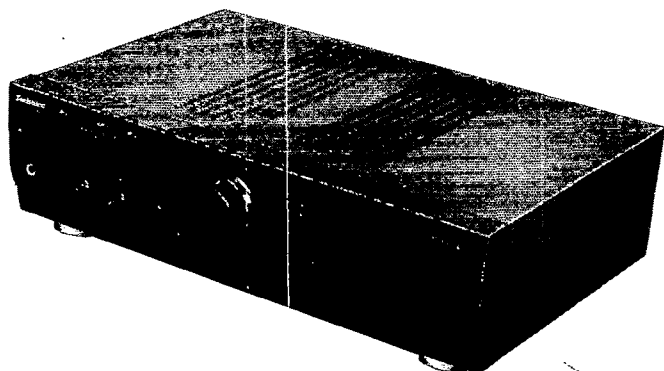


# Service Manual

Amplifier

Stereo Integrated Amplifier

## SU-A600



Colour

(K) ..... Black Type

## Areas

Suffix for Model No.	Area	Colour
(E)	Europe	(K)
(EB)	Great Britain	
(EG)	Germany and Italy	
(EO)	Switzerland	
(EP)	Poland	
(GC)	Asia, Latin America, Middle Near East and Africa	
(GN)	Oceania	

### SPECIFICATIONS (DIN 45 500)

20 Hz~20 kHz continuous power output  
both channels driven 2×40 W (8 Ω)

1 kHz continuous power output  
both channels driven (THD: 1%) 2×50 W (8 Ω)  
2×70 W (4 Ω)

63 Hz~12.5 kHz continuous power output  
both channels driven (THD: 0.7%) 2×45 W (8 Ω)  
2×65 W (4 Ω)

Total harmonic distortion  
rated power at 20 Hz~20 kHz 0.01% (8 Ω)

Intermodulation distortion (50 Hz: 7 kHz = 4:1, SMPTE)  
rated power 0.007% (8 Ω)

Residual hum and noise 1 mV

Damping factor 60 (8 Ω), 30 (4 Ω)

Headphones output level/impedance 540 mV/47 Ω

Load impedance

A or B, BI-WIRING 4 Ω~16 Ω

A and B 8 Ω~16 Ω

Input sensitivity/impedance

PHONO MM 2.5 mV/47 kΩ

TUNER, CD, AUX, TAPE 1, TAPE 2 150 mV/22 kΩ

Phono maximum input voltage (1 kHz, RMS)

MM 150 mV (150 mV, IHF '66)

S/N (rated power, 4 Ω)

PHONO MM 76 dB (78 dB, IHF '66)

TUNER, CD, AUX, TAPE 1, TAPE 2 91 dB (99 dB, IHF '66)

S/N at -26 dB power (4 Ω)

PHONO MM 68 dB

TUNER, CD, AUX, TAPE 1, TAPE 2 70 dB

S/N at 50 mW power (4 Ω)

PHONO MM 64 dB

TUNER, CD, AUX, TAPE 1, TAPE 2 64 dB

## Frequency response

PHONO MM RIAA standard curve ±1 dB  
(30 Hz~15 kHz)

## TUNER, CD, AUX, TAPE 1, TAPE 2

3 Hz~80 kHz (+0, -3 dB)  
+0 dB, -0.3 dB (20 Hz~20 kHz)

## Tone controls

BASS 50 Hz, +10~-10 dB

TREBLE 20 kHz, +10~-10 dB

## Output voltage

TAPE 1, TAPE 2, REC OUT 150 mV

Channel balance (AUX 250 Hz~6.3 kHz) ±1 dB

Channel separation (AUX 1 kHz) 50 dB

### ■ GENERAL

Power consumption 200 W

## Power supply

For (E) area AC 50 Hz/60 Hz, 230 V

For (EG), (EB), (EO), (GN) areas AC 50 Hz/60 Hz, 230 V~240 V

For (GC) area AC 50 Hz/60 Hz, 110 V~127 V/220 V~240 V

Dimensions (W × H × D) 430 × 125 × 318 mm

Weight 6.2 kg

## Notes:

- Specifications are subject to change without notice. Weight and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

# Technics

## ■ CONTENTS

	Page		Page
●BEFORE REPAIR .....	2	●SCHEMATIC DIAGRAM .....	12~18
●PROTECTION CIRCUITRY .....	2	●PRINTED CIRCUIT BOARD DIAGRAM .....	19~22
●ACCESSORIES .....	2	●WIRING CONNECTION DIAGRAM .....	23
●CAUTION FOR AC MAINS LEAD .....	3	●BLOCK DIAGRAM .....	24
●LOCATION OF CONTROLS .....	4	●FUNCTION OF IC TERMINALS .....	25
●CONNECTIONS .....	5~7	●REPLACEMENT PARTS LIST .....	26~28, 31, 32
●DISASSEMBLY INSTRUCTIONS .....	7~10	●CABINET PARTS LOCATION .....	29, 30
●HOW TO CHECK THE MAIN P.C.B. ....	10	●PACKAGING .....	32
●HOW TO REPLACE THE POWER IC .....	11		

## ■ BEFORE REPAIR

- (1) Turn off the power supply. Using a 10Ω, 10 W resistor, connect both ends of power supply capacitors (C701, C702) in order to discharge the voltage.
- (2) Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50/60 Hz in NO SIGNAL mode is mode should be shown below with respect to supply voltage 230 V/240 V.

Power supply voltage	AC 230 V	AC 240 V	AC 110~127 V	AC 220~240 V
Consumed current 50 Hz	60~300 mA	50~290 mA	100~500 mA	50~290 mA

## ■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:

- \*No sound is heard when the power is switched ON.
- \*Sound stops during a performance.

The functions of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedure outlined below:

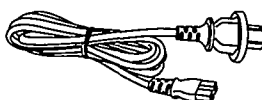
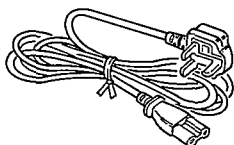
1. Switch OFF the power.
2. Determine the cause of the problem and correct it.
3. Switch ON the power once again.

**Note:**  
When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

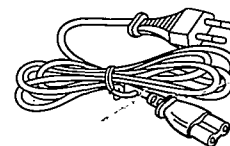
## ■ ACCESSORIES

Check the packing carton for these accessories.

- AC power supply cord ..... 1  
(VJA0733) For (EB) area
- (RJA0036-K) For (GN) area



- (RJA0019-2K)  
For (E), (EG), (EO), (EP), (GC) areas



- Power plug adaptor ..... 1  
(SJP5213-2) For (GC) area



## ■ CAUTION FOR AC MAINS LEAD

(“EB” area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

### CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.

If in any doubt please consult a qualified electrician.

### IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:


Blue: Neutral

Brown: Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

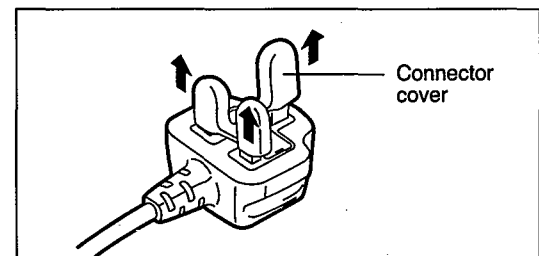
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol .

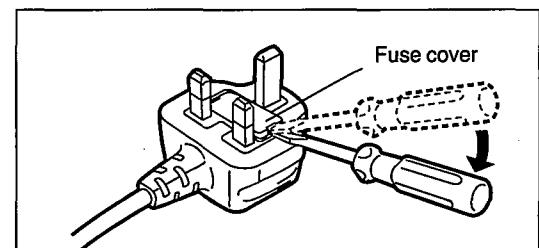
### Before use

Remove the connector cover as follows.

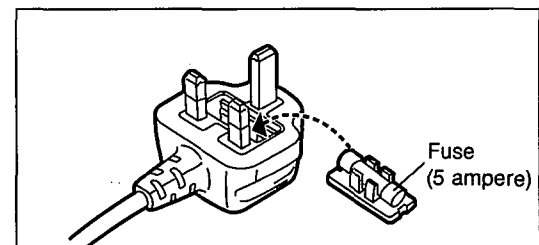


### How to replace the fuse

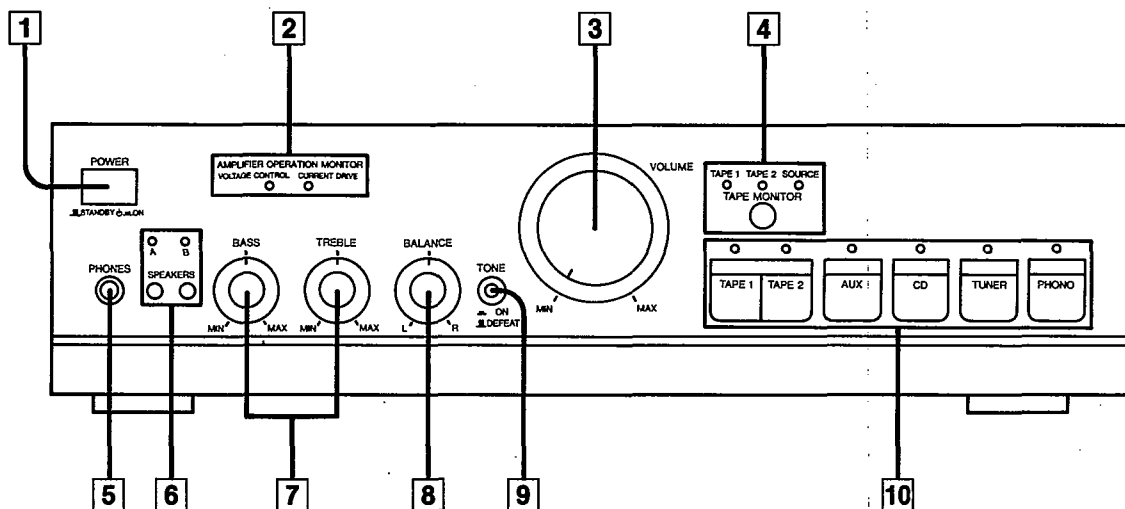
1. Remove the fuse cover with a screwdriver.



2. Replace the fuse and attach the fuse cover.



## ■ LOCATION OF CONTROLS



### 1 Power "STANDBY $\downarrow$ / ON" switch (POWER, $\blacksquare$ STANDBY $\downarrow$ = ON)

Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

### 2 Operation indicators (AMPLIFIER OPERATION MONITOR)

These indicators illuminate to indicate the operating condition of this unit.

#### VOLTAGE CONTROL:

When the power is switched ON, this indicator illuminates when the unit is in the operating condition.

#### CURRENT DRIVE:

When the power is switched ON, this indicator illuminates after about 4 seconds when the unit is in the operating condition.

If an abnormal condition in the circuitry is detected, such as DC voltage appearing in the output or a short-circuit of the positive (+) and negative (-) wires from the speaker terminals, the protection circuit functions and this indicator will not illuminate.

### 3 Volume control (VOLUME)

### 4 Tape-monitor button/indicators (TAPE MONITOR)

This button is used to monitor the recorded sound during recording.

#### TAPE 1

Set to this position to monitor the sound from the equipment connected to the "TAPE 1" terminals.

#### TAPE 2

Set to this position to monitor the sound from the equipment connected to the "TAPE 2" terminals.

#### SOURCE

Set to this position to listen to a phono disc, radio broadcast, compact disc, etc.

### 5 Headphones jack (PHONES) ( $\varnothing$ 6, 47 $\Omega$ )

### 6 Speaker select buttons/indicators (SPEAKERS)

These select buttons are used to select the speakers to be used.

### 7 Tone controls (BASS/TREBLE)

The bass control is used to adjust the low-frequency sound range, and the treble control is used to adjust the high-frequency sound range.

### 8 Balance control (BALANCE)

This control is used to adjust the left/right volume balance.

### 9 Tone control button (TONE)

This switch is used to set the tone control circuit (bass, treble) to ON or DEFEAT.

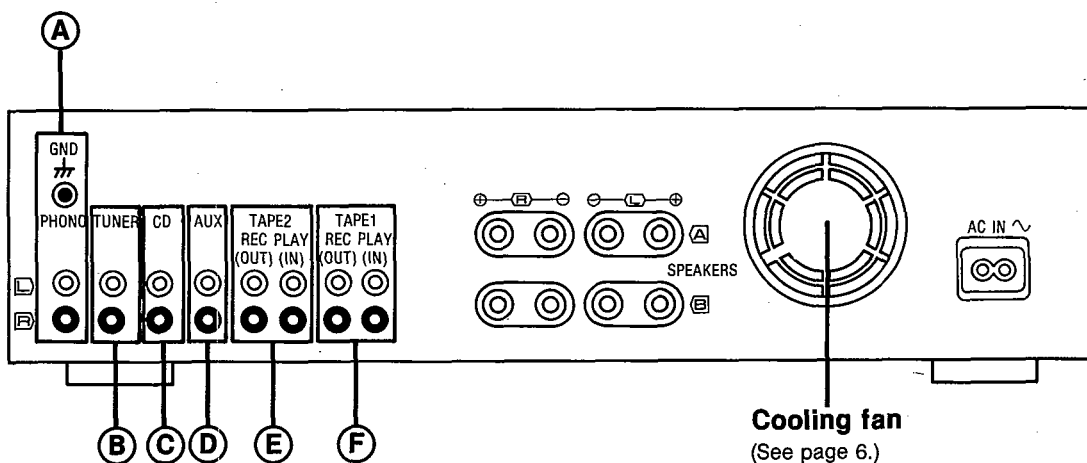
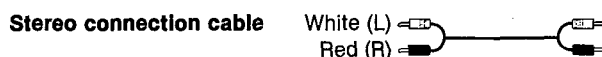
### 10 Input selectors/indicators

These selectors are used to select the sound source to be heard, such as a disc, radio broadcast, etc.

# CONNECTIONS

## To connect to each terminal

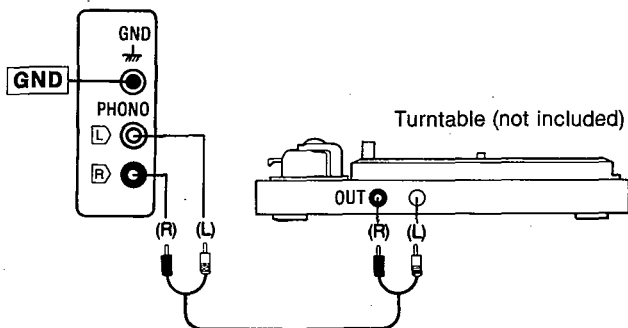
Make connections to each component in the system by using stereo connection cables (not included).



•Phono input capacitance is about 470 pF.

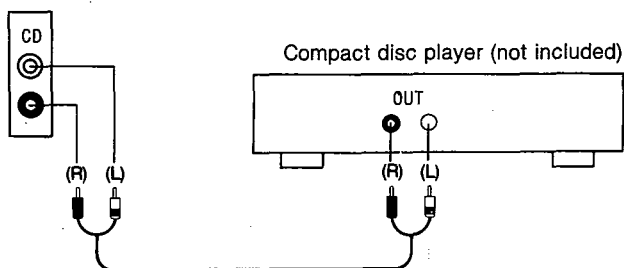
### A "PHONO" terminals

Connect to a turntable.



### C "CD" terminals

Connect to a compact disc player.

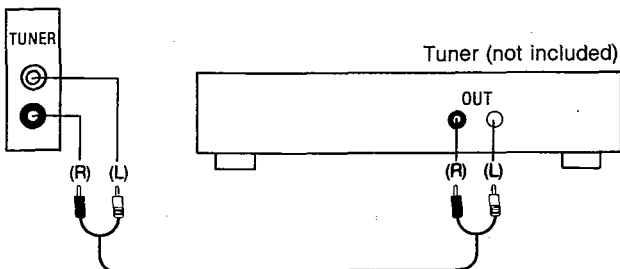


### GND terminal

This terminal is for use with a turntable which has a ground wire.

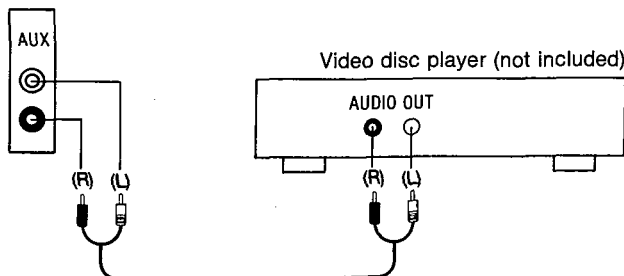
### B "TUNER" terminals

Connect to a tuner.



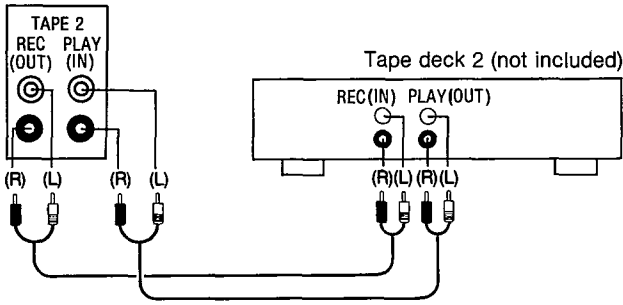
### D "AUX" terminals

Connect to a component such as a video disc player (audio only connectable), etc.



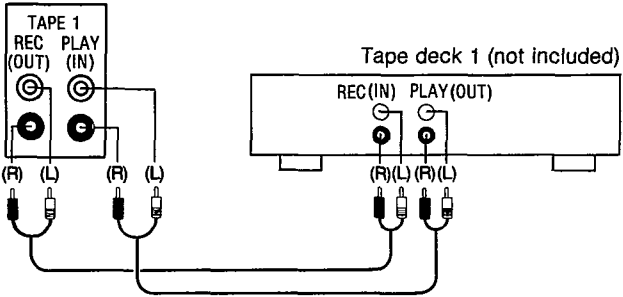
**E "TAPE 2" terminals**

Connect to a second tape deck (Tape deck 2) or a graphic equalizer, etc.



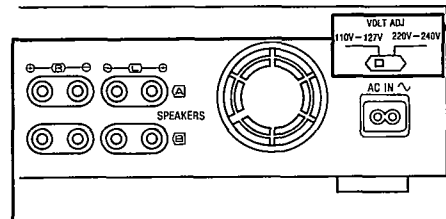
**F "TAPE 1" terminals**

Connect to a first tape deck (Tape deck 1) or a digital compact cassette deck (DCC), etc.



**To set the power voltage**

For areas except United Kingdom, Europe, Australia and N.Z.



