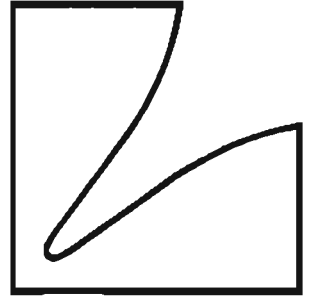
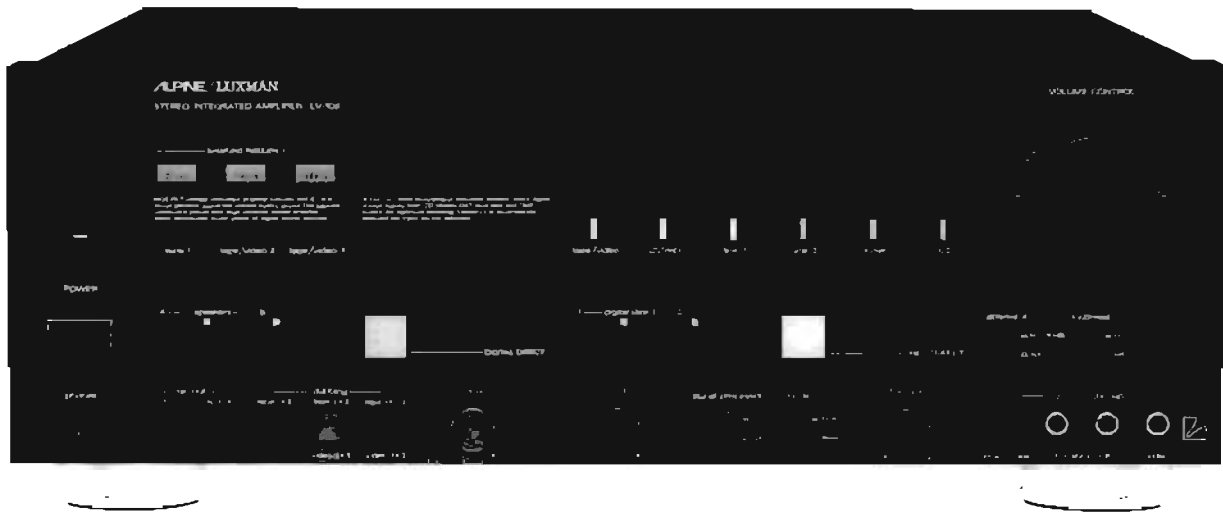


# SERVICE MANUAL



Stereo Integrated Amplifier

# LV-109



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## Contents

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Specifications . . . . .	3
Parts Locations and Disassembly Instructions . . . . .	4 to 10
Adjustment Procedures . . . . .	10 to 12
Adjustment Locations . . . . .	12 to 15
Block Diagram . . . . .	16
Schematic Diagram (1/3) . . . . .	17 to 19
Schematic Diagram (2/3) . . . . .	20 to 22
Schematic Diagram (3/3) . . . . .	23 to 25
Parts Layout on P.C. Boards & Wiring Diagram (1/5) . . . . .	26 to 28
Parts Layout on P.C. Boards & Wiring Diagram (2/5) . . . . .	29 to 31
Parts Layout on P.C. Boards & Wiring Diagram (3/5) . . . . .	32 to 34
Parts Layout on P.C. Boards & Wiring Diagram (4/5) . . . . .	35 to 37
Parts Lsyout on P.C. Boards & Wiring Diagram (5/5) . . . . .	38 to 40
Electrical Parts List . . . . .	41 to 54
Parts List by the Destination . . . . .	55 to 60
Packing Method View. . . . .	61
Packing Assembly Parts List . . . . .	61
Cabinet Assembly Parts List . . . . .	62
Exploded View (Cabinet) . . . . .	63 to 64
Semi-Conductor Lead Identifications . . . . .	65 to 76

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# Specifications

Power Output (8 ohms 20Hz~20KHz)	150W/CH (UZ, UQ and EK model only) 140W/CH (JA model only)
Total Harmonic Distortion	0.06% (20Hz~20KHz at 150W into 8 ohm) (UZ, UQ and EK model only) 0.06% (20Hz~20KHz at 140W into 8 ohm) (JA model only)
Input Sensitivity (1KHz)	
CD/Tuner/Line-1 and 2/LD/VHD/Tape1~3	150mV±10%
Input Impedance (1KHz)	
CD/Tuner/Line-1 and 2/LD/VHD/Tape1~3	47Kohm±10%
Frequency Response	
CD/Tuner/Line-1 and 2/LD/VHD (10~100KHz)	±2dB (UZ, UQ and EK model only) ±1.5dB (JA model only)
Tone Control	
Bass (100Hz)	±9±2dB
Treble (10KHz)	±6.5±2dB
Loudness Control (VR-30dB)	(100Hz) +6±2dB
S/N Ratio (Input Short-Circuited)	(10KHz) +4±2dB
CD/Tuner/Line-1 and 2/LD/VHD/Tape1~3	87.3dB (UZ, UQ and EK model only) 87dB (JA model only)
Cross Talk	
CD/Tuner/Line-1 and 2/LD/VHD: (SP OUT)	60dB
Tape1~3	60dB
Head Phones Output	(150W/8 ohm-1KHz) 400mV±10%
Semiconductors	: 44 ICs, 77 Transistors, 8 FETs, 63 Diodes, 11 Zener Diodes (JA model only) : 56 ICs, 75 Transistors, 10 FETs, 53 Diodes, 9 Zener Diodes (EK, UQ and UZ model only)
Dimensions	438 (W) × 166 (H) × 468 (D) mm
Weight	20.4Kg
Digital/Analog Section	
Output Level (1KHz)	2V±10%
Frequency Response (20~20KHz)	±1dB
S/N Ratio	114.5dB (JA model only) 114.8dB (EK, UQ and UZ model only)
Cross Talk (1KHz)	75dB
Total Harmonic Distortion (1KHz)	0.006%
Dynamic Range (1KHz)	90%

# Parts Locations and Disassembly Instructions

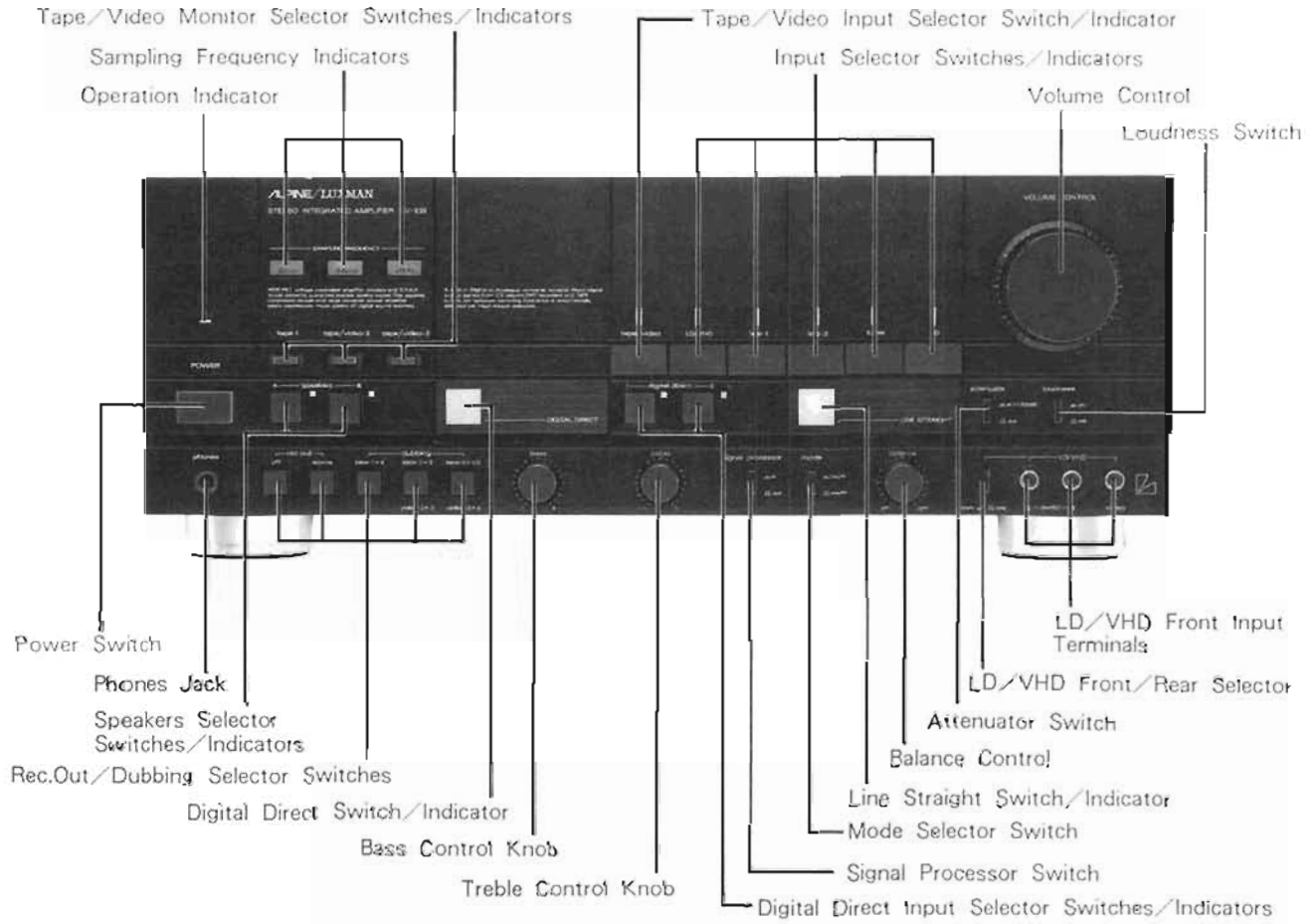


Figure 1

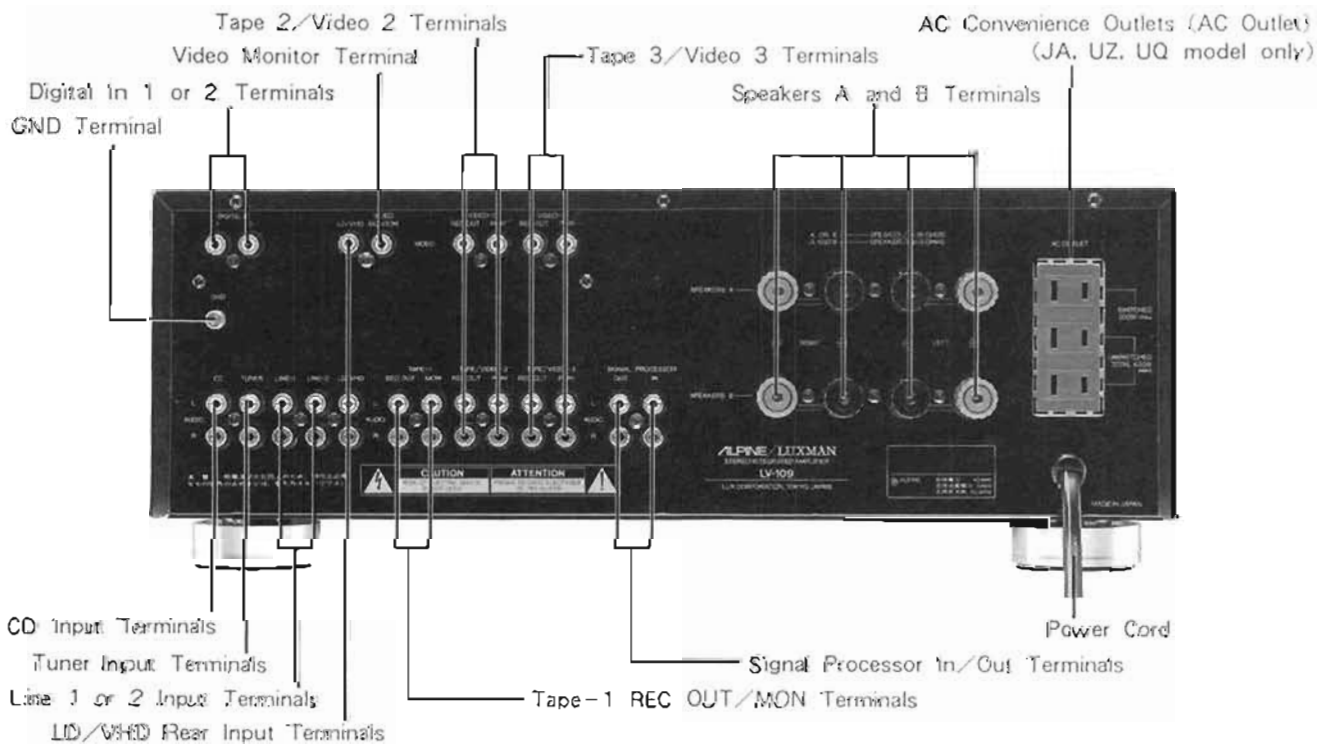


Figure 2

### 1. Removal of Top Cover

- (1) Remove nine screws marked "A" as shown in Figures 3, 4 and 13.
- (2) Pull out the Top cover in the arrow direction as shown in Figure 3.

### 1. 上蓋の外し方

- (1) 9本のネジ "A" を外します。(3、4、13図参照)
- (2) 矢印の方向に引き上げれば、上蓋は外すことができます。(3図参照)

### 2. Removal of Bottom Cover

- (1) Remove ten screws marked "B" as shown in Figure 5.

### 2. 底蓋の外し方

- (1) 10本のネジ "B" を外せば底蓋は外せます。(5図参照)

### 3. Removal of Front Panel

- (1) After removal of the Top Cover, remove the volume control knob, and six screws marked "C" as shown in Figures 3, 5 and 6.

### 3. フロント・パネルの外し方

- (1) 上蓋を外してから、ボリューム・コントロール・つまみと6本のネジ "C" を外します。(3、5、6図参照)

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

### Digital 1, 2 LED P.C. Board, Tape LED P.C. Board

- (1) Remove five screws marked "D" as shown in Figure 7.
- (2) Disconnect all wires from these P.C. Boards.

### 4. ファンクション・LED基板、デジタル1, 2 LED基板及びテープ・LED基板の外し方

- (1) 5本のネジ "D" を外します。(7図参照)
- (2) これらの基板から出ている全てのリード線を外します。以上で各基板は外せます。

### 5. Removal of Front Chassis

- (1) After removal of the front panel, remove four screws marked "E" as shown in Figures 9 and 10.
- (2) Disconnect all wires from the Front Chassis.
- (3) The front chassis with Function, Dubbing, Volume, Front Audio/Video and phone P.C. Boards can be removed completely.

### 5. 前面シャーシの外し方

- (1) フロント・パネルを外してから、4本のネジ "E" を外します。(9、10図参照)
- (2) 次に前面シャーシから出ている全てのリード線を外します。
- (3) 前面シャーシにはファンクション基板、ダビング基板、ボリューム基板、及びフロント・オーディオ/ビデオ基板がついていますので、これらの基板を一緒に外しま

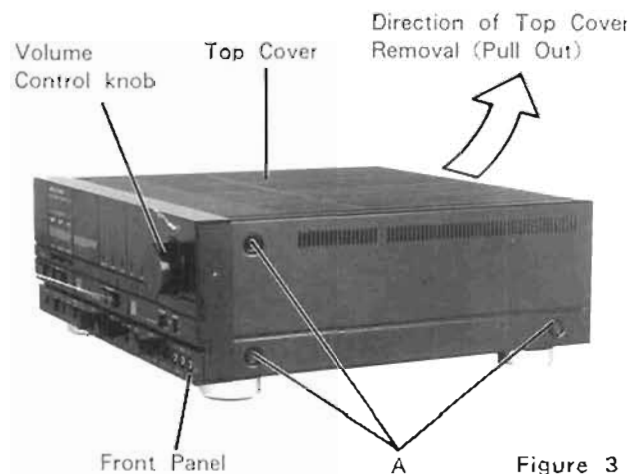


Figure 3

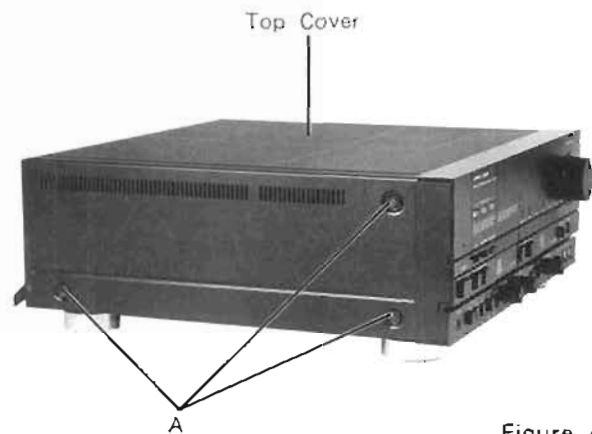


Figure 4

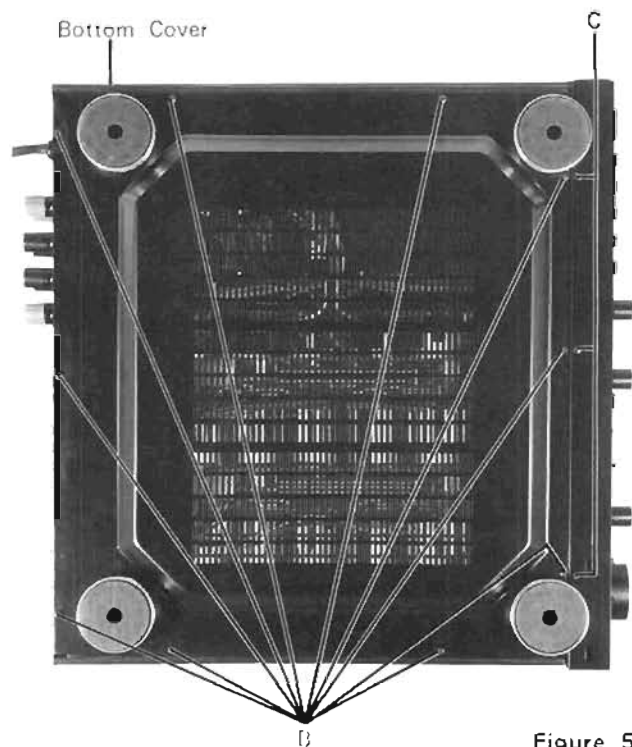


Figure 5

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

- (1) After removal the Front chassis, remove three nuts (c) and three washers (d) and twelve screws marked "F" as shown in Figure 8.
- (2) Disconnect all wires from the Function P.C. Board.

## 6. ファンクション基板の外し方

- (1) 前面シャーシを外してから、3個のナット (c)、3個のワッシャー (d) と12本のネジ "F" を外します。(8図参照)
- (2) ファンクション基板から出ている全てのリード線を外します。以上で基板は外せます。

## 7. Removal of Dubbing P.C. Board

- (1) After removal the front chassis, remove eight screws marked "G" as shown in Figure 8.
- (2) Disconnect all wires from the Dubbing P.C. Board.

## 7. ダビング基板の外し方

- (1) 前面シャーシを外してから、8本のネジ "G" を外します。(8図参照)
- (2) ダビング基板から出ている全てのリード線を外します。以上で基板は外せます。

## 8. Removal of Volume P.C. Board

- (1) After removal of the front chassis, remove one nut (a) and one washer (b) as shown in Figure 8.
- (2) Disconnect all wires from the Volume P.C. Board.

## 8. ボリューム基板の外し方

- (1) 前面シャーシを外してから、1個のナット (a) と1個のワッシャー (b) を外します。(8図参照)
- (2) ボリューム基板から出ている全てのリード線を外します。以上で基板は外せます。

## 9. Removal of Front Audio/Video P.C. Board.

- (1) After removal of the front chassis, remove two screws marked "H" as shown in Figure 8.
- (2) Disconnect all wires from the Front Audio/Video P.C. Board.

## 9. フロント・オーディオ/ビデオ基板の外し方

- (1) 前面シャーシを外してから、2本のネジ "H" を外します。(8図参照)
- (2) フロント・オーディオ/ビデオ基板から出ている全てのリード線を外します。以上で基板は外せます。

## 10. Removal of Phone P.C. Board

- (1) After removal of the front chassis, remove Jack Stopper as shown in Figure 7.
- (2) Disconnect all wires from the phone P.C. Board.

## 10. ホーン基板の外し方

- (1) 前面シャーシを外してから、ジャック受口を外します。(7図参照)
- (2) ホーン基板から出ている全てのリード線を外します。以上で基板は外せます。

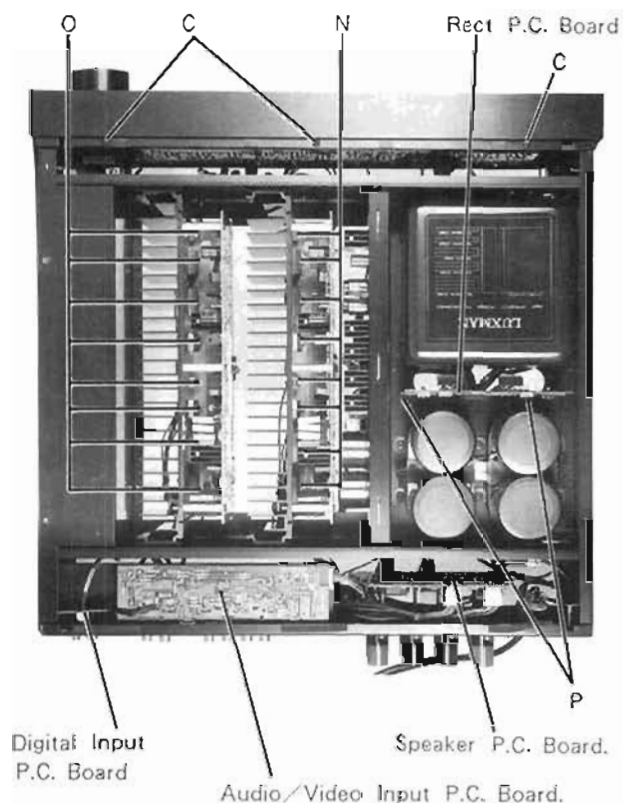


Figure 6

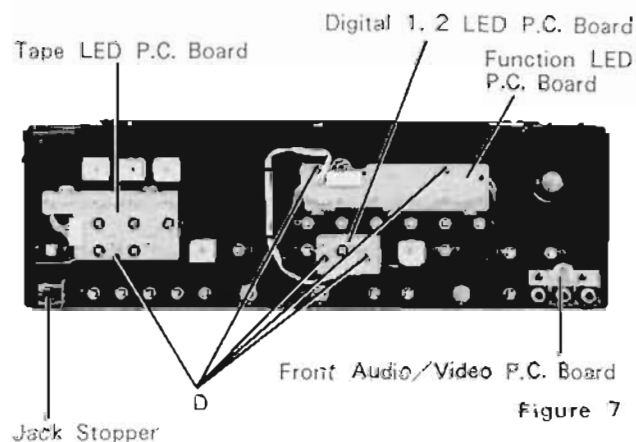


Figure 7

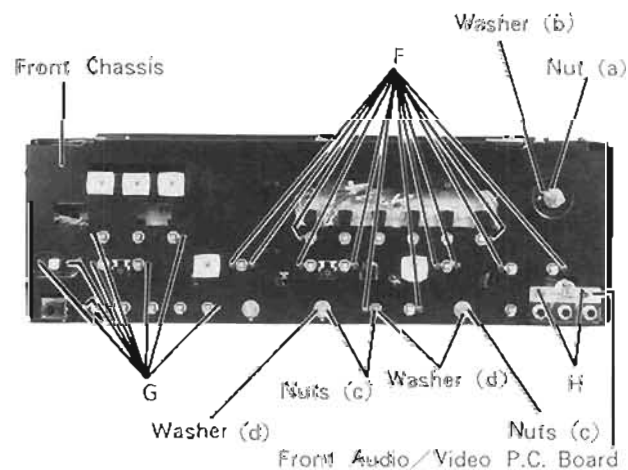


Figure 8

### 11. Removal of Flat Amp P.C. Board.

- (1) After removal of Front Chassis, remove two screws marked "I" as shown in Figure 11.
- (2) Disconnect all wires from the Flat Amp P.C. Board.

### 11. フラット・アンプ基板の外し方

- (1) 前面シャーシを外してから、2本のネジ "I" を外します。(11図参照)
- (2) 基板から出ている全てのリード線を外します。以上でフラット・アンプ基板は外せます。

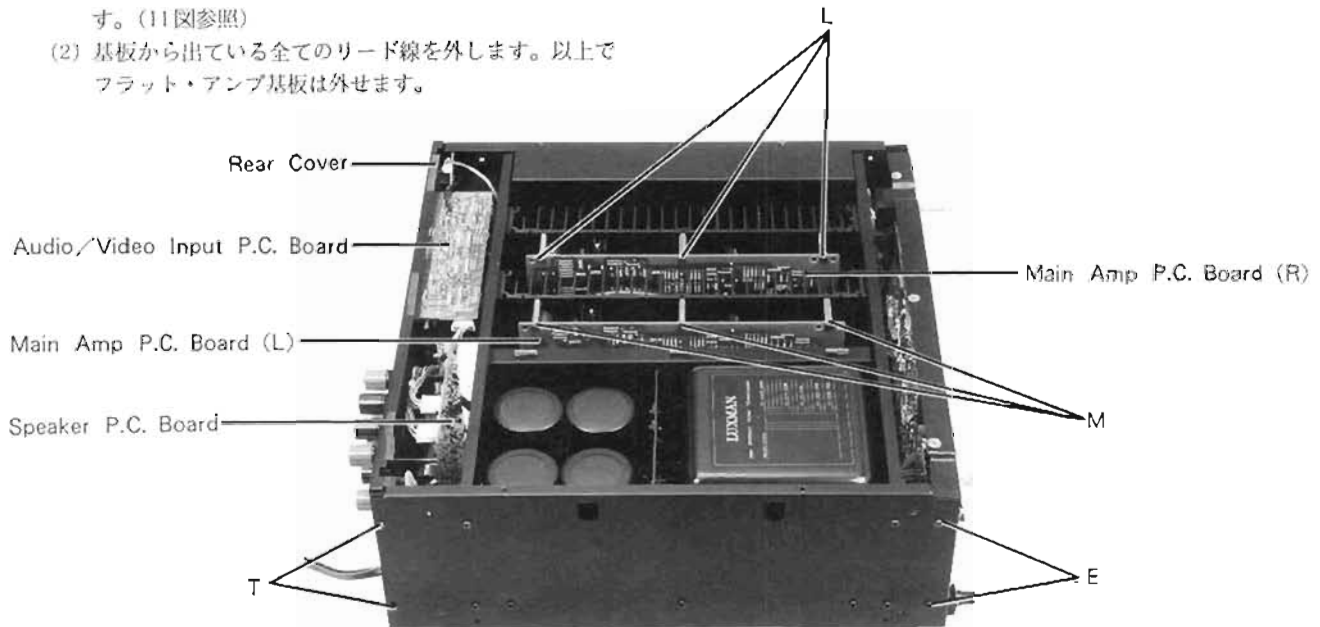


Figure 9

### 12 Removal of Heat Sink—L (R)

- (1) Remove four screws marked "J (K)" as shown in Figure 10.
- (2) Disconnect all wires from Heat Sink—L (R).

### 12. ヒート・シンク左(右)の外し方

- (1) 4本のネジ J (K) を外します。(10図参照)
- (2) ヒート・シンク左(右) についている全てのリード線を外します。  
以上でヒート・シンク左(右) は外せます。

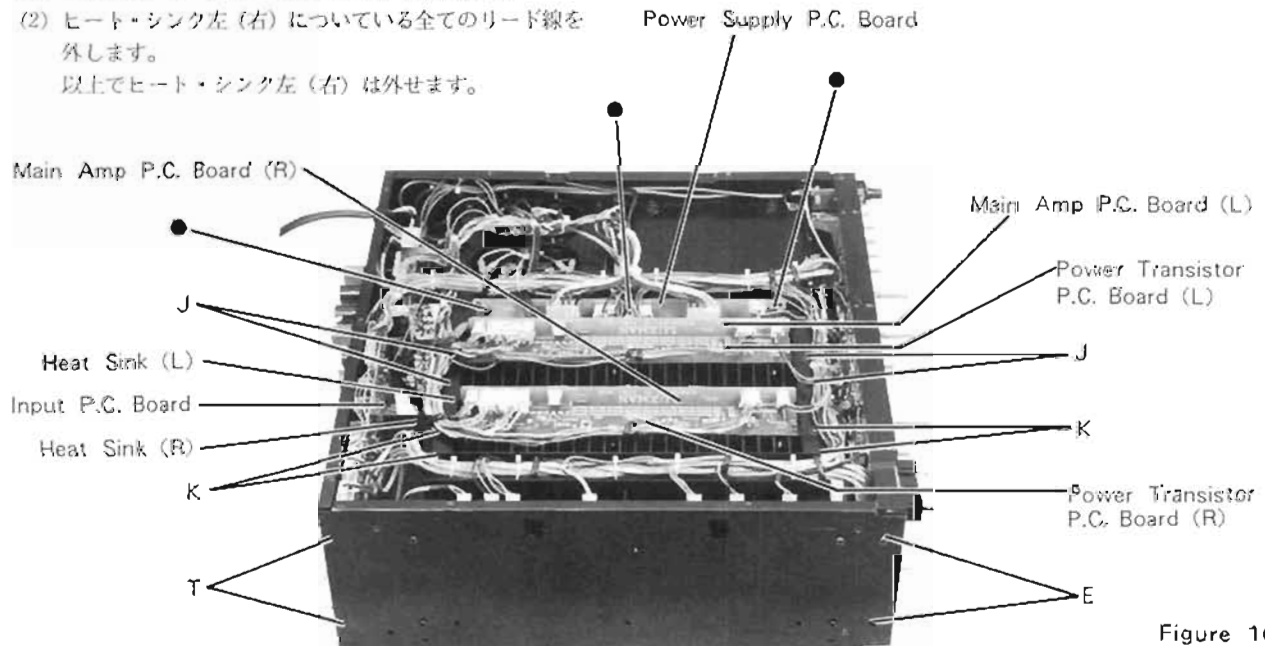


Figure 10

### 13. Removal of Main Amp P.C. Board L (R)

- (1) After removal of Heat Sink-L (R), remove three screws marked "L (M)" as shown in Figure 9.
- (2) Disconnect all wires from the Main Amp P.C. Board -L (R).

