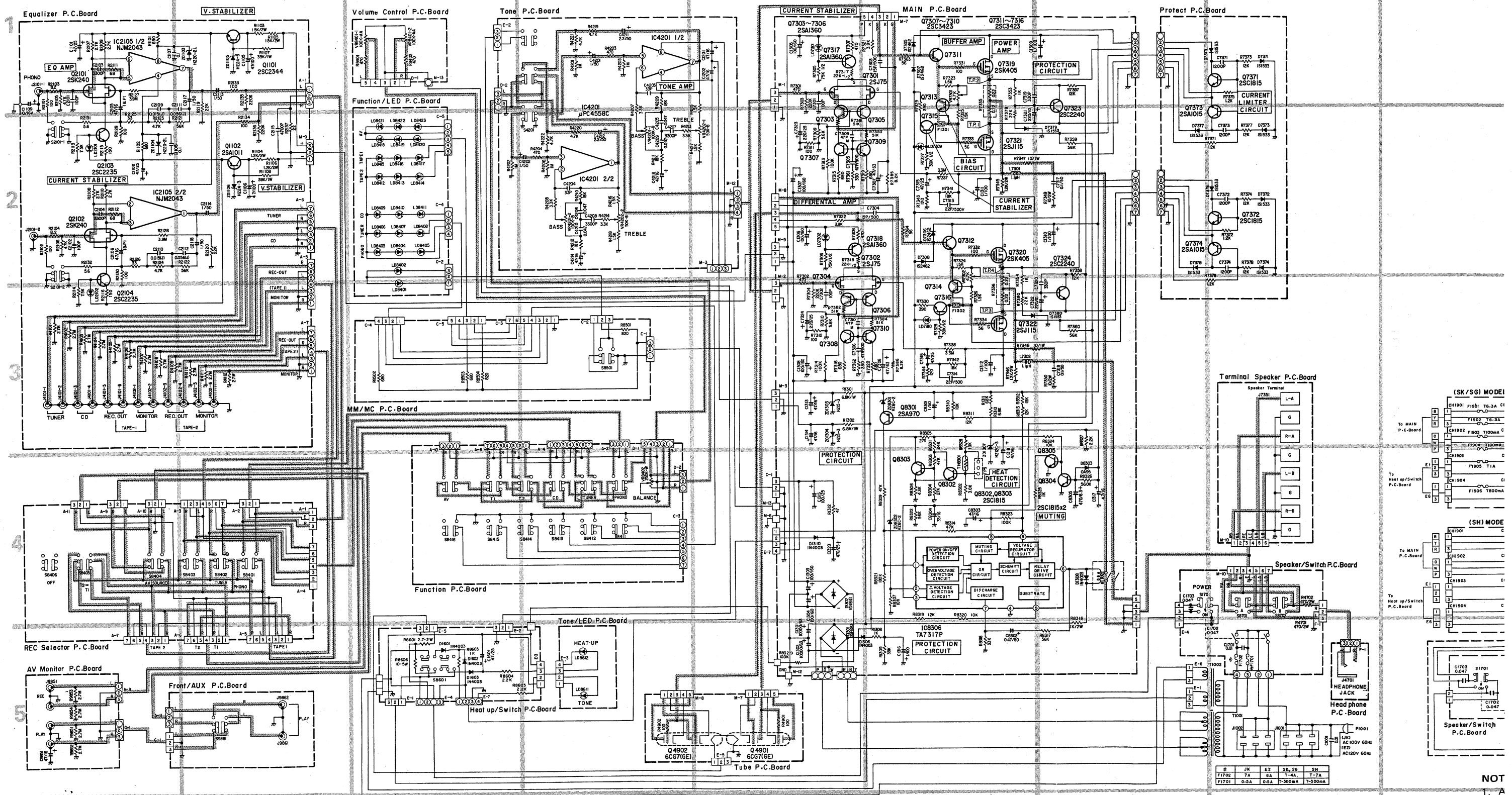


2





## Schematic Diagram



NOT

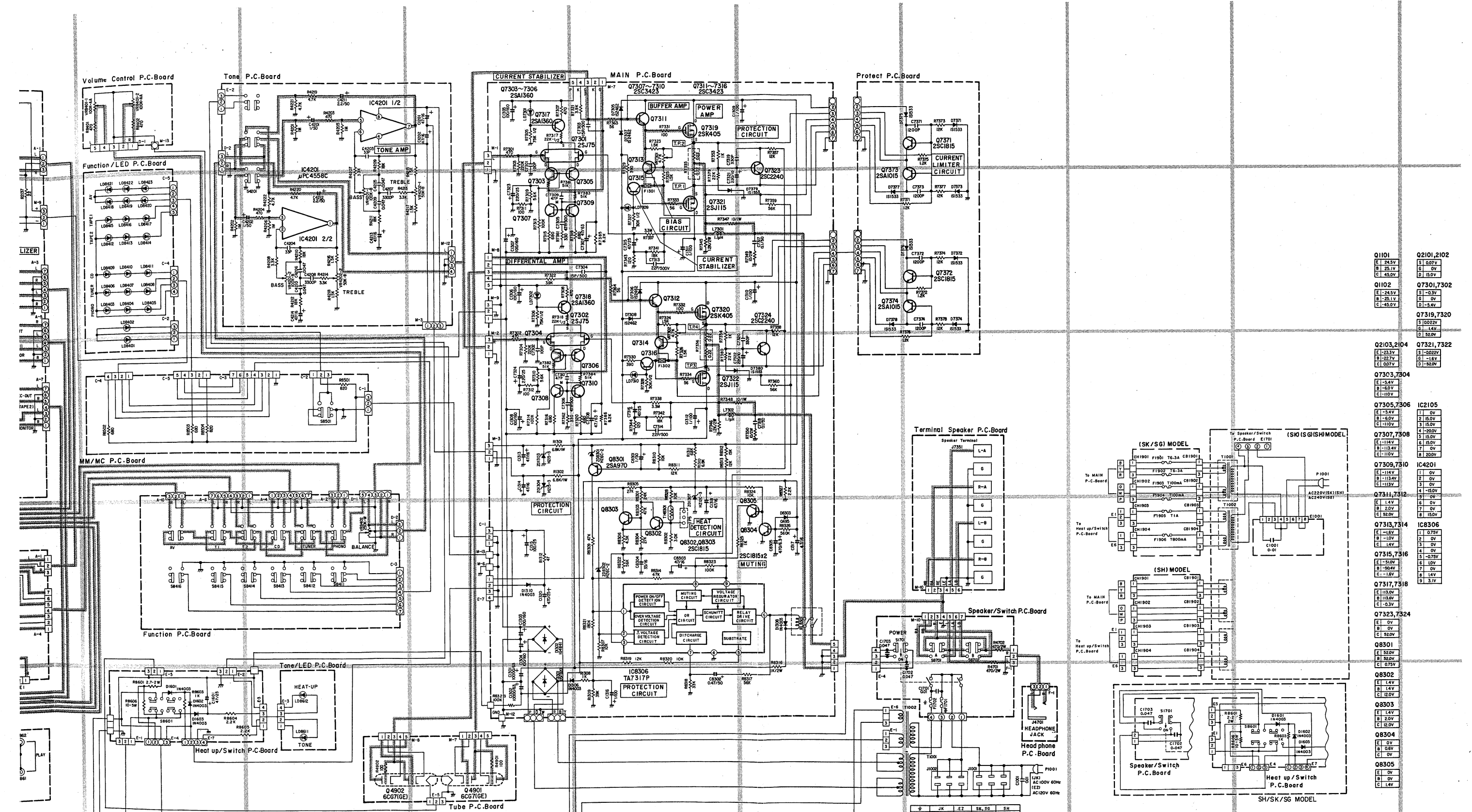
1. A

2. A

3. V

a

n





# Electrical Parts List

Resistors: Carbon resistors that less than 1/4 watts are not entered on the parts list, please confirm them by schematic diagram.  
 uF = microfarads, pF = picofarads

Symbol No.	Part No.	Description
<b>Equalizer P.C. Board</b>		
<b>IC</b>		
IC2105	51T52153F01	NJM2043D-D
<b>Transistors</b>		
Q1101 or Q1102 or Q2101 or	48T64240F01 48T64240F02 48T47145F01 48T47145F02 48T60558F01 48T60558F02	2SC2344-E 2SC2344-D 2SA1011-D 2SA1011-E FET, 2SK240-BL FET, 2SK240-V
Q2102 or Q2103 Q2104	48T60558F01 48T60558F02 48T51120F01 48T51120F01	FET, 2SK240-BL FET, 2SK240-V 2SC2235-Y 2SC2235-Y
<b>Diodes/LEDs</b>		
LD2101 LD2102 ZD1103 ZD1104 ZD1105 or ZD1106 or	48T60947F05 48T60947F05 48T52741F56 48T52741F56 48T52739F93 48T56372F77 48T52739F93 48T56372F77	LED, SLH-34VR3F (RED) LED, SLH-34VR3F (RED) Zener, HZ20-2L Zener, HZ20-2L Zener, HZ24-3 Zener, RD27E-B1 Zener, HZ24-3 Zener, RD27E-B1
<b>Jacks/Switch</b>		
J2101 J4101 J4102  S2101	09T67403F01 09T67404F01 09T67404F01  40T57372F01	Plate, Phone Jack Plate, Phono Jack (Tuner, CD) Plate, Phono Jack (Tape 1, Tape 2) Switch, Slide SSR (2435) Cartridge