Set the voltage selector to "110 V-127 V" or "220 V-240 V" according to the area in which the unit will be used.  
[Use a minus (-) screwdriver]

**Note:**  
Note that this unit will be seriously damaged if this setting is not made correctly.

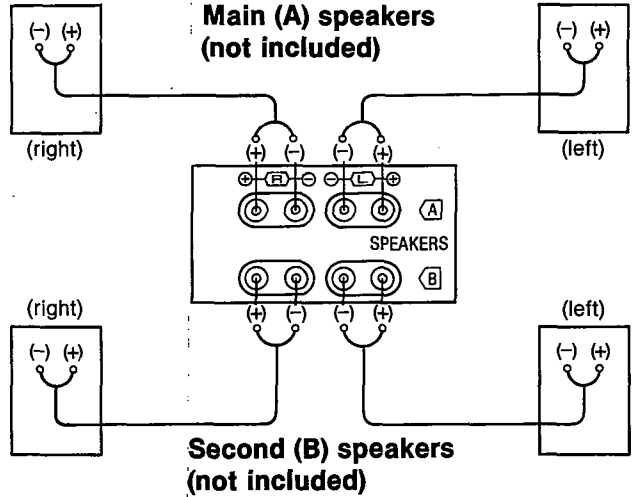
**About the cooling fan**

The cooling fan operates at high power output levels only.  
(There is no cooling fan for some countries.)

**To connect to speakers**

One pair of speakers can be connected to the "A" terminals of this unit and one pair to the "B" terminals, or only one pair of bi-wired speakers can be connected to all terminals.

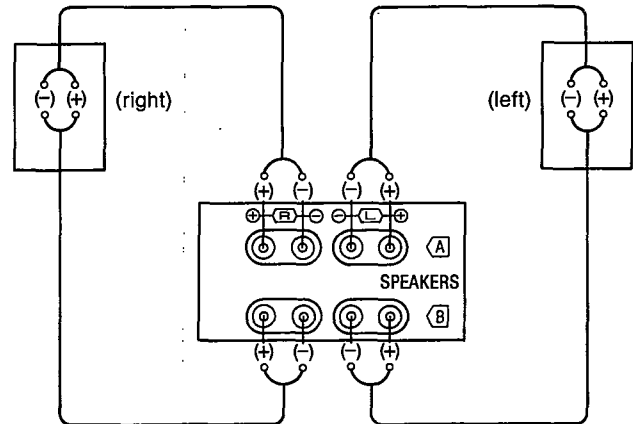
**To connect main and/or second speakers**



**Load impedance**

- When only the "A" or only the "B" terminals are used: 4-16 ohms
- When both the "A" and the "B" terminals are used simultaneously: 8-16 ohms

**To connect bi-wired speakers (not included)**



**Note:** Connect only bi-wired speakers in this way.

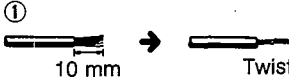


**Load impedance**

When bi-wired speakers are used: 4-16 ohms

**Bi-wiring**

The treble range and the bass range of the speakers are connected to the speaker terminals of the amplifier by using two speaker connection cords separately for each. As a result of making connections in this way, sound can be reproduced with much greater nuance and detail, with the feelings of air oscillation and deepness of sound provided by an input source that suppresses reciprocal band-range interference. (Refer to the operating instructions of the speakers.)

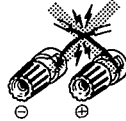
**To connect cords to terminals**

- ① Strip off the outer covering, and twist the center conductor. 
- ② Turn completely to the left. 
- ③ Insert the wire and turn completely to the right. Pull the cord to assure a proper connection. 

**Note:** Be sure to only connect positive (+) cords to positive (+) terminals, and negative (-) cords to negative (-) terminals.

**Note:**

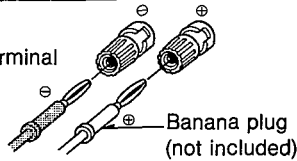
To prevent damage to circuitry, never short-circuit the positive (+) and negative (-) speaker wires.



**For (EB) area**

**When using banana plugs**

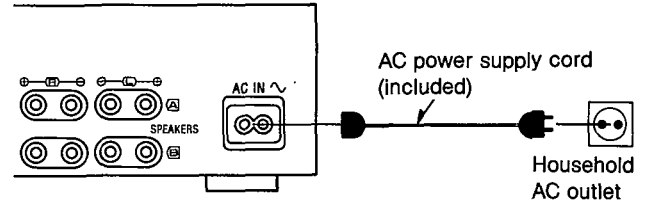
Use with the speaker terminal knob tightened completely.



**To connect the AC power supply cord (included)**

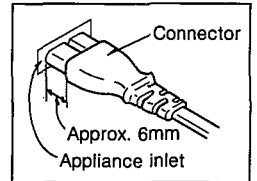
**FOR UNITED KINGDOM ONLY**  
**BE SURE TO READ THE CAUTION FOR THE AC POWER SUPPLY CORD ON PAGE 3 BEFORE CONNECTING THE AC POWER SUPPLY CORD.**

Connect the AC power supply cord (included) after all other cables and cords are connected.



**For (E, EG, EO, EP) areas**  
**Insertion of Connector**

Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing. However there is no problem using the unit.



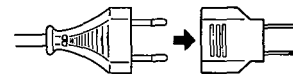
**Note:**

The configuration of the AC power supply cord differs according to area.

**For (GC) area**

**Australia and N.Z.**

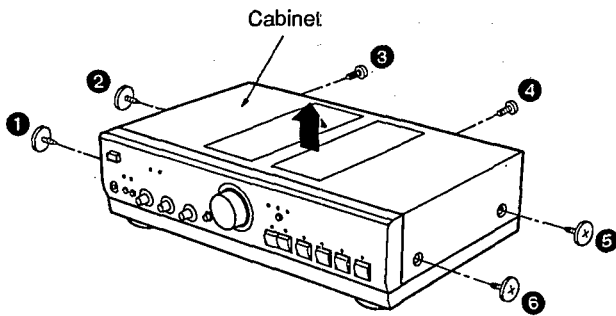
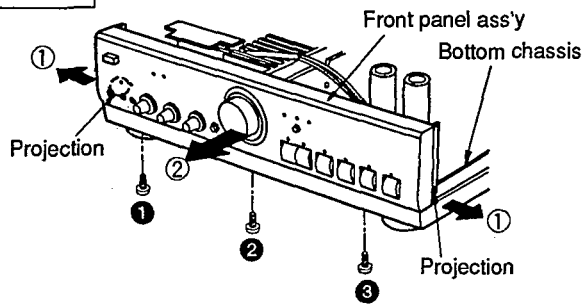
If the power plug will not fit your socket, use the power plug adaptor (included).

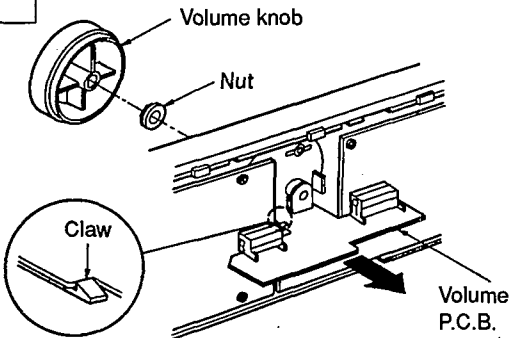
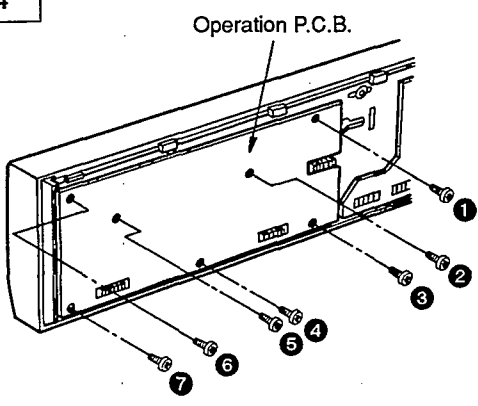
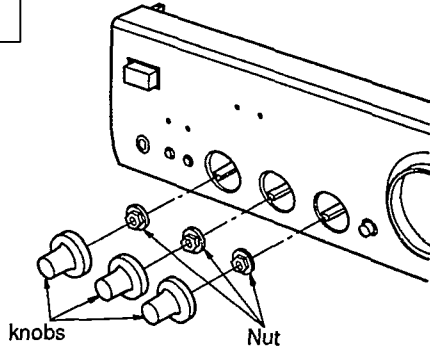
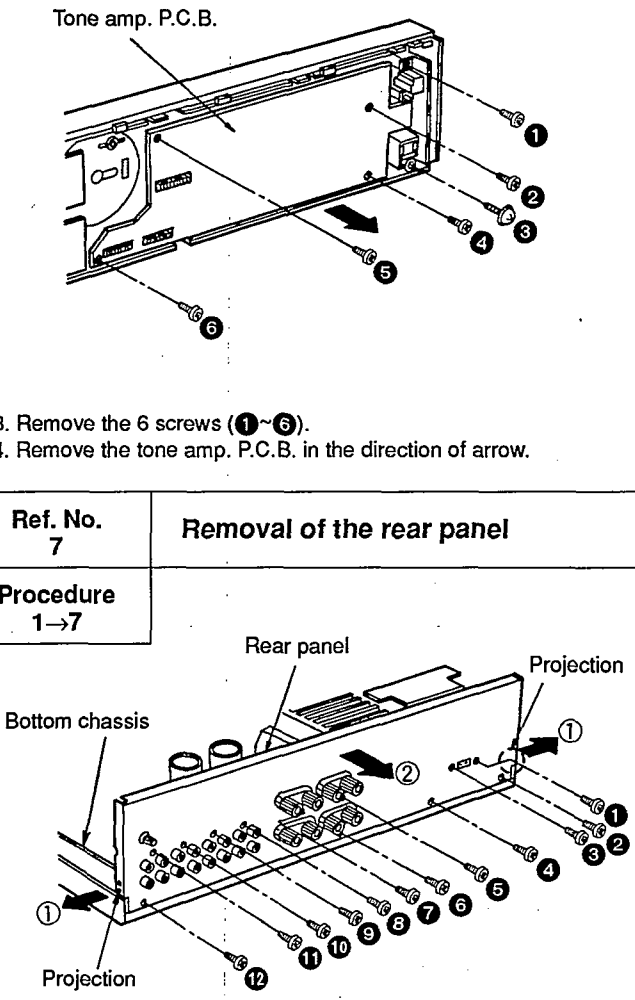
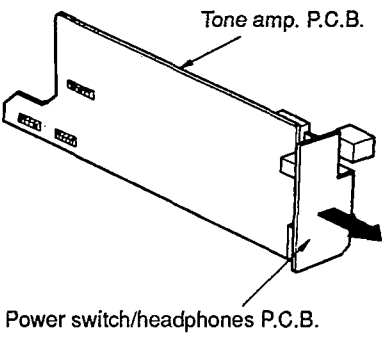


**DISASSEMBLY INSTRUCTIONS**

**"ATTENTION SERVICER"**

Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1	Removal of the cabinet	Ref. No. 2	Removal of the front panel ass'y
Procedure 1	 <p>● Remove the 6 screws (①~⑥).</p>	Procedure 1→2	 <ol style="list-style-type: none"> <li>1. Remove the 3 screws (①~③).</li> <li>2. Pull the front panel ass'y in both directions of arrow ① to unlock it from the projection of the bottom chassis.</li> <li>3. Remove the front panel ass'y in the direction of arrow ②.</li> </ol>

<p><b>Ref. No.</b> 3</p>	<p><b>Removal of the volume P.C.B.</b></p>	<p><b>Ref. No.</b> 4</p>	<p><b>Removal of the operation P.C.B.</b></p>
<p><b>Procedure</b> 1→2→3</p>	 <p>1. Pull out the volume knob. 2. Remove the nut. 3. Release the claw and then remove the volume P.C.B. in the direction of arrow.</p>	<p><b>Procedure</b> 1→2→3→4</p>	 <p>• Remove the 7 screws (1~7).</p>
<p><b>Ref. No.</b> 5</p>	<p><b>Removal of the tone amp. P.C.B.</b></p>	<p><b>Ref. No.</b> 7</p>	<p><b>Removal of the rear panel</b></p>
<p><b>Procedure</b> 1→2→3→5</p>	 <p>1. Pull out the 3 knobs. 2. Remove the 3 nuts.</p>	<p><b>Procedure</b> 1→7</p>	 <p>1. Remove the 12 screws (1~12). 2. Pull the rear panel in both directions of arrow ① to unlock it from the projection of the bottom chassis. 3. Remove the rear panel in the direction of arrow ②.</p>
<p><b>Ref. No.</b> 6</p>	<p><b>Removal of the power switch /headphones P.C.B.</b></p>	 <p>• Remove the power switch P.C.B. in the direction of arrow.</p>	



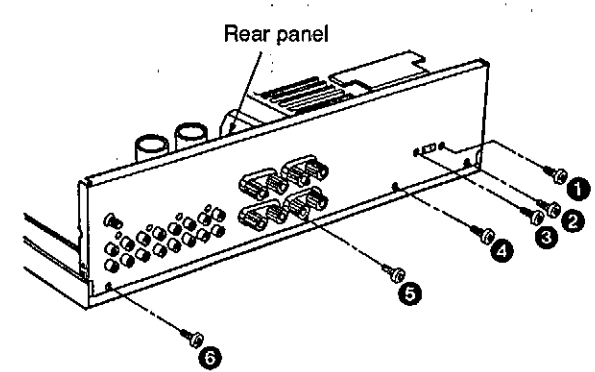
Ref. No. 8	Removal of the power transformer P.C.B. (1) and (2)
Procedure 1→8	<p><b>■ Removal of the power transformer P.C.B. (1)</b> 1. Remove the 1 connector (CN702). 2. Straighten the 2 pins with pliers or any similar tools. 3. Pull out the power transformer P.C.B. (1) in the direction of arrow ①.</p> <p><b>■ Removal of the power transformer P.C.B. (2)</b> 1. Straighten the 2 pins with pliers or any similar tools. 2. Pull out the power transformer P.C.B. (2) in the direction of arrow ②.</p>

Ref. No. 12	Removal of the chassis base
Procedure 1→2→7→9 →10→11→12	<p>• Remove the 11 screws (①~⑪).</p>

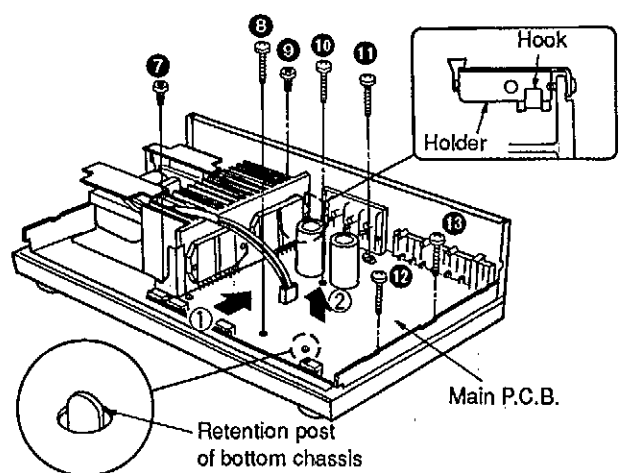
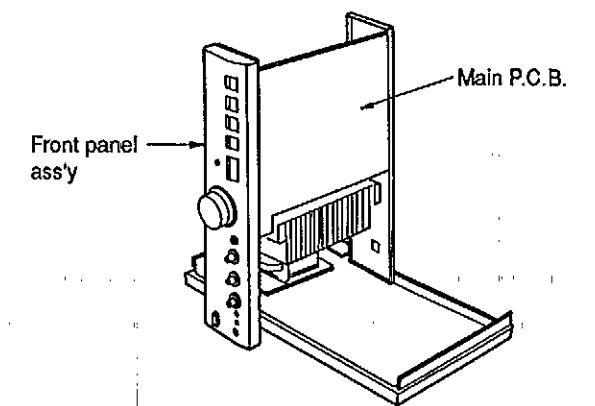
Ref. No. 13	Removal of the fan motor
Procedure 1→13	<p>※ For (EB), (EO), (GC) areas.</p> <p>1. Remove the 1 connector (CN601). 2. Release the 3 claws.</p>

**■ HOW TO CHECK THE MAIN P.C.B.**

1. Remove the cabinet (See Ref. No. 1 of the disassembly instructions).
2. Remove the front panel ass'y (See Ref. No. 2 of the disassembly instructions).



3. Remove the 6 screws (①~⑥).



4. Remove the 7 screws (⑦~⑬).
5. Lift the main P.C.B. off the retention post on the bottom chassis.
6. Release the hook by sliding the main P.C.B. in the direction of arrow ①, and then remove the main P.C.B. equipped with rear panel in the direction of arrow ②.
7. Reinstall the front panel ass'y to the main P.C.B.
8. When checking the soldered surface of the main P.C.B. and replacing the parts, do as shown in above.

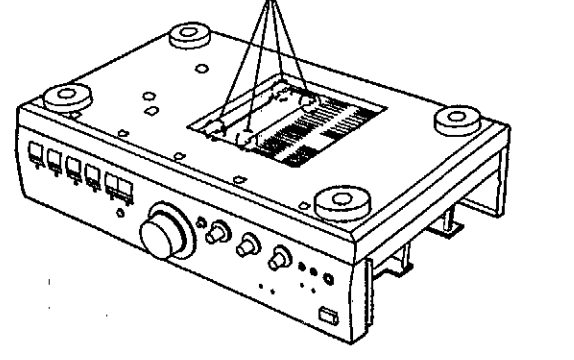
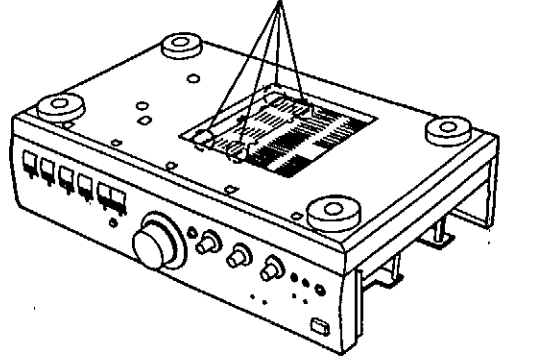
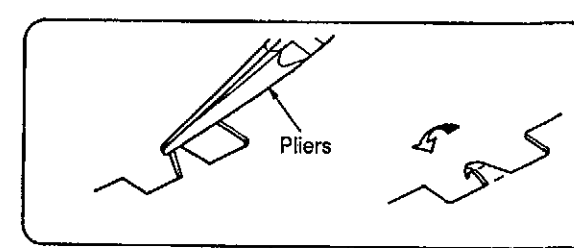
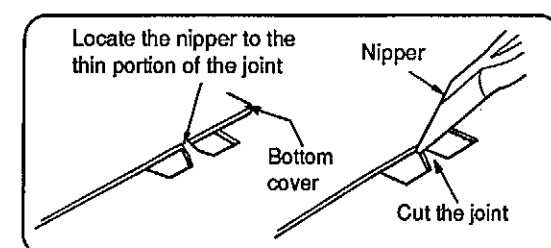
Ref. No. 9	Removal of the power transformer
Procedure 1→8→9	<p>• Remove the 4 screws (①~④).</p>

Ref. No. 10	Removal of the power supply P.C.B.
Procedure 1→10	<p>• Remove the 3 screws (①~③).</p>

Ref. No. 11	Removal of the main P.C.B.
Procedure 1→2→7→11	<p>1. Remove the 7 screws (①~⑦). 2. Remove the 1 connector (CN702).</p>

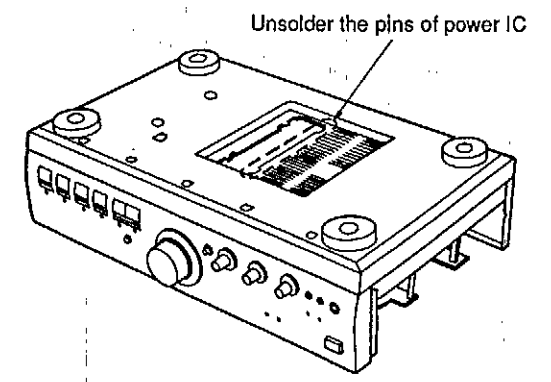
Ref. No. 11	Removal of the main P.C.B.
Procedure 3→4→5	<p>3. Lift the main P.C.B. off the retention post on the bottom chassis. 4. Release the hook by sliding the main P.C.B. in the direction of arrow ①. 5. Remove the main P.C.B. in the direction of arrow ②.</p>

**■ HOW TO REPLACE THE POWER IC**



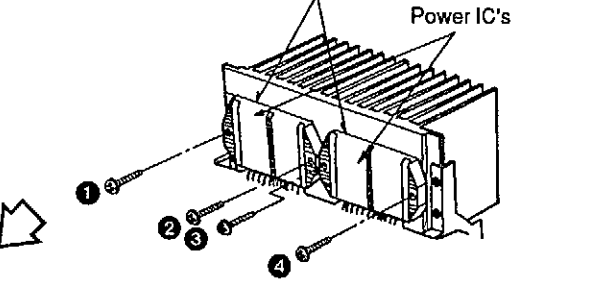
1. Cut the joints (4 portions) between bottom cover and bottom chassis with nipper.

