

Service Manual

Stereo Integrated Amplifier

Amplifier

SU-VX600



Color

(K) Black Type

SPECIFICATIONS (DIN 45 500)

■ MAIN AMP. SECTION (POWER AMP. DIRECT input)

20 Hz~20 kHz continuous power output both channels driven	2 × 55 W (8 Ω)
1 kHz continuous power output both channels driven (THD: 1%)	2 × 70 W (8 Ω) 2 × 100 W (4 Ω)
63 Hz~12.5 kHz continuous power output both channels driven (THD: 0.7%)	2 × 65 W (8 Ω) 2 × 85 W (4 Ω)
Total harmonic distortion (Power Amp Direct input)	
rated power at 20 Hz~20 kHz	0.007% (8 Ω)
half power at 20 Hz~20 kHz	0.005% (8 Ω)
Intermodulation distortion (50 Hz: 7 kHz = 4:1, SMPTE)	
rated power	0.007% (8 Ω)
Residual hum and noise	0.2 mV
Damping factor	60 (8 Ω), 30 (4 Ω)
Headphones output level and impedance	540 mV/330 Ω
Load impedance	
A or B, BI-WIRING	4 Ω~16 Ω
A and B	8 Ω~16 Ω

■ PRE AMP. SECTION

Input sensitivity and impedance	
PHONO MM	2.5 mV/47 kΩ
PHONO MC	170 μV/220 Ω
TUNER, CD, AUX, TAPE 1, TAPE 2/DAT	150 mV/22 kΩ
POWER AMP DIRECT	1 V/18 kΩ
Phono maximum input voltage (1 kHz, RMS)	
MM	160 mV, IHF '66
MC	12 mV, IHF '66
S/N (rated power, 4 Ω)	
PHONO MM	78 dB (85 dB, IHF '66)
PHONO MC	66 dB (S = 250 μV, 67 dB, IHF '66)
TUNER, CD, AUX, TAPE 1, TAPE 2/DAT	97 dB (99 dB, IHF '66)
POWER AMP DIRECT	106 dB (115 dB, IHF '66)

Areas

Country Code	Area	Color
(E)	Continental Europe	(K)
(EB)	Great Britain	
(EG)	F.R. Germany & Italy	

S/N at -26 dB power (4 Ω)	
PHONO MM	76 dB
PHONO MC	66 dB
TUNER, CD, AUX, TAPE 1, TAPE 2/DAT	84 dB
S/N at 50 mW power (4 Ω)	
PHONO MM	75 dB
PHONO MC	66 dB
TUNER, CD, AUX, TAPE 1, TAPE 2/DAT	78 dB
Frequency response	
PHONO MM	RIAA standard curve ±0.8 dB (30 Hz~15 kHz)
TUNER, CD, AUX, TAPE 1, TAPE 2/DAT	3 Hz~100 kHz (+0, -3 dB) +0 dB, -0.2 dB (20 Hz~20 kHz)
POWER AMP DIRECT	
	2 Hz~120 kHz (+0, -3 dB) +0 dB, -0.2 dB (20 Hz~20 kHz)
Tone controls	
BASS	50 Hz, +10 dB, -10 dB
TREBLE	20 kHz +10 dB, -10 dB
Subsonic filter	30 Hz, -6 dB/oct
Loudness control (volume at -30 dB)	50 Hz, +9 dB
Output voltage	
TAPE 1, TAPE 2/DAT REC OUT	150 mV
Channel balance, AUX 250 Hz~6,300 Hz	±1 dB
Channel separation, AUX 1 kHz	50 dB

■ GENERAL

Power consumption	530 W
Power supply	AC 50 Hz/60 Hz, 230 V/240 V
Dimensions (W × H × D)	430 × 125 × 316 mm (16-15/16" × 4-15/16" × 12-7/16")
Weight	8.7 kg (19.14 lb.)

Notes:

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

Technics

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■ BEFORE REPAIR AND ADJUSTMENT

- (1) Turn off the power supply. Using a 10Ω, 10 W resistor, shortcircuit both ends of power supply capacitors (C001, C002, C705 and C706) in order to discharge the voltage.
 - (2) Before turning on the power switch of the unit.
 - A. Connect the voltage controller to the primary side.
 - B. Connect the AC ampere meter to the primary side or connect the DC voltage meter to the “±B” circuit of the secondary side.
 - C. Turn the VR of ICQ (VR451, VR452, VR501 and VR502) to minimum (counterclockwise).
 - D. After setting the output to zero of the voltage controller, turn on the power switch of the unit.
And increase the output of voltage controller gradually.
Then, check carefully whether the current value of primary side become more than following value or whether the DC voltage of secondary side is increasing slowly.
 - E. If the value of current is increasing unusually or the DC voltage is not increasing, lower the output level of voltage controller immediately.
- The current value of the primary side at no signal. (Confirm the power supply voltage of each area and provided voltage of the unit.)

Power supply voltage		AC 220 V	AC 230 V	AC 240 V
Consumed current	50 Hz	90~370 mA	80~360 mA	70~350 mA

■ PROTECTION CIRCUITRY

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

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function 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 the amplifier are used.

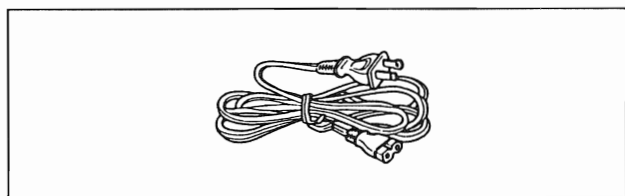
If this occurs, follow the procedure outlined below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again.

Note:

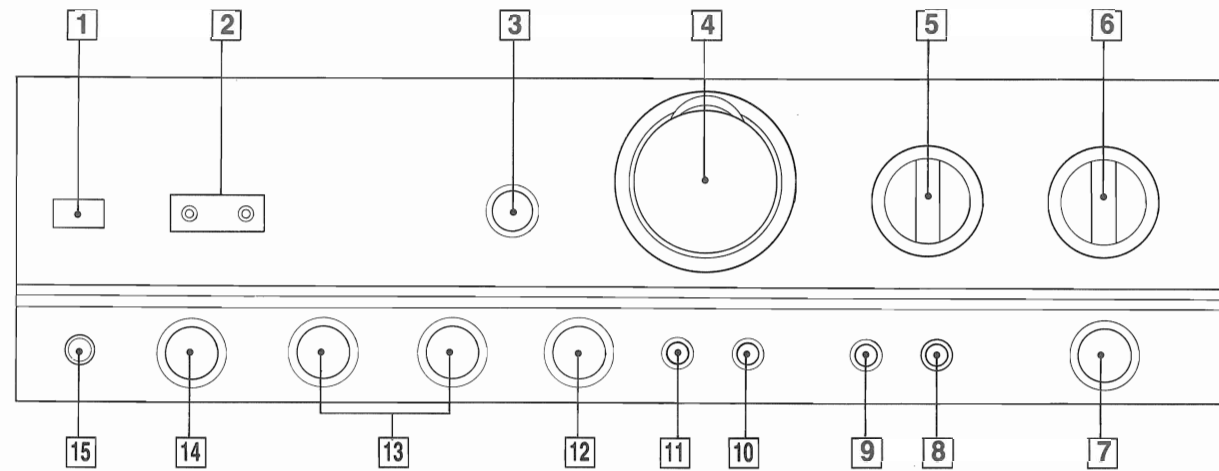
When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

■ ACCESSORY



- AC power supply cords 1
 <SFDAC05E03> For (E), (EG) areas.
 <SJA193> For (EB) area only.

LOCATION OF CONTROLS



1 Power switch (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 operation condition.

CURRENT DRIVE:

When the power is switched ON, this indicator illuminates after about 4 seconds when the unit is in the operation 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 does not illuminate.

3 Power amplifier direct switch (POWER AMP DIRECT)

This switch is used to listen to the sound from a component connected to the "POWER AMP DIRECT" terminals.

When this switch is pressed inward to the "ON" position, a superior level of tone quality can be obtained, because the signals from the component connected to the "POWER AMP DIRECT" terminals are sent directly to the volume control and power amp section of this unit. The mode selector, loudness switch, balance control and tone control circuit are bypassed.

4 Volume control/indicator (VOLUME)

There are two types of volume scale indications: one for when or the power amplifier direct switch is OFF, and one for when it is ON (Indicator will illuminate).

5 Recording output selector (REC SELECTOR)

This selector is used to select the sound source to be recorded by the connected tape deck 1 and/or tape deck 2 (or DAT).

6 Input selector (INPUT SELECTOR)

This selector is used to select the sound source to be heard, such as a disc, radio broadcast, etc.

7 Phono cartridge selector (PHONO SELECTOR)

This selector should be set to the position which corresponds to the type of cartridge used on the turntable.

8 Subsonic filter switch (SUBSONIC FILTER)

This switch is used to eliminate ultra-low-frequency noise such as motor "rumble" and unusual vibration of the woofer cone caused by a warped disc, etc.

9 Mode selector (MODE)

This selector is used to select stereo or monaural operation.

10 Loudness switch (LOUDNESS)

This switch is used when listening to music at a low volume level. Auditory perception of sound in the low frequency range falls off at low volume, but when the switch is set to the "ON" position, this deficiency is compensated for, so that the full impact of the musical performance can be enjoyed.

11 Tone control switch (TONE CONTROL)

This switch is used to set the tone control circuit (bass, treble) on or defeat (off).

12 Balance control (BALANCE)

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

13 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.

14 Speaker selector (SPEAKERS)

This selector is used to select the speaker systems to be used.

OFF: No sound will be heard from the speaker systems.

A: Sound can be heard from the speaker systems connected to the "A" terminals.

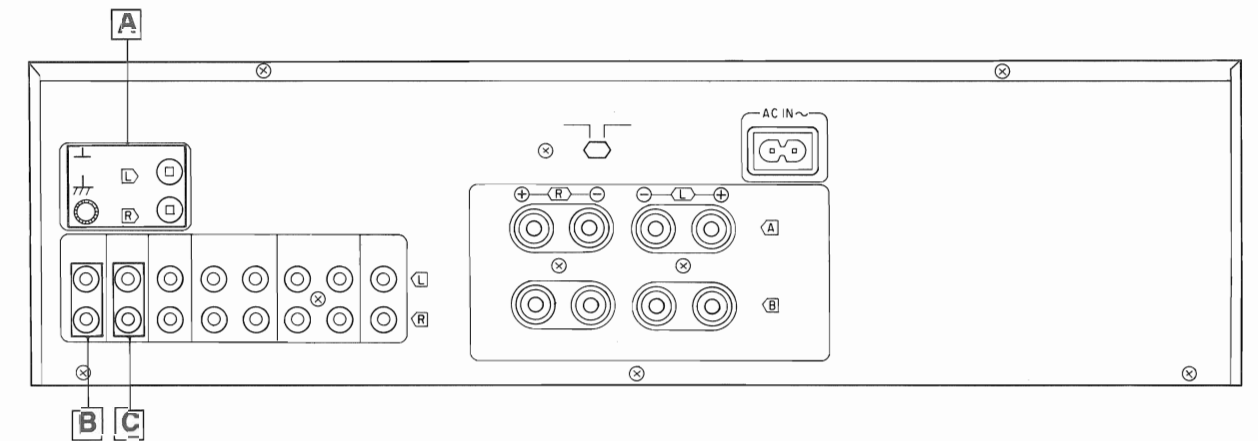
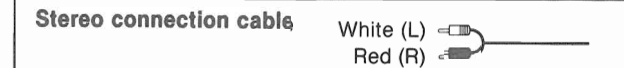
B: Sound can be heard from the speaker systems connected to the "B" terminals.

A+B/BI-WIRING: Sound can be heard simultaneously from the speaker systems connected to the "A" terminals and the "B" terminals. Or, if bi-wired speaker systems are connected, sound can be heard from them.

15 Headphones jack (PHONES)

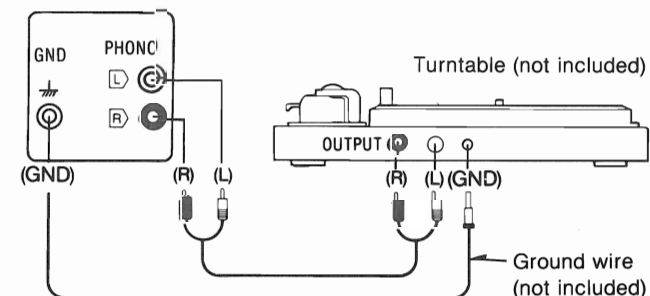
CONNECTIONS

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



A "PHONO" terminals

Connect a turntable. See "Using the short-circuit pins", below.



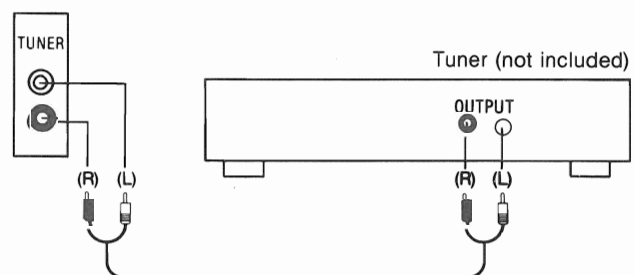
Using the short-circuit pins (included)

Short-circuit pins are inserted into the "PHONO" terminals to reduce noise. Remove the pins before connecting a turntable and reinsert the pins if the turntable is later disconnected. Never connect a short-circuit pin to a "REC OUT" terminal or any terminal other than those above.

※ Phono input capacitance is about 470 pF.

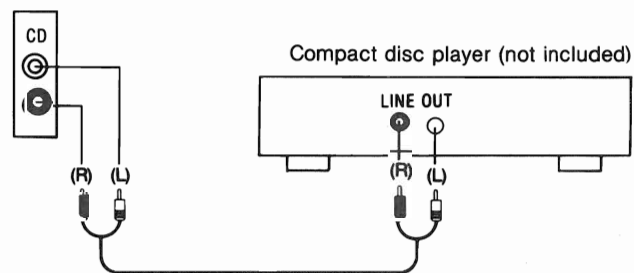
B "TUNER" terminals

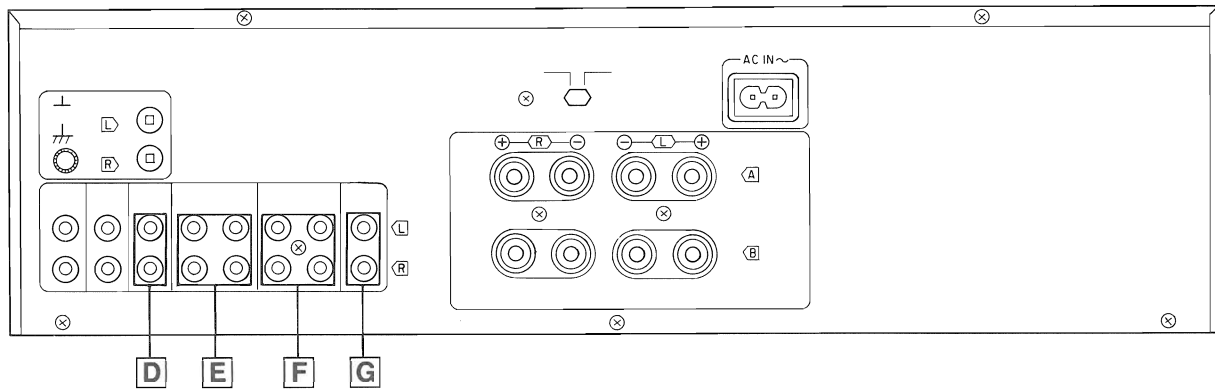
Connect a tuner.