Symbol No.	Part No.	Description
<b>Capacitors</b>		
C1101 C1102 C1105 C1106 C1107	23S40657F20 23S40657F20 23S41198U32 23S41198U32 08T57851F13	Electrolytic 47 uF/25V Electrolytic 47 uF/25V Electrolytic 47 uF/100V Electrolytic 47 uF/100V TF 0.1 uF
C1108 C2101 C2102 C2103 C2104	08T57851F13 08T67344F01 08T67344F01 08T67344F37 08T67344F37	TF 0.1 uF Polystyrol 100 pF Polystyrol 100 pF Polystyrol 3300 pF Polystyrol 3300 pF
C2105 C2106 C2109 C2110 C2111	23T43197F09 23T43197F09 08T68632F15 08T68632F15 08T68632F22	Electrolytic 47 uF/16V Electrolytic 47 uF/16V Polyester 0.015 uF Polyester 0.015 uF Polyester 0.056 uF
C2112 C2113 C2114 C2115 C2117	08T68632F22 23T61177F08 23T61177F08 08T67344F41 23T61177F08	Polyester 0.056 uF Electrolytic (BP) 1 uF/50V Electrolytic (BP) 1 uF/50V Polystyrol 4700 pF Electrolytic (BP) 1 uF/50V
C2118	23T61177F08	Electrolytic (BP) 1 uF/50V
<b>Resistors</b>		
R1103 or R1104 or R1105 or	06T00007L69 06T55179F69 06T00007L67 06T55179F67 06T00007L69 06T55179F69	Metal Film 1.5K ohm 2W Metal Film 1.5K ohm 2W Metal Film 1.2K ohm 2W Metal Film 1.2K ohm 2W Metal Film 1.5K ohm 2W Metal Film 1.5K ohm 2W
R1106 or R1107 or R1108 or	06T00007L67 06T55179F67 06T00006L04 06T55178F04 06T00006L04 06T55178F04	Metal Film 1.2K ohm 2W Metal Film 1.2K ohm 2W Metal Film 39K ohm 1W Metal Film 39K ohm 1W Metal Film 39K ohm 1W Metal Film 39K ohm 1W
R2101 R2102 R2103 R2104 R2105	06T00013L41 06T00013L41 06T00013L15 06T00013L15 06T00014L06	Carbon Film 100 ohm 1/3W Carbon Film 100 ohm 1/3W Carbon Film 8.2 ohm 1/3W Carbon Film 8.2 ohm 1/3W Carbon Film 47K ohm 1/3W

Symbol No.	Part No.	Description
R2106	06T00014L06	Carbon Film 47K ohm 1/3W
R2129	06T00013L41	Carbon Film 100 ohm 1/3W
R2130	06T00013L41	Carbon Film 100 ohm 1/3W
R2131	06T00013L11	Carbon Film 5.6 ohm 1/3W
R2132	06T00013L11	Carbon Film 5.6 ohm 1/3W
R4103	06T00014L48	Carbon Film 2.7M ohm 1/3W
R4104	06T00014L48	Carbon Film 2.7M ohm 1/3W
<b>Heat-up/Switch P.C. Board</b>		
<b>Diodes/Switch</b>		
D1601	48S40477U01	Diode, 1N4003
D1602	48S40477U01	Diode, 1N4003
D1603	48S40477U01	Diode, 1N4003
S8601	40T67389F01	Switch, Push, SUL121S (Pre-heating)
<b>Capacitor/Resistors</b>		
C1601	23S40657F20	Cap., Electrolytic 47 uF/25V
R8601	06T00007L03	Res., Metal Film 2.7 ohm 2W
R8606	06T60132F01	Res., Cement 10 ohm 5W
<b>Speaker Switch P.C. Board</b>		
<b>Fuses/Switch</b>		
○ F1701	65T52486F13	Fuse, MF61M6 0.5A-250V
■	65T42077U13	Fuse, Semko T-500mA
▲	65T42077U13	Fuse, Semko T-500mA
●	65T55050F05	Fuse, MF60NR 0.5A-125V
★		
○ F1702	65T52486F41	Fuse, CS61M6 6A-125V
■	65T42077U22	Fuse, Semko T-4A
▲	65T42077U22	Fuse, Semko T-4A
●	65T55050F18	Fuse, NR60 7A-125V
★		
■ D1701	40T68579F01	Switch, Push SDU3P-E
▲	40T68579F01	Switch, Push SDU3P-E
★	40T68579F01	Switch, Push SDU3P-E
●	40T61693F02	Switch, Push SDU4P (Power)
○	40T61693F02	Switch, Push SDU4P

Symbol No.	Part No.	Description
S8701	40T67388F01	Switch, Push (Speaker A)
S8702	40T67388F01	Switch, Push (Speaker B)
<b>Capacitors/Resistors</b>		
C1701	08T57437F09	Cap., DE7150 FZ 0.01 uF
C1702	21C45322G33	Cap., Ceramic, 0.047 uF
C1703	21C45322G33	Cap., Ceramic, 0.047 uF
R4701	06T55179F57	Res., Metal Film 470 ohm 2W
or	06T00007L57	Res., Metal Film 470 ohm 2W
R4702	06T55179F57	Res., Metal Film 470 ohm 2W
or	06T00007L57	Res., Metal Film 470 ohm 2W
<b>Tone P.C. Board</b>		
<b>IC/Switch</b>		
IC4201	51T62647F01	NJM082D
S4201	40T61986F01	Switch, Push 122A (Tone in)
<b>Capacitors/Volumes</b>		
C1201	23S40657F13	Electrolytic 47 uF/16V
C1202	23S40657F13	Electrolytic 47 uF/16V
C4201	23T42478F24	Electrolytic 1 uF/50V
C4202	23T42478F24	Electrolytic 1 uF/50V
C4203	21S40655F17	Ceramic 33 pF
C4204	21S40655F17	Ceramic 33 pF
C4205	08S40656F21	Mylar 0.047 uF
C4206	08S40656F21	Mylar 0.047 uF
C4207	08S40656F07	Mylar 3300 pF
C4208	08S40656F07	Mylar 3300 pF
C4209	08S40656F21	Mylar 0.047 uF
C4210	08S40656F21	Mylar 0.047 uF
C4211	23T58711F31	Electrolytic 2.2 uF/50V
C4212	23T58711F31	Electrolytic 2.2 uF/50V
C4213	23S40657F13	Electrolytic 47 uF/16V
C4214	23S40657F13	Electrolytic 47 uF/16V
VR4201	18T67394F01	Variable Resistor K122G 100K ohm (Bass)
VR4202	18T67395F01	Variable Resistor K122G 50K ohm (Treble)
<b>Main P.C. Board</b>		
<b>IC</b>		
IC8306	51T67437F01	TA7317P

Note: ● : For JK model only, ○ : For EZ model only, ■ : For SK model only,  
 ▲ : For SG model only, ★ : For SH model only, Others: Common

Symbol No.	Part No.	Description
<b>Transistors</b>		
Q7301	48T62284F01	FET, 2SJ75-BL
Q7302	48T62284F01	FET, 2SJ75-BL
Q7303	48T64375F01	2SA1360-O, Y
Q7304	48T64375F01	2SA1360-O, Y
Q7305	48T64375F01	2SA1360-O, Y
Q7306	48T64375F01	2SA1360-O, Y
Q7307	48T64376F01	2SC3423-O, Y
Q7308	48T64376F01	2SC3423-O, Y
Q7309	48T64376F01	2SC3423-O, Y
Q7310	48T64376F01	2SC3423-O, Y
Q7311	48T64376F01	2SC3423-O, Y
Q7312	48T64376F01	2SC3423-O, Y
Q7313	48T64376F01	2SC3423-O, Y
Q7314	48T64376F01	2SC3423-O, Y
Q7315	48T64376F01	2SC3423-O, Y
Q7316	48T64376F01	2SC3423-O, Y
Q7317	48T64375F01	2SA1360-O, Y
Q7318	48T64375F01	2SA1360-O, Y
Q7319	48T67399F01	FET, 2SK405-Y
Q7320	48T67399F01	FET, 2SK405-Y
Q7321	48T67398F01	FET, 2SJ115-Y
Q7322	48T67398F01	FET, 2SJ115-Y
Q7323	48T53301F01	2SC2240-BL
Q7324	48T53301F01	2SC2240-BL
Q8301	48T52545F03	2SA970-BL
Q8302	48S43525F05	2SC1815-Y
Q8303	48S43525F05	2SC1815-Y
Q8304	48S43525F05	2SC1815-Y
Q8305	48S43525F05	2SC1815-Y
<b>Relay/Thermister</b>		
RL8301	80T58612F01	Relay, G2Z-222P-US-24
TH8301	48T67436F01	Thermistor, NB320UASZ
<b>Coils</b>		
L7301	24T67516F02	Choke, 1.1 $\mu$ H
L7302	24T67516F02	Choke, 1.1 $\mu$ H

Symbol No.	Part No.	Description
<b>Fuses</b>		
F1301	48T68756F01	IC, Protector
F1302	48T68756F01	IC, Protector
<b>Diodes/LED</b>		
D1301	48T67435F01	Bridge, D5FB20
D1302	48T61415F03	Bridge, 1G4B41
D1306	48S40477U01	1N4003
D1308	48S40477U01	1N4003
D1310	48S40477U01	1N4003
D7305	48T52198F01	1S2462
D7306	48T52198F01	1S2462
D7307	48T52198F01	1S2462
D7308	48T52198F01	1S2462
D8303	48T43982F01	GEOA95
ZD1303	48T52739F78	Zener, HZ15-3
or	48T56372F59	Zener, RD16E-B1
ZD1304	48T52739F78	Zener, HZ15-3
or	48T56372F59	Zener, RD16E-B1
ZD1307	48T52740F09	Zener, HZ12C-3
or	48T56372F57	Zener, RD15E-B2
ZD7303	48T40150U10	Zener, HZ4A-1
ZD7304	48T40150U10	Zener, HZ4A-1
ZD8301	48T52739F41	Zener, HZ6C-2
or	48T56372F29	Zener, RD6.2E-B2
ZD8302	48T52739F41	Zener, HZ6C-2
or	48T56372F29	Zener, RD6.2E-B2
LD7301	48T60947F05	LED, SLH-34VR3F (RED)
LD7302	48T60947F05	LED, SLH-34VR3F (RED)
LD7309	48T60947F05	LED, SLH-34VR3F (RED)
LD7310	48T60947F05	LED, SLH-34VR3F (RED)
<b>Capacitors</b>		
C1301	23T67401F01	Electrolytic 1000 $\mu$ F/63V
C1302	23T67401F01	Electrolytic 1000 $\mu$ F/63V
C1303	23T67457F07	Electrolytic 100 $\mu$ F/160V
C1304	23T67457F07	Electrolytic 100 $\mu$ F/160V
C1305	23T67457F07	Electrolytic 100 $\mu$ F/160V
C1306	23T67457F07	Electrolytic 100 $\mu$ F/160V
C1307	23T67457F07	Electrolytic 100 $\mu$ F/160V
C1308	23T67457F07	Electrolytic 100 $\mu$ F/160V
C1309	23S40657F45	Electrolytic 1 $\mu$ F/100V
C1310	23S40657F45	Electrolytic 1 $\mu$ F/100V