2. After cutting the joints (4 portions), bend the portions of the bottom chassis in the direction of arrow with pliers.



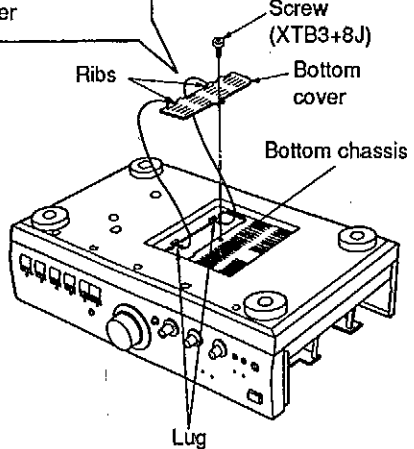
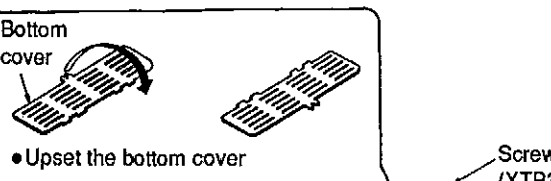
**CAUTION**

- After replacing the power IC, apply a sufficient quantity of compound grease (RFKX0002/SZZOL15) between the heat sink and the power IC. (Radiation of power IC)
- Tighten enough the screws (①~④) after replacing the power IC. Otherwise, the heat radiation works little.



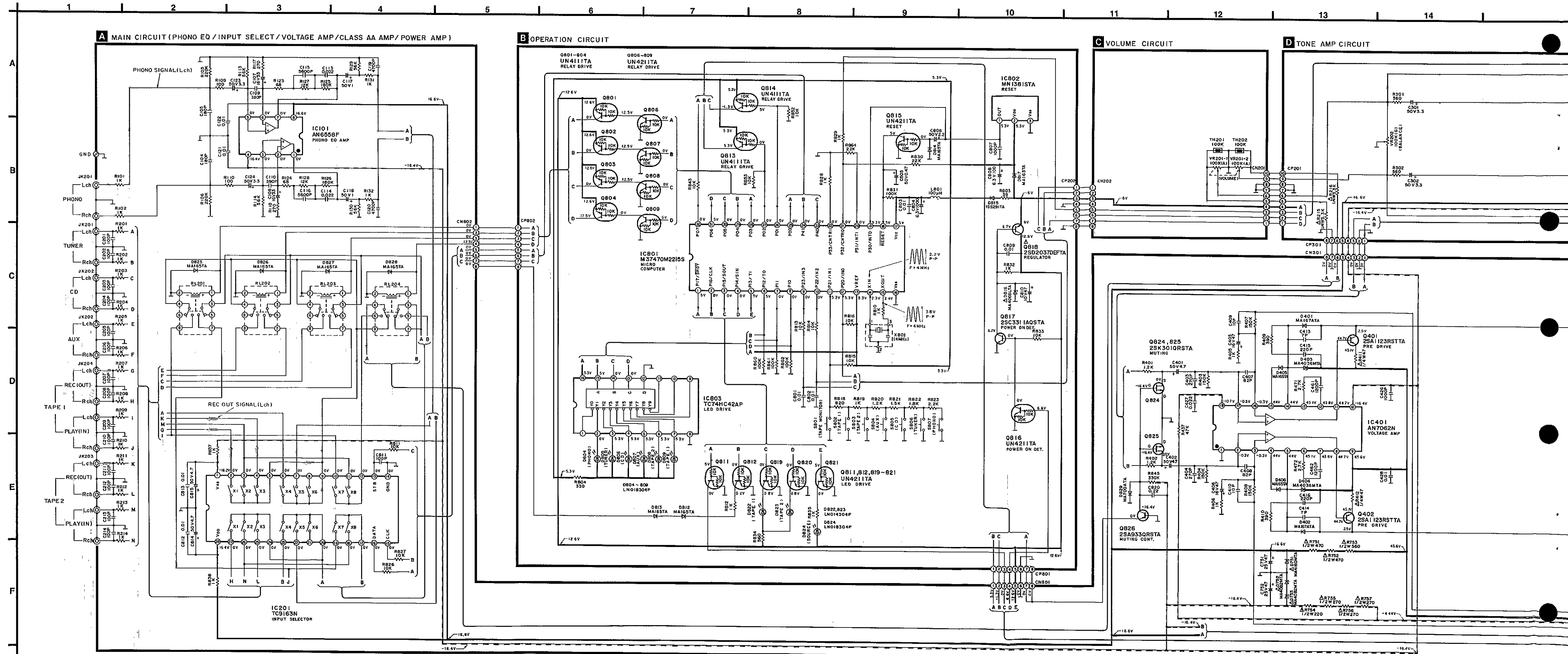
3. When replacing the power IC, unsolder the pins of power IC on the soldered surface.

4. Then remove the 4 screws (①~④) fixed to the power IC.

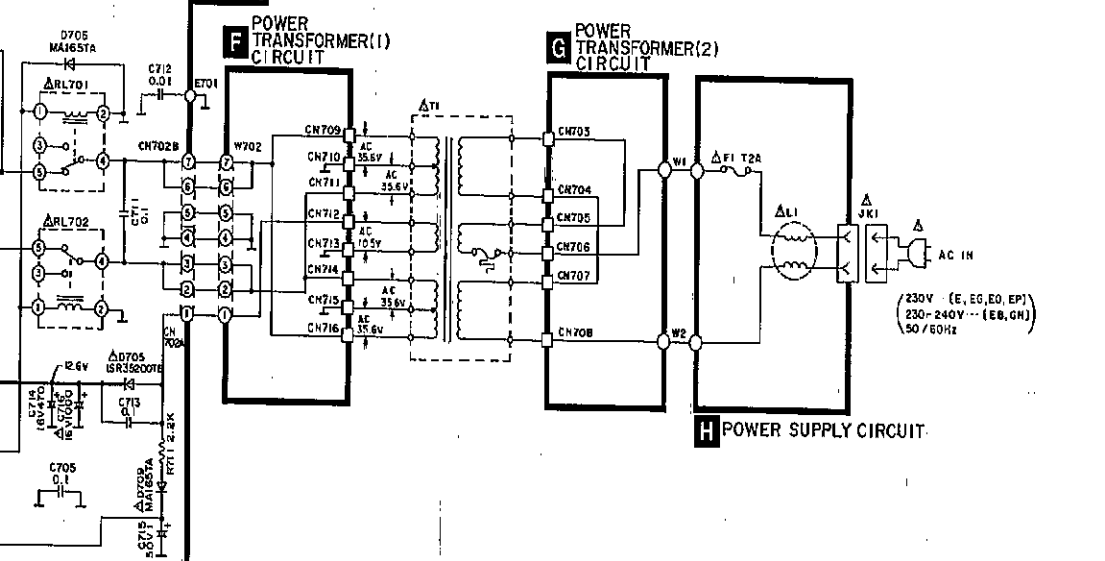
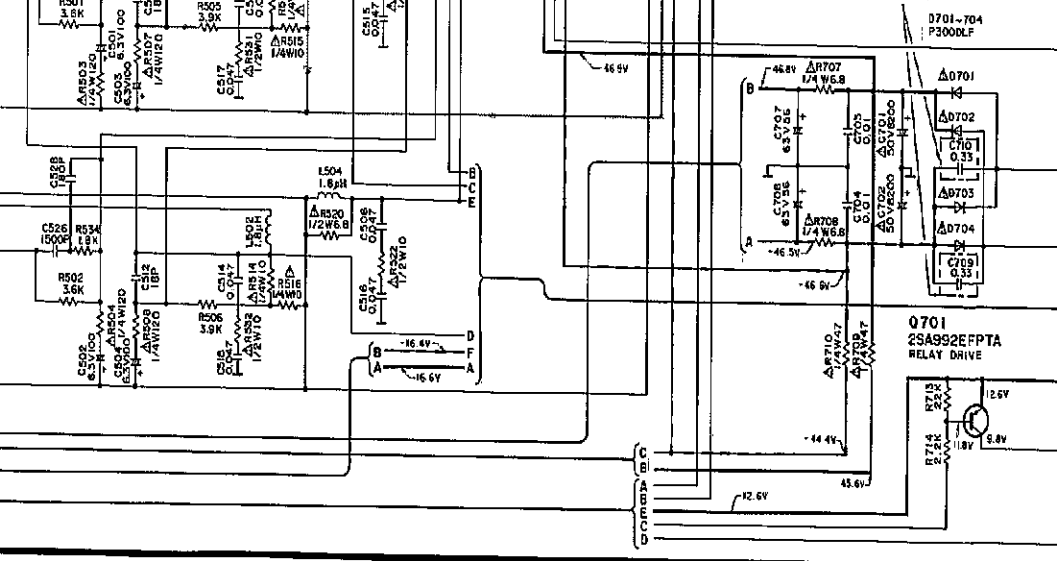
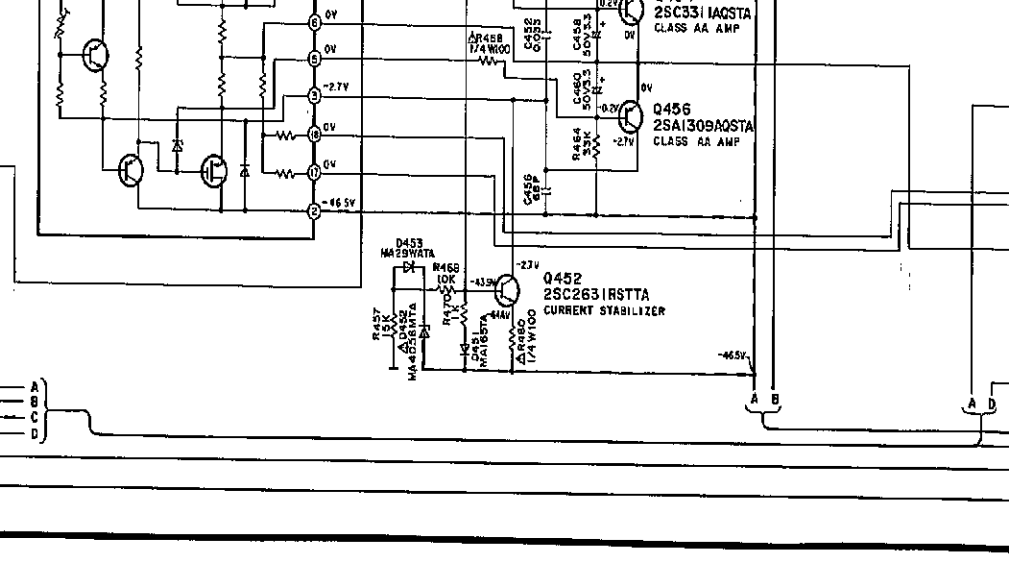
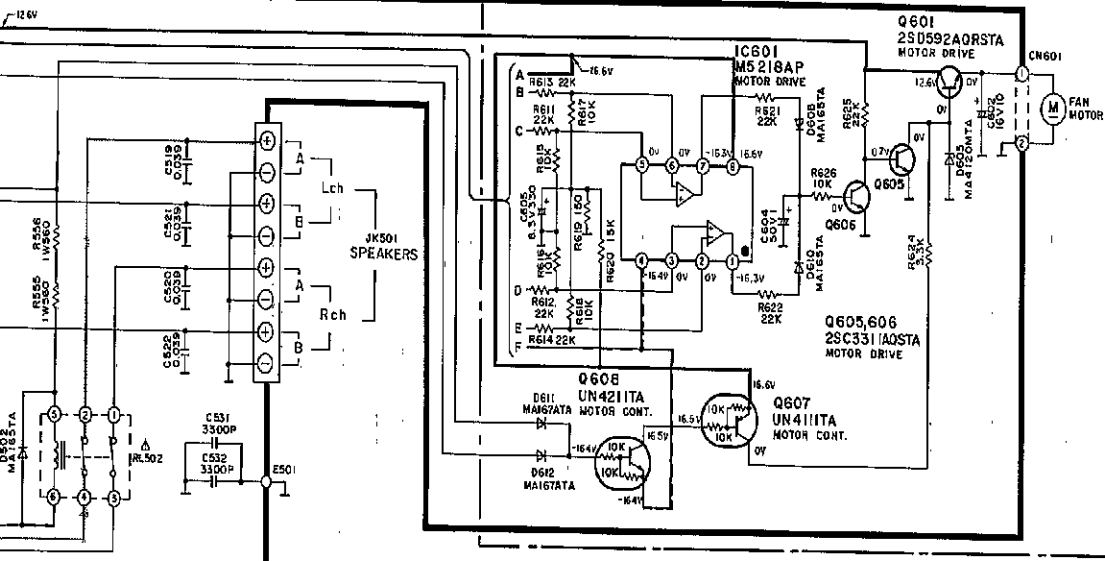
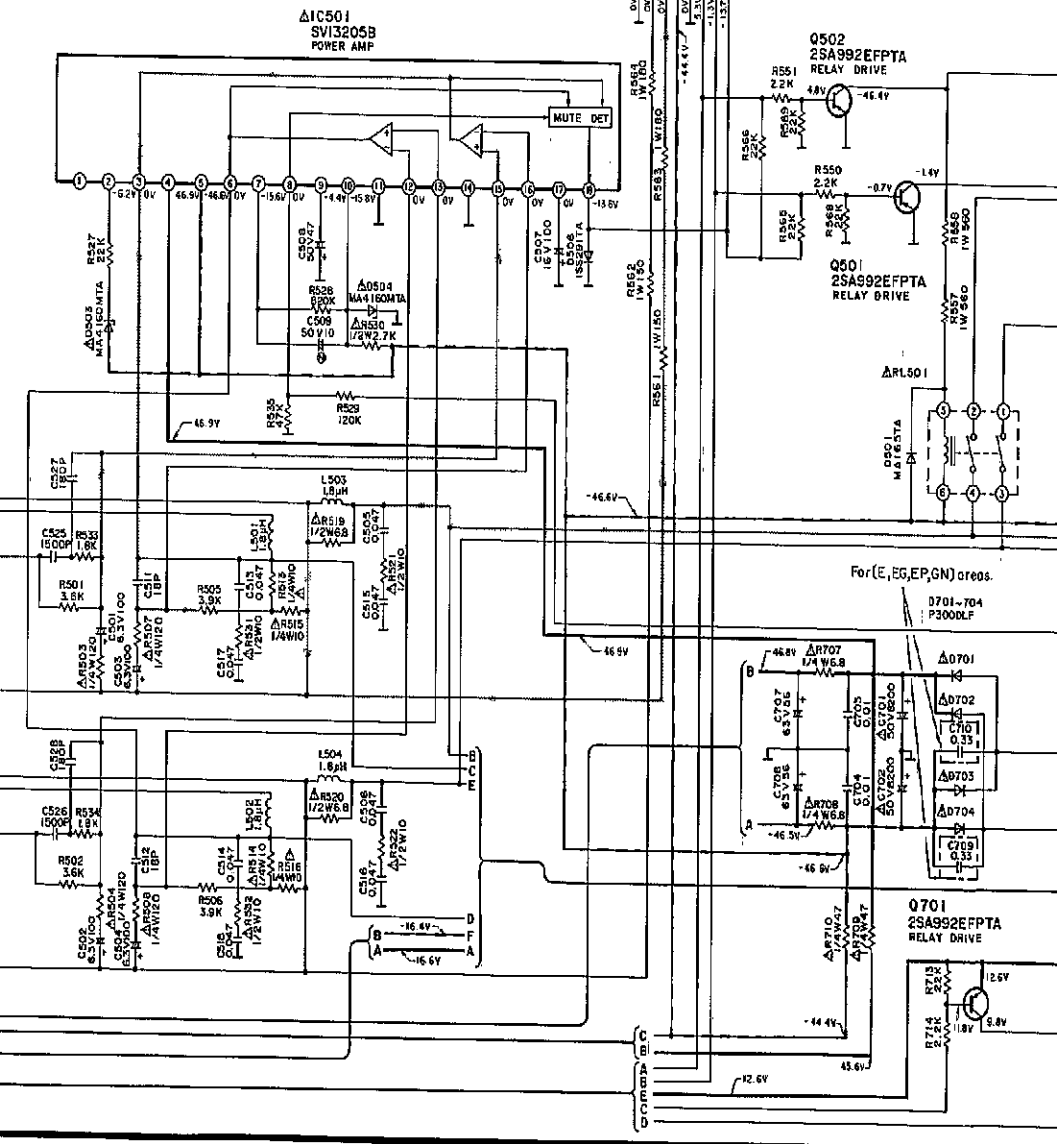
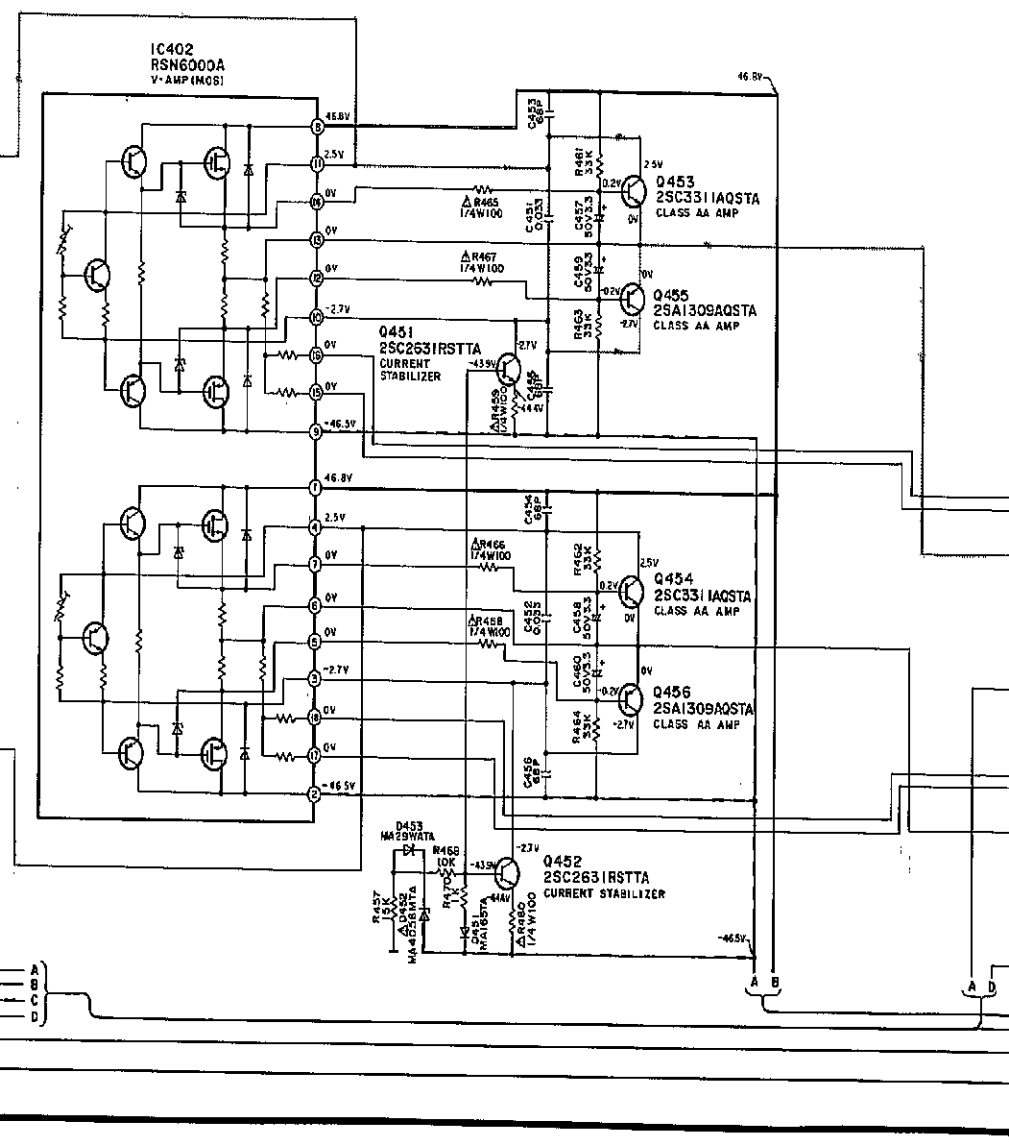
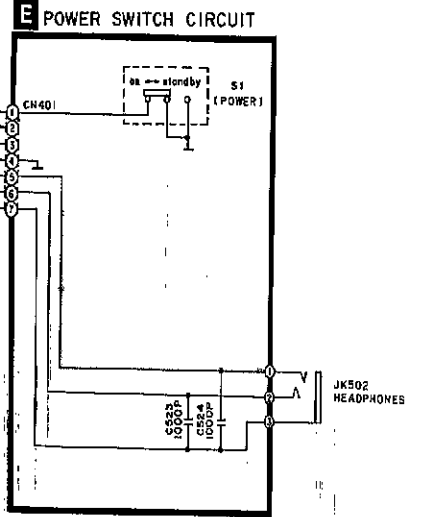
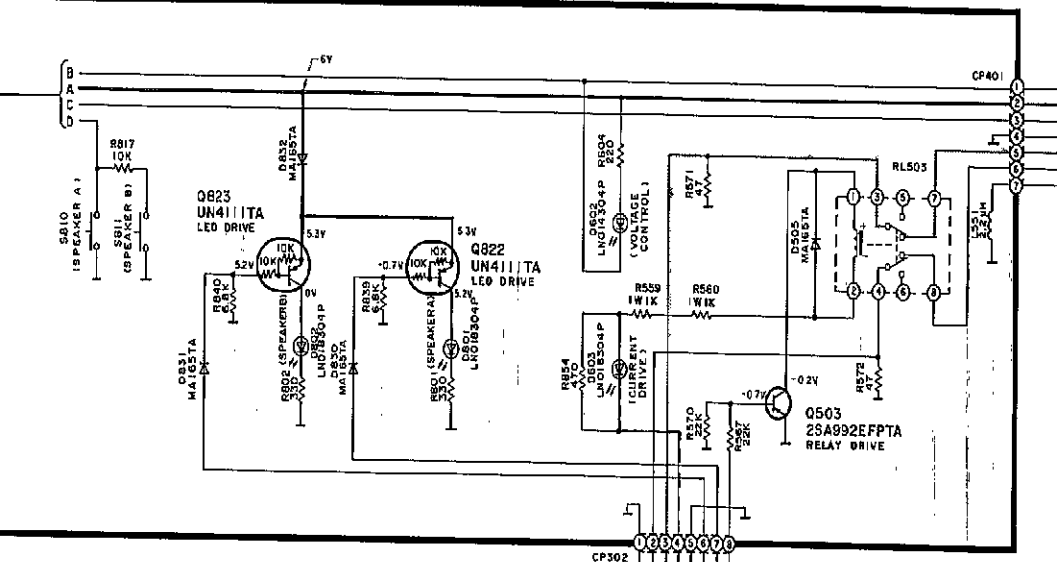
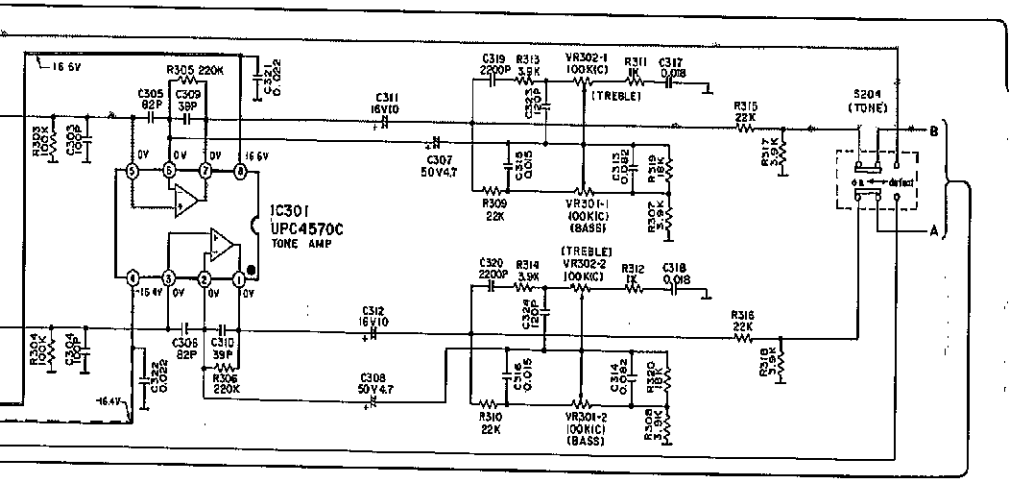