### 13. メイン・アンプ基板左(右)の外し方

- (1) ヒート・シンク左(右)を外してから3本のネジ "L (M)" を外します。(9図参照)
- (2) メイン基板左(右)から出ている全てのリード線を外します。以上で基板は外せます。

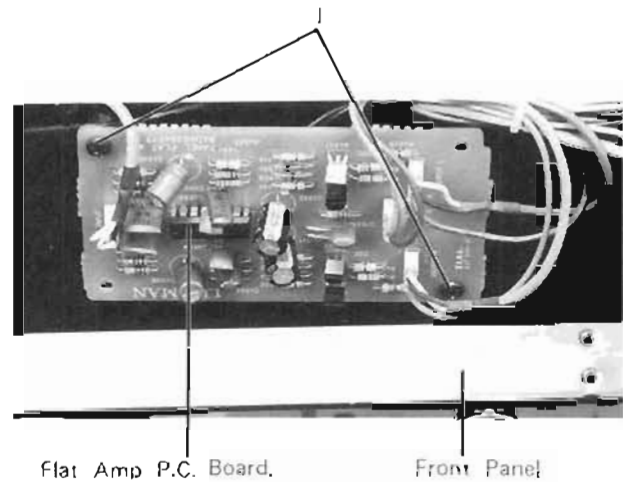


Figure 11

### 14. Removal of Power Transistor P.C. Board-L (R)

- (1) After removal of Heat Sink-L (R), remove eleven screws marked "N (O)" as shown in Figures 6 and 12.

### 14. パワー・トランジスター基板左(右)の外し方

- (1) ヒート・シンク左(右)を外した後11本のネジ "N (O)" を外します。以上で基板は外せます。(6、12図参照)

### 15. Removal of Power Supply P.C. Board

- (1) Remove three push rivets marked "●" as shown in Figure 10.
- (2) Disconnect all wires from the Power Supply P.C. Board.

### 15. パワー・サプライ基板の外し方

- (1) 3本のリベット(●印)を外します。(10図参照)
- (2) パワー・サプライ基板から出ている全てのリード線を外します。以上で基板は外せます。

### 16. Removal of Digital/Analog Converter P.C. Board

- (1) Remove two push rivets marked "▲" as shown in Figure 12.
- (2) Disconnect all wires from the Digital/Analog Converter P.C. Board

### 16. デジタル/アナログ・コンバーター基板の外し方

- (1) 2本のリベット(▲印)を外します。(12図参照)
- (2) デジタル/アナログ・コンバーター基板から出ている全てのリード線を外します。以上で基板は外せます。

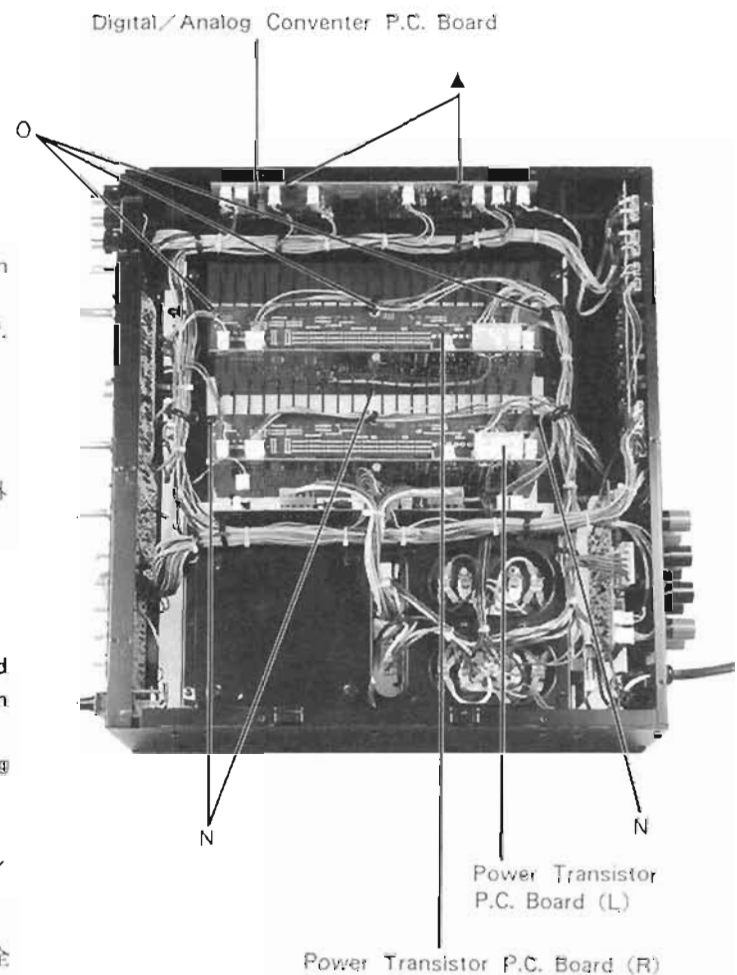


Figure 12



### 17. Removal of Rect P.C. Board

- (1) Remove two screws marked "P" as shown in Figure 6.
- (2) Disconnect all wires from the Rect P.C. Board.

### 17.Rect基板の外し方

- (1) 2本のネジ "P" を外します。(6図参照)
- (2) Rect基板から出ている全てのリード線を外します。以上で基板は外れます。

### 18. Removal of Input P.C. Board

- (1) Remove seven screws marked "Q" as shown in Figure 13.
- (2) Disconnect all wires from the Input P.C. Board.

### 18.入力基板の外し方

- (1) 7本のネジ "Q" を外します。(13図参照)
- (2) 入力基板から出ている全てのリード線を外します。以上で基板は外れます。

### 19. Removal of Audio/Video Input P.C. Board

- (1) Remove three screws marked "R" as shown in Figure 13.
- (2) Disconnect all wires from the Audio/Video Input P.C. Board.

### 19.オーディオ/ビデオ入力基板の外し方

- (1) 3本のネジ "R" を外します。(13図参照)
- (2) 基板から出ている全てのリード線を外します。以上でオーディオ/ビデオ入力基板は外れます。

### 20. Removal of Digital Input P.C. Board.

- (1) Remove one screw marked "S" as shown in Figure 13.
- (2) Disconnect all wires from the Digital Input P.C. Board.

### 20.デジタル入力基板の外し方

- (1) 1本のネジ "S" を外します。(13図参照)
- (2) デジタル入力基板から出ている全てのリード線を外します。以上で基板は外れます。

### 21. Removal of Rear Cover

- (1) Remove four screws marked "T" as shown in Figure 9 and 10.
- (2) Disconnect all wires from the rear cover.

### 21.後面カバーの外し方

- (1) 4本のネジ "T" を外します。(9、10図参照)
- (2) 後面カバーから出ている全てのリード線を外します。以上で後面カバーは外れます。

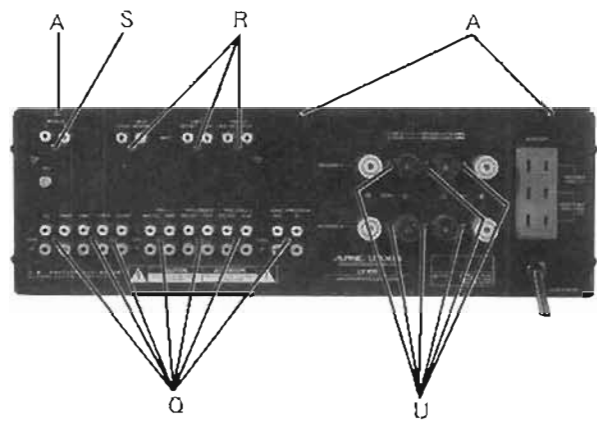


Figure 13

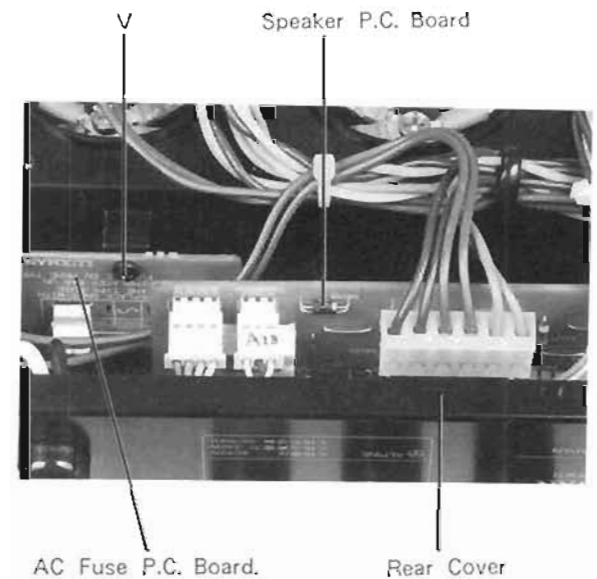


Figure 14

## 22. Removal of Speaker P.C.Board

- (1) After removal of the rear cover, remove six screws marked "U" as shown in Figure 13.
- (2) Disconnect all wires from the Speaker P.C. Board.

## 22.スピーカー基板の外し方

- (1) 後面カバーを外してから、6本のネジ "U" を外します。(13図参照)
- (2) スピーカー基板から出ている全てのリード線を外します。  
以上で基板は外せます。

## 23. Removal of AC Fuse P.C. Board.

- (1) After removal of the rear cover, remove one screw marked "V" as shown in Figure 14.
- (2) Disconnect all wires from the AC Fuse P.C. Board.

## 23.AC フューズ基板の外し方

- (1) 後面カバーを外してから、1本のネジ "V" を外します。(14図参照)
- (2) 基板から出ている全てのリード線を外します。  
以上でACフューズ基板は外せます。

# Adjustment Procedures

## 1. Connections

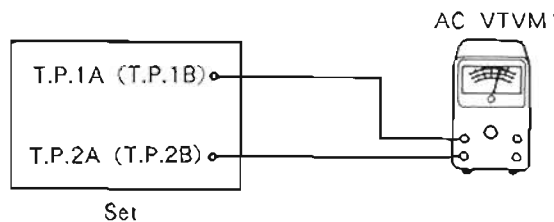


Figure 15

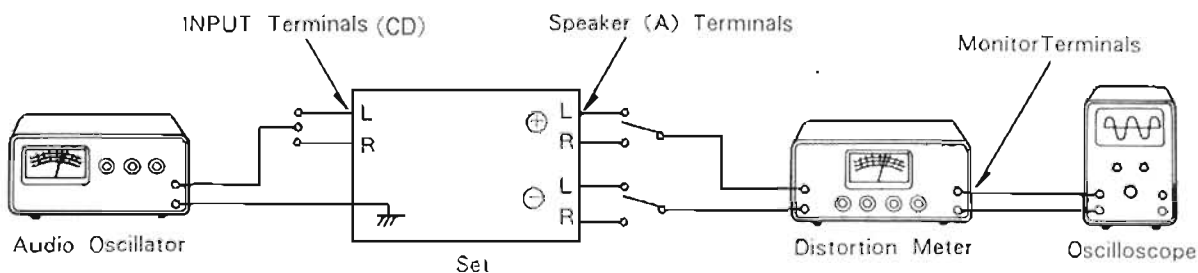


Figure 16

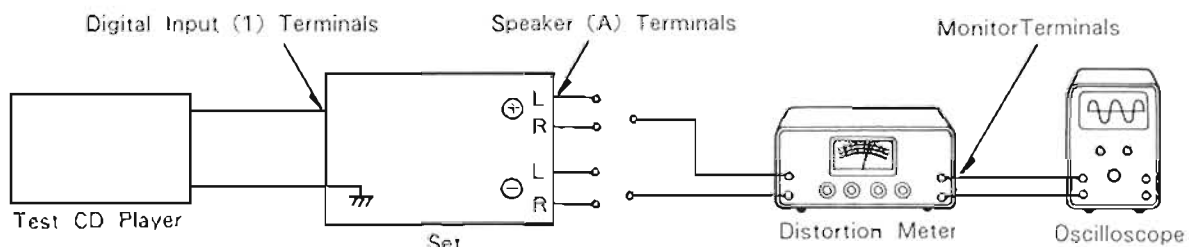


Figure 17

2. Control Settings

Power Switch .....ON  
 Volume Control .....Minimum  
 Treble/Bass/Balance/Control .....Mechanical

Speaker Switch .....A Position  
 Other Switches .....OFF

3. Adjustment Procedures

(1) Idling Adjustment (Figure 15, Connections)

● UZ and EK Model Only

1. Set VR7601A (VR7601B) to maximum.
2. Set VR7602A (VR7602B) to minimum.
3. Adjust VR7602A (VR7602B) so that voltage between T.P.1A (T.P.1B) and T.P.2A (T.P.2B) reaches  $45 \pm 5\text{mV}$ .
4. After connecting T.P.3A (T.P.3B) and T.P.4A (T.P.4B), adjust VR7601A (VR7601B) so that voltage between T.P.1A (T.P.1B) and T.P.2A (T.P.2B) reaches  $15 \pm 5\text{mV}$ .

The adjustment should be made at least one minute after switching the power on.

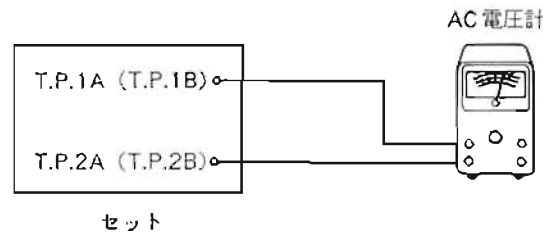
Note: Proceed the adjustment shown above about a minute after power is turned on.

(2) DAC Distortion Adjustment (Figure 17, Connections)

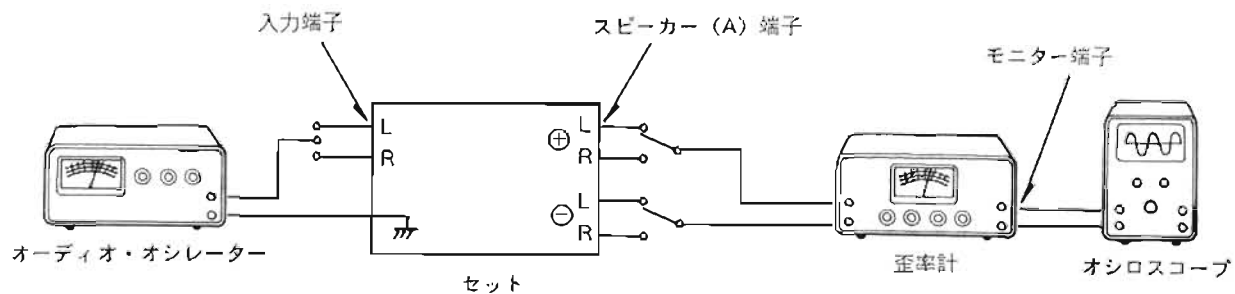
1. Apply 1KHz input signal.
2. Set VR2101 so that sampling frequency indicator of 44KHz illuminates.
3. Apply 1KHz, 60dB input signal.
4. Adjust VR2201 so that distortion is minimum.

調整方法

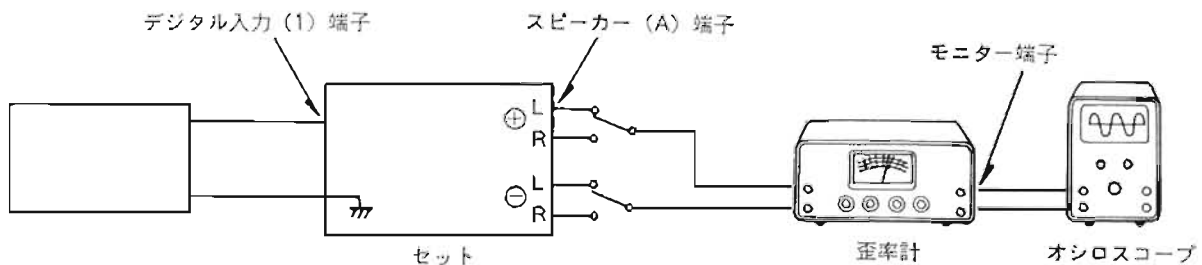
1. 接続図



<15図>



<16図>



<17図>

## 2. スイッチ類の位置

電源スイッチ .....ON  
 ボリューム調整ツマミ .....最小  
 トレブル/バス/バランス調整ツマミ .....機械的中央

スピーカー・スイッチ ..... A  
 他のスイッチ類 ..... OFF

## 3. 調整方法

### (1) アイドリング調整 (接続図、15 図参照)

#### ●国内向

1. VR7601A (VR7601B) と VR7901A (VR7901B) を最小の位置にします。
2. T.P.1A (T.P.1B)、T.P.2A (T.P.2B) 間の電圧が  $80 \pm 5\text{mV}$  になる様に、VR7601A (VR7601B) で調整します。

### (2) 20KHz、歪調整 (接続図、16 図参照)

1. 20KHz、34V の入力信号で行ないます。

2. 歪率が、0.03% 以下になる様に、VR7901A (VR7901B) で調整します。

(注) 電流が2A 以下であることを確認します。

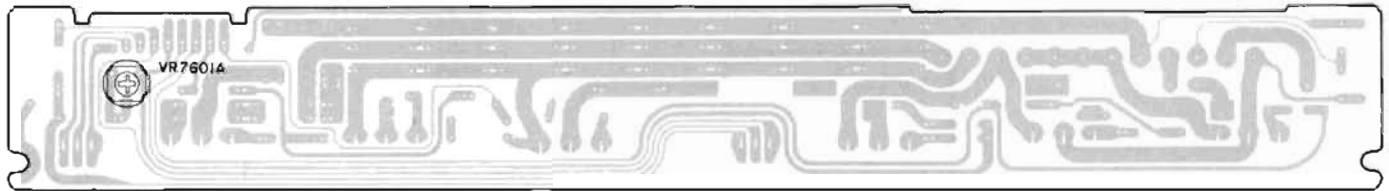
(スピーカー A スイッチ OFF)

### (3) DAC 歪調整 (接続図、17 図参照)

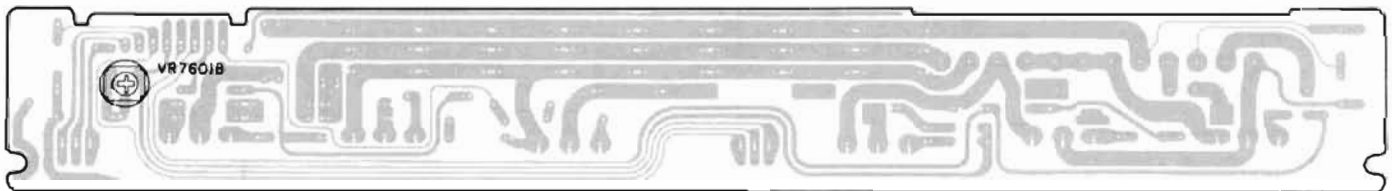
1. 1KHz の入力信号で行ないます。
2. VR2101 で、44KHz のサンプリング・周波数・インジケータが点灯する様にセットします。
3. 1KHz 60dB 入力信号で行ないます。
4. 歪が最小になる様に、VR2201 で調整します。

## Adjustment Locations

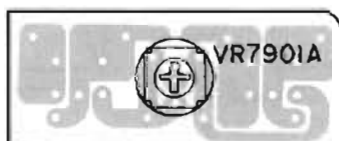
### ● JA model only (国内向)



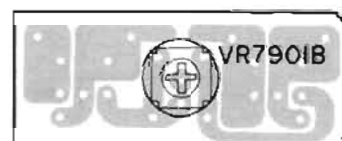
パワー・トランジスター基板 (左)



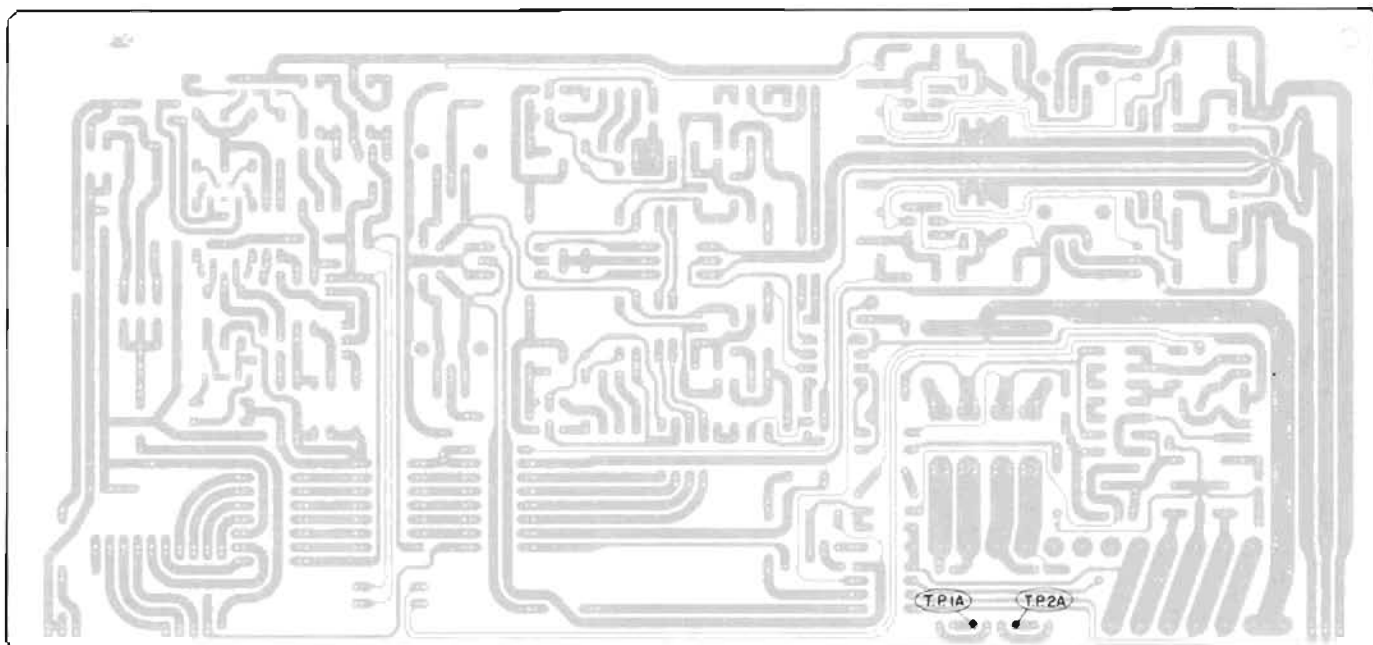
パワー・トランジスター基板 (右)



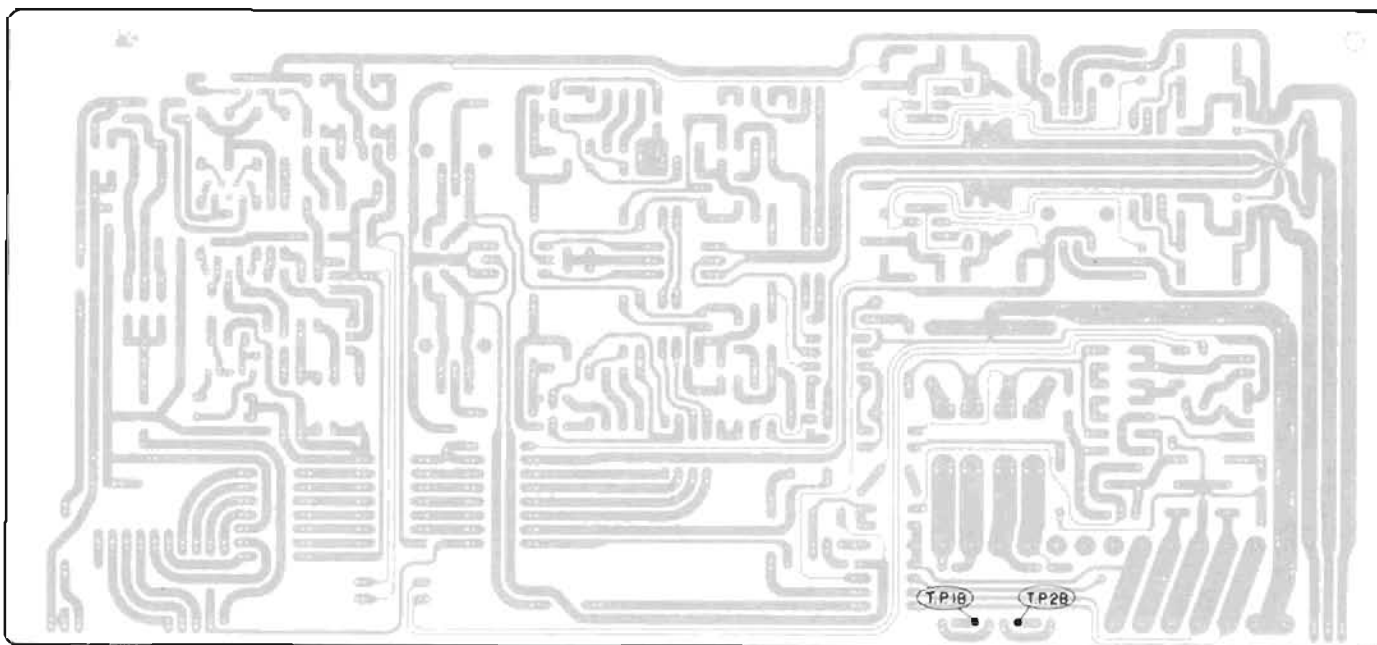
バイアス基板 (左)



バイアス基板 (右)

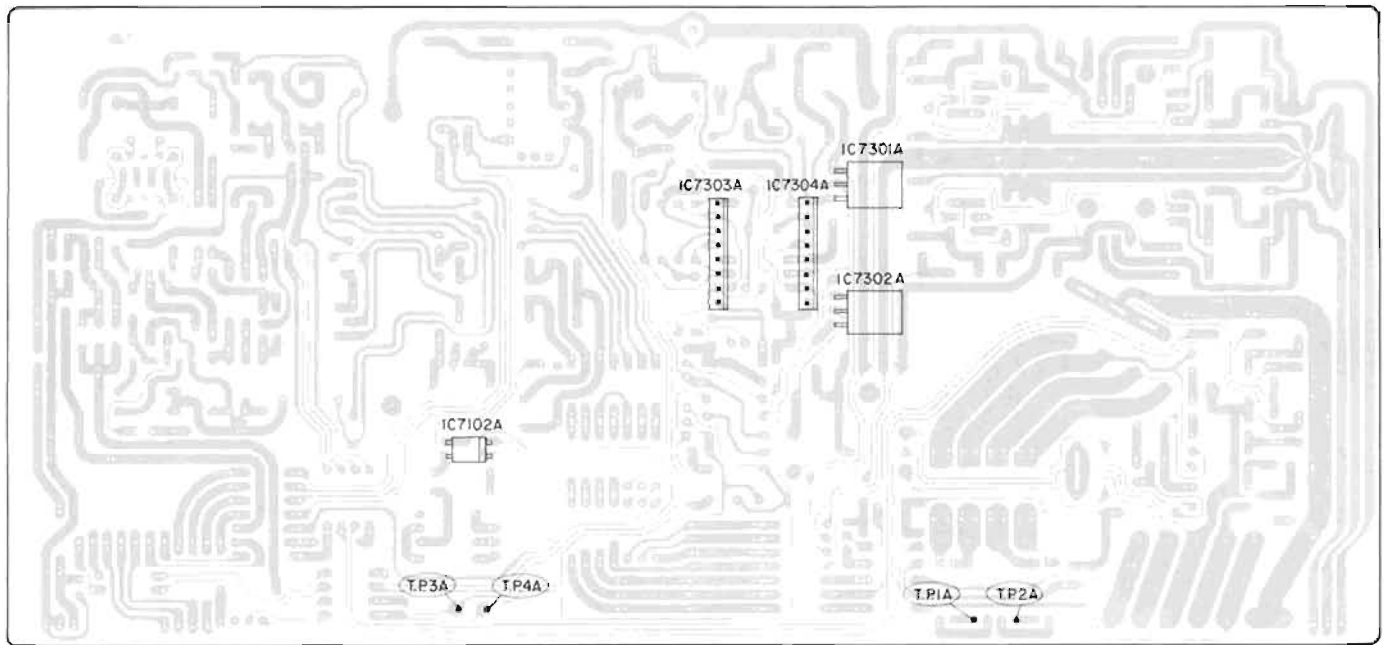


メイン・アンプ基板（左）

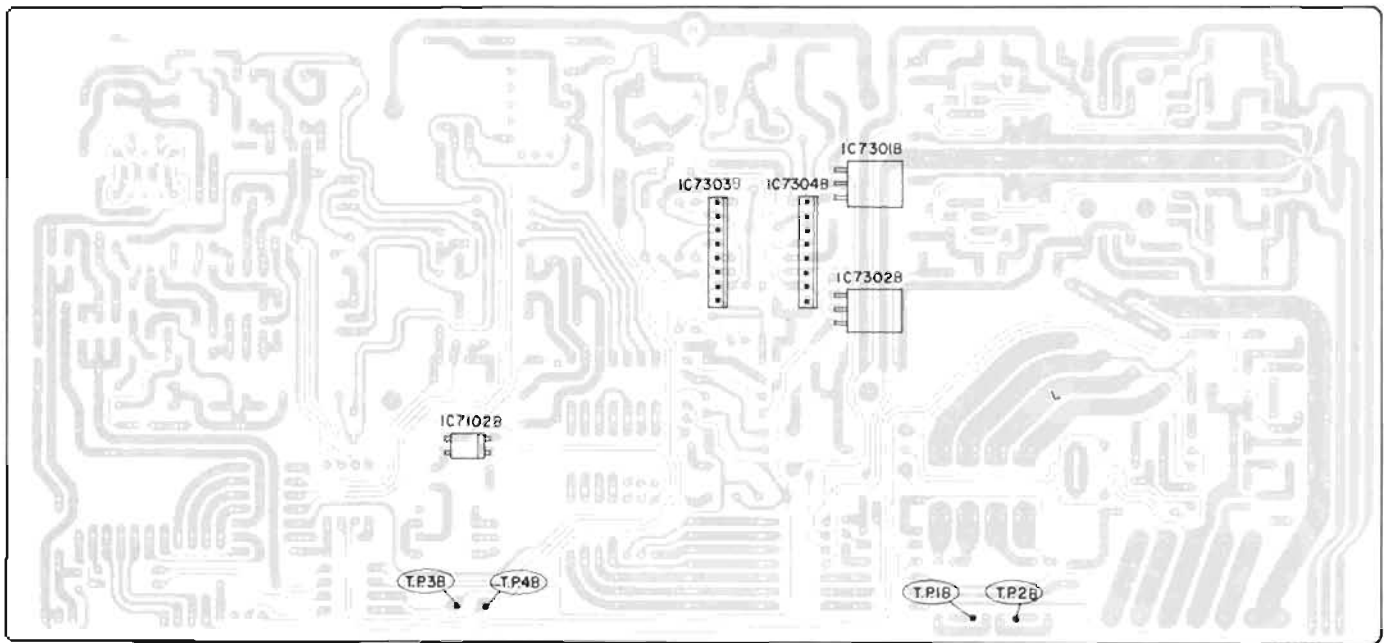


メイン・アンプ基板（右）

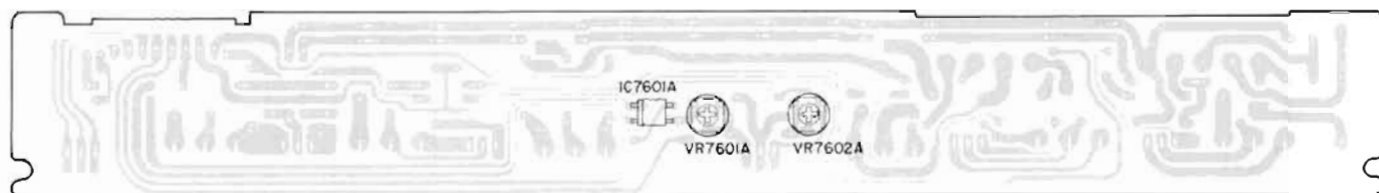
● UZ, UQ and EK model only



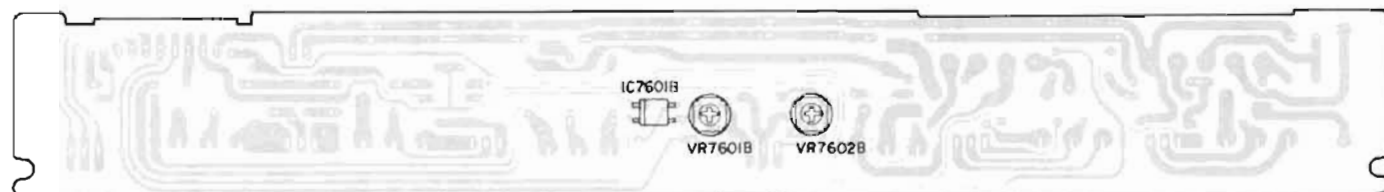
Main Amp P.C. Board (L)