Symbol No.	Part No.	Description	
C1311	23S40657F45	Electrolytic	1 uF/100V
C1312	23S40657F45	Electrolytic	1 uF/100V
C1313	23S40657F13	Electrolytic	47 uF/16V
C1314	23S40657F13	Electrolytic	47 uF/16V
C1315	23S40657F21	Electrolytic	100 uF/25V
C1316	23S40657F45	Electrolytic	1 uF/100V
C1317	23S41059P18	Tantalum	4.7 uF/16V
C1318	23S40657F13	Electrolytic	47 uF/16V
C1320	23S41198U57	Electrolytic	470 uF/25V
C7301	08T67344F01	Polystyrol	100 pF
C7302	08T67344F01	Polystyrol	100 pF
C7303	08T61642F08	Mica	15 pF/500V
C7304	08T61642F08	Mica	15 pF/500V
C7305	08T61642F20	Mica	47 pF/500V
C7306	08T61642F20	Mica	47 pF/500V
C7307	23S41198U31	Electrolytic	47 uF/63V
C7308	23S41198U31	Electrolytic	47 uF/63V
C7309	08T61642F20	Mylar	47 pF
C7310	08T61642F20	Mylar	47 pF
C7313	08T61642F12	Mica	22 pF/500V
C7314	08T61642F12	Mica	22 pF/500V
C7315	23T43197F49	Electrolytic	47 uF/25V
C7316	23T43197F49	Electrolytic	47 uF/25V
C7317	08T64568F25	Mylar	0.1 uF/50V
C7318	08T64568F25	Mylar	0.1 uF/50V
C7319	08T44481F01	Polypropylene	330 pF
C7320	08T44481F01	Polypropylene	330 pF
C7321	23S41198U41	Electrolytic	220 uF/16V
C7322	23S41198U41	Electrolytic	220 uF/16V
C7323	23S41198U41	Electrolytic	220 uF/16V
C7324	23S41198U41	Electrolytic	220 uF/16V
C8301	23S40657F28	Electrolytic	1 uF/50V
C8302	23S40657F27	Electrolytic	0.47 uF/50V
C8303	23S40657F13	Electrolytic	47 uF/16V
C8304	23T42477F38	Electrolytic (BP)	33 uF/16V
C8305	23S40657F50	Electrolytic	470 uF/6.3V
<b>Resistors</b>			
R1301	06T00005F85	Metal Film	6.8K ohm 1W
R1302	06T00005F85	Metal Film	6.8K ohm 1W
R7301	06T00013L57	FTR,	470 ohm 1/3W
R7302	06T00013L57	FTR,	470 ohm 1/3W
R7303	06T00014L22	FTR,	220K ohm 1/3W

Symbol No.	Part No.	Description	
R7304	06T00014L22	FTR,	220K ohm 1/3W
R7305	06T00018L11	Carbon Film	75K ohm 1/2W
R7306	06T00018L11	Carbon Film	75K ohm 1/2W
R7309	06T00017L92	Carbon Film	22K ohm 1/2W
R7310	06T00017L92	Carbon Film	22K ohm 1/2W
R7327	06T00018L01	Carbon Film	30K ohm 1/2W
R7328	06T00018L01	Carbon Film	30K ohm 1/2W
R7335	06T67397F01	MPC725	0.22 ohm x 2 5W
R7336	06T67397F01	MCP725	0.22 ohm x 2 5W
R7343	06T00013L43	FTR,	120 ohm 1/3W
R7344	06T00013L43	FTR,	120 ohm 1/3W
R7345	06T00007L67	Metal Film	1.2K ohm 2W
or	06T55179F67	Metal Film	1.2K ohm 2W
R7346	06T00007L67	Metal Film	1.2K ohm 2W
or	06T55179F67	Metal Film	1.2K ohm 2W
R7347	06T00005L17	Metal Film	10 ohm 1W
R7348	06T00005L17	Metal Film	10 ohm 1W
R7349	06T00007L17	Metal Film	10 ohm 2W
or	06T55177F17	Metal Film	10 ohm 1W
R7350	06T00007L17	Metal Film	10 ohm 2W
or	06T55179F17	Metal Film	10 ohm 1W
R8315	06T00007L65	Metal Film	1K ohm 2W
or	06T55179F65	Metal Film	1K ohm 2W
VR7301	18C41732G03	Variable	4.7K ohm
VR7302	18C41732G03	Variable	4.7K ohm
<b>Protect P.C. Board</b>			
<b>Transistors</b>			
Q7371	48S43525F03	2SC1815-GR	
or	48S44578J01	2SC945L-P	
Q7372	48S43525F03	2SC1815-GR	
or	48S44578J01	2SC945L-P	
Q7373	48T51118F02	2SA1015-GR	
or	48T40081T03	2SA733 (P)	
Q7374	48T51118F02	2SA1015-GR	
or	48T40081T03	2SA733 (P)	

Symbol No.	Part No.	Description
<b>Diodes</b>		
D7371 or or D7372 or or	48T51117F01 48T52198F01 48T52198F02 48T51117F01 48T52198F01 48T52198F02	1S1553 1S2462 1S2463 1S1553 1S2462 1S2463
D7373 or or D7374 or or	48T51117F01 48T52198F01 48T52198F02 48T51117F01 48T52198F01 48T52198F02	1S1553 1S2462 1S2463 1S1553 1S2462 1S2463
D7375 or or D7376 or or	48T51117F01 48T52198F01 48T52198F02 48T51117F01 48T52198F01 48T52198F02	1S1553 1S2462 1S2463 1S1553 1S2462 1S2463
D7377 or or D7378 or or	48T51117F01 48T52198F01 48T52198F02 48T51117F01 48T52198F01 48T52198F02	1S1553 1S2462 1S2463 1S1553 1S2462 1S2463
D7379 or or D7380 or or	48T51117F01 48T52198F01 48T52198F02 48T51117F01 48T52198F01 48T52198F02	1S1553 1S2462 1S2463 1S1553 1S2462 1S2463
<b>Capacitors</b>		
C7371 C7372 C7373 C7374	08T42081U27 08T42081U27 08T42081U27 08T42081U27	Polystyrol 1200 pF Polystyrol 1200 pF Polystyrol 1200 pF Polystyrol 1200 pF
<b>Function LED P.C. Board</b>		
<b>LED</b>		
LD8401	48T60947F05	LED, SLH-34VR3F (MM) (RED)
LD8402	48T60947F05	LED, SLH-34VR3F (MC) (RED)
LD8403	48T60947F04	LED, SLH-34MG3F (Phono) (GRN)
LD8404	48T60947F04	LED, SLH-34MG3F (Phono) (GRN)
LD8405	48T60947F04	LED, SLH-34MG3F (Phono) (GRN)

Symbol No.	Part No.	Description
LD8406	48T60947F04	LED, SLH-34MG3F (Tuner) (GRN)
LD8407	48T60947F04	LED, SLH-34MG3F (Tuner) (GRN)
LD8408	48T60947F04	LED, SLH-34MG3F (Tuner) (GRN)
LD8409	48T60947F04	LED, SLH-34MG3F (CD) (GRN)
LD8410	48T60947F04	LED, SLH-34MG3F (CD) (GRN)
LD8411	48T60947F04	LED, SLH-34MG3F (CD) (GRN)
LD8412	48T60947F04	LED, SLH-34MG3F (Tape 2) (GRN)
LD8413	48T60947F04	LED, SLH-34MG3F (Tape 2) (GRN)
LD8414	48T60947F04	LED, SLH-34MG3F (Tape 2) (GRN)
LD8415	48T60947F04	LED, SLH-34MG3F (Tape 1) (GRN)
LD8416	48T60947F04	LED, SLH-34MG3F (Tape 1) (GRN)
LD8417	48T60947F04	LED, SLH-34MG3F (Tape 1) (GRN)
LD8418	48T60947F04	LED, SLH-34MG3F (AV/AUX) (GRN)
LD8419	48T60947F04	LED, SLH-34MG3F (AV/AUX) (GRN)
LD8420	48T60947F04	LED, SLH-34MG3F (AV/AUX) (GRN)
LD8421	48T60947F05	LED, SLH-34VR3F (AV) (RED)
LD8422	48T60947F05	LED, SLH-34VR3F (AV) (RED)
LD8423	48T60947F05	LED, SLH-34VR3F (AV) (RED)
<b>Function P.C. Board</b>		
<b>Switches</b>		
S8411 2 S8416	40T67385F01	Switch, Push SUL602A (Phono, Tuner, CD, Tape 2, Tape 1, AV/AUX)

Symbol No.	Part No.	Description
<b>Volume</b>		
VR8402	18T67392F01	K121MO 250K ohm (Balance)
<b>MM/MC P.C. Board</b>		
<b>Switch</b>		
S8501	40T67441F01	Push, SUFR512 (Cartridge)
<b>AV Monitor P.C. Board</b>		
<b>Jack</b>		
J9851	09T67472F01	Plate, Phono Jack
<b>Capacitor</b>		
C9851	23S41198U27	Electrolytic 47 uF/16V
<b>Front AUX P.C. Board</b>		
<b>Jacks/Switch</b>		
J9861	09T67396F01	Plate Phono Jack (Front AV/AUX Audio)
J9862	09T67396F01	Plate Phono Jack (Front AV/AUX Audio)
S9861	40T67536F01	Switch Push SUL121A (Front AV/AUX Rear, Front)
<b>Fuse P.C. Board</b>		
<b>Capacitors/Fuses</b>		
■ C1001	08T57437F09	Capacitor, Ceramic 0.01 uF
▲ C1001	08T57437F09	Capacitor, Ceramic 0.01 uF
■ F1901	65T42077U24	Fuse, T-6.3A
▲ F1901	65T42077U24	Fuse, T-6.3A
■ F1902	65T42077U24	Fuse, T-6.3A
▲ F1902	65T42077U24	Fuse, T-6.3A