5. After replacement the power IC, upset the bottom cover and align the ribs of the bottom cover to the lugs on the bottom chassis.
6. After mounting the bottom cover on the bottom chassis, fix it with a screw (XTB3+8J).

SCHEMATIC DIAGRAM (Parts list on pages 26, 27, 31, 32)



15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33



**Notes:**

- S1 : Power "STANDBY/ON" switch in "on" position. (POWER, ■ STANDBY ○ ■ ON)
- S2 : Voltage select switch in "220-240 V" position. (VOLT ADJ.) for (GC) area.
- S204 : Tone control switch in "on" position. (TONE)
- S801 : Tape-monitor switch. (TAPE MONITOR)
- S802 : Input selectors switch. (TAPE 1)
- S803 : Input selectors switch. (TAPE 2)
- S804 : Input selectors switch. (AUX)
- S805 : Input selectors switch. (CD)
- S806 : Input selectors switch. (TUNER)
- S807 : Input selectors switch. (PHONO)
- S810 : Speaker select switch. (SPEAKERS A)
- S811 : Speaker select switch. (SPEAKERS B)

•Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester. No mark: Power ON!

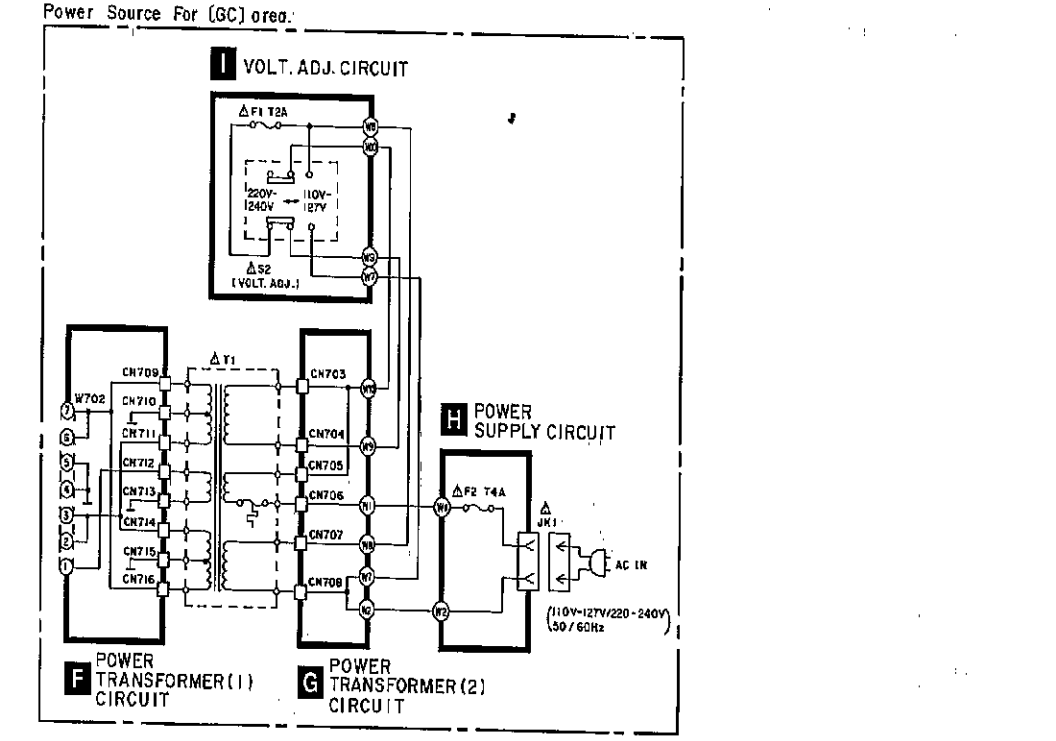
•Important safety notice:  
Components identified by Δ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

•This schematic diagram may be modified at any time with the development of new technology.

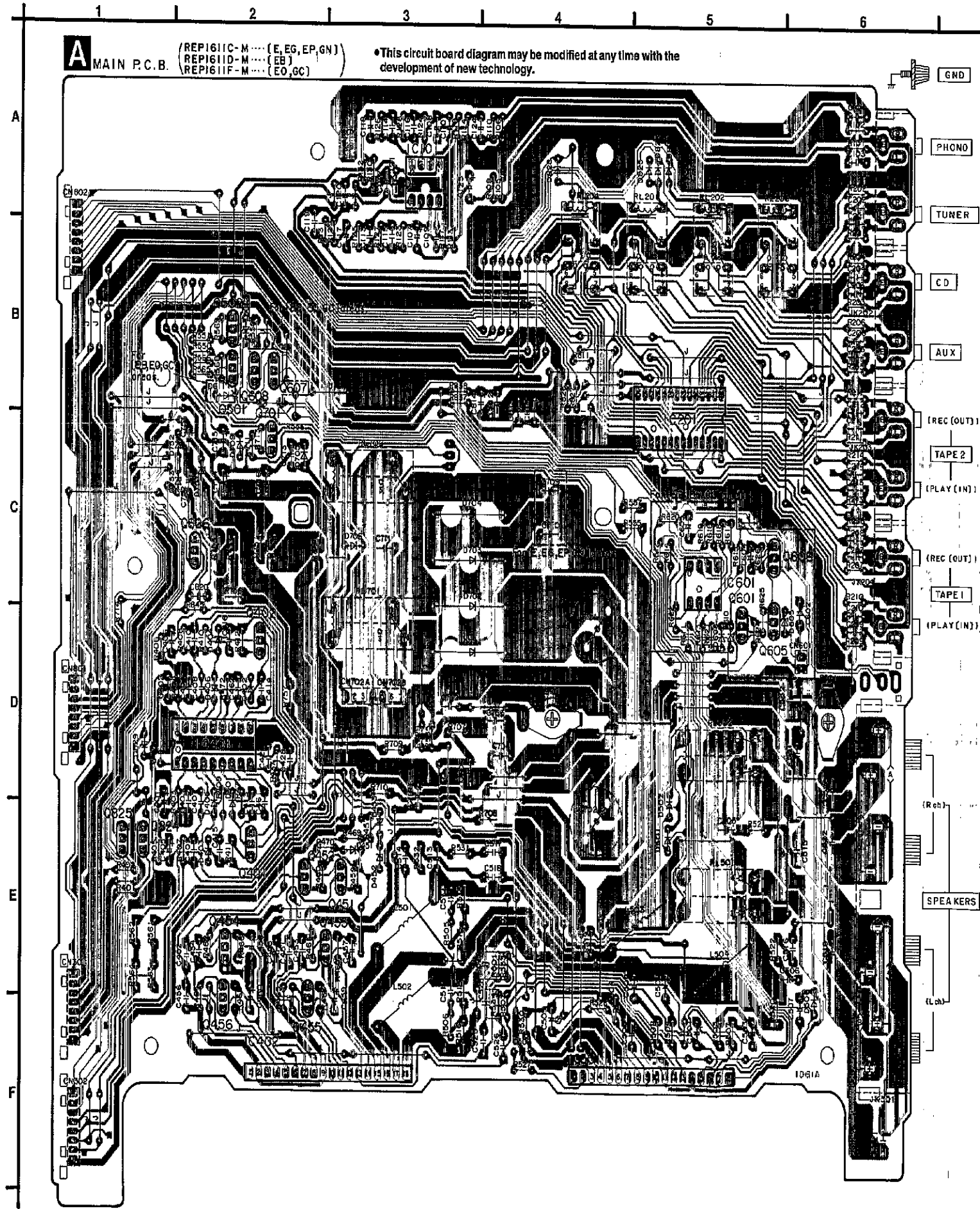
**Caution!**  
IC and LSI are sensitive to static electricity. Secondary trouble can be prevented by taking care during repair. Cover the parts boxes made of plastics with aluminum foil. Ground the soldering iron. Put a conductive mat on the work table. Do not touch the legs of IC or LSI with the fingers directly.

**Voltage and signal line:**

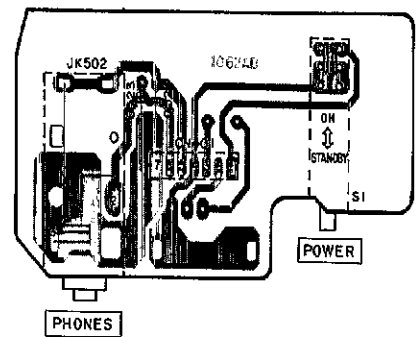
- : Positive voltage line.
- - - : Negative voltage line.
- ~ : Phono signal line.
- : Recording output signal line.



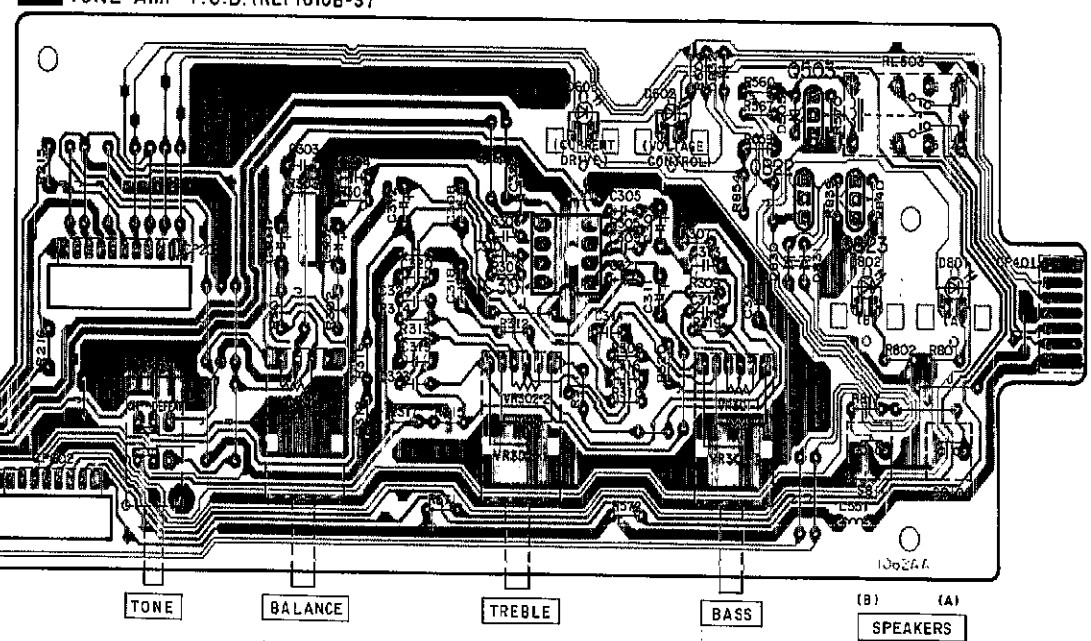
PRINTED CIRCUIT BOARD DIAGRAM



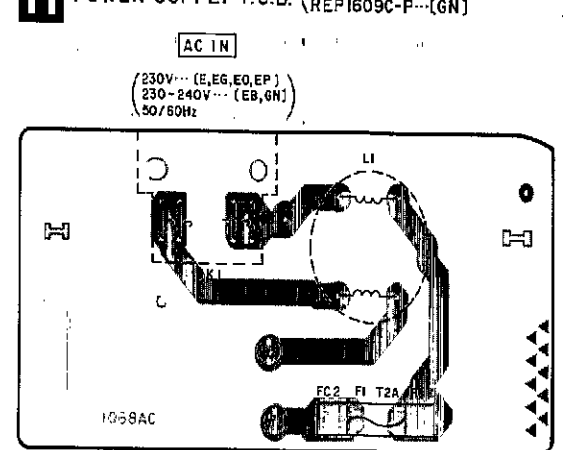
**E** POWER SWITCH P.C.B. (REP1610B-S)



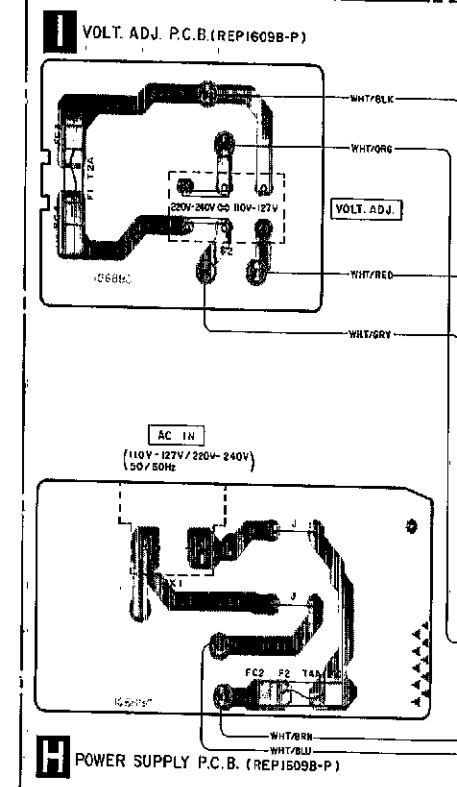
**D** TONE AMP P.C.B. (REP1610B-S)