C "CD" terminals

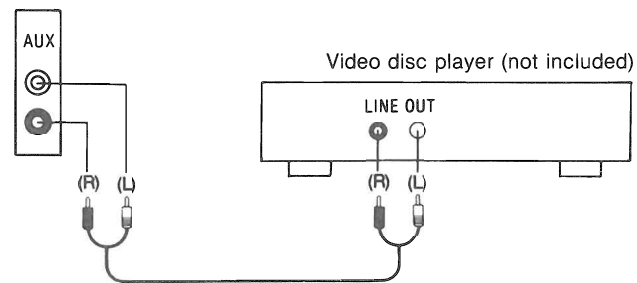
Connect a compact disc player.





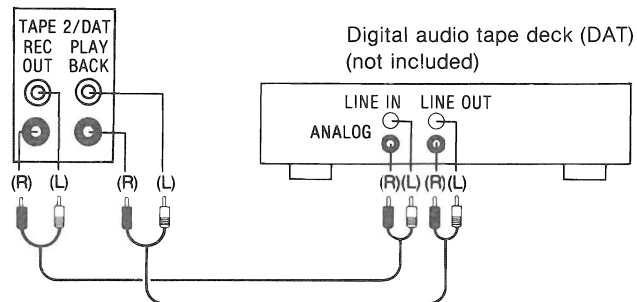
D "AUX" terminals

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



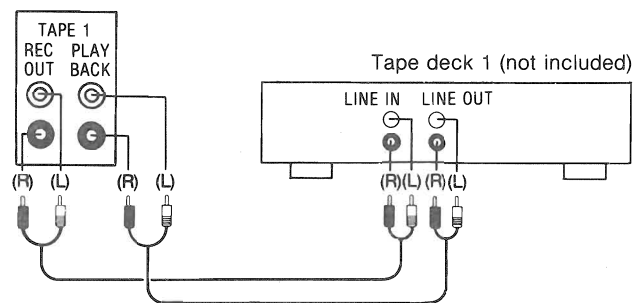
F "TAPE 2/DAT" terminals

Connect a second tape deck or a digital audio tape deck (DAT).



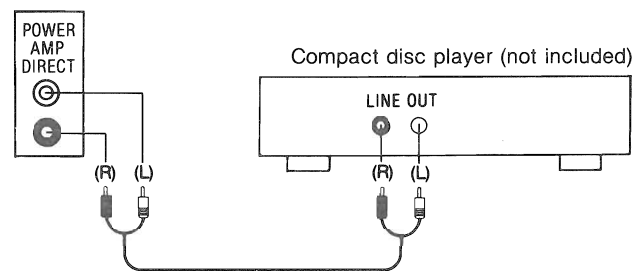
E "TAPE 1" terminals

Connect a first tape deck.



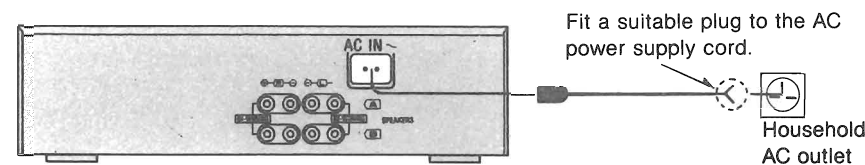
G "POWER AMP DIRECT" terminals

Connect a compact disc player. A superior level of tone quality can be obtained, because the signal from these terminals are sent directly to the volume control and power amp section of this unit. The sounds from a component connected to these terminals can not be recorded.



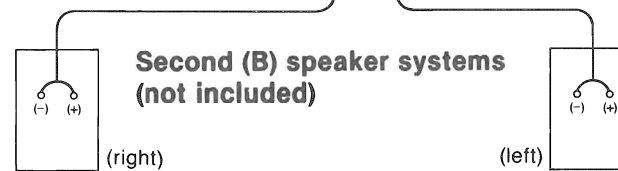
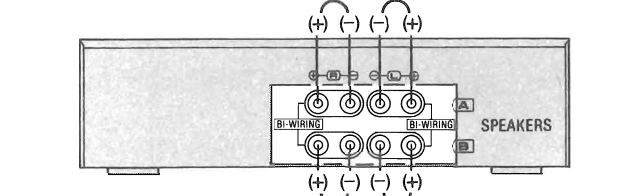
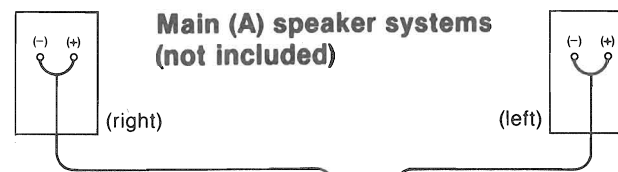
To connect the AC power supply cord (included)

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

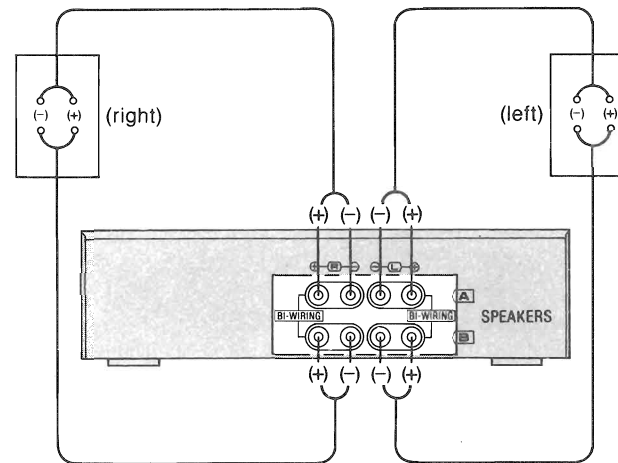


Connection to speaker systems

To connect main and/or second speaker systems



To connect bi-wired speaker systems



Note: Connect only bi-wired speaker systems in this way.

Replacement of the Foot.

1. Remove the 4 heat melted posts on the chassis with a pair of nippers or similar tool.
2. To replace the foot (RKA0009-1) on the chassis, melt the 4 posts with a soldering iron.

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

Make connections to each speaker system by using speaker cords (not included).

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
- When bi-wired speaker systems are used: 4-16 ohms

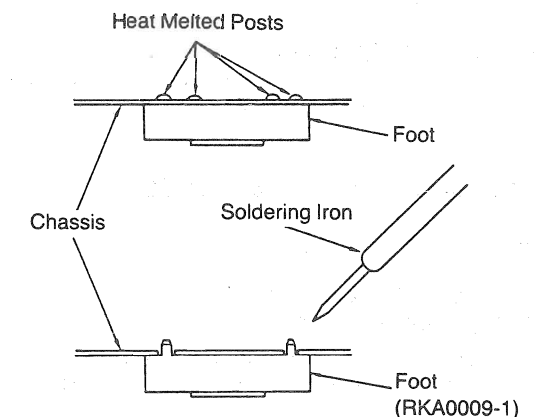
To connect cords to terminals

- 1 Strip off the outer covering, and twist the center conductor. 10 mm (13/32") Twist
- 2 Turn completely to the left. 2
- 3 Insert the wire and turn completely to the right. Pull the cord to assure a proper connection. 3

Note: To prevent damage to circuitry, never short-circuit the plus (+) and minus (-) speaker wires.

Bi-wiring

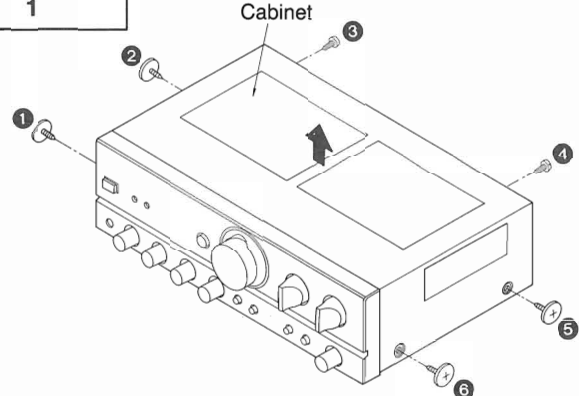
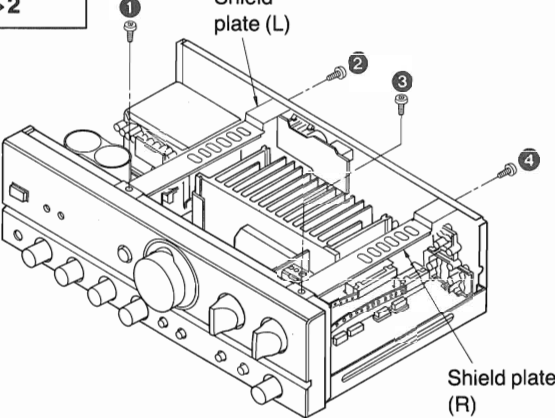
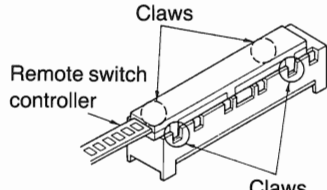
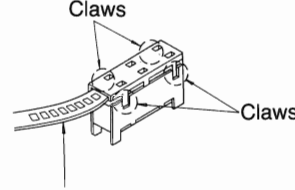
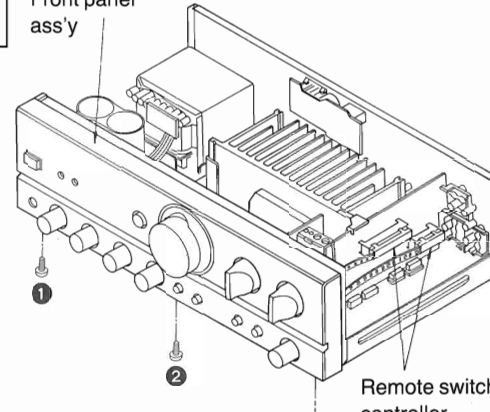
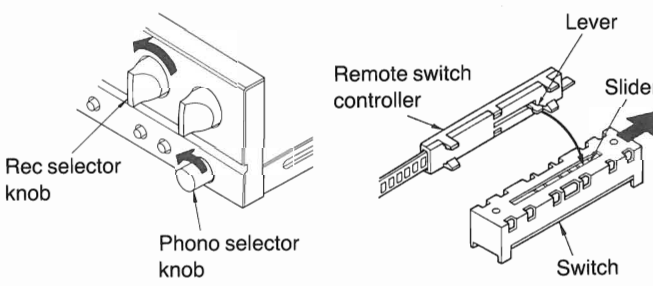
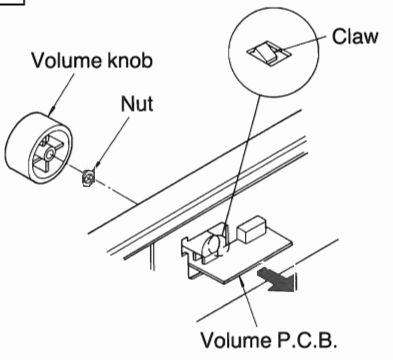
The treble range and the bass range of the speaker systems are connected to the speaker terminals of the amplifier by using two speaker connection wires separately for each. As a result of making connections in this way, sound can be reproduced with much greater nuance and detail, with the feelings of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

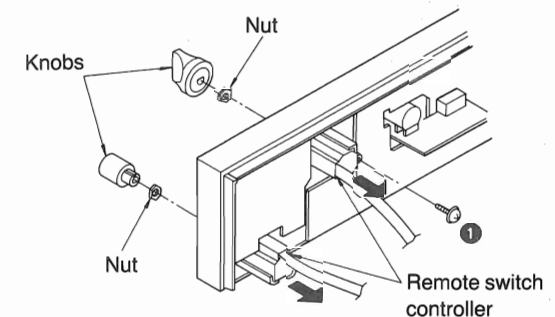
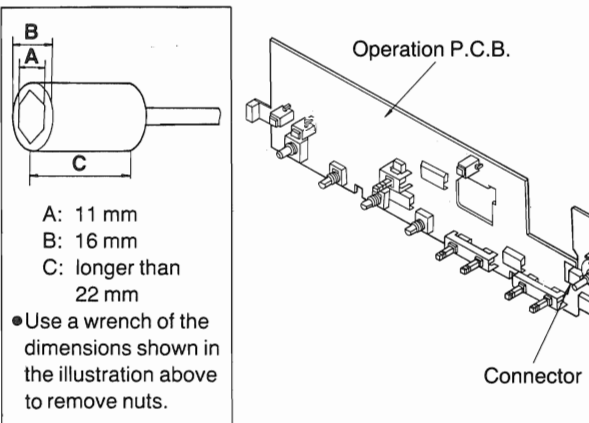
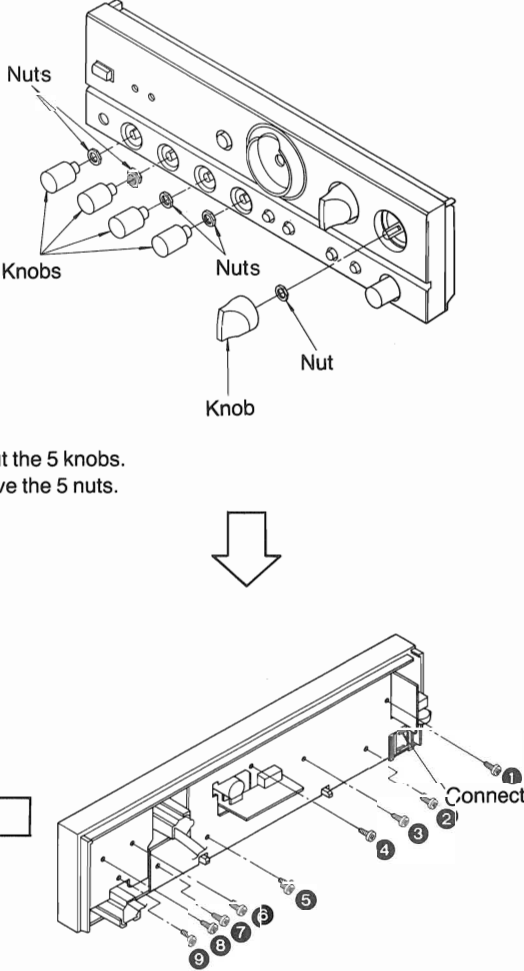
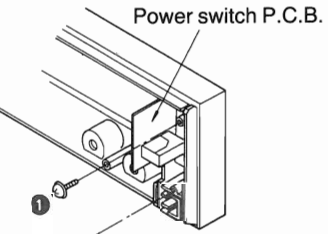
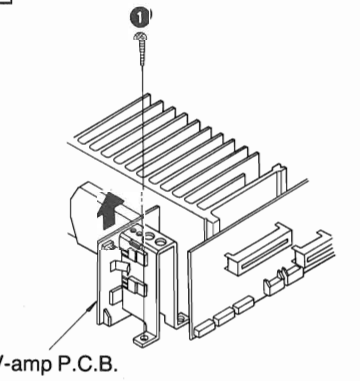