Main Amp P.C. Board (R)

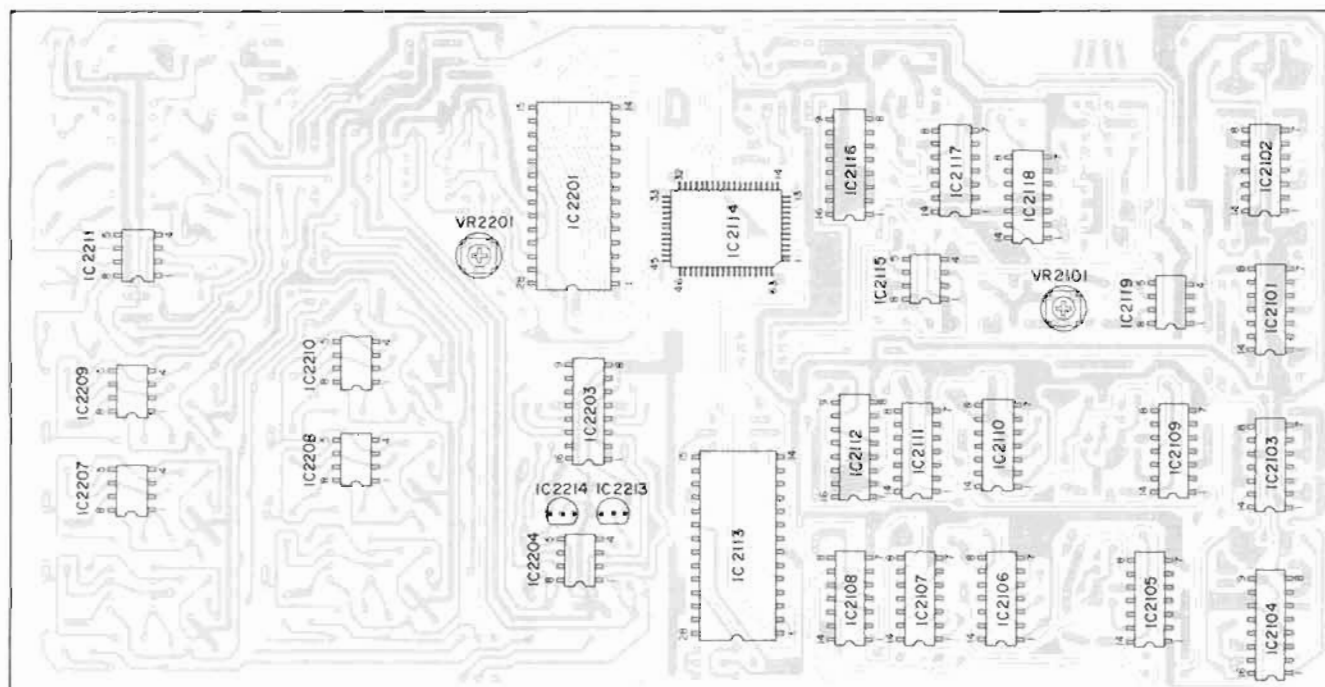


Power Transistor P.C. Board (L)



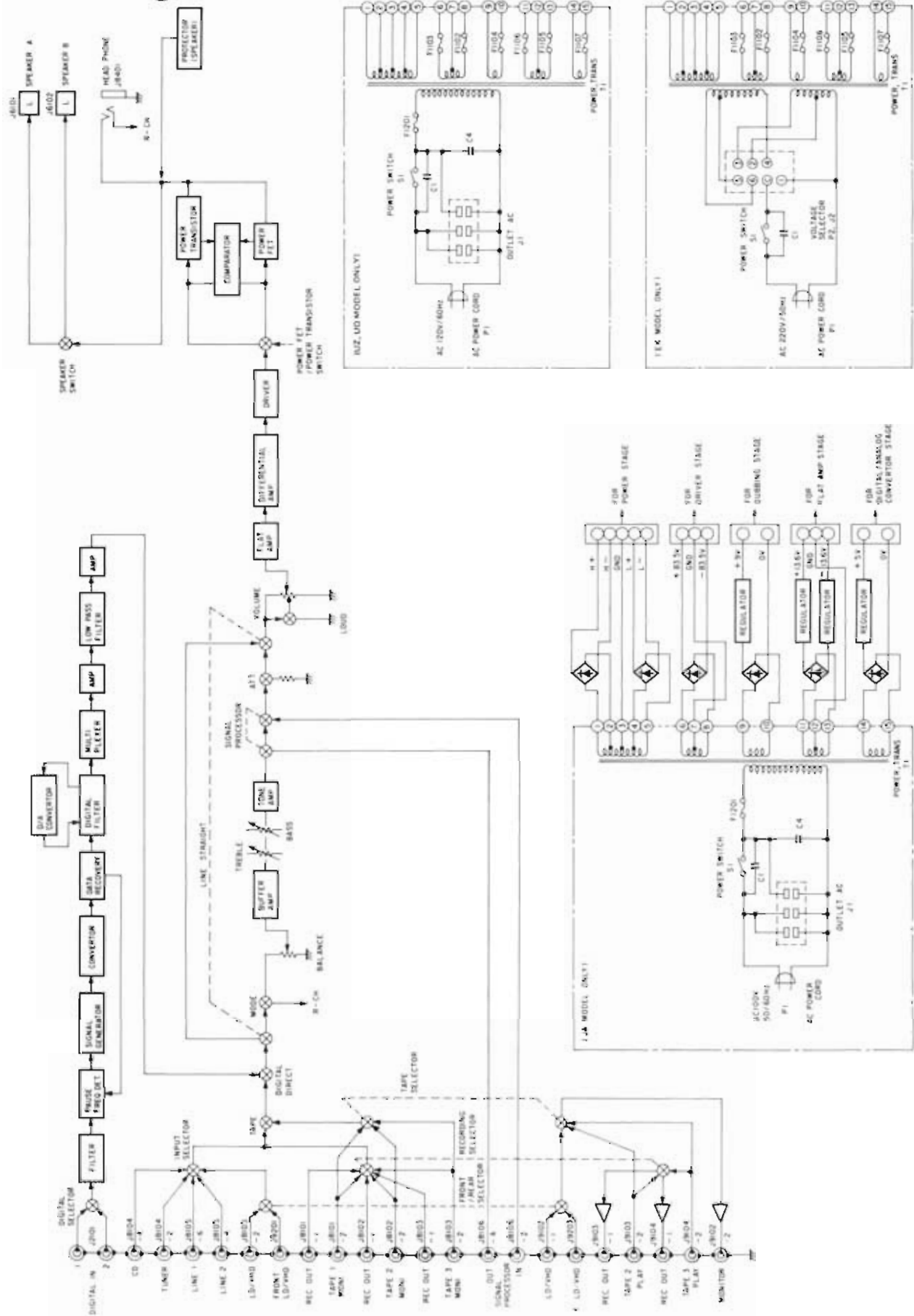
Power Transistor P.C. Board (R)

● Common (共通)



Digital/Analog Converter P.C. Board  
デジタル/アナログ・コンバーター基板

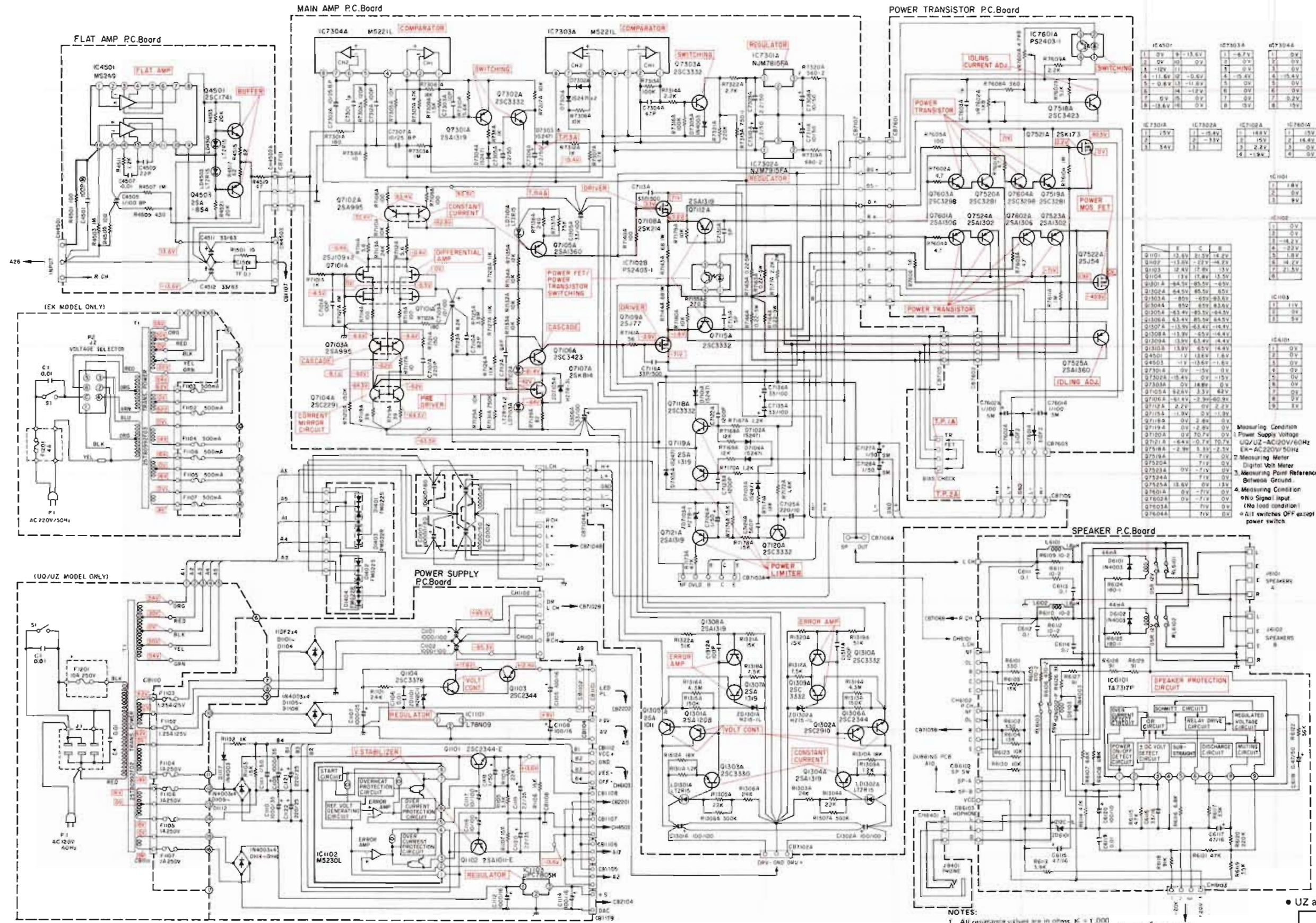
# Block Diagram





# Schematic Diagram (1/3)

IC	IC4501	IC7304A	IC7305A	IC7301A	IC7302A	IC7601A
Transistor(Q)	Q4501~Q4503	Q7101A	Q7101A~Q7109A	Q7112A~Q7115A	Q7118A~Q7121A	Q7601A~Q7604
Diode (D, LD, ZD)	LD4501~LD4503	D1401~D1404	ZD1101	LD7101A~LD7103A	ZD1301A~ZD1302A	D7601A~D7601A
	D1101~D1116					ZD6101~ZD6103



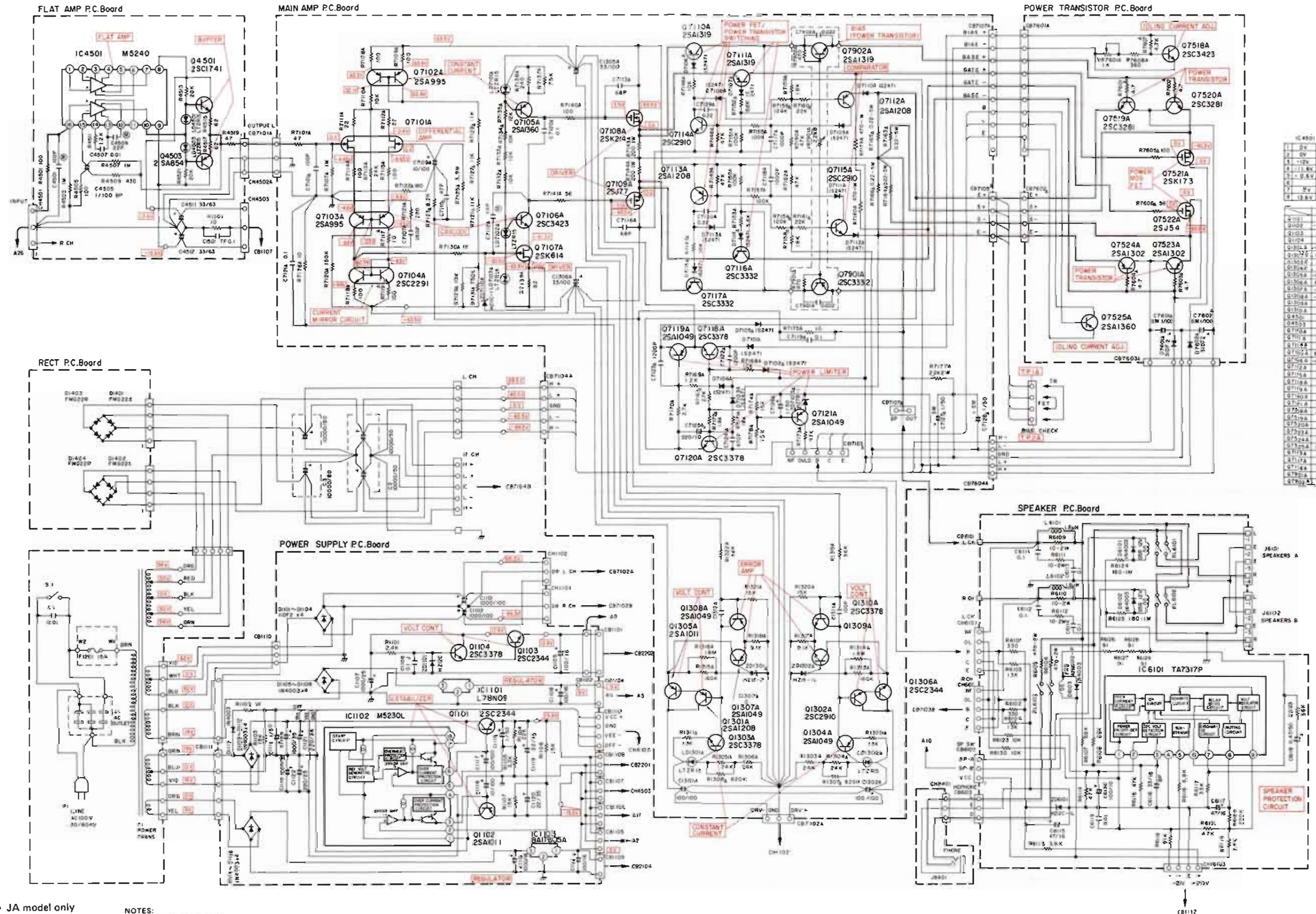
NOTES:  
 1. All resistive values are in ohms, K = 1,000  
 2. All capacitance values are in microfarads, P = 1/100,000

• UZ and EK model only

LV-109

# Schematic Diagram (2/3)

IC	IC4501	IC1102	IC1101	IC1103	IC6101
Transistor(Q)	Q4501 Q4503	Q1101~Q1104	Q7101A~Q7114A	Q7902A Q7115A	Q7518A~Q7525A
Diode (D,LD,ZD)	D1401~D1404	LD4501 LD4503	D1101~D1116	ZD1301A ZD1302A	ZD6101 Q6101~Q6103



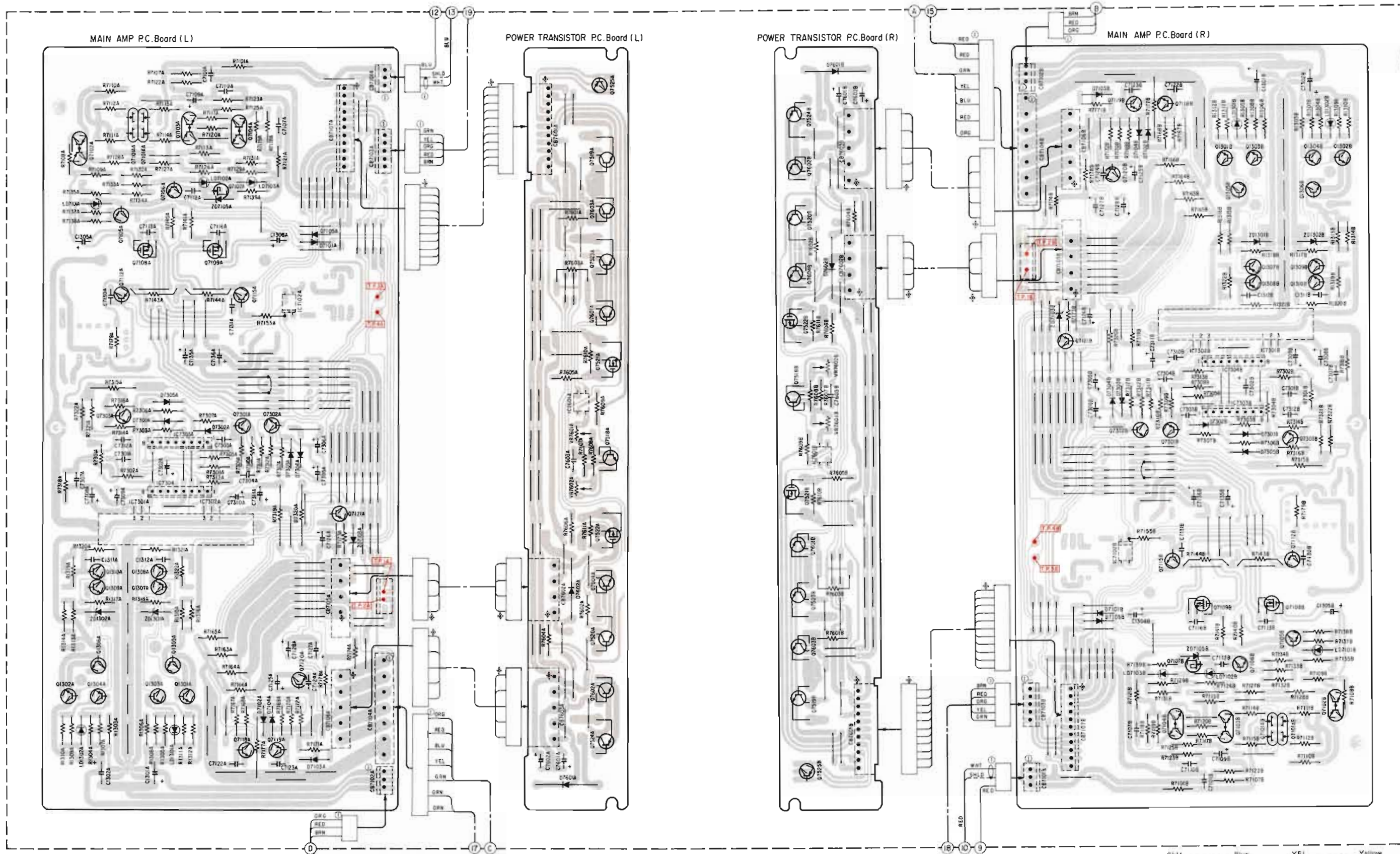
IC4501	V	I	P	C	S
1	0V	0	0	0	0
2	0V	10	0	0	0
3	0V	0	0	0	0
4	0V	0	0	0	0
5	0V	0	0	0	0
6	0V	0	0	0	0
7	0V	0	0	0	0
8	0V	0	0	0	0
9	0V	0	0	0	0
10	0V	0	0	0	0
11	0V	0	0	0	0
12	0V	0	0	0	0
13	0V	0	0	0	0
14	0V	0	0	0	0
15	0V	0	0	0	0
16	0V	0	0	0	0
17	0V	0	0	0	0
18	0V	0	0	0	0
19	0V	0	0	0	0
20	0V	0	0	0	0
21	0V	0	0	0	0
22	0V	0	0	0	0
23	0V	0	0	0	0
24	0V	0	0	0	0
25	0V	0	0	0	0
26	0V	0	0	0	0
27	0V	0	0	0	0
28	0V	0	0	0	0
29	0V	0	0	0	0
30	0V	0	0	0	0
31	0V	0	0	0	0
32	0V	0	0	0	0
33	0V	0	0	0	0
34	0V	0	0	0	0
35	0V	0	0	0	0
36	0V	0	0	0	0
37	0V	0	0	0	0
38	0V	0	0	0	0
39	0V	0	0	0	0
40	0V	0	0	0	0
41	0V	0	0	0	0
42	0V	0	0	0	0
43	0V	0	0	0	0
44	0V	0	0	0	0
45	0V	0	0	0	0
46	0V	0	0	0	0
47	0V	0	0	0	0
48	0V	0	0	0	0
49	0V	0	0	0	0
50	0V	0	0	0	0
51	0V	0	0	0	0
52	0V	0	0	0	0
53	0V	0	0	0	0
54	0V	0	0	0	0
55	0V	0	0	0	0
56	0V	0	0	0	0
57	0V	0	0	0	0
58	0V	0	0	0	0
59	0V	0	0	0	0
60	0V	0	0	0	0
61	0V	0	0	0	0
62	0V	0	0	0	0
63	0V	0	0	0	0
64	0V	0	0	0	0
65	0V	0	0	0	0
66	0V	0	0	0	0
67	0V	0	0	0	0
68	0V	0	0	0	0
69	0V	0	0	0	0
70	0V	0	0	0	0
71	0V	0	0	0	0
72	0V	0	0	0	0
73	0V	0	0	0	0
74	0V	0	0	0	0
75	0V	0	0	0	0
76	0V	0	0	0	0
77	0V	0	0	0	0
78	0V	0	0	0	0
79	0V	0	0	0	0
80	0V	0	0	0	0
81	0V	0	0	0	0
82	0V	0	0	0	0
83	0V	0	0	0	0
84	0V	0	0	0	0
85	0V	0	0	0	0
86	0V	0	0	0	0
87	0V	0	0	0	0
88	0V	0	0	0	0
89	0V	0	0	0	0
90	0V	0	0	0	0
91	0V	0	0	0	0
92	0V	0	0	0	0
93	0V	0	0	0	0
94	0V	0	0	0	0
95	0V	0	0	0	0
96	0V	0	0	0	0
97	0V	0	0	0	0
98	0V	0	0	0	0
99	0V	0	0	0	0
100	0V	0	0	0	0

Measuring Condition  
Power Supply Voltage AC100V/50Hz  
Measuring Meter Digital Volt Meter  
Measuring Point Reference Between Ground.  
Measuring Condition  
No Signal Input  
No Load Condition  
All switches OFF except power switch

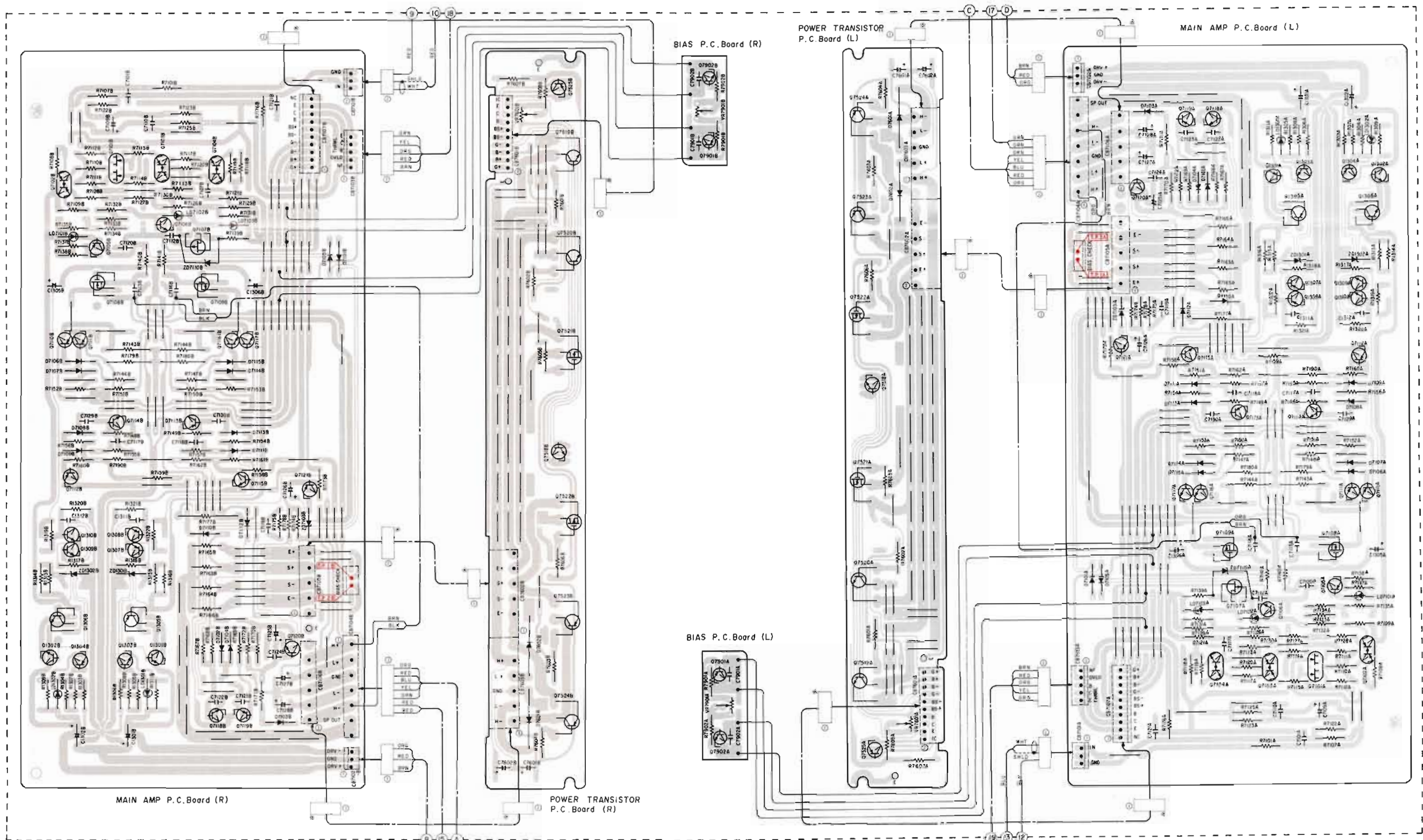
• JA model only  
**LV-109**

NOTES:  
1. All resistance values are in ohms K = 1,000  
2. All capacitance values are in microfarads. P = 1,000,000



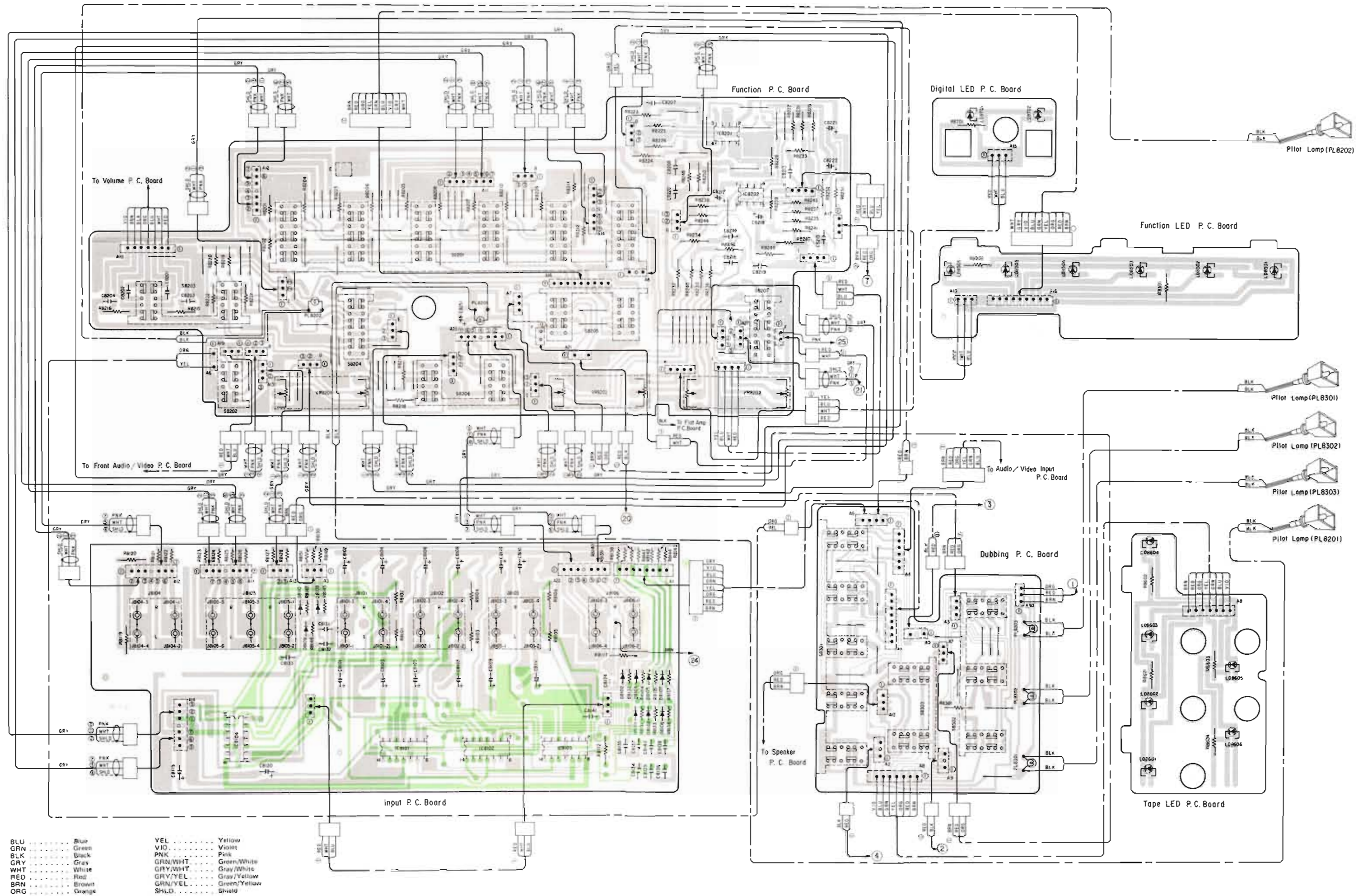


BLU	Blue	YEL	Yellow
GRN	Green	VIO	Violet
BLK	Black	PNK	Pink
GRY	Gray	GRN/WHT	Green/White
WHT	White	GRY/WHT	Gray/White
RED	Red	GRY/YEL	Gray/Yellow
BRN	Brown	GRN/YEL	Green/Yellow
ORG	Orange	SHLD.	Shield