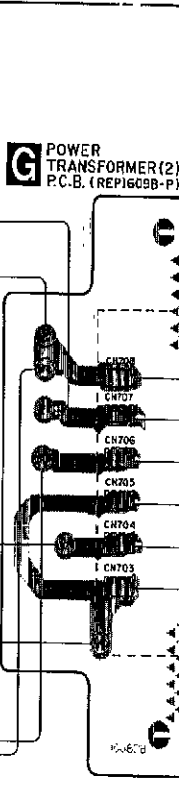
**H** POWER SUPPLY P.C.B. (REP1609A-P... (E,EB,EG,EO,EP), REP1609C-P... (GN))



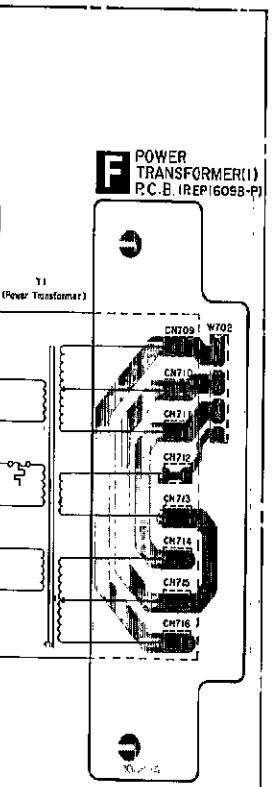
**I** VOLT. ADJ. P.C.B. (REP1609B-P)



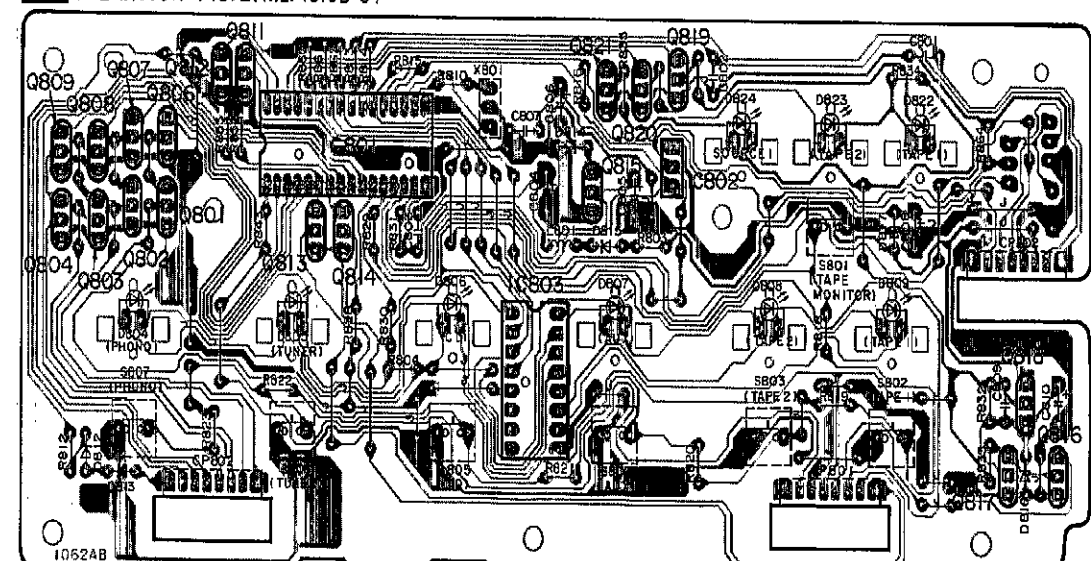
**G** POWER TRANSFORMER (2) P.C.B. (REP1609B-P)



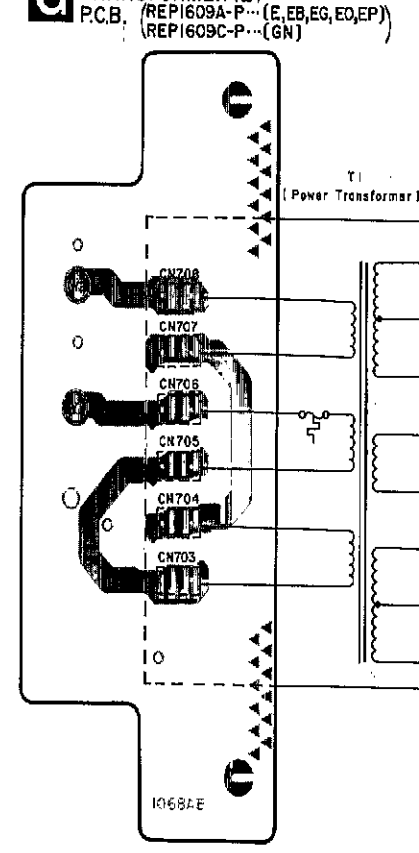
**F** POWER TRANSFORMER (1) P.C.B. (REP1609B-P)



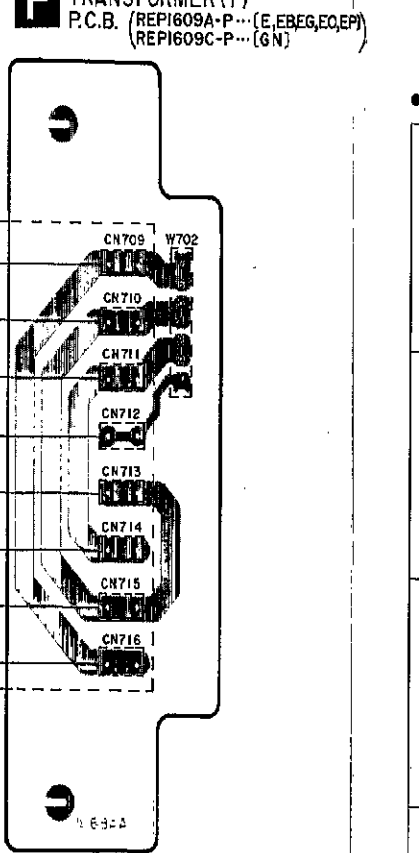
**B** OPERATION P.C.B. (REP1610B-S)



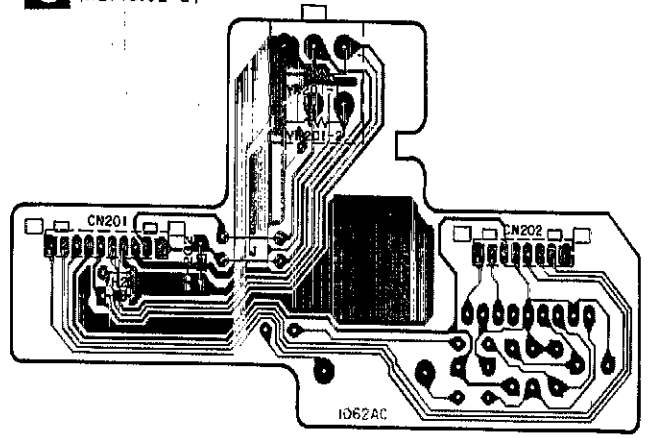
**G** POWER TRANSFORMER (2) P.C.B. (REP1609A-P... (E,EB,EG,EO,EP), REP1609C-P... (GN))



**F** POWER TRANSFORMER (1) P.C.B. (REP1609A-P... (E,EB,EG,EO,EP), REP1609C-P... (GN))



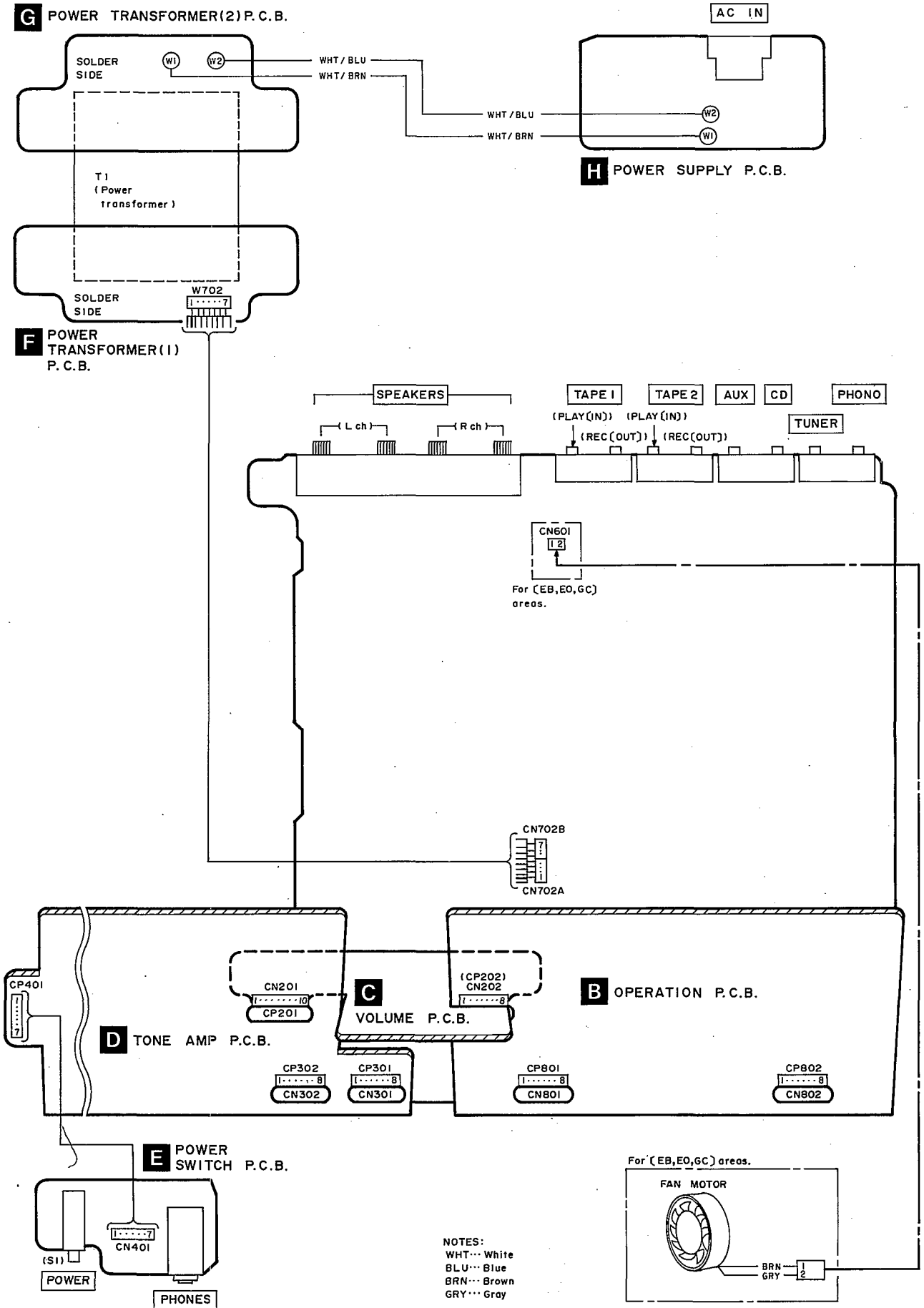
**C** VOLUME P.C.B. (REP1610B-S)



Terminal guide of IC's, transistors and diodes

M5218AP 	AN6558F 8Pin UPC4570C 8Pin AN7062N 18Pin	TC74HC42AP 16Pin TC9163N 28Pin M37470M2215S 32Pin	RSN600A SV13205B 
MN1361STA 	2SA933QRSTA 2SA992EFPTA 2SA1123RSTTA 2SC2631RSTTA 2SD592AQRSTA	2SA1309AQSTA 2SC3311AQSTA UN4111TA UN4211TA	2SK301QRSTA 
2SD2037DEFTA 	MA165TA MA167ATA MA29WA7A MA700ATA 1SS291TA 1SR35200TB	MA4036MTA MA4056MTA MA4068LTA MA4082MTA	MA4160MTA MA4120MTA 
P300DLF 	LN014304P LN018304P		

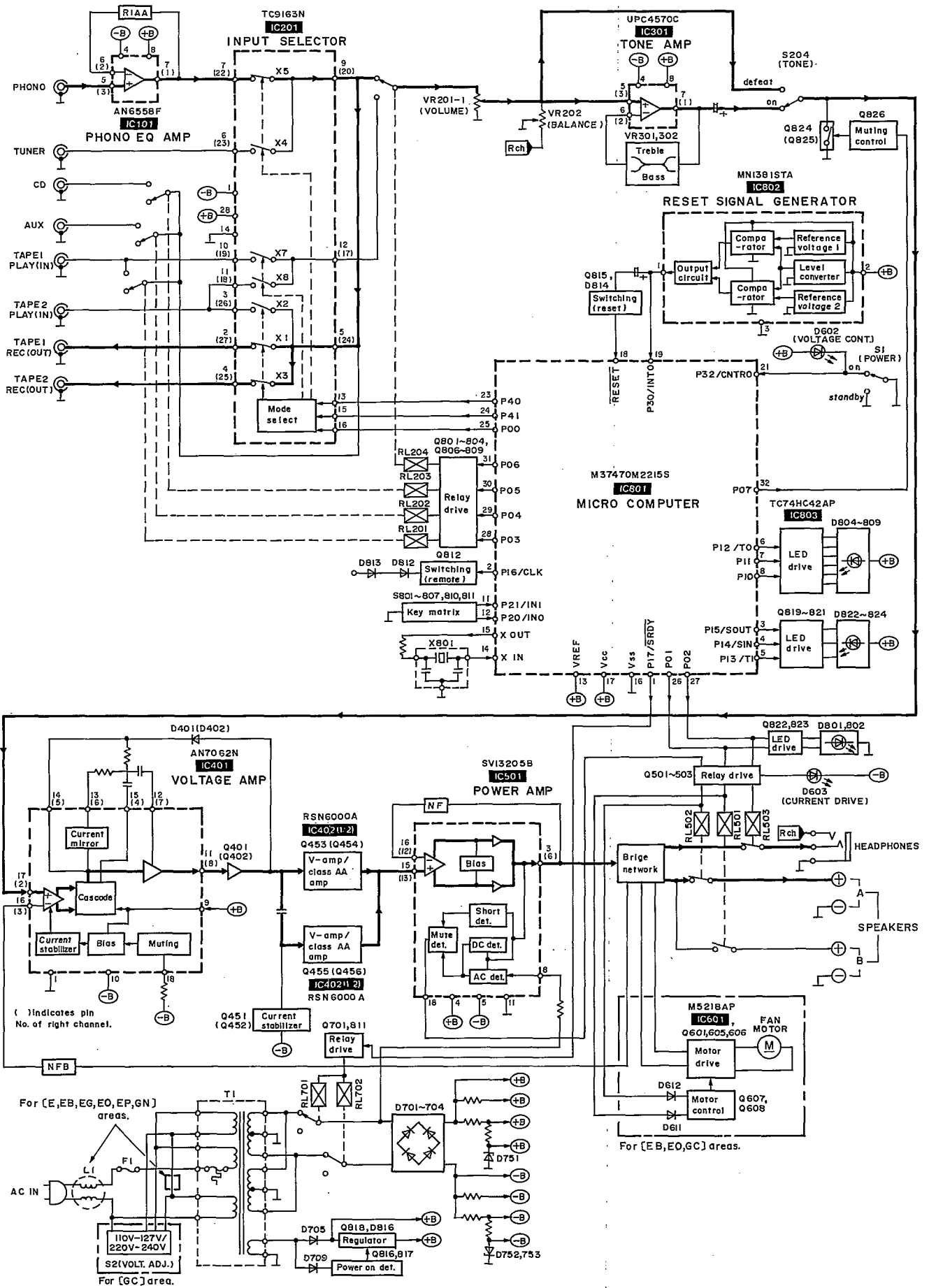
# WIRING CONNECTION DIAGRAM



NOTES:  
 WHT... White  
 BLU... Blue  
 BRN... Brown  
 GRY... Gray



# BLOCK DIAGRAM



## ■ FUNCTION OF IC TERMINALS

### ● IC801 (M37470M2215S)

Pin No.	Terminal Name	I/O	Function
1	P17/ $\overline{\text{SRDY}}$	O	Relay drive signal.
2	P16/CLK	O	Not used.
3	P15/SOUT	O	Tape monitor 1 LED drive signal.
4	P14/SIN	O	Tape monitor 2 LED drive signal.
5	P13/TI	O	Source LED drive signal.
6	P12/TO	O	Input selector LED drive signal.
7	P11		
8	P10		
9	P23/IN3	O	Level encoder volume control signal output. Not used.
10	P22/IN2		
11	P21/IN1	I	Tape monitor SW AD input.
12	P20/IN0	I	Speakers selector SW AD input.
13	VREF	—	Reference voltage input.
14	X IN	I	Connected to ceramic oscillator. (X801: 4 MHz).
15	X OUT	O	
16	V <sub>ss</sub>	—	GND terminal.
17	V <sub>cc</sub>	—	Power supply (+5 V).

Pin No.	Terminal Name	I/O	Function
18	$\overline{\text{RESET}}$	I	Reset signal input.
19	P30/INTO	I	Back-up detector signal input.
20	P31/INTI	I	Remote control receiving signal input. Not used.
21	P32/CNTRO	I	POWER switch input.
22	P33/CNTRI	—	Not used.
23	P40	—	Not used.
24	P41		
25	P00		
26	P01	O	Speaker (A) LED drive signal.
27	P02	O	Speaker (B) LED drive signal.
28	P03	O	SELECTOR RELAY 1 output.
29	P04	O	SELECTOR RELAY 2 output.
30	P05	O	SELECTOR RELAY 3 output.
31	P06	O	SELECTOR RELAY 4 output.
32	P07	O	Muting control output.