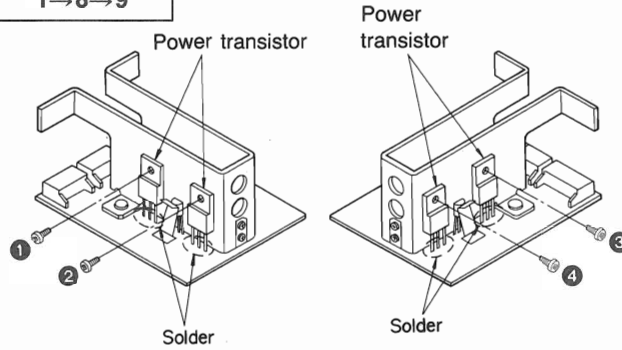
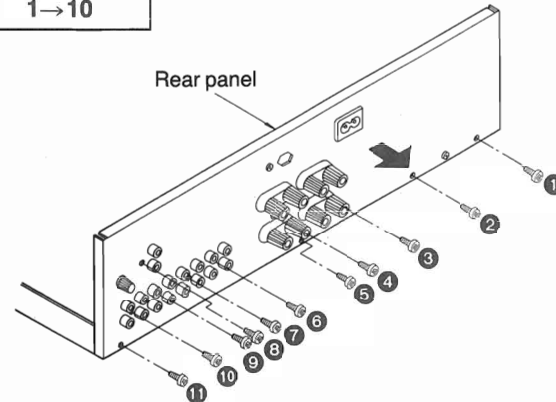
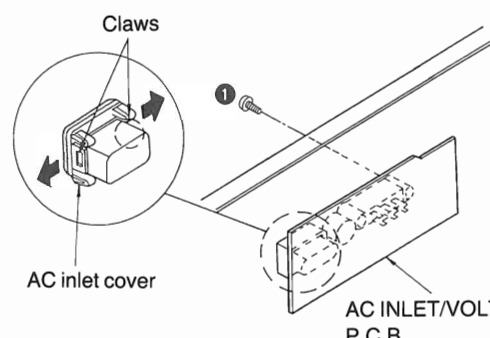
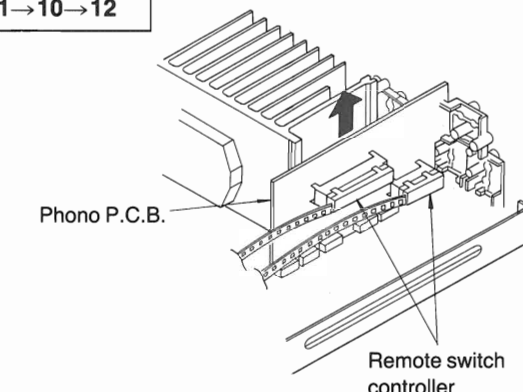
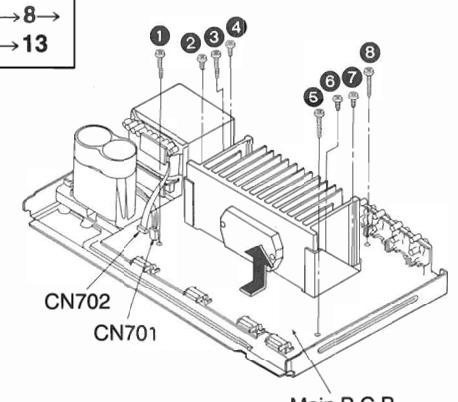
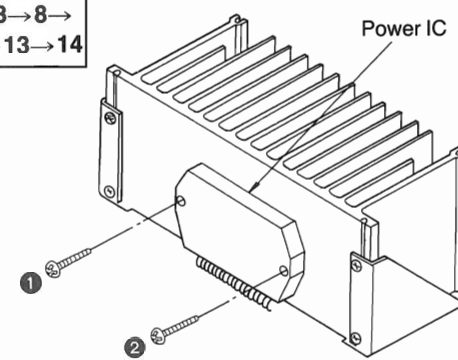
DISASSEMBLY INSTRUCTIONS

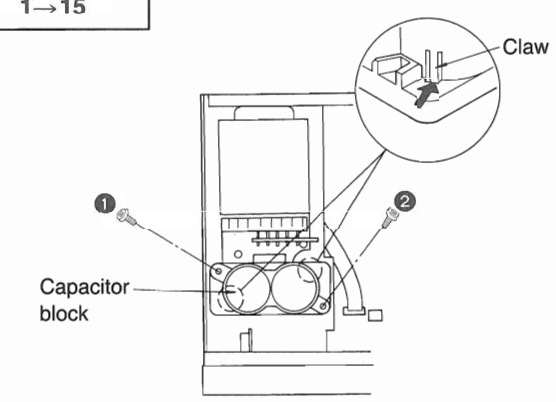
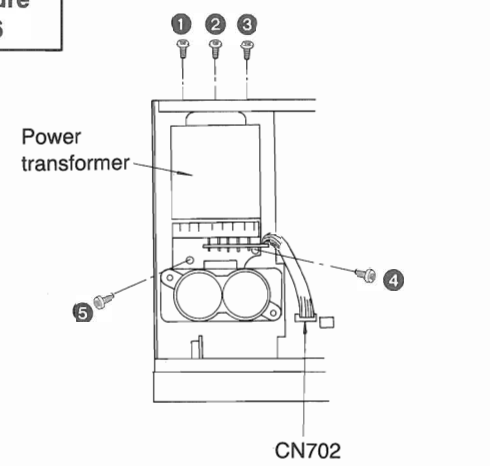
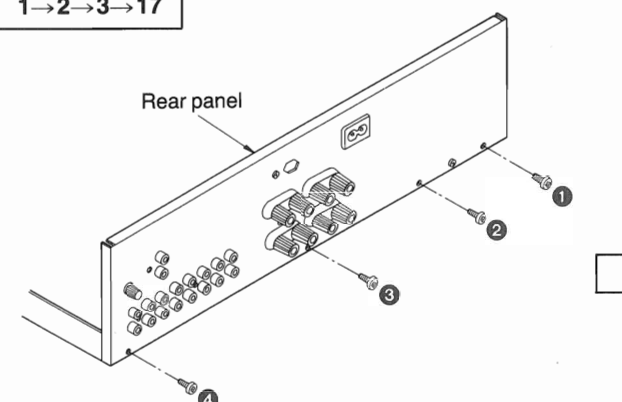
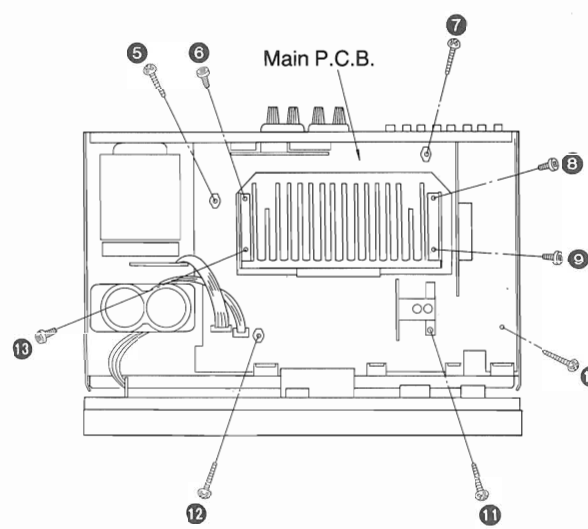
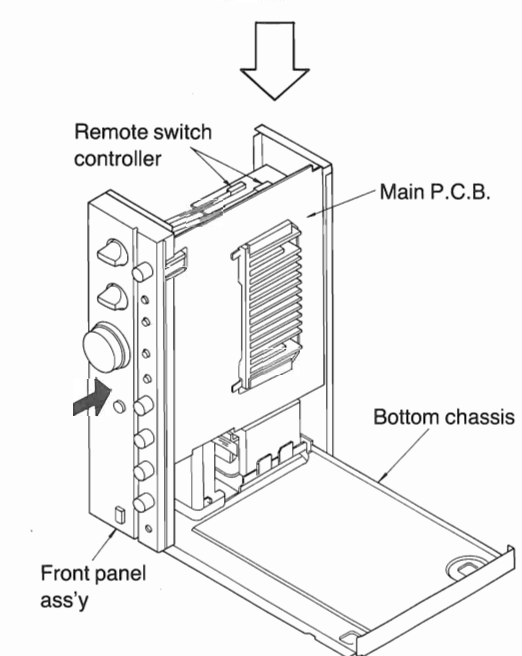
"ATTENTION SERVICER"

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

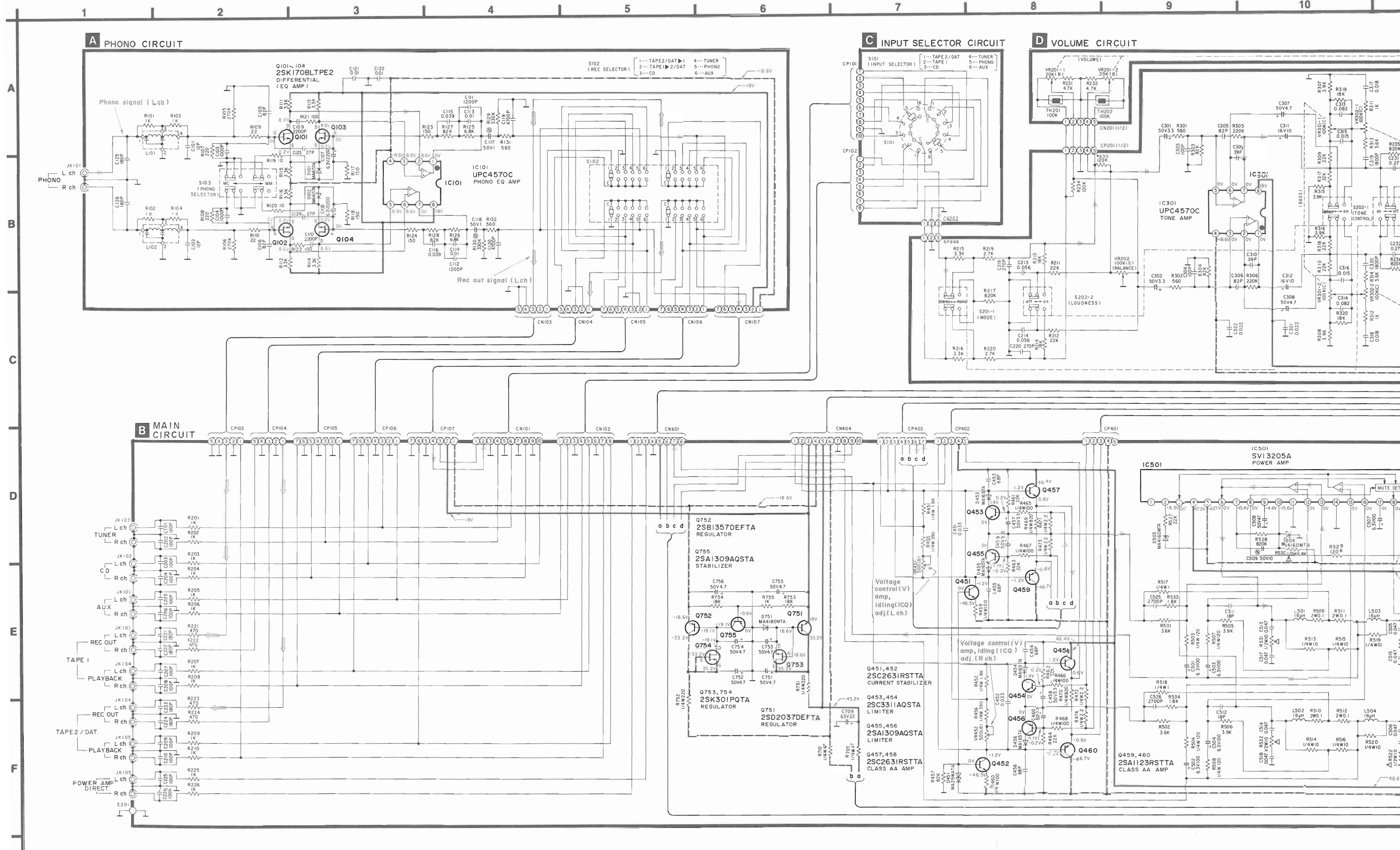
<p>Ref. No. 1</p> <p>Removal of the cabinet</p>	<p>Ref. No. 2</p> <p>Removal of the shield plate (L), (R)</p>
<p>Procedure 1</p>  <p>● Remove the 6 screws (1~6).</p>	<p>Procedure 1→2</p>  <p>● Remove the 4 screws (1~4).</p>
<p>Ref. No. 3</p> <p>Removal of the front panel ass'y</p>	<p>Removal of the remote switch controller</p> <p>● Remove the 4 claws.</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="916 967 1227 1209"> <p>S102 (REC SELECTOR)</p>  </div> <div data-bbox="1258 967 1538 1209"> <p>S103 (PHONO SELECTOR)</p>  </div> </div>
<p>Procedure 1→2→3</p>  <p>1. Remove the remote switch controller. 2. Remove the 3 screws (1~3).</p> <p>Replacing of the remote switch controller</p> <ol style="list-style-type: none"> Turn the selector knobs to the arrows. Put the switch slider of switch to end and put in the remote switch controller. 	<p>Ref. No. 4</p> <p>Removal of the volume P.C.B.</p> <p>Procedure 1→2→3→4</p>  <ol style="list-style-type: none"> Pull out the volume knob. Remove the nut. Release the 1 claw. Remove the volume P.C.B. in the direction of arrow.

<p>Ref. No. 5</p> <p>Removal of the remote switch controller</p>	<p>Ref. No. 6</p> <p>Removal of the operation P.C.B. and input selector P.C.B.</p>
<p>Procedure 1→2→3→5</p>  <ol style="list-style-type: none"> Pull out the 2 knobs. Remove the 2 nuts. Remove the 1 screw (1). Remove the remote switch controller in the direction of arrow.  <p>A: 11 mm B: 16 mm C: longer than 22 mm</p> <p>● Use a wrench of the dimensions shown in the illustration above to remove nuts.</p> <p>5. Remove the input selector P.C.B. in the direction of arrow.</p>	<p>Procedure 1→2→3→4→6</p>  <ol style="list-style-type: none"> Pull out the 5 knobs. Remove the 5 nuts. <p>3. Remove the 9 screws (1~9). 4. Remove the 1 connector (CP501).</p>
<p>Ref. No. 7</p> <p>Removal of the power switch P.C.B.</p>	<p>Ref. No. 8</p> <p>Removal of the V-amp P.C.B.</p>
<p>Procedure 1→2→3→4→6→7</p>  <p>● Remove the 2 screws (1, 2).</p>	<p>Procedure 1→8</p>  <ol style="list-style-type: none"> Remove the 1 screw (1). Remove the V-amp P.C.B. in the direction of arrow.