Symbol No.	Part No.	Description
■ F1903	65T42077U06	Fuse, T-100mA
▲ F1903	65T42077U06	Fuse, T-100mA
■ F1904	65T42077U06	Fuse, T-100mA
▲ F1904	65T42077U06	Fuse, T-100mA
■ F1905	65T42077U16	Fuse, T-1A
▲ F1905	65T42077U16	Fuse, T-1A
■ F1906	65T42077U15	Fuse, T-800mA
▲ F1906	65T42077U15	Fuse, T-800mA
<b>Miscellaneous Parts</b>		
○ J1001	09T67405F02	Outlet, AC
○ J1002	09T67405F02	Outlet, AC
J4701	09T66672F01	Jack, Headphone (Slim)
○ Q4901	65T00091L01	Tube, 6CG7GE
■ Q4901	65T00091L01	Tube, 6CG7GE
▲ Q4901	65T00091L01	Tube, 6CG7GE
★ Q4901	65T00091L01	Tube, 6CG7GE
○ Q4902	65T00091L01	Tube, 6CG7GE
■ Q4902	65T00091L01	Tube, 6CG7GE
▲ Q4902	65T00091L01	Tube, 6CG7GE
★ Q4902	65T00091L01	Tube, 6CG7GE
J7351	09T60544F01	Terminal, Speaker
LD8611	48T60947F05	LED, SLH-34VR3F (RED)
LD8612	48T60947F05	LED, SLH-34VR3F (RED)
○ P1001	28T55335F01	Plug, AC Cord
■ P1001	28T43812P02	Plug, AC Cord
▲ P1001	28T68132F01	Plug, AC Cord
★ P1001	28T43812P02	Plug, AC Cord
● P1001	28T67434F01	Plug, AC Cord
● Q4901	65T00091L03	Tube (6CG7GE)
● Q4902	65T00091L03	Tube (6CG7GE)
R8401	06T00013L57	Resistor, FTR, 470 ohm 1/3W
R8402	06T00013L57	Resistor, FTR, 470 ohm 1/3W
S8401		
?	40T67386F01	Switch, Push (Phono, Tuner, CD, AV/AUX, Tape Dubbing 2-1, OFF)
S8406		
○ T1001	25T69009F01	Transformer, Power
■ T1001	25T68577F01	Transformer, Power
▲ T1001	25T70938F01	Transformer, Power
★ T1001	25T68577F01	Transformer, Power
● T1001	23T67381F01	Transformer, Power

Note: ● : For JK model only, ○ : For EZ model only, ■ : For SK model only,  
 ▲ : For SG model only, ★ : For SH model only, Others: Common

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
○ T1002	25T68578F03	Transformer, Power			
■ T1002	25T68578F01	Transformer, Power			
▲ T1002	25T68578F05	Transformer, Power			
★ T1002	25T68578F01	Transformer, Power			
VR8401	18T67393F01	Variable Resistor, K162BO 100KAA			
● T1002	25T68578F02	Transformer, Power			
★ C1001	08T57437F09	Cap., Ceramic 0.01 uF			
● C1001	08T57437F09	Cap., Ceramic 0.01 uF			
○ C1001	08T57437F09	Cap., Ceramic 0.01 uF			
● J1001	09T67405F01	Outlet, AC			
● J1002	09T67405F01	Outlet, AC			

Note: ● : For JK model only, ○ : For EZ model only, ■ : For SK model only,  
 ▲ : For SG model only, ★ : For SH model only, Others: Common

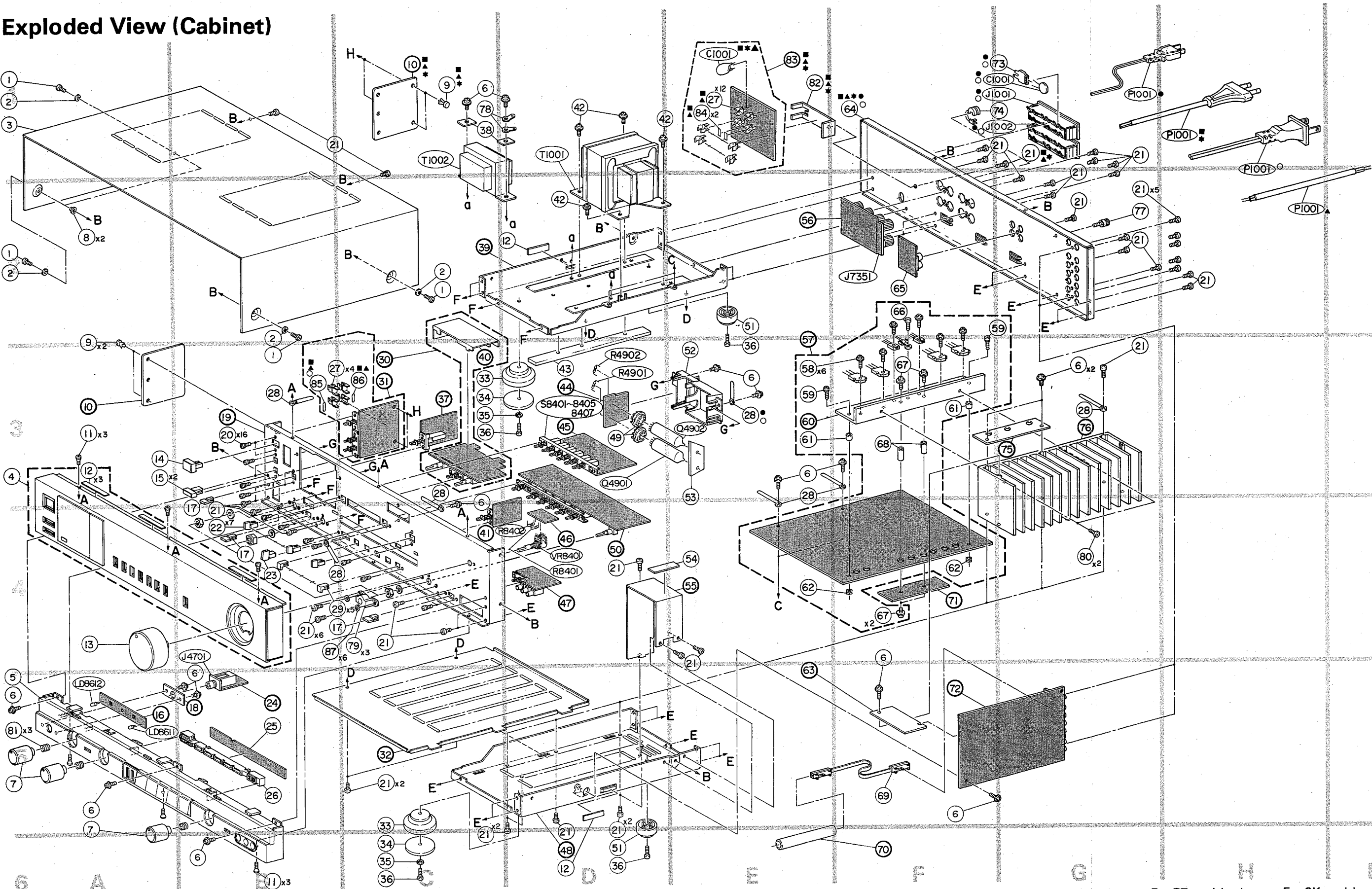
※ The parts whose parts numbers are not entered will not be supplied.

Sym- bol No.	Description	POWER SOURCE				
		● JK 100V	○ EZ 120V	■ SK 220V	▲ SG 240V	★ SH 220V
		Korea	Taiwan	West Germany	England/ Australia	Hong Kong
9	Rivet, Push	Not Used	Not Used	05B41635J04	05B41635J04	05B41635J04
10	Shield, Power Switch	Not Used	Not Used	※	※	※
21	Screw, Tapping (M3 x 8)	Not Used	Not Used	03S40012G93	03S40012G93	03S40012G93
27	Holder, Fuse (SEMKO)	Not Used	Not Used	※	※	Not Used
28	Lug, Wrap	Not Used	Not Used	29C41045P05	29C41045P05	29C41045P05
64	Cover, Rear	15C67324F03	15C67324F03	15C67324F04	15C67324F04	15C67324F04
82	Bracket, Fuse P.C. Board	Not Used	Not Used	07A69038F01	07A69038F01	07A69038F01
83	Assembly, Fuse P.C. Board	Not Used	Not Used	※	※	Not Used
83	Fuse P.C. Board	Not Used	Not Used	Not Used	Not Used	※
84	Label, Fuse T6.3A	Not Used	Not Used	54B62266F41	54B62266F41	Not Used
85	Label, Fuse	Not Used	54B62266F06	54B62266F30	54B62266F30	Not Used
86	Label, Fuse T500mA	Not Used	Not Used	54B62266F31	54B62266F31	Not Used
T1001	Transformer, Power	Not Used	25T69009F01	25T68577F01	25T70938F01	25T68577F01
T1002	Transformer, Power	Not Used	25T68578F03	25T68578F01	25T68578F05	25T68578F01
P1001	Plug, AC Cord	Not Used	28T55335F01	28T43812P02	28T68132F01	28T43812P02
J1001	Outlet, AC	Not Used	09T67405F02	Not Used	Not Used	Not Used
J1002	Outlet, AC	Not Used	09T67405F02	Not Used	Not Used	Not Used
Q4901	Tube, 6CG7	65T00091L01	65T00091L01	65T00091L01	65T00091L01	65T00091L01
Q4902	Tube, 6CG7	65T00091L01	65T00091L01	65T00091L01	65T00091L01	65T00091L01
S1701	Switch, Power	40T61963F02	40T61963F02	40T68579F01	40T68579F01	40T68579F01
C1001	Capacitor, Ceramic 0.01 $\mu$ F	08T57437F09	08T57437F09	08T57437F09	08T57437F09	08T57437F09
F1701	Fuse	65T52486F13	65T52486F13	65T42077U13	65T42077U13	65T52486F13
F1702	Fuse	65T55050F18	65T52486F41	65T42077U22	65T42077U22	65T55050F18
F1901	Fuse	Not Used	Not Used	65T42077U24	65T42077U24	Not Used
F1902	Fuse	Not Used	Not Used	65T42077U24	65T42077U24	Not Used
F1903	Fuse	Not Used	Not Used	65T42077U06	65T42077U06	Not Used
F1904	Fuse	Not Used	Not Used	65T42077U06	65T42077U06	Not Used
F1905	Fuse	Not Used	Not Used	65T42077U16	65T42077U16	Not Used
F1906	Fuse	Not Used	Not Used	65T42077U15	65T42077U15	Not Used
	Label, Serial No.	Not Used	54B57610F12	54B57610F11	54B57610F10	54B57610F11
	Label, Safety	Not Used	Not Used	54B60909F09	Not Used	Not Used