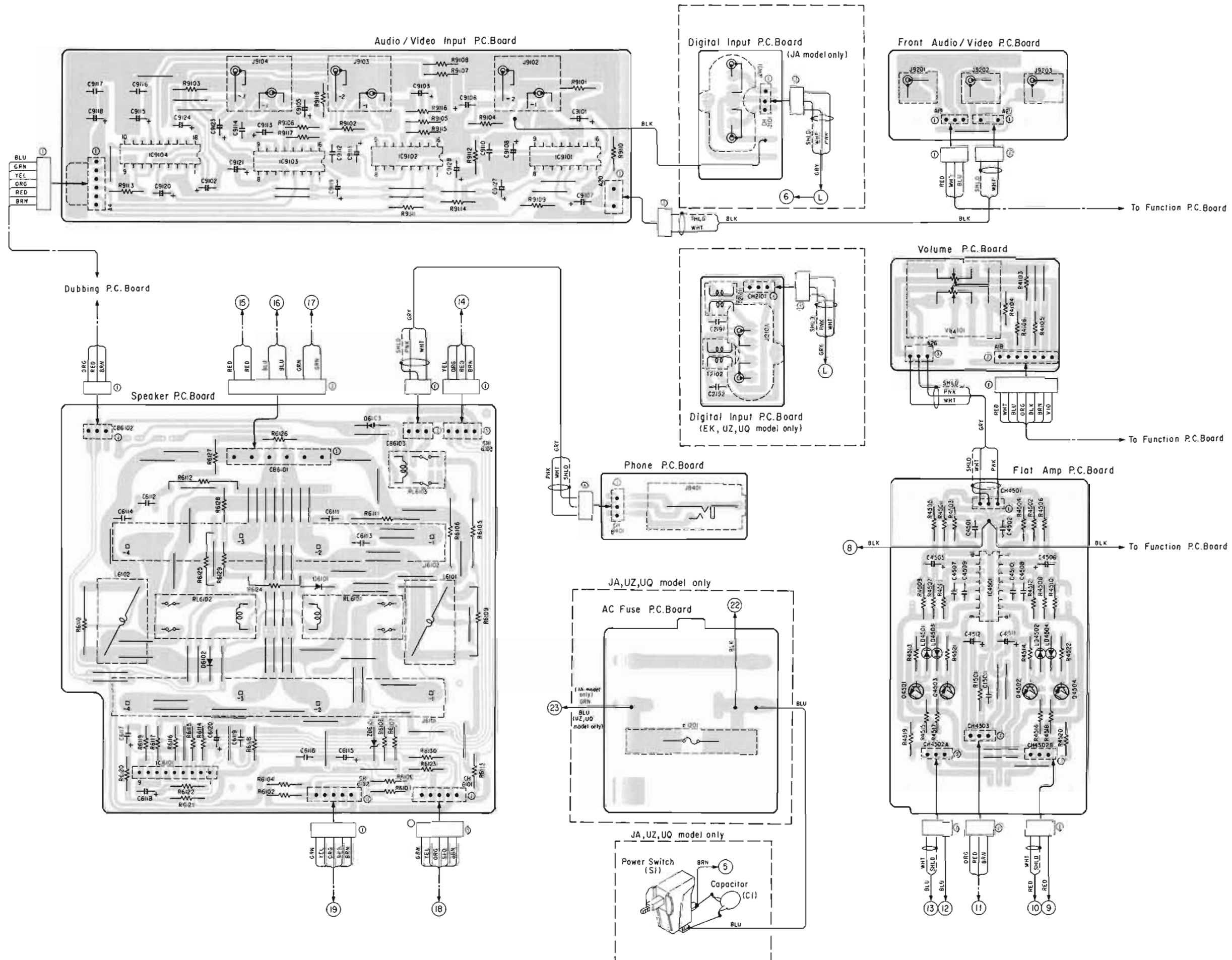


BLU	Blue	YEL	Yellow
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GRY	Gray	GRN/WHT	Green/White
WHT	White	GRY/WHT	Gray/White
RED	Red	GRY/YEL	Gray/Yellow
BRN	Brown	GRN/YEL	Green/Yellow
ORG	Orange	SHLD	Shield

# Parts Layout on P.C. Boards and Wiring Diagram (4/5)



# Parts Layout on P.C. Boards and Wiring Diagram (5/5)



# Electrical Parts List

Resistors: Carbon resistors under ¼ watts are not mentioned in the parts list, please confirm them by schematic diagram.  
 uF = microfarads, pF = picofarads

Symbol No.	Part No.	Description
<b>Power Supply P.C. Board</b>		
<b>IC's</b>		
IC1101	51T56583F05	L78N09
IC1102	51T80994F01	M5230L
IC1103	51T70955F01	BA17805
or	51T50834F02	μPC7805H
<b>Transistors</b>		
Q1101	48T64240F01	2SC2344
Q1102	48T47145F02	2SA1011
Q1103	48T64240F01	2SC2344
Q1104	48T80986F01	2SC3378
<b>Diodes</b>		
D1101	48T80984F01	11DF2
D1102	48T80984F01	11DF2
D1103	48T80984F01	11DF2
D1104	48T80984F01	11DF2
D1105	48S40477U01	IN4003
D1106	48S40477U01	IN4003
D1107	48S40477U01	IN4003
D1108	48S40477U01	IN4003
D1109	48S40477U01	IN4003
D1110	48S40477U01	IN4003
D1111	48S40477U01	IN4003
D1112	48S40477U01	IN4003
D1113	48S40477U01	IN4003
D1114	48S40477U01	IN4003
D1115	48S40477U01	IN4003
D1116	48S40477U01	IN4003
D1117	48S40477U01	IN4003
ZD1101	48T52740F07	Zener, HZ12C-1

Symbol No.	Part No.	Description
<b>Fuses</b>		
▲ F1102	65T66926F14	51NM (1.25A-125V)
■ F1102	65T66926F14	51NM (1.25A-125V)
★ F1102	65T42077U13	Semko (500mA)
▲ F1103	65T66926F14	51NM (1.25A-125V)
■ F1103	65T66926F14	51NM (1.25A-125V)
★ F1103	65T42077U13	Semko (500mA)
▲ F1104	65T66926F13	51NM (1A-250V)
■ F1104	65T66926F13	51NM (1A-250V)
★ F1104	65T42077U13	Semko (500mA)
▲ F1105	65T66926F13	51NM (1A-250V)
■ F1105	65T66926F13	51NM (1A-250V)
★ F1105	65T42077U13	Semko (500mA)
▲ F1106	65T66926F13	51NM (1A-250V)
■ F1106	65T66126F13	51NM (1A-250V)
★ F1106	65T42077U13	Semko (500mA)
▲ F1107	65T66926F13	51NM (1A-250V)
■ F1107	65T66926F13	51NM (1A-250V)
★ F1107	65T42077U13	Semko (500mA)
<b>Capacitors</b>		
C1101	23T81246F01	Electrolytic 1000 uF/100V
C1102	23T81246F01	Electrolytic 1000 uF/100V
C1105	23S40657F14	Electrolytic 100 uF/16V
C1106	08S40656F25	Mylar 0.1 uF
C1107	23T68328F32	Electrolytic 1000 uF/25V
C1108	23S40657F14	Electrolytic 100 uF/16V
C1109	23T68328F45	Electrolytic 1000 uF/35V
C1110	23T68328F45	Electrolytic 1000 uF/35V
C1111	23S40657F28	Electrolytic 1 uF/50V
C1112	23T68328F20	Electrolytic 1000 uF/16V
C1114	23S40657F14	Electrolytic 100 uF/16V
C1116	23T00132L50	Electrolytic 10 uF/100V
C1117	23T00132L50	Electrolytic 10 uF/100V
C1118	23S40657F28	Electrolytic 1 uF/50V
C1119	23S40657F24	Electrolytic 22 uF/35V
C1120	23S40657F24	Electrolytic 22 uF/35V
C1121	23T00132L14	Electrolytic 220 uF/25V
C1122	23T00132L14	Electrolytic 220 uF/25V

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),

▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),

Others : Common



Symbol No.	Part No.	Description	Symbol No.	Part No.	Description		
<b>Main Amp P.C. Board</b>							
<b>IC's</b>							
▲	IC7102A	51T82397F01	PS2403-1	■	Q1303A	48T82195F01	2SC3332
▲	IC7102B	51T82397F01	PS2403-1	■	Q1303B	48T82195F01	2SC3332
■	IC7102A	51T82397F01	PS2403-1	▲	Q1303A	48T82195F01	2SC3332
■	IC7202B	51T82397F01	PS2403-1	▲	Q1303B	48T82195F01	2SC3332
★	IC7102A	51T82397F01	PS2403-1	★	Q1303A	48T82195F01	2SC3332
★	IC7102B	51T82397F01	PS2403-1	★	Q1303B	48T82195F01	2SC3332
▲	IC7301A	51T82394F01	NJM7815FA	●	Q1304A	48T71760F01	2SA1049
▲	IC7301B	51T82394F01	NJM7815FA	●	Q1304B	48T71760F01	2SA1049
■	IC7301A	51T82394F01	NJM7815FA	■	Q1304A	48T82194F01	2SA1319
■	IC7301B	51T82394F01	NJM7815FA	■	Q1304B	48T82194F01	2SA1319
★	IC7301A	51T82394F01	NJM7815FA	▲	Q1304A	48T82194F01	2SA1319
★	IC7301B	51T82394F01	NJM7815FA	▲	Q1304B	48T82194F01	2SA1319
▲	IC7302A	51T82395F01	NJM7915FA	★	Q1304A	48T82194F01	2SA1319
▲	IC7302B	51T82395F01	NJM7915FA	★	Q1304B	48T82194F01	2SA1319
■	IC7302A	51T82395F01	NJM7915FA	Q1305A	48T47145F01	2SA1011	
■	IC7302B	51T82395F01	NJM7915FA	Q1305B	48T47145F01	2SA1011	
★	IC7302A	51T82395F01	NJM7915FA	Q1306A	48T64240F02	2SC2344	
★	IC7302B	51T82395F01	NJM7915FA	Q1306B	48T64240F02	2SC2344	
▲	IC7303A	51T82403F01	M5221L	●	Q1307A	48T71760F01	2SA1049
▲	IC7303B	51T82403F01	M5221L	●	Q1307B	48T71760F01	2SA1049
■	IC7303A	51T82403F01	M5221L	▲	Q1307A	48T82194F01	2SA1319
■	IC7303B	51T82403F01	M5221L	▲	Q1307B	48T82194F01	2SA1319
★	IC7303A	51T82403F01	M5221L	■	Q1307A	48T82194F01	2SA1319
★	IC7303B	51T82403F01	M5221L	■	Q1307B	48T82194F01	2SA1319
▲	IC7304A	51T82403F01	M5221L	★	Q1307A	48T82194F01	2SA1319
▲	IC7304B	51T82403F01	M5221L	★	Q1307B	48T82194F01	2SA1319
■	IC7304A	51T82403F01	M5221L	●	Q1308A	48T71760F01	2SA1049
■	IC7304B	51T82403F01	M5221L	●	Q1308B	48T71760F01	2SA1049
★	IC7304A	51T82403F01	M5221L	▲	Q1308A	48T82194F01	2SA1319
★	IC7304B	51T82403F01	M5221L	▲	Q1308B	48T82194F01	2SA1319
<b>Transistors</b>							
	Q1301A	48T72888F01	2SA1208	■	Q1308A	48T82194F01	2SA1319
	Q1301B	48T72888F01	2SA1208	■	Q1308B	48T82194F01	2SA1319
	Q1302A	48T72889F01	2SC2910	★	Q1308A	48T82194F01	2SA1319
	Q1302B	48T72889F01	2SC2910	★	Q1308B	48T82194F01	2SA1319
●	Q1303A	48T80986F01	2SC3378	●	Q1309A	48T80986F01	2SC3378
●	Q1303B	48T80986F01	2SC3378	●	Q1309B	48T80986F01	2SC3378
				▲	Q1309A	48T82195F01	2SC3332
				▲	Q1309B	48T82195F01	2SC3332
				■	Q1309A	48T82195F01	2SC3332
				■	Q1309B	48T82195F01	2SC3332
				★	Q1309A	48T82195F01	2SC3332
				★	Q1309B	48T82195F01	2SC3332

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK).

▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),

Others : Common

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
● Q1310A	48T80986F01	2SC3378	● Q7114A	48T72889F01	2SC2910
● Q1310B	48T80986F01	2SC3378	● Q7114B	48T72889F01	2SC2910
▲ Q1310A	48T82195F01	2SC3332	● Q7115A	48T82195F01	2SC3332
▲ Q1310B	48T82195F01	2SC3332	● Q7115B	48T82195F01	2SC3332
■ Q1310A	48T82195F01	2SC3332	● Q7115A	48T82195F01	2SC3332
■ Q1310B	48T82195F01	2SC3332	● Q7115B	48T82195F01	2SC3332
★ Q1310A	48T82195F01	2SC3332	▲ Q7115A	48T82195F01	2SC3332
★ Q1310B	48T82195F01	2SC3332	▲ Q7115B	48T82195F01	2SC3332
Q7101A	48T71752F01	FET, 2SJ109	★ Q7115A	48T82195F01	2SC3332
Q7101B	48T71752F01	FET, 2SJ109	★ Q7115B	48T82195F01	2SC3332
▲ Q7101A'	48T71752F01	FET, 2SJ109	● Q7116A	48T69176F01	2SC3421
▲ Q7101B'	48T71752F01	FET, 2SJ109	● Q7116B	48T69176F01	2SC3421
■ Q7101A'	48T71752F01	FET, 2SJ109	● Q7117A	48T69176F01	2SC3421
■ Q7101B'	48T71752F01	FET, 2SJ109	● Q7117B	48T69176F01	2SC3421
★ Q7101A'	48T71752F01	FET, 2SJ109	● Q7118A	48T80986F01	2SC3378
★ Q7101B'	48T71752F01	FET, 2SJ109	● Q7118B	48T80986F01	2SC3378
Q7102A	48T72597F01	2SA995	▲ Q7118A	48T82195F01	2SC3332
Q7102B	48T72597F01	2SA995	▲ Q7118B	48T82195F01	2SC3332
Q7103A	48T72597F01	2SA995	▲ Q7118A	48T82195F01	2SC3332
Q7103B	48T72597F01	2SA995	▲ Q7118B	48T82195F01	2SC3332
Q7104A	48T72598F01	2SC2291	■ Q7118A	48T82195F01	2SC3332
Q7104B	48T72598F01	2SC2291	■ Q7118B	48T82195F01	2SC3332
Q7105A	48T64375F01	2SA1360	★ Q7119A	48T71760F01	2SA1049
Q7105B	48T64375F01	2SA1360	★ Q7119B	48T71760F01	2SA1049
Q7106A	48T64376F01	2SC3423	▲ Q7119A	48T82194F01	2SA1319
Q7106B	48T64376F01	2SC3423	▲ Q7119B	48T82194F01	2SA1319
Q7107A	48T80991F01	FET, 2SK614	■ Q7119A	48T82194F01	2SA1319
Q7107B	48T80991F01	FET, 2SK614	■ Q7119B	48T82194F01	2SA1319
Q7108A	48T71778F01	FET, 2SK214	★ Q7119A	48T82194F01	2SA1319
Q7108B	48T71778F01	FET, 2SK214	★ Q7119B	48T82194F01	2SA1319
Q7109A	48T71779F01	FET, 2SJ77	● Q7120A	48T80986F01	2SC3378
Q7109B	48T71779F01	FET, 2SJ77	● Q7120B	48T80986F01	2SC3378
● Q7110A	48T69177F01	2SA1358	▲ Q7120A	48T82195F01	2SC3332
● Q7110B	48T69177F01	2SA1358	▲ Q7120B	48T82195F01	2SC3332
● Q7111A	48T69177F01	2SA1358	■ Q7120A	48T82195F01	2SC3332
● Q7111B	48T69177F01	2SA1358	■ Q7120B	48T82195F01	2SC3332
● Q7112A	48T72888F01	2SA1208	★ Q7120A	48T82195F01	2SC3332
● Q7112B	48T72888F01	2SA1208	★ Q7120B	48T82195F01	2SC3332
▲ Q7112A	48T82194F01	2SA1319	● Q7121A	48T71760F01	2SA1049
▲ Q7112B	48T82194F01	2SA1319	● Q7121B	48T71760F01	2SA1049
★ Q7112A	48T82194F01	2SA1319	▲ Q7121A	48T82194F01	2SA1319
★ Q7112B	48T82194F01	2SA1319	▲ Q7121B	48T82194F01	2SA1319
■ Q7112A	48T82194F01	2SA1319	■ Q7121A	48T82194F01	2SA1319
■ Q7112B	48T82194F01	2SA1319	■ Q7121B	48T82194F01	2SA1319
● Q7113A	48T72888F01	2SA1208	★ Q7121A	48T82194F01	2SA1319
● Q7113B	48T72888F01	2SA1208	★ Q7121B	48T82194F01	2SA1319

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),  
▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),  
Others : Common

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
▲ Q7301A	48T82194F01	2SA1319	● D7113A	48T68764F01	1S2471
▲ Q7301B	48T82194F01	2SA1319	● D7113B	48T68764F01	1S2471
★ Q7301A	48T82194F01	2SA1319	● D7114A	48T68764F01	1S2471
★ Q7301B	48T82194F01	2SA1319	● D7114B	48T68764F01	1S2471
■ Q7301A	48T82194F01	2SA1319	● D7115A	48T68764F01	1S2471
■ Q7301B	48T82194F01	2SA1319	● D7115B	48T68764F01	1S2471
▲ Q7302A	48T82195F01	2SC3332	■ D7301A	48T68764F01	1S2471
▲ Q7302B	48T82195F01	2SC3332	■ D7301B	48T68764F01	1S2471
■ Q7302A	48T82195F01	2SC3332	▲ D7301A	48T68764F01	1S2471
■ Q7302B	48T82195F01	2SC3332	▲ D7301B	48T68764F01	1S2471
★ Q7302A	48T82195F01	2SC3332	★ D7301A	48T68764F01	1S2471
★ Q7302B	48T82195F01	2SC3332	★ D7301B	48T68764F01	1S2471
▲ Q7303A	48T82195F01	2SC3332	▲ D7302A	48T68764F01	1S2471
▲ Q7303B	48T82195F01	2SC3332	▲ D7302B	48T68764F01	1S2471
■ Q7303A	48T82195F01	2SC3332	■ D7302A	48T68764F01	1S2471
■ Q7303B	48T82195F01	2SC3332	■ D7302B	48T68764F01	1S2471
★ Q7303A	48T82195F01	2SC3332	★ D7302A	48T68764F01	1S2471
★ Q7303B	48T82195F01	2SC3332	★ D7302B	48T68764F01	1S2471
Diodes			▲ D7303A	48T68764F01	1S2471
D7101A	48T68764F01	1S2471	▲ D7303B	48T68764F01	1S2471
D7101B	48T68764F01	1S2471	★ D7303A	48T68764F01	1S2471
D7102A	48T68764F01	1S2471	★ D7303B	48T68764F01	1S2471
D7102B	48T68764F01	1S2471	■ D7303A	48T68764F01	1S2471
D7103A	48T68764F01	1S2471	■ D7303B	48T68764F01	1S2471
D7103B	48T68764F01	1S2471	▲ D7304A	48T68764F01	1S2471
D7104A	48T68764F01	1S2471	▲ D7304B	48T68764F01	1S2471
D7104B	48T68764F01	1S2471	■ D7304A	48T68764F01	1S2471
D7105A	48T68764F01	1S2471	■ D7304B	48T68764F01	1S2471
D7105B	48T68764F01	1S2471	★ D7304A	48T68764F01	1S2471
D7106A	48T68764F01	1S2471	★ D7304B	48T68764F01	1S2471
D7106B	48T68764F01	1S2471	▲ D7305A	48S40477U01	IN4003
● D7107A	48T68764F01	1S2471	▲ D7305B	48S40477U01	IN4003
● D7107B	48T68764F01	1S2471	■ D7305A	48S40477U01	IN4003
● D7108A	48T68764F01	1S2471	■ D7305B	48S40477U01	IN4003
● D7108B	48T68764F01	1S2471	★ D7305A	48S40477U01	IN4003
● D7109A	48T68764F01	1S2471	★ D7305B	48S40477U01	IN4003
● D7109B	48T68764F01	1S2471	LD1301A	48T60971F01	LED, LTZ-R15
● D7110A	48T68764F01	1S2471	LD1301B	48T60971F01	LED, LTZ-R15
● D7110B	48T68764F01	1S2471	LD1302A	48T60971F01	LED, LTZ-R15
● D7111A	48T68764F01	1S2471	LD1302B	48T60971F01	LED, LTZ-R15
● D7111B	48T68764F01	1S2471	LD7101A	48T60971F01	LED, LTZ-R15
● D7112A	48T68764F01	1S2471	LD7101B	48T60971F01	LED, LTZ-R15
● D7112B	48T68764F01	1S2471	LD7102A	48T60971F01	LED, LTZ-R15
			LD7102B	48T60971F01	LED, LTZ-R15
			LD7103A	48T60971F01	LED, LTZ-R15
			LD7103B	48T60971F01	LED, LTZ-R15

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),  
▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),  
Others : Common

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
ZD1301A	48T52741F46	Zener, HZ15-1L	★ C7110A	08T81196F32	Mica 82 pF
ZD1301B	48T52741F46	Zener, HZ15-1L	★ C7110B	08T81196F32	Mica 82 pF
ZD1302A	48T52741F46	Zener, HZ15-1L	C7112A	08T81196F30	Mica 68 pF
ZD1302B	48T52741F46	Zener, HZ15-1L	C7112B	08T81196F30	Mica 68 pF
ZD7103A	48T52739F46	Zener, HZ7B-1	● C7113A	08T81196F30	Mica 68 pF
ZD7103B	48T52739F46	Zener, HZ7B-1	● C7113B	08T81196F30	Mica 68 pF
■ ZD7105A	48T52741F15	Zener, HZ7B-3L	▲ C7113A	08T81196F19	Mica 33 pF
■ ZD7105B	48T52741F15	Zener, HZ7B-3L	▲ C7113B	08T81196F19	Mica 33 pF
▲ ZD7105A	48T52741F15	Zener, HZ7B-3L	★		
▲ ZD7105B	48T52741F15	Zener, HZ7B-3L	★ C7113A	08T81196F19	Mica 33 pF
★ ZD7105A	48T52741F15	Zener, HZ7B-3L	★ C7113B	08T81196F19	Mica 33 pF
★ ZD7105B	48T52741F15	Zener, HZ7B-3L	■ C7113A	08T81196F19	Mica 33 pF
● ZD7110A	48T40150U58	Zener, HZ11C-1	■ C7113B	08T81196F19	Mica 33 pF
● ZD7110B	48T40150U58	Zener, HZ11C-1	● C7116A	08T81196F03	Mica 68 pF
			● C7116B	08T81196F03	Mica 68 pF
			▲ C7116A	08T81196F19	Mica 220 pF
			▲ C7116B	08T81196F19	Mica 220 pF
<b>Capacitors</b>			★ C7116A	08T81196F19	Mica 220 pF
C1301A	23T00132L56	Electrolytic 100 uF/100V	★ C7116B	08T81196F19	Mica 220 pF
C1301B	23T00132L56	Electrolytic 100 uF/100V	■ C7116A	08T81196F19	Mica 220 pF
C1302A	23T00132L56	Electrolytic 100 uF/100V	■ C7116B	08T81196F19	Mica 220 pF
C1302B	23T00132L56	Electrolytic 100 uF/100V	● C7117A	08T68632F01	Polyester 1000 pF
C1305A	23T00138L78	Electrolytic 33 uF/100V	● C7117B	08T68632F01	Polyester 1000 pF
C1305B	23T00138L78	Electrolytic 33 uF/100V	● C7118A	08T68632F01	Polyester 1000 pF
C1306A	23T00138L78	Electrolytic 33 uF/100V	● C7118B	08T68632F01	Polyester 1000 pF
C1306B	23T00138L78	Electrolytic 33 uF/100V	● C7119A	08T57851F13	T.F 0.1 uF
C1311A	08T81196F34	Mica 100 pF	● C7119B	08T57851F13	T.F 0.1 uF
C1311B	08T81196F34	Mica 100 pF	● C7120A	08T57851F13	T.F 0.1 uF
C1312A	08T81196F34	Mica 100 pF	● C7120B	08T57851F13	T.F 0.1 uF
C1312B	08T81196F34	Mica 100 pF	● C7121A	08T57851F13	T.F 0.1 uF
● C7101A	08T81196F34	Mica 100 pF	● C7121B	08T57851F13	T.F 0.1 uF
● C7101B	08T81196F34	Mica 100 pF	C7122A	08T00152L10	Polypropylene 1200 pF
▲ C7107A	08T81196F40	Mica 180 pF	C7122B	08T00152L10	Polypropylene 1200 pF
▲ C7107B	08T81196F40	Mica 180 pF	C7123A	08T00152L10	Polypropylene 1200 pF
■ C7107A	08T81196F42	Mica 220 pF	C7123B	08T00152L10	Polypropylene 1200 pF
■ C7107B	08T81196F42	Mica 220 pF	● C7124A	08T00152L05	Polypropylene 470 pF
★ C7107A	08T81196F42	Mica 220 pF	● C7124B	08T00152L05	Polypropylene 470 pF
★ C7107B	08T81196F42	Mica 220 pF	▲ C7124A	08T00152L06	Polypropylene 560 pF
C7107A	08T81196F42	Mica 220 pF	▲ C7124B	08T00152L06	Polypropylene 560 pF
C7107B	08T81196F42	Mica 220 pF	■ C7124A	08T00152L06	Polypropylene 560 pF
C7109A	23T00132L50	Electrolytic 10 uF/100V	■ C7124B	08T00152L06	Polypropylene 560 pF
C7109B	23T00132L50	Electrolytic 10 uF/100V	★ C7124A	08T00152L06	Polypropylene 560 pF
● C7110A	08T81196F25	Mica 47 pF	★ C7124B	08T00152L06	Polypropylene 560 pF
● C7110B	08T81196F25	Mica 47 pF	C7125A	23T00138L13	Electrolytic 220 uF/10V
■ C7110A	08T81196F32	Mica 47 pF	C7125B	23T00138L13	Electrolytic 220 uF/10V
■ C7110B	08T81196F32	Mica 47 pF			
▲ C7110A	08T81196F32	Mica 82 pF			
▲ C7110B	08T81196F32	Mica 82 pF			

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),

▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),

Others : Common

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
	C7126A	23T00138L45 Electrolytic 1 uF/50V	▲ C7303A	08T61939F11 Ceramic 10 pF	
	C7126B	23T00138L45 Electrolytic 1 uF/50V	▲ C7303B	08T61939F11 Ceramic 10 pF	
	C7127A	23T00138L45 Electrolytic 1 uF/50V	★ C7303A	08T61939F11 Ceramic 10 pF	
	C7127B	23T00138L45 Electrolytic 1 uF/50V	★ C7303B	08T61939F11 Ceramic 10 pF	
	C7128A	23T00138L45 Electrolytic 1 uF/50V	■ C7303A	08T61939F11 Ceramic 10 pF	
	C7128B	23T00138L45 Electrolytic 1 uF/50V	■ C7303B	08T61939F11 Ceramic 10 pF	
●	C7129A	08T57851F17 T.F 0.22 uF	▲ C7304A	08T61939F27 Ceramic 47 pF	
●	C7129B	08T57851F17 T.F 0.22 uF	▲ C7304B	08T61939F27 Ceramic 47 pF	
■	C7130A	08T57851F17 T.F 0.22 uF	■ C7304A	08T61939F27 Ceramic 47 pF	
■	C7130B	08T57851F17 T.F 0.22 uF	■ C7304B	08T61939F27 Ceramic 47 pF	
●	C7130A	08T61642F04 Mica 5 pF	★ C7304A	08T61939F27 Ceramic 47 pF	
●	C7130B	08T61642F04 Mica 5 pF	★ C7304B	08T61939F27 Ceramic 47 pF	
▲	C7130A	08T61642F04 Mica 5 pF	▲ C7305A	23T00138L46 Electrolytic 2.2 uF/50V	
▲	C7130B	08T61642F04 Mica 5 pF	▲ C7305B	23T00138L46 Electrolytic 2.2 uF/50V	
★	C7130A	08T61642F04 Mica 5 pF	■ C7305A	23T00138L46 Electrolytic 2.2 uF/50V	
★	C7130B	08T61642F04 Mica 5 pF	■ C7305B	23T00138L46 Electrolytic 2.2 uF/50V	
■	C7131A	08T61642F04 Mica 5 pF	★ C7305A	23T00138L46 Electrolytic 2.2 uF/50V	
■	C7131B	08T61642F04 Mica 5 pF	★ C7305B	23T00138L46 Electrolytic 2.2 uF/50V	
▲	C7131A	08T61642F04 Mica 5 pF	▲ C7306A	23T00138L46 Electrolytic 2.2 uF/50V	
▲	C7131B	08T61642F04 Mica 5 pF	▲ C7306B	23T00138L46 Electrolytic 2.2 uF/50V	
★	C7131A	08T61642F04 Mica 5 pF	■ C7306A	23T00138L46 Electrolytic 2.2 uF/50V	
★	C7131B	08T61642F04 Mica 5 pF	■ C7306B	23T00138L46 Electrolytic 2.2 uF/50V	
▲	C7135A	23T00138L78 Electrolytic 33 uF/100V	★ C7306A	23T00138L46 Electrolytic 2.2 uF/50V	
▲	C7135B	23T00138L78 Electrolytic 33 uF/100V	★ C7306B	23T00138L46 Electrolytic 2.2 uF/50V	
■	C7135A	23T00138L78 Electrolytic 33 uF/100V	▲ C7307A	23T42477U11 Electrolytic(B.P) 10 uF/25V	
■	C7135B	23T00138L78 Electrolytic 33 uF/100V	▲ C7307B	23T42477U11 Electrolytic(B.P) 10 uF/25V	
★	C7135A	23T00138L78 Electrolytic 33 uF/100V	★ C7307A	23T42477U11 Electrolytic(B.P) 10 uF/25V	
★	C7135B	23T00138L78 Electrolytic 33 uF/100V	★ C7307B	23T42477U11 Electrolytic(B.P) 10 uF/25V	
▲	C7136A	23T00138L78 Electrolytic 33 uF/100V	▲ C7308A	23T00138L49 Electrolytic(B.P) 10 uF/50V	
▲	C7136B	23T00138L78 Electrolytic 33 uF/100V	▲ C7308B	23T00138L49 Electrolytic(B.P) 10 uF/50V	
★	C7136A	23T00138L78 Electrolytic 33 uF/100V	■ C7308A	23T00138L49 Electrolytic(B.P) 10 uF/50V	
★	C7136B	23T00138L78 Electrolytic 33 uF/100V	■ C7308B	23T00138L49 Electrolytic(B.P) 10 uF/50V	
■	C7136A	23T00138L78 Electrolytic 33 uF/100V	★ C7308A	23T00138L49 Electrolytic(B.P) 10 uF/50V	
■	C7136B	23T00138L78 Electrolytic 33 uF/100V	★ C7308B	23T00138L49 Electrolytic(B.P) 10 uF/50V	
▲	C7301A	08T50579F25 T.F 1 uF	▲ C7309A	23T00138L46 Electrolytic(B.P) 2.2 uF/50V	
▲	C7301B	08T50579F25 T.F 1 uF	▲ C7309B	23T00138L46 Electrolytic(B.P) 2.2 uF/50V	
★	C7301A	08T50579F25 T.F 1 uF	■ C7309A	23T00138L46 Electrolytic(B.P) 2.2 uF/50V	
★	C7301B	08T50579F25 T.F 1 uF	■ C7309B	23T00138L46 Electrolytic(B.P) 2.2 uF/50V	
▲	C7302A	23T42477F11 Electrolytic(B.P) 10 uF/25V	★ C7309A	23T00138L46 Electrolytic(B.P) 2.2 uF/50V	
▲	C7302B	23T42477F11 Electrolytic(B.P) 10 uF/25V	★ C7309B	23T00138L46 Electrolytic(B.P) 2.2 uF/50V	
■	C7302A	23T42477F11 Electrolytic(B.P) 10 uF/25V	▲ C7310A	23T00138L46 Electrolytic(B.P) 2.2 uF/50V	
■	C7302B	23T42477F11 Electrolytic(B.P) 10 uF/25V	▲ C7310B	23T00138L46 Electrolytic(B.P) 2.2 uF/50V	
★	C7302A	23T42477F11 Electrolytic(B.P) 10 uF/25V	■ C7310A	23T00138L46 Electrolytic(B.P) 2.2 uF/50V	
★	C7302B	23T42477F11 Electrolytic(B.P) 10 uF/25V	■ C7310B	23T00138L46 Electrolytic(B.P) 2.2 uF/50V	
			★ C7310A	23T00138L46 Electrolytic(B.P) 2.2 uF/50V	
			★ C7310B	23T00138L46 Electrolytic(B.P) 2.2 uF/50V	

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK).