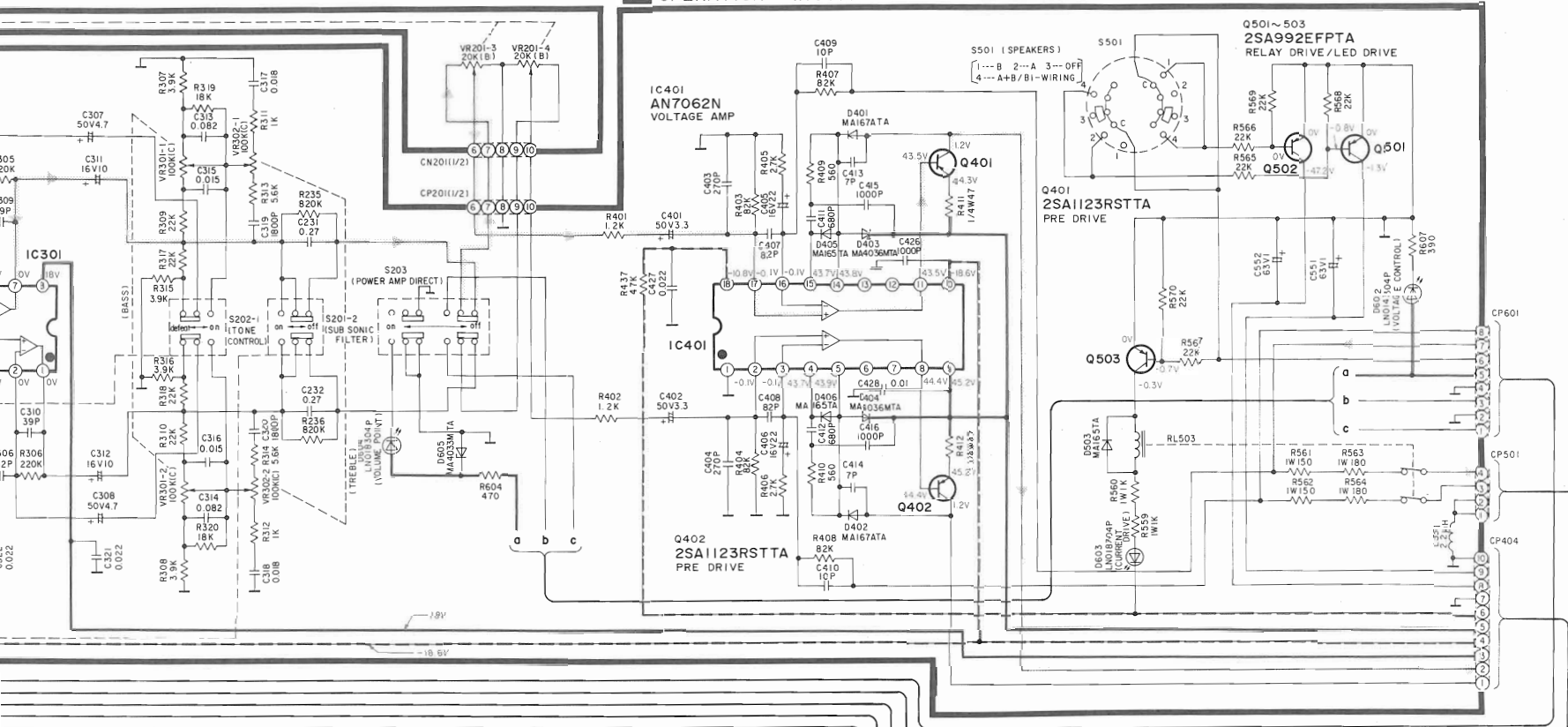
<p>Ref. No. 9</p>	<p>Removal of the power transistor</p>	<p>Ref. No. 10</p>	<p>Removal of the rear panel</p>
<p>Procedure 1→8→9</p>		<p>Procedure 1→10</p>	
 <p>1. Unsolder the power transistor. 2. Remove the 4 screws (1~4).</p> <p>●When mounting the power transistor, apply silicon thermal compound (RFKX0002) to the rear of the power transistor.</p>		 <p>1. Remove the 11 screws (1~11). 2. Remove the rear panel in the direction of arrow.</p>	
<p>Ref. No. 11</p>	<p>Removal of the AC INLET/VOLT ADJ. P.C.B.</p>	<p>Ref. No. 12</p>	<p>Removal of the phono P.C.B.</p>
<p>Procedure 1→10→11</p>		<p>Procedure 1→10→12</p>	
 <p>1. Remove the 1 screw (1). 2. Release the 2 claws of AC inlet cover.</p>		 <p>1. Remove the remote switch controller. 2. Remove the phono P.C.B. in the direction of arrow.</p>	
<p>Ref. No. 13</p>	<p>Removal of the main P.C.B.</p>	<p>Ref. No. 14</p>	<p>Removal of the power IC</p>
<p>Procedure 1→2→3→8→ 10→12→13</p>		<p>Procedure 1→2→3→8→ 10→12→13→14</p>	
 <p>1. Remove the 1 connector (CN701). 2. Remove the 1 flat cable (CN702). 3. Remove the 8 screws (1~8). 4. Remove the main P.C.B. in the direction of arrow.</p>		 <p>1. Unsolder the power IC. 2. Remove the 2 screws (1, 2).</p> <p>●When mounting the power IC and sub heat sink, apply silicon thermal compound (RFKX0002 or equivalent) to the rear of the power IC.</p>	

<p>Ref. No. 15</p>	<p>Removal of the capacitor block</p>	<p>Ref. No. 16</p>	<p>Removal of the power transformer</p>
<p>Procedure 1→15</p>		<p>Procedure 1→16</p>	
 <p>1. Remove the 1 connector (CN701). 2. Remove the 2 screws (1, 2). 3. Release the 2 claws.</p>		 <p>1. Remove the 1 flat cable (CN702). 2. Remove the 5 screws (1~5).</p>	
<p>Ref. No. 17</p>	<p>Check of the main P.C.B.</p>		
<p>Procedure 1→2→3→17</p>			
 <p>1. Remove the 4 screws (1~4).</p>		 <p>2. Remove the 9 screws (5~13).</p>	
 <p>3. Remove the bottom chassis. 4. Reinstall the front panel ass'y to the main P.C.B. and place the unit as shown right. 5. Reinstall the remote switch controller to the switch.</p>			

SCHEMATIC DIAGRAM (Parts list on pages 22~24.)



E OPERATION CIRCUIT



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

Notes:

- S1 : Power (POWER) switch in "ON" position.
- S2 : Voltage select (VOLTAGE SELECTOR) switch in "240 V" position.
- S101 : Input select (INPUT SELECTOR) switch in "PHONO" position.
- S102 : Recording output select (REC SELECTOR) switch in "TAPE2/DAT 1" position.
- S103 : Phono selector (PHONO SELECTOR) switch in "MC" position.
- S201 : S201-1; Mode select (MODE) switch in "STEREO" position.
S201-2; Subsonic filter (SUBSONIC FILTER) switch in "OFF" position.
- S202 : S202-1; Tone control (TONE CONTROL) switch in "DEFEAT" position.
(off...DEFEAT, on...ON)
S202-2; Loudness (LOUDNESS) switch in "OFF" position.
- S203 : Power amplifier direct (POWER AMP DIRECT) switch in "OFF" position.
- S501 : Speaker select (SPEAKERS) switch in "OFF" position.

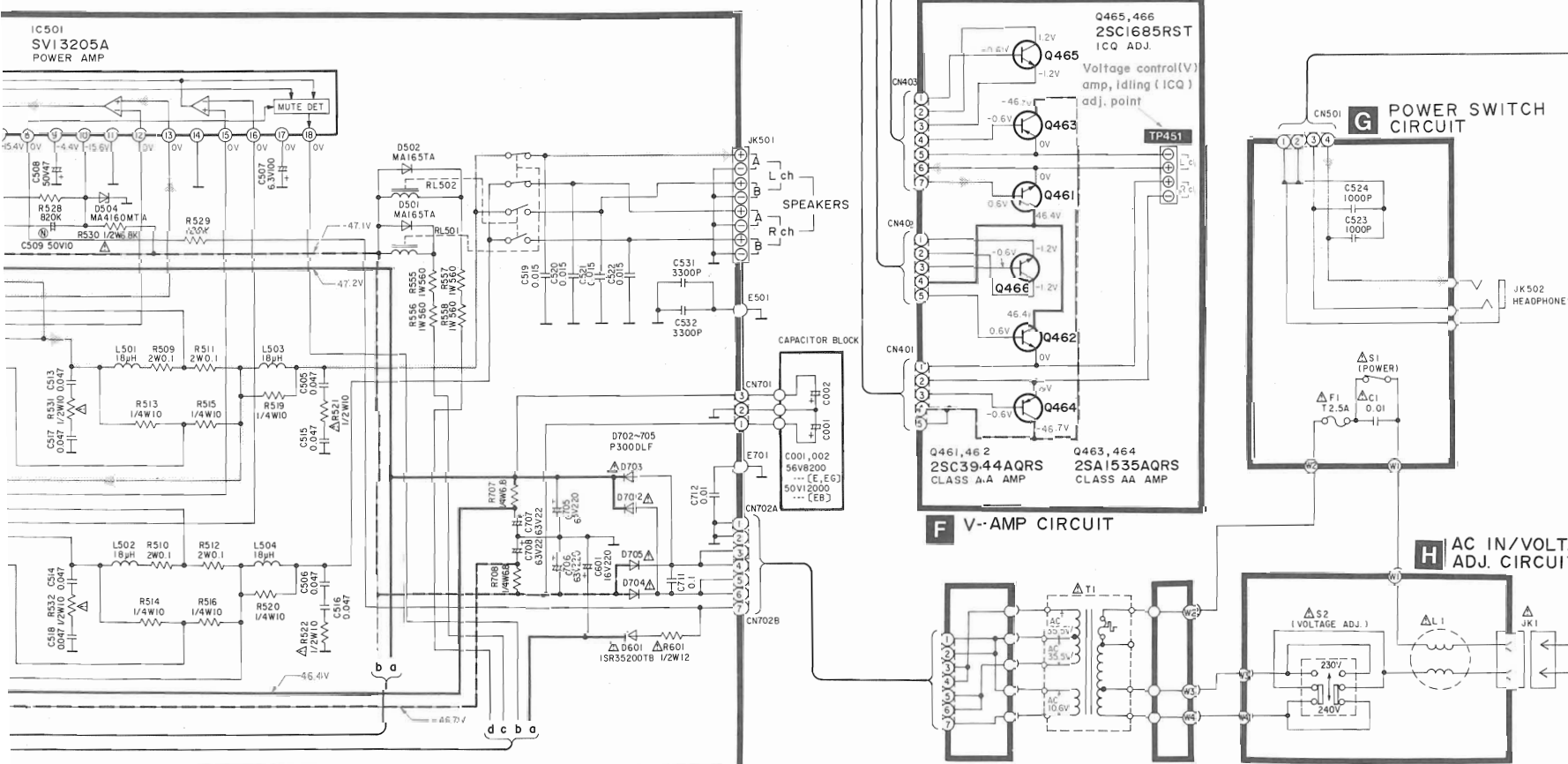
- ——— : Positive voltage line.
- - - - - : Negative voltage line.
- ———▶ : Phono signal line. (Lch)
- ———▶ : Recording signal line. (Lch)

● 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.

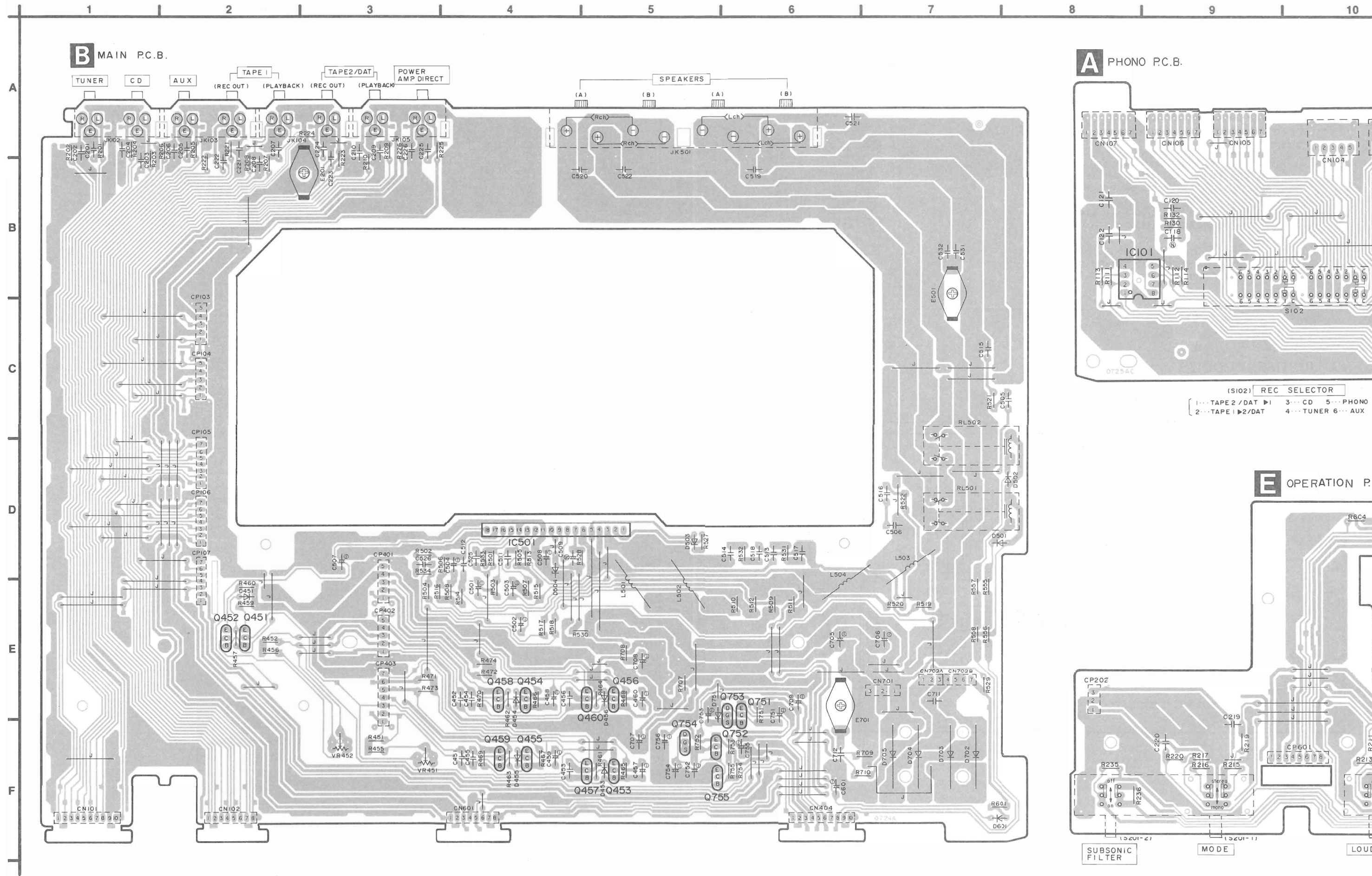
● Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Caution!