Note: ● : For JK model only, ○ : For EZ model only, ■ : For SK model only,  
▲ : For SG model only, ★ : For SH model only, Others: Common



Exploded View (Cabinet)



Note: ● : For JK model only, ○ : For EZ model only, ■ : For SK model only, ▲ : For SG model only, ★ : For SH model only, Others: Common

## Cabinet Assembly Parts List

Symbol	No.	Index	Part No.	Description	Symbol	No.	Index	Part No.	Description
	1		03S63857F01	Screw, Tapping (M4 x 10)		34		75A67064F01	Felt
	2		04A65640F04	Washer, Fiber (M4)		35		04S40072G15	Tooth, Lock Wash (M4.3)
	3	1-A	15D67323F01	Cover, Top		36		03S44205G28	Screw, Bind (M4 x 16)
	4	3-A	01V69100F59	Assembly, Front Panel		37	3-C	※	Assembly, Heat-Up P.C. Board
	5	4-A	01V68500F43	Assembly, Front Escutcheon		38	1-C	07A40871F01	Support, Transformer, Washer
	6		03S40018G08	Screw, Tapping (M3 x 8)		39	2-C	※	Chassis, Transformer
	7		36B67337F01	Knob, Tone Volume		40	3-C	※	Shield, Tone
	8	2-A	43A68460F01	Bushing		41	4-C	※	Assembly, MM/MC P.C. Board
■	9	1-C	05B41635J04	Rivet, Push		42	1-D	03S40036U01	Screw, W/Washer (M4 x 8)
▲	9	1-C	05B41635J04	Rivet, Push		43	3-D	75A68381F01	Cushion, Trans Chassis
★	9	1-C	05B41635J04	Rivet, Push		44	3-D	※	Panel, Tube
■	10	3-A	※	Shield, Power Switch		45	3-D	※	Panel, REC Selector
▲	10	3-A	※	Shield, Power Switch		46	4-D	※	Panel, Volume Control
★	10	3-A	※	Shield, Power Switch		47	4-D	※	Assembly, Front-Aux P.C. Board
	11		03S40012G98	Screw, Tapping (M3 x 8)		48	6-D	※	Chassis, Side
	12	3-A	14S53017F64	Insulator, Cover		49	3-D	09T64527F01	Socket, Tube
	13	4-A	36B67336F01	Knob, Main Volume		50	4-D	※	Assembly, Function P.C. Board
	14	3-A	36A67330F01	Knob, Power		51		75T57059F01	Pad, Tranleg
	15	3-A	36A67331F01	Knob, Push (Speaker)		52	3-E	07C67319F01	Frame, Tube
	16	5-A	※	Assembly, Tone-LED P.C. Board		53	3-E	75A67341F01	Cushion, Tube
	17		36A67333F01	Knob, Push		54	4-E	75A57803F11	Cushion
	18	5-B	※	Panel, Phone Jack Mounting		55	4-E	※	Shield, Panel
	19	3-B	※	Chassis, Front		56	2-E	※	Panel, Speaker Terminal
	20	3-B	03D40014G04	Screw, W/Washer (M3 x 6)		57	3-E	※	Assembly, Main P.C. Board
■	21		03S40012G93	Screw, Tapping (M3 x 8)		58	3-E	03S40121T13	Screw, W/Double Washer (M3 x 10)
▲	21		03S40012G93	Screw, Tapping (M3 x 8)		59	3-E	03C40014G33	Screw, W/Washer (M3 x 16)
★	21		03S40012G93	Screw, Tapping (M3 x 8)		60	3-E	※	Heat, Sink
	22	4-B	36A67332F01	Knob, Push (Rec Out)		61		43A63128F02	Spacer, Holder
	23	4-B	36A67334F01	Knob, Push (AV)		62		02B47353F02	Nut, Hex Flange (M3)
	24	5-B	※	Panel, Head Phones		63	5-E	※	Support, Equalizer P.C. Board
	25	5-B	01V68400F95	Assembly, Function LED P.C. Board		64		15C67324F03	Cover, Rear
	26	5-B	07B67320F01	Frame, LED		64		15C67324F03	Cover, Rear
■	27	1-E	※	Holder, Fuse		64		15C67324F04	Cover, Rear
▲	27	1-E	※	Holder, Fuse		64		15C67324F04	Cover, Rear
■	28		29C41045P05	Lug, Warp		64		15C67324F04	Cover, Rear
▲	28		29C41045P05	Lug, Warp		64		15C67324F04	Cover, Rear
★	28		29C41045P05	Lug, Warp		64		15C67324F04	Cover, Rear
	29	4-B	43A67342F01	Spacer, Switch					
	30	3-C	※	Assembly, Tone P.C. Board					
	31	3-C	※	Assembly, Speaker-Switch P.C. Board					
	32	5-C	※	Cover, Bottom					
	33		75A67063F02	Trann-Leg					

Note: ● : For JK model only, ○ : For EZ model only, ■ : For SK model only,

▲ : For SG model only, ★ : For SH model only, Others: Common

Note: ※ The parts whose parts numbers are not entered will not be supplied.

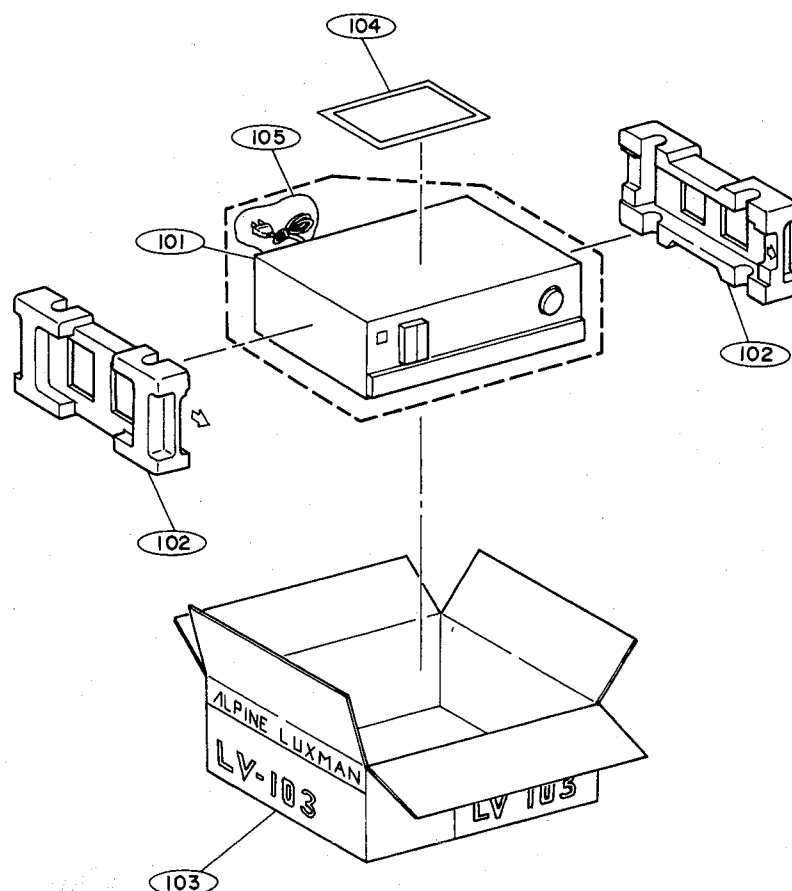
Symbol	No.	Index	Part No.	Description	Symbol	No.	Index	Part No.	Description
	65		※	Assembly, AV-Monitor P.C. Board					
	66		03C40121T17	Screw, W/Double Washer (M3 x 8)					
	67	4-F	03C40121T05	Screw, W/Double Washer (M3 x 8)					
	68	3-F	47B64899F17	Shaft, Panel					
	69	5-F	45T67442F01	Flexible, Wire					
	70	6-F	※	Tube (90)					
	71	4-F	※	Assembly, Protect P.C. Board					
	72	5-F	※	Assembly, Equalizer P.C. Board					
●	73		43T53136F01	Bush, Cap					
○	73		43T53136F01	Bush, Cap					
	74	1-G	43B41625J02	Support, Cord					
	75	3-G	※	Wire, MTG P.C. Board					
	76	3-G	※	Heat, Sink					
	77	2-G	29T66964F01	Terminal, Ground					
	78	1-C	29A41814G01	Lug					
	79	4-C	15A69033F01	Guide, Volume					
	80	4-G	03S40012G99	Screw, Tapping (M3 x 10)					
	81	5-A	41A68570F01	Spring, Volume					
■	82	1-E	07A69038F01	Bracket, Fuse Holder					
▲	82	1-E	07A69038F01	Bracket, Fuse Holder					
★	82	1-E	07A69038F01	Bracket, Fuse Holder					
■	83	1-E	※	Assembly, Fuse P.C. Board					
▲	83	1-E	※	Assembly, Fuse P.C. Board					
★	83	1-E	※	Fuse P.C. Board					
■	84	1-E	54B62266F41	Label, Fuse T6.3A					
▲	84	1-E	54B62266F41	Label, Fuse T6.3A					
○	85	3-B	54B62266F06	Label, Fuse 6A-125mA					
■	85	3-B	54B62266F30	Label, Fuse T4A					
▲	85	3-B	54B62266F30	Label, Fuse T4A					
■	86	3-C	54B62266F31	Label, Fuse T500mA					
▲	86	3-C	54B62266F31	Label, Fuse T500mA					
	87	4-B	04S40070G23	Washer, Flat (M3.3)					

Note: ● : For JK model only, ○ : For EZ model only, ■ : For SK model only,

▲ : For SG model only, ★ : For SH model only, Others: Common

Note: ※ The parts whose parts numbers are not entered will not be supplied.