▲ : For North American model only (UZ), ■ : For Canadian model only (UQ).

Others : Common

Symbol No.	Part No.	Description	
▲ C7311A	23T00138L49	Electrolytic	10 uF/50V
▲ C7311B	23T00138L49	Electrolytic	10 uF/50V
■ C7311A	23T00138L49	Electrolytic	10 uF/50V
■ C7311B	23T00138L49	Electrolytic	10 uF/50V
★ C7311A	23T00138L49	Electrolytic	10 uF/50V
★ C7311B	23T00138L49	Electrolytic	10 uF/50V
▲ C7312A	08T81196F34	Mica	100 pF
▲ C7312B	08T81196F34	Mica	100 pF
■ C7312A	08T81196F34	Mica	100 pF
■ C7312B	08T81196F34	Mica	100 pF
★ C7312A	08T81196F34	Mica	100 pF
★ C7312B	08T81196F34	Mica	100 pF
<b>Resistors</b>			
R7140A	06T69013F41	Fuse	100 ohm 1/4W
R7140B	06T69013F41	Fuse	100 ohm 1/4W
R7141A	06T69013F35	Fuse	56 ohm 1/4W
R7141B	06T69013F35	Fuse	56 ohm 1/4W
● R7143A	06T00005L48	Metal Oxide	200 ohm 1W
● R7143B	06T00005L48	Metal Oxide	200 ohm 1W
■ R7143A	06T00005L37	Metal Oxide	68 ohm 1W
■ R7143B	06T00005L37	Metal Oxide	68 ohm 1W
▲ R7143A	06T00005L37	Metal Oxide	68 ohm 1W
▲ R7143B	06T00005L37	Metal Oxide	68 ohm 1W
★ R7143A	06T00005L37	Metal Oxide	68 ohm 1W
★ R7143B	06T00005L37	Metal Oxide	68 ohm 1W
● R7144A	06T00005L48	Metal Oxide	200 ohm 1W
● R7144B	06T00005L48	Metal Oxide	200 ohm 1W
■ R7144A	06T00005L37	Metal Oxide	68 ohm 1W
■ R7144B	06T00005L37	Metal Oxide	68 ohm 1W
▲ R7144A	06T00005L37	Metal Oxide	68 ohm 1W
▲ R7144B	06T00005L37	Metal Oxide	68 ohm 1W
★ R7144A	06T00005L37	Metal Oxide	68 ohm 1W
★ R7144B	06T00005L37	Metal Oxide	68 ohm 1W
R7163A	06T63106F02	Metal Plate	0.22 ohm
R7163B	06T63106F02	Metal Plate	0.22 ohm
R7164A	06T63106F02	Metal Plate	0.22 ohm
R7164B	06T63106F02	Metal Plate	0.22 ohm
R7165A	06T63106F02	Metal Plate	0.22 ohm
R7165B	06T63106F02	Metal Plate	0.22 ohm
R7166A	06T63106F02	Metal Plate	0.22 ohm
R7166B	06T63106F02	Metal Plate	0.22 ohm
R7177A	06T00007L73	Metal Oxide	2.2K ohm 2W
R7177B	06T00007L73	Metal Oxide	2.2K ohm 2W

Symbol No.	Part No.	Description	
● R7179A	06T00005L57	Metal Oxide	470 ohm 1W
● R7179B	06T00005L57	Metal Oxide	470 ohm 1W
● R7180A	06T00005L57	Metal Oxide	470 ohm 1W
● R7180B	06T00005L57	Metal Oxide	470 ohm 1W
▲ R7181A	06C44652G47	Metal Film	33 ohm 1W
▲ R7181B	06C44652G47	Metal Film	33 ohm 1W
■ R7181A	06C44652G47	Metal Film	33 ohm 1W
■ R7181B	06C44652G47	Metal Film	33 ohm 1W
★ R7181A	06C44652G47	Metal Film	33 ohm 1W
★ R7181B	06C44652G47	Metal Film	33 ohm 1W
▲ R7182A	06C44652G47	Metal Film	33 ohm 1W
▲ R7182B	06C44652G47	Metal Film	33 ohm 1W
■ R7182A	06C44652G47	Metal Film	33 ohm 1W
■ R7182B	06C44652G47	Metal Film	33 ohm 1W
★ R7182A	06C44652G47	Metal Film	33 ohm 1W
★ R7182B	06C44652G47	Metal Film	33 ohm 1W
▲ R7315A	06T00005L62	Metal Oxide	750 ohm 1W
▲ R7315B	06T00005L62	Metal Oxide	750 ohm 1W
■ R7315A	06T00005L62	Metal Oxide	750 ohm 1W
■ R7315B	06T00005L62	Metal Oxide	750 ohm 1W
★ R7315A	06T00005L62	Metal Oxide	750 ohm 1W
★ R7315B	06T00005L62	Metal Oxide	750 ohm 1W
▲ R7319A	06T00007L61	Metal Oxide	680 ohm 2W
▲ R7319B	06T00007L61	Metal Oxide	680 ohm 2W
■ R7319A	06T00007L61	Metal Oxide	680 ohm 2W
■ R7319B	06T00007L61	Metal Oxide	680 ohm 2W
★ R7319A	06T00007L61	Metal Oxide	680 ohm 2W
★ R7319B	06T00007L61	Metal Oxide	680 ohm 2W
▲ R7320A	06T00007L59	Metal Oxide	560 ohm 2W
▲ R7320B	06T00007L59	Metal Oxide	560 ohm 2W
■ R7320A	06T00007L59	Metal Oxide	560 ohm 2W
■ R7320B	06T00007L59	Metal Oxide	560 ohm 2W
★ R7320A	06T00007L59	Metal Oxide	560 ohm 2W
★ R7320B	06T00007L59	Metal Oxide	560 ohm 2W
<b>Digital/Analog Converter P.C. Board</b>			
<b>IC's</b>			
IC2101	51T67212F01	HD74HC04	
IC2102	51T67211F01	HD74HC00	
IC2103	51T80955F01	74LS86	
IC2104	51T56534F01	M74LS123P	
IC2105	51T80959F01	MC4044	

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▲ : For North American model only (UZ), ■ : For Canadian model only (UO),  
Others : Common

Symbol No.	Part No.	Description
IC2106	51T80958F01	74LS624
IC2107	51T56538F01	M74LS393P
IC2108	51T56532F01	M74LS74
IC2109	51T80959F01	MC4044
IC2110	51T80958F01	74LS624
IC2111	51T56538F01	M74LS393P
IC2112	51T80956F01	74LS112
IC2113	51T81898F01	CXD1076P
IC2114	51T72743F01	SM5802A
IC2115	51T66862F01	HA17555PS
IC2116	51T80956F01	74LS112
IC2117	51T63349F01	M74LS02P
IC2118	51T63349F01	M74LS02P
IC2119	51T80136F01	M5238P
IC2201	51T80950F01	PCM54JP
IC2203	51T67480F01	$\mu$ PD40538C
IC2204	51T80136F01	M5238P
IC2207	51T74544F01	NJM5532DD
IC2208	51T74544F01	NJM5532DD
IC2209	51T74544F01	NJM5532DD
IC2210	51T74544F01	NJM5532DD
IC2211	51T80136F01	M5238P
IC2212	51T61180F02	NJM78L05A
IC2213	51T67538F01	NJM79L05A
<b>Transistors</b>		
Q2101	48T71759F01	2SA1048L
Q2102	48T55181F01	2SC1740
Q2103	48T55181F01	2SC1740
Q2104	48T55181F01	2SC1740
Q2105	48T61054F01	2SC2458
Q2106	48T61054F01	2SC2458
Q2107	48T61054F01	2SC2458
Q2108	48T43526F02	2SA950
Q2109	48T55181F01	2SC1740
Q2201	48T61054F01	2SC2458
Q2202	48T61054F01	2SC2458

Symbol No.	Part No.	Description
<b>Diodes</b>		
D2101	48T44813F01	MA165TA
D2102	48T44813F01	MA165TA
D2106	48T44813F01	MA165TA
D2107	48T44813F01	MA165TA
D2108	48T44813F01	MA165TA
D2201	48T44813F01	MA165TA
D2202	48T44813F01	MA165TA
ZD2101	48T52739F28	Zener, HZ5B-1
<b>Relays</b>		
RL2201	80T73804F02	FBR42NG012-P
RL2202	80T73804F02	FBR42NG012-P
<b>Capacitors</b>		
C2101	23S40657F12	Electrolytic 33 $\mu$ F/16V
C2102	23S40657F12	Electrolytic 33 $\mu$ F/16V
C2103	08T57705F20	Mylar 0.018 $\mu$ F
C2104	08T57705F20	Mylar 0.018 $\mu$ F
C2105	08T52714F17	Ceramic 0.022 $\mu$ F
C2106	08T52714F17	Ceramic 0.022 $\mu$ F
C2107	08T55260F48	Ceramic 820 pF
C2108	08T52714F17	Ceramic 0.022 $\mu$ F
C2109	08T52714F17	Ceramic 0.022 $\mu$ F
C2110	08T52448F09	Polypropylene 680 pF
C2111	08T81196F30	Mica 68 pF
C2112	08T55260F45	Ceramic 470 pF
C2113	08T57705F76	Mylar 0.056 $\mu$ F
C2114	08T55260F57	Ceramic 4700 pF
C2115	08T81196F25	Mica 47 pF
C2116	08T52714F17	Ceramic 0.022 $\mu$ F
C2117	23S40657F10	Electrolytic 10 $\mu$ F/16V
C2118	08T52714F17	Ceramic 0.022 $\mu$ F
C2119	08T52714F17	Ceramic 0.022 $\mu$ F
C2120	23S40657F10	Electrolytic 10 $\mu$ F/16V
C2121	08T55260F49	Ceramic 1000 pF
C2122	08T55260F21	Ceramic 22 pF
C2123	08T55260F53	Ceramic 2200 pF
C2124	08T57851F21	T.F 0.47 $\mu$ F
C2125	08T57705F18	Mylar 0.012 $\mu$ F

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
C2126	23T42478F24	Electrolytic 1 uF/50V	C2220	23T00136L78	Electrolytic 33 uF/63V
C2127	21S41701J30	Ceramic 33 pF	C2221	08T61630F34	Polyethylene 470 pF
C2129	23S40657F10	Electrolytic 10 uF/16V	C2222	08T61630F34	Polyethylene 470 pF
C2130	08T52714F17	Ceramic 0.022 uF	C2223	08T61630F58	Polyethylene 4700 pF
C2131	08T52714F17	Ceramic 0.022 uF	C2224	08T61630F58	Polyethylene 4700 pF
C2132	23S40657F10	Electrolytic 10 uF/16V	C2229	08T00152L17	Polypropylene 4700 pF
C2133	23S40657F10	Electrolytic 10 uF/16V	C2230	08T00152L17	Polypropylene 4700 pF
C2134	23S40657F10	Electrolytic 10 uF/16V	C2231	08T00152L17	Polypropylene 4700 pF
C2135	23S40657F03	Electrolytic 100 uF/6.3V	C2232	08T00152L17	Polypropylene 4700 pF
C2136	08T57851F17	T.F 0.22 uF	C2233	08T00152L17	Polypropylene 4700 pF
C2137	23S40657F08	Electrolytic 100 uF/10V	C2234	08T00152L17	Polypropylene 4700 pF
C2138	23S40657F10	Electrolytic 10 uF/16V	C2235	08T00152L17	Polypropylene 4700 pF
C2139	08T52714F17	Ceramic 0.022 uF	C2236	08T00152L17	Polypropylene 4700 pF
C2140	08T52714F17	Ceramic 0.022 uF	C2237	08T61630F58	Polyethylene 4700 pF
C2142	08T55260F49	Ceramic 1000 pF	C2238	08T61630F58	Polyethylene 4700 pF
C2143	23S40657F10	Electrolytic 10 uF/16V	C2241	08T61630F54	Polyethylene 3300 pF
C2144	23S40657F10	Electrolytic 10 uF/16V	C2242	08T61630F54	Polyethylene 3300 pF
C2145	23S40657F10	Electrolytic 10 uF/16V	C2243	23T73858F08	Electrolytic(B.P) 4.7 uF/25V
C2146	08T52714F17	Ceramic 0.022 uF	C2244	23T73858F08	Electrolytic(B.P) 4.7 uF/25V
C2147	23S40657F04	Electrolytic 220 uF/6.3V			
● C2149	23S40657F08	Electrolytic 100 uF/10V	<b>Resistors</b>		
▲ C2149	23S41198U33	Electrolytic 100 uF/10V	VR2101	18T43733P15	Variable 10K ohm 1/2W
■ C2149	23S41198U33	Electrolytic 100 uF/10V	VR2201	18T43733P20	Variable 100K ohm 1/2W
★ C2149	23S41198U33	Electrolytic 100 uF/10V	<b>Volume P.C. Board</b>		
● C2150	23S40657F03	Electrolytic 100 uF/10V	<b>Resistor</b>		
▲ C2150	23S41198U33	Electrolytic 100 uF/10V	VR4101	18T80738F01	Variable, Control
■ C2150	23S41198U33	Electrolytic 100 uF/10V	<b>Flat Amp P.C. Board</b>		
★ C2150	23S41198U33	Electrolytic 100 uF/10V	<b>IC and Transistors</b>		
● C2151	23S40657F03	Electrolytic 100 uF/10V	IC4501	51T81245F01	M5240
▲ C2151	23S41198U33	Electrolytic 100 uF/10V	Q4501	48T73683F02	2SC1741
■ C2151	23S41198U33	Electrolytic 100 uF/10V	Q4502	48T73683F02	2SC1741
★ C2151	23S41198U33	Electrolytic 100 uF/10V	Q4503	48T73682F02	2SA854
C2201	23T73856F29	Electrolytic 2.2 uF/100V	Q4504	48T73682F02	2SA854
C2202	23T73856F29	Electrolytic 2.2 uF/100V	<b>LED's</b>		
C2203	23T73856F29	Electrolytic 2.2 uF/100V	LD4501	48T60971F01	LTZ-R15
C2204	23T73856F29	Electrolytic 2.2 uF/100V	LD4502	48T60971F01	LTZ-R15
C2205	23T73856F29	Electrolytic 2.2 uF/100V	LD4503	48T60971F01	LTZ-R15
C2206	23T73856F29	Electrolytic 2.2 uF/100V	LD4504	48T60971F01	LTZ-R15
C2215	23T73856F29	Electrolytic 2.2 uF/100V			
C2216	23T73856F29	Electrolytic 2.2 uF/100V			
C2217	23T73856F29	Electrolytic 2.2 uF/100V			
C2218	23T73856F29	Electrolytic 2.2 uF/100V			
C2219	23T00136L78	Electrolytic 33 uF/63V			

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Others : Common



Symbol No.	Part No.	Description	
<b>Capacitors</b>			
C1501	08T57851F13	T.F	0.1 $\mu$ F
C4501	08T81196F34	Mica	100 pF
C4502	08T81196F34	Mica	100 pF
C4505	23T73858F21	Electrolytic(B.P)	1 $\mu$ F/100V
C4506	23T73858F21	Electrolytic(B.P)	1 $\mu$ F/100V
C4507	08T68632F13	Polyester	0.01 $\mu$ F
C4508	08T68632F13	Polyester	0.01 $\mu$ F
C4509	08T81196F14	Mica	22 pF
C4510	08T81196F14	Mica	22 pF
C4511	23T00138L61	Electrolytic	33 $\mu$ F/63V
C4512	23T00138L61	Electrolytic	33 $\mu$ F/63V
<b>Speaker P.C. Board</b>			
<b>IC/Diodes</b>			
IC6101	51T67437F01	IC, TA7317P	
D6101	48S40477U01	IN4003	
D6102	48S40477U01	IN4003	
D6103	48S40477U01	IN4003	
ZD6101	48T52741F43	Zener, HZ12C-1L	
<b>Coils/Relays</b>			
L6101	24T67517F02	Coil, Choke 1.8 $\mu$ H	
L6102	24T67517F02	Coil, Choke 1.8 $\mu$ H	
RL6101	80T70844F01	G5R-2232P-12V	
RL6102	80T70844F01	G5R-2232P-12V	
RL6103	80T73804F02	FBR42NG012-P	
<b>Jacks</b>			
J6101	09T81008F01	Terminal, SP 4P	
J6102	09T81008F01	Terminal, SP 4P	
<b>Capacitors</b>			
C6111	08T57851F13	T.F	0.1 $\mu$ F
C6112	08T57851F13	T.F	0.1 $\mu$ F
C6113	08T57851F13	T.F	0.1 $\mu$ F
C6114	08T57851F13	T.F	0.1 $\mu$ F
C6115	23S40657F13	Electrolytic	47 $\mu$ F/16V

Symbol No.	Part No.	Description	
C6116	23T42477F38	Electrolytic(B.P)	33 $\mu$ F/16V
C6117	23S40657F13	Electrolytic	47 $\mu$ F/16V
C6118	23S40657F27	Electrolytic	0.47 $\mu$ F/50V
C6119	08T57851F01	T.F	0.01 $\mu$ F
C6120	23S40657F08	Electrolytic	100 $\mu$ F/10V
<b>Resistors</b>			
R6105	06T73186F57	Metal Oxide	470 ohm
R6106	06T73186F57	Metal Oxide	470 ohm
R6109	06T73186F17	Metal Oxide	10 ohm 2W
R6110	06T73186F17	Metal Oxide	10 ohm 2W
R6111	06T73186F17	Metal Oxide	10 ohm 2W
R6112	06T73186F17	Metal Oxide	10 ohm 2W
R6124	06T73184F47	Metal Oxide	100 ohm 1W
R6125	06T73184F47	Metal Oxide	100 ohm 1W
<b>Power Transistor P.C. Board</b>			
<b>IC's</b>			
▲	IC7601A	51T82397F01	PS2403
▲	IC7601B	51T82397F01	PS2403
★	IC7601A	51T82397F01	PS2403
★	IC7601B	51T82397F01	PS2403
■	IC7601A	51T82397F01	PS2403
■	IC7601B	51T82397F01	PS2403
<b>Transistors</b>			
▲	Q7601A	48T60556F01	2SA1306
▲	Q7601B	48T60556F01	2SA1306
■	Q7601A	48T60556F01	2SA1306
■	Q7601B	48T60556F01	2SA1306
★	Q7601A	48T60556F01	2SA1306
★	Q7601B	48T60556F01	2SA1306
▲	Q7602A	48T60556F01	2SA1306
▲	Q7602B	48T60556F01	2SA1306
■	Q7602A	48T60556F01	2SA1306
■	Q7602B	48T60556F01	2SA1306
★	Q7602A	48T60556F01	2SA1306
★	Q7602B	48T60556F01	2SA1306
▲	Q7603A	48T60555F01	2SC3298
▲	Q7603B	48T60555F01	2SC3298
■	Q7603A	48T60555F01	2SC3298
■	Q7603B	48T60555F01	2SC3298
★	Q7603A	48T60555F01	2SC3298
★	Q7603B	48T60555F01	2SC3298

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Others : Common

Symbol No.	Part No.	Description
▲ Q7604A	48T60555F01	2SC3298
▲ Q7604B	48T60555F01	2SC3298
■ Q7604A	48T60555F01	2SC3298
■ Q7604B	48T60555F01	2SC3298
★ Q7604A	48T60555F01	2SC3298
★ Q7604B	48T60555F01	2SC3298
<b>Diodes</b>		
D7601A	48T80985F03	31DF2FA
D7601B	48T80985F03	31DF2FA
D7602A	48T80985F03	31DF2FA
D7602B	48T80985F03	31DF2FA
<b>Capacitors</b>		
C7601A	23T00138L72	Electrolytic 1 $\mu$ F/100V
C7601B	23T00138L72	Electrolytic 1 $\mu$ F/100V
C7602A	23T00138L72	Electrolytic 1 $\mu$ F/100V
C7602B	23T00138L72	Electrolytic 1 $\mu$ F/100V
▲ C7603A	08T50579F25	T.F 1 $\mu$ F
▲ C7603B	08T50579F25	T.F 1 $\mu$ F
■ C7603A	08T50579F25	T.F 1 $\mu$ F
■ C7603B	08T50579F25	T.F 1 $\mu$ F
★ C7603A	08T50579F25	T.F 1 $\mu$ F
★ C7603B	08T50579F25	T.F 1 $\mu$ F
<b>Resistors</b>		
R7605A	06T69013F41	Fuse 100 ohm 1/4W
R7605B	06T69013F41	Fuse 100 ohm 1/4W
R7606A	06T69013F35	Fuse 56 ohm 1/4W
R7606B	06T69013F35	Fuse 56 ohm 1/4W
● VR7601A	18C41732G07	Variable 1K ohm-B
● VR7601B	18C41732G07	Variable 1K ohm-B
■ VR7601A	18C41732G03	Variable 4.7K ohm-B
■ VR7601B	18C41732G03	Variable 4.7K ohm-B
▲ VR7601A	18C41732G03	Variable 4.7K ohm-B
▲ VR7601B	18C41732G03	Variable 4.7K ohm-B
★ VR7601A	18C41732G03	Variable 4.7K ohm-B
★ VR7601B	18C41732G03	Variable 4.7K ohm-B

Symbol No.	Part No.	Description
▲ VR7602A	18C41732G07	Variable 1K ohm-B
▲ VR7602B	18C41732G07	Variable 1K ohm-B
■ VR7602A	18C41732G07	Variable 1K ohm-B
■ VR7602B	18C41732G07	Variable 1K ohm-B
★ VR7602A	18C41732G07	Variable 1K ohm-B
★ VR7602B	18C41732G07	Variable 1K ohm-B
<b>Bias P.C. Board</b>		
<b>Transistors</b>		
● Q7901A	48T82194F01	2SA1319
● Q7901B	48T82194F01	2SA1319
● Q7902A	48T82195F01	2SC3332
● Q7902B	48T82195F01	2SC3332
<b>Capacitors</b>		
● C7901A	08T50579F05	T.F 0.022 $\mu$ F
● C7901B	08T50579F05	T.F 0.022 $\mu$ F
● C7902A	08T50579F05	T.F 0.022 $\mu$ F
● C7902B	08T50579F05	T.F 0.022 $\mu$ F
<b>Resistors</b>		
● VR7901A	18C41732G18	Variable 2.2K ohm-B
● VR7901B	18C41732G18	Variable 2.2K ohm-B
<b>Input P.C. Board</b>		
<b>IC's</b>		
IC8101	51T80864F01	CX-770
IC8102	51T80864F01	CX-770
IC8103	51T80864F01	CX-770
IC8104	51T80864F01	CX-770
<b>Diodes</b>		
D8101	48T58583F01	SS176
D8102	48T58583F01	SS176
D8103	48T58583F01	SS176
D8104	48T58583F01	SS176
D8105	48T58583F01	SS176
D8106	48T58583F01	SS176
D8107	48T58583F01	SS176
D8108	48T58583F01	SS176
D8109	48T58583F01	SS176
D8110	48T58583F01	SS176

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Others : Common

Symbol No.	Part No.	Description	
<b>Jacks</b>			
J8101	09T80741F01	Plate, Phono 4P T6027	
J8102	09T80740F01	Plate, Phono 4P T6027	
J8103	09T80740F01	Plate, Phono 4P T6027	
J8104	09T80740F01	Plate, Phono 4P T6027	
J8105	09T80742F01	Plate, Phono 6P T6087	
J8106	09T80741F01	Plate, Phono 4P T6027	
<b>Capacitors</b>			
C8101	23T42478F24	Electrolytic	1 $\mu$ F/50V
C8102	23T42478F24	Electrolytic	1 $\mu$ F/50V
C8103	23T42478F24	Electrolytic	1 $\mu$ F/50V
C8104	23T42478F24	Electrolytic	1 $\mu$ F/50V
C8105	23T42478F24	Electrolytic	1 $\mu$ F/50V
C8106	23T42478F24	Electrolytic	1 $\mu$ F/50V
C8107	23T42478F24	Electrolytic	1 $\mu$ F/50V
C8108	23T42478F24	Electrolytic	1 $\mu$ F/50V
C8109	23T42478F24	Electrolytic	1 $\mu$ F/50V
C8110	23T42478F24	Electrolytic	1 $\mu$ F/50V
C8111	23T42478F24	Electrolytic	1 $\mu$ F/50V
C8112	23T42478F24	Electrolytic	1 $\mu$ F/50V
C8119	23T42478F24	Electrolytic	1 $\mu$ F/50V
C8120	23T42478F24	Electrolytic	1 $\mu$ F/50V
C8124	08T57851F13	T.F	0.1 $\mu$ F
C8131	08T57851F13	T.F	0.1 $\mu$ F
C8132	08T57851F13	T.F	0.1 $\mu$ F
C8133	08T57851F13	T.F	0.1 $\mu$ F
C8134	08T57851F13	T.F	0.1 $\mu$ F
C8135	08T57851F13	T.F	0.1 $\mu$ F
C8136	08T57851F13	T.F	0.1 $\mu$ F
C8137	08T57851F13	T.F	0.1 $\mu$ F
C8138	08T57851F13	T.F	0.1 $\mu$ F
C8139	08T57851F13	T.F	0.1 $\mu$ F
C8140	08T57851F13	T.F	0.1 $\mu$ F
C8141	08T57851F13	T.F	0.1 $\mu$ F
<b>Function P.C. Board</b>			
<b>IC's</b>			
IC8201	51T80136F01	M5238P	
IC8202	51T80136F01	M5238P	

Symbol No.	Part No.	Description	
<b>Switches</b>			
S8201	40T80727F01	Push SPEC61 (FUNCTION)	
S8202	40T80734F01	Push SPEC12 (FRONT-REAR)	
S8203	40T80735F01	Push SPEC22 (MUTING, LOUDNESS)	
S8204	40T80731F01	Push SPEC12 (DEG-DIRECT)	
S8205	40T80732F01	Push SPEC22 (DIGITAL 1/2)	
S8206	40T80733F01	Push SPEC21 (MONO, ADAPTER)	
S8207	40T80731F01	Push SPEC12 (FUNCTION-ST)	
<b>Lamps</b>			
PL8201	65T70299F05	Pilot, 40mA-16V	
PL8202	65T70299F04	Pilot, 40mA-16V	
<b>Capacitors</b>			
C8201	08T68632F19	Polyester	0.033 $\mu$ F
C8202	08T68632F19	Polyester	0.033 $\mu$ F
C8203	08T52448F05	Polypropylene	470 pF
C8204	08T52448F05	Polypropylene	470 pF
C8207	08T52448F81	Polypropylene	100 pF
C8208	08T52448F81	Polypropylene	100 pF
C8213	08T68632F13	Polyester	0.01 $\mu$ F
C8214	08T68632F13	Polyester	0.01 $\mu$ F
C8215	08T68632F24	Polyester	0.082 $\mu$ F
C8216	08T68632F24	Polyester	0.082 $\mu$ F
C8217	23T71210F23	Electrolytic(B.P)	1 $\mu$ F/50V
C8218	23T71210F23	Electrolytic(B.P)	1 $\mu$ F/50V
C8219	08T68632F07	Polyester	3300 pF
C8220	08T68632F07	Polyester	3300 pF
C8221	23T00134L30	Electrolytic	47 $\mu$ F/16V
C8222	23T00134L30	Electrolytic	47 $\mu$ F/16V
C8251	23T43247F09	Electrolytic	10 $\mu$ F/16V
<b>Resistors</b>			
VR8201	18T80739F01	Variable, Balance	
VR8202	18T80737F01	Variable, Control Tone	
VR8203	18T80737F01	Variable, Control Tone	