# REPLACEMENT PARTS LIST

**Notes:** \*Important safety notice:

 Components identified by  $\Delta$  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

\*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)

Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)		D503, 504	MA4160M	DIODE	$\Delta$
IC101	AN6558F	I. C. PHONO EQ. AMP.		D505	MA165	DIODE	
IC201	TC9163N	I. C. INPUT SELECTOR		D506	1SS291TA	DIODE	
IC301	UPC4570C	I. C. TONE AMP.		D602	LN014304P	LED	
IC401	AN7062N	I. C. VOLTAGE AMP.		D603	LN018304P	LED	
IC402	RSN6000A	I. C. V-AMP.		D605	MA4120	DIODE	(EB, EO, GC)
IC501	SV13205B	I. C. POWER AMP.	$\Delta$	D608	MA165	DIODE	(EB, EO, GC)
IC601	M5218AP	I. C. MOTOR DRIVE	(EB, EO, GC)	D610	MA165	DIODE	(EB, EO, GC)
IC801	M37470M2215S	I. C. MICRO COMPUTER		D611, 612	MA167	DIODE	(EB, EO, GC)
IC802	MN1381STA	I. C. RESET		D701-704	P300DLF	DIODE	$\Delta$
IC803	TC74HC42AP	I. C. LED DRIVE		D705	1SR35200TB	DIODE	$\Delta$
		TRANSISTOR(S)		D706	MA165	DIODE	
Q401, 402	2SA1123RSTTA	TRANSISTOR		D709	MA165	DIODE	$\Delta$
Q451, 452	2SC2631RSTTA	TRANSISTOR		D751	MA4160M	DIODE	$\Delta$
Q453, 454	2SC3311A-Q	TRANSISTOR		D752, 753	MA4082MTA	DIODE	$\Delta$
Q455, 456	2SA1309A-R	TRANSISTOR		D801, 802	LN018304P	LED	
Q501-503	2SA992EFPTA	TRANSISTOR		D804-809	LN018304P	LED	
Q601	2SD592ANCQ	TRANSISTOR	(EB, EO, GC)	D812-814	MA165	DIODE	
Q605, 606	2SC3311A-Q	TRANSISTOR	(EB, EO, GC)	D815	1SS291TA	DIODE	
Q607	UN4111	TRANSISTOR	(EB, EO, GC)	D816	MA4068L	DIODE	$\Delta$
Q608	UN4211	TRANSISTOR	(EB, EO, GC)	D817	MA165	DIODE	
Q701	2SA992EFPTA	TRANSISTOR		D822, 823	LN014304P	LED	
Q801-804	UN4111	TRANSISTOR		D824	LN018304P	LED	
Q806-809	UN4211	TRANSISTOR		D825-828	MA165	DIODE	
Q811, 812	UN4211	TRANSISTOR		D829	MA700	DIODE	
Q813, 814	UN4111	TRANSISTOR		D830-832	MA165	DIODE	
Q815, 816	UN4211	TRANSISTOR				VARIABLE RESISTOR(S)	
Q817	2SC3311A-Q	TRANSISTOR		VR201	RRV16B04B15A	V. R. MAIN VOLUME CONTROL	
Q818	2SD2037DEFTA	TRANSISTOR	$\Delta$	VR202	EVJ02QF04G15	V. R. BALANCE	
Q819-821	UN4211	TRANSISTOR		VR301, 302	EVJYA1F04C15	V. R. BASS/TREBLE CONTROL	
Q822, 823	UN4111	TRANSISTOR				THERMISTOR(S)	
Q824, 825	2SK301QRS	TRANSISTOR		TH201, 202	ERTD2ZHL104T	THERMISTOR	
Q826	2SA933QRSTA	TRANSISTOR				COIL(S)	
		DIODE(S)		L1	RLQZ271M	COIL	$\Delta$ (E, EB, EO, GN)
D401, 402	MA167	DIODE		L501-504	SLQY18G-10	COIL	
D403, 404	MA4036MTA	DIODE		L551	ELEPK2R2MA	COIL	
D405, 406	MA165	DIODE		L801	ELEXT101KA9	COIL	
D451	MA165	DIODE				TRANSFORMER(S)	
D452	MA4056MTA	DIODE	$\Delta$				
D453	MA29WA	DIODE		T1	RTP7K5E001-W	POWER TRANSFORMER	$\Delta$ (E, EG, EO, EP)
D501, 502	MA165	DIODE					



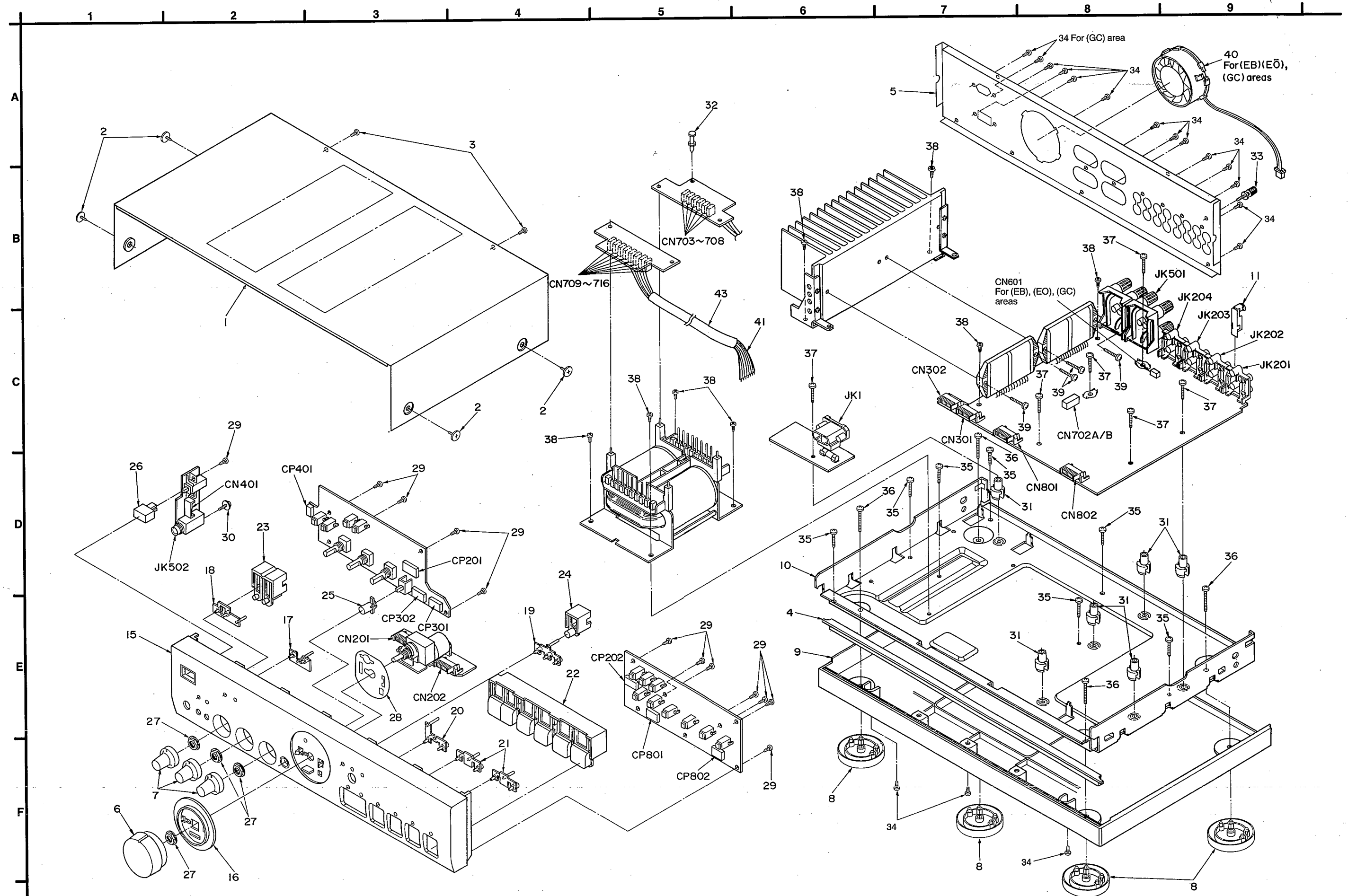
Note: The "(SF)" mark denotes the standard part.  
 \*[VRD]: indicates parts that are supplied by Video Recorder Division.

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RKM0114A-K	CABINET	(E, EG, EP, GN)
1	RKM0114B-K	CABINET	(EB, EO, GC)
2	SNE2129-1	SCREW	
3	XTBS3+8JFZ1	SCREW	
4	RGKO550-T	ORNAMENT RUBBER	
5	RGR0170E-A1	REAR PANEL	(EB)
5	RGR0170J-A1	REAR PANEL	(EO)
5	RGR0170F-A	REAR PANEL	(GC)
5	RGR0170D-C1	REAR PANEL	(GN)
5	RGR0170D-A1	REAR PANEL	(E, EG, EP)
6	RGW0176-K	KNOB, VOLUME ✓	
7	RGW0177-K	KNOB, TONE ✓	
8	RKA0053-A	FOOT	
9	RKU0049-K	CHASSIS BASE	
10	RMK0202	BOTTOM CHASSIS	
11	RSC0105	SHIELD PLATE (PHONO)	
15	RFKGA600E-K	FRONT PANEL ASS'Y	
16	RGK0549-S	ORNAMENT RING	
17	RGL0184-Q	PANEL LIGHT (A)	
18	RGL0185-Q	PANEL LIGHT (B)	
19	RGL0186-Q	PANEL LIGHT (C)	
20	RGL0187-Q	PANEL LIGHT (D)	
21	RGL0188-Q	PANEL LIGHT (E)	
22	RGU0886-K	BUTTON, SELECT etc. ✓	
23	RGU0887-K	BUTTON, SPEAKER ✓	
24	RGU0888-K	BUTTON, TAPE MONITOR ✓	
25	RGU0889-K	BUTTON, TONE ✓	
26	RGU0890-K	BUTTON, POWER ✓	
27	RHN90001	NUT	
28	RSC0323	SHIELD PLATE (VOLUME)	
29	XTBS26+8J	SCREW	
30	XTW3+10T	SCREW	
31	SHE187-2	P. C. B. SUPPORT	
32	SHR8006	SPACER	
33	SNE2123	GND SCREW	
34	XTBS3+8JFZ1	SCREW	
35	XTB3+10G	SCREW	
36	XTB3+16CFN	SCREW	
37	XTB3+20JFZ	SCREW	
38	XTB3+8JFZ	SCREW	
39	XTW3+15T	SCREW	
40	REM0040	FAN MOTOR	(EB, EO, GC)
41	RWJ3907280QQ	FLAT CABLE (7P)	
43	RWZ080UFW240	TUBE	

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPG1571	PACKING CASE	(E, EG, EO, EP, GC, GN)
P1	RPG1575	PACKING CASE	(EB)
P2	RPN0684	PAD	
P3	RPQ0164	ACCESSORY PAD	
P4	XZB50X65A0Z	PROTECTION COVER	
P5	XZB24X34C04	PROTECTION COVER	
P6	RPH0032	MIRROR SHEET	(EB, GN)
		ACCESSORIES	
A1	RJAD019-2K	AC POWER SUPPLY CORD	△ (E, EG, EO, EP, GC)
A1	VJA0733	AC POWER SUPPLY CORD	△ (EB) (SF) [VRD]
A1	RJA0036-K	AC POWER SUPPLY CORD	△ (GN)
A2	RQA0013	WARRANTY CARD	(E, EB, EG, EO)
A2	RQX7433ZA	WARRANTY CARD	(GN)
A3	RQCB0169	SERVICE CENTER LIST	(E, EB, EG, EO, GC, GN)
A4	RFKSJA600E-K	INSTRUCTIONS MANUAL	(E)
A4	RFKSJA600EGK	INSTRUCTIONS MANUAL	(EG)
A4	RFKSJA600EOK	INSTRUCTIONS MANUAL	(EO)
A4	RFKSJA600EPK	INSTRUCTIONS MANUAL	(EP)
A4	RFKSJA600GCK	INSTRUCTIONS MANUAL	(GC)
A4	RQT1966-B	INSTRUCTIONS MANUAL	(EB, GN)
A5	RQCA0253	BLOCK DIAGRAM	(EP)
A6	RQLA0134	CAUTION LABEL	(GC)
A7	SJP5213-2	POWER PLUG ADAPTOR	△ (GC)

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
T1	RTP7K5B001-W	POWER TRANSFORMER	△ (EB, GC, GN)				
		OSCILLATOR(S)		RL201-204	RSY0014M-0	RELAY	
				RL501, 502	RSY0013M-0	RELAY	△
				RL503	RSY0014M-0	RELAY	
X801	EF0GC4004TA	OSCILLATOR(4MHz)		RL701, 702	RSY0012M-0	RELAY	△
		FUSE(S)				JACK(S)	
F1	XBA2C20TB0	FUSE, 250V T2A	△	JK1	SJS9236	AC INLET	△ (E, EB, EG, EO, EP, GC)
F2	XBA2C40TB0	FUSE, 250V T4A	△ (GC)	JK1	SJSD16	AC INLET	△ (GN)
		SWITCH(ES)		JK201	SJF3069N	INPUT TERMINAL (PHONO/TUNER)	
				JK202	SJF3069N	INPUT TERMINAL (CD/AUX)	
S1	SSH1238	SW, POWER		JK203	SJF3069N	IN/OUTPUT TERMINAL (TAPE 2)	
S2	ESD26200A	SW, VOLTAGE SELECTOR	△ (GC)	JK204	SJF3069N	IN/OUTPUT TERMINAL (TAPE 1)	
S204	ESB68046	SW, TONE ON/DEFEAT		JK501	RJH4801M-1	SPEAKER TERMINAL	(E, EG, EO, EP, GC, GN)
S801	EVQ21405R	SW, TAPE-MONITOR		JK501	RJH4801M-2	SPEAKER TERMINAL	(EB)
S802	EVQ21405R	SW, TAPE 1		JK502	RJJ63TA01	HEADPHONES JACK	
S803	EVQ21405R	SW, TAPE 2					
S804	EVQ21405R	SW, AUX					
S805	EVQ21405R	SW, CD					
S806	EVQ21405R	SW, TUNER					
S807	EVQ21405R	SW, PHONO					
S810, 811	EVQ21405R	SW, SPEAKERS A/B					
		CONNECTOR(S)					
CN201	RJU003K010M1	SOCKET (10P)					
CN202	RJU003K008M1	SOCKET (8P)					
CN301, 302	RJU003K008M1	SOCKET (8P)					
CN401	RJU057W007	SOCKET (7P)					
CN601	SJT3213	CONNECTOR (2P)	(EB, EO, GC)				
CN703-716	RJS1A1101T1	SOCKET (1P)					
CN801, 802	RJU003K008M1	SOCKET (8P)					
CN702A	RJS1A6604	SOCKET (4P)					
CN702B	RJS1A6603	SOCKET (3P)					
CP201	RJT003K010-1	CONNECTOR (10P)					
CP202	RJT003K008-1	CONNECTOR (8P)					
CP301, 302	RJT003K008-1	CONNECTOR (8P)					
CP401	RJT057W007-1	CONNECTOR (7P)					
CP801, 802	RJT003K008-1	CONNECTOR (8P)					
		EARTH TERMINAL(S)					
E501, 701	SNE1004-1	GND PLATE					
		FUSE HOLDER(S)					
FC1, 2	EYF52BC	FUSE HOLDER					
FC3, 4	SJT388	FUSE HOLDER	(GC)				
		RELAY(S)					