## Packing Method View



## Packing Assembly Parts List

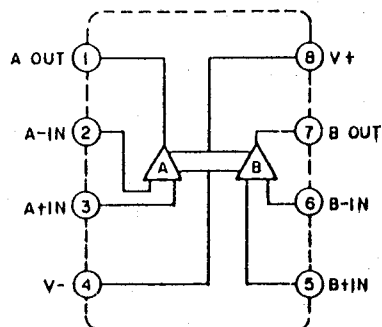
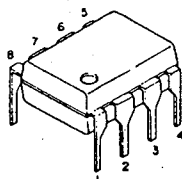
Symbol No.	Part No.	Description
101	56B40442T13	Packing, Front Frame
102	56D67465F01	Packing, Tray
103	56S60482F69	Carton Packing
104	68P67499F27	Owner's Manual
105	56B40230G08	Sack, Polyethylene

Symbol No.	Part No.	Description
Labels		
	54B42124G08	Serial No.
○	54B57610F12	Serial No.
■	54B57610F11	Serial No.
▲	54B57610F10	Serial No.
★	54B57610F11	Serial No.
■	54B60909F09	Safety

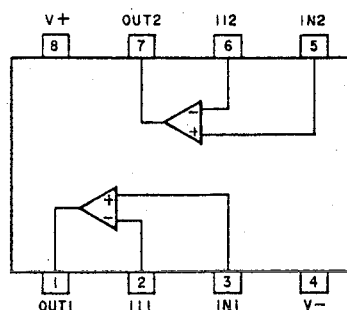
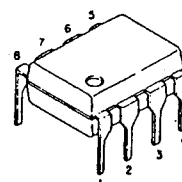
Note: ● : For JK model only, ○ : For EZ model only, ■ : For SK model only,  
 ▲ : For SG model only, ★ : For SH model only, Others: Common

# Semi-Conductor Lead Identifications

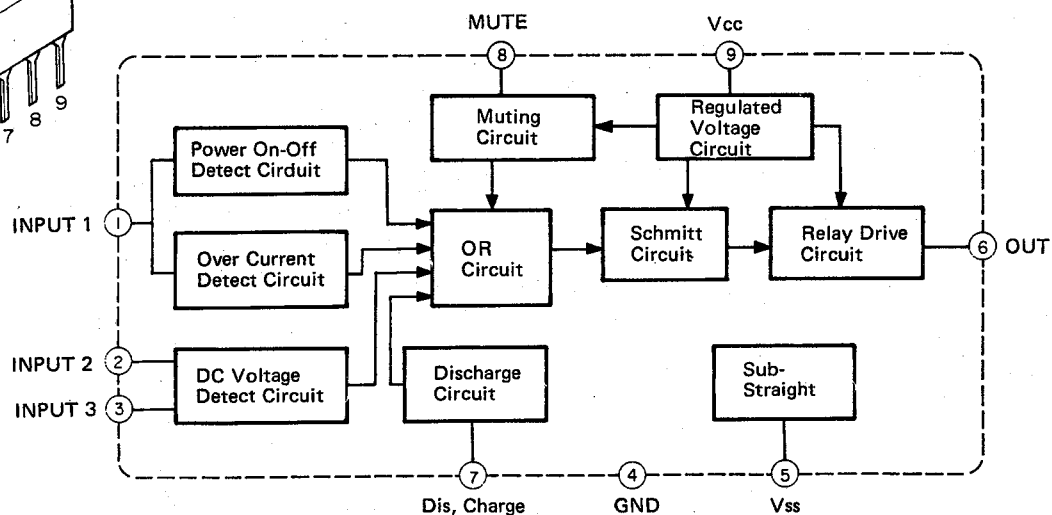
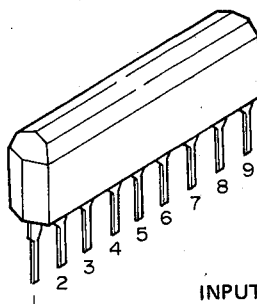
NJM2043D: IC2105