Symbol No.	Part No.	Description
<b>Dubbing P.C. Board</b>		
<b>Switches</b>		
S8301	40T80728F01	Push SPEC54 (A-E)
S8302	40T80729F01	Push SPEC31 (A,B,C)
S8303	40T80730F01	Push SPEC21 (A, B)
<b>Lamps</b>		
PL8301	65T70299F04	Pilot, 40mA-16V
PL8302	65T70299F04	Pilot, 40mA-16V
PL8303	65T70299F04	Pilot, 40mA-16V
<b>Function LED P.C. Board</b>		
<b>LED's</b>		
LD8501	48T66616F02	SLR-54VR3 (RED)
LD8502	48T66616F02	SLR-54VR3 (RED)
LD8503	48T66616F02	SLR-54VR3 (RED)
LD8504	48T66616F02	SLR-54VR3 (RED)
LD8505	48T66616F02	SLR-54VR3 (RED)
LD8506	48T66616F02	SLR-54VR3 (RED)
<b>Tape LED P.C. Board</b>		
<b>LED's</b>		
LD8601	48T74519F06	PR3668S (RED)
LD8602	48T74519F06	PR3668S (RED)
LD8603	48T74519F06	PR3668S (RED)
LD8604	48T74519F06	PR3668S (RED)
LD8605	48T74519F06	PR3668S (RED)
LD8606	48T74519F06	PR3668S (RED)
<b>Digital 1, 2 LED P.C. Board</b>		
<b>LED's</b>		
LD8701	48T74519F06	PR3668S (RED)
LD8702	48T74519F06	PR3668S (RED)

Symbol No.	Part No.	Description
<b>Audio/Video Input P.C. Board</b>		
<b>IC's</b>		
IC9101	51T80995F01	M51320P
IC9102	51T80995F01	M51320P
IC9103	51T80995F01	M51320P
IC9104	51T80996F01	M51321P
<b>Jacks</b>		
J9102	09T80743F01	Plate, Phono 2P T5882
J9103	09T80743F01	Plate, Phono 2P T5882
J9104	09T80743F01	Plate, Phono 2P T5882
<b>Capacitors</b>		
C9101	23S40657F10	Electrolytic 10 uF/16V
C9102	23S40657F10	Electrolytic 10 uF/16V
C9103	23T68328F06	Electrolytic 470 uF/10V
C9105	23T68328F06	Electrolytic 470 uF/10V
C9106	23T68328F06	Electrolytic 470 uF/10V
C9107	23S40657F10	Electrolytic 10 uF/16V
C9108	23S40657F10	Electrolytic 10 uF/16V
C9110	08S40656F25	Mylar 0.1 uF
C9111	23S40657F10	Electrolytic 10 uF/16V
C9112	08S40656F25	Mylar 0.1 uF
C9113	23S40657F10	Electrolytic 10 uF/16V
C9114	08S40656F25	Mylar 0.1 uF
C9115	23S40657F10	Electrolytic 10 uF/16V
C9116	08S40656F25	Mylar 0.1 uF
C9117	08S40656F25	Mylar 0.1 uF
C9118	23S40657F10	Electrolytic 10 uF/16V
C9119	23S40657F10	Electrolytic 10 uF/16V
C9120	23S40657F10	Electrolytic 10 uF/16V
C9121	23S40657F10	Electrolytic 10 uF/16V
C9123	23S40657F10	Electrolytic 10 uF/16V
C9124	23S40657F10	Electrolytic 10 uF/16V
C9127	23S40657F10	Electrolytic 10 uF/16V
C9128	23S40657F10	Electrolytic 10 uF/16V
<b>Front Audio/Video P.C. Board</b>		
<b>Jacks</b>		
J9201	09T80329F01	Phono, T-6025F
J9202	09T80329F01	Phono, T-6025F
J9203	09T80329F01	Phono, T-6025F

Symbol No.	Part No.	Description
<b>Miscellaneous</b>		
	C1	08T57437F09 Capacitor, Ceramic 0.01 $\mu$ F
	C2	23T80993F01 Capacitor Electrolytic 10000 $\mu$ F/50V
	C3	23T80993F02 Capacitor, Electrolytic 10000 $\mu$ F/50V
●	C4	08T57437F09 Capacitor, Ceramic 0.01 $\mu$ F
▲	C4	08T57437F11 Capacitor, Ceramic 0.01 $\mu$ F
■	C4	08T57437F11 Capacitor, Ceramic 0.01 $\mu$ F
●	C2001	08T42629F13 Capacitor, Mylar 4700 pF
▲	C2191	21C45322G33 Capacitor, Ceramic 0.047 $\mu$ F
★	C2191	21C45322G33 Capacitor, Ceramic 0.047 $\mu$ F
■	C2191	21C45322G33 Capacitor, Ceramic 0.047 $\mu$ F
▲	C2192	21C45322G33 Capacitor, Ceramic 0.047 $\mu$ F
★	C2192	21C45322G33 Capacitor, Ceramic 0.047 $\mu$ F
■	C2192	21C45322G33 Capacitor, Ceramic 0.047 $\mu$ F
	D1401	48T80987F01 Diode, FMG22S
	D1402	48T80987F01 Diode, FMG22S
	D1403	48T80987F02 Diode, FMG22R
	D1404	48T80987F02 Diode, FMG22R
●	F1201	65T55050F26 Fuse, MF60NR 15A
▲	F1201	65T65292F01 Fuse, GGL (10A-125V)
★	F1201	65T42077U22 Fuse, Semko 4A
■	F1201	65T82647F01 Fuse, GGL (10A-125V)
●	J1	09T68841F03 Outlet, AC M7034
▲	J1	09T68841F03 Outlet, AC M7034
■	J1	09T68841F03 Outlet, AC M7034
★	J2	09T51831F01 Socket, Switch M-1615
	J2101	09T70753F05 Jack, RCA
	J8401	09T56010F02 Jack, Headphone M1669
●	P1	28T81592F01 Plug, AC Cord
▲	P1	28T66838F01 Plug, AC Cord
★	P1	28T65151F02 Plug, AC Cord
■	P1	28T66838F01 Plug, AC Cord
★	P2	09T51830F01 Plug, Switch P-2120
	Q7518A	48T64376F01 Transistor, 2SC2423
	Q7518B	48T64376F01 Transistor, 2SC2423
	Q7519A	48T60533F01 Transistor, 2SC3281
	Q7519B	48T60533F01 Transistor, 2SC3281
	Q7520A	48T60533F01 Transistor, 2SC3281
	Q7520B	48T60533F01 Transistor, 2SC3281
	Q7521A	48T80989F01 FET, 2SK173
	Q7521B	48T80989F01 FET, 2SK173
	Q7522A	48T80988F01 FET, 2SJ54
	Q7522B	48T80988F01 FET, 2SJ54

Symbol No.	Part No.	Description
	Q7523A	48T60534F01 Transistor, 2SA1302
	Q7523B	48T60534F01 Transistor, 2SA1302
	Q7524A	48T60534F01 Transistor, 2SA1302
	Q7524B	48T60534F01 Transistor, 2SA1302
	Q7525A	48T64375F01 Transistor, 2SA1360
	Q7525B	48T64375F01 Transistor, 2SA1360
	S1	40T80736F01 Switch, Push SDDZB1
●	T1	25T80992F01 Transformer, Power
▲	T1	25T80992F02 Transformer, Power
★	T1	25T80992F03 Transformer, Power
■	T1	25T80992F02 Transformer, Power
▲	T2101	24T82650F01 Pulse, Transformer
★	T2101	24T82650F01 Pulse, Transformer
■	T2101	24T82650F01 Pulse, Transformer
▲	T2102	24T82650F01 Pulse, Transformer
★	T2102	24T82650F01 Pulse, Transformer
■	T2102	24T82650F01 Pulse, Transformer

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),

▲ : For North American model only (UZ), ■ : For Canadian model only (UO),

Others : Common

## Parts List by the Destination

Symbol No.	Description	POWER SOURCE		
		JA ●	UZ ▲/UQ ■	EK ★
		100V	120V	220V
		Japanese	North American/ Canadian	No Safety Regulations Version
C4	Capacitor	08T57437F09	08T57437F11	Not Used
C2001	Capacitor	08T42629F13	Not Used	Not Used
C2149	Capacitor	23S40657F08	23S41198U33	23S41198U33
C2150	Capacitor	23S40657F08	23S41198U33	23S41198U33
C2151	Capacitor	23S40657F08	23S41198U33	23S41198U33
C2191	Capacitor	Not Used	21C45332G33	21C45332G33
C2192	Capacitor	Not Used	21C45332G33	21C45332G33
C7107A	Capacitor	08T81196F40	08T81196F42	08T81196F42
C7107B	Capacitor	08T81196F40	08T81196F42	08T81196F42
C7110A	Capacitor	08T81196F25	08T81196F32	08T81196F32
C7110B	Capacitor	08T81196F25	08T81196F32	08T81196F32
C7113A	Capacitor	08T81196F30	08T81196F19	08T81196F19
C7113B	Capacitor	08T81196F30	08T81196F19	08T81196F19
C7116A	Capacitor	08T81196F30	08T81196F19	08T81196F19
C7116B	Capacitor	08T81196F30	08T81196F19	08T81196F19
C7117A	Capacitor	08T68632F01	Not Used	Not Used
C7117B	Capacitor	08T68632F01	Not Used	Not Used
C7118A	Capacitor	08T68632F01	Not Used	Not Used
C7118B	Capacitor	08T68632F01	Not Used	Not Used
C7119A	Capacitor	08T57851F13	Not Used	Not Used
C7119B	Capacitor	08T57851F13	Not Used	Not Used
C7120A	Capacitor	08T57851F13	Not Used	Not Used
C7120B	Capacitor	08T57851F13	Not Used	Not Used
C7121A	Capacitor	08T57851F13	Not Used	Not Used
C7121B	Capacitor	08T57851F13	Not Used	Not Used
C7124A	Capacitor	08T00152L05	08T00152L06	08T00152L06
C7124B	Capacitor	08T00152L05	08T00152L06	08T00152L06
C7129A	Capacitor	08T57851F17	Not Used	Not Used
C7129B	Capacitor	08T57851F17	Not Used	Not Used
C7130A	Capacitor	08T57851F17	08T61642F04	08T61642F04
C7130B	Capacitor	08T57851F17	08T61642F04	08T61642F04
C7131A	Capacitor	Not Used	08T61642F04	08T61642F04
C7131B	Capacitor	Not Used	08T61642F04	08T61642F04
C7135A	Capacitor	Not Used	23T00138L78	23T00138L78
C7135B	Capacitor	Not Used	23T00138L78	23T00138L78
C7136A	Capacitor	Not Used	23T00138L78	23T00138L78
C7136B	Capacitor	Not Used	23T00138L78	23T00138L78
C7301A	Capacitor	Not Used	08T50579F25	08T50579F25
C7301B	Capacitor	Not Used	08T50579F25	08T50579F25
C7302A	Capacitor	Not Used	23T42477F11	23T42477F11
C7302B	Capacitor	Not Used	23T42477F11	23T42477F11

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),

▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),

Others : Common

Symbol No.	Description	POWER SOURCE		
		JA ●	UZ ▲/UQ ■	EK ★
		100V	120V	220V
		Japanese	North American/ Canadian	No Safety Regulations Version
C7303A	Capacitor	Not Used	08T61939F11	08T61939F11
C7303B	Capacitor	Not Used	08T61939F11	08T61939F11
C7304A	Capacitor	Not Used	08T61939F27	08T61939F27
C7304B	Capacitor	Not Used	08T61939F27	08T61939F27
C7305A	Capacitor	Not Used	23T00138L46	23T00138L46
C7305B	Capacitor	Not Used	23T00138L46	23T00138L46
C7306A	Capacitor	Not Used	23T00138L46	23T00138L46
C7306B	Capacitor	Not Used	23T00138L46	23T00138L46
C7307A	Capacitor	Not Used	23T42477F11	23T42477F11
C7307B	Capacitor	Not Used	23T42477F11	23T42477F11
C7308A	Capacitor	Not Used	23T00138L49	23T00138L49
C7308B	Capacitor	Not Used	23T00138L49	23T00138L49
C7309A	Capacitor	Not Used	23T00138L46	23T00138L46
C7309B	Capacitor	Not Used	23T00138L46	23T00138L46
C7310A	Capacitor	Not Used	23T00138L46	23T00138L46
C7310B	Capacitor	Not Used	23T00138L46	23T00138L46
C7311A	Capacitor	Not Used	23T00138L49	23T00138L49
C7311B	Capacitor	Not Used	23T00138L49	23T00138L49
C7312A	Capacitor	Not Used	08T81196F34	08T81196F34
C7312B	Capacitor	Not Used	08T81196F34	08T81196F34
C7603A	Capacitor	Not Used	08T50579F25	08T50579F25
C7603B	Capacitor	Not Used	08T50579F25	08T50579F25
C7901A	Capacitor	08T50579F05	Not Used	Not Used
C7901B	Capacitor	08T50579F05	Not Used	Not Used
C7902A	Capacitor	08T50579F05	Not Used	Not Used
C7902B	Capacitor	08T50579F05	Not Used	Not Used
D7106A	Diode	48T68764F01	Not Used	Not Used
D7106B	Diode	48T68764F01	Not Used	Not Used
D7107A	Diode	48T68764F01	Not Used	Not Used
D7107B	Diode	48T68764F01	Not Used	Not Used
D7108A	Diode	48T68764F01	Not Used	Not Used
D7108B	Diode	48T68764F01	Not Used	Not Used
D7109A	Diode	48T68764F01	Not Used	Not Used
D7109B	Diode	48T68764F01	Not Used	Not Used
D7110A	Diode	48T68764F01	Not Used	Not Used
D7110B	Diode	48T68764F01	Not Used	Not Used
D7111A	Diode	48T68764F01	Not Used	Not Used
D7111B	Diode	48T68764F01	Not Used	Not Used
D7112A	Diode	48T68764F01	Not Used	Not Used
D7112B	Diode	48T68764F01	Not Used	Not Used
D7113A	Diode	48T68764F01	Not Used	Not Used
D7113B	Diode	48T68764F01	Not Used	Not Used

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),

▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),

Others : Common

Symbol No.	Description	POWER SOURCE		
		JA ●	UZ ▲/UQ ■	EK ★
		100V	120V	220V
		Japanese	North American/ Canadian	No Safety Regulations Version
D7114A	Diode	48T68764F01	Not Used	Not Used
D7114B	Diode	48T68764F01	Not Used	Not Used
D7115A	Diode	48T68764F01	Not Used	Not Used
D7115B	Diode	48T68764F01	Not Used	Not Used
D7301A	Diode	Not Used	48T68764F01	48T68764F01
D7301B	Diode	Not Used	48T68764F01	48T68764F01
D7302A	Diode	Not Used	48T68764F01	48T68764F01
D7302B	Diode	Not Used	48T68764F01	48T68764F01
D7303A	Diode	Not Used	48T68764F01	48T68764F01
D7303B	Diode	Not Used	48T68764F01	48T68764F01
D7304A	Diode	Not Used	48T68764F01	48T68764F01
D7304B	Diode	Not Used	48T68764F01	48T68764F01
D7305A	Diode	Not Used	48S40477U01	48S40477U01
D7305B	Diode	Not Used	48S40477U01	48S40477U01
F1102	Fuse	Not Used	65T66926F14	65T42077U13
F1103	Fuse	Not Used	65T66926F14	65T42077U13
F1104	Fuse	Not Used	65T66926F13	65T42077U13
F1105	Fuse	Not Used	65T66926F13	65T42077U13
F1106	Fuse	Not Used	65T66926F13	65T42077U13
F1107	Fuse	Not Used	65T66926F13	65T42077U13
F1201	Fuse	65T55050F26	65T65292F01	65T42077U22
IC7102A	IC	Not Used	51T82397F01	51T82397F01
IC7102B	IC	Not Used	51T82397F01	51T82397F01
IC7301A	IC	Not Used	51T82394F01	51T82394F01
IC7301B	IC	Not Used	51T82394F01	51T82394F01
IC7302A	IC	Not Used	51T82395F01	51T82395F01
IC7302B	IC	Not Used	51T82395F01	51T82395F01
IC7303A	IC	Not Used	51T82403F01	51T82403F01
IC7303B	IC	Not Used	51T82403F01	51T82403F01
IC7304A	IC	Not Used	51T82403F01	51T82403F01
IC7304B	IC	Not Used	51T82403F01	51T82403F01
IC7601A	IC	Not Used	51T82397F01	51T82397F01
IC7601B	IC	Not Used	51T82397F01	51T82397F01
J1	Outlet, AC	09T68841F03	09T68841F03	Not Used
J2	Socket	Not Used	Not Used	09T51831F01
P1	Plug, AC Cord	28T81592F01	28T66838F01	28T65151F02
P2	Plug, Switch	Not Used	Not Used	09T51830F01
Q1303A	Transistor	48T80986F01	48T82195F01	48T82195F01
Q1303B	Transistor	48T80986F01	48T82195F01	48T82195F01

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),

▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),

Others : Common



Symbol No.	Description	POWER SOURCE		
		JA ●	UZ ▲/UQ ■	EK ★
		100V	120V	220V
		Japanese	North American/ Canadian	No Safety Regulations Version
Q1304A	Transistor	48T71760F01	48T82194F01	48T82194F01
Q1304B	Transistor	48T71760F01	48T82194F01	48T82194F01
Q1307A	Transistor	48T71760F01	48T82194F01	48T82194F01
Q1307B	Transistor	48T71760F01	48T82194F01	48T82194F01
Q1308A	Transistor	48T71760F01	48T82194F01	48T82194F01
Q1308B	Transistor	48T71760F01	48T82194F01	48T82194F01
Q1309A	Transistor	48T80986F01	48T82195F01	48T82195F01
Q1309B	Transistor	48T80986F01	48T82195F01	48T82195F01
Q1310A	Transistor	48T80986F01	48T82195F01	48T82195F01
Q1310B	Transistor	48T80986F01	48T82195F01	48T82195F01
Q7101A'	Transistor, FET	Not Used	48T71752F01	48T71752F01
Q7101B'	Transistor, FET	Not Used	48T71752F01	48T71752F01
Q7110A	Transistor	48T82194F01	Not Used	Not Used
Q7110B	Transistor	48T82194F01	Not Used	Not Used
Q7111A	Transistor	48T82194F01	Not Used	Not Used
Q7111B	Transistor	48T82194F01	Not Used	Not Used
Q7112A	Transistor	48T72888F01	48T82194F01	48T82194F01
Q7112B	Transistor	48T72888F01	48T82194F01	48T82194F01
Q7113A	Transistor	48T72888F01	Not Used	Not Used
Q7113B	Transistor	48T72888F01	Not Used	Not Used
Q7114A	Transistor	48T72889F01	Not Used	Not Used
Q7114B	Transistor	48T72889F01	Not Used	Not Used
Q7115A	Transistor	48T72889F01	48T82195F01	48T82195F01
Q7115B	Transistor	48T72889F01	48T82195F01	48T82195F01
Q7116A	Transistor	48T82195F01	Not Used	Not Used
Q7116B	Transistor	48T82195F01	Not Used	Not Used
Q7117A	Transistor	48T82195F01	Not Used	Not Used
Q7117B	Transistor	48T82195F01	Not Used	Not Used
Q7118A	Transistor	48T80986F01	48T82195F01	48T82195F01
Q7118B	Transistor	48T80986F01	48T82195F01	48T82195F01
Q7119A	Transistor	48T71760F01	48T82194F01	48T82194F01
Q7119B	Transistor	48T71760F01	48T82194F01	48T82194F01
Q7120A	Transistor	48T80986F01	48T82195F01	48T82195F01
Q7120B	Transistor	48T80986F01	48T82195F01	48T82195F01
Q7121A	Transistor	48T71760F01	48T82194F01	48T82194F01
Q7121B	Transistor	48T71760F01	48T82194F01	48T82194F01
Q7301A	Transistor	Not Used	48T82194F01	48T82194F01
Q7301B	Transistor	Not Used	48T82194F01	48T82194F01
Q7302A	Transistor	Not Used	48T82195F01	48T82195F01
Q7302B	Transistor	Not Used	48T82195F01	48T82195F01
Q7303A	Transistor	Not Used	48T82195F01	48T82195F01
Q7303B	Transistor	Not Used	48T82195F01	48T82195F01

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),

▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),

Others : Common

Symbol No.	Description	POWER SOURCE		
		JA ●	UZ ▲/UQ ■	EK ★
		100V	120V	220V
		Japanese	North American/ Canadian	No Safety Regulations Version
Q7601A	Transistor	Not Used	48T60556F01	48T60556F01
Q7601B	Transistor	Not Used	48T60556F01	48T60556F01
Q7602A	Transistor	Not Used	48T60556F01	48T60556F01
Q7602B	Transistor	Not Used	48T60556F01	48T60556F01
Q7603A	Transistor	Not Used	48T60555F01	48T60555F01
Q7603B	Transistor	Not Used	48T60555F01	48T60555F01
Q7604A	Transistor	Not Used	48T60555F01	48T60555F01
Q7604B	Transistor	Not Used	48T60555F01	48T60555F01
Q7901A	Transistor	48T82194F01	Not Used	Not Used
Q7901B	Transistor	48T82194F01	Not Used	Not Used
Q7902A	Transistor	48T82195F01	Not Used	Not Used
Q7902B	Transistor	48T82195F01	Not Used	Not Used
R7143A	Resistor	06T00005L48	06T00005L37	06T00005L37
R7143B	Resistor	06T00005L48	06T00005L37	06T00005L37
R7144A	Resistor	06T00005L48	06T00005L37	06T00005L37
R7144B	Resistor	06T00005L48	06T00005L37	06T00005L37
R7179A	Resistor	06T00005L57	Not Used	Not Used
R7179B	Resistor	06T00005L57	Not Used	Not Used
R7180A	Resistor	06T00005L57		
R7180B	Resistor	06T00005L57		
R7181A	Resistor	Not Used	06C44652G47	06C44652G47
R7181B	Resistor	Not Used	06C44652G47	06C44652G47
R7182A	Resistor	Not Used	06C44652G47	06C44652G47
R7182B	Resistor	Not Used	06C44652G47	06C44652G47
R7315A	Resistor	Not Used	06T00005L62	06T00005L62
R7315B	Resistor	Not Used	06T00005L62	06T00005L62
R7319A	Resistor	Not Used	06T00007L61	06T00007L61
R7319B	Resistor	Not Used	06T00007L61	06T00007L61
R7320A	Resistor	Not Used	06T00007L59	06T00007L59
R7320B	Resistor	Not Used	06T00007L59	06T00007L59
T1	Trans, Power	25T80992F01	25T80992F02	25T80992F03
T2101	Pulse, Trans	Not Used	24T82650F01	24T82650F01
T2102	Pulse, Trans	Not Used	24T82650F01	24T82650F01
VR7601A	Resistor	18C41732G07	18C41732G03	18C41732G03
VR7601B	Resistor	18C41732G07	18C41732G03	18C41732G03
VR7602A	Resistor	Not Used	18C41732G07	18C41732G07
VR7602B	Resistor	Not Used	18C41732G07	18C41732G07
VR7901A	Resistor, Variable	18C41732G18	Not Used	Not Used
VR7901B	Resistor, Variable	18C41732G18	Not Used	Not Used

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),

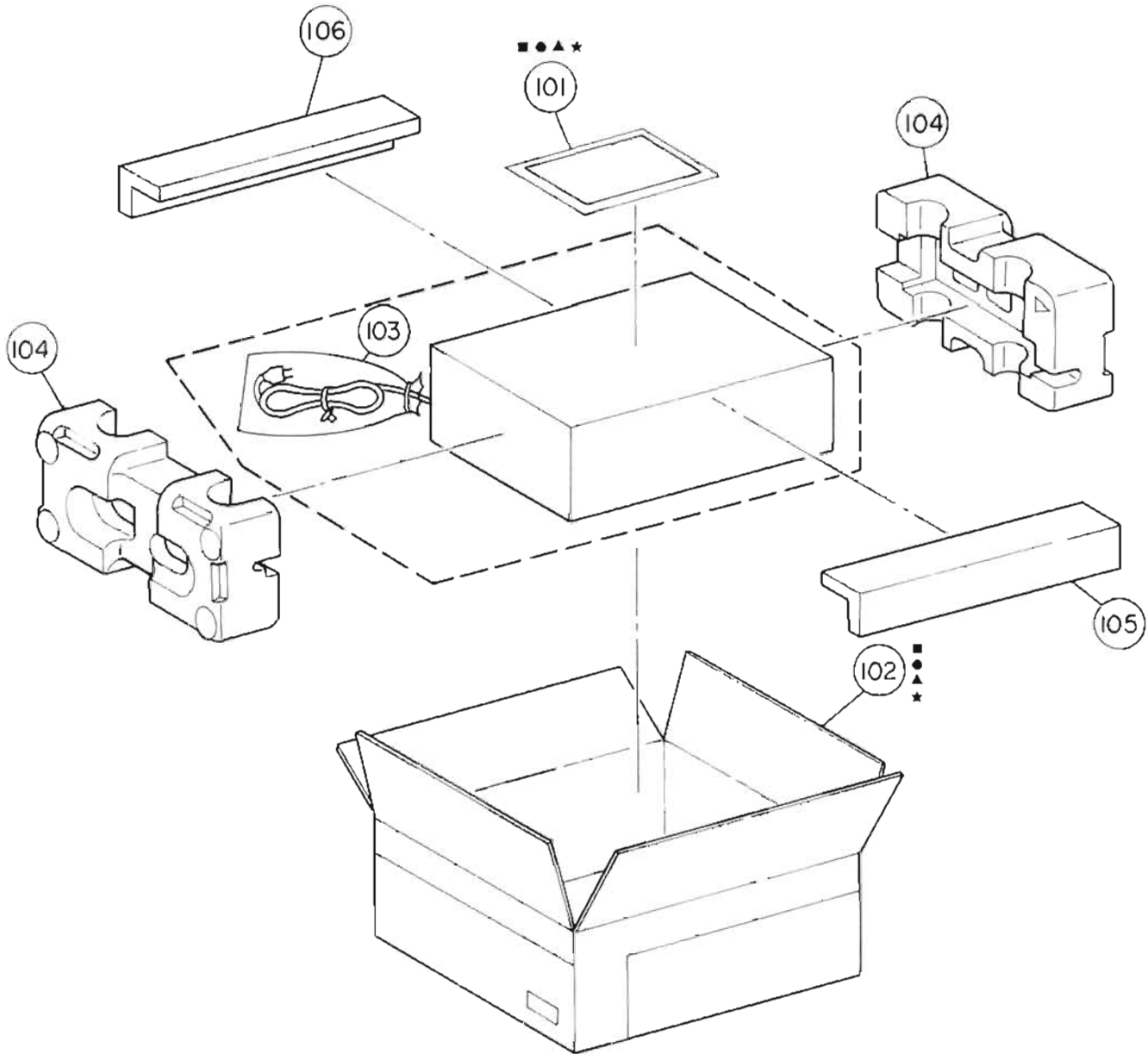
▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),

Others : Common

Symbol No.	Description	POWER SOURCE		
		JA ●	UZ ▲/UQ ■	EK ★
		100V	120V	220V
		Japanese	North American/ Canadian	No. Safety Regulations Version
ZD7015A	Diode, Zener	Not Used	48T52741F15	48T52741F15
ZD7105B	Diode, Zener	Not Used	48T52741F15	48T52741F15
ZD7110A	Diode, Zener	48T40150U58	Not Used	Not Used
ZD7110B	Diode, Zener	48T40150U58	Not Used	Not Used
1	Assembly, Front Panel	01V81400F15	01V83200F06	01V83200F06
25	Cover, Rear	15D80716F01	15D80716F03	15D80716F02
26	Stopper, Cord	43B41625J05	43B41625J05	43B41625J02
53	Insulator, Rubber	14T81863F02	Not Used	Not Used
54	Insulator, Rubber	14T81863F01	Not Used	Not Used
70	Holder, Fuse	09T51960F01	09T51960F01	Not Used
88	Cushion, Rubber	Not Used	75S72374F73	75S72374F73
89	Holder, Fuse	Not Used	09T51410F01	09T51410F01
90	Label, Fuse	Not Used	54B62266F28	54B62266F31
91	Label, Fuse	Not Used	54B62266F49	Not Used
92	Bushing	Not Used	43T45472F01	43T45472F01
94	Label, Fuse	Not Used	54B62266F39	54B62266F30
95	Cover, V-Sele	Not Used	Not Used	15A82362F01
96	Screw, Tapping	Not Used	Not Used	03S63857F29
97	Assembly, Bias P.C. Board	01V83300F44	Not Used	Not Used
98	Lug, Wrap Around	Not Used	29C41045P05	29C41045P05
101	Owners, Manual	68P80130F84	Not Used	68P81707F25
101	Assembly, Pamphlet	Not Used	01V83200F08 (▲) 01V83700F51 (■)	Not Used
102	Carton, Packing	56S71001F71	56S71001F83	56S71001F83

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),  
▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),  
Others : Common

## Packing Method View



## Packing Assembly Parts List

Symbol No.	Part No.	Description
●	101	68P80130F84 Owners, Manual
■	101	01V83700F51 Assembly, Pamphlet
★	101	01V83700F51 Assembly, Pamphlet
★	101	68P81707F25 Owners, Manual
●	102	56S71001F71 Carton, Packing
★	102	56S71001F83 Carton, Packing
★	102	56S71001F83 Carton, Packing
■	102	56S71001F83 Carton, Packing
	103	56B40230G08 Sack, Polyethylene
	104	56D80844F01 Tray, Packing

Symbol No.	Part No.	Description
	105	56B82302F01 Pad, Cushion
	106	56B82302F02 Pad, Cushion
	107	56B40442F08 Packing, Front Frame

Note: ■ : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),  
 ▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),  
 Others : Common

# Cabinet Assembly Parts List

Symbol	No.	Index	Part No.	Description
●	1		01V81400F15	Assembly, Front Panel
▲	1		01V83200F06	Assembly, Front Panel
★	1		01V83200F06	Assembly, Front Panel
■	1		01V83200F06	Assembly, Front Panel
	2	5-C	41A80702F01	Spring, Knob (Line Straight)
	3	5-C	03S40012G18	Screw, Tapping (M2.6 x 6)
	4	4-B	36A80694F01	Knob, Push REC-OUT
	5		36A80695F01	Knob, Push SPEAKER
	6		36A67333F01	Knob, Push, LD/VHD, MODE SELECTOR, SIGNAL PROCESSOR
	7		36A72661F01	Knob, Push TONE
	8	4-B	36B70885F07	Knob, Power
	9		43A67342F01	Spacer, Switch
	10	5-A	36A80706F01	Knob, Rotary TONE
	11		03S40012G93	Screw, Tapping (M3 x 8)
	12	5-A	36B80707F01	Knob, Rotary Volume
	13		14S53018F42	Insulator (M50 x 5)
	15		75B80720F01	Trannleg, Set
	16		75A80719F01	Pad, Trannleg
	17		03S63857F10	Screw, Tapping (M4 x 12)
	18		03S81717F01	Screw, Round (M3 x 6)
	19	1-C	15D80717F01	Cover, Top
	20		03S40036U01	Screw, Pan (M4 x 8)
	21	2-C	75S72374F69	Cushion, Rubber
	22	4-A	75S62361F62	Cushion, Rubber
	24		05B41635J02	Rivet, Push
●	25		15D80716F01	Cover, Rear
▲	25		15D80716F03	Cover, Rear
★	25		15D80716F02	Cover, Rear
■	25		15D80716F03	Cover, Rear
●	26		43B41625J05	Stopper, Cord
▲	26		43B41625J05	Stopper, Cord
★	26		43B41625J02	Stopper, Cord
■	26		43B41625J02	Stopper, Cord
	28	2-G	29T66964F01	Terminal, Ground
	30		03A82468F01	Screw, Tapping (M3 x 10)
	32		29C41045P03	Lug, Wrap Around
	33		03S40012G95	Screw, Tapping (M4 x 8)
	37		47C64899F29	Shaft
	38		02S40000G35	Nut, Hex (M3)
	39		03S43997P76	Screw, Bind (M3 x 6)
	40	3-F	75S72374F14	Cushion, Rubber
	41	2-B	03S72235F11	Screw, Bind (M3 x 8)
	42	2-B	03S72235F09	Screw, Pan (M3 x 6)
	44	3-A	03S40155F01	Bolt, Hex (M5 x 8)
	45	3-A	04S40071G09	Washer (M5.1)