# CABINET PARTS LOCATION



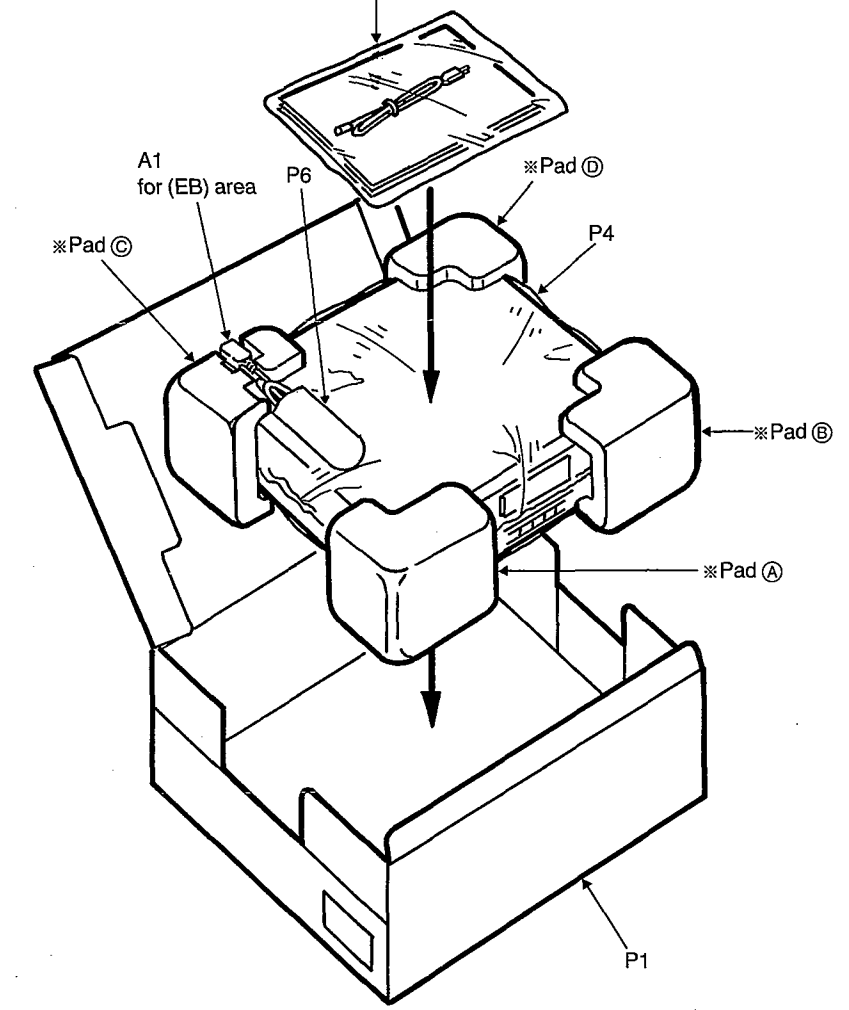
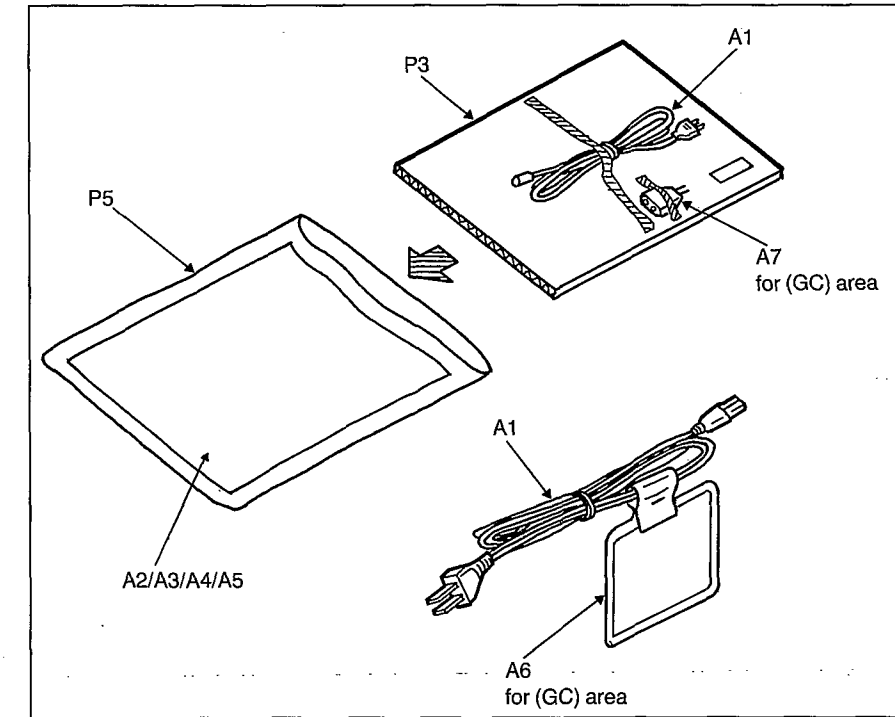
Notes : \* Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)  
 \* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
RESISTORS								
R101, 102	ERDS2TJ102	1/4W 1K	R521, 522	ERDS1FVJ100T	1/2W 10 Δ	R831	ERDS2TJ104	1/4W 100K
R105, 106	ERDS2TJ224T	1/4W 220K	R527	ERDS2TJ223	1/4W 22K	R832	ERDS2TJ102	1/4W 1K
R109, 110	ERDS2TJ101	1/4W 100	R528	ERDS2TJ824	1/4W 820K	R833	ERDS2TJ103	1/4W 10K
R113, 114	ERDS2TJ563	1/4W 56K	R529	ERDS2TJ124T	1/4W 120K	R834	ERDS2TJ561	1/4W 560
R117, 118	ERDS2TJ271	1/4W 270	R530	ERDS1FVJ272T	1/2W 2.7K Δ	R835	ERDS2TJ102	1/4W 1K
R123, 124	ERDS2TJ680T	1/4W 68	R531, 532	ERDS1FVJ100T	1/2W 10 Δ	R837, 838	ERDS2TJ102	1/4W 1K
R125, 126	ERDS2TJ184T	1/4W 180K	R533, 534	ERDS2TJ182	1/4W 1.8K	R839, 840	ERDS2TJ682T	1/4W 6.8K
R127, 128	ERDS2TJ123	1/4W 12K	R535	ERDS2TJ473	1/4W 47K	R843	ERDS2TJ103	1/4W 10K
R129, 130	ERDS2TJ563	1/4W 56K	R550, 551	ERDS2TJ222	1/4W 2.2K	R845	ERDS2TJ334	1/4W 330K
R131, 132	ERDS2TJ102	1/4W 1K	R555-558	ERG1SJ561E	1W 560	R852, 853	ERDS2TJ103	1/4W 10K
R201-206	ERDAS3G102T	1/4W 1K	R559, 560	ERG1SJ102E	1W 1K	R854	ERDS2TJ471	1/4W 470
R207, 208	ERDS2TJ102	1/4W 1K	R561, 562	ERG1SJ151E	1W 150	R860-862	ERDS2TJ104	1/4W 100K
R209, 210	ERDAS3G102T	1/4W 1K	R563, 564	ERG1SJ181E	1W 180	R864	ERDS2TJ223	1/4W 22K
R211, 212	ERDS2TJ102	1/4W 1K	R565-570	ERDS2TJ223	1/4W 22K	CAPACITORS		
R213, 214	ERDAS3G102T	1/4W 1K	R571, 572	ERDS2TJ470	1/4W 47	C103, 104	ECBT1H181KB5	50V 180P
R215, 216	ERDLS2VJ332T	1/4W 3.3K Δ	R604	ERDS2TJ221	1/4W 220	C107, 108	ECEA1CKA330B	16V 330
R301, 302	ERDAS3G561	1/4W 560	R611-614	ERDS2TJ223	1/4W 22K EB, EO, GC	C109, 110	ECBT1H391KB5	50V 390P
R303, 304	ERDS2TJ104	1/4W 100K	R615-618	ERDS2TJ103	1/4W 10K EB, EO, GC	C113, 114	ECQB1H223JF3	50V 0.022U
R305, 306	ERDS2TJ224T	1/4W 220K	R619	ERDS2TJ151	1/4W 150 EB, EO, GC	C115, 116	ECQB1H562JF3	50V 5600P
R307, 308	ERDS2TJ392T	1/4W 3.9K	R620	ERDS2TJ153	1/4W 15K EB, EO, GC	C117, 118	ECEA1HKA010B	50V 1U
R309, 310	ERDS2TJ223	1/4W 22K	R621, 622	ERDS2TJ223	1/4W 22K EB, EO, GC	C119, 120	ECQB1H472JF3	50V 4700P
R311, 312	ERDS2TJ102	1/4W 1K	R624	ERDS2TJ332	1/4W 3.3K EB, EO, GC	C121, 122	ECBT1C103NS5	16V 0.01U
R313, 314	ERDS2TJ392T	1/4W 3.9K	R625	ERDS2TJ223	1/4W 22K EB, EO, GC	C123, 124	ECEA1HKA330B	50V 3.3U
R315, 316	ERDS2TJ223	1/4W 22K	R626	ERDS2TJ103	1/4W 10K EB, EO, GC	C201-214	ECKT1H101KB	50V 100P
R317, 318	ERDS2TJ392T	1/4W 3.9K	R707, 708	ERDAF2VJ6R8T	1/4W 6.8 Δ	C301, 302	ECA1HPXS3R3B	50V 3.3U
R319, 320	ERDS2TJ183T	1/4W 18K	R709, 710	ERDAF2VJ470T	1/4W 47 Δ	C303, 304	ECCR1H101K5	50V 100P
R401, 402	ERDAS3G122	1/4W 1.2K	R711	ERDS2TJ222	1/4W 2.2K	C305, 306	ECBT1H20KB5	50V 82P
R403, 404	ERDS2TJ154	1/4W 150K	R713	ERDS2TJ223	1/4W 22K	C307, 308	ECA1HPXS4R7B	50V 4.7U
R405, 406	ERDAS3G102T	1/4W 1K	R714	ERDS2TJ222	1/4W 2.2K	C309, 310	ECBT1H390J5	50V 39P
R407, 408	ERDAS3G154T	1/4W 150K	R751, 752	ERDS1FVJ471T	1/2W 470 Δ	C311, 312	ECA1CPXS100B	16V 10U
R409, 410	ERDS2TJ391	1/4W 390	R753	ERDS1FVJ561T	1/2W 560 Δ	C313, 314	ECQV1H823JM3	50V 0.082U
R411, 412	ERDAF2VJ470T	1/4W 47 Δ	R754	ERDS1FVJ221T	1/2W 220 Δ	C315, 316	ECQB1H153JF3	50V 0.015U
R437	ERDS2TJ473	1/4W 47K	R755-757	ERDS1FVJ271T	1/2W 270 Δ	C317, 318	ECQB1H183JF3	50V 0.018U
R457	ERDAS3G153T	1/4W 15K	R801, 802	ERDS2TJ331	1/4W 330	C319, 320	ECQB1H222JF3	50V 2200P
R459, 460	ERDAF2VJ101T	1/4W 100 Δ	R803	ERDS2TJ390	1/4W 39	C321, 322	ECBT1E223ZF	25V 0.022U
R461-464	ERDS2TJ333	1/4W 33K	R804	ERDS2TJ331	1/4W 330	C323, 324	ECBT1H121KB5	50V 120P
R465-468	ERDAF2VJ101T	1/4W 100 Δ	R810	ERDS2TJ102	1/4W 1K	C401, 402	ECEA1HB24R7B	50V 4.7U
R469	ERDAS3G103T	1/4W 10K	R811	ERDS2TJ103	1/4W 10K	C403, 404	ECCR1H271K5	50V 270P
R470	ERDAS3G102T	1/4W 1K	R812	ERDS2TJ102	1/4W 1K	C405, 406	ECA1CPXS470B	16V 47U
R471, 472	ERDS2TJ272T	1/4W 2.7K	R813-817	ERDS2TJ103	1/4W 10K	C407, 408	ECBT1H20KB5	50V 82P
R501, 502	ERDS2TJ362T	1/4W 3.6K	R818	ERDS2TJ821	1/4W 820	C409, 410	ECCR2H100K5	500V 10P
R503, 504	ERDAF2VJ121T	1/4W 120 Δ	R819	ERDS2TJ102	1/4W 1K	C413, 414	ECCR2H070D5	500V 7P
R505, 506	ERDS2TJ392T	1/4W 3.9K	R820	ERDS2TJ122	1/4W 1.2K	C415, 416	ECKT1H221KB	50V 220P
R507, 508	ERDAF2VJ121T	1/4W 120 Δ	R821	ERDS2TJ152	1/4W 1.5K	C426	ECBT1H102KB5	50V 1000P
R513-516	ERDAF2VJ100T	1/4W 10 Δ	R822	ERDS2TJ182	1/4W 1.8K	C427	ECBT1E223ZF	25V 0.022U
R519, 520	ERDS1FVJ6R8T	1/2W 6.8 Δ	R823	ERDS2TJ222	1/4W 2.2K	C428	ECKR1H103ZF5	50V 0.01U
			R826, 827	ERDS2TJ103	1/4W 10K	C451, 452	ECKR1H333ZF5	50V 0.033U
			R828, 829	ERDS2TJ102	1/4W 1K			
			R830	ERDS2TJ223	1/4W 22K			

PACKAGING

1495

Ref. No.	Part No.	Values & Remarks
C453-456	ECCV2H680K	500V 68P
C457-460	ECEA1HKA3R3B	50V 3.3U
C461, 462	ECKT1H122KB	50V 1200P
C501-504	ECA0JPXS101B	6.3V 100U
C505, 506	ECQV1H473JM3	50V 0.047U
C507	ECEA1CKA101B	16V 100U
C508	ECA1HM470B	50V 47U
C509	ECEA1HN100SB	50V 10U
C511, 512	ECBT1H180J5	50V 18P
C513-518	ECQV1H473JM3	50V 0.047U
C519-522	ECQB1H393JF3	50V 0.039U
C523, 524	ECBT1H102KB5	50V 1000P
C525, 526	ECQB1H152JF3	50V 1500P
C527, 528	ECBT1H181KB5	50V 180P
C531, 532	ECBT1C332KR5	16V 3300P
C602	ECEA1CKA100B	16V 10U EB, EO, GC
C604	ECEA1HKA010B	50V 1U EB, EO, GC
C605	ECEA0JKA331Q	6.3V 330U EB, EO, GC
C701, 702	ECES1H822VJG	50V 8200U Δ
C703, 704	ECQV1103JN3	100V 0.01U
C705	ECQV1H104JM3	50V 0.1U
C707, 708	ECA1JPXH560B	63V 56U
C709, 710	ECQE2334KF3	250V 0.33U E, EG, EP, GN
C711	ECQE2104KF3	250V 0.1U
C712	ECBT1C103NS5	16V 0.01U
C713	ECQV1H104JM3	50V 0.1U
C714	ECA1CM471B	16V 470U
C715	ECEA1HKA010B	50V 1U
C716	ECA1CM102B	16V 1000U Δ
C751, 752	ECA1EPXS470B	25V 47U
C801-803	ECBT1C103NS5	16V 0.01U
C804	ECEA0J102	6.3V 1000U
C805	ECEA1HKA47B	50V 0.47U
C806	ECEA1HKA2R2B	50V 2.2U
C807	ECBT1H102KB5	50V 1000P
C808	ECEA0JKA101B	6.3V 100U
C809	ECBT1C103NS5	16V 0.01U
C810	ECEA1AKA470B	10V 47U
C811	ECBT1H101KB5	50V 100P
C812, 813	ECKR1H103ZF5	50V 0.01U
C814, 815	ECA1HPXS4R7B	50V 4.7U
C820	ECQV1H224JM3	50V 0.22U



# REPLACEMENT PARTS LIST

**Notes:** \*Important safety notice:

 Components identified by  $\Delta$  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

\*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)

Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)		D503, 504	MA4160M	DIODE	$\Delta$
IC101	AN6558F	I. C. PHONO EQ. AMP.		D505	MA165	DIODE	
IC201	TC9163N	I. C. INPUT SELECTOR		D506	1SS291TA	DIODE	
IC301	UPC4570C	I. C. TONE AMP.		D602	LN014304P	LED	
IC401	AN7062N	I. C. VOLTAGE AMP.		D603	LN018304P	LED	
IC402	RSN6000A	I. C. V-AMP.		D605	MA4120	DIODE	(EB, EO, GC)
IC501	SV13205B	I. C. POWER AMP.	$\Delta$	D608	MA165	DIODE	(EB, EO, GC)
IC601	M5218AP	I. C. MOTOR DRIVE	(EB, EO, GC)	D610	MA165	DIODE	(EB, EO, GC)
IC801	M37470M2215S	I. C. MICRO COMPUTER		D611, 612	MA167	DIODE	(EB, EO, GC)
IC802	MN1381STA	I. C. RESET		D701-704	P300DLF	DIODE	$\Delta$
IC803	TC74HC42AP	I. C. LED DRIVE		D705	1SR35200TB	DIODE	$\Delta$
		TRANSISTOR(S)		D706	MA165	DIODE	
Q401, 402	2SA1123RSTTA	TRANSISTOR		D709	MA165	DIODE	$\Delta$
Q451, 452	2SC2631RSTTA	TRANSISTOR		D751	MA4160M	DIODE	$\Delta$
Q453, 454	2SC3311A-Q	TRANSISTOR		D752, 753	MA4082MTA	DIODE	$\Delta$
Q455, 456	2SA1309A-R	TRANSISTOR		D801, 802	LN018304P	LED	
Q501-503	2SA992EFPTA	TRANSISTOR		D804-809	LN018304P	LED	
Q601	2SD592ANCQ	TRANSISTOR	(EB, EO, GC)	D812-814	MA165	DIODE	
Q605, 606	2SC3311A-Q	TRANSISTOR	(EB, EO, GC)	D815	1SS291TA	DIODE	
Q607	UN4111	TRANSISTOR	(EB, EO, GC)	D816	MA4068L	DIODE	$\Delta$
Q608	UN4211	TRANSISTOR	(EB, EO, GC)	D817	MA165	DIODE	
Q701	2SA992EFPTA	TRANSISTOR		D822, 823	LN014304P	LED	
Q801-804	UN4111	TRANSISTOR		D824	LN018304P	LED	
Q806-809	UN4211	TRANSISTOR		D825-828	MA165	DIODE	
Q811, 812	UN4211	TRANSISTOR		D829	MA700	DIODE	
Q813, 814	UN4111	TRANSISTOR		D830-832	MA165	DIODE	
Q815, 816	UN4211	TRANSISTOR				VARIABLE RESISTOR(S)	
Q817	2SC3311A-Q	TRANSISTOR		VR201	RRV16B04B15A	V. R. MAIN VOLUME CONTROL	
Q818	2SD2037DEFTA	TRANSISTOR	$\Delta$	VR202	EVJ02QF04G15	V. R. BALANCE	
Q819-821	UN4211	TRANSISTOR		VR301, 302	EVJYA1F04C15	V. R. BASS/TREBLE CONTROL	
Q822, 823	UN4111	TRANSISTOR				THERMISTOR(S)	
Q824, 825	2SK301QRS	TRANSISTOR		TH201, 202	ERTD2ZHL104T	THERMISTOR	
Q826	2SA933QRSTA	TRANSISTOR				COIL(S)	
		DIODE(S)		L1	RLQZ271M	COIL	$\Delta$ (E, EB, EO, GN)
D401, 402	MA167	DIODE		L501-504	SLQY18G-10	COIL	
D403, 404	MA4036MTA	DIODE		L551	ELEPK2R2MA	COIL	
D405, 406	MA165	DIODE		L801	ELEXT101KA9	COIL	
D451	MA165	DIODE				TRANSFORMER(S)	
D452	MA4056MTA	DIODE	$\Delta$				
D453	MA29WA	DIODE		T1	RTP7K5E001-W	POWER TRANSFORMER	$\Delta$ (E, EG, EO, EP)
D501, 502	MA165	DIODE					

Note: The "(SF)" mark denotes the standard part.  
 \*[VRD]: indicates parts that are supplied by Video Recorder Division.

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RKM0114A-K	CABINET	(E, EG, EP, GN)
1	RKM0114B-K	CABINET	(EB, EO, GC)
2	SNE2129-1	SCREW	
3	XTBS3+8JFZ1	SCREW	
4	RGKO550-T	ORNAMENT RUBBER	
5	RGR0170E-A1	REAR PANEL	(EB)
5	RGR0170J-A1	REAR PANEL	(EO)
5	RGR0170F-A	REAR PANEL	(GC)
5	RGR0170D-C1	REAR PANEL	(GN)
5	RGR0170D-A1	REAR PANEL	(E, EG, EP)
6	RGW0176-K	KNOB, VOLUME ✓	
7	RGW0177-K	KNOB, TONE ✓	
8	RKA0053-A	FOOT	
9	RKU0049-K	CHASSIS BASE	
10	RMK0202	BOTTOM CHASSIS	
11	RSC0105	SHIELD PLATE (PHONO)	
15	RFKGA600E-K	FRONT PANEL ASS'Y	
16	RGK0549-S	ORNAMENT RING	
17	RGL0184-Q	PANEL LIGHT (A)	
18	RGL0185-Q	PANEL LIGHT (B)	
19	RGL0186-Q	PANEL LIGHT (C)	
20	RGL0187-Q	PANEL LIGHT (D)	
21	RGL0188-Q	PANEL LIGHT (E)	
22	RGU0886-K	BUTTON, SELECT etc. ✓	
23	RGU0887-K	BUTTON, SPEAKER ✓	
24	RGU0888-K	BUTTON, TAPE MONITOR ✓	
25	RGU0889-K	BUTTON, TONE ✓	
26	RGU0890-K	BUTTON, POWER ✓	
27	RHN90001	NUT	
28	RSC0323	SHIELD PLATE (VOLUME)	
29	XTBS26+8J	SCREW	
30	XTW3+10T	SCREW	
31	SHE187-2	P. C. B. SUPPORT	
32	SHR8006	SPACER	
33	SNE2123	GND SCREW	
34	XTBS3+8JFZ1	SCREW	
35	XTB3+10G	SCREW	
36	XTB3+16CFN	SCREW	
37	XTB3+20JFZ	SCREW	
38	XTB3+8JFZ	SCREW	
39	XTW3+15T	SCREW	
40	REM0040	FAN MOTOR	(EB, EO, GC)
41	RWJ3907280QQ	FLAT CABLE (7P)	
43	RWZ080UFW240	TUBE	

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPG1571	PACKING CASE	(E, EG, EO, EP, GC, GN)
P1	RPG1575	PACKING CASE	(EB)
P2	RPN0684	PAD	
P3	RPQ0164	ACCESSORY PAD	
P4	XZB50X65A0Z	PROTECTION COVER	
P5	XZB24X34C04	PROTECTION COVER	
P6	RPH0032	MIRROR SHEET	(EB, GN)
		ACCESSORIES	
A1	RJAD019-2K	AC POWER SUPPLY CORD	△ (E, EG, EO, EP, GC)
A1	VJA0733	AC POWER SUPPLY CORD	△ (EB) (SF) [VRD]
A1	RJA0036-K	AC POWER SUPPLY CORD	△ (GN)
A2	RQA0013	WARRANTY CARD	(E, EB, EG, EO)
A2	RQX7433ZA	WARRANTY CARD	(GN)
A3	RQCB0169	SERVICE CENTER LIST	(E, EB, EG, EO, GC, GN)
A4	RFKSJA600E-K	INSTRUCTIONS MANUAL	(E)
A4	RFKSJA600EGK	INSTRUCTIONS MANUAL	(EG)
A4	RFKSJA600EOK	INSTRUCTIONS MANUAL	(EO)
A4	RFKSJA600EPK	INSTRUCTIONS MANUAL	(EP)
A4	RFKSJA600GCK	INSTRUCTIONS MANUAL	(GC)
A4	RQT1966-B	INSTRUCTIONS MANUAL	(EB, GN)
A5	RQCA0253	BLOCK DIAGRAM	(EP)
A6	RQLA0134	CAUTION LABEL	(GC)
A7	SJP5213-2	POWER PLUG ADAPTOR	△ (GC)