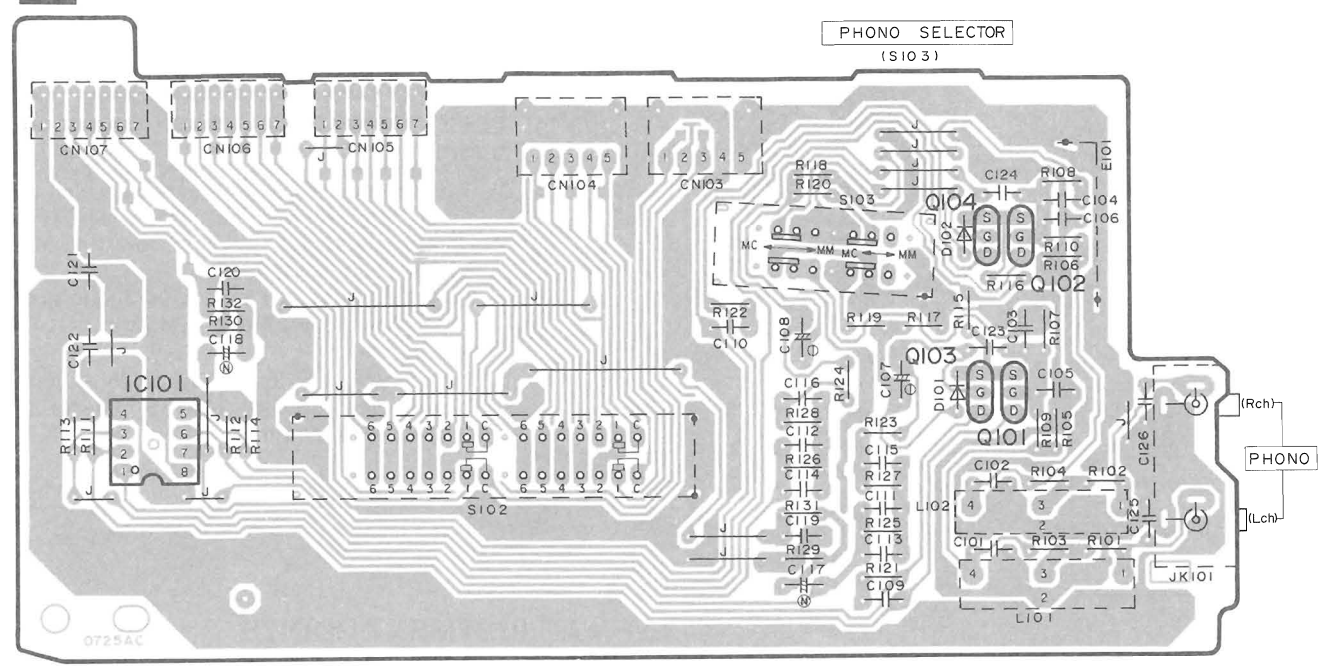
IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
Cover the parts boxes made of plastics with aluminum foil.
Ground the soldering iron.
Put a conductive mat on the work table.
Do not touch the legs of IC or LSI with the fingers directly.



PRINTED CIRCUIT BOARD DIAGRAM

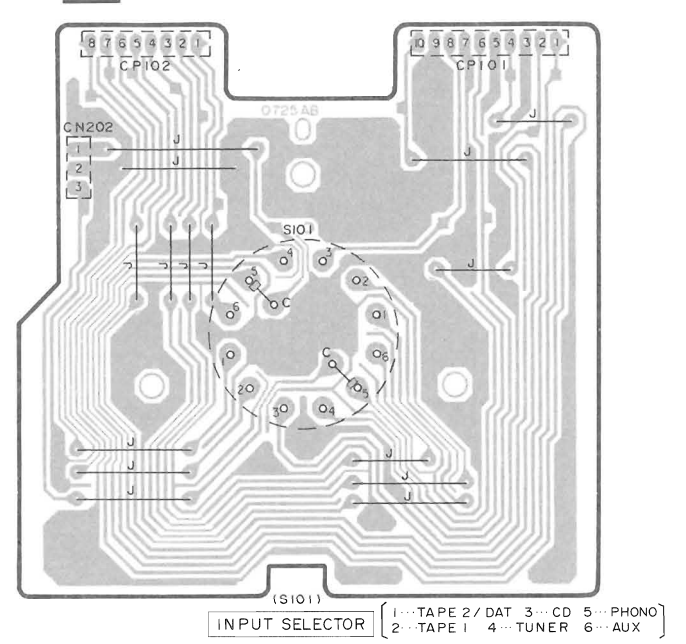


A PHONO P.C.B.

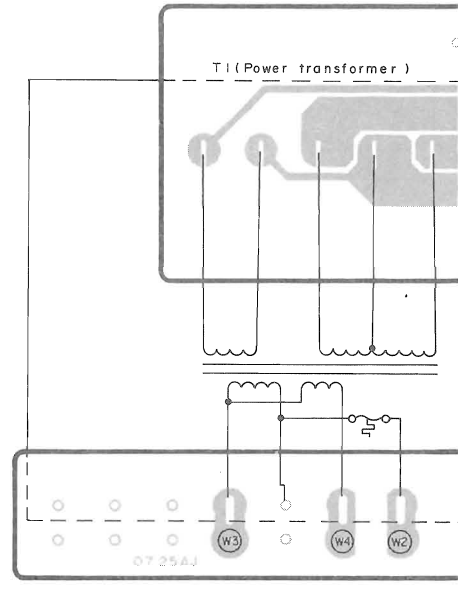


(S102) REC SELECTOR
 1...TAPE 2/DAT ▶ 3...CD 5...PHONO
 2...TAPE 1 ▶ 2/DAT 4...TUNER 6...AUX

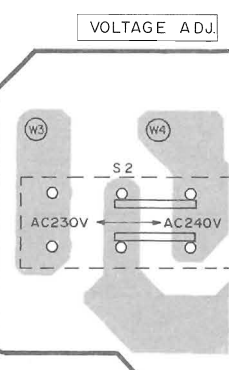
C INPUT SELECTOR P.C.B.



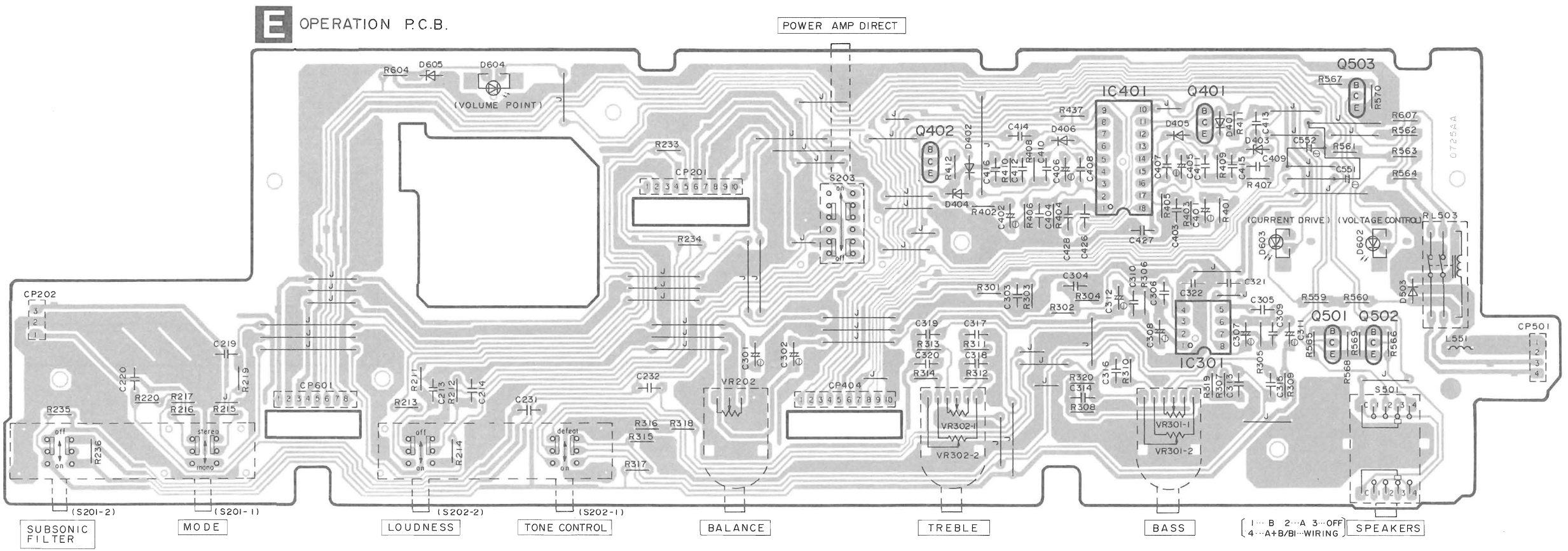
INPUT SELECTOR (1...TAPE 2/DAT 3...CD 5...PHONO)
 2...TAPE 1 4...TUNER 6...AUX



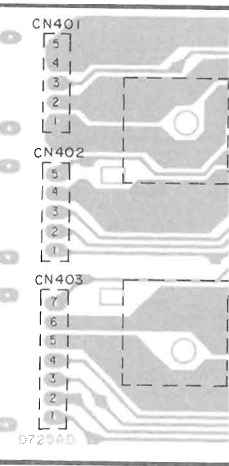
H AC IN / VOLT



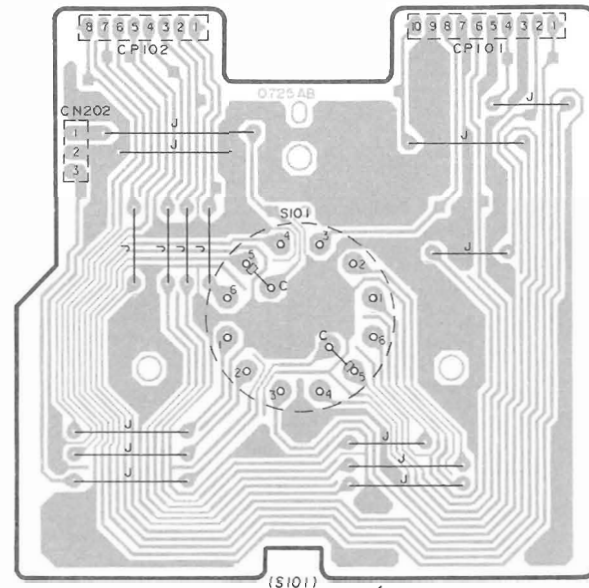
E OPERATION P.C.B.



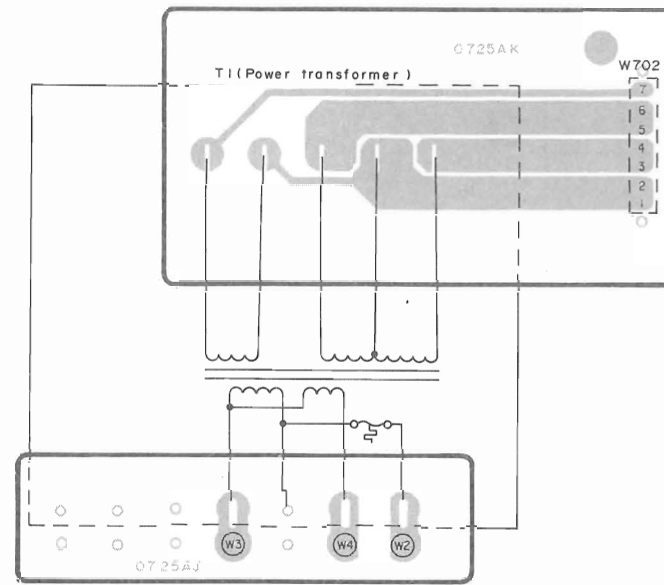
F V-AMP P.C.B.



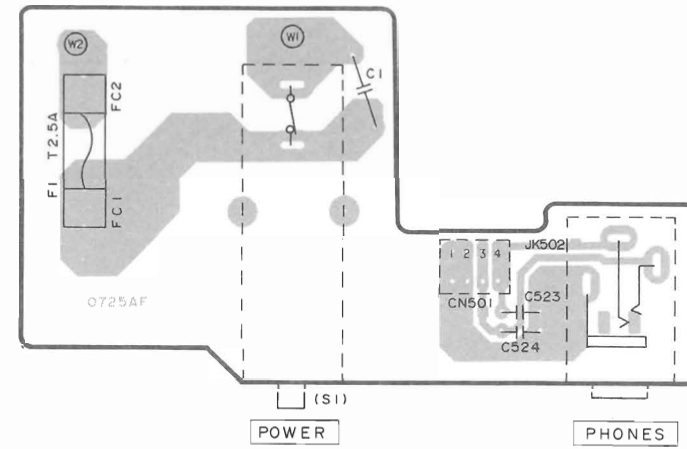
C INPUT SELECTOR P.C.B.



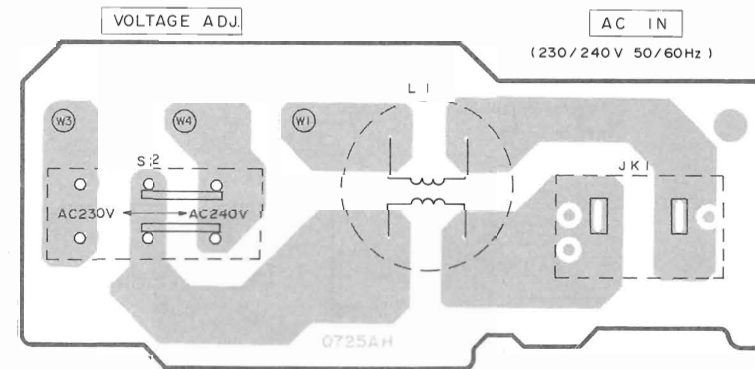
INPUT SELECTOR (1...TAPE 2/DAT 3...CD 5...PHONO)
2...TAPE 1 4...TUNER 6...AUX



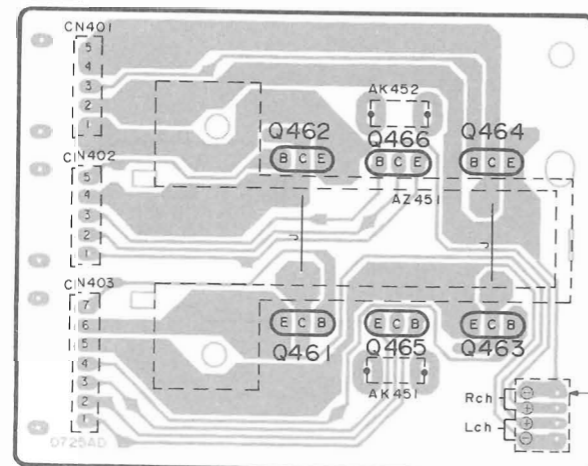
G POWER SWITCH P.C.B.



H AC IN / VOLTAGE ADJ. P.C.B.

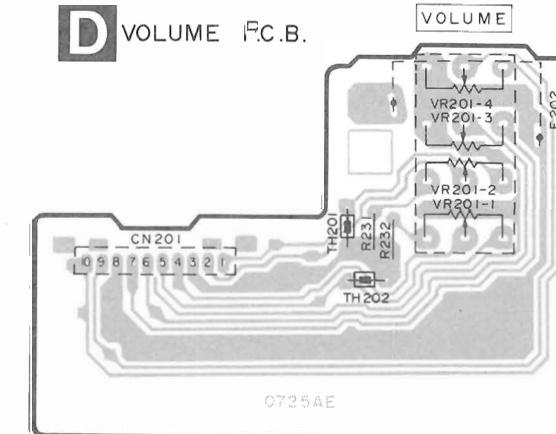


F V-AMP P.C.B.

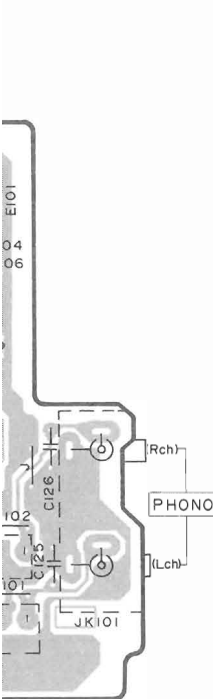


TP451
Voltage control(V)
amp. idling(ICQ)
adj.