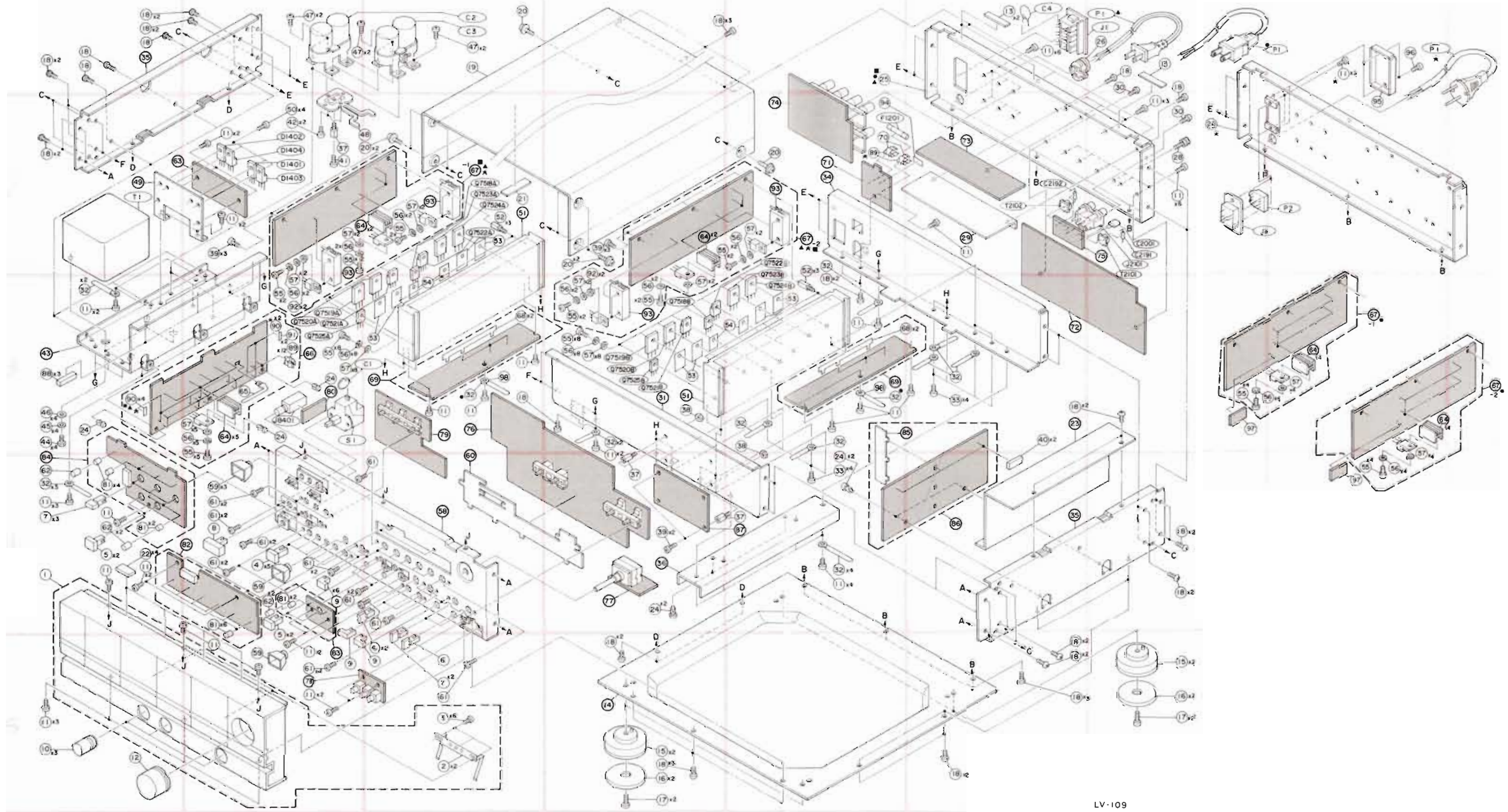
Symbol	No.	Index	Part No.	Description
	46	3-A	04S40070G08	Washer (M5.5)
	47		03S44205G51	Screw, Pan (M4 x 8)
	48	2-B	07A80848F01	Bracket, Capacitor
	50	2-B	03S40012G99	Screw, Bind (M3 x 10)
	52		47C64899F43	Shaft
●	53		14T81863F02	Insulator, Rubber
●	54		14T81863F01	Insulator, Rubber
	55		03S72235F10	Screw, Bind (M3 x 12)
	56		04S40071G23	Washer, Spring Lock
	57		04S40070G36	Washer (M3.3)
	59		43A80689F01	Holder, Lamp Line Straight
	61		03S40011G17	Screw, Pan (M3 x 6)
	62		43A61758F03	Spacer, Lamp
	65	3-B	29C41045P06	Lug, Board-In (50mm)
	68		07A80846F01	Bracket, Power Bus "A"
●	70		09T51960F01	Holder, Fuse YSH-401T
▲	70		09T51960F01	Holder, Fuse YSH-401T
■	70		09T51960F01	Holder, Fuse YSH-401T
	81		43A41837U02	Spacer, LED
▲	88		75S72374F73	Cushion, Rubber
★	88		75S72374F73	Cushion, Rubber
■	88		75S72374F73	Cushion, Rubber
▲	89		09T51410F01	Holder, Fuse (Semko)
★	89		09T51410F01	Holder, Fuse (Semko)
■	89		09T51410F01	Holder, Fuse (Semko)
▲	90		54B62266F28	Label, Fuse (1A-250V)
★	90		54B62266F31	Label, Fuse (500mA)
■	90		54B62266F28	Label, Fuse (1A-250V)
▲	91		54B62266F49	Label, Fuse (1.25A-125V)
■	91		54B62266F49	Label, Fuse (1.25A-125V)
▲	92		43T45472F01	Bushing, YC40B
★	92		43T45472F01	Bushing, YC40B
■	92		43T45472F01	Bushing, YC40B
▲	94		54B62266F39	Label, Fuse (10A-125V)
★	94		54B62266F30	Label, Fuse (4A)
■	94		54B62266F48	Label, Fuse (10A-250V)
★	95		15A82362F01	Cover, V-Sele
★	96		03S63857F29	Screw, Tapping (M3 x 12)
●	97		01V83300F44	Assembly, Bias P.C. Board
▲	98		29C41045P05	Lug, Wrap Around
■	98		29C41045P05	Lug, Wrap Around
★	98		29C41045P05	Lug, Wrap Around

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),

▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),

Others : Common

# Exploded View (Cabinet)

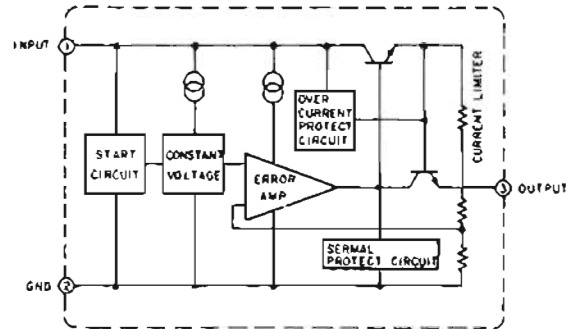


LV-109

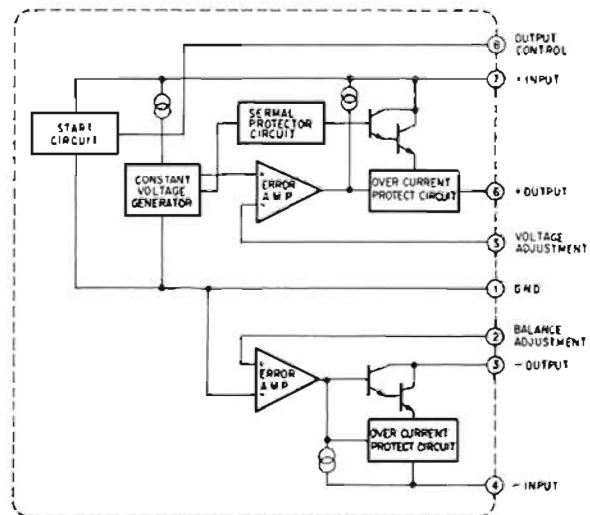
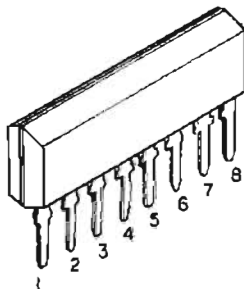
Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),  
 ▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),  
 Others : Common

# Semi-Conductor Lead Identifications

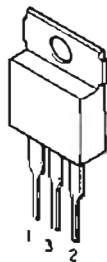
L78N09: IC1101



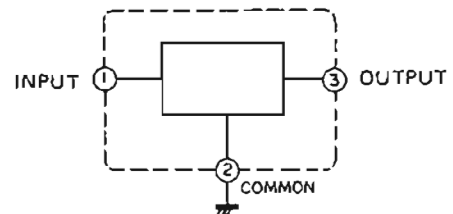
M5230L: IC1102



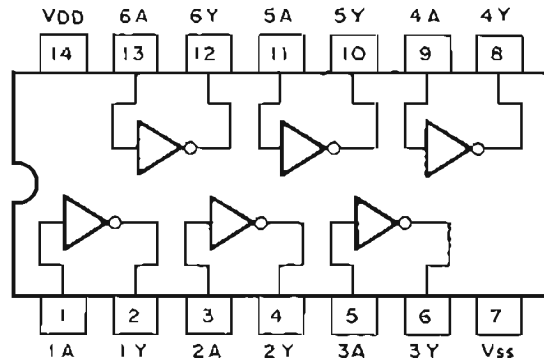
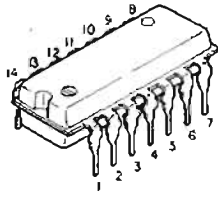
BA17805: IC1103  
 $\mu$ PC7805H: IC1103



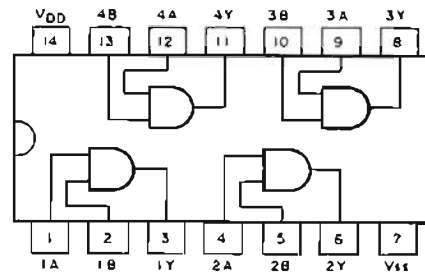
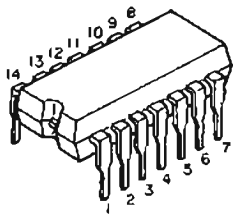
1: INPUT  
 2: COMMON  
 3: OUTPUT



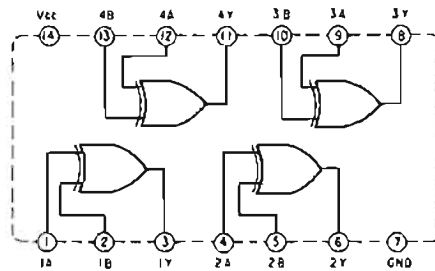
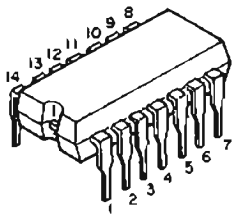
HD74HC04: IC2101



HD74HC00: IC2102

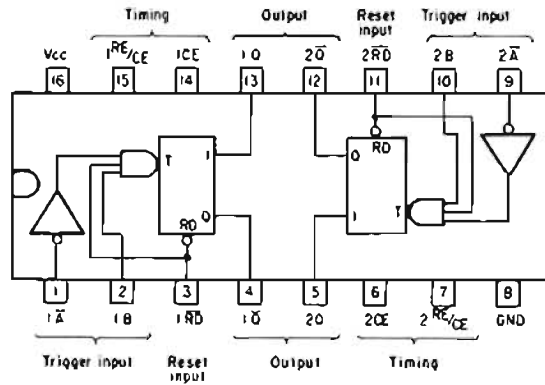
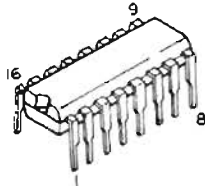


HD74LS86P: IC2103

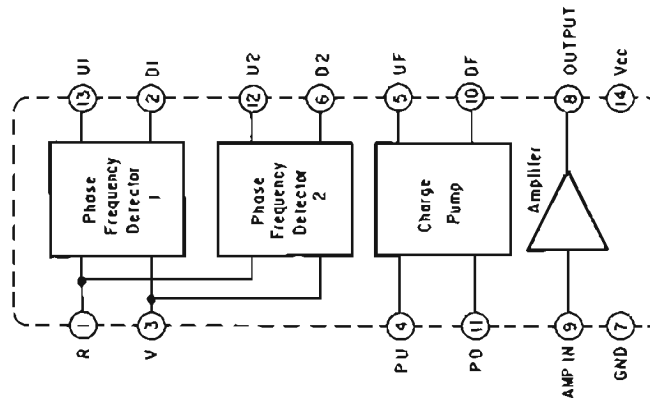
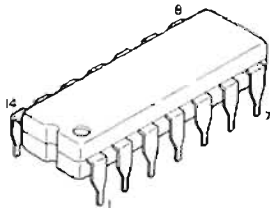




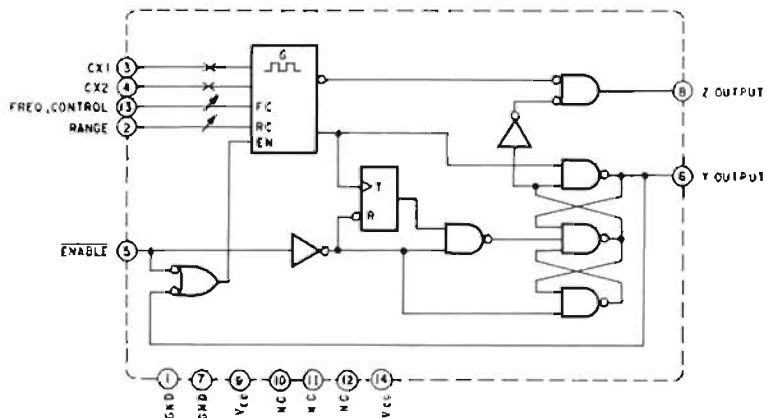
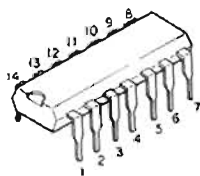
M74LS123P: IC2104



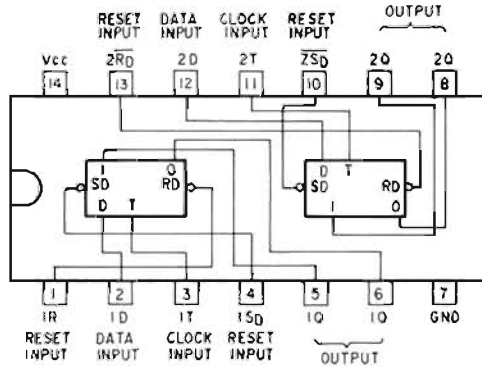
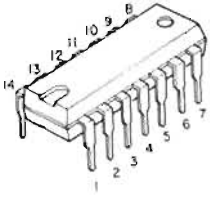
MC4044: IC2105, 2109



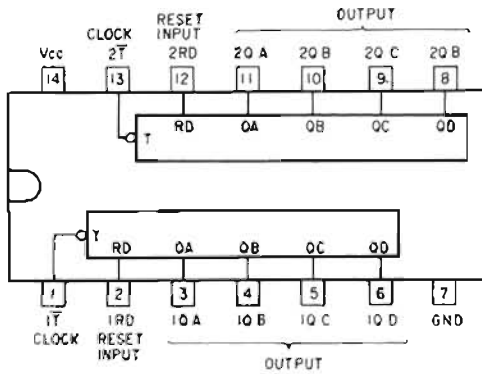
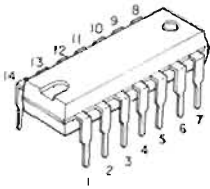
SN74LS624: IC2106, 2110



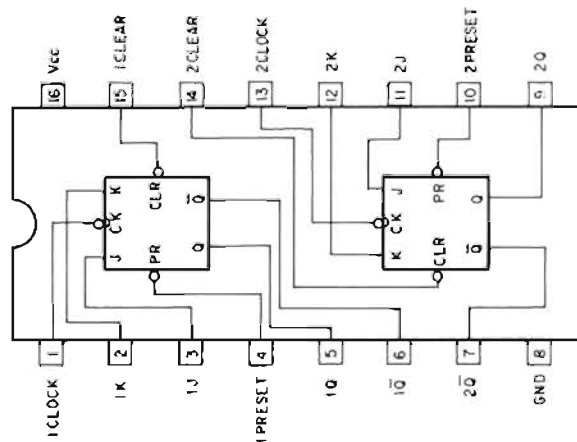
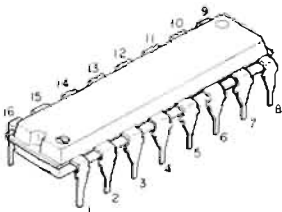
M74LS74: IC2108



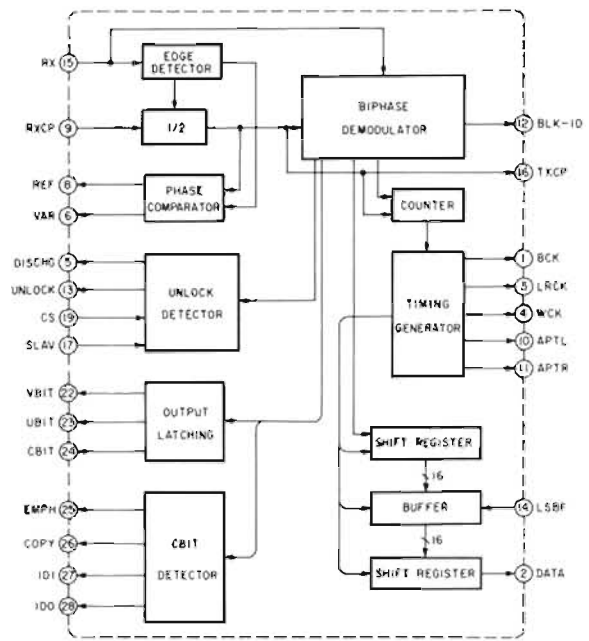
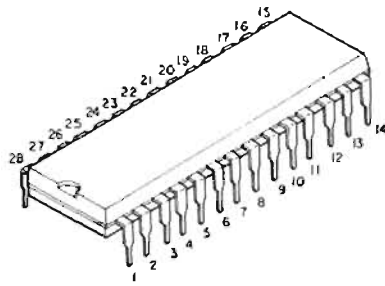
M74LS393P: IC2107, 2111



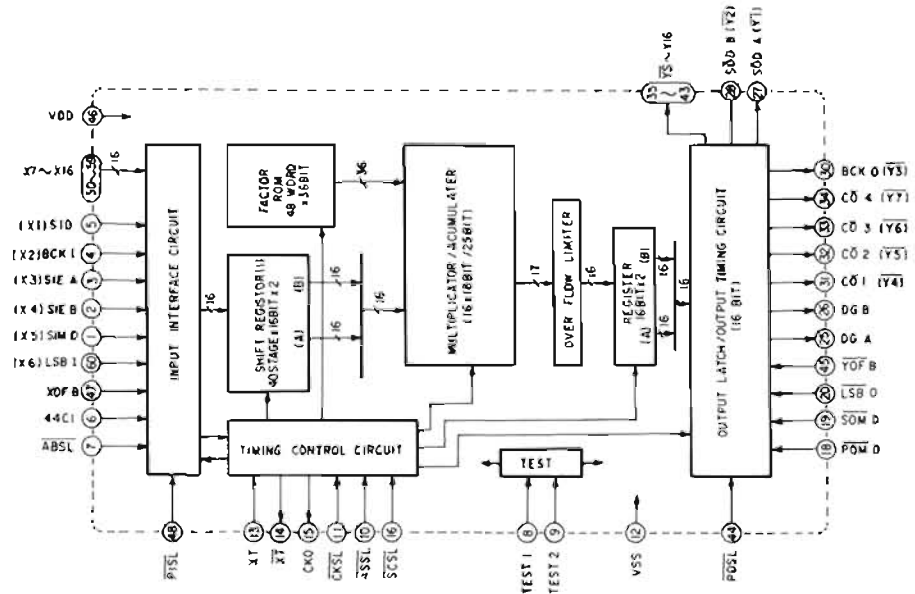
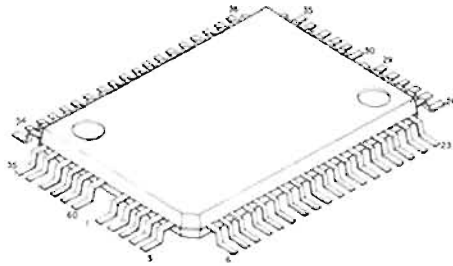
HD74LS112P: IC2112, 2116



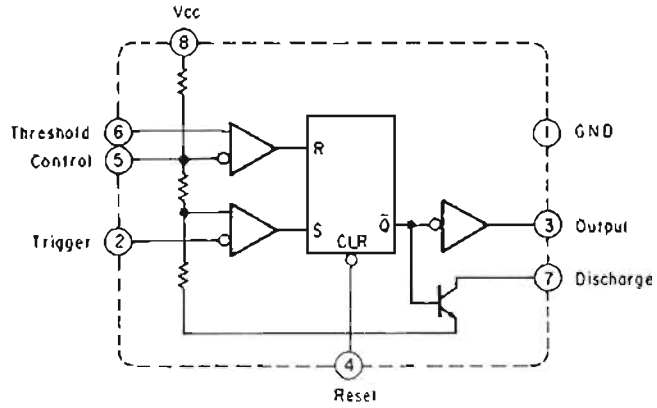
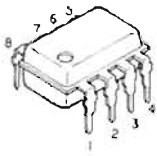
CXD1076P: IC2113



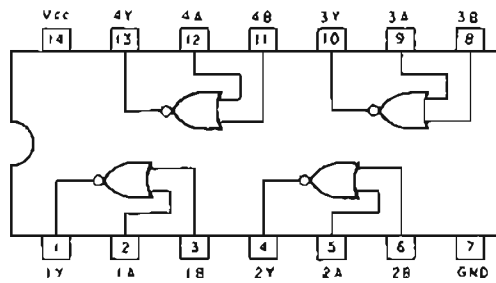
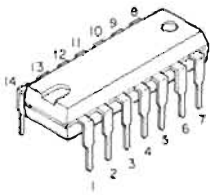
SM5802A: IC2114



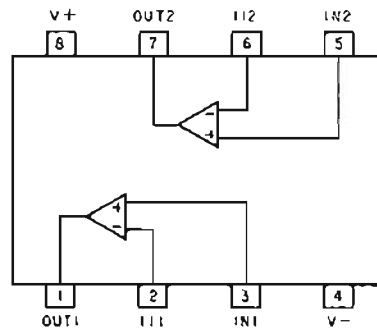
HA17555PS: IC2115



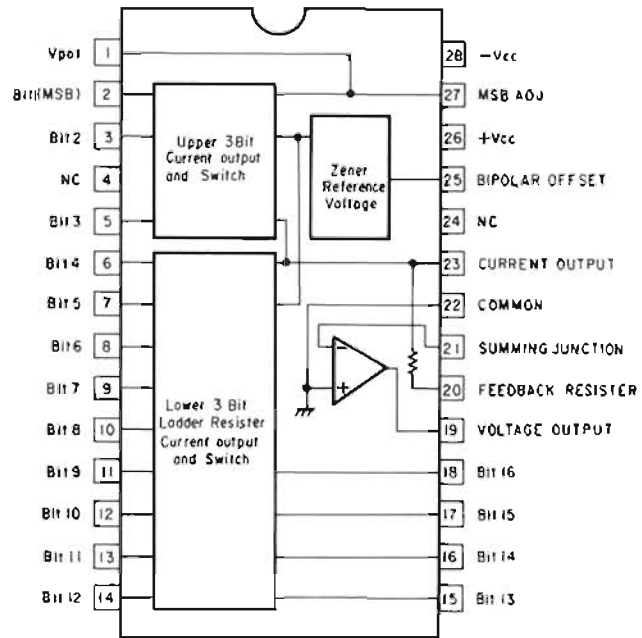
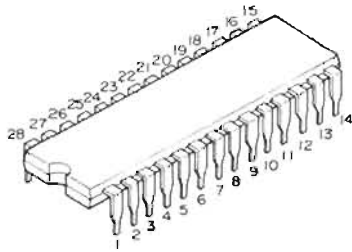
M74LS02P: IC2117, 2118



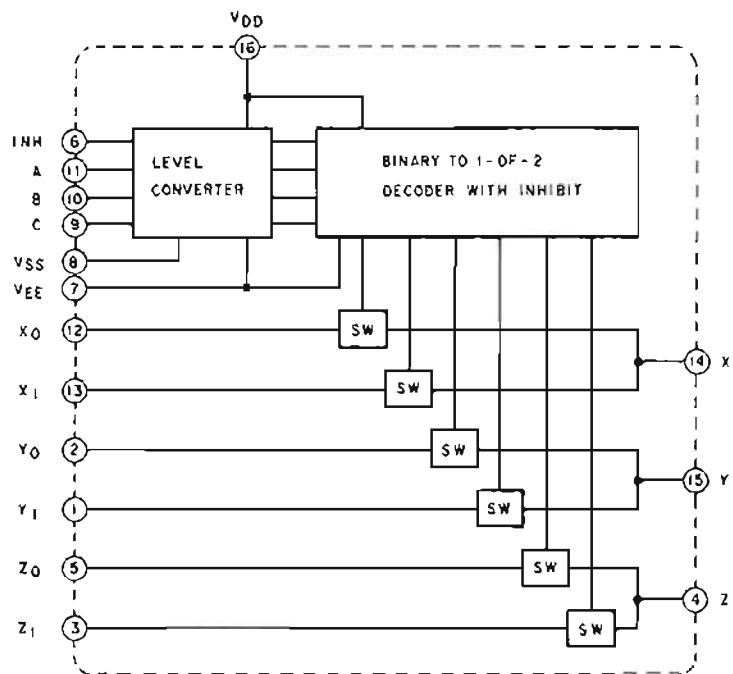
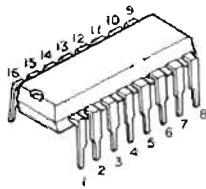
M5238P: IC2119, 2204, 2211, 8201, 8202



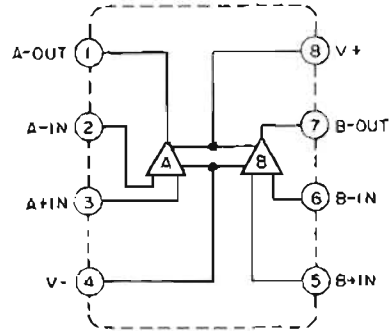
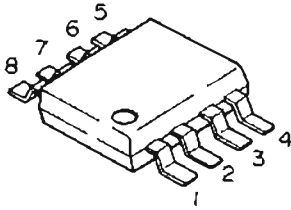
PCM54JP: IC2201



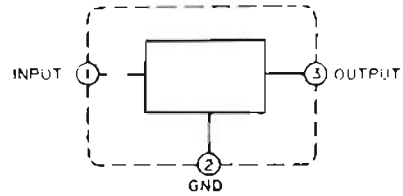
μPD4053BC: IC2203



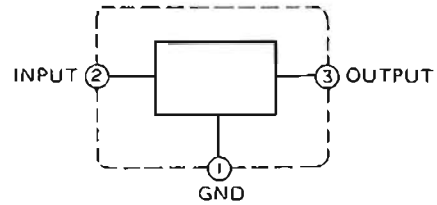
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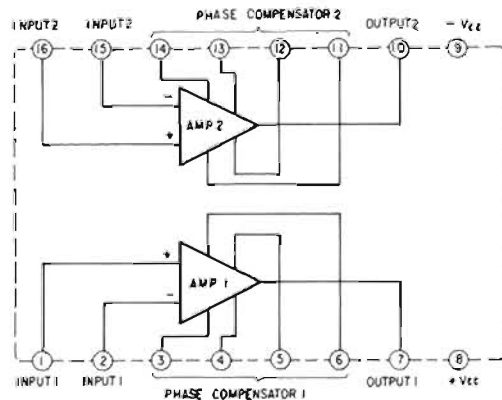
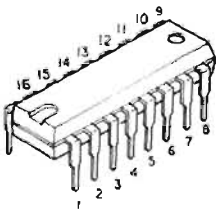
NJM78L05A: IC2212



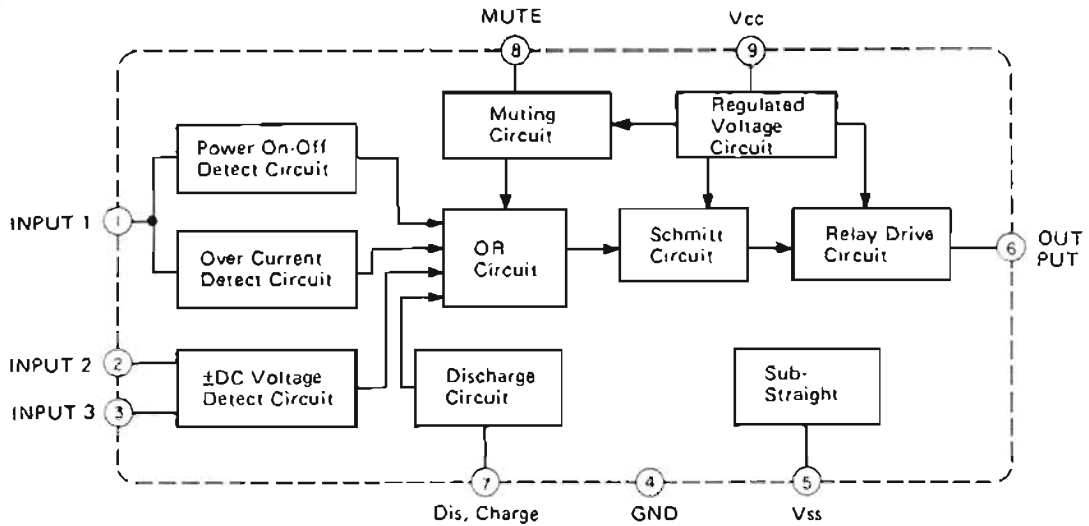
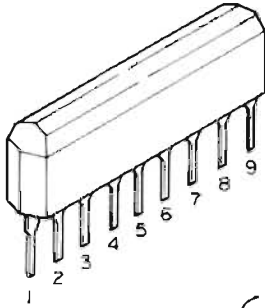
NJM79L05A: IC2213