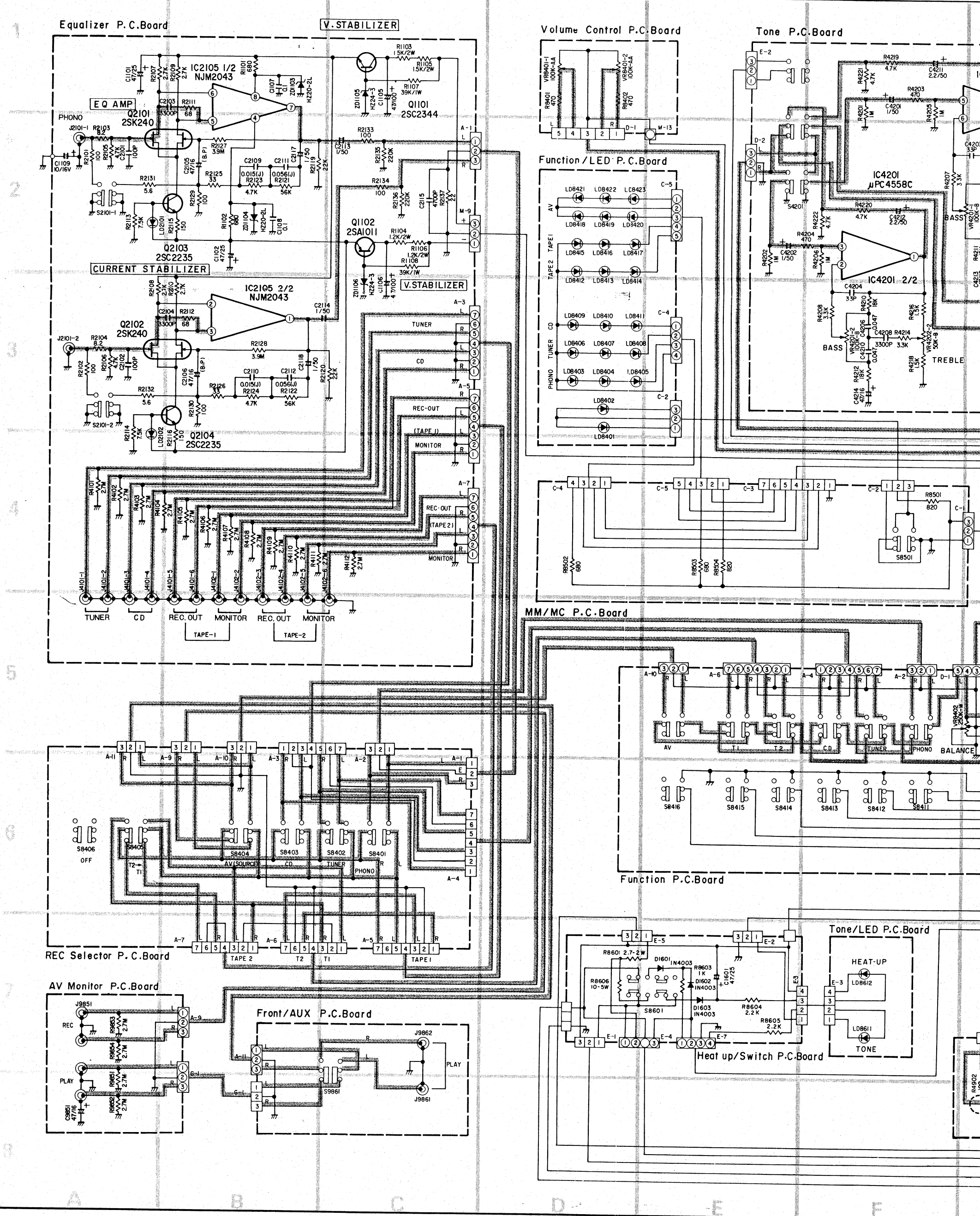
$\mu$ PC4558C: IC4201



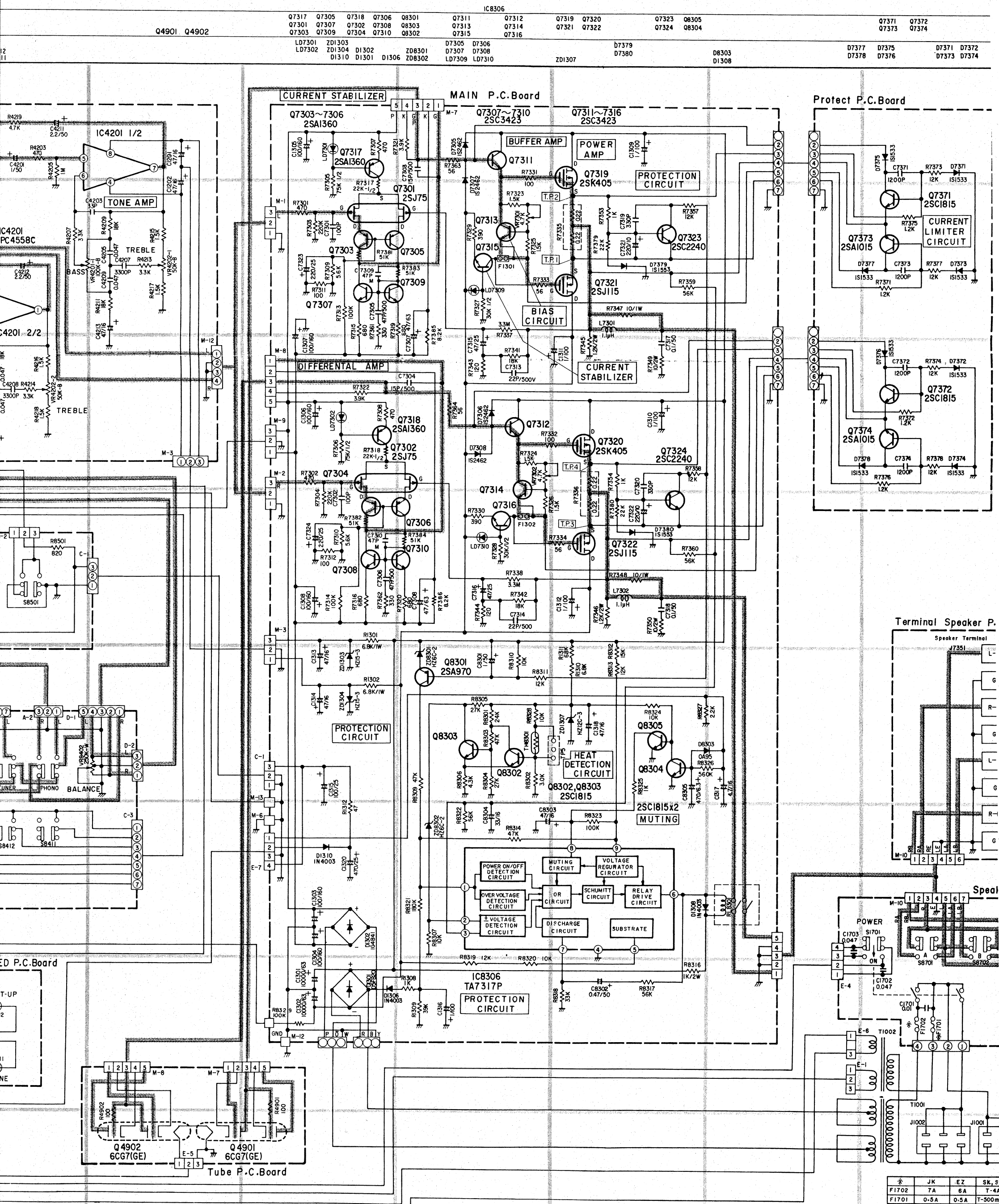
TA7317P: IC8306

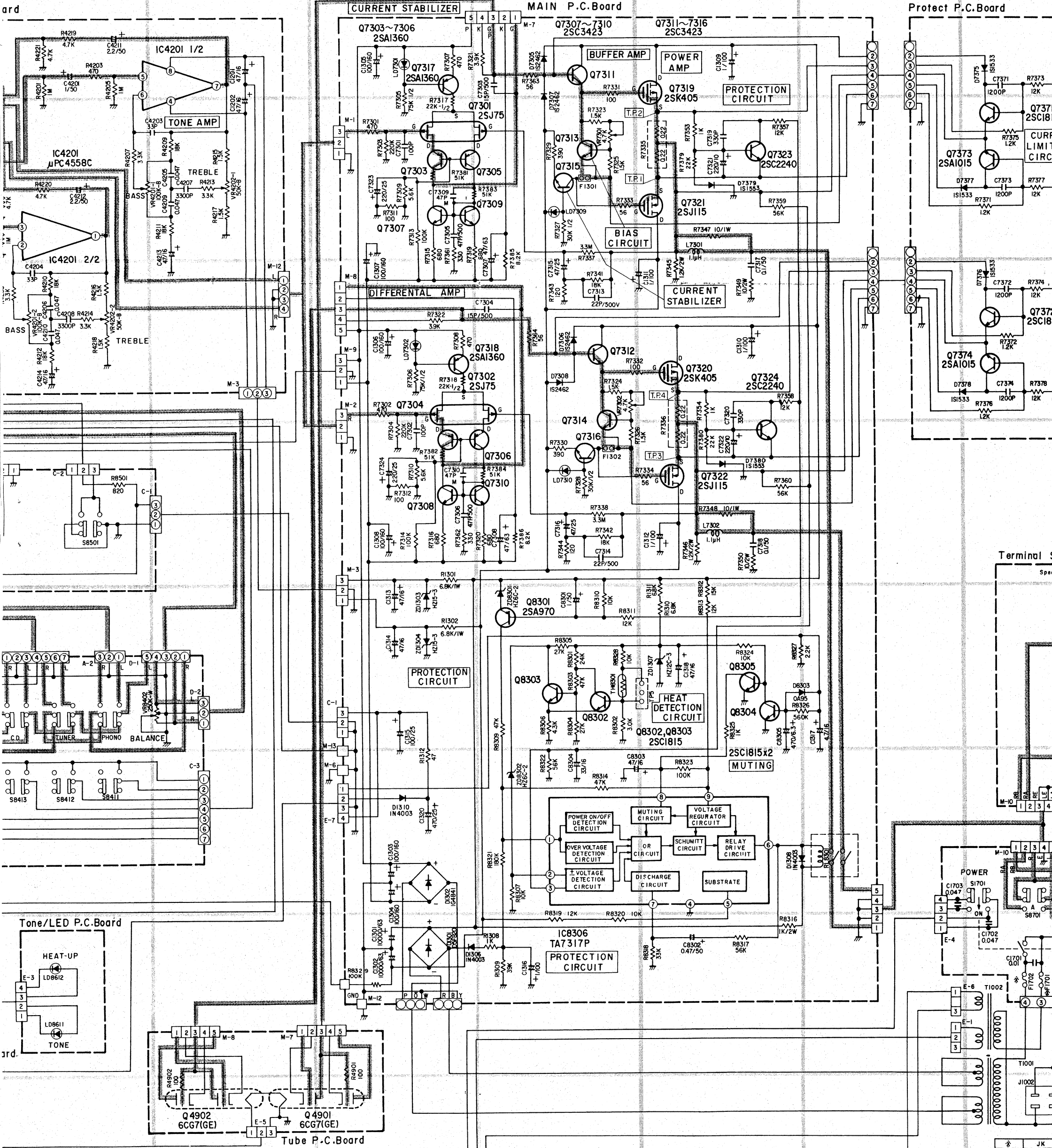


IC's	IC2105				IC4201			
TRANSISTOR (Q)	Q2101 Q2103 Q2102	Q2104		Q1101 Q1102				
DIOAD (D,L,D)	LD2101 LD2102	ZD1104	ZD1103	ZD1105 ZD1106	LD8418~LD8423 LD8412~LD8417 LD8403~LD8411	LD8402 LD8401	D1602 D1601	D1603







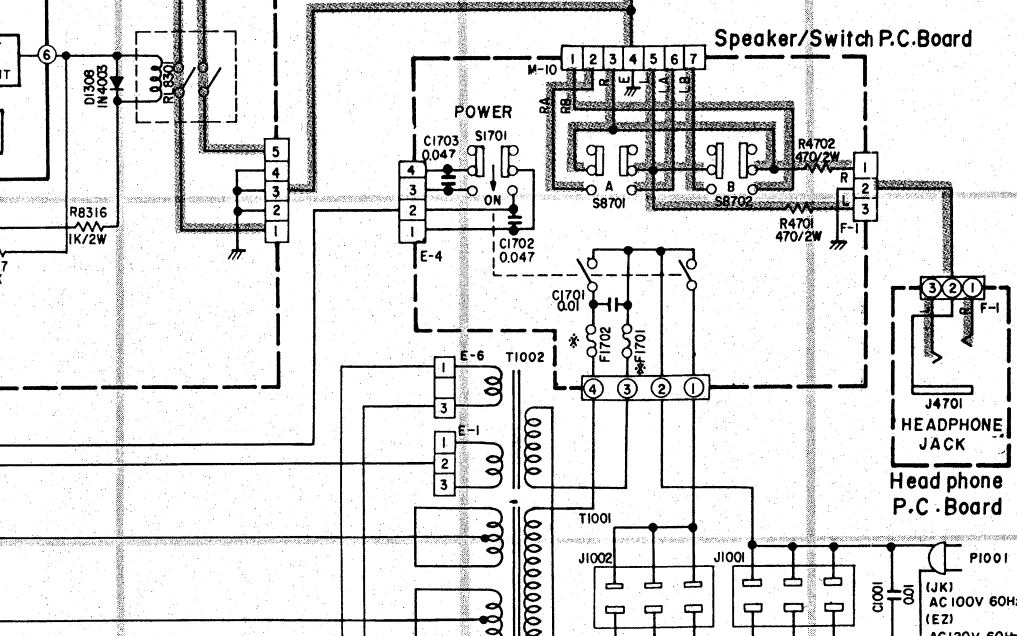
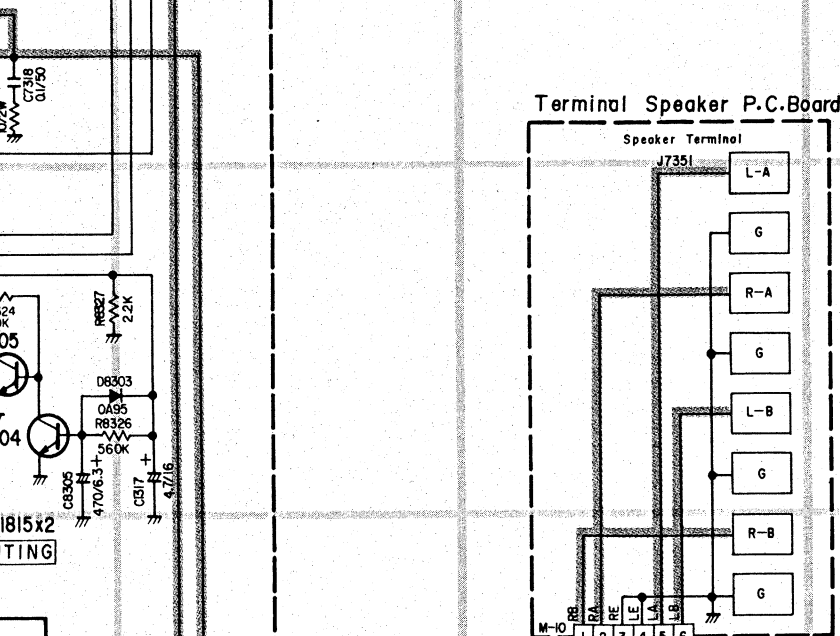
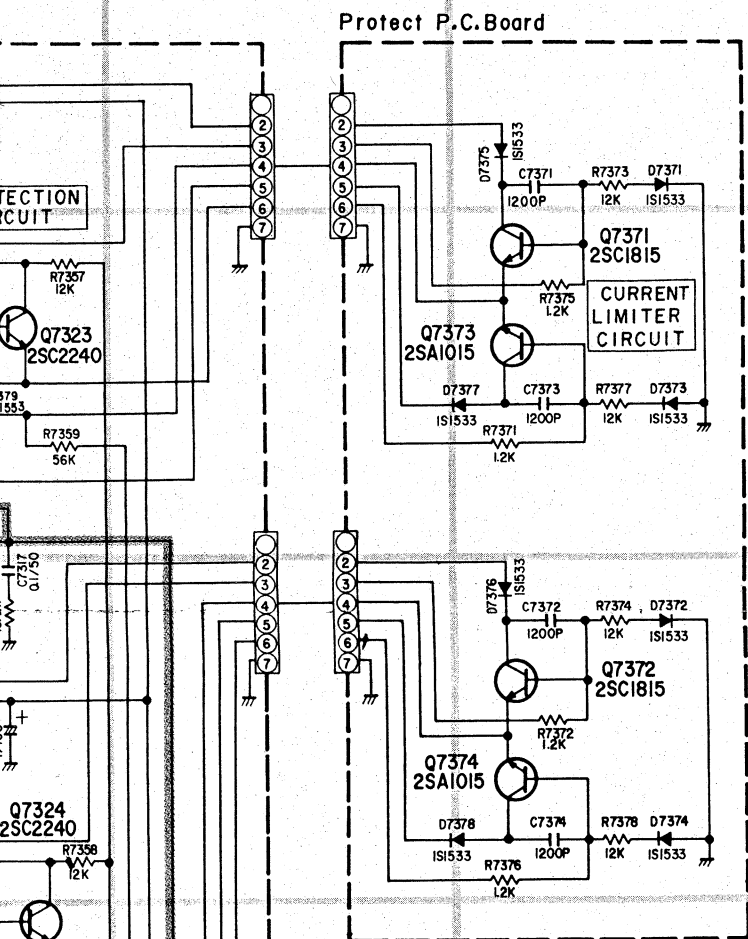