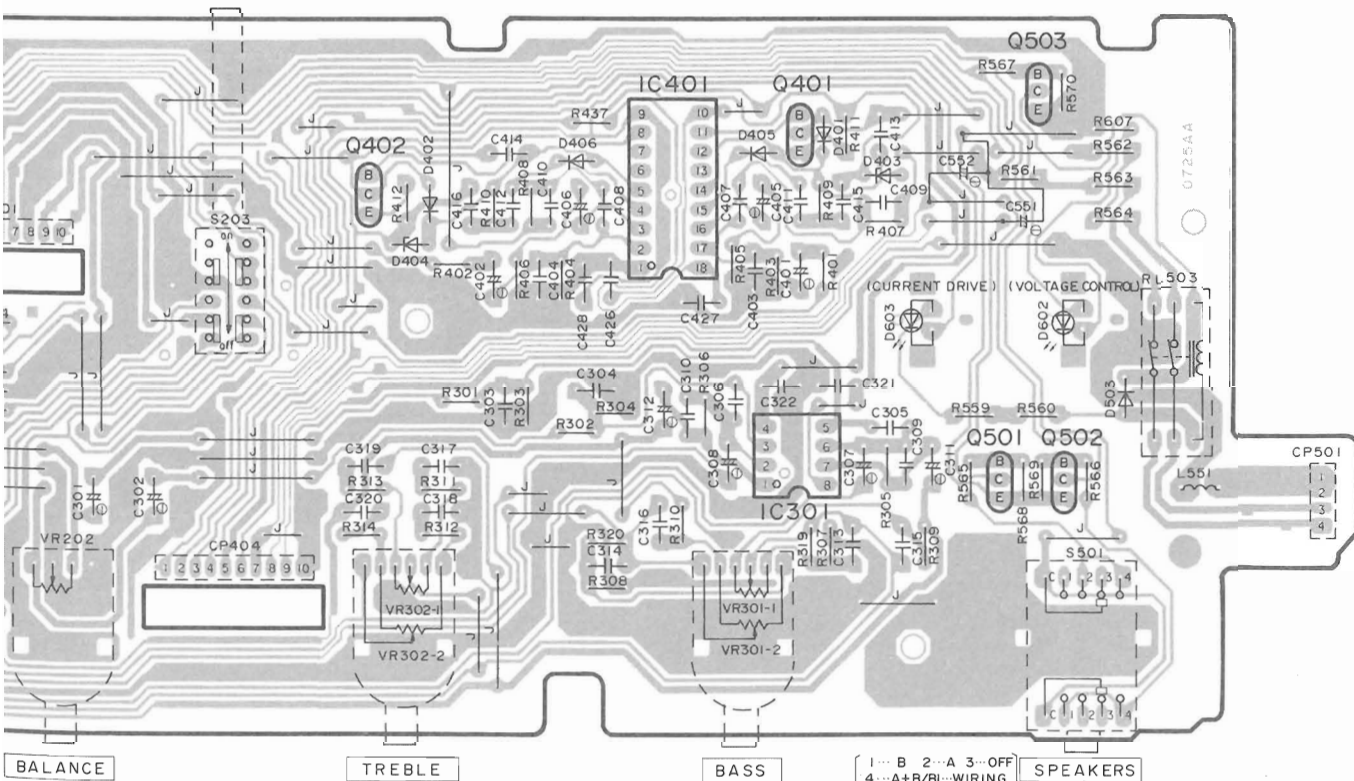
D VOLUME P.C.B.



UPC4570C 8 Pin AN7062N 18 Pin	SVI3205A
No. 1	18
2SA992EFPTA 2SA1123RSTTA 2SC1685RST 2SC2631RSTTA	
2SA1309AQSTA 2SC3311AQSTA	2SK170BLTPE2 2SK301PQTA
2SA1535AQRS 2SC3944AQRS	2SB1357DEFTA 2SD2037DEFTA
MA4033MTA MA4036MTA	MA4160MTA MA4180MTA
P300DLF	LN014304P LN018304P

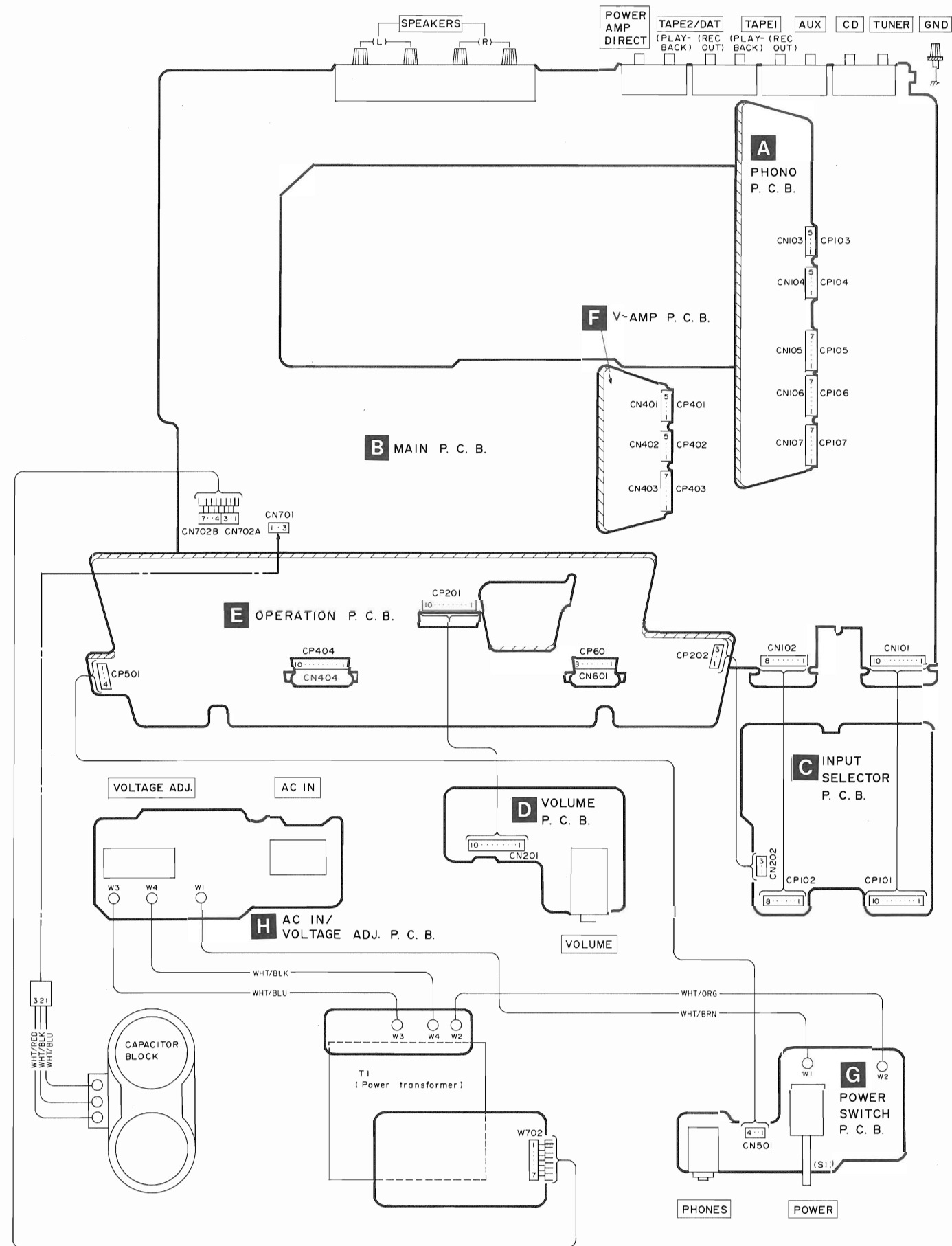


POWER AMP DIRECT

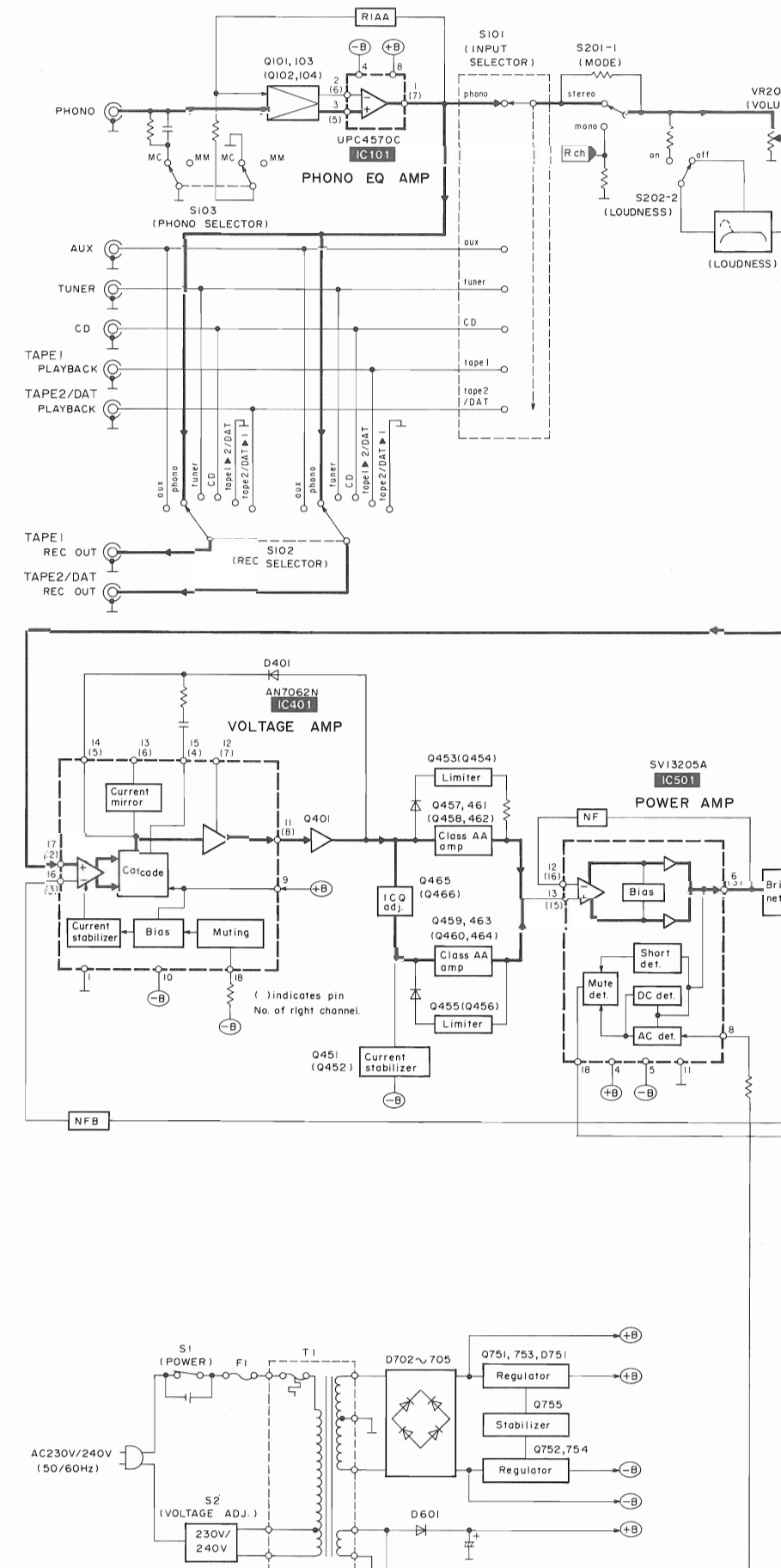


BALANCE TREBLE BASS (1...B 2...A 3...OFF) 4...A/B/BI-WIRING SPEAKERS

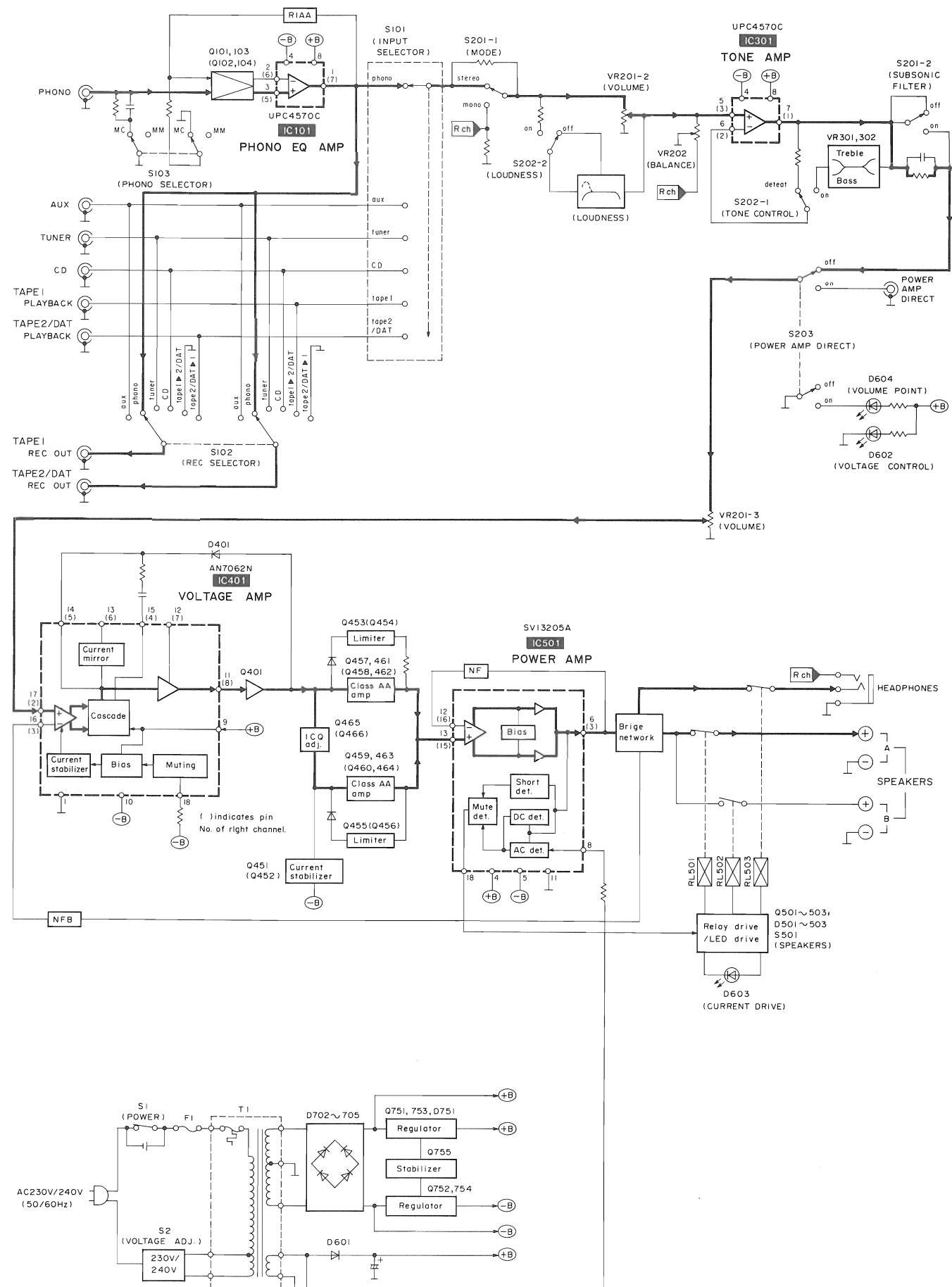
■ WIRING CONNECTION DIAGRAM



■ BLOCK DIAGRAM



■ BLOCK DIAGRAM



■ MEASUREMENTS AND ADJUSTMENTS

●ADJUSTMENT

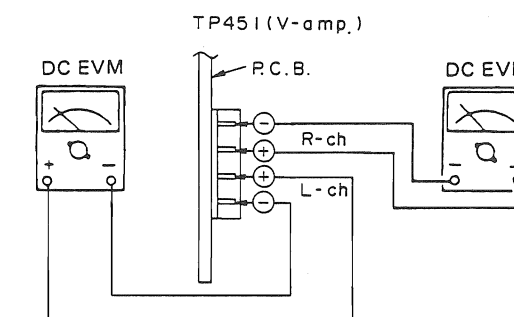
Control positions and equipment used.