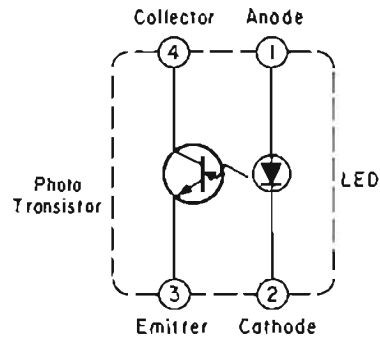
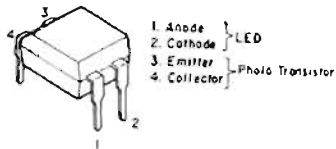
M5240: IC4501



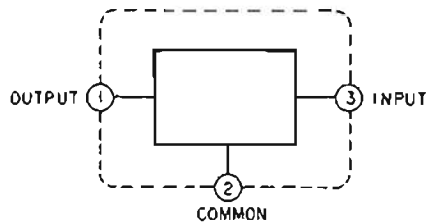
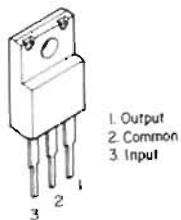
TA7317P: IC6101



PS2403-1: ▲■★ IC7102A, ▲■★ 7102B, ▲■★ 7601A, ▲■★ 7601B

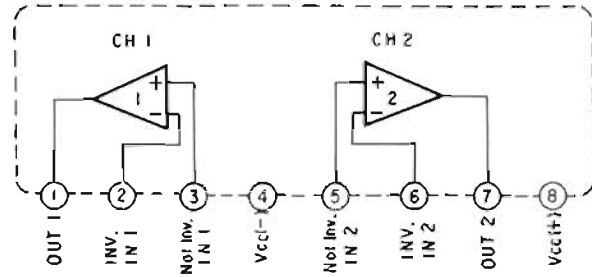
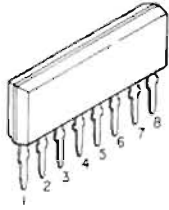


NJM7815FA: ▲■★ IC7301A, ▲■★ 7301B

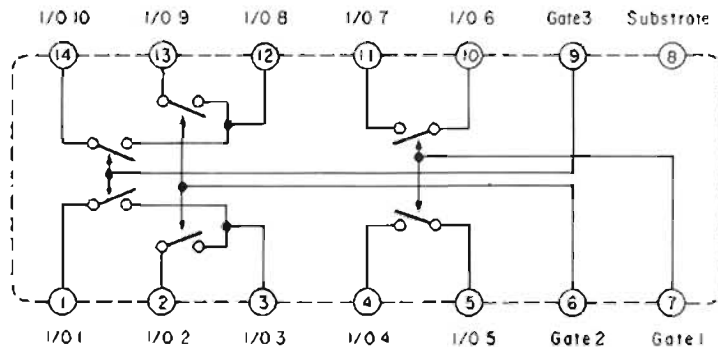
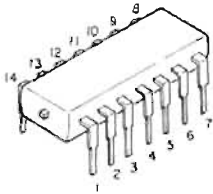


Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),  
 ▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),  
 Others : Common

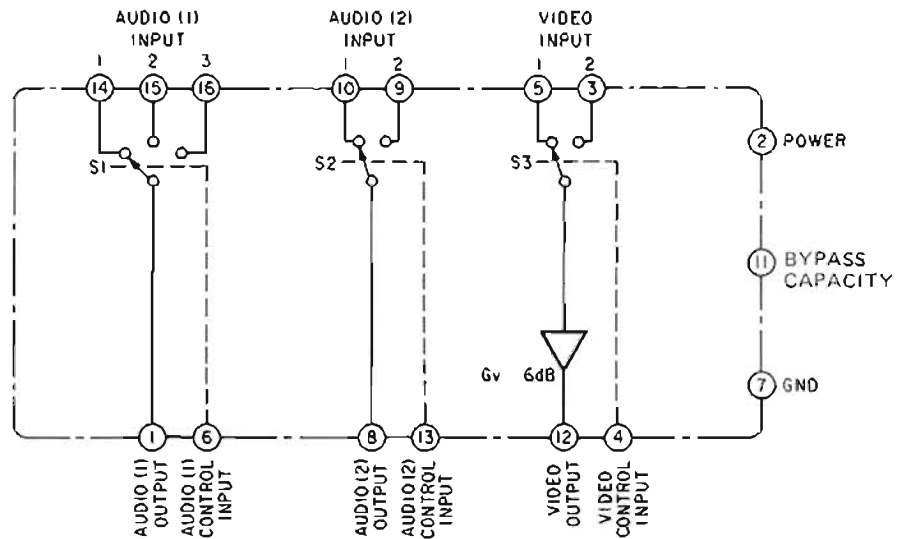
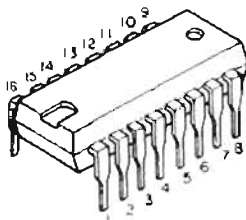
M5221L: ▲■★ IC7303A, ▲■★ 7303B, ▲■★ 7304A, ▲■★ 7304B



CX-770: IC8101, 8102, 8103, 8104



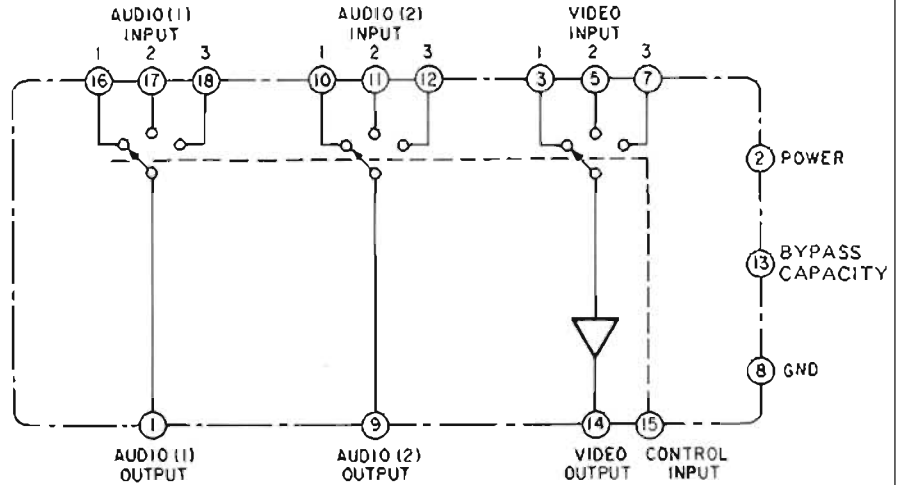
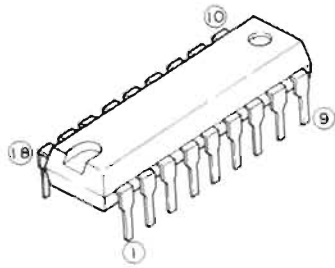
M51320P: IC9101, 9102, 9103



Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),  
 ▲ : For North American model only (UZ), ■ : For Canadian model only (UO),  
 Others : Common



M51321P: IC9104



2SC2344: Q1101, 1103, 1306A, 1306B  
2SA1011: Q1102, 1305A, 1305B



2SC3378: Q1104, ● 1303A, ● 1303B, ● 1309A, ● Q1309B, ● 1310A, ● 1310B, ● 7118A, ● Q7118B, ● 7120A, ● 7120B  
2SA1049: ● Q1304A, ● 1304B, ● 1307A, ● 1307B, ● Q1308A, ● 1308B, ● 7119A, ● 7119B, ● Q7121A, ● 7121B  
2SA1048L: Q2101  
2SC2458: Q2201, 2202, 2105, 2106, 2107



1: Emitter  
2: Collector  
3: Base

2SA1208: Q1301A, 1301B, ● 7112A, ● 7112B, ● Q7113A, ● 7113B  
2SC2910: Q1302A, 1302B, ● 7114A, ● 7114B, ● Q7115A, ● 7115B

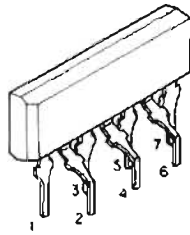


2SC3332: ■▲★ Q1303A, ■▲★ 1303B, ■▲★ 1309A, ■▲★ 1309B, ■▲★ 1310A, ■▲★ 1310B, ■▲★ Q7115A, ■▲★ 7115B, ● 7116A, ● 7116B, ● 7117A, ● 7117B, ■▲★ Q7118A, ■▲★ 7118B, ■▲★ 7120A, ■▲★ 7120B, ■▲★ 7302A, ■▲★ 7302B, ■▲★ Q7303A, ■▲★ 7303B, ● 7902A, ● 7902B  
2SA1319: ■▲★ Q1304A, ■▲★ 1304B, ■▲★ 1307A, ■▲★ 1307B, ■▲★ 1308A, ■▲★ 1308B, ● Q7110A, ● 7110B, ● 7111A, ● 7111B, ■▲★ 7112A, ■▲★ 7112B, ■▲★ Q7119A, ■▲★ 7119B, ■▲★ 7121A, ■▲★ 7121B, ■▲★ 7301A, ■▲★ 7301B, ● Q7901A, ● 7901B  
2SC1740: Q2102, 2103, 2104, 2109  
2SA950: Q2108  
2SC1741: Q4501, 4502  
2SA854: Q4503, 4504



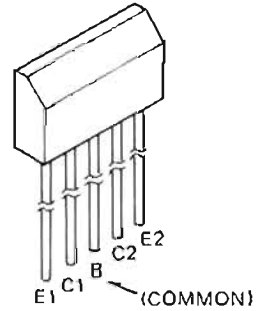
Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK), ▲ : For North American model only (UZ), ■ : For Canadian model only (UQ), Others : Common

2SJ109: Q7101A, 7101B, ■▲★ 7101A, ■▲★ 7101B



- 1. Drain 1
- 2. Gate 1
- 3. Source 1
- 4. Sub-straight
- 5. Source 2
- 6. Gate 2
- 7. Drain 2

2SA995: Q7102A, 7102B, 7103A, 7103B  
2SC2291: Q7104A, 7104B



2SK614: Q7107A, 7107B



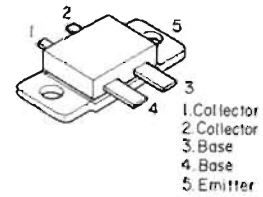
2SK214: Q7108A, 7108B  
2SJ77: Q7109A, 7109B



2SC3423: Q7106A, 7106B, 7518A, 7518B  
2SA1360: Q7105A, 7105B, 7525A, 7525B



2SC3218: Q7519A, 7519B, 7520A, 7520B



2SK173: Q7521A, 7521B  
2SJ54: Q7522A, 7522B



- 1. Gate
- 2. Drain
- 3. Source

2SA1302: Q7523A, 7523B, 7524A, Q7524B  
2SA1306: ■▲★ Q7601A, ■▲★ 7601B, ■▲★ Q7602A, ■▲★ 7602B



2SC3298: ■▲★ Q7603A, ■▲★ 7603B, ■▲★ Q7604A, ■▲★ 7604B



- B. Base
- C. Collector
- E. Emitter

Note: ● : For Japanese model only (JA), ★ : For No Safety Regulations version model only (EK),  
▲ : For North American model only (UZ), ■ : For Canadian model only (UQ),  
Others : Common

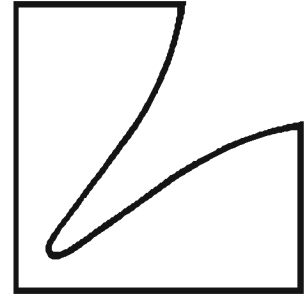




## **LUX CORPORATION, JAPAN**

1-1-8 Nishi Gotanda, Shinagawa-ku, Tokyo, 141 JAPAN  
Phone: 03-494-1101 Telex: 8927-61

# SERVICE MANUAL



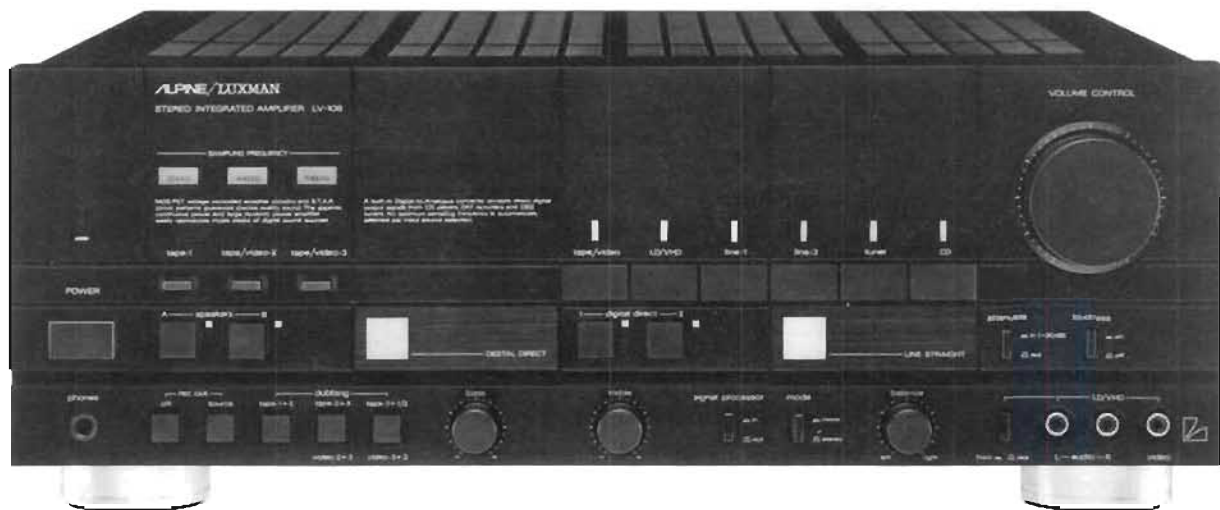
Stereo Integrated Amplifier

# LV-109

## — Correction —

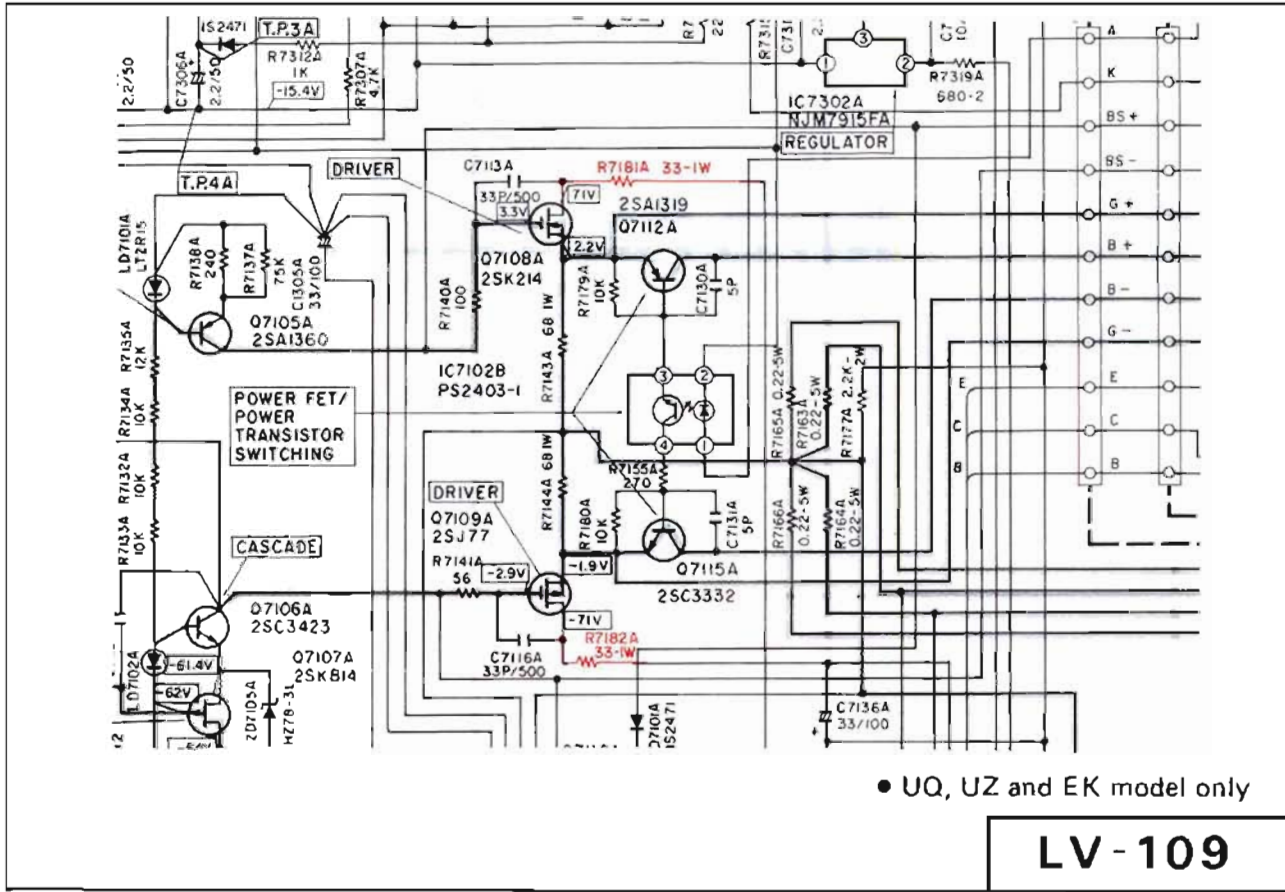
The red letters and marks have been corrected.

赤字と赤印の如く訂正お願い致します。

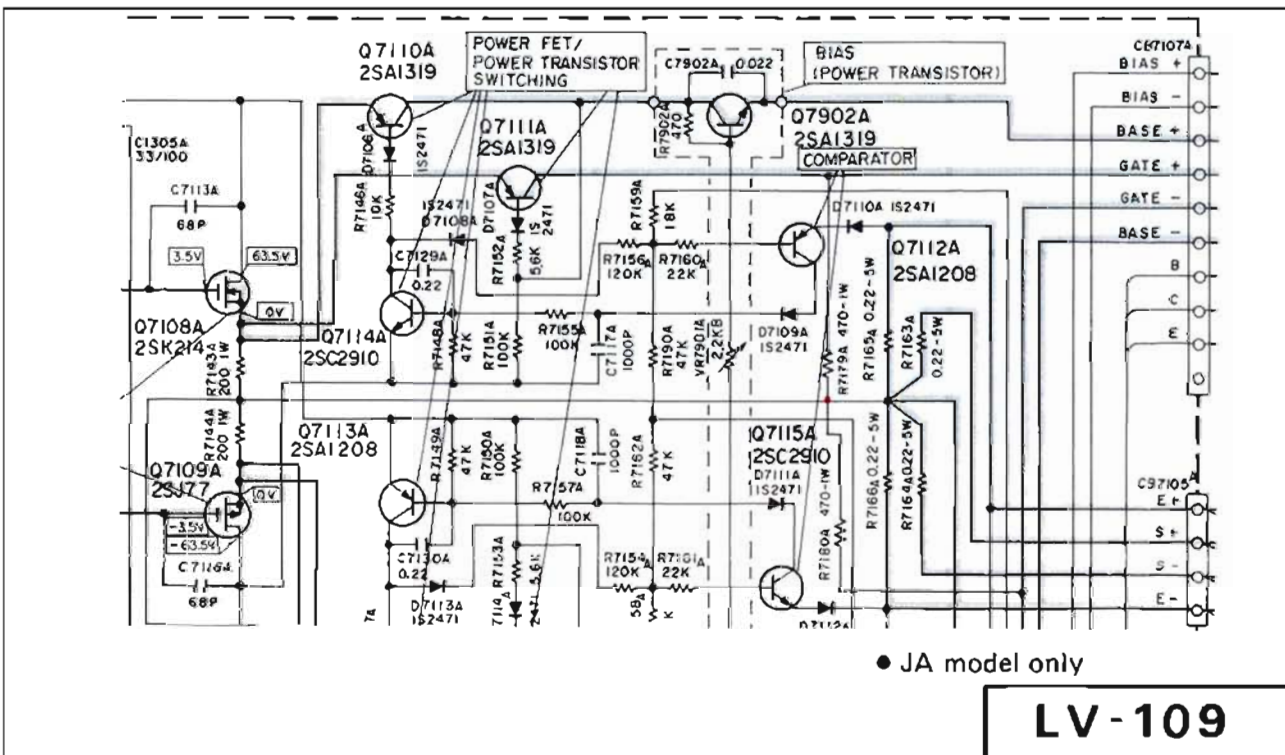


# Schematic Diagram

<Page 18> Main Amp P. C. Board

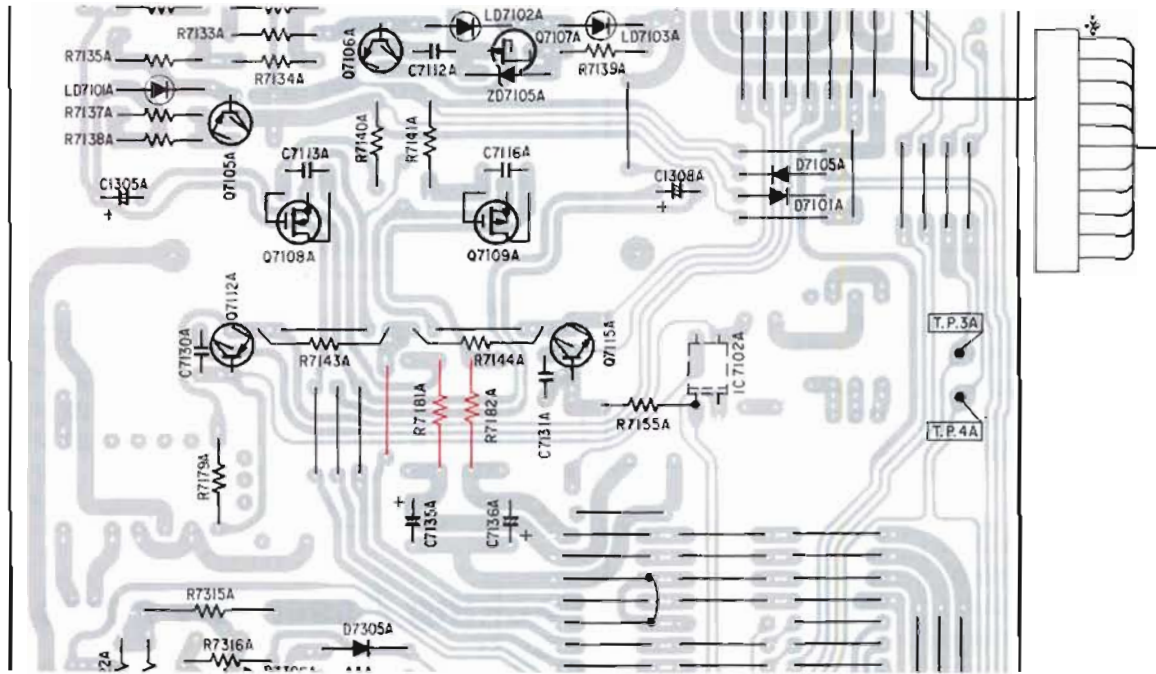


<Page 21> Main Amp P. C. Board



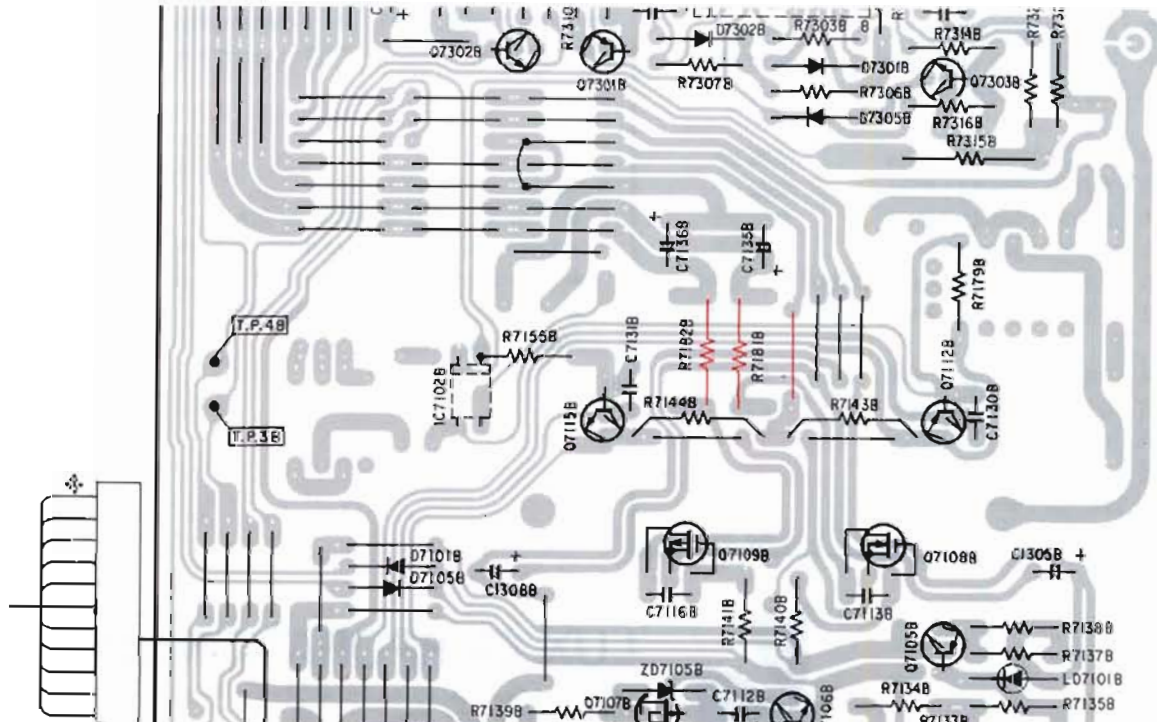
# Parts Layout on P.C. Boards

<Page 26>



Main Amp P. C. Board (L)

<Page 28>



Main Amp P. C. Board (R)

# Electrical Parts List

< Page 43 >

Symbol No.	Part No.	Description
● Q7114A	48T72889F01	2SC2910
● Q7114B	48T72889F01	2SC2910
● Q7115A	48T82195F01	2SC3332
● Q7115B	48T82195F01	2SC3332
■ Q7115A	48T82195F01	2SC3332
■ Q7115B	48T82195F01	2SC3332

★ Q7118A	48T82195F01	2SC3332
★ Q7118B	48T82195F01	2SC3332
■ Q7118A	48T82195F01	2SC3332
■ Q7118B	48T82195F01	2SC3332
● Q7119A	48T71760F01	2SA1049
● Q7119B	48T71760F01	2SA1049

< Page 44 >

D7104A	48T68764F01	1S2471
D7104B	48T68764F01	1S2471
D7105A	48T68764F01	1S2471
D7105B	48T68764F01	1S2471
● D7106A	48T68764F01	1S2471
● D7106B	48T68764F01	1S2471

< Page 45 > "C": Not marked (Common)

C C7101A	08T81196F34	Mica	100 pF
C C7101B	08T81196F34	Mica	100 pF
● C7107A	08T81196F40	Mica	180 pF
● C7107B	08T81196F40	Mica	180 pF
■ C7107A	08T81196F42	Mica	220 pF
■ C7107B	08T81196F42	Mica	220 pF
★ C7107A	08T81196F42	Mica	220 pF
★ C7107B	08T81196F42	Mica	220 pF
▲ C7107A	08T81196F42	Mica	220 pF
▲ C7107B	08T81196F42	Mica	220 pF
C7109A	23T00132L50	Electrolytic	10 uF/100V
C7109B	23T00132L50	Electrolytic	10 uF/100V
● C7110A	08T81196F25	Mica	47 pF
● C7110B	08T81196F25	Mica	47 pF
■ C7110A	08T81196F32	Mica	82 pF
■ C7110B	08T81196F32	Mica	82 pF
▲ C7110A	08T81196F32	Mica	82 pF
▲ C7110B	08T81196F32	Mica	82 pF

< Page 45 >

● C7116A	08T81196F30	Mica	68 pF
● C7116B	08T81196F30	Mica	68 pF
▲ C7116A	08T81196F19	Mica	33 pF
▲ C7116B	08T81196F19	Mica	33 pF
★ C7116A	08T81196F19	Mica	33 pF
★ C7116B	08T81196F19	Mica	33 pF
■ C7116A	08T81196F19	Mica	33 pF
■ C7116B	08T81196F19	Mica	33 pF

< Page 46 >

● C7129A	08T57851F17	T.F	0.22 uF
● C7129B	08T57851F17	T.F	0.22 uF
● C7130A	08T57851F17	T.F	0.22 uF
● C7130B	08T57851F17	T.F	0.22 uF
■ C7130A	08T61642F04	Mica	5 pF
■ C7130B	08T61642F04	Mica	5 pF

## Packing Assembly Parts List

< Page 61 >

Symbol No.	Part No.	Description
● 101	68P80130F84	Owners, Manual
■ 101	01V83700F51	Assembly, Pamphlet
▲ 101	01V83200F08	Assembly, Pamphlet
★ 101	68P81707F25	Owners, Manual
● 102	56S71001F71	Carton, Packing

Note:

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- ★ : For No Safety Regulations version model only (EK),
- ▲ : For North American model only (UZ),
- : For Canadian model only (UQ),
- Others : Common



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Phone: 03-494-1101 Telex: 8927-61



# LUXMAN

DIVISION OF ALPINE ELECTRONICS OF AMERICA, INC.

## SERVICE BULLETIN

(X) FYI      ( ) SUGGESTED      ( ) MANDATORY      LSB: 87-01

TO:            ALL AUTHORIZED LUXMAN SERVICE CENTERS

FROM:         ALPINE SERVICE DEPARTMENT

DATE:         FEBRUARY 17, 1987

SUBJECT:      LV-109 PROTECTION CIRCUIT

Field reports indicate the model LV-109, when used with some brands of speaker systems having impedances in the range of approximately 2 ohms, produces a "crackling" type of distortion. Operated at levels of the volume control from 11 O'clock and up, the amplifier's load line protection circuit is being activated, generating the distortion.

The following modification should be implemented under the warranty provisions for only those customers who have registered a specific complaint. The modification should also be implemented in any LV-109 used for store demonstrations.

### MODIFICATION PROCEDURE:

A 10ufd/16v capacitor, in series with a 120 ohm 1/4 watt 5% resistor, should be added between the base and emitter of each protection circuit transistor, Q7118 and Q7119, on each channel as shown in the attached illustration. Be certain to observe correct polarity for each of the capacitors.

The addition of this network permits a peak instantaneous output current to 65 amps and delays full limiting action 15 to 20 m sec., a sufficient time to pass music transients unaltered.

All new shipments of the LV-109 will have this or a similar modification installed.

# CIRCUIT AND PCB DIAGRAMS