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
T1	RTP7K5B001-W	POWER TRANSFORMER	△ (EB, GC, GN)				
		OSCILLATOR(S)		RL201-204	RSY0014M-0	RELAY	
				RL501, 502	RSY0013M-0	RELAY	△
				RL503	RSY0014M-0	RELAY	
X801	EF0GC4004TA	OSCILLATOR(4MHz)		RL701, 702	RSY0012M-0	RELAY	△
		FUSE(S)				JACK(S)	
F1	XBA2C20TB0	FUSE, 250V T2A	△	JK1	SJS9236	AC INLET	△ (E, EB, EG, EO, EP, GC)
F2	XBA2C40TB0	FUSE, 250V T4A	△ (GC)	JK1	SJSD16	AC INLET	△ (GN)
		SWITCH(ES)		JK201	SJF3069N	INPUT TERMINAL (PHONO/TUNER)	
				JK202	SJF3069N	INPUT TERMINAL (CD/AUX)	
S1	SSH1238	SW, POWER		JK203	SJF3069N	IN/OUTPUT TERMINAL (TAPE 2)	
S2	ESD26200A	SW, VOLTAGE SELECTOR	△ (GC)	JK204	SJF3069N	IN/OUTPUT TERMINAL (TAPE 1)	
S204	ESB68046	SW, TONE ON/DEFEAT		JK501	RJH4801M-1	SPEAKER TERMINAL	(E, EG, EO, EP, GC, GN)
S801	EVQ21405R	SW, TAPE-MONITOR		JK501	RJH4801M-2	SPEAKER TERMINAL	(EB)
S802	EVQ21405R	SW, TAPE 1		JK502	RJJ63TA01	HEADPHONES JACK	
S803	EVQ21405R	SW, TAPE 2					
S804	EVQ21405R	SW, AUX					
S805	EVQ21405R	SW, CD					
S806	EVQ21405R	SW, TUNER					
S807	EVQ21405R	SW, PHONO					
S810, 811	EVQ21405R	SW, SPEAKERS A/B					
		CONNECTOR(S)					
CN201	RJU003K010M1	SOCKET (10P)					
CN202	RJU003K008M1	SOCKET (8P)					
CN301, 302	RJU003K008M1	SOCKET (8P)					
CN401	RJU057W007	SOCKET (7P)					
CN601	SJT3213	CONNECTOR (2P)	(EB, EO, GC)				
CN703-716	RJS1A1101T1	SOCKET (1P)					
CN801, 802	RJU003K008M1	SOCKET (8P)					
CN702A	RJS1A6604	SOCKET (4P)					
CN702B	RJS1A6603	SOCKET (3P)					
CP201	RJT003K010-1	CONNECTOR (10P)					
CP202	RJT003K008-1	CONNECTOR (8P)					
CP301, 302	RJT003K008-1	CONNECTOR (8P)					
CP401	RJT057W007-1	CONNECTOR (7P)					
CP801, 802	RJT003K008-1	CONNECTOR (8P)					
		EARTH TERMINAL(S)					
E501, 701	SNE1004-1	GND PLATE					
		FUSE HOLDER(S)					
FC1, 2	EYF52BC	FUSE HOLDER					
FC3, 4	SJT388	FUSE HOLDER	(GC)				
		RELAY(S)					





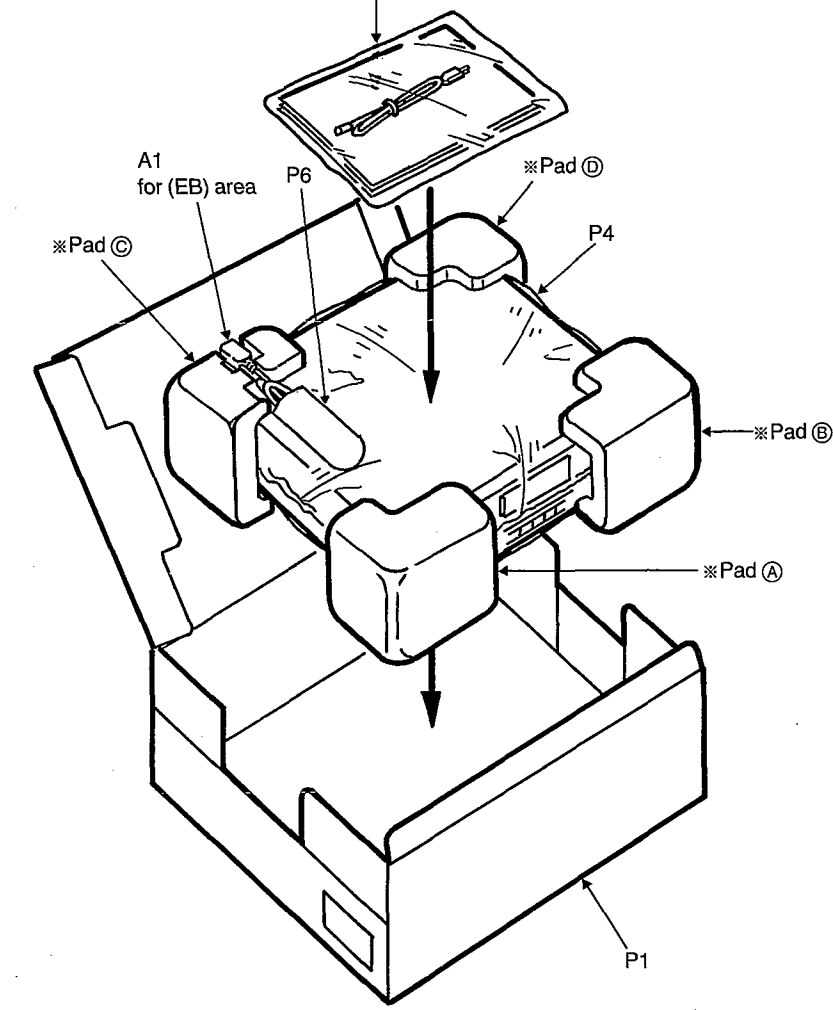
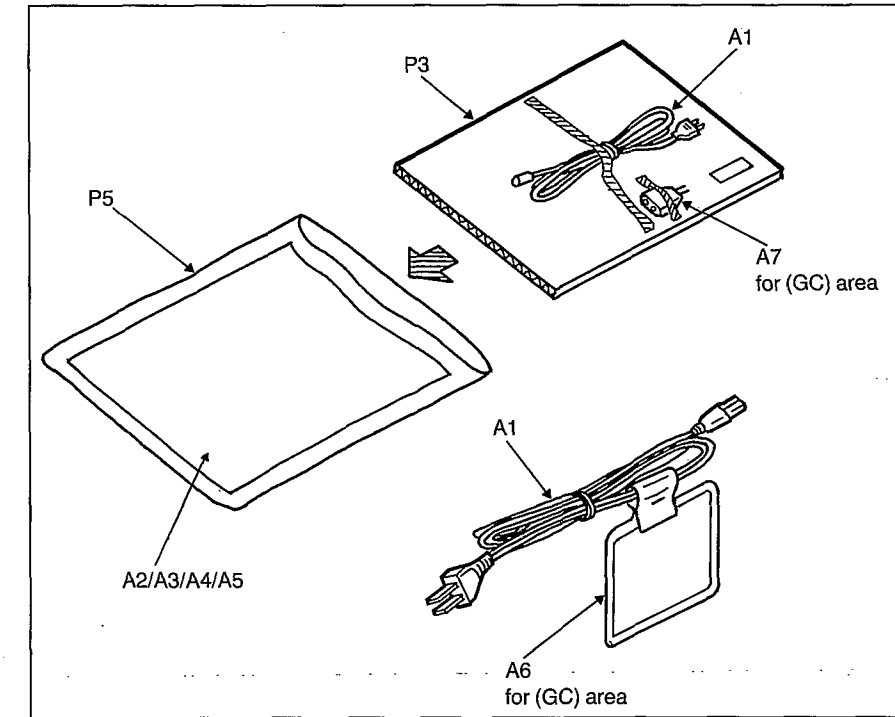
Notes : \* Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)  
 \* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
RESISTORS								
R101, 102	ERDS2TJ102	1/4W 1K	R521, 522	ERDS1FVJ100T	1/2W 10 Δ	R831	ERDS2TJ104	1/4W 100K
R105, 106	ERDS2TJ224T	1/4W 220K	R527	ERDS2TJ223	1/4W 22K	R832	ERDS2TJ102	1/4W 1K
R109, 110	ERDS2TJ101	1/4W 100	R528	ERDS2TJ824	1/4W 820K	R833	ERDS2TJ103	1/4W 10K
R113, 114	ERDS2TJ563	1/4W 56K	R529	ERDS2TJ124T	1/4W 120K	R834	ERDS2TJ561	1/4W 560
R117, 118	ERDS2TJ271	1/4W 270	R530	ERDS1FVJ272T	1/2W 2.7K Δ	R835	ERDS2TJ102	1/4W 1K
R123, 124	ERDS2TJ680T	1/4W 68	R531, 532	ERDS1FVJ100T	1/2W 10 Δ	R837, 838	ERDS2TJ102	1/4W 1K
R125, 126	ERDS2TJ184T	1/4W 180K	R533, 534	ERDS2TJ182	1/4W 1.8K	R839, 840	ERDS2TJ682T	1/4W 6.8K
R127, 128	ERDS2TJ123	1/4W 12K	R535	ERDS2TJ473	1/4W 47K	R843	ERDS2TJ103	1/4W 10K
R129, 130	ERDS2TJ563	1/4W 56K	R550, 551	ERDS2TJ222	1/4W 2.2K	R845	ERDS2TJ334	1/4W 330K
R131, 132	ERDS2TJ102	1/4W 1K	R555-558	ERG1SJ561E	1W 560	R852, 853	ERDS2TJ103	1/4W 10K
R201-206	ERDAS3G102T	1/4W 1K	R559, 560	ERG1SJ102E	1W 1K	R854	ERDS2TJ471	1/4W 470
R207, 208	ERDS2TJ102	1/4W 1K	R561, 562	ERG1SJ151E	1W 150	R860-862	ERDS2TJ104	1/4W 100K
R209, 210	ERDAS3G102T	1/4W 1K	R563, 564	ERG1SJ181E	1W 180	R864	ERDS2TJ223	1/4W 22K
R211, 212	ERDS2TJ102	1/4W 1K	R565-570	ERDS2TJ223	1/4W 22K	CAPACITORS		
R213, 214	ERDAS3G102T	1/4W 1K	R571, 572	ERDS2TJ470	1/4W 47	C103, 104	ECBT1H181KB5	50V 180P
R215, 216	ERDLS2VJ332T	1/4W 3.3K Δ	R604	ERDS2TJ221	1/4W 220	C107, 108	ECEA1CKA330B	16V 330
R301, 302	ERDAS3G561	1/4W 560	R611-614	ERDS2TJ223	1/4W 22K EB, EO, GC	C109, 110	ECBT1H391KB5	50V 390P
R303, 304	ERDS2TJ104	1/4W 100K	R615-618	ERDS2TJ103	1/4W 10K EB, EO, GC	C113, 114	ECQB1H223JF3	50V 0.022U
R305, 306	ERDS2TJ224T	1/4W 220K	R619	ERDS2TJ151	1/4W 150 EB, EO, GC	C115, 116	ECQB1H562JF3	50V 5600P
R307, 308	ERDS2TJ392T	1/4W 3.9K	R620	ERDS2TJ153	1/4W 15K EB, EO, GC	C117, 118	ECEA1HKA010B	50V 1U
R309, 310	ERDS2TJ223	1/4W 22K	R621, 622	ERDS2TJ223	1/4W 22K EB, EO, GC	C119, 120	ECQB1H472JF3	50V 4700P
R311, 312	ERDS2TJ102	1/4W 1K	R624	ERDS2TJ332	1/4W 3.3K EB, EO, GC	C121, 122	ECBT1C103NS5	16V 0.01U
R313, 314	ERDS2TJ392T	1/4W 3.9K	R625	ERDS2TJ223	1/4W 22K EB, EO, GC	C123, 124	ECEA1HKA330B	50V 3.3U
R315, 316	ERDS2TJ223	1/4W 22K	R626	ERDS2TJ103	1/4W 10K EB, EO, GC	C201-214	ECKT1H101KB	50V 100P
R317, 318	ERDS2TJ392T	1/4W 3.9K	R707, 708	ERDAF2VJ6R8T	1/4W 6.8 Δ	C301, 302	ECA1HPXS3R3B	50V 3.3U
R319, 320	ERDS2TJ183T	1/4W 18K	R709, 710	ERDAF2VJ470T	1/4W 47 Δ	C303, 304	ECCR1H101K5	50V 100P
R401, 402	ERDAS3G122	1/4W 1.2K	R711	ERDS2TJ222	1/4W 2.2K	C305, 306	ECBT1H820KB5	50V 82P
R403, 404	ERDS2TJ154	1/4W 150K	R713	ERDS2TJ223	1/4W 22K	C307, 308	ECA1HPXS4R7B	50V 4.7U
R405, 406	ERDAS3G102T	1/4W 1K	R714	ERDS2TJ222	1/4W 2.2K	C309, 310	ECBT1H390J5	50V 39P
R407, 408	ERDAS3G154T	1/4W 150K	R751, 752	ERDS1FVJ471T	1/2W 470 Δ	C311, 312	ECA1CPXS100B	16V 10U
R409, 410	ERDS2TJ391	1/4W 390	R753	ERDS1FVJ561T	1/2W 560 Δ	C313, 314	ECQV1H823JM3	50V 0.082U
R411, 412	ERDAF2VJ470T	1/4W 47 Δ	R754	ERDS1FVJ221T	1/2W 220 Δ	C315, 316	ECQB1H153JF3	50V 0.015U
R437	ERDS2TJ473	1/4W 47K	R755-757	ERDS1FVJ271T	1/2W 270 Δ	C317, 318	ECQB1H183JF3	50V 0.018U
R457	ERDAS3G153T	1/4W 15K	R801, 802	ERDS2TJ331	1/4W 330	C319, 320	ECQB1H222JF3	50V 2200P
R459, 460	ERDAF2VJ101T	1/4W 100 Δ	R803	ERDS2TJ390	1/4W 39	C321, 322	ECBT1E223ZF	25V 0.022U
R461-464	ERDS2TJ333	1/4W 33K	R804	ERDS2TJ331	1/4W 330	C323, 324	ECBT1H121KB5	50V 120P
R465-468	ERDAF2VJ101T	1/4W 100 Δ	R810	ERDS2TJ102	1/4W 1K	C401, 402	ECEA1HB24R7B	50V 4.7U
R469	ERDAS3G103T	1/4W 10K	R811	ERDS2TJ103	1/4W 10K	C403, 404	ECCR1H271K5	50V 270P
R470	ERDAS3G102T	1/4W 1K	R812	ERDS2TJ102	1/4W 1K	C405, 406	ECA1CPXS470B	16V 47U
R471, 472	ERDS2TJ272T	1/4W 2.7K	R813-817	ERDS2TJ103	1/4W 10K	C407, 408	ECBT1H820KB5	50V 82P
R501, 502	ERDS2TJ362T	1/4W 3.6K	R818	ERDS2TJ821	1/4W 820	C409, 410	ECCR2H100K5	500V 10P
R503, 504	ERDAF2VJ121T	1/4W 120 Δ	R819	ERDS2TJ102	1/4W 1K	C413, 414	ECCR2H070D5	500V 7P
R505, 506	ERDS2TJ392T	1/4W 3.9K	R820	ERDS2TJ122	1/4W 1.2K	C415, 416	ECKT1H221KB	50V 220P
R507, 508	ERDAF2VJ121T	1/4W 120 Δ	R821	ERDS2TJ152	1/4W 1.5K	C426	ECBT1H102KB5	50V 1000P
R513-516	ERDAF2VJ100T	1/4W 10 Δ	R822	ERDS2TJ182	1/4W 1.8K	C427	ECBT1E223ZF	25V 0.022U
R519, 520	ERDS1FVJ6R8T	1/2W 6.8 Δ	R823	ERDS2TJ222	1/4W 2.2K	C428	ECKR1H103ZF5	50V 0.01U
			R826, 827	ERDS2TJ103	1/4W 10K	C451, 452	ECKR1H333ZF5	50V 0.033U
			R828, 829	ERDS2TJ102	1/4W 1K			
			R830	ERDS2TJ223	1/4W 22K			

PACKAGING

1495

Ref. No.	Part No.	Values & Remarks
C453-456	ECCV2H680K	500V 68P
C457-460	ECEA1HKA3R3B	50V 3.3U
C461, 462	ECKT1H122KB	50V 1200P
C501-504	ECA0JPXS101B	6.3V 100U
C505, 506	ECQV1H473JM3	50V 0.047U
C507	ECEA1CKA101B	16V 100U
C508	ECA1HM470B	50V 47U
C509	ECEA1HN100SB	50V 10U
C511, 512	ECBT1H180J5	50V 18P
C513-518	ECQV1H473JM3	50V 0.047U
C519-522	ECQB1H393JF3	50V 0.039U
C523, 524	ECBT1H102KB5	50V 1000P
C525, 526	ECQB1H152JF3	50V 1500P
C527, 528	ECBT1H181KB5	50V 180P
C531, 532	ECBT1C332KR5	16V 3300P
C602	ECEA1CKA100B	16V 10U EB, EO, GC
C604	ECEA1HKA010B	50V 1U EB, EO, GC
C605	ECEA0JKA331Q	6.3V 330U EB, EO, GC
C701, 702	ECES1H822VJG	50V 8200U Δ
C703, 704	ECQV1103JN3	100V 0.01U
C705	ECQV1H104JM3	50V 0.1U
C707, 708	ECA1JPXH560B	63V 56U
C709, 710	ECQE2334KF3	250V 0.33U E, EG, EP, GN
C711	ECQE2104KF3	250V 0.1U
C712	ECBT1C103NS5	16V 0.01U
C713	ECQV1H104JM3	50V 0.1U
C714	ECA1CM471B	16V 470U
C715	ECEA1HKA010B	50V 1U
C716	ECA1CM102B	16V 1000U Δ
C751, 752	ECA1EPXS470B	25V 47U
C801-803	ECBT1C103NS5	16V 0.01U
C804	ECEA0J102	6.3V 1000U
C805	ECEA1HKA47B	50V 0.47U
C806	ECEA1HKA2R2B	50V 2.2U
C807	ECBT1H102KB5	50V 1000P
C808	ECEA0JKA101B	6.3V 100U
C809	ECBT1C103NS5	16V 0.01U
C810	ECEA1AKA470B	10V 47U
C811	ECBT1H101KB5	50V 100P
C812, 813	ECKR1H103ZF5	50V 0.01U
C814, 815	ECA1HPXS4R7B	50V 4.7U
C820	ECQV1H224JM3	50V 0.22U



※P2: Pad (A) (B) (C) (D) Ass'y