- Volume knob ∞ (Minimum)
- Speaker selector off

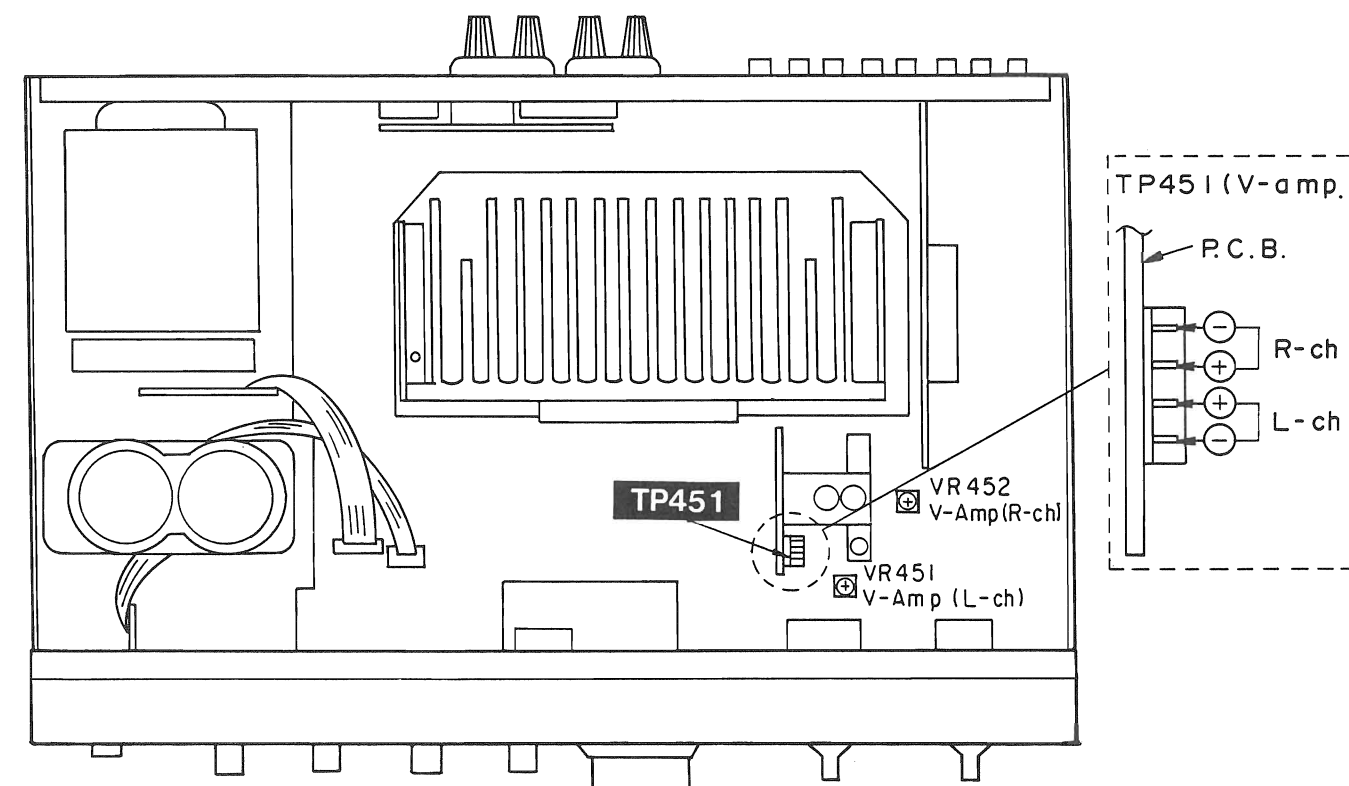
● AC and DC electronic voltmeter (EVM)

(1) VOLTAGE CONTROL (V) AMP. IDLING (ICQ) ADJUSTMENT

1. Test equipment connection is shown in figure. (Connect the DC EVM on both channels.)
 2. Completely turn the (V) amp. adjusting volumes (VR451, VR452) counter-clockwise.
 3. Turn ON the set when it is cold, and about 5 ~ 7 sec. later, adjust VR451 and VR452 so that the voltage is 25mV.
- Also, check that the voltage is 25 ~ 30mV (standard: 27mV) after lapse of 10 ~ 15 minutes. (Below 50mV after lapse of 20min.)



●ADJUSTMENT POINTS



MEASUREMENTS AND ADJUSTMENTS

ADJUSTMENT

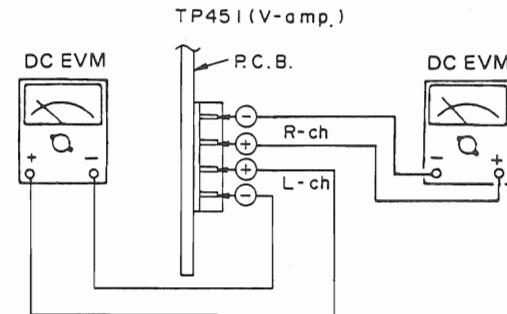
Control positions and equipment used.

- Volume knob ∞ (Minimum)
- Speaker selector off

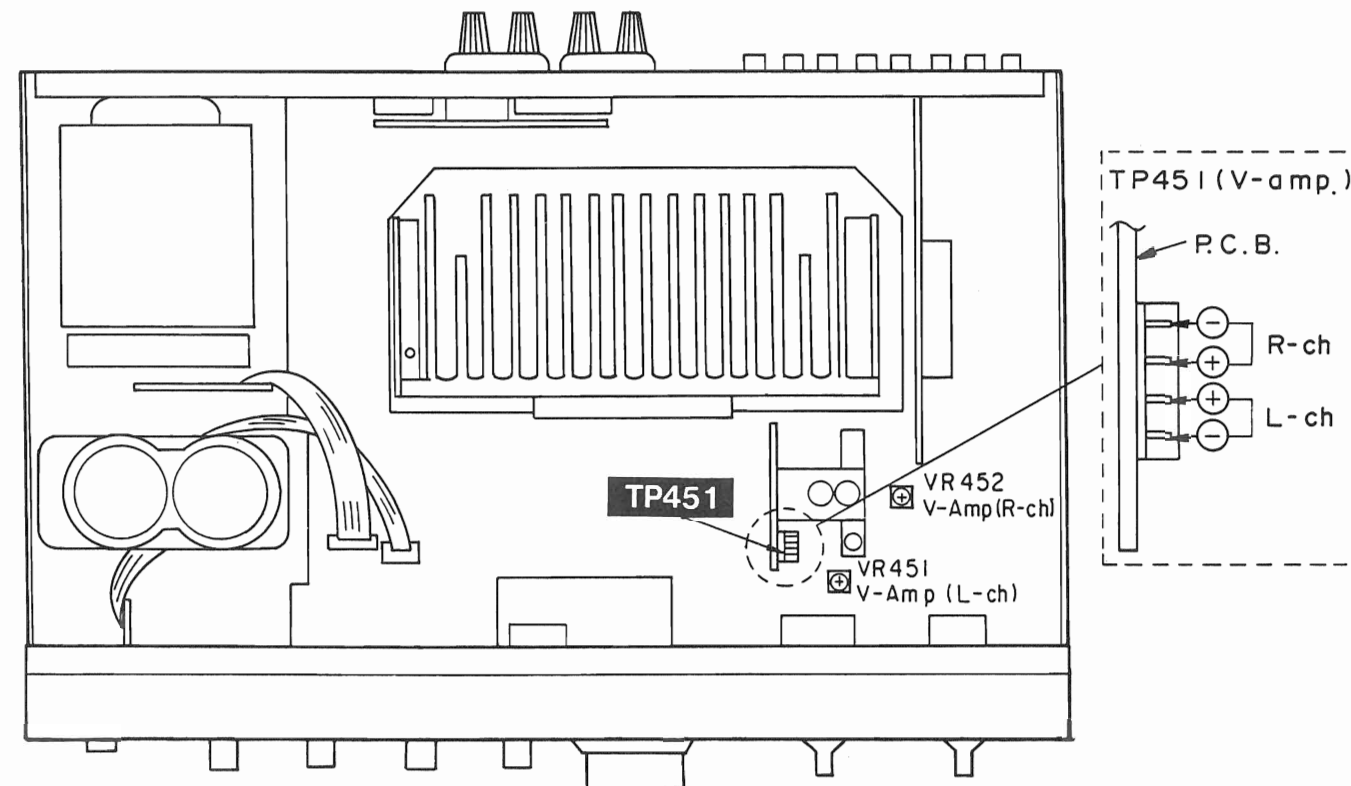
● AC and DC electronic voltmeter (EVM)

(1) VOLTAGE CONTROL (V) AMP. IDLING (ICQ) ADJUSTMENT

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Also, check that the voltage is 25 ~ 30mV (standard: 27mV) after lapse of 10 ~ 15 minutes. (Below 50mV after lapse of 20min.).



ADJUSTMENT POINTS



REPLACEMENT PARTS LIST

Notes : * Important safety notice:

- Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
- * 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)		VR202	EVJ02QFA2G15	V. R. BALANCE	
				VR301, 302	EVJYA1FA2C15	V. R. BASS/TREBLE CONT.	
				VR451, 452	EVNDXAA00B52	V. R. ICQ ADJ. (V-AMP.)	
IC101	UPC4570C	I. C. PHONO/EQ. AMP.				THERMISTOR(S)	
IC301	UPC4570C	I. C. TONE AMP.					
IC401	AN7062N	I. C. VOLTAGE AMP.					
IC501	SV13205A	I. C. POWER AMP.		TH201, 202	ERTD2ZHL104T	THERMISTOR	
		TRANSISTOR(S)				COIL(S)	
Q101-104	2SK170BLTPE2	TRANSISTOR		L1	SLQZ650MH49	COIL	Δ
Q401, 402	2SA1123RSTTA	TRANSISTOR		L101, 102	SLM1Z33	COIL	
Q451, 452	2SC2631RSTTA	TRANSISTOR		L501-504	SLQY18G-10	COIL	
Q453, 454	2SC3311A-Q	TRANSISTOR		L551	ELEPK2R2MA	COIL	
Q455, 456	2SA1309A-R	TRANSISTOR				TRANSFORMER(S)	
Q457, 458	2SC2631RSTTA	TRANSISTOR		T1	RTP1P5E005	POWER TRANSFORMER	Δ (E, EG)
Q459, 460	2SA1123RSTTA	TRANSISTOR		T1	RTP1P5E006	POWER TRANSFORMER	Δ (EB)
Q461, 462	2SC3944QRS	TRANSISTOR				FUSE(S)	
Q463, 464	2SA1535AQRS	TRANSISTOR		F1	XBA2C25TB0	FUSE, 250V T2. 5A	Δ
Q465, 466	2SC1685RST	TRANSISTOR				SWITCH(ES)	
Q501-503	2SA992EFPTA	TRANSISTOR		S1	ESB8249V	SW, POWER	Δ
Q751	2SD2037DEFTA	TRANSISTOR		S2	ESD26200A	SW, VOLTAGE SELECTOR	Δ
Q752	2SB1357DEFTA	TRANSISTOR		S101	RSR6B002-J	SW, INPUT SELECTOR	
Q753, 754	2SK301PQTA	TRANSISTOR		S102	RSS6D001	SW, REC SELECTOR	
Q755	2SA1309A-R	TRANSISTOR		S103	RSS2D006-A	SW, PHONO SELECTOR	
		DIODE(S)		S201, 202	ESB68132	SW, TONE/LOUDNESS/MODE/SUB	
D101, 102	MA165	DIODE		S203	RSP2D008-A	SW, POWER AMP DIRECT	
D401, 402	MA167	DIODE		S501	RSR4B004-A	SW, SPEAKER SELECTOR	
D403, 404	MA4036MTA	DIODE				CONNECTOR(S)	
D405, 406	MA165	DIODE		CN101	RJU003K010M1	SOCKET (10P)	
D451	MA29WA	DIODE		CN102	RJU003K008M1	SOCKET (8P)	
D453-456	MA165	DIODE		CN103, 104	RJT060B05	CONNECTOR (5P)	
D501-503	MA165	DIODE		CN105-107	RJU057W007	SOCKET (7P)	
D503	MA4160M	DIODE		CN201	RJU003K010M1	SOCKET (10P)	
D504	MA4160M	DIODE		CN202	SJS50382JQH	SOCKET (3P)	
D601	1SR35200TB	DIODE	Δ	CN401, 402	RJT060B05	CONNECTOR (5P)	
D602	LN014304P	L. E. D.		CN403	RJT060B07	CONNECTOR (7P)	
D603, 604	LN018304P	L. E. D.		CN404	RJU003K010M1	SOCKET (10P)	
D605	MA4033TA	DIODE		CN501	RJU057W004	SOCKET (4P)	
D702-705	P300DLF	DIODE	Δ			VARIABLE RESISTOR(S)	
D751	MA4180-M	DIODE		VR201	RRV16J02A	V. R. VOLUME CONTROL	