Terminal S  
Spe

JK	
F1702	7A
F1701	0.5A

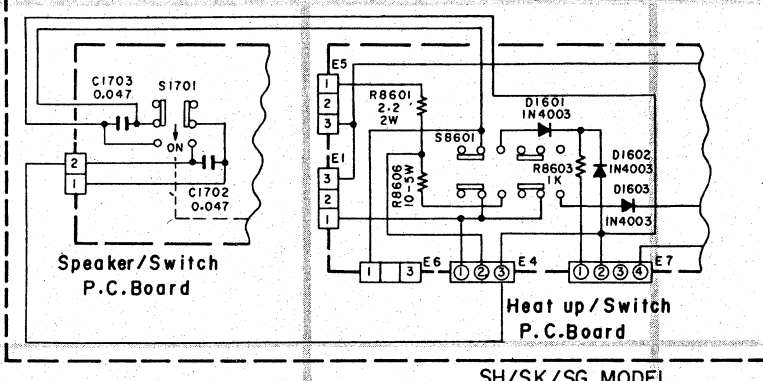
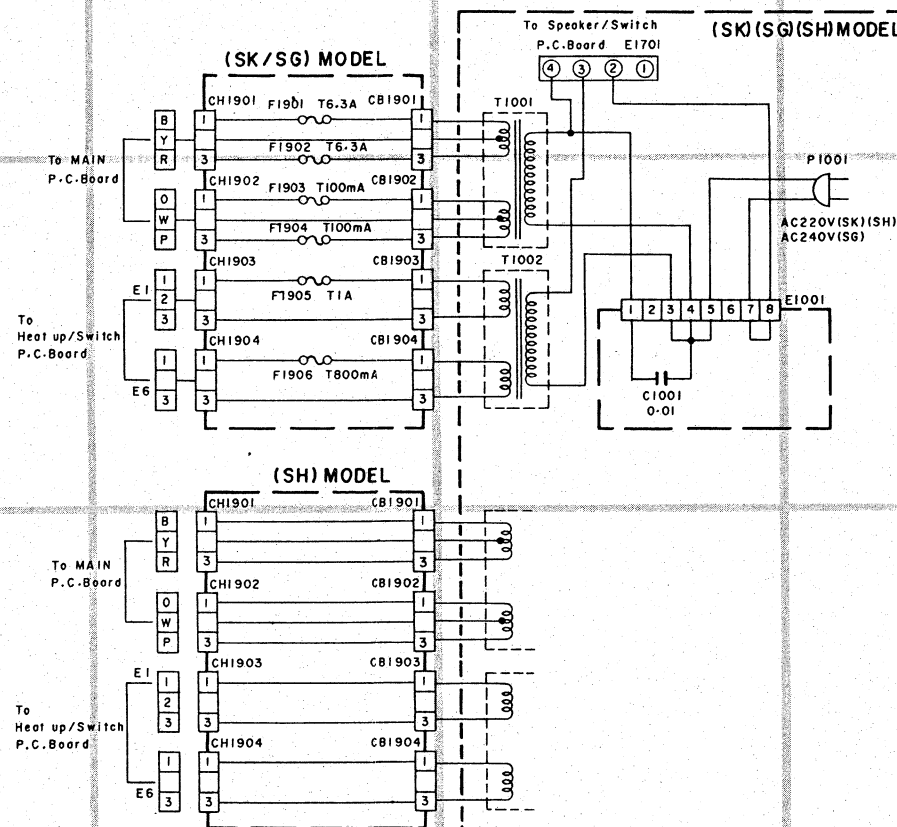


Q7323	Q8305	Q7371	Q7372
Q7324	Q8304	Q7373	Q7374
D8303		D7377	D7375
D1308		D7378	D7376
		D7371	D7372
		D7373	D7374



JK	EZ	SK, SG	SH
F1702	7A	6A	T-4A, T-7A
F1701	0.5A	0.5A	T-500mA

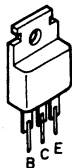
Q1101	Q2101,2102	IC2105
E 24.5V	S 0.07V	I 0V
B 25.1V	G 0V	2 15.0V
C 45.0V	D 15.0V	3 15.0V
Q1102	Q7301,7302	IC4201
E -24.5V	S -0.3V	I 0V
B -25.1V	G 0V	2 15.0V
C -45.0V	D -5.4V	3 15.0V
Q7319,7320	Q7321,7322	IC8306
S 0.022V	S -0.022V	I 0V
G 1.4V	G -1.6V	2 0V
D 52.0V	D -52.0V	3 0V
Q7303,7304	Q7317,7318	IC8306
E -5.4V	E 113.0V	I 0.75V
B -6.0V	B 113.6V	2 0V
C -110V	C -0.3V	3 0V
Q7305,7306	Q7323,7324	IC8306
E -5.4V	E 0V	I -0.75V
B -6.0V	B 0V	2 10V
C -110V	C 52.0V	3 0V
Q7307,7308	Q8301	IC8306
E -11.4V	E 52.0V	I 0V
B -113.4V	B 52.0V	2 0V
C -110V	C 0.75V	3 0V
Q7309,7310	Q8302	IC8306
E -11.4V	E 1.4V	I 0V
B -113.4V	B 1.4V	2 0V
C -113V	C 12.0V	3 0V
Q7311,7312	Q8303	IC8306
E 1.4V	E 1.4V	I 0V
B 2.0V	B 2.0V	2 0V
C 52.0V	C 12.0V	3 0V
Q7313,7314	Q8304	IC8306
E -1.6V	E 0V	I 0V
B -1.0V	B 0.6V	2 0V
C 1.4V	C 0V	3 0V
Q7315,7316	Q8305	IC8306
E -51.0V	E 0V	I 0V
B -50.4V	B 0V	2 0V
C -1.6V	C 1.4V	3 0V



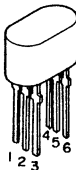
- NOTES:
- All resistance values are in ohms. K = 1,000
  - All capacitance values are in microfarads. P =  $\frac{1}{1,000,000}$
  - Voltage values are reference values measured to GND with a rated voltage applied at no signal, using a digital voltmeter.



**2SC2344:** Q1101  
**2SA1011:** Q1102



**2SK240:** Q2101, 2102  
**2SJ75:** Q7301, 7302

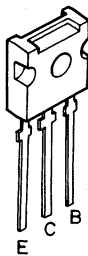


1. Source 1
2. Gate 1
3. Drain 1
4. Drain 2
5. Gate 2
6. Source 2

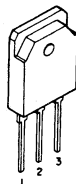
**2SC2235:** Q2103, 2104



**2SA1360:** Q7303 ~ 7306  
 Q7317, 7318  
**2SC3423:** Q7307 ~ 7316



**2SK405:** Q7319, 7320  
**2SJ115:** Q7321, 7322



1. Gate
2. Drain
3. Source

**2SC2240:** Q7323, 7324  
**2SC945** } : Q7371, 7372  
**2SC1815** }  
**2SA733** } : Q7373, 7374  
**2SA1015** }  
**2SA970:** Q8301  
**2SC1815:** Q8302 ~ 8305