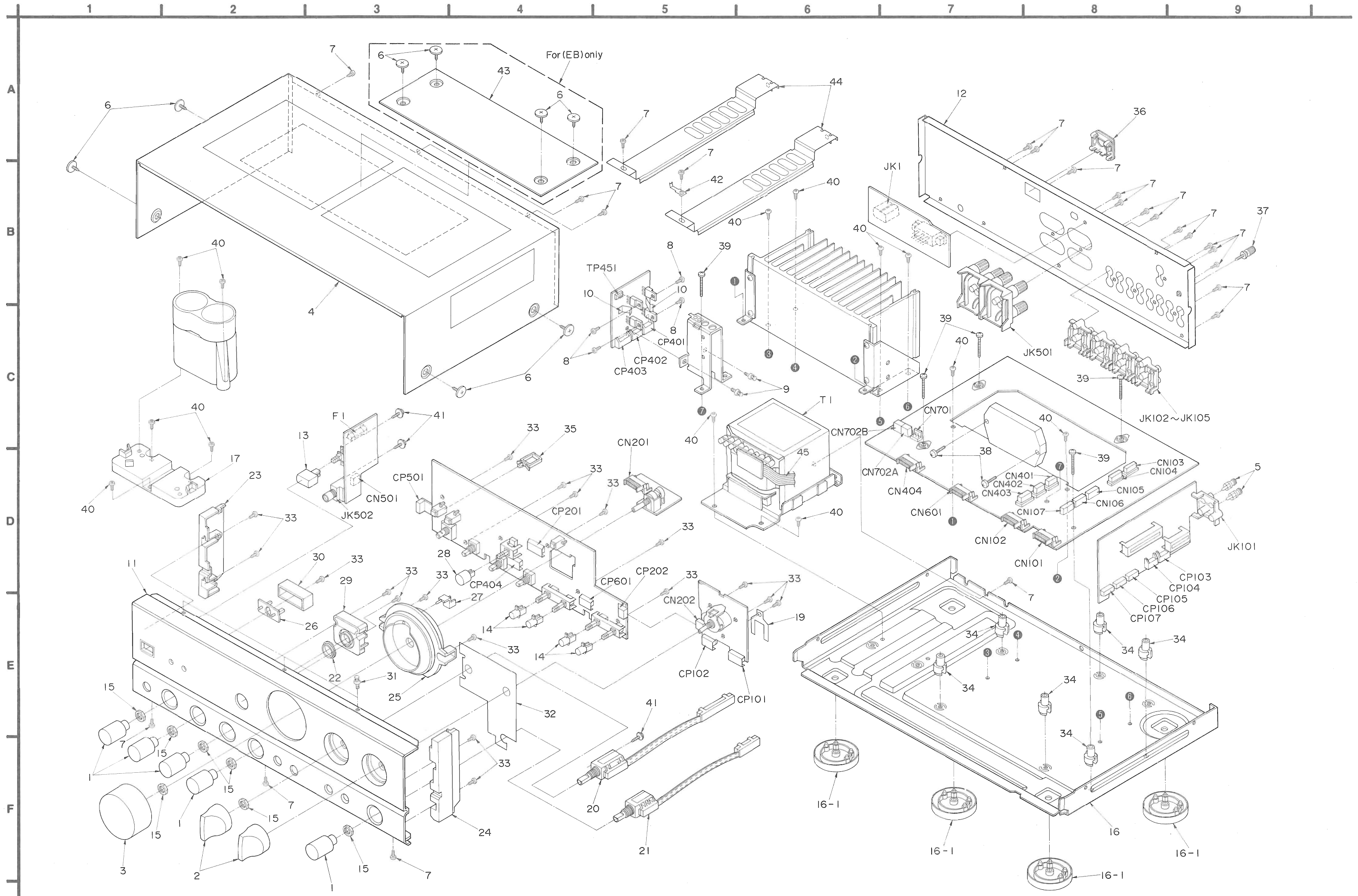
Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
CN601	RJU003K008M1	SOCKET (8P)					
CN701	RJP1A3303	CONNECTOR (3P)				RELAY (S)	
CN702A	RJS1A1703	SOCKET (3P)					
CN702B	RJS1A1704	SOCKET (4P)		RL501, 502	SSY134	RELAY	
CP101	RJT003K010M1	CONNECTOR (10P)		RL503	RSY0009-0	RELAY	
CP102	RJT003K008M1	CONNECTOR (8P)					
CP103, 104	RJU060G05T	SOCKET (5P)				JACK (S)	
CP105-107	RJT057W007-1	CONNECTOR (7P)					
CP201	RJT003K010M1	CONNECTOR (10P)		JK1	SJS9231-1B	AC INLET	△
CP202	SJT30345JQ	CONNECTOR (3P)		JK101	SJF3057-9N	PHONO JACK	
CP401, 402	RJU060G05T	SOCKET (5P)		JK102	SJF3069N	TUNER/CD JACK	
CP403	RJU060G07T	SOCKET (7P)		JK103	SJF3069N	AUX/TAPE1 REC. OUT JACK	
CP404	RJT003K010M1	CONNECTOR (10P)		JK104	SJF3069N	TAPE1/PB/TAPE2 REC. OUT JACK	
CP501	RJT057W004-1	CONNECTOR (4P)		JK105	SJF3069N	TAPE2/PB/POWER AMP. JACK	
CP601	RJT003K008M1	CONNECTOR (8P)		JK501	RJH4801-1	SPEAKER TERMINAL	
		FUSE HOLDER (S)		JK502	QJA0455ZC-A	HEADPHONES JACK	
FC1, 2	EYF52BC	FUSE HOLDER					

Notes : * Capacity value 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	R303, 304	ERDS2TJ823T	1/4W 82K	R509-512	ERF2EXKR10V	2W 0.1
			R305, 306	ERDS2TJ224T	1/4W 220K	R513-516	ERDFS2VJ100T	1/4W 10
			R307, 308	ERDS2TJ392T	1/4W 3.9K	R517, 518	ERDFS2VJ1ROT	1/4W 1
R101-104	ERDS2TJ102	1/4W 1K	R309, 310	ERDS2TJ223	1/4W 22K	R519, 520	ERDFS2VJ100T	1/4W 10
R105, 106	ERDS2TJ274	1/4W 270K	R311, 312	ERDS2TJ102	1/4W 1K	R521, 522△	ERDS1FVJ100T	1/2W 10
R107, 108	ERDS2TJ221	1/4W 220	R313, 314	ERDS2TJ562	1/4W 5.6K	R527	ERDS2TJ223	1/4W 22K
R109, 110	ERDS2TJ220T	1/4W 22	R315, 316	ERDAS3G392T	1/4W 3.9K	R528	ERDS2TJ824	1/4W 820K
R111-116	ERDAS3G332T	1/4W 3.3K	R317, 318	ERDAS3G223T	1/4W 22K	R529	ERDS2TJ124T	1/4W 120K
R117, 118	ERDS2TJ151	1/4W 150	R319, 320	ERDS2TJ183T	1/4W 18K	R530 △	ERDS1FVJ682T	1/2W 6.8K
R119, 120	ERDS2TJ100	1/4W 10	R401, 402	ERDS2TJ122	1/4W 1.2K	R531, 532△	ERDS1FVJ100T	1/2W 10
R121, 122	ERDS2TJ101	1/4W 100	R403, 404	ERDS2TJ823T	1/4W 82K	R533, 534	ERDS2TJ182	1/4W 1.8K
R123, 124	ERDS2TJ151	1/4W 150	R405, 406	ERDAS3G272T	1/4W 2.7K	R555-558	ERG1SJ561E	1W 560
R125, 126	ERDS2TJ682T	1/4W 6.8K	R407, 408	ERDAS3G823T	1/4W 82K	R559, 560	ERG1SJ102E	1W 1K
R127, 128	ERDS2TJ823T	1/4W 82K	R409, 410	ERDS2TJ561	1/4W 560	R561, 562	ERG1SJ151E	1W 150
R129, 130	ERDS2TJ334	1/4W 330K	R411, 412	ERDFS2VJ470T	1/4W 47	R563, 564	ERG1SJ181E	1W 180
R131, 132	ERDS2TJ561	1/4W 560	R437	ERDS2TJ473	1/4W 47K	R565-570	ERDS2TJ223	1/4W 22K
R201-210	ERDAS3G102T	1/4W 1K	R451, 452	ERDFS2VJ182T	1/4W 1.8K	R601 △	ERDS1FJ120	1/2W 12
R211, 212	ERDAS3G223T	1/4W 22K	R455, 456	ERDFS2VJ391T	1/4W 390	R604	ERDS2TJ471	1/4W 470
R213, 214	ERDS2TJ183T	1/4W 18K	R457	ERDS2TJ823T	1/4W 82K	R607	ERDS2TJ391	1/4W 390
R215, 216	ERDS2TJ332	1/4W 3.3K	R459, 460	ERDFS2VJ101T	1/4W 100	R707, 708	ERDFS2VJ6R8T	1/4W 6.8
R217	ERDS2TJ824	1/4W 820K	R461-464	ERDS2TJ223	1/4W 22K	R709, 710	ERDFS2VJ470T	1/4W 47
R219, 220	ERDAS3G272T	1/4W 2.7K	R465-468	ERDFS2VJ101T	1/4W 100	R751, 752	ERDFS2VJ221T	1/4W 220
R221-224	ERDS2TJ471	1/4W 470	R469, 470	ERDFS2VJ821T	1/4W 820	R753, 754	ERDS2TJ183T	1/4W 18K
R225, 226	ERDAS3G102T	1/4W 1K	R471-474	ERDFS2VJ2R2T	1/4W 2.2	R755	ERDS2TJ102	1/4W 1K
R231, 232	ERDAS3G472T	1/4W 4.7K	R501, 502	ERDS2TJ362T	1/4W 3.6K			
R233, 234	ERDAS3G124T	1/4W 120K	R503, 504	ERDFS2VJ121T	1/4W 120			CAPACITORS
R235, 236	ERDS2TJ824	1/4W 820K	R505, 506	ERDS2TJ392T	1/4W 3.9K			
R301, 302	ERDAS3G561	1/4W 560	R507, 508	ERDFS2VJ121T	1/4W 120	C001, 002	ECED56T822P	56V 8200U (E, EG)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
C001, 002	ECED1HT123P	50V 12000U (EB)	C513-518	ECQV1H473JZ3	50V 0.047U
C1 △	ECKWNS103ZVS	500V 0.01U	C519-522	ECQB1H153KF3	50V 0.015U
C101, 102	ECBT1H120J5	50V 12P	C523, 524	ECBT1H102KB5	50V 1000P
C103, 104	ECBT1H102KB5	50V 1000P	C525, 526	ECQB1H272JF3	50V 2700P
C105, 106	ECBT1H820KB5	50V 82P	C531, 532	ECBT1C332KR5	16V 3300P
C107, 108	ECA0JM222B	6.3V 2200U	C551, 552	ECEA1JU010B	63V 1U
C109, 110	ECKW1H222KB5	50V 2200P	C601	ECA1CM221B	16V 220U
C111, 112	ECQB1H122KF3	50V 1200P	C705, 706	ECA1JPXS221B	63V 220U
C113, 114	ECQB1H103KF3	50V 0.01U	C707-709	ECA1JAP220B	63V 22U
C115, 116	ECQV1H393JZ3	50V 0.039U	C711	ECQE2104KF3	100V 0.1U
C117, 118	UES1H010M1TA	50V 1U	C712	ECKR1H103ZF5	50V 0.01U
C119, 120	ECQB1H472KF3	50V 4700P	C751-756	ECA1HPXS4R7B	50V 4.7U
C121, 122	ECKR1H103ZF5	50V 0.01U			
C123, 124	ECBT1H270J5	50V 27P			
C125, 126	ECBT1H181KB5	50V 180P			
C201-210	ECCR1H101K5	50V 100P			
C213, 214	ECQV1H563JZ3	50V 0.056U			
C219, 220	ECCR1H271K5	50V 270P			
C221-224	ECBT1H181KB5	50V 180P			
C225, 226	ECCR1H101K5	50V 100P			
C231, 232	ECQV1H274JZ3	50V 0.27U			
C301, 302	ECA1HPXS3R3B	50V 3.3U			
C303, 304	ECCR1H101K5	50V 100P			
C305, 306	ECBT1H820KB5	50V 82P			
C307, 308	ECA1HPXS4R7B	50V 4.7U			
C309, 310	ECBT1H390J5	50V 39P			
C311, 312	ECA1CPXS100B	16V 10U			
C313, 314	ECQV1H823JZ	50V 0.082U			
C315, 316	ECQB1H153KF3	50V 0.015U			
C317, 318	ECQB1H183KF3	50V 0.018U			
C319, 320	ECQB1H182KF3	50V 1800P			
C321, 322	ECBT1E223ZF	25V 0.022U			
C401, 402	ECA1HPXS3R3B	50V 3.3U			
C403, 404	ECCR1H271K5	50V 270P			
C405, 406	ECA1CPXS220B	16V 22U			
C407, 408	ECBT1H820KB5	50V 82P			
C409, 410	ECBT1H100J5	50V 10P			
C411, 412	ECBA1H681KB5	50V 680P			
C413, 414	ECCV2H070D	500V 7P			
C415, 416	ECQB1H102KF3	50V 1000P			
C426	ECBT1H102KB5	50V 1000P			
C427	ECBT1E223ZF	25V 0.022U			
C428	ECKR1H103ZF5	50V 0.01U			
C451, 452	ECKR1H333ZF5	50V 0.033U			
C453-456	ECCV2H680K	500V 68P			
C457-460	ECEA1HKA3R3B	50V 3.3U			
C501-504	ECA0JPXS101B	6.3V 100U			
C505, 506	ECQV1H473JZ3	50V 0.047U			
C507	ECEA0JKA101B	6.3V 100U			
C508	ECA1HM470B	50V 47U			
C509	ECEA1HN100SB	50V 10U			
C511, 512	ECBT1H180J5	50V 18P			

■ CABINET PARTS LOCATION



Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS LIST				PACKING MATERIALS	
1	RGW0124-K	KNOB, TONE		P1	RPG0974	PACKING CASE	
2	RGW0126-K	KNOB, SELECTOR		P2	RPN0539	PAD	
3	RGW0127-K1	KNOB, VOLUME		P3	XZB24X34C04	PROTECTION COVER	
4	RKMD036A-K	CABINET	(E, EG)	P4	SPB1061	PROTECTION COVER (MANUAL)	
4	RKMD179-K	CABINET	(EB)	P5	RPQ0164	ACCESSORY BOX	
5	SJPA11-1	SHORT PIN				ACCESSORIES	
6	SNE2129-1	SCREW					
7	XTBS3+8JFZ1	SCREW		A1	RQF1226	INSTRUCTIONS MANUAL ASS' Y	(E)
8	XTW3+8T	SCREW		A1	RQF1228	INSTRUCTIONS MANUAL ASS' Y	(EG)
9	SHR415	LATCH		A1	RQF1227	INSTRUCTIONS MANUAL ASS' Y	(EB)
10	SUS227	SPRING (AK451, 452)		A1-1	RFKSUVX500EK	INSTRUCTIONS MANUAL	(E)
11	RFKGVX600EK	FRONT PANEL ASS' Y		A1-1	RQT1162-D	INSTRUCTIONS MANUAL	(EG)
12	RGRO129A-A1	REAR PANEL	(E)	A1-1	RQT1161-B	INSTRUCTIONS MANUAL	(EB)
12	RGRO129A-C1	REAR PANEL	(EG)	A1-2	RQA0013	WARRANTY CARD	
12	RGRO129A-B1	REAR PANEL	(EB)	A1-3	RQCB0169	SERVICE CENTER LIST	
13	RGU0030	BUTTON, POWER		A2	SFDAC05E03	AC POWER SUPPLY CORD	△ (E, EG)
14	RGU0609-K	BUTTON, MODE		A2	SJA193	AC POWER SUPPLY CORD	△ (EB)
15	RHN90001	NUT					
16	RFKJUVX500EK	BOTTOM BOARD ASS' Y					
16-1	RKA0009-1	FOOT					
17	RMNO143	HOLDER					
19	RMQ0259	ANGLE					
20	RSQ0022	REMOTE SWITCH (REC.)					
21	RSQ0023	REMOTE SWITCH (PHONO)					
22	RGK0394-A	RING					
23	RGK0412-K	SIDE ORNAMENT (L)					
24	RGK0413-K	SIDE ORNAMENT (R)					
25	RGK0414-K	VOLUME ORNAMENT					
26	RGLO134-C	ORNAMENT					
27	RGLO136-C	ORNAMENT					
28	RGU0611-K	BUTTON, POWER AMP. DIRECT					
29	RMRO460-K	HOLDER					
30	RMRO461-K	HOLDER					
31	RMRO502	HOLDER					
32	RSC0245	SHIELD PLATE					
33	XTBS26+8J	SCREW					
34	SHE187-3	SPACER					
35	SHR9814	CLAMPER					
36	SJS9231A	AC INLET COVER					
37	SNE2123	GND SCREW					
38	XTB3+16JFZ	SCREW					
39	XTB3+20JFZ	SCREW					
40	XTB3+8JFZ	SCREW					
41	XTWS3+8T	SCREW					
42	SUS890	SPRING					
43	RGK0415-K	UPPER PLATE	(EB)				
44	RSC0216	SHIELD CASE					
45	RWJ3007130QQ	FLAT CABLE (W702)					

■ PACKAGING

